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House & Home

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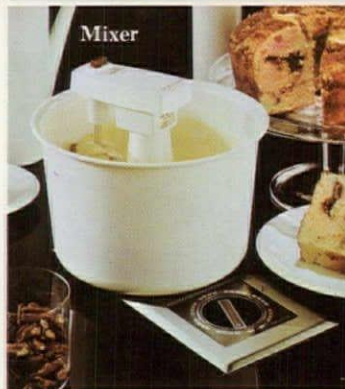
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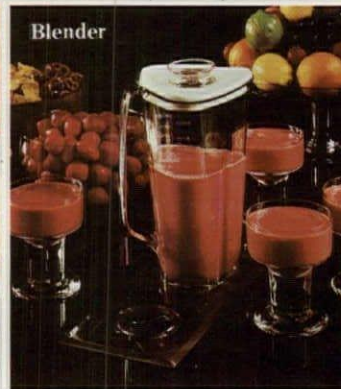
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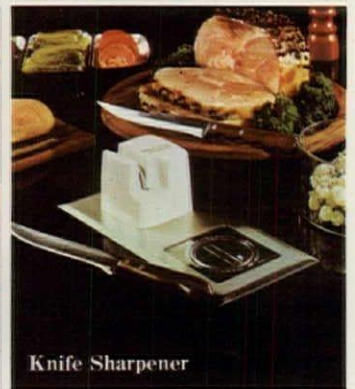
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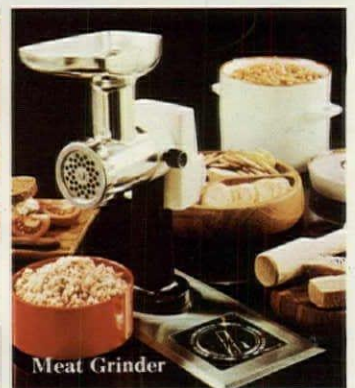
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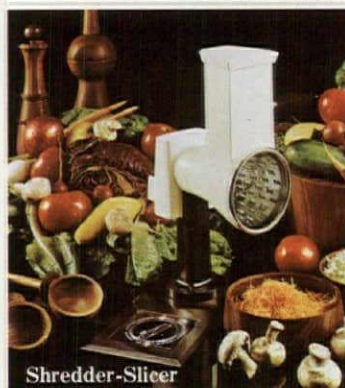
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Cover/Photography by Sid Carson

Scorecard on FHA scandals: Top players now changing into striped uniforms

Sticking the FHA with shoddy, grossly overpriced houses was a popular sport in much of the country in the late 1960s and early 1970s. It was a game of fraud and bribery, which did not prevent plenty of people from playing it enthusiastically and profitably. The final score, when it is added, will be in the billions of dollars—most of it taxpayers' money. (One look at the way it was all done was presented in *HOUSE & HOME* in December in a review of Detroit reporter Brian Boyer's book, *Cities Destroyed for Cash*.)

The government did go after the gamblers when the story came to light, however. It moved slowly at first, hampered by a shortage of personnel and by the complexities of dealing with fraud and bribery cases.

The count. Recently the pace has picked up.

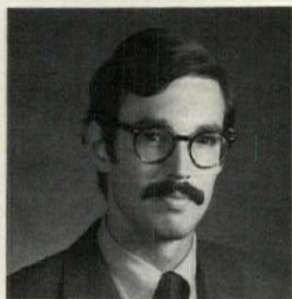
At latest count, there have been over 175 indictments involving more than 300 defendants—both individual and corporate—and the conviction rate has been high. But according to William Vogel of the Department of Justice, who with six attorneys in Washington, D.C. coordinates the nationwide push to prosecute FHA fraud, "We are a long way from finished."

Vogel demurs when asked for specific estimates, but thinks that "what we have done to date is far less than half" of what he expects to do. He is cautious about saying more because new cases of fraud keep turning up.

Philadelphia approach. A factor in the accelerated pace is a strategy worked out by an assistant U.S. attorney in Philadelphia, Malcolm Lazin.

Lazin said in an interview in his U.S. courthouse office, "Historically, criminal investigations at the federal level have been carried out by a single agency: the FBI, the IRS or whatever. But these cases of FHA fraud were so complicated in so many different specialized areas that this sort of attack was inappropriate."

Teamwork. "We began, instead, to use the U.S. attorney's office to coordinate a concerted investigation by several different agencies," Lazin explained. "We would bring in people from the FBI, for instance, with their investigative re-



ATTORNEY LAZIN
The Philadelphia approach

sources and experience, but of course they would be unfamiliar with FHA procedures and wouldn't know what patterns to look for. So we'd team them with experts sent down by the Inspector General's office at HUD.

"Then, when a case called for it, we'd also call in the IRS to look at the tax aspects. If you couldn't prove that someone took a bribe, for instance, you could at least prove he had the money and get him on tax evasion.

"And we drew on some people at the Department of Justice's fraud division in Washington.

"Then we'd combine these personnel with the subpoena powers of a grand jury, and we found we had a pretty good weapon for dealing with this sort of crime."

Help from public. Phila-

delphia was one of the first cities in which the massive frauds surfaced, and Lazin started virtually from scratch.

"We went out into the neighborhoods," he recalls. "We talked to the Legal Aid Society, housing-oriented groups, organizations of people in the ghettos, and asked them to tell us who they'd been having trouble with.

"Then we sorted the complaints into piles, one for each broker or speculator, and simply went by weight. The heaviest pile got looked at hardest.

"So then we got their addresses and the file binders of the properties they owned or dealt in, and if the FHA was involved, we also got independent appraisals by HUD in Washington."

Convictions. The appraisals turned up numerous over-evaluations of FHA-insured properties, of course, which led to uncovering bribery and corruption within the government agency.

"Then we would work our way up the ladder," Lazin explained. "We would grant immunity to the little fish to get them to testify against the bigger ones, and then give them immunity to get somebody still more important to us, and so on."

TYRONE DUKES, N.Y. TIMES



Big companies were not immune. Arthur F. Prescott (left), a Dun & Bradstreet employee, and his lawyer after Prescott's indictment on March 29, 1972.

The score for this approach in Philadelphia: 28 indictments to date, involving 35 principals and resulting in 32 convictions, two acquittals and a mistrial that is awaiting retrial.

And sentences. The FHA frauds and the resultant damage to houses involved received a great deal of publicity in Philadelphia, and perhaps for that reason the sentences there have been relatively stiff.

The leading scorer in multiple convictions was Charles C. Hibbs, found guilty on 39 counts of submitting false repair and utility certifications to the FHA. His fine (no jail) amounted to \$195,000.

Two real estate companies, Tower Real Estate and Jefferson Realty, received probation and fines of \$45,000 and \$10,000, respectively, for similar crimes.

And United Brokers Mortgage Co., one of the largest mortgage concerns in the Philadelphia area, pleaded guilty to 30 counts of submitting false statements. United Brokers was fined \$160,000—"the maximum," Lazin noted with some satisfaction.

FHA officials. The defendants who aroused the widest interest were the FHA officials whose actions, the government prosecutors said, made widespread fraud possible. Lazin netted three.

One, Michael J. Hughes, chief of the property management section, cooperated with the prosecution and wound up with probation and a \$1,000 fine for tax evasion.

John B. Boyle, who had been deputy director of the FHA insuring office, drew a year in prison (tax evasion again). And Thomas J. Gallagher Jr., director of the FHA insuring office, got three years in prison and a \$40,000 fine. He pleaded guilty to both tax evasion and bribery.

Franchising. The investigations in Philadelphia have been going on since 1971, so Lazin was asked whether they were finished. His answer was succinct: "No."

That was the same answer given by U.S. attorney's offices adopting his Philadelphia approach in a host of other cities.

Lazin and Vogel have been visiting these cities, to set up investigating task forces. Lazin thinks of it as franchising his

TO PAGE 8



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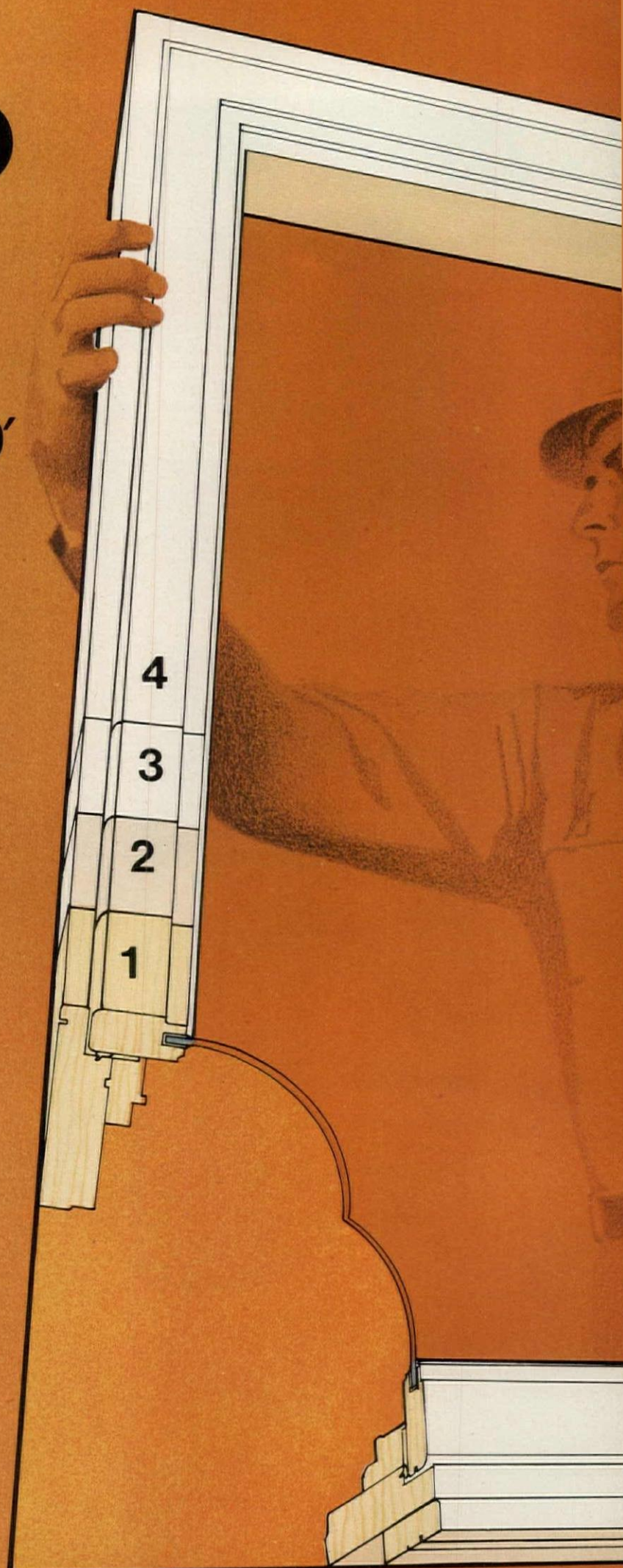
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FHA scandals: Players now changing into striped uniforms... continued

FROM PAGE 4

method under loose Justice Department supervision.

All of these investigations are now under way, and indications are that most will prove fruitful, though many have yet to reach the indictment stage. Vogel is insistent on giving the local legal talent its head.

"It cuts down on the central bureaucracy at Justice here in Washington," he says, "and it keeps us flexible in the face of any local variations in the kind of fraud we run into."

Detroit. The scandals also broke early in Detroit, which suffered the heaviest damage.

Ralph Guy Jr., U.S. attorney for the Detroit area, explains:

"Our problems break into four categories. One consists of real estate brokers, homeowners and speculators who make false statements to the FHA and offer bribes to FHA officials. This surfaced earliest, so we've hit it hardest. Another is area management brokers, who are supposed to fix up and sell houses repossessed by HUD, and the contractors they hired. They would form rings to subvert competitive bidding procedures or pay for slipshod work or even no work at all. We are also taking a close look at HUD's mortgage credit department; we think it will be the source of several indictments. And finally, there are the multifamily projects. We're probing that too, but we're spread too thin elsewhere to give it the attention it deserves."

Big case load. The scandals have brought indictment of about 120 people so far, plus 15 or so (he finds the exact count difficult to keep track of) who pleaded guilty to an information, a legal procedure that waives indictment or trial—and minimizes publicity.

Guy has taken 30 cases to trial and gained convictions on all but one. Sentences range from probation to ten years (drawn by FHA staff appraiser Alvin Love for multiple counts of bribery) and fines of up to \$20,000.

As Guy was being interviewed, another FHA appraiser was awaiting sentence and four defendants were fugitives from justice. One left behind \$50,000 in bail money.

Chicago. The U.S. attorney's office in this city has also



ATTORNEY ACCETTA
Prosecuting Dun & Bradstreet

adopted the Philadelphia approach.

"We've indicted 70 people in 16 months and convicted all but two," says Anton Valukas, an assistant U.S. attorney. "Ten went to prison, including an area management broker who got three years; and the fines ran up to \$50,000."

Some of the notables indicted, said Valukas, were the presidents or former presidents of these companies operating in the Chicago area: Ramada Builders, Phillips Construction Co., Federal Realty Estates, Kaufman & Broad of Illinois and Town & Country Builders of Freeport.

"The investigation is still far from complete," Valukas cautions. "We have a lot more."

Brooklyn. Another area with a massive problem is Brooklyn. In announcing a blockbuster list of indictments in March 1972, assistant U.S. attorney Anthony Accetta described the fraud there as a "monumental scandal that will probably result in a \$200 million loss to the government in foreclosed mortgages."

Those indictments cited 40 individuals, including Herbert K. Cronin, then chief underwriter of the Hempstead, L.I. insuring office of the FHA, and seven other FHA employees. Also named were Eastern Services Corp., described elsewhere as one of the largest mortgage lenders in the East, and—most prestigious of all—the national credit reporting firm of Dun & Bradstreet. Arthur F. Prescott, an employee of D&B, was indicted at the same time as his company. Both are still on trial.

These Hempstead indictments had a sequel. One Donald C. Carroll, a savings-and-loan officer with extensive mortgage experience, had taken over in 1971 to reform the Hempstead office.



BROKER HIBBS
For 39 counts, \$195,000 fine

Instead, in September 1972, he pleaded guilty to taking bribes himself (while five more employees were indicted), and subsequently was sentenced to ten years in prison. HUD, in desperation, finally closed the Hempstead office altogether, moving operations to nearby Manhattan.

The U.S. attorney's office in Brooklyn refuses to discuss these or any other FHA-related matters until resulting trials, still underway, are completed.

Other cities. A survey of other U.S. attorneys got mixed reactions. Many refused, as did the Brooklyn office, to discuss what they were doing. The attorneys often fear to tip their hands too soon; investigators who have not yet won indictments tend to be the most leery.

Some were willing to talk in generalities, however. Sources in Cincinnati and Oklahoma City, for example, reported find-

ing widespread abuses "running into the millions of dollars."

In Newark, N.J. Theodore Bednarz, the former chief appraiser for the FHA there, has been sentenced to eight years for bribery and conspiracy, and several real estate agents have received sentences of up to four years plus heavy fines.

Susan Barnes, an assistant U.S. attorney in Seattle, Wash., reports a dozen convictions already but believes that the problem in that city is not as serious as in other parts of the country. A similar condition seems to exist in Los Angeles, where 11 realty brokers have been convicted or have pleaded guilty after an investigation that ran for several years.

Many of the attorneys interviewed expected to report indictments this spring.

A new offensive. As the criminal cases run on, more violators find that the government has a second blast of legal grapeshot in reserve: civil recovery suits for damages.

A nationwide program of civil suits is being managed out of Washington by Charles Lembcke, also of Justice.

Lembcke is particularly interested in mortgage companies. He says some of them proved all too willing to close their eyes and finance suspicious applicants without adequate credit checks—as long as government insurance was there to pick up the tab. And they have proved very difficult to implicate, being "arms-length" lenders.

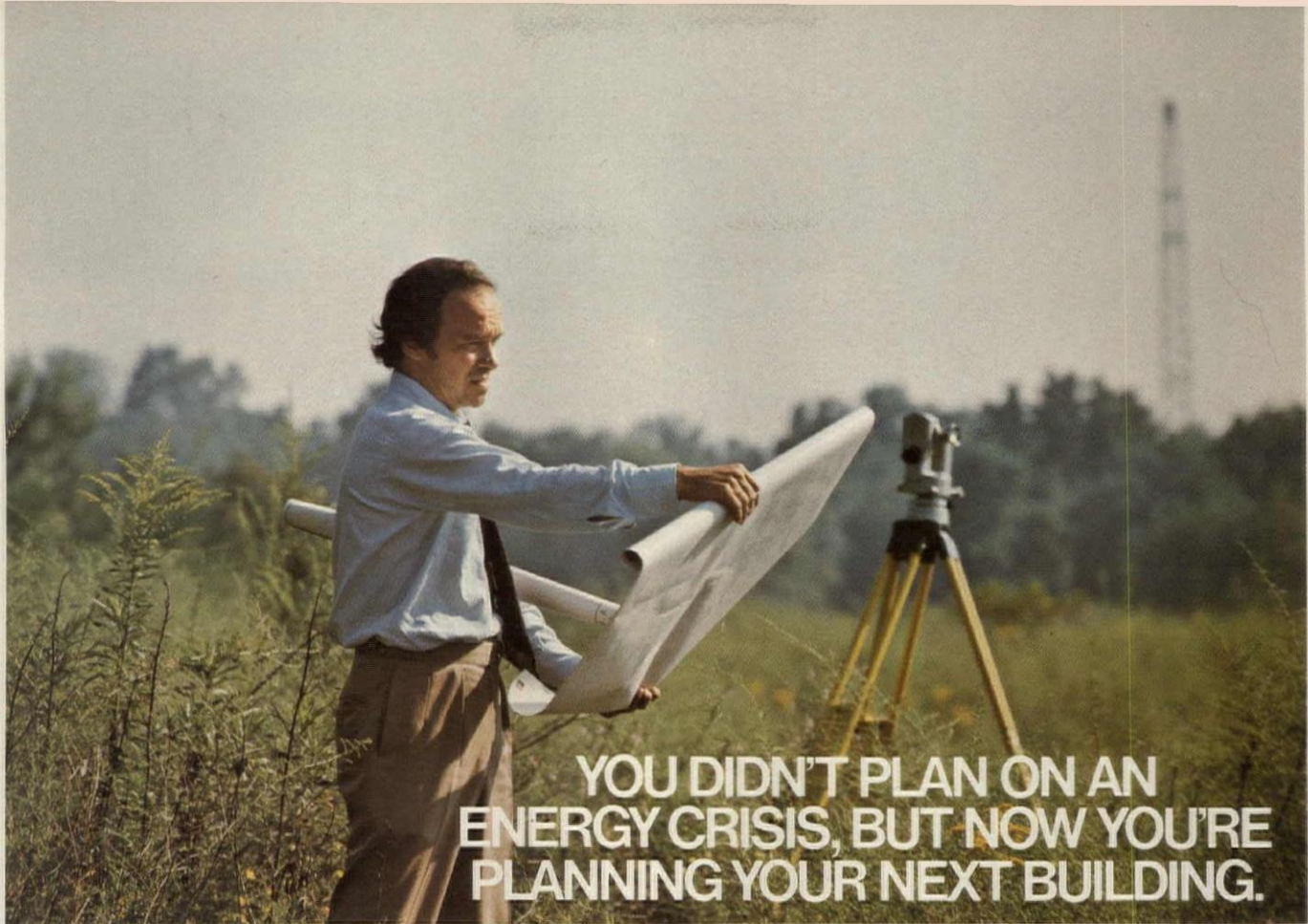
Lembcke's associates are arguing in court that such failure to exercise credit judgment constitutes "reckless disregard for the truth" concerning statements made to the federal government, and that this is enough to render the mortgage companies liable under the False Claims Act (U.S. Code 231-235).

The big risks. If Lembcke wins his point, the government will be able to collect more than mere damages: The penalties under that act run to double damages plus a \$2,000 forfeiture per violation. In the case of fraudulently received interest subsidies, each month's payment could be considered a separate violation, which means forfeitures of \$24,000 per mortgage per year.

—HAROLD SENEKER

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required by the double-plate glass wall. A lot of money and a lot of energy to run that equipment.

Compare the heat loss in winter. It has a dramatic effect on energy consumption and building operation costs.

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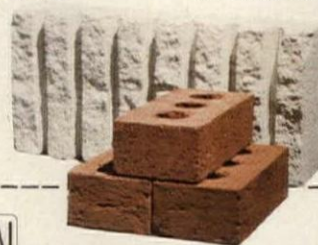
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Kassuba in chapter 11: the decline and fall of America's apartment king

Walter Judd Kassuba was indisputably the nation's largest apartment developer as late as 1970.

The Kassuba Development Corp., based in Palm Beach, Fla., had a net worth of \$800 million. It was managing 30,000 rental units and building at the rate of 10,000 a year, and the future looked limitless.

Kassuba was 36 at the time, and he was widely recognized as the boy wonder of multifamily building. He assessed the market this way in an interview in the *Milwaukee Journal*:

"More and more Americans want to stay mobile. The typical family of the 1970s will rent rather than buy."

Turnabout. The succeeding months, however, wrought something like a complete reversal in the market's direction. By April 1973 Kassuba was saying:

"It's our opinion that we can make more on building and selling condominiums than on building and renting apartments."

And then, late last December, came evidence that Kassuba had been unable to make the switch successfully. The apartment king filed in U.S. District Court in Chicago for protection under chapter 11 of the Federal Bankruptcy Act.

Chapter 11 allows a company to direct its own affairs while working out a plan to pay its debts. Judge Charles B. McCormick issued a restraining order protecting Kassuba from creditors until at least February 5.

The difficulties. What went wrong?

While the final word on the solvency of the corporation is yet to come, one expert source with intimate knowledge of Kassuba operations said: "The company is caught in the trap of a money-short business." According to that source, the Kassuba Corp. had evidenced this cash shortage since 1970.

"Originally the Kassuba approach was to retain ownership of projects and manage them, bringing all the rental income into the earning stream," the source said. "But Kassuba began to see that this long-term, conservative development style could not generate the cash flow to support expansion at the rate



Walter Judd Kassuba in Palm Beach.

of 10,000 units a year.

The source says that in 1970 Kassuba turned from his standard ownership and management policy to participation loans with lenders and to sale and leaseback arrangements.

"He was hurting for cash," said the source. "Actually there had already been a puzzlement for some time as to where he got the cash to go as far as he did."

Competition. With more cash coming in via sale and leaseback, Kassuba turned his attention to increasing rent revenues from existing projects.

"Three years ago he decided to remodel all his Traces (the standard Kassuba project name) to get a better image," the same source said. "His early stuff was

deteriorating, and even though some of the projects were in prime locations, they could not command the going rents."

A case in point was the 800-unit Meadow Trace built by Kassuba in Chicago in 1966.

"It was good, cheap housing for the blue-collar worker when built," said the source. "Today it sits on some of the most valuable real estate in the area but it has that barracks look, the design is out of vogue, and the heating systems are obsolete. Competitors next door get \$350 a month for their new two-bedroom units and Kassuba can't get \$200 for the same type of unit."

Rent freeze. In 1970 Kassuba declared a 1½-year moratorium on rent increases while remodeling was in progress. "But that ended just in time for the President to announce rent controls," said the source. "It turned out that Kassuba went three years without any rent increases while his new projects were costing more and more."

Another major blow, said the source, came when Kassuba decided that participation loans, with their upward-sliding interest scales, weren't providing enough capital for the cash-hungry company.

"He began to recast the loans at rates above prime," said the source. "The loans averaged four to five points over prime, which put them up near 15%—a rate no rental units could support."

Biggest mistake. While Kassuba was trying unsuccessfully to finance his way out of his cash-flow difficulties, insiders say, he made his fatal mistake.

"He totally missed the condominium market," still another source explains. "April of 1973 was too late to start thinking about condos. He was thinking about going public to generate cash when he should have been thinking about condos. It takes at least two years to switch from rental units to condos. It's a hard switch to make."

A competitor said that Kassuba also discovered that his properties could not be converted anyway.

"His prime market had always been the singles and the newly marrieds," the rival pointed out. "He built small apartments with tiny kitchens and Spartan bathrooms. For condos you need

big units and parking shelters. You can't just give an owner two lines on an asphalt lot."

Poor markets. The situation was aggravated by some Kassuba projects that were delayed in completion or were suffering from geographical or economic setbacks.

"He thought he could build in places like the overbuilt market of San Jose," his competitor said. "And some of his best brick and mortar went into Atlanta. He has \$20 million in projects in Atlanta, and it could be three or four years before the market will support the projects. In other areas unemployment and general economic downturns hurt his projects."

Executives of Jack De Boer and Associates of Wichita, Kan., a major apartment builder, see still other reasons for difficulties in the rental market. DeBoer knows the scenario well, for two years ago he, too, was a rental developer geared up for 10,000-unit production. Last



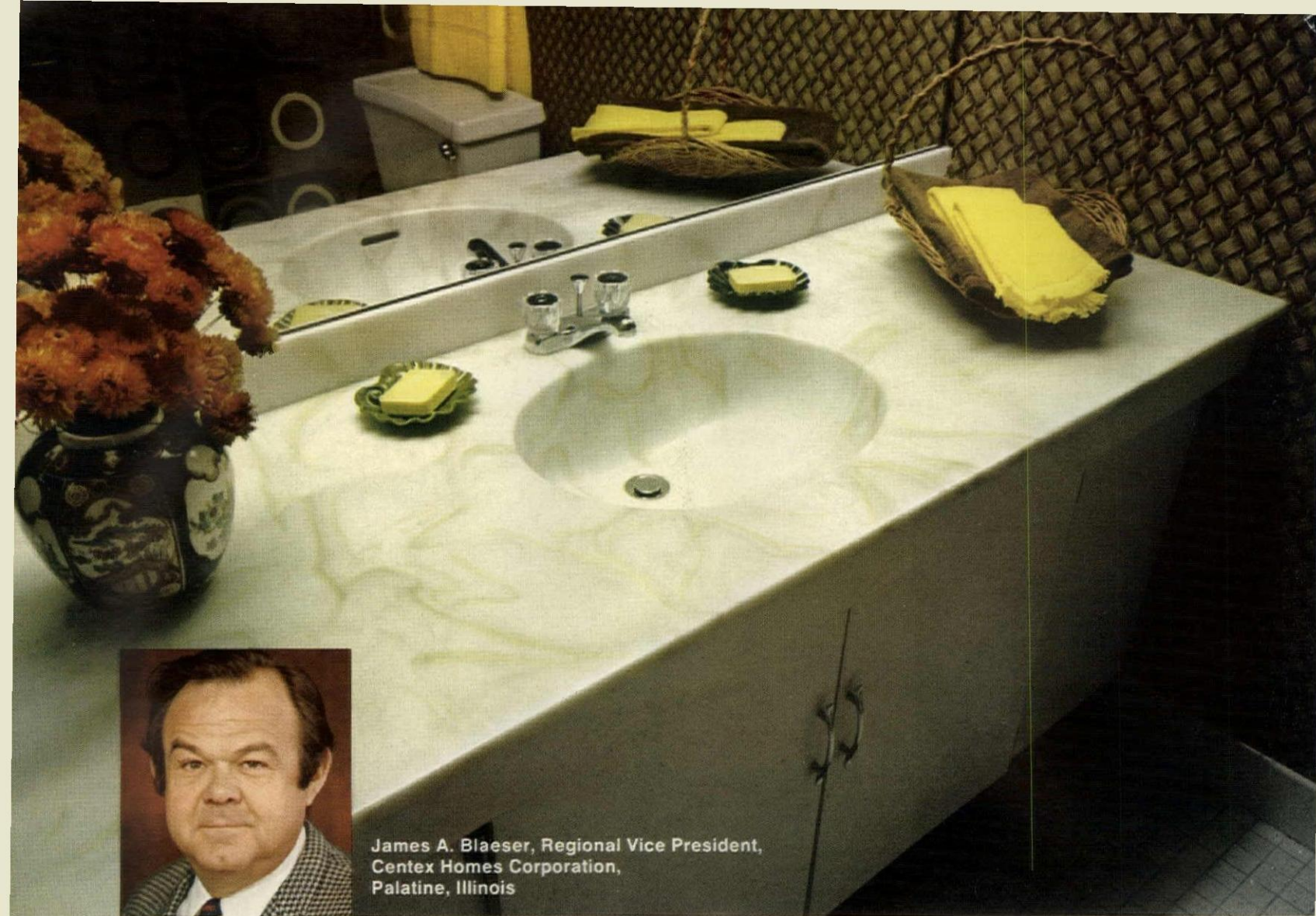
Sam Pancotto in Illinois.

April, under pressure from creditors, he effected a complete internal reorganization of his company.

Looking back, Jack sums up: "The apartment business for the last 18 months has been very difficult. The market has softened and costs have skyrocketed. In such a situation the developer has an alternative: He can pull in his horns as we have done or he can try to keep on."

More to come? DeBoer claims that the major difficulty for a developer in such a situation is his size: "When you're in the 10,000-unit-per-year range you have a structure that demands that you produce that many units. You end up having to get

TO PAGE 12



James A. Blaeser, Regional Vice President,
Centex Homes Corporation,
Palatine, Illinois

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Kassuba in chapter 11: decline and fall of apartment king... continued

FROM PAGE 10

volume. We wanted to take ourselves out of that position, and we did. In three months we sold \$150 million worth of projects and reduced staff by 75%."

As to whether Kassuba, like DeBoer, will be able to right himself and start on the road back, the best guesses in the industry are "maybe."

DeBoer says, however, that Kassuba isn't the only developer finding the rental market difficult to cope with. "No one is expanding and some are getting out," he explains. "People like Larwin, Levitt and Redman are all pulling back."

And one major developer in Chicago warns that Kassuba could well be the first of as many as a half-dozen large rental developers who could go the wall in upcoming months.

Equity. At the show-cause hearing in Chicago, Norman Nachman of Nachman, Munitz & Sweig Ltd. of Chicago, Kassuba's bankruptcy counsel, said the corporation was resorting to chapter 11 "to preserve the business and value of the assets." Nachman fixed the corporation's equity at \$100 million and added:

"The real estate holdings are even more valuable now due to the construction slowdown."

Nachman warned that the alternative to court protection against creditors was "economic chaos and disaster" for the Kassuba empire.

In fact, one day before the bankruptcy petition appeared, Sam Pancotto, a Chicago builder and longtime Kassuba associate, won a \$945,000 default judgment against Kassuba in DuPage County Court in Illinois. Pancotto's attorney, Hugh B. Arnold of Arnold & Kadjan of Chicago, explained:

"This obligation consisted of less than a \$14,000-per-month payment. Several attempts were made to resolve the matter. Kassuba was put on notice, but he didn't pay."

Creditor reaction. Larger creditors first reacted to the chapter 11 filing with expressions of confidence that Kassuba's investments were sound and that cash-flow problems were, indeed, only temporary. By the time of the show-cause hearing one week later, however, attor-

neys' questions reflected a considerably more cautious attitude on the matter.

Said Arnold: "The Kassuba Corp. generates \$9 million a month. Ours was not the first

lawsuit. Can 550 million sound dollars be toppled by a \$900,000 judgment? Things like that just don't happen to sound companies."

Attorney for First Wisconsin Mortgage Trust, a \$35 million Kassuba creditor, and NJB Prime Investors, a \$30 million creditor, called for close court scrutiny of Kassuba's handling of rent monies to prevent the company from using revenues from successful projects to support those less successful.

Rent takeover. Counsel for Central Savings of Atlanta, a \$25 million creditor, indicated that the lender had already obtained a court order to collect rents on several Kassuba projects in Atlanta. Lawyers for the National Life Insurance of Montpelier, Vt. said their client had two Kassuba projects in the process of foreclosure.

A representative for John Hancock Mutual Life of Boston, another major creditor, said that, although mortgaged projects seem viable, there are many less successful projects in the Kassuba empire. Hancock also indicated that Kassuba had been unwilling to make operating statements available and added:

"The company has not received any payments (from Kassuba) since September of 1973, and tax reserves are not being maintained."

Guardian Life Insurance indicated it, too, was seeking foreclosure in a Kassuba project. And counsel for Mellon National Mortgage Co. of Ohio said it was wondering whether to continue to put money into some Kassuba construction projects that are two-thirds complete. Still other creditors reported the Kassuba Development Corp. was 60 to 90 days behind on mortgage and rent payments.

Dismay. Before the judge entered, the show-cause hearing might have been just another genial gathering to discuss investments. But as the session stretched on and the line of attorneys lengthened, the mood changed.

Walter Judd Kassuba, a golden boy only yesterday, was in trouble—and so were the legions of investors who shared in his empire.

—MIKE KOLBENSCHLAG
McGraw-Hill World News,
Chicago

KASSUBA'S CREDITORS

These figures for the top ten Kassuba creditors were taken from an estimated balance sheet dated December 31, 1972 and submitted to the U.S. District Court in Chicago. The figures are necessarily incomplete.

Creditor	Mortgage Balance
1. John Hancock Mutual Life	\$60,443,602
2. Chase Manhattan Bank	\$17,473,959
3. Connecticut Mutual Life	\$16,009,611
4. First Wisconsin National Bank	\$15,243,544
5. EES Associates	\$13,582,500
6. NJB Prime Investors	\$12,967,500
7. Seamen's Bank for Savings	\$8,777,120
8. Equitable Life Assurance Society	\$6,736,547
9. Larwin Investors	\$6,800,000
10. Guardian Life	\$3,016,004

AN ANALYSIS OF WHAT WENT WRONG

It takes more than one problem to drive a \$550-million real estate empire into bankruptcy court. Insiders say that Kassuba encountered 13 specific problems in three general areas. They categorize those problems this way.

FINANCIAL

1. No rental increase in three years because of governmental rent controls and a hiatus in the increases usually allowed if an apartment is remodeled.
2. Participation loans and sale and lease-back schemes were insufficient to produce ample cash flow.
3. Old loans had to be rewritten at rates 4% to 5% above the prime rate.
4. A chance for salvation in a public offering went a-glimmering when the market turned sour in 1973.
5. Materials shortages and rising construction costs cut into profits.

MARKETING

1. Kassuba missed the new condominium market completely.
2. Kassuba's existing properties were not even convertible to condominiums.
3. Several projects were situated in geographically or economically depressed markets.

MANAGEMENT

1. Kassuba was too much the entrepreneur. Despite a large market, his management staff had only a minimum of highly paid and qualified individuals.
2. Project managers were poorly paid and often untrained.
3. The mom-and-pop approach was inadequate for a \$550 million business.
4. There was too much centralization.
5. There was too much reliance on financial schemes to solve marketing problems.

ITT posts advance loss on Levitt sale

ITT appears to believe it will lose \$35 million when it sells Levitt and Sons.

That's the amount of the loss reserve the conglomerate has set up for the sale. It must divest itself of the builder-developer by September under consent decrees entered into by ITT and the Department of Justice [News, Sept. '71].

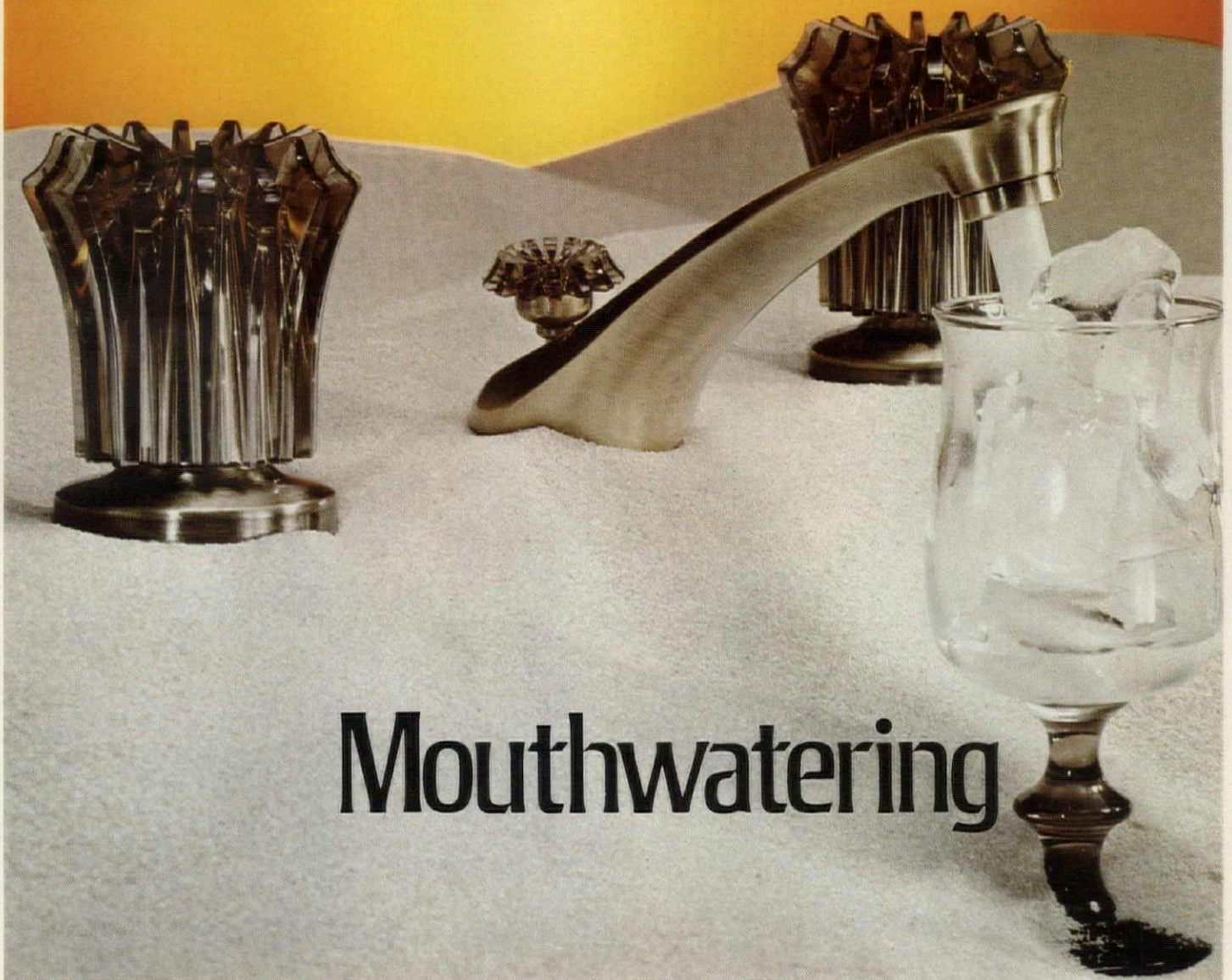
ITT seems to have abandoned the idea of taking Levitt public through a stock offering. The slump in housing starts, the stock market decline and Levitt's operating losses may have

contributed to the shift. In any event, ITT is reportedly seeking a private buyer—and possibilities mentioned range from the subsidiary's ex-owner, William J. Levitt, to several private interests abroad.

The loss reserve offsets most of ITT's \$46.3 million reported gains from other divestitures in 1972 and 1973. The newly established \$35 million reserve includes a federal income tax liability of \$12.1 million, which arises from a lower valuation of Levitt for tax purposes than for financial statements.



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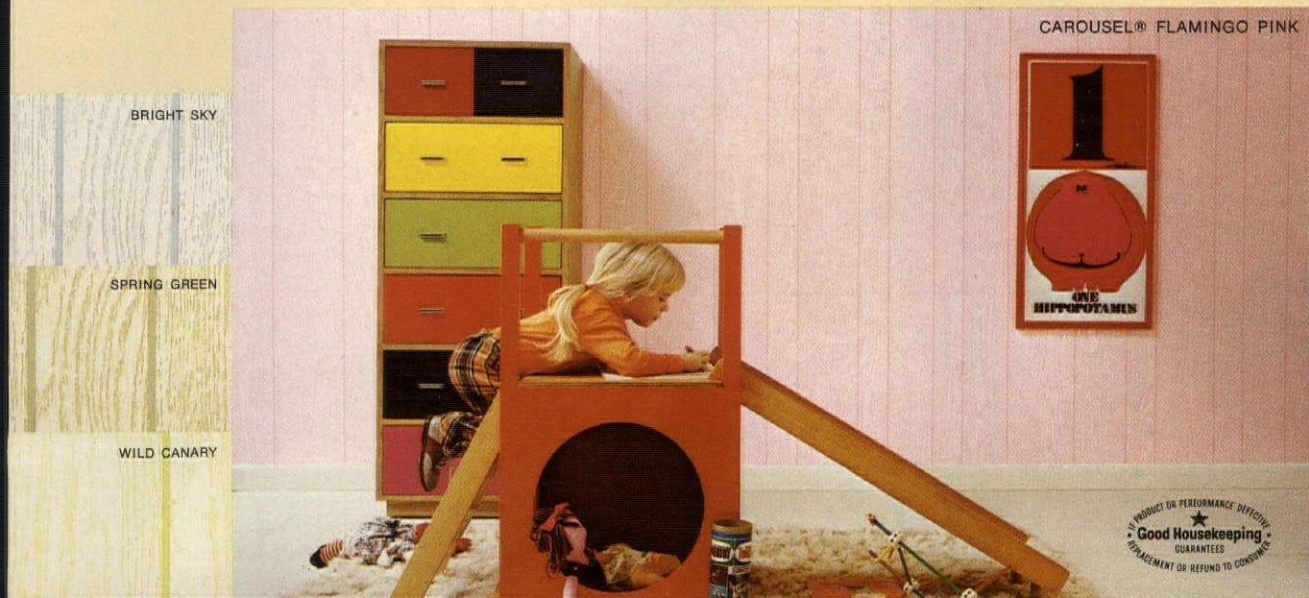
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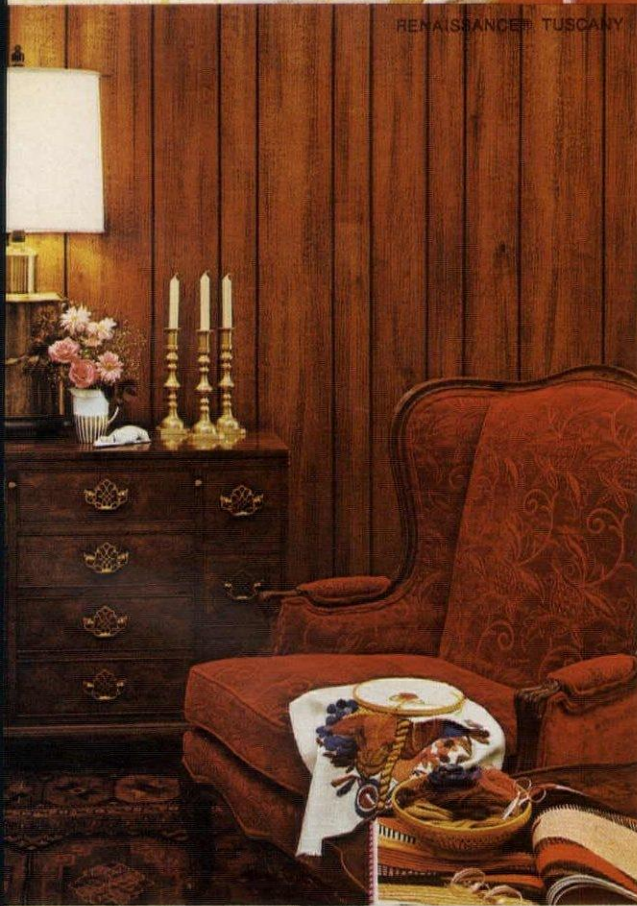
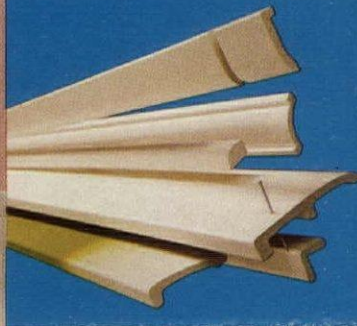


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Survey finds need to build 2.3 million housing units a year through 1970s

Harvard and MIT's Joint Center for Urban Studies thinks very well of its new housing study—so well that the center's principals decided to pull all the stops when they presented it to the press. They came to New York City, rented the Savoy Room of the prestigious Plaza Hotel and stocked it with some particularly handsome secretaries, a complicated slide projector and a giant silver-plated urn of coffee sent up in ornate glory from the Plaza kitchen.

And HUD evidently thought a lot of *America's Housing Needs: 1970 to 1980**, too. The director of research for HUD, Arthur S. Newburg, was on hand to greet the two dozen or so newsmen who showed up.

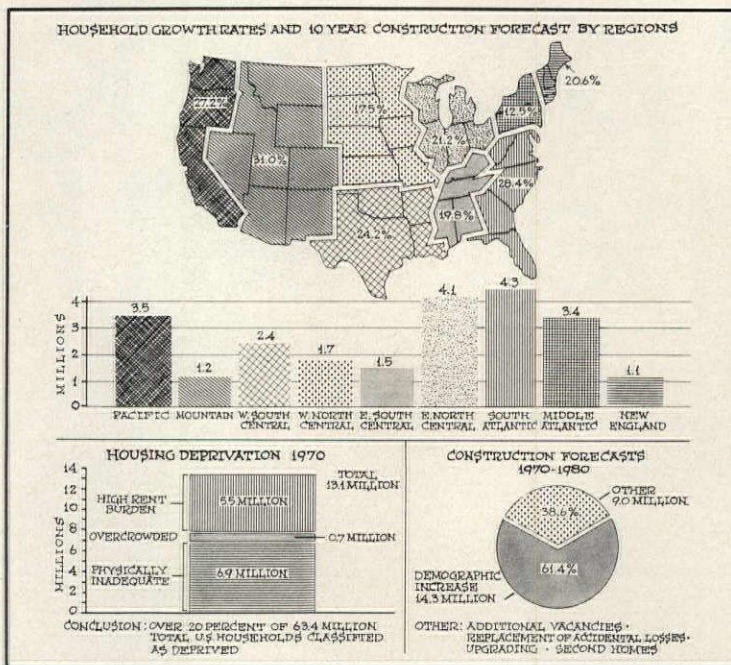
The press sipped coffee and listened to a presentation by Bernard Frieden and David Birch, the men who head the research effort, and to additional remarks by Newburg. (There was a brief introduction by Andrew Heiskell, chairman of the board of TIME Inc., who was involved in the program.)

"Discoveries." Frieden, an intense, boyish-looking scholar (MIT) who has been studying urban affairs for 15 years, led off with a brief summary of what his team had found; they considered it news.

The center had discovered, it seems, that previous estimates of "housing deprivation"—by which Frieden meant primarily the Kaiser Committee's count in 1968—were far too low. Instead of 6.8 million deprived households out of 63.4 million, Frieden and Birch had detected 13.1 million, or more than a fifth of all the households in the country. This despite the fact that, as they observed, the numbers of physically rundown or overcrowded housing have been on the decline for years.

The great revision, it developed, was produced by noticing and including among the deprived some 5.5 million households whose rented quarters were physically adequate, but who were paying excessively high rent.

Having thus redefined the problem, Frieden went on to



warn that this count was still incomplete.

Those uncouncted. The study did not take in the hard-pressed home owners—only renters. But even more important, it left out people affected by yet another significant discovery: Many people—the center couldn't yet measure *how* many, but a lot—are so dissatisfied with their neighborhoods that they are ready to move out even though their houses are in good shape and their finances manageable.

The center had, it appears, conducted 900 "depth" interviews with people in every social class. And it had thus discerned this wide and hitherto unreported sense of unease in the nation—a disaffection for which the researchers were now trying to develop a head count.

The center had also made another discovery, Frieden confided: Attempts to measure the housing market as though it were one homogeneous market were doomed because it is a conglomeration of sharply distinct regional markets.

Frieden seemed particularly pleased with this finding.

A look ahead. Frieden also had a forecast of the number of houses to be built by the industry in the 1970's—23 million versus the Kaiser report's goal of 18-20 million. This estimate was based on demand projections from 1970 census figures (the Kaiser Committee, circa 1968, had to use 1960 data), and especially from an increase in the rate of

household formations revealed by the new census.

This forecast, obviously, means an average of 2.3 million new units a year throughout the decade—distinctly above the oft-voiced goal of two million units annually—and was made without assuming any significant new public housing.

Supporting figures. Birch, a pipesmoking MIT man who looks the part of the quintessential young college professor, went through the statistics behind the estimate. His logic flowed smoothly, the more so since he took pains to point out the uncertainties necessarily inherent in this effort.

Birch did not fail to observe, however, that with three years of the decade gone, housing units were running only about three weeks behind the study's projection. This pace is being kept despite large year-to-year variations, which he assumed would balance out in the longer run.

HUD's interest. Newburg, the man from HUD, also spoke, concentrating on the need for research in this area. He was there partly because his agency provided about half the funding for this study. But more to the point, though he did not directly say so, this study promises to become a major underpinning of the Nixon Administration's shift in housing policies.

If a significant—and growing—part of the nation's housing problem is high rent or mortgage burdens, then there is an argu-

ment for direct cash assistance. If the private industry bids fair to produce 2.3 million units a year, on average, then there is much less need for added public housing. If physically inadequate housing is a declining portion of the problem, that too tends to vitiate arguments for more public housing. If the nation's housing market is really many local markets, there is an argument for stepped-up state and local activity, and for a mixture of different types of programs aimed at different problems.

Newburg, it should be noted, seemed very pleased with the study.

Lack of knowledge. The rendezvous at the Plaza was instructive in another way when the government's relations with the industry are considered. The new study tends to show how inadequately the government has understood the housing market it has presumed to regulate and restructure.

Consider the MIT-Harvard analysis of the Kaiser Committee's report [NEWS, Nov. '68 *et seq.*], which provided much of the basis for subsequent housing legislation:

"The Kaiser Committee . . . focuses attention almost entirely on the production of new units and ignores alternate ways to meet the goal. . . . Housing does not lend itself to analysis at the national level. . . . The attempt by Kaiser to project removals at the national level (an important part of its calculation) was less than satisfactory. . . . It is not clear from the text how the Kaiser Committee arrived at (the estimated need for 6-8 million units of housing for low- and moderate-income families). . . . The Kaiser Committee definition (of standard housing) was inadequate to measure the condition of the nation's housing stock or the real extent of deprivation. . . . The 1970 Census has revealed some trends that the Kaiser Committee could not possibly have taken into account. . . ."

These are serious weaknesses in the 1968 report, the new team emphasized. Yet legislators and bureaucrats have been making important housing decisions from data and assumptions that

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Survey finds need to build 2.3 million new housing units a year...continued

FROM PAGE 16

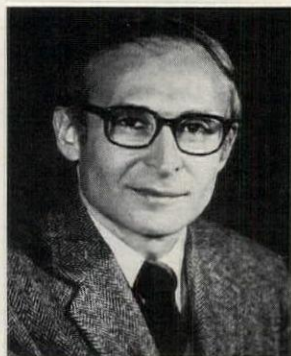
could not be relied upon as valid, the researchers stressed, because those data were all that they thought were available.

Modesty. The new study by Frieden and Birch is an effort to transcend at least some of the Kaiser report's flaws. But these men are scholars, not politicians under the gun. They readily concede that they are years away from making recommendations—because they know that their data base, as superior as it may be to the Kaiser report's, is *not yet good enough*.

In fact, it has not taken them very far beyond what the industry already knows.

Common knowledge. The main points of the new report appear almost too obvious to justify such a research effort.

Are there many builders who remain unaware that rents and



BERNARD FRIEDEN

They see high housing demand...

mortgage payments are high for nearly everyone and a real burden for many? Yet that finding is the source of the research center's "housing-deprived" figure.

Are there any builders who don't notice how many buyers are running away from the ghettos?

Has anyone missed the fact



DAVID BIRCH

... but seek still more data

that a lot of people would buy if mortgage rates would decline?

Is there a builder anywhere who has neglected to take into account the special character of the regional markets?

News? The gentlemen from MIT and HUD treated these observations almost as though they were revelations, hardly thought of before. The troublesome con-

sideration is, of course, that in research and governmental circles, all this apparently is news, although it seemed strange to the housing writers present that this sort of thing should strike anyone as surprising in 1973.

The scholars have made some valuable contributions, however. They have worked up useful figures quantifying what otherwise would likely have remained merely commonplace, gut knowledge among the builders. They are building a highly valuable nationwide data base. And their construction forecast is, thus far, right on target.

And they have put all this market knowledge into a form apparently accessible to policy makers in Washington. For that, many housing experts feel, industry should probably be thankful. —H.S.

Safety Commission taking hard look at aluminum wiring used in housing

The Consumer Product Safety Commission has given warning it won't let building codes stand in the way of its dealing with hazards associated with homes and public building and that it may even extend its jurisdiction to the primary structure itself.

The warning came from the commission chairman, Richard O. Simpson, who said that in the next two months CPSC will conduct hearings on the potential hazards of aluminum wiring in homes and public buildings.

The announcement was in answer to a petition filed by Representative John Moss (D., Calif.) who has asked the commission to ban new installations of aluminum, considered by some fire-safety experts to be the cause of damaging house fires. Moss alleged that several hundred fires could be traced to the use of aluminum instead of copper.

Authority. Simpson said that attorneys for CPSC determined "as a matter of policy" that the Consumer Product Safety Act gave it jurisdiction over the wiring in homes and buildings, and by extension, over other structural members. A spokesman for the commission concedes, however, that the jurisdictional question may well have to be settled in court.

The commission estimates

there are up to two million homes, most of them built about

Bobby Baker refunding a little S&L deposit

It falls somewhat short of a happy ending, but convicted former Senate aide Bobby Baker is giving back—to the government—some of the thousands of dollars he got from California's stock-company S&Ls in 1962.

The influence-peddling indictment on which Baker was convicted in 1967 centered on allegations that he collected and kept \$89,600 that the S&Ls admitted they raised as contributions to the 1962 election campaigns of several senators.

The payments. Stock companies were concerned about an amendment the late Senator Robert Kerr (D., Okla.) had tacked onto a tax bill. The amendment would have put them at a tax disadvantage with mutually owned S&Ls. So California executives of the industry amassed the funds and turned them over to Baker, then secretary to the Senate majority [NEWS, Feb., '66 et seq.]. When the bill came to conference, Senate conferees dropped the Kerr amendment.

At his trial, Baker claimed he handed all the S&L money on to Kerr, who, however, made him a

ten years ago during a period of copper scarcity, with aluminum



WASHINGTON'S BAKER
Making a \$40,000 refund

\$50,000 loan. The jury agreed with the prosecution that he kept the money, and Baker served 17 months in jail. He was paroled in June, 1972.

Threat. The Justice Department currently feels Baker got only about \$54,000 in illegal money, but it threatened to bring him to court to force him to turn over the funds to the government. The department wanted to demonstrate that government employees paid by outsiders can't keep their gains.

So a bargain was struck. To escape litigation, Baker will surrender \$40,000 to the U.S. Treasury. —S.W.

electrical wiring. One question Simpson hopes the hearing will answer is who should pay to have the wiring replaced—at a cost of about \$100 a structure.

Safety standards. After the hearing the commission also will decide whether to set mandatory safety standards for home wiring, but a ban on aluminum is considered unlikely.

A dispute over the use of aluminum for wiring purposes has been simmering for several years. Fire and electrical inspectors have begun to suggest that aluminum wiring should not be used except for special purposes, and the District of Columbia, Orange County, Calif.; Prince Georges County, Md.; and Tacoma, Wash. have banned or restricted its use.

Advantages. Aluminum wiring came into extensive use about ten years ago and has captured an ever-growing share of the market. It is cheaper than copper and it has a low salvage value, so it reduces pilferage at construction sites.

A spokesman for the Aluminum Assn., based in New York, said most problems with aluminum wire arose because electricians did not install it properly.

—SUSAN MEYER
McGraw-Hill World News,
Washington

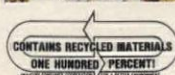
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Builders gypped on gypsum board for 13 years, U.S. says; six concerns indicted

For 13 years, according to federal charges just filed against six gypsum manufacturers and ten of their executives, the home-builder and buyer have been paying illegally fixed prices for gypsum wallboard.

Nearly all wallboard—95% or more, according to one Commerce Department source—goes into housing construction. The companies charged with price fixing produce more than 90% of all gypsum wallboard, and such wallboard sales have topped \$4 billion a year since 1960.

Government sources suggest that wallboard amounts to about \$450 to \$500 of the cost of a typical house; sources with the National Association of Home Builders estimate the amount at \$620 to \$940. Last November, the Bureau of Labor Statistics wholesale price index for wallboard stood 114.3—that is, prices were up 14.3% over their 1967 base level.

Defendants. The indictment, handed up by a federal grand jury in Pittsburgh, named these defendants:

U.S. Gypsum Corp., Chicago; Chairman Graham J. Morgan, Executive Vice President Andrew J. Watt.

National Gypsum Co., Buffalo, N.Y.; Chairman Colon Brown, Sales Vice President J. P. Nicely.

Georgia-Pacific Corp., Portland, Ore.; former President William H. Hunt.

Kaiser Gypsum Co., Oakland, Calif., a subsidiary of Kaiser Cement & Gypsum Corp., which is 37% owned by Kaiser Industries, former President Claude E. Harper; Vice President Robert A. Costa.

Celotex Corp., subsidiary of Jim Walter Corp., Tampa, Fla.; President William D. Herbert.

Flintkote Co., White Plains, N.Y.; Chairman George J. Pecaro; President James D. Moran.

Not charged, but included as co-conspirators in the indictment, are the Johns-Manville Corp., Denver, Colo.; Fibreboard Corp., San Francisco; and the Gypsum Association, a trade group.

Contempt penalty. In a separate but related legal action, the Justice Department asked a federal court in the District of Columbia to find the following



Graham Morgan receiving the Urban Pioneer award from the then Secretary of HUD, Robert Weaver, at NAHB convention in Chicago in 1967. The U.S. Gypsum chairman, now under indictment on price-fix charges, was cited by HOUSE & HOME as one of housing's Top Performers in 1966 for leadership in rehabilitating housing in Harlem.

companies and executives in contempt of court for violating the terms of a 1951 court decree handed down when seven gypsum companies lost an earlier price-fixing case:

U.S. Gypsum, Morgan and Watt; National Gypsum and Brown; Georgia-Pacific and Hunt; and Celotex.

Bruce B. Wilson, acting anti-trust chief of the Justice Department, says the companies, besides giving prices and conditions of sale, adopted uniform methods of handling and packaging the product.

U.S. Gypsum out, Weyerhaeuser in

Weyerhaeuser is getting deeper into housing and real estate even as U.S. Gypsum steps out.

Weyerhaeuser Real Estate Co., shelter arm of the forest-products combine, is acquiring Scarborough Corp., one of the largest residential builders in New Jersey. The price: 491,082 shares of Weyerhaeuser common stock, worth \$18 million at recent prices. Present management is expected to stay at Scarborough, which joins five other building and developing subsidiaries around the country* and Weyerhaeuser Mortgage Co.

Exit. U.S. Gypsum is going in the opposite direction: It plans to

* Pardee Construction, California and Nevada; Quadrant Corp., Washington, Oregon and British Columbia; Centennial Construction, Dallas, Tex.; Westminster Co., N.C. and Babcock Co., Miami, Fla.

Denials. The charges have been denied by some companies, which generally contend that there is no factual basis for the suit. Others withheld comment until they had an opportunity to examine the specific charges involved.

According to Justice Department sources, the gypsum cases are the most sweeping since the landmark decision against the electrical equipment manufacturers in 1961—when, for the first time, company executives were sent to jail for price-fixing.

Since then, more than 100

liquidate its commercial and residential real estate investments, into which it had put \$38 million through September 1973. The company says, it has no plans to make any further investments or advances in real estate development.

Projects. The portfolio includes a planned community in Park Forest South, Ill.; two residential developments in the Chicago area; nine shopping centers in the Northeast, of which four are substantially complete, two are under construction and three are under construction for future development; and an apartment building in Brookline, Mass.

The investments lost \$1.4 million in the first nine months of 1973; during the same 1972 period, the investments earned \$30,000.

company officials have been given jail sentences—including a 90-day sentence imposed on one contractor in Kentucky last summer and 30-day terms set recently for the president-elect of the New Orleans Chamber of Commerce—among others—for fixing the price of ready-mix concrete.

Record settlement. Private triple damage suits by overcharged customers are also becoming a significant threat to companies convicted of price-fixing.

In San Francisco in November, District Judge Alfonso Zirpoli approved an out-of-court settlement totaling some \$75 million in the final chapter of the biggest anti-trust action ever undertaken outside the Justice Department. The plaintiffs included dealer-wholesalers, subcontractors, general contractors, 50 state governments and governmental subdivisions and private owner-builders. The defendants joining in the settlement were Kaiser Gypsum, Flintkote, Celotex, Georgia-Pacific, National Gypsum, U.S. Gypsum and Fibreboard.

The turning point for the litigation came on March 18, 1971, when Zirpoli ruled that six plaintiffs had been fixing prices for two years—from December 15, 1965 to January 1, 1968 [News, May '71]. The court later agreed to a motion applying the defendants' liability to the remaining 4,000 plaintiffs. Some 471,315 persons eventually were approached in the five classes of plaintiffs and only about 7,000 chose not to join in the settlement.

A group of building and development concerns in the Washington, D.C. area filed a private suit last fall against producers of plywood—Boise Cascade, Georgia-Pacific, Champion International and nearly 50 smaller producers. That suit charged that the practice of adding freight charges from Portland, Ore. to each bill—regardless of the actual point of shipment—is a Sherman Anti-Trust Act violation.

The litigants suggest they'll ask damages of \$500 million or more. The action was filed in New Orleans because each of the defendants does business in Louisiana. —D.L.

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Builder: Genesee Commercial Builders, Inc., Flint, Michigan.

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residences of individual character and design.

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Builder: McGray and Nichols, Inc., Newport, New Hampshire.

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French builders in Florida: They came, they saw, but were they conquered?

If you were operating on a 30% profit margin and somebody else was making 10%, would you cross an ocean to find out how he runs his business?

That's what several hundred French builders did, yet by the accounts of their hosts they found their recent tour of the Florida housing market most edifying and informative.

The builders and their wives were brought over in a tour sponsored by Banque de la Henin, a subsidiary of the Suez Co. and an important supplier of credit to the French housing industry. Their eight-day tour took them to half a dozen developments in Florida, on to the Peachtree Center business complex in Atlanta and to Disneyworld.

A different profit. The spread between typical profit margins in the two countries was the most striking but by no means the only difference between the American and French housing industries that emerged as U.S. developers showed their counterparts around.

The variance is the result, it seems, of very different approaches to housing construction. While the U.S. market (at least for tract houses) is dominated by high-volume and low-profit strategies, the French tend to build houses a few at a time and to tack on a compensating but startling markup.

Buying customs. These differences result from dissimilar buying philosophies in the two countries, opines Galen Ballard, director of marketing for M.J. Brock & Sons, whose Mariner's Pass development near St. Petersburg was on the tour's itinerary.

"Single-family homes are the mark of the upper crust over there," reported Ballard after his company's encounter with the Frenchmen. "The estate-type setup is their ideal, and everyone tries to make his house look as much like an estate as possible."

"Also," he adds, "there seems to be quite a sharp class distinction in the type of home you live in, from what I gathered. Condominiums and apartment living are strictly for the masses over there—except in Paris—and townhouses are considered the next step up. They're where you'll find the top of the working



Director Max Stern (center) of Banque de la Henin meets U.S. execs at Saga Bay Development near Miami: John Karlton of Saga Bay (left); Jim Schulte, Context Industries.



Interest of the French builders seems piqued by construction features of newly framed house at U.S. Home project located in Florida. That company's Harlan Merhige explains things.



Vice-mayor of Marseilles gets assist at M.J. Brock & Sons' Mariners Pass, St. Petersburg, from R.C. Chenoweth, president (right), Galen Ballard, director marketing.



Mortgage financing is the subject of this earnest discussion in subtropical setting at Mariners Pass. Galen Ballard (gesturing) is aided by Lindon Lane, sales manager (far right).



Kitchens and family rooms excite visitors with their size, openness and amenities: Built-ins are almost unheard of in France. This is at a U.S. Homes development in Pinellas Co.



Architects and land planners listen to explanation of townhouse layout at Mariners Pass by Lindon Lane (gesturing). They found luxurious design of some townhouses surprising.

class and the middle class. You are somebody when you move into a single-family house, and the more land around it the better.

"There's no mixing, either. People living in single-family homes will have nothing to do with people living in townhouses even though they're right across the street."

Heavy construction. The French builders reported that their buyers demand far more substantial construction than is common here. Concrete, cinder block, clay brick and masonry are nearly universal. It would be useless to put up wood-frame houses, they told the Americans;

nobody would buy them.

"They build for 100 years," concurs Ballard, "because their buyers look hard for solid construction, even overbuilding."

The visitors explained that their foundation work always included two or three pourings of concrete, even for a house with no cellar. They seemed bemused by single-pour concrete slabs they encountered in Florida.

Outdoor perfectionists. The French also pay much more attention to exterior detailing and decoration than they saw on their Florida tour. Since they carry through their detailing to all four sides of their houses as a rule, they seemed to find it odd

that the American tendency is to play down or eliminate such work on the sides and back.

Obviously, all these factors add significantly to the cost of a house and to the pressure for low-volume orientation.

Not surprisingly, the builders said there was a critical housing shortage in France.

Indoor compromises. The visitors were apparently impressed by American interior work, however. The French public, by their account, is willing to skimp on space and amenities. The substantial houses the French build thus tend to be quite small. A typical three-bedroom house,

TO PAGE 26



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French builders in Florida: Came, saw, but conquered? . . . *continued*

FROM PAGE 24

it was decided, after translating from metric to British measure, would run to only 1,200 or 1,300 square feet.

Kitchens are much less of a selling point in France. The builder will supply a stove, sink, cabinets and countertops but not other amenities. Even the richest Frenchmen, when they buy a new house, must bring their own refrigerators. The builders did say that the sinks they put in were bigger than those they saw in Florida—but that too proved a reflection of French skimping. Even the moderately

priced new Florida homes were being offered with automatic dishwashers, which are still considered the ultimate in luxurious appointments by the French; the larger Gallic sinks, it seems, were for handwashing dirty dishes.

Sales interest. The Florida developers report that the tour's greatest interest was in the marketing side of the business. American selling techniques got undivided attention and very interested questioning.

The French heard the full-dress sales presentation at Sunset Builders' dramatic Cove Cay

condominium development near Tampa and it apparently met with approval despite the language barrier.

"I think I may even have sold a house or two," sales director Adelaide Riddell gleefully reported.

The established strategy of selling from a well decorated model home seemed to come as a surprise to most of the French, their American guides report.

But the strongest interest of all, said Ballard, was in the custom of helping the buyer find financing for the house.

"In France, once the buyer de-

cides on his house and has to look for money, he's strictly on his own. The builder *never* gets financing for him. They were really interested in that idea; lots of close, detailed, real in-depth questions were asked. They wanted to know everything: terms, negotiations, how to take care of the points, all of it. And of course, we at Brock & Sons practically walk the buyer through the mortgaging process. They really thought that was a great plus in selling homes.

"We may have started something there."

—H.S.

French view of U.S.—all that space!

Our man in Paris caught up with the tour as it returned from the U.S. and polled it for reactions to what it saw. He filed this report.

The nearly 500 French builders, developers and others—mostly from the south of France—went through their week's tours of Florida in two groups. The first started November 21 and the second finished up December 7.

Wide open spaces. The groups were overwhelmed by the design efficiency of the homes they saw in Miami, Tampa, Orlando and elsewhere, and by a great advantage American developers have

over their French colleagues: plenty of space.

Pierre Hemart, technical director of the large Paris-based developer, Promogin, summed up for many of the visitors:

"I was struck by the sheer magnitude of the land available and the areas allowed to individual rooms. Why, in one hotel I saw an 80-square-meter suite for just two people. This is just not done in France.

"But I thought there was not sufficient space in many of the mobile homes we saw."

The travelers were also impressed by the total conception of the developments they saw (some were city-sized projects on

thousands of acres), by the amenities in the individual houses and by the functional designs that contrasted with the layout of French homes.

Open house. Erle Dautier, assistant to the general manager of another large Paris developer, Consortium Parisien de l'Habitat:

"In these Florida homes you have an integrated kitchen with no door separated from the common room or family room by a simple counter. Everything is within arm's reach. The unit is designed for a minimum of movement in a country where servants are rare.

"Servants are getting rare in

France, too, and we'll eventually move in that direction."

House pools. Most builders marveled at the kitchens they saw in some developments with bay windows giving onto the house swimming pool, allowing the housewife to watch the children in the pool, and designs that gave access from the pool to bathrooms where the children could dry off.

Finally, the French were impressed by the total approach to development of senior citizens' areas, and by developments that included golf courses, commercial centers and port facilities.

—MIKE SULLIVAN

McGraw-Hill World News, Paris

Second homes, abroad, for Americans? AMREP giving idea a try with condos

AMREP Corporation, with experience as a developer and builder in Florida, Missouri, New Mexico and Arizona, has decided to expand into new territory: the Spanish Riviera.

The company has acquired land near the Mediterranean town of Marbella and a 350-unit or more condominium goes into construction this year. Total cost: about \$10 million.

Management plans to sell many of the condominiums in the U.S.

The market. "We feel there is an international market for second homes and retirement homes," explained Howard W. Friedman, AMREP's president. "The attractions of Spain are climate and cost. It is already a haven for many Americans."

Friedman didn't say so, but there's at least one other potential plus:

Playboy Enterprises, with its hotels, Playboy clubs and bunnies, owns 250 undeveloped acres near Marbella.

If this effort is successful—and Friedman is very confident it will be—it could be the start of a major shift to overseas developments by AMREP. But that, stresses Friedman, is a decision that cannot be made before mid-year. If the company does go ahead with this possibility, it won't confine itself to Spain; other Mediterranean countries are also considered part of the new territory.

Home front. Overseas expansion is not being carried out at the expense of domestic opera-



tions, which will continue as planned, according to Friedman.

AMREP has hired management talent in Spain for the Marbella project, but the company is already no stranger to the challenges of selling land in one country to a buyer in another.

AMREP has had sales offices in Europe and the Far East for a couple of years, selling U.S. property to Americans and others living abroad. This is their first effort to reverse their field.

Others in Europe. The Marbella project is a good-sized experiment for AMREP, which put up about 1,500 units last year. But some other U.S. builders already have a far more substantial market presence in Europe.

Levitt, for instance, has seven developments near Paris and began selling homes in its new Monte Carlo development 11 miles west of Madrid last May.

Kaufman & Broad also plans to move into Spain in 1974, and expects European sales volume of up to \$100,000,000 by 1975.

—H.S.

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Porcelain-on-steel bathtubs, lavs and steel sinks... manufactured in our new modern Knoxville steel plumbingware plant.

And you have the "beautiful bath" complements of Briggs' famous chinaware.

Altogether, they are the "better than ever" reasons for you to choose Briggs.

Product diversity. Complete lines.

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FHA's new property standards ready—they stress performance over materials

After almost four years in preparation, the new minimum property standards of the Federal Housing Administration were to be distributed to FHA field offices last month.

These new standards—described as the nearest thing to a national building code—become effective July 1, 1974. Architects, developers and builders may use either the new MPS or the existing standards until then.

The new MPS come in four volumes, the first stem-to-stern revision since they were first issued in 1959.

The standards, while they are officially applicable only to housing that has its financing insured by the FHA, are also adopted by the Veterans Administration and the Farmers Home Administration. They also carry weight with local officials and lending institutions, since they are a set of standards and specifications that carry the imprimatur of the federal government.

Performance. According to William Brown, chief of the standards branch, the new MPS represent a major move away from materials specifications and toward the performance standards produced for Secretary George Romney's Operation Breakthrough program.

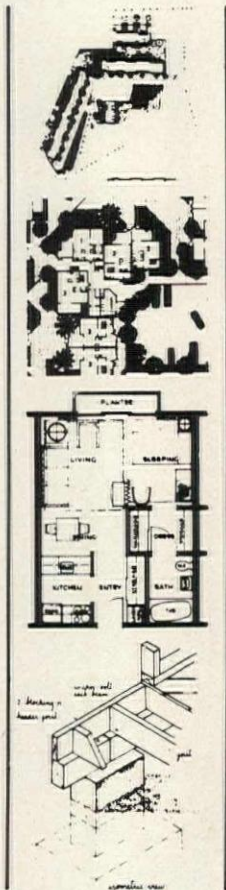
This change, Brown says, gives the builder and architect "a great deal more flexibility than he has had."

For example, the new standards for single-family housing (Volume 1) no longer require (as the present standards do) that a one- or two-bedroom house have 160 sq. ft. of living area. Instead, the criterion is "furnishability" of the space—that is, the living room should be large enough to accommodate a specified minimum of furniture, including a couch, two easy chairs, a desk, a television set and a small table. Volume 4 will contain a sketch of a typical living room with the furniture in it.

Controversy. The standards—which cover 1,500 pages—were circulated in draft form to 200 government and construction organizations for comment.

Controversy over the revisions—including a fight over fire-resistance ratings—delayed promulgation at least a year. The steel and aluminum producers

4900




MINIMUM PROPERTY STANDARDS

ONE AND TWO FAMILY DWELLINGS

CARE-TYPE HOUSING

MULTIFAMILY HOUSING



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

battled against fire-resistance ratings that would make metal floor joists more costly in single-family housing.

The final version suggests a compromise, with HUD's technicians giving some ground. The new MPS require ten-minute resistance for floor assemblies situated above non-habitable basements, but there is no such requirement for assemblies over crawl space, as the draft provisions required.

Smoke detectors. The MPS, as

they are published, will not require smoke detectors in single-family homes. But Brown says that a revision will be adopted making them mandatory. One or two detectors will be required, depending on the design of the house. These detectors, which must be permanently connected with the electrical system—that is, the detectors cannot be of a plug-in type—are expected to add \$50 each to the cost of a house.

The homebuilders, among

others, had fought the smoke-detector provision. The battle is over, with the building code organizations, as well as HUD, adopting the detectors as a requirement.

Officials at HUD say the reason the MPS requirement was postponed was that questions had been raised about the capacity of the producers to supply the detectors in required quantities.

Smoke detectors are already required for multifamily and care-type housing under MPS revisions for the elderly and nursing homes. The revisions require smoke detectors and partial sprinklers in corridors and storage spaces only.

Heat savers. The FHA's technicians also expected to have published by the end of January their new and higher heat insulation standards for single-family homes—this in response to the energy crisis.

The revised standards were being processed on a crash basis, with only a selected list of industry officials getting a look at the draft before the proposal was to go to the *Federal Register*.

One industry source said the new standards, if adopted as drafted, would be a move away from performance and back toward specifying materials and techniques. The proposed revision specifies the heat loss permissible for the walls, calls for double glazing on all windows in cold-weather areas and makes no provision for design that might produce the same insulation. One estimate suggests that the new standards could add \$250 to \$750 to the cost of a house, depending upon location.

The four volumes of the MPS are Volume 1, for one- and two-family units (HUD No. 4900, 425 pages, \$10.25); Volume 2, for multifamily units (HUD 4910, 400 pages, \$8.95); Volume 3, for care-type domiciles—nursing homes and housing for the elderly (HUD 4920, 400 pages, \$7.45); and Volume 4, *Manual of Acceptable Practices*, which has not yet gone to the printer.

Volume 4 will probably be the most widely used. It contains illustrative material to suggest how the formal specifications in the three volumes of formal specifications and standards may be applied in actual construction.

Quotation of the month

In 1974 the total mortgage flow will reach \$81.4 billion, up more than 13% from the \$72 billion estimated for 1973. Mortgages made on existing properties will capture over 70% of the market—a projected \$58.2 billion—as compared to \$23.2 billion forecast for mortgage loans on new homes. The Northeast, Pacific Northwest and Great Lakes regions will be the hottest markets for mortgage commitments on existing homes. Allocation of heating fuel coupled with the large number of existing homes in need of rejuvenation will spur demand.

—JACKSON W. GOSS

President, Investors Mortgage Insurance Co., Boston

—D.L.



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Celotex vinyl siding also comes in very handsome colors—light gray, light green, light yellow

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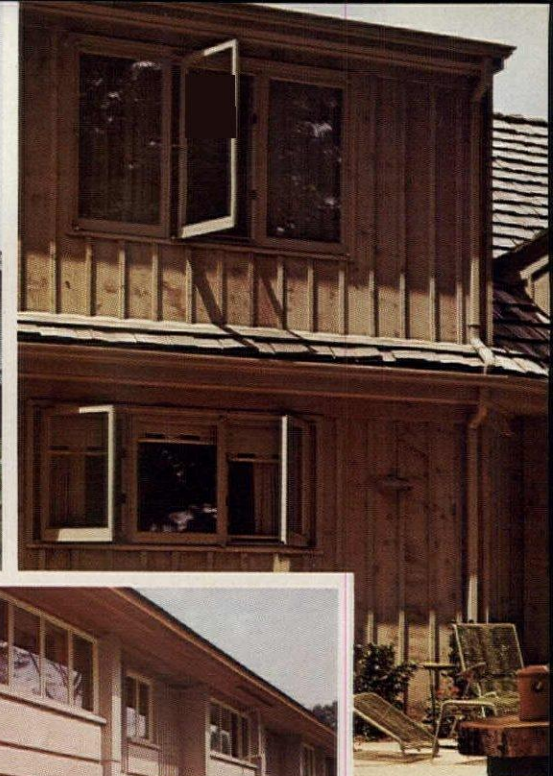
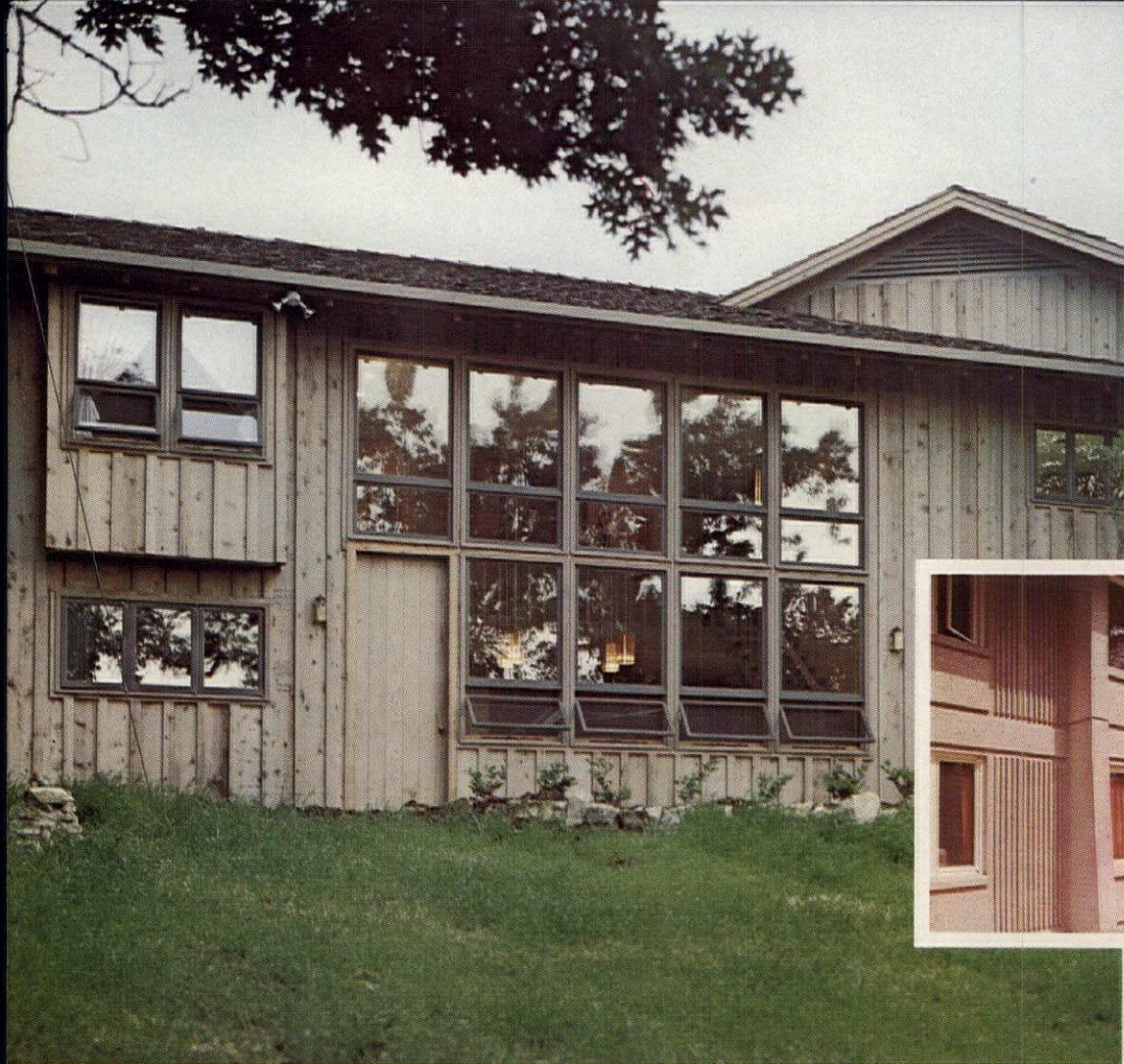
or electricity. Yet it will act as insulation against heat, cold and sound.

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Factors Most Important in Window Selection			
	1968	1970	1972
Most Important	Insulation	Insulation	Insulation
Next Most Important	Durability	Durability	Durability
Least Important	Initial cost	Initial cost	Initial cost

Wood windows keep the warm in. And that translates into savings.
After a house is fully insulated, you can cut the remaining heat loss by 30%— just by choosing wood windows with insulating glass. And that translates into important heating bill savings for your customers. And regardless of fuel prices, the savings add up year after year.



In a 16-window Chicago test home, the savings ranged from \$88.40 to \$124.25 last winter, depending on the type of fuel.

Home Heating Cost Comparison

Type of Window	Gas	Oil	Electric
Single glass in aluminum sash*	\$289.50	\$348.68	\$406.91
Single glass in wood sash	260.59	313.85	366.29
Insulating glass in aluminum sash*	225.59	271.70	317.08
Insulating glass in wood sash	201.10	242.21	282.66
Annual savings with insulating glass in wood over single glass in aluminum	88.40	106.47	124.25

*Without a specific thermal barrier
 Figures based on insulation manual developed by National Association of Home Builders Research Foundation, 1,400 sq. ft. home, fully insulated, 6600 degree days.

Wood windows are rated best for insulation quality. Just ask a consumer how he rates wood versus metal windows. We did. And our research showed that 54% rate wood windows as excellent insulators, while only 44% say the same about metal windows.

%Rating Insulation Quality Very Good	1968	1970	1972
Wood Windows	47%	50%	54%
Metal Windows	45	41	44

You can sell a lot of homes by helping buyers beat the energy crisis.

Don't wait for your customers to ask for wood windows. Specify them. And then use that savings in energy consumption as a way to sell the long-term value of the homes you build.

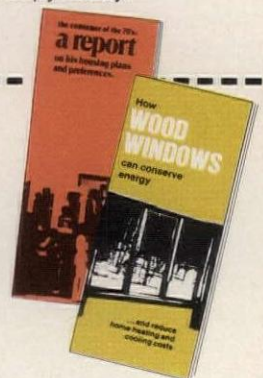
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Fed's curb on Citibank signals no let-up in banks' mortgage-firm takeovers

The Federal Reserve Board's denial of permission for First National Citibank of New York to keep Advance Mortgage Corp. of Detroit might seem to suggest that the Fed is getting out of step with the wave of bank takeovers of mortgage companies. Officials insist that, providing certain allowances are made, the contrary is the case.

The Federal Reserve, as administrator of bank holding companies, finds no difficulty in endorsing the mortgage bank acquisitions by increasing numbers of holding companies, notwithstanding that it ruled that Citibank's parent firm, First National Citicorp, must divest itself of Advance by the end of 1980. The purchase price was about \$30 million.

Ground rules. In 1970 Congress gave the Fed a free hand to develop a list of permissible activities for holding companies, subject to their remaining closely affiliated with banking. The Fed is convinced that mortgage banking is so related to banking, and it was an easy choice for the list of pursuits the Reserve will let banks follow.

In the last six or seven years some 45 mortgage firms—almost all of them large by the standards of this fragmented industry—have come into the hands of the banks. Meanwhile, in the three years since the 1970 law set distinct guidelines, the Fed has blackballed only ten mortgage company acquisitions by bank holding companies.

The Advance case was unique. While the Fed might deny a holding company's application on several grounds, the Advance acquisition is the only one in which the regulator's principal objection was to the sheer size of the institutions involved.

Bigness. Citibank, with \$15.5 billion in deposits, is the second largest bank. Advance, originating \$450 million in mortgage loans in 1971, is the third largest member of its industry. Putting the two together was adjudged to be just too much. Observes a Fed official: "At some point bigness becomes bad."

In the other cases where the Fed has vetoed a mortgage-banker acquisition by a bank holding company, the chief concern has nearly always been fear that the acquisition would re-

duce competition in a given area because both bank and mortgage banker did business in the same market.

For example, Crocker National Corp. of Los Angeles was denied permission to acquire Ralph Sutro Co. because both operate in the Los Angeles market [NEWS, June '72]. In another case, the Fed blocked an Ala-

New bars to bias in mortgage lending

Federal agencies that regulate mortgage lenders are moving against discrimination on the basis of sex, age and marital status in housing finance.

The Federal Home Loan Bank Board has just said that, as a matter of policy, it will no longer tolerate any such discrimination among savings and loans. And banking regulators such as the Federal Deposit Insurance Corp. and the Federal Reserve are expected to issue like statements within a month.

Voluntary policing. The basic thrust of the Federal Home Loan Bank Board statement is to extend the agency's discrimination ban beyond the borders of the 1968 Civil Rights Act, which prohibited discrimination in housing finance by race, color, religion and national origin. In support of the 1968 law, the FHLBB, in 1972, issued regulations against the latter categories of discrimination. Last month's measure, while technically not a rule, can none the less be enforced by use of cease-and-desist orders on grounds that sex discrimination, for example, is not a sound business practice. Board Chairman Thomas Bomar is quick to state, however, that the agency expects full voluntary compliance will be forthcoming from the S&L industry.

Impact. Industry experts agree that the S&Ls as a whole will support the FHLBB policy. The United States League of Savings Associations, for example, has been conducting its own program with members on problems of discrimination in lending. And the new guidelines are not expected to have major impact on present lending practices.

"Attitudes have changed substantially," says a U.S. League spokesman.

bama bank holding company from acquiring an in-state mortgage firm and then turned around and awarded the same mortgage company to an out-of-state holding company.

Trend. Mortgage executives now expect a lot of smaller holding companies to take over many of the lesser mortgage firms. This trend will be facilitated by

changes in laws in states that had previously discouraged banks from using the Federal Holding Company Act to diversify. The motive for the banks will be to escape from state branching limitations. As for the mortgage bankers, they will look to banks as the best place to sell stock they hold in their own firms.

Not all of the big banks that have acquired mortgage companies have found them the lucrative profit centers the banks had expected. There has been a consequent lull in the major holding companies' acquisition campaign.

Chance to appeal. Citibank, however, is not giving in to the Reserve Board's no to its application to hold onto Advance. The Fed itself provided the loophole enabling Citibank to continue the fight. The board said the bank could come back again before the 1980 deadline with a new argument for keeping Advance if it did not choose to divest and shop around for a smaller mortgage company.

Citibank, opting for the former choice, says it will "exert every effort to demonstrate conclusively to the board that (the bank's) affiliation with Advance is truly in the public interest."

Hoping to achieve this result, Citibank would no doubt like to persuade the Fed with a batch of new proofs that its tie to Advance would be productive of public benefits outweighing the bad effects of what the Fed calls "undue concentration of resources."

One solution. The Fed's lawyers take a very different view. Says one:

"They could try again to make the case that their keeping Advance means more housing loans. But this has been gone into very thoroughly, and I doubt it would work if they tried again."

Rather, Citibank's chances would be better, say the officials, if it resigned itself to losing part of Advance and keeping the rest—"Say half of it," suggests one official.

This was the kind of decision the Fed made when the parent holding company of the Bank of America wanted to absorb the huge G.A.C. Finance Corp.



FHLBB's BOMAR
Expects full compliance

The consideration that may perhaps be the most significant about the FHLBB's policy guidelines is that for the first time the board has dealt with practices that, while not discriminatory on their face, may in effect violate its regulations and policies. Practices that it says may lead to discrimination include the favoring of loan applicants who have previously owned homes, the automatic discounting of supplemental income, and rigid rules on credit worthiness that would bar an applicant, for example, for an isolated problem that occurred in the distant past and was no longer relevant.

History. The FHLBB has been a pioneer among the agencies in attacking discrimination in lending. It issued a policy statement on the subject nearly 18 months before President John F. Kennedy's executive order on housing opportunities in November 1962. Now all the housing-related agencies are under pressure to act because of complaints from activist groups and because Congress may this year pass legislation outlawing discrimination in lending.

—DEXTER HUTCHINS
McGraw-Hill World News,
Washington

—STAN WILSON
McGraw-Hill World News,
Washington

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CIRCLE 33 ON READER SERVICE CARD

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In '73, builders bought Color-Side because it was cheap.

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Wood Products Division**

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Point-counterpoint: Mortgage men strike back with a defense of discounts

We have drawn the wrath of the mortgage bankers down upon our heads with an article in the December issue that contained severe criticism of their practice of charging point discounts on house loans.

Reaction ranged from sul-furious to just mildly sarcastic. No less eminent an authority than Oliver H. Jones, executive vice president of the Mortgage Bankers Assn., telephoned in some heat to call the article "distorted," "inaccurate" and "the damndest piece of unadulterated ----- I've ever read in my life."

From the other end of the spectrum came this gentler assessment from John F. Eleford, president of Eleford & Co., a leading New York mortgage brokerage: "Great article, well written—but of course it (a no-point system) will never work."

(Other comment on page 78.)

Perhaps the most articulate—and complete—rebuttal was penned by Ernest E. Rutgers, chairman of Rutgers & Co., another blue-chip brokerage in New York. We're printing the Rutgers retort virtually in toto because we're nothing if not fair minded—and because of the particular insights it offers on commercial mortgage lending.

An old friend. Rutgers is no stranger to these pages. Readers will remember that in November 1970 Clarence Ostema, then an executive of Rutgers & Co., wrote a critique of the operating methods of the Federal National Mortgage Assn. that suggested that there was nothing much wrong with the mortgage market that Fannie Mae's exit would not cure. Rutgers penned a spirited defense of Fannie Mae, and the riposte appeared in December 1970 under the headline, "FNMA Critic Gets an Answer—From His Boss." (Ostema is now president of Dovenmuehle New York Inc., a mortgage dealer.) The Rutgers reply to our article follows.

—EDWIN W. ROCHON

I Wish You A Merry Suicide
—HOUSE & HOME, December 1973.
This isn't exactly the title of the article on page 4 but as to mortgage bankers it might as well have been.

The article comes up with



THE MBA'S JONES
'Distorted... inaccurate'



MORTGAGING'S RUTGERS
'Go jump in the lake'

what appears to be a well researched story advocating abandonment of points and claiming that there is a ground swell within MBA of mavericks who agree with the proposition that "points have got to go." In support, it quotes Bill Lutz, V.P., New York Life, as saying, "I can't stomach a discount," and Dick Cady of Coast Mortgage as saying, "You can't have your cake and eat it."

The writer has taken a stance where bricks will fly at him from many directions. He is suggesting that mortgage bankers as a class either dry up and blow away or gear their business entirely to commercial loans where points are not verboten. When you notice that mortgage men defend points with fervor bordering on fanaticism it's only because they prefer breathing to suffocation.

The point—money! Let's come out from the shelter of academic discourse and let's say it like it is—in real life.

Income! It just happens to be a basic ingredient of any business—even the business of making and selling mortgage loans. Take away points from a mortgage banker and what do you have left? Nothing! Only expense.

So the article is really suggest-

ing that all mortgage bankers should cease to exist and that the entire function be handled by institutions which create capital and can thereby create mortgage investments with their own money and for their account.

But mortgage bankers are not freaks dropped into our society from outer space. They grew here all by themselves and for very good reasons. They perform services which others do not choose to perform or they perform services which others would also like to perform but they do them better. And for this they get paid and what's so bad about that.

The rate problem. Some writers don't like the way they get paid—in points. Somehow that doesn't show proper recognition of the fact that pegged interest rates in relation to fluctuating market rates cause variations in points. Mr. Mortgage Banker merely sees to it that points "in" exceed points "out," and thereby he has covered the expense of creating and marketing the loan. Give him any other system which will adequately cover his overhead and he will embrace it but don't just promote the abolition of his livelihood with no offer of an alternative. That is unless you really want him to dry

up and blow away.

With all respect to Bill Lutz, who is an acknowledged pro in his field, his company probably didn't make or buy one FHA or VA loan this year—if they did it was a freak. But ask him about any of the commercial loans they have made and you will quickly discover that whereas he can't stomach discounts, he has no objection to fees—which almost always are quoted in percentages like four over prime plus two for construction and one for the permanent.

Inside stuff. If Bill happens to be dealing with a mortgage banker who in turn is dealing with a builder, the commercial quote to the builder often is phrased as 4 over prime plus 3 for construction and 1½ for the permanent.

Now you may not like our jargon, but those 2's, 1½'s and 4's are points just like discount points on residential mortgages, and to a builder the net result is that cash in hand after the mortgage is closed is never equal to the face of the mortgage.

In defense of Dick Cady, whom we are not yet ready to classify as a maverick, his remark that you can't have your cake and eat it probably referred to the hybrid system suggested by Walter Williams [president of MBA] that there be both a floating interest rate and a discount. In this context, that the system may not be workable, Dick is probably right that you can't have your cake and eat it. In the article, his quote continues: "The discount to the house buyer is unfair." That is probably a misquote if related to FHA/VA loans, as sellers pay the discount, as is well known.

In summary. We don't believe there is any ground swell in the membership of MBA toward advocacy of elimination of points. A swell in the opposite direction we could understand, but in the absence of a proposed system which will clearly provide "income" to mortgage bankers for his expense and effort, we can't believe he would promote a system that would bring about his own demise. The writer of the HOUSE & HOME article may wish us a merry suicide, but don't be surprised if the mavericks as well as The Club reply—Go jump in the lake.

New mortgage-type security appears

It is called a certificate of beneficial ownership and it has just been put on the market by the Farmers Home Administration.

The security was devised to attract private pension funds and other institutional investors into rural mortgage programs.

The certificates run from \$25,000 to \$1 million in face value. The first issue was for \$300 million in five-year and

\$200 million in 15-year maturities. The issue was won by investment groups managed by Salomon Bros., the New York City bond and securities brokerage, and by the Chase Manhattan Bank. Salomon issued the five-year certificates at 7.3% interest but discounted them to produce a yield of 7.33%. The Chase priced the 15-year notes at par with a 7¾% rate.

Fascinating windows for 30 below or so

Once or twice every winter it gets to 30 or 35 below in Warroad, Minn., where we make Marvin windows. Sometimes there's a spell of a couple of weeks when it doesn't get any warmer than 10 below.

Marvin's been making double and triple-glazed windows for a long time. We know what happens to them in bitter cold. Thanks to wood, double or triple glazing, and double weather-stripping (where practical), Marvin windows reduce heat loss, even at 30 below. And we offer many combinations of multiple glazing, with no loss of time in delivery.

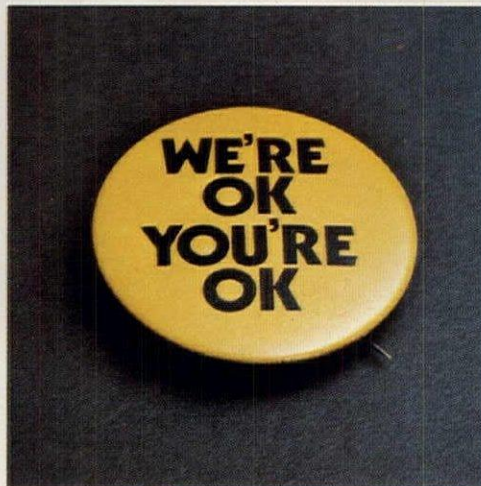
Because of the energy crisis, people who are buying homes, and bankers who are putting up the money, are becoming very wood window conscious. It makes sense to offer them fascinating, trouble-free windows that also save them money. Write for our 36-page catalog and see the combinations offered. Marvin Windows, Warroad, Minn. 56763. Phone: 218-386-1430.



CIRCLE 37 ON READER SERVICE CARD



HOW WE CAN HELP YOU MAKE MONEY EVEN IF THERE'S NOT MUCH AROUND TO BE MADE.



No matter how uncertain things are in the housing industry this year, there's one thing that is certain.

Some people are going to make money. And you might as well be one of them.

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Through good business planning. The kind that took us from being just another cabinet company to being the biggest cabinet company in the U.S. in just three years.

First of all, because of our size we can offer you the kind of deliveries you need now more than ever.

Deliveries that cost less because we're closer. We're the only cabinet company with nationwide manufacturing facilities.

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capacity to finish what we start.

Also, because of the greater productivity our size affords us, we can keep prices lower and guarantee them longer than other companies.

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To cut costs, your Triangle Pacific salesman will help you lay out kitchens that are functional and beautiful and yet, require the least number of cabinets.

He'll also make sure your cabinet deliveries meet your job's requirements.

In other words, your Triangle Pacific salesman will help you get the most out of every business dollar.

Add to all this the fact that our wide variety of kitchen and bathroom cabinets may well offer you the best quality, styling, and value and you'll understand why together, we're OK.

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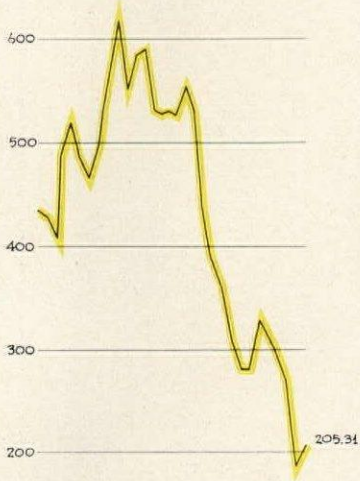
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Housing stocks register an uptick along with most other Wall Street issues

Most of the housing industry's stocks rode merrily into the new year on the rally that swept the rest of the securities markets.

HOUSE & HOME's index of 25 representative issues moved up impressively—to 205.31 from 187.15—in the month ended January 7. Of the five divisions, only the homebuilders' section failed to gain.

Here's the composite graph of 25 stocks.



SHARE PRICES OF JANUARY 1965=100

Here's how the leaders in each category performed.

	Jan. '73	Dec. '73	Jan. '74
Builders	484	167	163
Land develop.	322	116	137
Mortgage cos.	1,525	507	578
Mobile homes	1,141	290	314
S&Ls	229	105	121

Company	Jan. 7 Bid/Close	Chng. Prev. Month
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BUILDING

Aldex	OT	5/8	- 1/8
AVCO Comm. Devl—d	PC	1/2	- 1/2
American Cont. Homes	OT	3	+ 3/4
American Housing Sys.	OT	1	- 1/4
American Urban Corp.	OT	1 1/8	+ 1/4
Bramalea Con. (Can.)	TR	6 3/4	+ 5/8
Building Systems Inc.—d	OT	.01	-.01
Campanelli Ind.	OT	7 1/4	- 3/4
(New America Ind.)			
Capital Divers (Can.)—d	OT	.34	+ .13
Centex Corp.	NY	12	+ 1/8
Cenvill Communities	AM	9 3/8	- 1/8
Cheezem Dev. Corp.	OT	1 3/4	- 1/4
Christiana Cos.	AM	2	- 1/4
Cons. Bldg. (Can.)	TR	3.05	+ 3/2
Dev. Corp. Amer.	AM	8 3/4	- 3/8
Dev. Int. Corp.—d	OT	.20	+ .05
Edwards Indus.	OT	3	- 1/4
First Builders Bancorp—d	OT	.75	- 1/4
First Hartford Corp.—d	AM	2 1/4	- 1/8
FPA Corp.—d	AM	7 3/8	+ 3/8
Carl Freeman Assoc.	OT	3	+ 1/4
Frouge Corp.—d	OT	4 1/2	- 1
General Builders	AM	1 1/4	+ 1/8
Gil Development—d	OT	1/8	- 1/8
Hallcraft Homes	OT	2 1/4	+ 3/8
Hoffman Rosner Corp.	OT	2	- 1/2
Homewood Corp.	OT	4	- 1/2
Hunt Building Corp.	OT	2	- 7/8
Kaufman & Broad	NY	11 1/2	+ 1/8
Key Co.—d	AM	2 3/4	- 1/4
Leadership Housing—d	OT	5 3/8	+ 1/8
(includes Behring Corp.)			
Leisure Technology	AM	4 1/4	- 1/2
Lennar Corp.	AM	5 7/8	- 1/8
McCarthy Co.	PC	3	+ 3/8
McKeen Const.	AM	2 3/4	+ 1/2
H. Miller & Sons	AM	10	+ 1 1/4
Mitchell Energy & Dev.	AM	27 3/8	+ 2 1/4
National Environment	OT	1 3/8	-.065
(Sprul Homes)			

Company	Jan. 7 Bid/Close	Chng. Prev. Month
L. B. Nelson Corp.	AM	2 1/8 - 1/8
Oriole Homes Corp.—d	AM	8 1/2 - 1/2
Pref. Corp.	AM	3 + 1/4
Presidential Realty	AM	10 1/4 + 1/2
Presley Development	AM	3 3/4 + 5/8
Pulte Home Corp.	AM	2 1/8 + 1/8
Radice Rlty. & Const.—a—d	OT	1 1/4 - 1/2
F.D. Rich Hous. Corp.—d	OT	.63 - .37
Robino-Ladd Co.	AM	4 1/4 - 1 1/2
Rossmoor Corp.	AM	5 1/4 + 7/8
Ryan Homes—d	AM	10 7/8 - 3 3/4
Ryland Group	OT	3 3/4 + 1/8
Shapell Industries	NY	9 1/2 + 5/8
Shelter Corp. of America	OT	3/4
Standard Pacific	AM	1 7/8 + 1/4
Universal House & Dev.—d	PC	1 1/8 - 1/4
U.S. Home Corp.	NY	5 + 3/8
Valley Forge Corp.	OT	2 1/4 - 1
Washington Homes	OT	7/8 + 1/8
Del. E. Webb	NY	4 + 3/4
Western Orbis	AM	10 1/16 - 1/4
Westchester Corp.	OT	1 1/4 - 3/8

SAVINGS & LOAN ASSNS.

American Fin. Corp.	OT	12 3/4 - 9/8
Calif. Fin.	NY	3 3/8 + 5/8
Empire Fin.	AM	7 3/8 + 3/4
Far West Fin.	NY	6 1/4 + 1
Fin. Corp. of Santa Barb.	AM	11 1/8 + 1 1/4
Fin. Fed.	NY	11 1/8 + 1 3/8
First Charter Fin.	NY	14 3/4 + 2 1/8
First Lincoln Fin.	OT	2 3/8
First S&L Shares	AM	12 7/8 + 2
First Surety	OT	2 1/8 - 1/8
First West Fin.	OT	1 3/8 - 1/8
Gibraltar Fin.	NY	13 3/8 + 2 1/2
Golden West Fin.	NY	12 3/8 + 2
Great West Fin.	NY	19 1/2 + 2 7/8
Hawthorne Fin.	OT	6 3/8 + 3/8
Imperial Corp.	NY	9 1/4 + 5/8
Trans World Fin.	NY	6 7/8 + 1/4
Union Fin.—d	AM	6 7/8 - 1/4
United Fin. Cal.	NY	7 3/8 + 1 1/2
Wesco Fin.	NY	11 3/4 + 1 1/8

MORTGAGING

Charter Co.	NY	21 1/8 + 3 3/8	
CMI Investment Corp.	NY	17 1/4 + 2 3/4	
Colwel	AM	8 1/8 + 5/8	
Cont. Illinois Realty	NY	14 - 1	
Excel Investment—d	AM	6 7/8 - 7/8	
Fed. Nat. Mtg. Assn.	NY	19 - 1/8	
Financial Resources Gp	OT	1 1/2 + 1/2	
(Globe Mortgage)			
FMIC Corp. (formerly First Mtg. Ins. Co.)	OT	8 7/8 + 1 1/8	
Lomas & Net. Fin.	NY	9 3/4	
MGIC Inv. Corp.	NY	33 3/8 + 5 5/8	
Midwestern Fin.	AM	9 1/8 + 1/8	
Mtg. Associates	OT	10 + 1	
Palomar Fin.	AM	2 3/8 + 1/8	
Western Pac. Fin. Corp.—d	(formerly So. Cal. Mort. & Loan Corp.)	OT	1 3/4 - 1/4
UPI Corp.	AM	2 + 1/4	
(United Imp. & Inv.)			

MORTGAGE INV. TRUSTS

Alison Mtg.	NY	22 3/4 - 3/4
American Century	AM	13 3/4 + 2 1/4
Arlen Property Invest.	OT	9 1/2 - 2 1/2
Atico Mtg.	NY	13 1/2 + 3/8
Baird & Warner	OT	15 1/8
Bank America Rlty.	OT	24 1/2 + 1 3/4
Barnes Mtg. Inv.—a	OTC	13 1/4
Barnett Mtg. Tr.	NY	22 3/8 + 2
Beneficial Standard Mtg.	AM	18 3/4 - 1/8
BT Mort. Investors	NY	19 3/4
Builders Investment Gp.	NY	26 1/2 + 1 1/2
Cameron Brown	NY	14 1/2 + 3/4
Capitol Mortgage SBI	NY	19 + 1/4
Chase Manhattan	NY	41 1/2 - 3 1/2
CI Mortgage Group	NY	13 3/8 + 1 1/2
Citizens Mtg.	AM	13 3/4 + 1/4
Citizens & So. Rlty.	NY	31 3/4 + 2 1/8
Cleve. Trust Rlty. Inv.	OT	17 + 1 3/4
Colwell Mtg. Trust	AM	24 1/4
Conn. General	NY	18 3/4 + 1 1/2
Cont. Mtg. Investors	NY	7 3/8 + 1 1/2
Cousins Mtg. & Eq. Inv.	NY	23 1/8 + 2 3/8
Diversified Mtg. Inv.	NY	16 3/8 - 3/8
Equitable Life	NY	22 - 1 3/4
Fidelco Growth Inv.	AM	24 3/4 + 3/4
Fidelity Mtg.	NY	9 7/8 - 1/2
First Memphis Realty	OT	16 1/8 - 5/8
First Mtg. Investors	NY	9 1/2 - 1 1/2
First of Denver	AM	21 1/8 + 2 3/4
First Pennsylvania	NY	15 1/2 + 3/4
Franklin Realty—d	AM	5 + 1/2
Fraser Mtg.	OT	11 1/4 - 1/2
Galbreath Mtg.	OT	11 1/2 + 1 3/4
Gould Investors	AM	8 - 3/4
Great Amer. Mtg. Inv.	NY	32 + 2 1/2
Guardian Mtg.	AM	29 3/8 + 8 1/4
Gulf Mtg. & Rlty.	AM	15 3/4 + 1 3/4
Hamilton Inv.	OT	14 1/4 - 1
Heitman Mtg. Investors	AM	11 1/4 - 1/4
Hubbard R. E. Inv.	NY	18 3/8 + 1 1/8
ICM Realty	AM	15 3/8 - 1 3/8
Larwin Mtg.	AM	17 1/2 + 1 3/4

Company	Jan. 7 Bid/Close	Chng. Prev. Month
Lincoln Mtg.	OT	3 1/2 - 3/4
Mass Mutual Mtg. & Rlty.	NY	15 3/4 - 1 1/2
Mony Mtg. Inv.	NY	8 3/4 + 1
Mortgage Trust of Amer.	NY	10 7/8 + 1
National Mortgage Fund	NY	10 3/4 - 1 1/2
North Amer. Mtg. Inv.	NY	23 3/8 + 3 1/4
Northwest Mut. Life Mtg. & Rlty.	NY	21 1/8 - 1 1/2
PNB Mtg. & Rlty. Inv.	NY	19 1/2 + 1 1/2
Palomar Mtg. Inv.	AM	7 3/4 - 7/8
Penn. R. E. Inv. Tr.	AM	12
Property Capital	AM	13 1/2 + 1 3/4
Realty Income Tr.	AM	13 - 1
Republic Mtg. Inv.	NY	13 1/8
B. F. Saul, R.E.I.T.	NY	11 1/4 - 7/8
Security Mtg. Investors	AM	7 3/4 + 1 1/2
Stadium Realty Tr.	OT	4 - 1 1/2
State Mutual SBI	NY	15 3/4 + 3/4
Sutro Mtg.	AM	12
Unionamerica Mtg. & Eq.	AM	15 - 2 3/8
U.S. Realty Inv.	AM	11 1/4 + 1 1/4
Wachovia Realty Inc.	NY	20 + 2 5/8
Wells Fargo Mtg.	NY	18 3/8 + 2

LAND DEVELOPERS

All-State Properties	OT	1/2 + 1/8
American Land—d	OT	7/8 + 1/16
AMREP Corp.	NY	4 - 3/8
Arvida Corp.	OT	7 1/2 + 3/4
Atlantic Imp.—d	OT	5
Canaverl Int.—d	AM	1 7/8 - 1/8
Cavanagh Communities	NY	2 1/4
Crawford Corp.	OT	5 - 1 1/2
Deltona Corp.	AM	7 1/2 + 1 1/2
Disc. Inc. of Amer.	OT	1 - 1/4
Evans & Mitch Ind.	OT	1 3/4 - 3/4
Fairfield Communities	OT	1/2
Gen. Development	NY	6 + 1 1/2
Getty Financial Corp.—d	OT	2 3/4 - 3/4
(Don the Beachcomber)		
Holly Corp.	AM	2 1/8
Horizon Corp.	NY	5 3/8 - 1 3/4
Landmark Land Co.	AM	2 3/4
(Gulf State Land)		
Land Resources	OT	2 1/2 + 1/2
Major Realty	OT	4 3/4 + 1 3/8
McCulloch Oil	AM	6 7/8 + 1 7/8
South. Rlty. & Util.—d	AM	4 7/8 - 1/8

MOBILE HOMES & MODULES

Champion Home Bldrs.	AM	3 3/8 - 1/8
Commodore Corp.	AM	1 1/2 - 1/8
Concheco	AM	8 + 3/8
De Rose Industries	AM	1 3/8
Fleetwood	NY	4 1/2 + 1 3/8
Golden West—d	OT	2 3/8 + 1/2
Moasco Corp.	AM	2 - 3/8
(Formerly Mobil Americana)		
Mobile Home Ind.	AM	6 3/8 + 1 1/4
Monarch Inc.	OT	2 1/8 + 1
Redman Ind.	NY	4 3/8 + 5/8
Rex-Noreco	NY	2 3/8 + 3/8
Skyline	NY	12 1/2 + 2 1/4
Town & Country—d	AM	2 3/8
Triangle Home Prod. (Triangle Mobile)	OT	.88 - .12
Zimmer Homes	AM	3 3/8 + 1/2

Albee Homes	OT	.13 - .37
ASM Ind.	OT	.03 - .095
(Formerly AABCO)		
Brigadier Ind.	OT	1 3/8 - 5/8
Environmental Commun.	OT	2 1/4 - 5/8
Hodgson House	OT	1 1/4 - 1/2
Liberty Homes	OT	1 3/8 + 1/8
Lindal Cedar Homes	OT	2 1/4
Modular Dynamics—d	OT	.03 + .01
Nationwide Homes	AM	5 + 3/8
Shelter Resources	AM	2 1/2 - 1/2
Swift Industries	OT	3 3/8 + 1 1/8

DIVERSIFIED COMPANIES

Amer. Cyanamid	NY	19 3/4 - 1 1/4
Amer. Standard	NY	12 + 3/8
Arlen Realty & Develop.	NY	2 5/8 - 1/8
AVCO Corp.	NY	7 1/8
Bethlehem Steel	NY	34 1/8 + 6 1/4
Boise Cascade	NY	15 3/8 + 3 1/8
Building & Land Tech.	OT	3 1/2 - 1 3/4
CNA Financial (Larwin)	NY	9 - 5/8
Castle & Cooke	NY	17 3/8 + 3 3/8
(Oceanic Prop.)		
CBS (Klingberg)	NY	28 3/4 + 2 1/2
Champion Int. Corp.	NY	18 + 3 3/8
(U.S. Plywood-Champion)		
Christiana Securities	OT	161 + 19
Citizens Financial	AM	3 1/2 + 5/8
City Investing	NY	10 3/8 + 1 1/2
(Sterling Forest)		
Corning Glass	NY	71 3/4 - 11 1/4
Cousins Properties	OT	18 1/4 + 1 3/4
Davos Inc.	OT	1/4 - 1/4
Dreyfus Corp.	NY	7 - 1/2
(Bert Smokler)		
Environmental Systems	OT	5/8 - 3/8
Evans Products	NY	9 3/8 - 7/8
Ferro Corp.	NY	24 1/2 + 1 1/2
First Gen. Resources	OT	1/8 - 1/8
First Rlty. Inv. Corp.	AM	3 3/8 - 1/2
Fischback & Moore	NY	57 3/8 + 11 3/8
Forest City Ent.	AM	6 3/8 + 1 1/2
Flagg Industries	AM	2 3/8 - 3/8

Company	Jan. 7 Bid/Close	Chng. Prev. Month
Frank Paxton Corp.	OT	8 1/2 - 1/2
(Builder Assistance Corp.)		
Fruheauf Corp.	NY	21 1/8 + 1 1/8
Fuqua Corp.	NY	9 3/4 + 1 7/8
Georgia Pacific	NY	38 3/8 + 5 1/8
Glasscock Products	AM	3 + 3/8
Great Southwest Corp.	OT	.13 - .495
Gulf Oil (Gulf Reston)	NY	25 + 4 1/8
INA Corp. (M.J. Brock)	NY	36 3/8 + 4
Inland Steel (Scholz)	NY	30 3/4 + 5 3/8
International Basic Econ. OT		2 3/8 - 1
International Paper	NY	54 + 10 3/4
Inter. Tel. & Tel. (Levitt)	NY	28 1/2 + 1 3/8
Investors Funding	AM	9 + 1 1/8
Kileann Properties	AM	3 3/8 + 1 1/4
Lery Corp.	OT	2 - 1 1/2
Ludlow Corp.	NY	9 1/2 - 1 1/8
Monogram Industries	NY	5 3/8 + 1 1/2
Monumental Corp.	OT	16 3/4 - 1 1/2
(Jos. Meyerhoff Org.)		
Mountain States Fin. Corp.	OT	4 3/4
National Homes	NY	2 7/8
NEI Corp.—a	OT	2 1/8 - 1/4
Occidental Petroleum	NY	11 1/4 + 2
(Occ. Pet. Land & Dev.)		
Pacific Coast Prop.	AM	1 1/4 + 1 1/8
Permin Corp.	AM	6 + 5 3/8
Philip Morris	NY	112 3/4 + 6
Prosher Corp.—d	OT	1 + 1 1/8
Prosher Housing Corp.	AM	3 1/4
Rouse Co.	OT	9 3/8 + 1 7/8
Santa Anita Consol.	OT	10 1/4 - 1 1/4
(Robt. H. Grant Corp.)		
Sayre & Fisher—d	OT	1/8
Shareholders Capital	OT	7 1/16 - 1 1/16
(Shareholders R.E. Group)		
Tenneco Inc.	NY	24 3/8 + 3 1/2
(Tenneco Realty)		
Time Inc.	NY	35 3/4 + 9
(Temple Industries)		
Tishman Realty	OT	16 - 1 1/4
Titan Group Inc.	OT	5 3/8 + 1 1/8
UGI Corp.	NY	15 1/2 + 1 1/2
Unis Bldg.	NY	12 3/8 + 1 1/4
Weil-McLain	NY	7 1/4 + 1 3/4
Westinghouse	NY	25 3/4 - 5 3/4
(Coral Ridge Prop.)		
Weyerhaeuser—y	NY	40 7/8 - 6 1/8
(Weyer. Real Est. Co.)		
Whittaker (Vector Corp.)	NY	2 3/8 + 1 1/8
WICKES Corp.	NY	13 3/8 + 1 3/8



It's easier to sell a house when it looks as if it's worth the price.

Most people don't know much about building, but they do know something about brick.

They know that, unlike aluminum or wood, brick is durable, provides good insulation and is almost maintenance-free. And that it is the ultimate in fire protection. When potential buyers see brick, they're impressed.

So a smart builder uses brick. Especially in exterior walls.

He knows that the outside of a house is good for about 80 per cent of a buyer's first

impression. And only about 5 per cent of the house's cost.

He also knows that if the first impression isn't a good one, he usually won't get a second chance.

A smart builder uses brick for inexpensive custom touches, too. To make the house look as valuable as it is.

After all, a buyer doesn't know as much about your house as you do. So you have to give him a little help.



**BRICK INSTITUTE
OF AMERICA**

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An exercise course helps lure buyers to M.J. Brock's Tahoe townhouse project.



Parallel bars are part of the course. Similar layout drew 60,000 visitors in Europe.



A house and home wait like a reward at the end of the mile-long exercise trail. Brock's townhouses are selling from \$39,000 for one bedroom to \$59,000 for four bedrooms.

A California builder sets up this lively little exercise in townhouse sales

There he was on his day off, walking through a pine forest on the north shore of Lake Tahoe and enjoying the quiet of the shadowy woods, when suddenly he heard a female voice:

"Six, seven, eight . . ."

Then a male voice, between gasps: "That's ten, dammit!"

And then laughter . . .

What could it be? Some California religious fringe group?

A small hang-up. He ran down the trail to find two men hanging from a trestle contraption, laughing between deep breaths, a woman counting and laughing. What was happening?

"It's the Parcourse" they replied, and they dropped off the

odd structure and ran, still laughing, down the trail.

Well, they were Californians, and anything's possible in California. . . . And he found himself following along.

He came to another contraption, and now he couldn't help himself. He too had caught the spirit. He had to set up on the parallel bars.

He hand-walked the bars, and ran on down the trail.

Home base. Winded after completing the exercise trail, the reporter came to a layout of modern townhouses on the lakeshore. It was then that he learned that he had been participating in a recreation regimen

designed for Carnelian Woods, an M.J. Brock and Sons development.

The prices range from \$39,900 for one-bedroom townhouses to \$59,000 for four bedrooms. Units are clustered to leave 85% of the 281-acres as common open space. (This produces a density of only 3.35 dwellings per acre).

Sales tool. The Parcourse itself was built by Parcourse Ltd., whose president, Peter Stocker, brought the concept back from a tour of Europe. The idea is that the course helps sell houses.

The mile-long trail contains ten exercise stations. At each station there are directions and the recommended par, or

number of repetitions of that exercise, carved on unobtrusive signs.

Stocker is producing a similar course at a price of \$7,500 in the San Francisco area. He expects the course to enjoy something of the popularity that a Parcourse in Europe did. That one drew 60,000 participants in six months. —BEN HERSHBERG

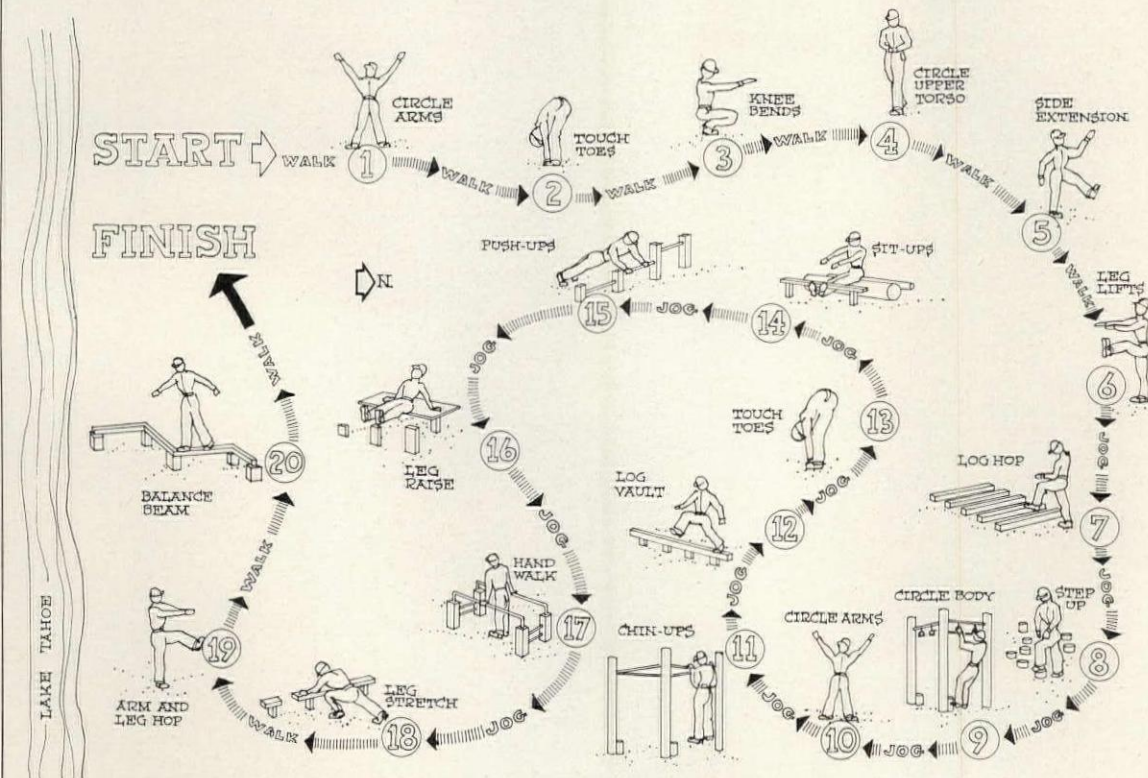
Kaufman & Broad plans to sell mobile plants

Amid reports of cutbacks and red ink throughout the mobile-home industry, Kaufman & Broad has decided to get back out of the business it got into in 1969.

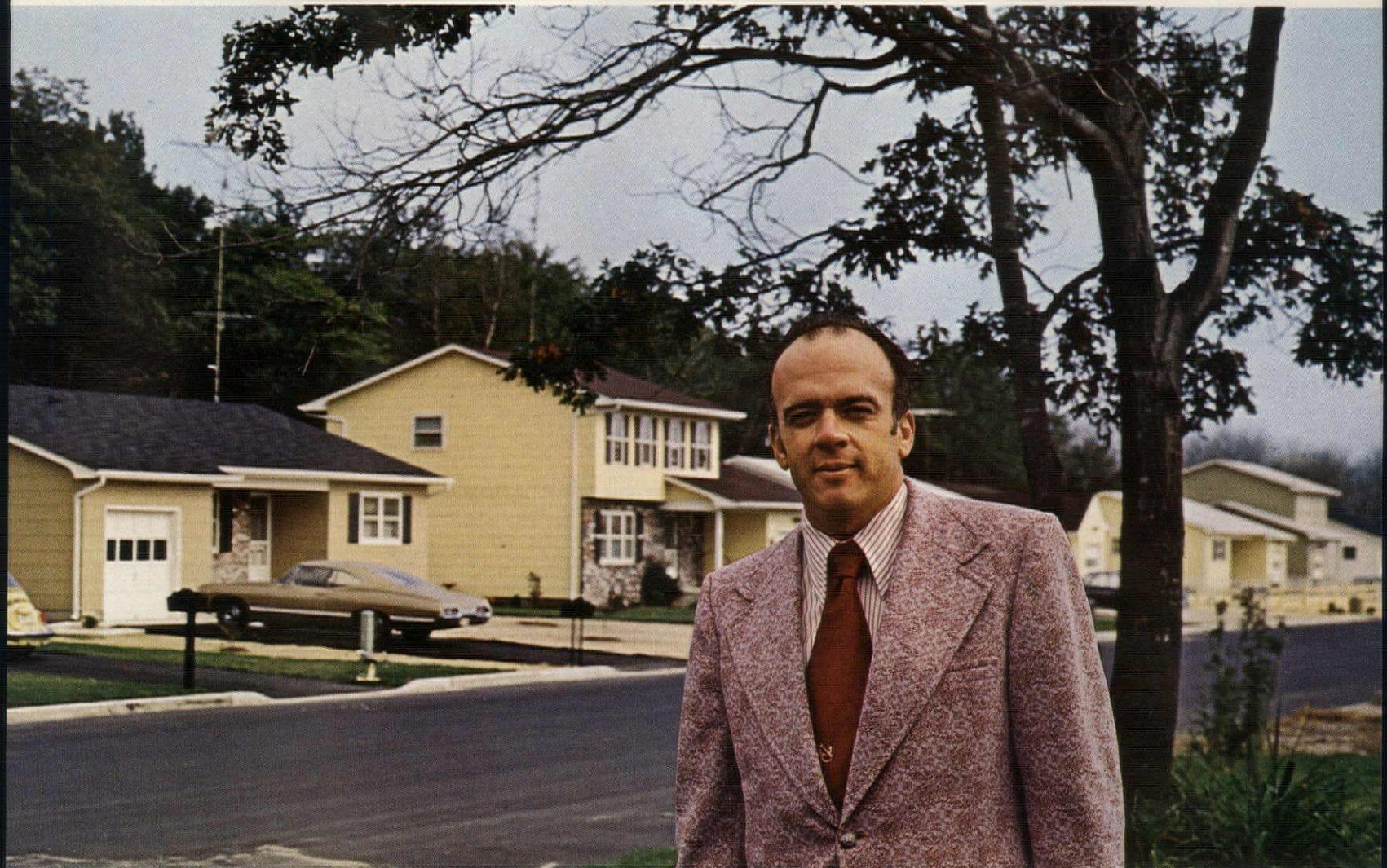
The price tag for the four-year fling is a stiff one. The operations lost about \$1.6 million in the fiscal year ended November 30, and K&B is providing for a \$6.1 million pretax loss on the disposition itself. The company is also allowing for losses of \$1.5 million on lease terminations and claims and \$1.4 million on operations subsequent to November 30. Total write-offs and losses: about \$10.6 million before taxes. The after-tax figure will depend on the method of disposition: sale or liquidation.

Five of the 11 mobile-home plants had been shut for months before the decision was announced. The other six will operate until they too are disposed of.

Champion Home Builders, one of the biggest mobile-home makers, has suspended plans to build ten new plants this year.



“No doubt in my mind.
MGIC-insured loans have
helped us grow.”



The Mayer Corporation, Forked River, N.J., is one of the fastest-growing builders in the state. Begun in 1958, the firm is now a subsidiary of Development Corporation of America, Hollywood, Fla. Mayer Corporation vice president and treasurer Bob Kling highlights his company's growth:

“Up to 1971 we used conventional financing without insurance. Then in February, 1972, we were one of the first in the state to use MGIC insurance on a large scale. There's no question that one of the most significant factors in our growth has been 90% and 95% loans insured by MGIC.

“Last year we had about 750 starts and \$16 million volume. For

1973 we're projecting 1000 starts and volume near \$22 million. Our homes are \$24,000 to \$50,000, and we started our first condo project this summer. The area is growing rapidly, and we're growing with it.

“MGIC has been very helpful, in encouraging New Jersey savings and loan associations to handle loans that exceed 80% of the loan to value ratio. Most of our customers couldn't get loans without MGIC insurance. And we appreciate the extra protection this insurance provides.”

Want the same kind of help? Talk to your MGIC representative. Or call Jim Reichert toll-free, at 800-558-9900; in Wisconsin the toll-free number is 800-242-9275.

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A proliferation of presidents: Housing industry associations tool up for 1974

Housing groups and associations like to start the new year with a new chief.

Among them is the Builders Institute of Westchester and Putnam Counties in New York state, which elects **Joel Halpern** as president. He succeeds **Jack Desmond** of Bedford, an investment builder with \$50 million worth of residential projects currently to his credit in the Westchester area.

Halpern steps up from presidency of the constituent Builders Council of Suburban New York, where he is replaced by **Seymour Orlofsky**.

Orlofsky has been a well known figure among builders in lower New York state for a long time. Among other things, he founded the Home Builders Association of Westchester, which later changed its name to the Builders Institute.

On the other coast, the Associated Home Builders of the Greater Eastbay (San Francisco environs) elects **Gordon E. French** as president and installs him at a dinner gala.

French predicts a sharp fall-off in California's starts this year but professes to see a silver lining in the storm clouds. He asserts that "the time is at hand for developers and ecologists to begin working together." The two sides have been at war with each other for some time in that state.

The Southern California Mortgage Bankers Association names **Edwin S. Bingham**, president of Ralph C. Sutro Co. of Los Angeles, to replace outgoing president **Norman R. Hall** and **C. Larry Hoag** becomes the 67th president of the California Real Estate Association. It elevates him at an impressive dinner ceremony in Los Angeles.

The Canadians move on stage, too. The 7,500-member Toronto Real Estate Board chooses **Maurice W. Park** as its 1974 president. His early essays as spokesman call for a reorientation of the Canadian government's attitudes toward housing and property rights.

Finally, in the Midwest, **Thomas S. Osborne** becomes president of the Home Builders Association of Indiana. Osborne replaces **William R. Fox Jr.** in this post, to which he moves from first vice president. Osborne has also served as vice president and



TORONTO'S PARK
Canadians, too, face regulation



NEW YORK'S HALPERN
Taking over in Westchester



CALIFORNIA'S FRENCH
Wants detente with ecologists

director of the Indianapolis Board of Realtors.

The National Association of Realtors, meanwhile, installs a Midwesterner to head things in 1974, **J. D. Sawyer** of Middletown, Ohio, a Realtor who managed the successful 1968 election campaign of U.S. Senator William B. Saxbe, a not-unfamiliar name. Sawyer has testified before several U.S. House and Senate committees. And the Society of Real Estate Appraisers



COLWELL'S NORDQUIST
Stepping up in Los Angeles

Colwell Co. gets a new president too

The board of directors of the well known California mortgage banking company names **Paul R. Nordquist** as its new president to replace **Robert E. Morgan**, 53, who is retiring. Morgan will retain ties with the company as a consultant.

Nordquist came to Colwell in 1955 after working for Fannie Mae in Los Angeles; he has been an executive vice president of the company since 1971 as well as chief operating officer. He is on Colwell's board of directors and acts as president of the Colwell Management Co., a wholly owned subsidiary that administers the Colwell Mortgage Trust.

in Chicago selects another Ohio man, **A. E. Reinman Jr.** of Youngstown, as its 1974 inter-

national president. He has also served the Society as vice president and in other posts.

Founder of Ryan Homes drops out, sort of —elsewhere, builders step up and onward

Edward M. Ryan, founder of Ryan Homes of Pittsburgh, Pa., resigns from the chairmanship of the company that he has headed for 25 years. Picking up the reins is **Malcolm M. Prine**, who succeeded Ryan as president in 1970 and chief executive officer in 1971.

"The detailed administration of a large company does not give me the same satisfaction as working in a small organization," Ryan explains. "For the past four years we have been developing our management team so that I could step down and do other things in the company."

Elsewhere, **David A. Ladd**, 37, takes over as president of the Robino-Ladd Co., developers and builders, with headquarters in Wilmington, Del. He succeeds **Frank A. Robino Jr.**, who retains the chairmanship.

U.S. Home Corp. promotes **Wesley G. Mohr** to the senior vice presidency of its western region (Chicago to Phoenix). In years past, Mohr has also been a senior vice president with Avco Community Developers in California and has run the international operations of Del Webb Corp.

Avco has a new vice president too, **Raymond A. Peloso**, who moves up from general manager of one of the company's California developments. Weil-McLain Co. of Dallas also reports a change. **R. Don Wilson** takes up the presidency of the Davis Homes division, the conventional-housing subsidiary. He

moves over from the manufactured-home subsidiary, Continental Homes.

J. Donald Olson becomes executive vice president and general manager of Hallcraft Homes of Los Angeles, a division of Hallcraft Homes of Phoenix. Olson fills the spot left open by the resignation of **Thomas E. Breen**.

And Broadmoor Homes of Tustin, Calif. gets a new vice president—of land development and marketing. He is **Robert Jacobs**, who was a vice president of McKeon Construction Corp. of Sacramento.

Miami builder starts one-year prison term

Homebuilder John Priestes surrendered to U.S. marshals in Miami last month to begin serving his one-year term for FHA-related crimes. His first stop was at Dade County Jail, where he was to stay until federal officials decided where he would complete his sentence.


Priestes' testimony implicated Senator Edward Gurney of Watergate committee fame in an illegal fund-raising scheme [NEWS, Jan.]. Giving his case another Watergate twist, Priestes has also claimed that President Nixon's fund raisers approached him in 1972 for \$100,000 that was to help "solve his legal problems."

—FRED SHERMAN
McGraw-Hill News, Miami

Winter or summer, RIMCO wood window units do a better job of conserving energy—naturally. Select kiln dried woods are among the most efficient insulators devised by nature. And in the skilled hands of RIMCO craftsmen, wood is even better. All wood parts are preservative treated through and through, and superior weatherstripping is used on every window. Several models also feature maintenance-free CLAD-X interior and exterior surfaces with KORAD acrylic film that requires no painting and protects the wood. RIMCO windows conserve your customers' energies, too, with work-saving features like engineering that permits both sides of the glass to be washed from inside the home. Now that there's an energy crisis, RIMCO wood window units are, more than ever, your best choice.



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Over 620,000 sq. ft. of manufacturing space from 2 strategic locations, assures "on time delivery", quality certified products-competitive pricing.

But, the big plus you realize as a Capitol customer, is the variety of product line that provides precisely the door or window for your particular needs. Insulated and single glazed Rolling and Single Hung Windows...The ultimate in Patio Rolling Doors...and options such as inside or outside storm and screen paneling, a variety of fixed lites and mulls...framing to adapt to Fin, Buck or Receptor installation. What ever the need, you can depend on Capitol. And Capitols, PPG baked-on enamel colors bring "personality" and sales appeal to your building.

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Our Shadowline™ stone-on-plywood Sanspray® siding has a vertical groove pattern so there's no need for battens or mouldings. The shiplapped edges give a smooth fit and appearance which means you could nail up a wall a mile long and virtually never see a joint.

The distinctive look of Shadowline can give a vertical relief to a long horizontal wall. It incorporates a regular stone aggregate with $\frac{3}{8}$ " wide, $\frac{1}{4}$ " deep grooves every 8 inches. And because the look is special, tones are special — 7 of them — ranging from cool white to warm tangerine to a glisteny black. Sizes in 4' x 8', 9' and 10'.


The best part about this one is what you can't miss.

If you're looking for a chunky, rugged look, there's our new Jumbo aggregate Sanspray. We use oversize chips of stone for this texture. It gives you the look of pre-cast concrete without the weight — or the cost. And anything this natural deserves natural colors. Like Gaelic Green, Northern White and Tangerine. Sizes up to 5' x 12' are standard. Special sizes on order.

Besides Shadowline and Jumbo, we also have large- and regular-aggregate Sanspray siding.

Find out more about our extensive line of exterior cladding at your local U.S. Plywood Branch Office. Especially Sanspray — a face of stone, but a heart of wood.

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Meet the miser.

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"Hi/Lo" stands for high efficiency and low sound level. Up to 26% less energy consumption than our already efficient Cool Cube central air conditioning units. Because of the increased heat transfer efficiency of a new condenser coil surface.

And nearly twice as quiet, too, as

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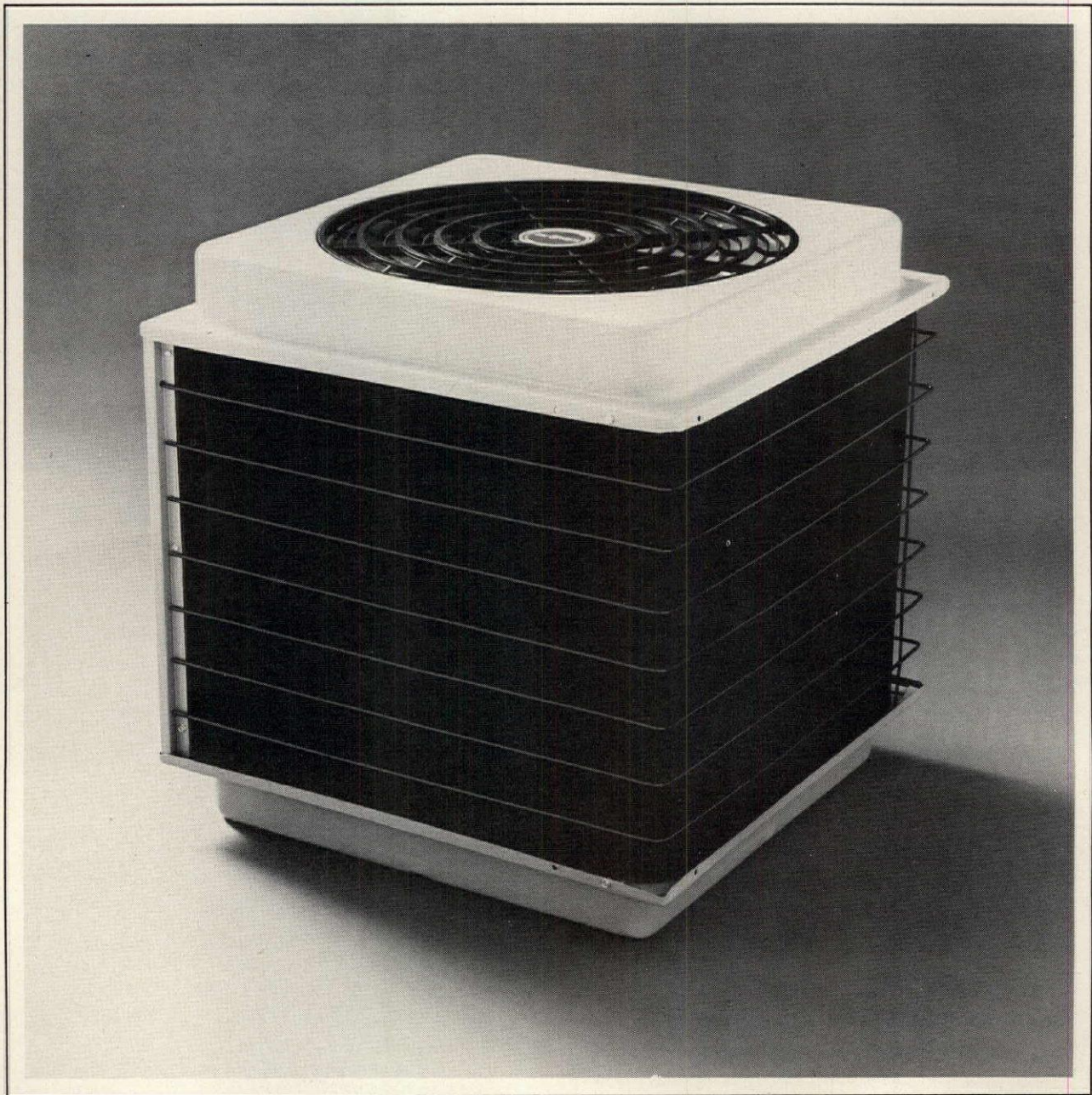
compartment and muffled discharge line.

Furthermore, Hi/Lo's dependable reciprocating compressor design has been in use for years. So you can count on high reliability.

Meet the miser now. Day & Night's quiet new Hi/Lo Cool Cube.

Contact your Day & Night distributor.

He's the man with the answers. Even during an energy crisis.



Hi/Lo Cool Cube.

With Spacemaker cabinets you can get up to 25% more storage without increasing floor space. And that's a big plus whether you're in remodeling or new construction.

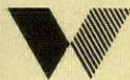
The secret is in our 15" deep wall cabinets, our unique 42" high model, door-mounted shelves (optional) and our extra-spacious drawers. If you're not concerned with extra space and want a standard kitchen, all Spacemaker wall cabinets also come 12" deep.

You'll find Spacemaker big on looks, too. Both sides of doors, panels and shelves



are permanently laminated with pecan wood-grain polyester sheets. And because tops and bottoms are finished, wall cabinets can be inverted, eliminating the need for rights and lefts.

In addition, Spacemaker has some very unique construction features. For details, see your Yorktowne distributor or write for our brochure. Yorktowne, Red Lion, Pennsylvania 17356. Manufacturer of fine kitchen cabinets since 1936.

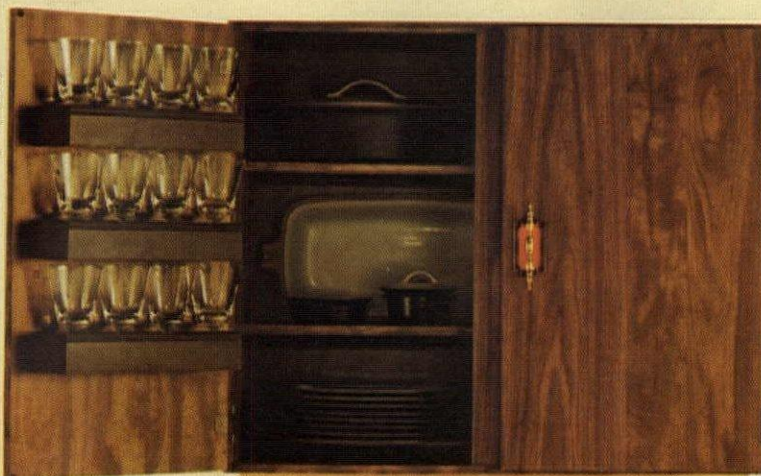


Yorktowne

A Division of The Wickes Corporation

Spacemaker makes any kitchen larger without knocking out walls.

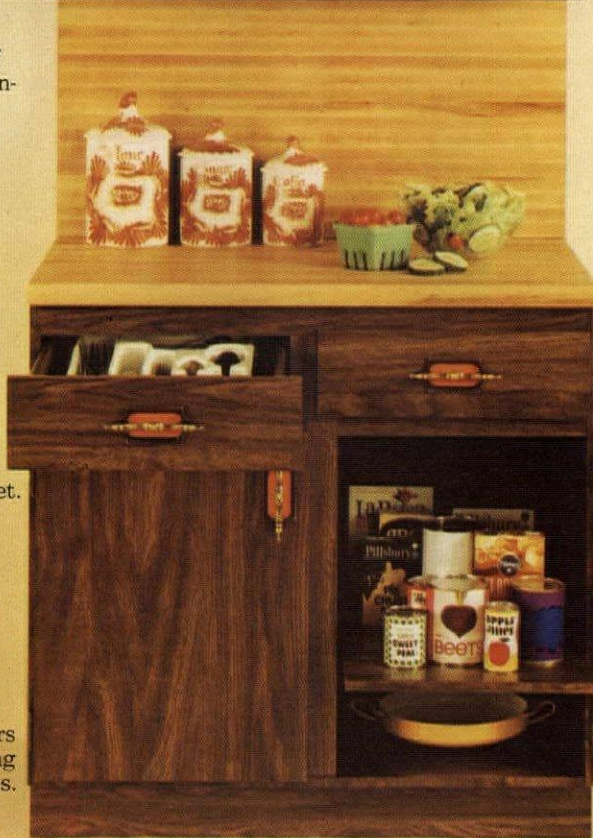
Available in all standard heights plus new 42" model.



Cabinets are finished inside and out with tough, pecan polyester laminate for easy cleaning and lasting good looks.

Handsome hardware with open back plate. Want color? Add accents!

15" deep units have added shelf depth plus optional door storage. Store more!

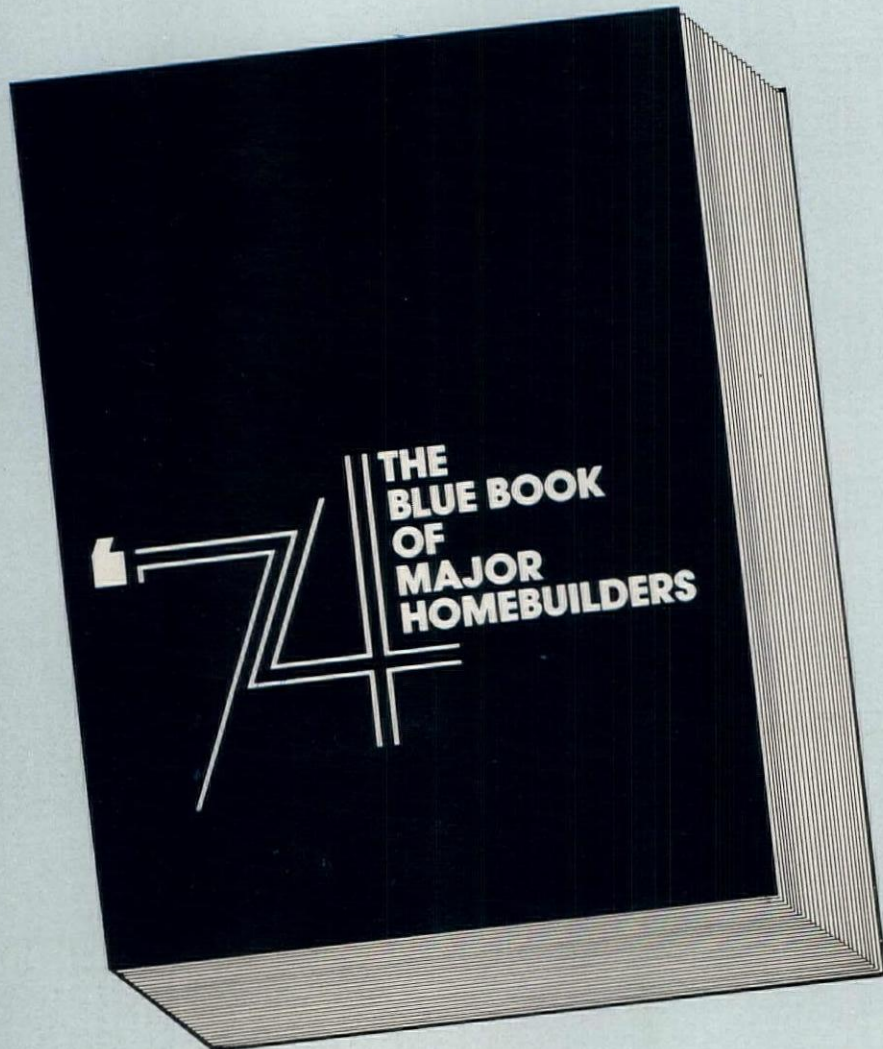


Self-closing drawers, larger than any others on the market.

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- "By knowing who is building what, we can gauge the changing nature of the nation's new homes and apartments."
- "An excellent reference in determining the development trends in the larger metro areas."
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- "In understanding the relative positions of the major home builders."
- "We must know who the leaders are!"

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- "An excellent source of information on 'out of town' builders operating in our metro area."
- "Useful in locating joint venture prospects."
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- "We use the book in trying to determine large builder share of specific markets, assessing the builder's outlook and screening acquisition candidates."
- "We have used the book for several years. It is well done and is constantly being improved in its scope and detailed information."
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- "The Blue Book puts it all in one place. We would be lost without it."
- "Its uses are too numerous to mention."
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- "An invaluable tool in helping our clients."
- "Very useful in researching the state of the building industry."

Quotes are in response to solicited comments from 1973 Blue Book buyers.

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HH 274

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Project planning: How much should you pay for architectural expertise?

Take a 150-unit condo townhouse project with recreation facilities, for example. Your planning and design costs could range all the way from \$30,000 to \$150,000.

So reports the American Institute of Architects after surveying 175 architectural firms that spend from 30% to 100% of their time on development housing work.

The survey was conducted by a subcommittee of the AIA's Housing Committee. Its purpose: to study the increasingly close relationship between architects and housing developers.

Design and planning charges, often a bone of contention between architects and builders, were among the major areas covered. And despite the wide range between the high and low charges reported, adjusted average figures provide a good clue as to what developers are paying for top-notch architectural design. For example, in that 150-unit townhouse project, the adjusted average charge was \$52,644.

Firm profiles. Most of the companies surveyed are relatively large (with an average of 21 technical personnel). They are well established (in practice for an average of 17 years)—an indication, the AIA says, that good housing design requires expertise and experience.

That experience ranges from mini-projects (four units) to giant projects (11,000 units); but the adjusted average is 182 units. Some 83% of the firms' work was for sites either within their immediate localities or their states; only 16% involved single-family detached housing; and a majority (64%) was privately financed.

Survey set-up. Each firm was asked to break out its charges (based on past experience) for five project types: single-family, condo townhouse, garden apartment, high-rise condo and PUD. The questionnaire spelled out what was required in terms of design and scope of services for each project type.

The townhouse project, for example, was to include five different plans (averaging 1,600 sq. ft.), enclosed parking adjacent to each unit, a 2,000-sq.-ft. community building, an outdoor swimming pool, two tennis courts and related common

ATTACHED TOWNHOUSES					
Description: 150 condominium townhouses; density, approximately eight units per acre; one- and two-story plans averaging 1,600 sq. ft.; enclosed surface parking adjacent to each unit; 2,000-sq.-ft. recreational building; outdoor swimming pool; two tennis courts; related common areas.					
Services: Overall site planning; design of units and building; processing through public agencies; preparation of lender package; coordination of work prepared by client's consultants for civil engineering landscape and design; complete construction drawings with specs as required for building department and lender approval; fee includes structural engineering; other services extra.					
	Low	Med. low	Average	Med. high	High
Total fee	\$30,000	\$35,000	\$52,644	\$75,000	\$150,000
Per unit charge	100		366		1,000
Profit expected	10%		22%		60%
Related questions					
Response					
Separate charge for site plans?	Yes: 66% No: 34%				
Average response					
Variation in fee and/or payment schedule if project built in two equal phases	75% first phase, 25% second phase, with 10% increase				
Charges for use of same unit plans in same or another project and for new site planning	Hourly charges for site planning and changes with an additional royalty varying from \$35 to \$200 per unit				

LOW-RISE APARTMENTS					
Description: Two-story buildings containing 150 units; separate carports; 1,200-sq.-ft. clubhouse with moderate recreational facilities; density of approximately 23 units per acre; middle-income family market.					
Services: Schematic and preliminary site plan and unit development; processing through planning authority; preparation of lender package including exterior design studies; complete construction drawings with specs as required for building department and lender approval; structural engineering included, other services extra; on-site supervision limited to interpretation of drawings and periodic field observation.					
	Low	Med. low	Average	Med. high	High
Total fee	\$20,000	\$25,000	\$42,694	\$60,000	\$120,000
Per unit charge	142		276		800
Profit expected	8%		20%		45%

HIGH-RISE CONDO APARTMENTS*					
Description: 20-story building with five units averaging 2,500 sq. ft. per floor; two underground parking spaces per unit; recreational facilities including two tennis courts, swimming and therapeutic pools, a clubhouse with pool tables, small kitchen, exercise rooms, toilet, showers and locker facilities.					
Services: Schematic and preliminary design; processing through planning authority; preparation of lender package; complete construction drawings and specs including all structural, mechanical and electrical engineering; normal construction inspection including review and approval of shop drawings.					
	Low	Med. low	Average	Med. high	High
Total fee	\$52,000	\$95,000	\$159,000	\$200,000	\$350,000
Fee in relation to construction costs	3%		4.65%		7%
Profit expected	10%		20.15%		50%

*Responses were similar for four- to nine-story buildings

areas.

Architects were to plan the site, design the buildings, process the project through public agencies and prepare a lender's package. (For a breakdown of the firms' reported charges for each project type, see the tables on this page and on page 60).

Setting fees. In general, the companies establish their charges in one of two ways:

- Lump sum quoted for entire

design package. Site visits usually are extra on an hourly basis.

- Hourly charges through the schematics and city processing stages, plus a lump sum for design development and construction drawings and specs. On-site observation charges are billed as a lump sum or on an hourly basis.

What about percentage-of-cost arrangements? They're not feasible in low-rise housing, the architects say, because of

variables in services requested and because final construction costs often are not known by the architect. However, they are used at times for government-controlled or high-rise project jobs.

Hourly rates, which figure in most architect-developer contracts, are set on the basis of who's doing the work. Here are average rates set by the firms for various categories of employees:

TO PAGE 60

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on-one counseling from The Man from National—putting his talents and experience to work in *your* behalf.

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Send the coupon now. Or faster, yet, **phone us at (317) 447-3232**. Like the 1200 builders who joined us last year, you've got good reasons for joining us this year.



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HH-2

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YES! I want to be a profit builder. Send the Man from National nearest me.

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City _____ State _____ Zip _____

Phone _____ Area Code _____

In the past 12 months I have built _____ living units: _____ single family _____ townhouses _____

apartments I have _____ lots. My typical selling price is \$ _____



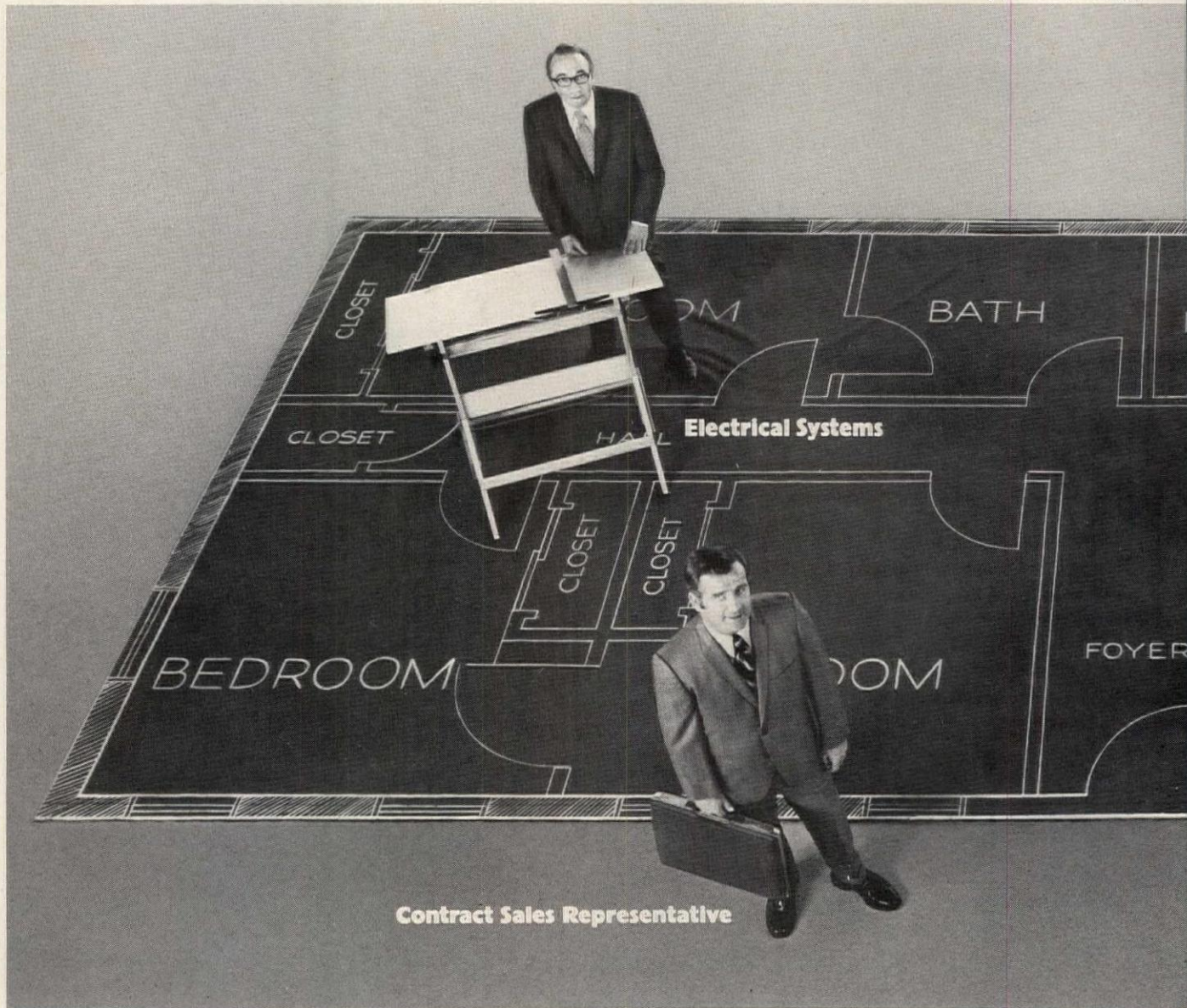
More families live in National Homes than any other homes in the world.



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Philip J. Drieci

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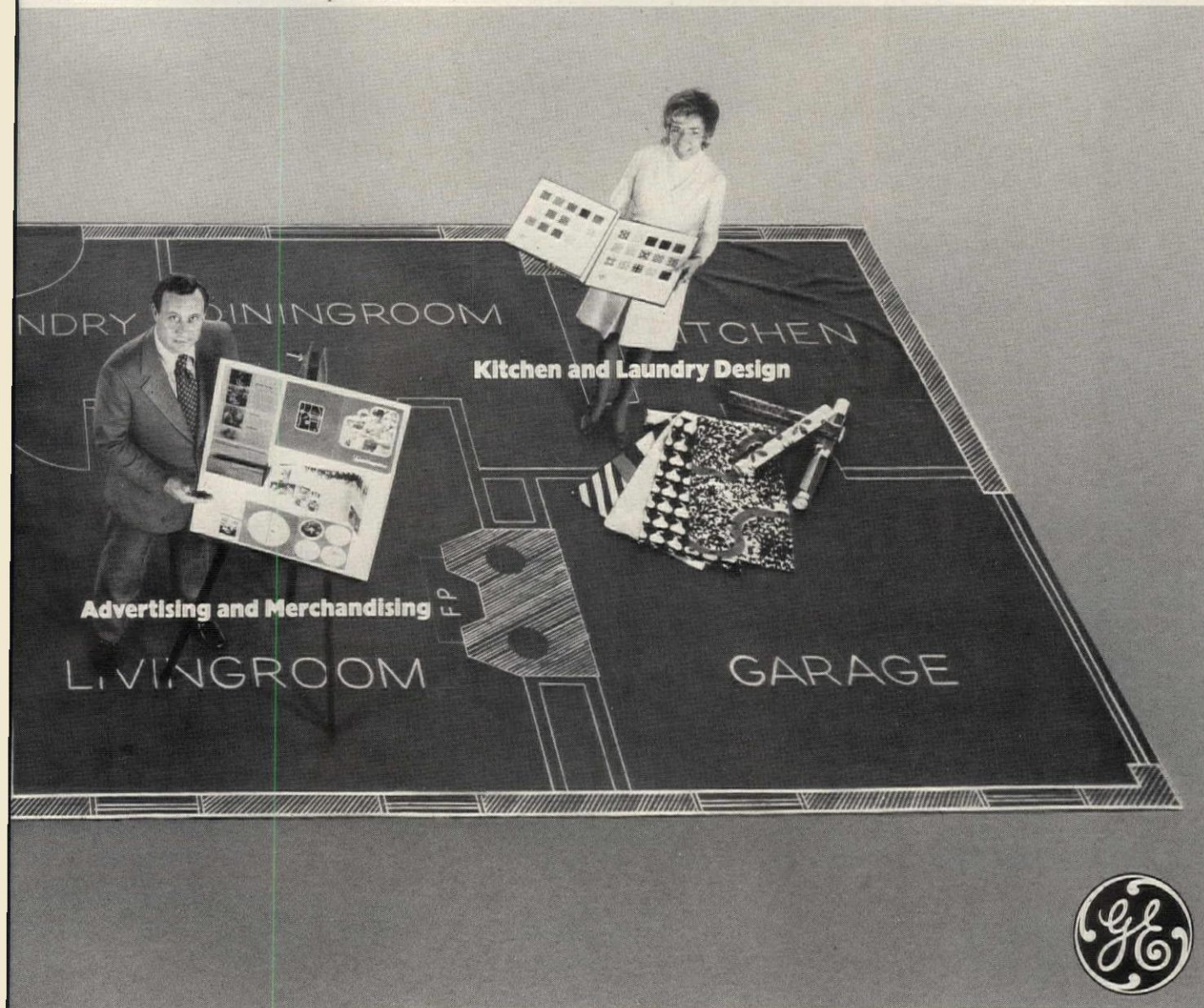
If it's Kitchen and Laundry Design problems, he can consult our Certified Kitchen Designers and their staff.

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He also has a computer system which we call the Contract Register to record data on quantity, models, door swing, color, voltage, etc. together with date and place of delivery. From time to time, he'll review your schedule with you and update your delivery requirements.

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Builders who switch



...don't switch back.

to Super-C steel joists

Many builders find they save 20% or more on their floor systems, with Super-C steel joists.

Many builders across the country who have switched to Super-C Steel Joists for their floor systems report significantly lower costs, compared with wood. And 20% is by no means the upper limit.

Here are some reasons why these joists are cutting costs... and why builders who have switched don't go back to wood.

They cost less to install. Not "maybe." Facts prove it. Steel joists are up to 20% lighter than wood—so they can be handled and installed quickly by just 2 men. And Super-C's extra strength permits greater spans and greater spacings, reducing the number of joists as much as 60%.

They give a better floor system. Developed by U.S. Steel, Super-C joists are hot dipped galvanized steel. They don't shrink or warp. Floors don't squeak. Nails don't pop. You should expect no callbacks from a floor system based on Super-C joists.

Many applications are possible. First floors, upper floors, flat roofs—for single-family houses, townhouses, apartments, shop built or field assembled. They've all been "proved out" by builders in the field. And plywood decking or concrete floors can be used.

For detailed information, send for our highly factual booklet, which includes typical applications, load span tables and architectural details—as well as the name of the manufacturer of Super-C joists serving your area. United States Steel, Pittsburgh, Pa. 15230.



United States Steel

United States Steel (USS C222)
600 Grant Street
Pittsburgh, Pa. 15230

Dear Sirs: Please send me your booklet on Super-C joists.

Name _____

Title _____

Company Name _____

Address _____ Phone _____

City _____ State _____ Zip _____

Type of units _____ How many? _____

Name of architect or project engineer who should also get this booklet: _____

FROM PAGE 54

Principals	\$35.25
Architects	24.65
Project managers	22.82
Designers	21.18
Draftsmen	16.06
Other	13.37

Other matters. The survey also revealed the following:

Architects are as concerned as developers about costly processing delays—particularly in the large metropolitan areas and in California. And even where processing has not been a problem until now, they expect difficulties to crop up as pollution control and no-growth support increases.

How long does it take to process a project? According to the survey: two to 24 months for PUDs, one to 30 months for low-rise apartments, one to 40 months for mid- or high-rise apartments and two to 18 months for master planning.

More and more architectural firms are offering complete design and service packages—either in-house or through direct supervision of outside consultants. And the AIA sees the trend continuing as developers become more sophisticated and as tougher subdivision regulations are enacted. A clue to the growing trend: 51% of the firms include economic feasibility in their contracts, either on an in-house or supervisory basis. Similarly, 55% include market analysis. (See bottom table for a breakdown of what services the firms supply.)

Many architects are becoming developers. Almost half the respondents (46%) have initiated housing projects—either on their own or in joint ventures with builders. Some firms have put together packages to sell to developers. And about 40% of the companies report financial participation in projects they design—not always by choice but because payments are long delayed. When financial participation is voluntary, the architects usually waive their fees in return for equity participation in the project. But details of such arrangements vary widely, according to the AIA.

What of housing's future? Many architects predict a continued increase in the size of projects and cite a need for more innovative designs.

Said one firm: "Projects seem to grow in size and scope every

year. There will be more central city projects."

Said another: "We'll have to come up with new designs like the cluster plan and zero lot line homes. Total living environ-

ment and recreational housing will become more important."

A third firm predicts an increase in PUDs and more sophisticated and complex developments—along with a further

decline in single-family subdivisions. And the same company, echoing many industry members, calls for new government subsidy programs for the lower and middle-income markets.

SINGLE-FAMILY DETACHED HOUSES

Description: 100-family R-1 subdivision; four floor plans averaging 2,000 sq. ft. each; three elevations for each plan; middle price range; to be built on relatively level lots with normal setbacks on four sides.

Services: Development and design of houses; construction drawings including structural; plotting of homes on tracings or sepias furnished by developer's engineering firm; specs not included except as needed for building department or lender approval; construction administration limited to interpretation of drawings and periodic on-site observation.

	Low	Med. low	Average	Med. high	High
Total fee	\$10,000	\$14,500	\$24,322	\$45,000	\$82,500
Profit expected	10%		25%		50%
Compensation breakdown					
Each single-level plan	\$500		\$2,690		\$6,000
Each multi-level plan	350		2,900		6,000
Each exterior elevation	250		563		1,000
Each lot plotted	7.50		78.35		500
Charge for re-use of design over 100 homes*	25		84		200

*Not included in total fee

PLANNED UNIT DEVELOPMENT

Description: 500-acre project on periphery of rapidly urbanizing area to include apartments, townhouses, patio homes, single-family detached houses, shopping area, recreational facilities and an elementary school.

Services: Site analysis; conceptual planning; coordination with client's other consultants and with local planning agency; zoning approval; detailed planning to support client's cash flow analysis; architectural character sketches; assistance in preparation and presentation of lender package; later-stage coordination; possible plan changes during program's implementation.

	Low	Med. low	Average	Med. high	High
Total fee	\$9,500	\$17,500	\$28,200	\$37,500	\$80,000
Expected profit	10%		19.6%		33%
Compensation breakdown					
Retainer	\$ 500		\$3,500		\$10,000
Site analysis	1,000		4,611		8,000
Conceptual or exploratory planning	2,000		8,090		15,000
Detailed or final planning	2,000		7,909		15,000
Architectural prototypes	1,250		7,916		20,000

Related questions

What services are provided on an hourly basis?

Response

Coordination and presentations to public agencies; participation in cash flow programming; lender package preparation and presentation; implementation coordination; revisions

Yes **No**

Are charges set on per-acre basis?

22% 78%

Would you quote lump-sum fee for all services?

50% 50%

Does your contractual approach protect you from misunderstanding about plan changes requested by client vs. normal alternative plan exploration techniques?

91% 9%

SERVICES PROVIDED BY ARCHITECTS

	In-house	Consultants	Exclude
Economic feasibility	35%	16%	59%
Market analysis	31%	24%	65%
Environmental analysis	53%	30%	39%
Planning	88%	24%	4%
Civil	24%	56%	14%
Architectural	98%	4%	2%
Structural	27%	80%	2%
Mechanical	24%	86%	10%
Electrical	24%	86%	10%
Sewer & water systems	14%	76%	24%
Landscape architecture	41%	58%	22%
Interior design	55%	24%	31%
Jurisdictional processing	84%	4%	22%
Exterior color coordination	98%	4%	6%
Construction observation	94%	2%	16%

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Modular housing: why rocky road for some is smooth road for Deltona

At a time when most modular-builder stories read like old Greek tragedies, the Deltona Corp. has been gradually—and successfully—converting its Florida homebuilding operations from stick-built to modular.

Deltona's success—in a business strewn with disasters—stems from three factors:

- The company's established position (the Mackles have built some 25,000 homes in 60 years) plus a built-in market at Deltona's seven planned communities in the state.

- A cautious, get-your-feet-wet-slowly approach in introducing modulars into the communities. (In 1972, factory-built units accounted for a mere 10% of 981 single-family sales; in 1973 the figure jumped to 83% of 850 sales.)

- A pre-sale setup whereby each modular coming off assembly lines at the company's two plants has a buyer waiting in one of the communities.

Operation conversion. The changeover from stick-built to modular homes has been a three-generation operation. It began late in 1970 when Deltona introduced Generation I (*top photo, right*) at its St. Augustine community. These FHA-financed models were code-conforming, cost \$14,500 to \$24,000 and had aluminum siding, pre-finished paneling and acoustical ceilings. A national promotion led to 200 sales, but buyer resist-

ance developed because the units had a mobile-like look.

Generation II (*center photo, right*), born late in 1971, involved mainly aesthetic changes. These models, which looked more like conventional homes and cost from \$17,500 to \$25,000, were really experimental, says Frank E. Mackle III. Deltona sales of these models were confined to a 30-unit Sarasota subdivision; another 50 to 60 were sold to other builders.

Generation III, the current product (*bottom photo, right*), was introduced late in 1972. Basic changes included the substitution of concrete for wood floors (*see below*) and more customized on-site additions like carports or garages and brick or stone veneer siding. The price: \$21,000 to \$32,000.

Why the changeover? Basically, says Mackle, the company is converting from stick-built to modulars in order to overcome common industry problems—quality control when geographical expansion hampers on-site supervision plus the difficulty of getting material deliveries to jibe with scheduling.

"And we don't have to stop building every time it rains," he adds.

As to company hopes that a factory operation would provide a lower-cost house, says Mackle:

"Even though our manufacturing operation enables us to build good quality homes efficiently, we can't promise dra-



Generation I: Mobile-home look turned off some prospective buyers.



Generation II: Wood floors required air space between ground and floor.



Generation III: Concrete floors allow modular home to be built at grade.

matic savings at the present time."

"But we do believe we can control inflationary pressures better in the plant than we could on site. So in the future, we'll be

in a more favorable position."

The company's two plants—at Bradenton and St. Augustine Shores—have a one-shift, 2,000-homes-per-year capacity. A second shift can double that figure.



Concrete floors: a bow to Florida tradition

Florida housing's typical low-profile, ground-hugging look—a mark of Deltona's newest models (*Generation III*)—was achieved by switching from wood to reinforced concrete floors. Says Frank Mackle III of Deltona: "At first we thought our buyers, most of whom are from the Midwest and East, would prefer the wood floors they were accustomed to. But they soon learned that in this climate, concrete is the answer."

The concrete floor-building technique (*shown above*) starts with a box-like frame of steel patterned to the exact size of the house. Steel mesh is spot-welded into the frame, then concrete is poured to a two-inch depth. The complete foundation is placed on a steel support and wheeled the length of the plant as the house is completed. The extra cost of concrete floors was offset by eliminating foundations and crawl spaces.

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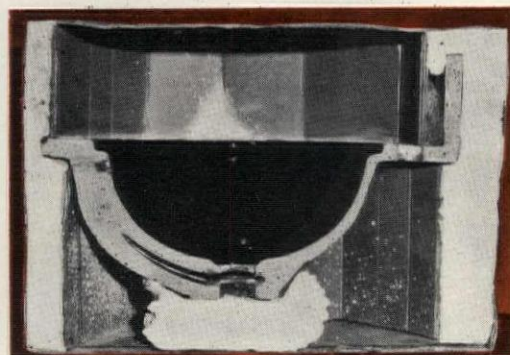
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43"	35.55	sidesplash	decorator
49"	39.15		colors.

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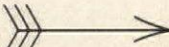
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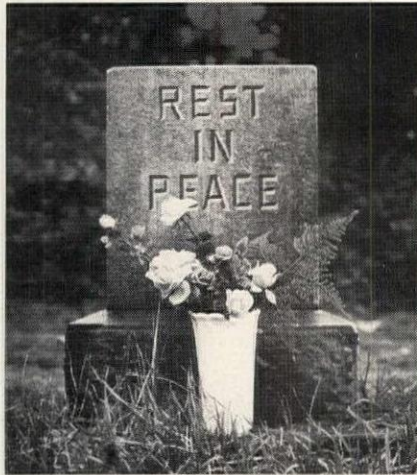


Jan. 1974: The end of the



concrete foundation begins.

Read on 



The All-Weather Wood Foundation could mean the demise of the concrete foundation. Crazy? Is saving \$300 per home crazy? Read this plywood ad.

In Bakersfield, California, there are homes with wood foundations sixty years old and still in great condition.

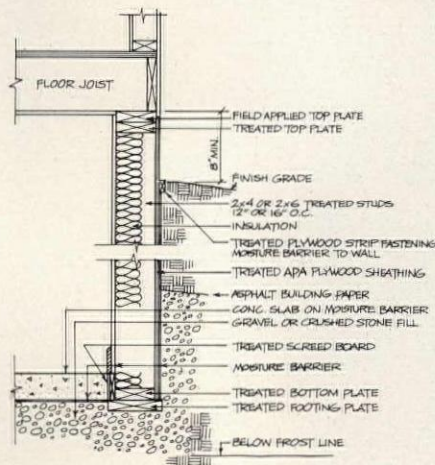
In Madison, Wisconsin, a pressure-treated wood foundation was tested for thirty years. It's in excellent shape.

And how about utility poles?
And pilings for high-rises?

Both are long-standing proof that wood, when preserved correctly, will last almost indefinitely underground.

What it is.

The All-Weather Wood Foundation is a new way to install house foundations in terrible weather. And in sunshine, it's a new way to build six times faster than concrete or masonry.



It's a pressure-treated plywood-sheathed stud wall below grade. Exterior is covered with polyethylene film. Joints are sealed. And a concrete slab is poured over a gravel base.

Install in lousy weather.

"We proved it could be done in January when the wind-chill factor was -40° and the depth of the frozen ground was 3 to 4 feet." —Robert Bergquist, Citation Homes, Spirit Lake, Iowa.

We all know that concrete foundations place the builder at the mercy of cold, wet, miserable, freezing weather.

But weather is no problem with a wood foundation. The builder can keep a crew the year around. And stick to a schedule. Even in sub-zero temperatures.

Save \$300 per home.

According to the NAHB Research Foundation, the All-Weather Wood Foundation costs \$300 less for a typical 1,000 sq. ft. house — and requires 60 fewer man-hours on site compared to a masonry foundation (Sept. 1973).

The wood foundation is outrageously fast. In a 1969 NAHB project, a five-man crew installed a wood foundation in 1½ hours as compared to 10½ hours for a concrete block foundation.

Component construction.

Shop-built panels can be installed in a fraction of the time as on-site construction. For example, Shoemaker-Wells Homes of Milan, Illinois, installed a full-basement wood foundation, interior wall (studs only), stairway and panelized first floor—in just over two hours.

There are many other advantages of the All-Weather Wood Foundation explained in a new book by APA. Send the coupon.

Maybe this isn't the end of the concrete foundation.

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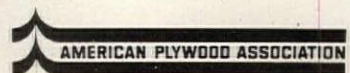
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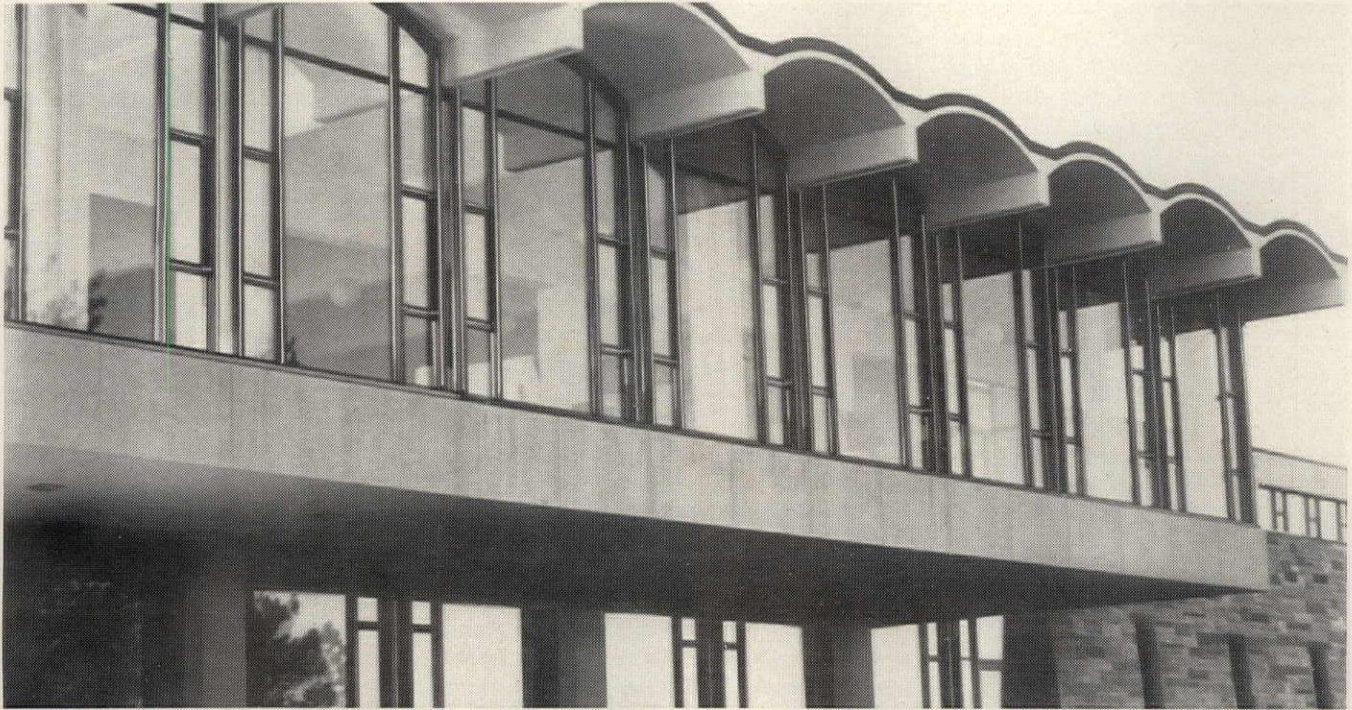
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"There's more to building a man-made lake than filling a hole with water . . . So before you start digging, consider these potential problems"

If you're planning a lake-oriented community, don't think all you need do is excavate, bring in water and sell houses around it. Before you turn a shovelful of dirt, there's a lot to be considered in terms of financial viability, siting and design and on-going management. Here are some points that may alert you to possible pitfalls as well as encourage caution if someone says: "What this project needs is a lake."

Financial viability. A major question is how much more you'll have to charge for your housing because of lake-related expenses, including the value of lots lost to water. If your market can't absorb those added costs, you could easily lose out to your competition. Although a lot of buyers in the past have been willing to trade off accessibility to shopping, jobs and public facilities for the advantage of living near water, the gasoline shortage could change this attitude. In the future, developers of large, non-urban projects may have to include more facilities as well as commercial and industrial areas. So, expenditures for a lake would be in addition to, and not a substitute for, such outlays. A related caveat: Unlike other amenities, lakes generally are not built in phases. Their costs are almost all front-end.

A second financial consideration involves lake maintenance—particularly if the lake is to be privately owned. Again, your market's ability to absorb such costs must be considered. Don't try to avoid this problem by setting too-low assessments to stimulate sales; you may be opening the door to a future class action suit by the residents.

And don't try to save money by having a less-than-thorough engineering siting-and-design study. One Virginia project, which skimmed on its study, is now faced with removing 185,000 cubic yards of silt at an estimated cost of \$750,000—a hefty maintenance outlay. Since on-going construction will cause the greatest amount of early siltation, you might arrange to pay the largest share of lake-maintenance costs until the project is built out.

Siting and design. The record is filled with stories of lakes that don't hold water, fill in with silt or are choked with algae. Even if you follow all applicable local, state and federal regulations, you won't necessarily avoid these problems. Not only may the regulations be incomplete, but each site is different and requires special analysis. Some questions you may ask:

- If surface runoff is to be the main water source, is the drainage area large enough to

maintain desired water levels and small enough so that expensive overflow structures are not needed? Remember, the project's buildings, parking lots, roads, etc. will increase runoff dramatically.

- Will runoff be relatively silt-free? This will depend on slope, soils and cover of the watershed as well as on proper implementation of erosion control measures—particularly during build out time.

- If the lake will be created through stream impoundment, does the stream ever go dry? And will the stream feeding the lake receive a significant amount of pollutants from upstream sources?

- Will the lakesite hold water? This depends on the thickness and imperviousness of the lakebed soils.

- If an earthfill dam is planned, will its foundation be stable and provide enough water resistance?

- Is there sufficient fill available nearby or will it have to be trucked in from a distance at great expense?

On-going management. Early decisions on who will manage the lake and adjacent lands and how the lake will be used are as important as financial and design considerations.

The developer must determine who will have access to the lake: riparian property owners only, or all the project's residents. If the latter, convenient access routes should be laid out and a band of shoreland placed under the jurisdiction of an entity other than riparian homeowners.

In the early planning stage, the developer should also decide whether swimming and boating will be permitted. A yes answer means the developer must establish:

- Beach areas (whether they're to be completed by the developer or the homeowners) so that they are equally available to all residents.

- Provisions (if the lake is privately owned) for funds to meet beach replenishment costs, hiring of lifeguards and installing and maintaining bathhouses, etc.

- A schedule for monitoring water quality.

- Criteria for handling problems created by motorboats, e.g., noise, oil and gas dis-

charge, shore erosion and increased insurance costs.

Concurrent with boat usage, are the questions of boat storage and the desirability of building a marina. If you decide on a marina, who will own and/or operate it? A commercial operator under a lease or the homeowners association? If the latter, there's a question as to whether profits from marina services would jeopardize the association's tax status.

Sidelights. Leaves, fertilizers and car-washing detergents carried by surface runoff or through storm drains can turn a lake into an algae-choked bog. Excessive use of pesticides can lead to their accumulation in lake sediment and in biological food chains—a particularly dangerous situation if the lake is to be used for fishing. Trash and litter can turn the shoreland and water surface into an unsightly mess. And unregulated land clearing by residents can increase siltation rates.

It's the developer's responsibility to provide legal documents spelling out the lake management group's authority to control such activities. One way to handle this is to create a committee specifically charged with environmental management [THE ENVIRONMENTAL SCENE, Dec. '73]. Or an environmental trust could be created and given jurisdiction over the lake and a strip of the shoreland. Such a trust, supported by a portion of homeowner assessments, would remove lake management from community politics, provide better guaranties to the developer of continuing lake quality until build-out and allow more comprehensive, focused lake management.

Whether the lake is under a trust, a homeowners association or is dedicated to public use, residents should be provided with a guidebook explaining the need for lake and land management and the procedures by which such management is best accomplished. The book could include a list of management information sources such as relevant governmental agencies and private conservation groups.

Remember, a lake is built to provide profits as well as enhance the environment. If it is improperly planned, built or managed, you are the loser. If it turns into a disaster area your sales will suffer, residents will complain, somebody will have to bear clean-up costs and it will be harder for you to convince prospects in your next development that you are a builder to be trusted.

WILLIAM H. MacKENZIE, COMMUNITY MANAGEMENT CORP., RESTON, VA.

Housing and the energy crisis: long-range planning or expediency?

There's a lot of discussion as to just how real the present energy crisis is. That's beside the point.

The point is that regardless of whether the present situation is overblown or not, the long-term prospect is that our whole mode of existence is going to have to change. And housing, because of its extreme vulnerability to transportation, heating fuel and electricity shortages, is going to be very much affected by the change.

The question is, how will the housing industry meet this challenge?

Judging by past performance, the outlook is not rosy. Take another recent crisis—that of the environment. Housing's general response was first of all a private, indiscriminate denouncing of all environmentalists, the serious as well as the nutty, then a public merchandising barrage about how carefully the environment was being preserved by developers, and finally, a product with almost no meaningful changes.

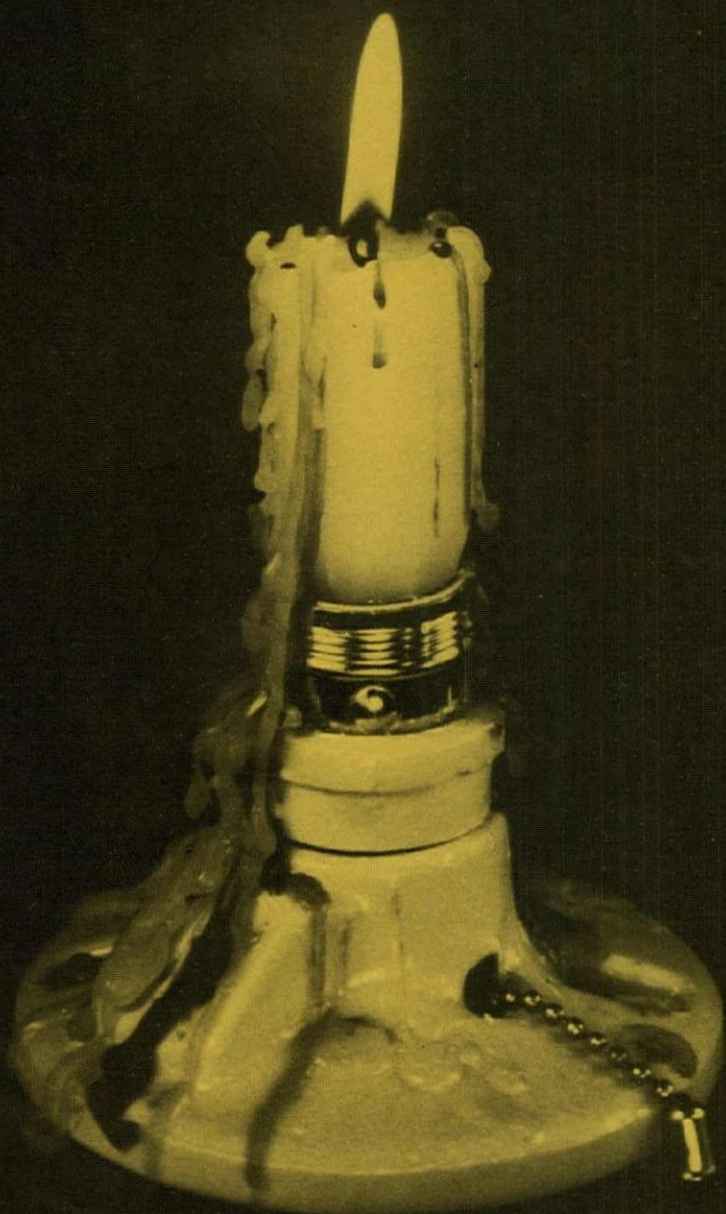
Laying aside any question of ethics, the trouble with

this kind of approach is that it doesn't work. The public knows cynicism when it sees it; housing's image, already battered, got another dent. And partly as a result, the ecological spine of many communities has stiffened to the point that in many areas development has stopped just about dead.

It will be disastrous if housing tries to meet the energy crisis in the same way. What's needed is not slick talk and fast footwork but really innovative approaches to things like energy-saving houses, mass transportation and new communities that depend far less on automobiles. And like it, or not, it's going to be largely up to the housing industry to find these new approaches.

It won't be easy. It will require time, money, creative thinking and above all, a serious commitment. But the stakes are very high. Failure will mean a product that no one will—or can—buy. Success will mean the beginning of a vigorous new era for housing.

MAXWELL C. HUNTOON JR.



The energy crisis: What does it mean to housing?

It's too early to tell. A housing downturn had begun before energy hit the front pages; the crisis has merely intensified it.

Whether today's crisis be genuine or contrived, it's apparent that energy will no longer be as plentiful or cheap as in the past. That's why the industry leaders HOUSE & HOME talked to in preparing this issue were most concerned about one thing: identifying the lifestyle changes the new energy situation will mandate, in order to be ready with the right product in the right location. Here's what they say . . .

Location, location, location is as valid as ever —but criteria may change

The guy nobody wants to be today is the one with 500 or 1,000 acres located an hour's drive from a major metropolitan area with no access by public transportation.

Not too many months ago he was one of the chief purveyors of the American Dream. By building where land was relatively cheap and zoning relatively liberal, he could produce a single-family house a moderate-income family could afford.

In the Washington, D.C. area, for example, he might build \$35,000 houses 60 miles from town.

This moderately priced market has dried up in most of the country, not so much because of the energy crisis as because of inflation, high interest rates and unemployment jitters. But when people are in the mood to buy houses again they will wonder, as they look at developments in far-out locations: What if strict gasoline rationing is imposed? Will the resale value hold up? Will building continue so that the area can support shopping centers and other conveniences? The Larwin Group, the big California-based homebuilder, did some research on its prospective buyers in Corona, Calif., a town that already has a shopping mall.

"People want to live in a bedroom community that's also a delightful small town and where they can get a house for \$6,000 or \$7,000 less than closer in," says President Dick Weiss. "But they're worried about the 30-mile drive to their jobs in Orange County."

Will the consumer remain wary of these far-out locations or, like the man who is flooded out in the spring and rebuilds on the flood plain in the summer, will he forget his concerns once the energy crisis disappears from the front pages?

Here are some of the things that could affect his thinking:

The economics of the oil industry seem to indicate that gasoline supply will not be a long-term problem but that price will. In the first two months of this year alone the price will rise 11¢ a gallon, according to Energy Chief William Simon. If this pace continues, last year's forecasts that gasoline will cost a dollar a gallon by the end of 1974 seem entirely reasonable. Will the family that is stretching its budget to make payments on a house be able to stretch it far enough to cover the extra transportation costs?

It is likely the 55 mph speed limit is here to stay for a while. Will it place some of the far-out suburbs beyond the acceptable commuting time limit?

The federal government lent impetus to today's housing patterns after World War II with the FHA and highway building programs. Will it now seek to revise those patterns because low-density suburbs use twice as much energy per person as cities?

Many closer-in communities are off-

limits to builders because of no-growth ordinances or sewer or water moratoriums. Will the federal government force them to relax these restrictions and provide the means for coping with the environmental problems?

It is entirely possible that there will not be a move back to the cities because of the energy crisis. For every expert who thinks people will move closer to their jobs, there is another who thinks jobs will move closer to the people. To a certain extent both have already been happening.

"Employment centers have had a way of proliferating around the periphery of towns in the last few years," says Dave Fox, president of Centex Corporation's Fox & Jacobs division which is now building entirely in Dallas. "We think lots of people will move closer to their work, and we expect some increase in business because we chose our locations with this in mind."

Will this happen in other places to put some order in the crazy-quilt commuting patterns of a city like Los Angeles, for example?

"Thirty thousand people work on the Irvine Ranch, and only 3,500 of them actually live there," says Elm Weingarden, vice president of Kendall Development, which builds single-family homes at Irvine. "So the Irvine management has launched an energetic telephone and direct-mail campaign to get the people who work on the ranch to live there."

Had the energy crisis struck four or five years ago it would have been touch and go for another far-out California development, Mission Viejo, its president, Phil Reilly, admits. Employment has now moved closer, and the company's buyer survey shows that some 70% or 75% work in Orange County. Even so, most commute 35 or 40 minutes to work.

Similarly only 15% or 20% of the workers who live in Kettler Brothers' big Montgomery Village commute the 20 miles to Washington, D.C. Most work in the outlying areas, says Charles Phillips, senior vice president of Kettler.

Over the long term, the larger metropolitan areas may have the advantage in attracting future economic development and population growth because of their capacity to establish a public transport system, says Washington economic consultant Robert Gladstone. He believes this will be offset somewhat by the suburbanization of employment, however, and that a new equilibrium will be established.

"We're giving more importance to public transportation and less to the highway structure than we did before," says land packager Nate Miller, president of Building and Land Technology in Paramus, N.J.

Wichita-based apartment developer Jack DeBoer sees decreased emphasis on expressways as a benefit of the energy crisis:

"Now we'll have more orderly growth instead of having all the development take place along a finger 15 miles long because that happens to be where someone put an expressway."

Hardly anyone believes all that talk about a return to the central city

Not in the housing industry, at least.

The attitude of Neil Bortz, president of Towne Properties in Cincinnati, is typical:

"People don't want to move back into the city because the city's problems haven't been solved. I think they're just going to bite the bullet, pay a dollar a gallon for gasoline and drive out to the boondocks to live."

DeBoer agrees:

"You're not going to change the habits of the American people. You may change the automobile—I think in a few years you'll see cars that get 30 or 35 miles to the gallon—but I think it's nonsense to say that people are going to move to downtown high-rises."

One of the few exceptions is Emanuel Brotman, chairman of the J.I. Kislak Mortgage Corp.:

"A sustained energy crisis could mean both families and businesses will return to more central locations, where utilities are often underutilized and where the facilities for common carrier transportation exist."

Yet in most cities a transportation system is more of a potential than a reality. New York, Chicago, Boston, Philadelphia and a few other places have widely used public transportation systems. San Francisco's BART is not yet finished; Atlanta is just beginning its MARTA; and Denver, spurred by last summer's gasoline shorages, just recently voted funds for its PRT—a personalized rapid transit system made up of small, computer-guided cars.

A recent government study of 125 metropolitan areas found only two—New York and Jersey City—where fewer than half the workers travel to their jobs by private automobile. In some areas nearly 100% drive.

Even where there are no energy savings on transportation, city dwellers still use less energy in their homes than suburban homeowners. Apartments in high-rise buildings require 15% to 17% less fuel than garden apartments or townhouses which in turn require 5% less than detached houses.

These are things to bear in mind, for over the long run the economics of energy and transportation could change the public's attitude toward the central city. In the short run, however, most would agree with Nate Miller when he says:

"Right now many people are moving back toward the fringes of the cities. They don't want to live where the social problems haven't been solved yet, but they're also tired of commuting three hours a day."

For the short term it's a compromise: close to the city —but not too close

Just as nobody wants to be the developer with the large tract at the end of the line today, everybody wants to be the condominium builder in the established area.

That's where the action will be until people can define what impact the energy shortage will have on the distant suburbs.

"I'm advising developers to look to the close-in sites even though the prices may be a little higher," says Bill Mitchell of Market Profiles in Santa Ana, Calif. "People will be able to rationalize and justify the higher price they'll have to pay for the houses because they'll save on transportation."

Mitchell believes builders can take advantage of these sites if they incorporate privacy and security into the design to offset concerns about being close to urban problems.

Los Angeles-based market expert Herb Aist offers some succinct advice:

"Build where the market is. Don't go way out in the suburbs and then try to bring the market to you."

Aist recommends that developers look for by-passed land in the older built-up areas where there is a concentration of people whose housing needs have changed—the empty-nester market.

In most cases, building where the market is means building smaller projects. Even before the energy crisis some builders found this made good sense.

someone who is building 30 to 100 units in each of several locations.

Such a situation can be favorable to smaller builders. Says Dick McElyea of Development Research Associates, Los Angeles:

"I don't know how many times we've heralded the fact that homebuilding is going into the hands of the big boys. We're always proven wrong because the housing market has been so unpredictable and so many of the big companies can't move fast enough to cope with interest rates and other problems. The small builder is still a pretty important guy."

Lenders are cranking the variables of the energy situation into their criteria

As a result, they're becoming more choosy about where they put their money.

All are concerned about the gasoline shortage and the effect it will have on far-out locations, shortages of heating fuel in the North and electricity for air conditioning in the South, and the impact of materials shortages on costs. They are demanding as-

Another large lender foresees a demand for money to cover the cost of stockpiling materials that are in short supply. Whether or not it will make such loans will depend on the project itself and the security at the site.

Chase has mobilized its economists and developed a cost-analysis impact factor that shows what percentage of building material costs can be traced to the energy problem.

The net effect of all these uncertainties, however, is that the lender's risk is increased. Thus Haeffner expects interim money to become more expensive. He says:

"All of this suggests that we're going into a period of constraint and that we'll be concentrating on lending to the more elite and financially backed—the more professional element in the business. It probably also means that the not-so-elite aren't going to be in the building business anymore."

It's about time, say some of the builders as they point to the overbuilding and excessive demand for scarce materials that is resulting from the generous lending policies of the past. Says builder George Deffet of G. H. Deffet Co., Columbus, Ohio:

"If lenders had been more prudent about where they put their money instead of just closing their eyes and pouring it out indis-

SWEENEY



MITCHELL



GLADSTONE



McELYEA



AIST



GOBAR



"The land carry is extremely burdensome and does more to create losses for the builder than almost anything else," says Aist.

Jack Shine, president of First Financial Group, Los Angeles, agrees. He tells of a \$1.5 million, 35-unit project he is building in Studio City, Calif.:

"Sure it's small, but if we have a number of developments this size we can survive in a bad market. Sales may be slow, but darn it, we're going to sell because we won't be surrounded by 32 tracts that are in distress and selling at closeout prices."

Jack DeBoer is also turning to smaller projects because they make it easier for him to pinpoint his market:

"A town may be able to support 400 units but a specific location may not. So rather than put all 400 in one place and struggle to fill the last 60 or 70 units, we'll put in four 100-unit projects that can draw from different geographic areas."

Many builders have become aware of the value of flexibility in the swiftly changing markets of the last few years. Now the energy crisis has made flexibility not only desirable but essential. The builder who has a large parcel of land can't react to the whims and movements of the markets the same as

surances—in essence energy feasibility studies—that these problems will not doom the projects they put their money in.

But the overriding question, as in any down period, is the builder's track record.

"We're looking for people with staying power," says Peter Haeffner, senior vice president of the Chase Manhattan Bank in New York, one of the nation's largest lenders. "We don't want to find ourselves halfway into a job that can't be finished."

There is evidence that some lenders already have such projects on their hands. Says Malcolm Prine, president of Ryan Homes of Pittsburgh:

"We look around and builders are going out of business right and left, walking off and leaving partially completed homes. Those were the people who were highly leveraged, and when the next construction loan was cut off they were through."

The energy situation adds more variables to the cost of projects. Materials will cost more; shortages will mean delays and still higher costs. Chase is limiting its interim financing to companies that are substantial enough to have the right kind of relations with their suppliers so that the product is available when it's needed.

criminally when they were flush, they wouldn't have found themselves in the trouble they're in today. From now on I think they're going to do a lot more serious analysis and evaluation before they lend any money."

The big worry is not an energy crisis but a confidence crisis

With the newspapers full of talk about recession and layoffs, and with all the conflicting reports about how severe the energy crisis really is, it's no wonder the consumer is afraid to commit himself to buying a new home.

"If people only knew what they were dealing with they'd be able to adjust," says Kevork Hovnanian of Hovnanian Enterprises in New Jersey. "The uncertainty has hurt us more than anything else."

Jack Hoffman, chairman of Hoffman Rosner in Illinois, observes:

"This is about as spooked a buyer as I can remember. He's been knocked around by the meat crisis, the Middle East war, and now the fuel situation and the prospect of recession."

In Tucson, one of the few markets where sales have held up, John Durkin, marketing director of Estes Bros., reports sales have been good but thinks they would have been better without all the negative talk.

And Gene Rosenfeld, president of the Beverly Hills-based giant, Kaufman & Broad, says:

"It's the thing we're worried about more than anything else: What will all the talk about the energy shortage do to the consumer?"

The consumer is not the only one who is being bombarded with disquieting news; builders are faring no better. Housing forecasts for the year are universally gloomy, with most projecting starts at around 1.6 million.

But there's one thing to remember, says E. Lee Friedrich, president of McKeon Construction's eastern division:

"Everytime there's a slowdown in housing it just creates a demand for the future."

And California market expert Al Gobar adds:

"The energy crisis or whatever is not stopping people from forming new households and people who form new households need a place to live."

WRITER



HOVNANIAN



DURKIN



WEISS



PRINE



FRIEDRICH

Statistics support Gobar. Three recent studies* project that housing demand will average between 2.3 and 2.9 million units a year until 1980.

In addition, one of the studies (see page 00) classifies 13 million families as "housing-deprived," meaning that they live in sub-standard or overcrowded conditions or are forced to spend too much of their income for rent.

"The crisis came at the down time of the season anyway," says Bill Mitchell. "I think that maybe we have a tendency to dramatize the slowdown."

But Levitt's President Gerhard Andlinger does not believe things will improve before midyear. He expects sales to be depressed as homebuyers wait to see just what effect the energy crisis will have. Then once the public adjusts to a lower level of energy later in the year, he expects the consumer to become

*The studies are: *Projections of Demand for Housing by Type of Unit and Region* by Thomas C. Marcin, for the Forest Service of the U.S. Department of Agriculture; *Toward Housing Goals for the United States: Concepts, Methods and Measures*, commissioned by HUD from the Joint Center for Urban Studies of M.I.T. and Harvard; and *Projection of Future National Housing Demand 1970-1990* by John Kokus for the NAHB Financial and Economic Studies Task Force.

more confident and housing to recover.

Whether prospective homebuyers are confident or hesitant, builders everywhere have first-hand evidence of the gasoline shortage.

Almost everyone interviewed by HOUSE & HOME reported sharp fall-offs in sales area traffic. (The exceptions were in the smaller markets that do not ordinarily get a large turnout.)

"Our traffic is off at least 50%," says Warren Toman, executive vice president of the Robert H. Grant Corp. of California.

"There has to be a fall-off in traffic," says Jack Hoffman. "The psychology of not being able to purchase gas on Sunday by itself inhibits people from driving on Sunday."

Hoffman thinks builders would be wise to stay open Thursday nights, like retail merchants, or to put more emphasis on Saturday marketing.

For some builders, the slump in traffic has helped to solve a perennial problem: how to separate the lookers from the buyers. Says Gary Kotin, vice president of Seay & Thomas in Chicago:

"It seems that only the serious buyers are out looking, which means that a larger proportion of our visitors are buying."

A few other builders see the energy crisis as working to their advantage. One of them is George Writer, president of Writer Corp. of Denver:

"I think that Colorado is going to become the energy center of the nation," he says. "We have more oil shale and more natural resources than any place in the world."

So, despite problems with natural gas hookups, Writer is not cutting back on his 1974 starts.

Another optimist is Alvin Sherman, president of Florida's Development Corporation of America. He thinks the slowdown is good for Florida:

"The boom has been leveling off, but I don't think that Florida could have taken any more boom."

In the long run, however, Sherman believes that if the energy shortage persists and people have to curtail heating, the warmer climates will be more attractive to the average person and to industry.

"The energy crisis is going to hurt a lot of people," says Herb Aist, "because they are either too slow to react, they don't know how to react, or they're committed to big projects and just can't react. But it's also going to create tremendous new opportunities for

people who move now, while we're in a depressed marketing period, do their homework and making their plans."

Consumer uncertainty may be bad for sales, but it's good for rentals

While housing sales have slumped, there's already evidence that apartment rentals are picking up. In many areas apartment demand is finally catching up with supply. And with few exceptions, apartment operators told HOUSE & HOME vacancy rates are falling.

This rise in the rental market comes at the expense of the sales market. Potential buyers are postponing a commitment to home ownership not only because of the energy crisis—they're concerned about transportation in suburban areas—but also because of high interest rates and worries over unemployment.

But if apartment operators are happy about rising rentals, they are far from happy about rising costs. Jack DeBoer had expected that rents would rise and costs would stabilize by the summer.

"But when you crank in the energy crisis

I'm not so sure," he says.

Energy costs make up an important chunk of apartment operating costs and they are rising rapidly. Not only is heating oil going up, but gas and electricity as well. Pacific Gas & Electric has just increased its rates by 19%. Other utilities, such as New York's Consolidated Edison, are also asking for rate hikes to make up for the expected drop in revenue caused by energy conservation programs.

"Most rents will have to be increased and then we'll have to worry about rent control," says Deffet.

In the Washington, D.C. area, where demand is high, apartment construction has almost dried up.

There has also been a slowdown in apartment building because of uncertainty over tax reform, which would remove the tax shelter from apartments and change the economics of ownership.

George Deffet is one of the few apartment operators who is in favor of ending the shelter which he blames for apartment overbuilding. Because of the energy crisis, he expects Congress to defer making any changes in the incentives that apply to oil and gas as well as housing, cattle, etc. Says Deffet:

"I'm afraid those incentives will become

a sacred cow although as far as I can see they've never resolved anything in the past."

One person who sees rental housing as a good opportunity is Herb Aist:

"The appreciation of real estate is going to be greater than ever before because of inflation, increases in the cost of construction and the high interest rates that have kept much of the market from buying new homes. This gives builders an additional opportunity, particularly those with rentals."

Aist believes that builders who develop apartments wisely, with proper market research, and then keep them for their own account can not only develop positive cash flow, but can make a good profit by refinancing in six or seven years because the appreciation will be so great.

Second-home developers are being hit right where they live—in the gas tank

Not only must they find ways of bringing prospects to the site, they must make it possible for people to get to their new homes

including putting a transportation expert on a company payroll as vice president.

Thus at the company's Sleepy Hollow, N.Y. development, the association is buying gasoline in bulk and reselling it to owners.

At Pine Mountain Lakes, N.C., the association not only provides gasoline, but also charters train cars to bring people to the project. Prospects who take advantage of the company's offer of a free vacation ride in these chartered cars surrounded by residents on their way to their second homes—a good marketing situation for the company.

At Perine's Silent Valley, Calif. recreational vehicle resort, the association runs buses to Los Angeles. Again, the company tries to mix prospects with owners by buying seats on these buses.

Also in California, U.S. Properties is building its own filling station. The gasoline producers have promised that there will be no problem in supplying gasoline.

And at Sleepy Hollow, N.Y., the company buys gasoline from the owners' association and gives it away to prospects who drive to the site.

"We have a high promotional budget and can afford to give prospects gas if they'll come and see us," says Perine.

locked into our buildings for a week at a time you can be pretty sure our sales people will talk to all of them before the week is out."

The problems are somewhat different for weekend resorts—which are usually within a two- or three-hour drive of a major metropolitan area or centered on a particular activity, such as skiing—and destination resorts—which usually draw their market from a wide area for longer stays.

Destination second-home resorts generally cater to upper-income people and have fewer problems. The drop in sales that most primary home developers experienced last autumn did not, for example, affect Sea Pines Plantation in Georgia or CNA Financial's Quechee Lakes, Vt. developments.

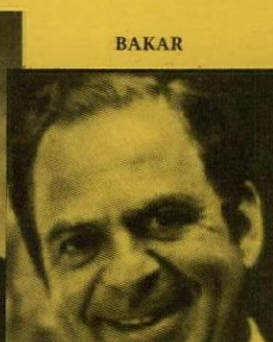
"The people with the money will figure out how to get gasoline and won't mind spending the dollar to get where they want to go," says Sunrise Corporation's Bill Bone, who is building second homes in California.

At the moment, the destination resorts' main problem seems to be how to make sure owners who drive long distances will not be stranded enroute to their second homes.

U.S. Properties, through one owners association, is creating gas depots so that people driving to Pine Mountain Lakes, N.C. from



PHILLIPS



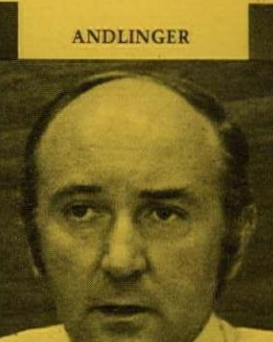
BAKAR



REILLY



SHINE



ANDLINGER



HAEFFNER

after they've bought them.

"If people feel they have a way of getting back and forth they will buy," says consultant Jon DeHaan, vice president of U.S. Marketing and Financial Co. in Indianapolis. "Otherwise it does little good to get them out to the project."

So developers are tackling the transportation problem with everything from free gas to chartered trains and buses. At the same time they are revising their marketing techniques and, in several cases, their planning so that they can survive in today's new market climate.

Many industry leaders expect an uphill battle for survival this year, but they take hope from one thing: a severe gasoline shortage can work for them as well as against them. U.S. Properties' Tom Perine explains:

"People can't get in their cars and roam the countryside on their vacations anymore. They're going to want to go to second-home communities."

How they get there is now becoming the developer's responsibility.

Perine believes the owners themselves should take the initiative in arranging for transportation, and he is helping the owners associations with funds and expertise—

Maryland consultant John Sweeney of Woodland Enterprises, tells how a "fun bus" has helped keep prospects flowing to a western Virginia resort.

The company has hired a history professor to tell passengers about the events that took place in the Virginia countryside they pass through on the way to the development. The one-and-a-half hour trip from Washington, D.C. passes quickly, and the company has been pleased with the results so far. Again, owners are encouraged to join the prospects on the bus.

"People generate excitement," Sweeney explains. "I'd rather have a bus filled with prospects and owners than half filled with prospects alone."

Another Washington, D.C. area resort—a high-rise oceanfront condominium Carl M. Freeman & Co. is building in Bethany Beach, Del.—is also turning to buses, but this time the passengers are weekly renters rather than prospects.

"Whether the 400 people who have already bought can keep their apartments rented will determine the ultimate success of the project," Freeman's president, Robert Friedman, explains.

"Besides," he adds, "if we have 400 people

New York or Chicago will know they can get the three tanks of gas necessary to make the trip. The project's association is issuing gas certificates to residents and arranging with eight filling stations in different cities along the way to set aside enough gasoline to supply anyone who presents a certificate.

In Georgia Sea Pines Plantation is taking a different tack: It is setting up a transportation center, a toll-free number that people can call to find out which gas stations along their route are open.

While transportation has become a widely used marketing tool because of the gasoline shortage, the industry is also changing a number of its other marketing techniques as it finds that methods that worked well in the past no longer work today.

The direct mail campaign, for example, used to produce a good number of prospects. But DeHaan gives some examples of how such campaigns have failed under today's conditions.

In various parts of the country, a mailing of 50,000 pieces produced only four responses; 20,000 pieces produced seven; and two others, totaling 17,500 pieces, did not produce a single response. And these mailings were not promoting far-out proj-

ects, all were within a two-hour drive of their prospective markets.

On the other hand, Woodland Enterprises's Sweeney is pleased with the results of a telephone sales pitch that capitalizes on the energy crisis. It begins:

"Hello, I'm John Smith and I want to talk to you about the energy crisis. . ." The caller then emphasizes that the prospect can spend a day in the country without having to worry about gasoline. Those who accept end up on the "fun bus" described above.

Still, Sweeney reminds developers:

"The day of the unlimited number of prospects in a given market area is over. And when traffic is sharply reduced, you need sharper people."

Thus, the most important thing a developer can do today is to retrain his sales staff.

Existing owners are a good source of referrals and Sweeney is advising his clients to go after them. He also recommends that someone from management talk to buyers at the time they sign their contracts to answer questions and to make sure that there have been no misunderstandings.

"If you do this, people feel they're really getting a fair shake and that the company has an interest in presenting the project fairly,"

"If there's a shortage of fuel it will be a bonanza to my recreational vehicle project. People can't sell their vehicle because there's no resale market. They'll have to make the payments on it anyway, and they can't take it on long trips if there's no gas. So they'll bring it up to us and live in it while they use our restaurants, swimming pools, adult centers, stables, etc."

The energy crisis may also be changing the plans of some people who had planned to retire in the North. They may think twice about spending cold winters with lowered thermostats. President Charles Fraser reports Sea Pines Plantation has had more inquiries than usual from the retirement market.

In North Carolina Tom Perine points out that the second-home industry has an advantage that large destination resorts like Disneyworld, for example, do not have: an identifiable group of people that can band together to arrange for transportation or gas purchases or whatever is necessary.

In San Francisco Carl Berry, vice president of Innisfree Corp., which has two developments at Lake Tahoe, is pleased that the crisis has led the developers and communities of the northern part of Lake Tahoe to

Perry sent out a questionnaire asking prospective buyers how important fuel for recreation was to them. Predictably, 95% rated it essential or important, but many went on to append dramatic notes to the questionnaire:

"Stopping recreation equals more crime in the streets."

"Now more than ever the physical and mental state of Americans demands an outlet in outdoor recreational activities."

In the East it's hard to tell how much the ski areas have been affected by the energy crisis and how much by poor snow. But in the Midwest, Art Bond, president of Ski and Shore Properties reports that both buyers and lenders are reluctant to make any moves.

Several developers have detected an unexpected consumer reaction to the present crisis: People are more interested in homes than in land. Says Shastina's Dave Sorensen:

"I think we're in a different market. People don't just want to dream about a second home. They want to walk through it, know how it's built, exactly what it costs. We're going to start doing more speculative building than we used to."

Consultant Sweeney has also noted a sharp increase in the number of property owners

GOLDMAN



FRIEDMAN



DEFFET



WEINGARDEN



DEBOER



HOFFMAN

says Sweeney. "It prevents buyer's remorse and there are fewer cancellations."

People who already own second homes are coming in for a share of the industry's attention because there is fear that they may tend to default in their payments if they can't use their homes. In Indianapolis DeHaan describes how a group of developers has joined together to form Resort Condominiums International. This program allows anyone who owns a house in one of the participating resorts to vacation in another merely by paying a cleaning fee.

Perhaps the most original marketing device of all was developer Dave Sorensen's offer to accept recreational vehicles as trade-ins toward a second home in his northern California Lake Shastina community. Under the arrangement, which is now awaiting approval from the California authorities, Sorensen would buy a vehicle for its approximate book value, depending on its condition, and then resell it to wholesalers.

Despite problems brought on by the gasoline shortage and consumer jitters, developers see a number of bright spots in the present crisis. Surprisingly, recreational vehicle parks are among them. Says U.S. Properties' Perine:

cooperate for the first time and to talk about region-wide transportation systems.

And in Maryland, John Sweeney believes the present crisis gives the recreational industry a chance to show its ability and to earn the respect of the business world. He, too, stresses cooperation:

"We have to become a cohesive group of businessmen and begin talking to each other. If we do, we will not only survive, but we can come out of this a better industry with better techniques."

In the West, ski resorts are having a good season. Richard Stevens, president of Wrather Investments, says business at his company's northern California ski areas has been increasing. But, he wonders, "Could it be the mass hysteria of people trying to get their skiing in before rationing?"

Douglass Perry of East Sierra Development Co., who is building condominiums at Mammoth Mountain, Calif., seven hours from Los Angeles reports:

"It may sound like whistling in the dark, but despite the terrible amount of negative publicity there's been about Mammoth, skiing and gasoline, people are still buying. They're not buying as well as they would have been, but they're buying."

who want to build. In one project, he says, people are building beyond the parameters of the sewer plant on a non-occupancy basis just to save costs and be sure they can build while the materials are still available.

"People figure they're not going to be able to run around so much anymore so there's much more of an interest in utilizing their property," says Sweeney.

For the future, community transportation will become a permanent amenity and projects will be designed so that automobiles are not only unnecessary but unwelcome. Says Innisfree's Berry:

"Before, if we said a project was going to be nonvehicular people said, 'that's nice, but what about my car?' Now they say, 'hey that makes sense!'"

Innisfree is planning a 700-acre project near Sun Valley, Idaho that will have its own transportation system. People will leave their cars in a covered parking garage and if they want to get it out during their stay they'll have to pay a high service charge. But when they leave, there will be no service charge and the car will have been washed and filled with gasoline. Says Berry:

"We think that's a nice positive way to handle the transportation situation."

Now the public will have one more way to judge new housing: How well does it save energy?

In other words, energy-conservation features—running the gamut from new products to design and planning innovations—may well become marketing tools and inducements to grant zoning changes.

At this point most builders are wary of anything that smacks of gimmickry and are just doing the obvious things, such as cutting down on glass in cold climates and using more insulation and doubleglazed windows.

Levitt, for example, has already stopped building California designs outside of that state. Larwin and several others are also taking a close look at what they build in cold climates.

"Our technicians are reviewing all materials for their insulating values—for example, we're thinking about bringing back wooden windows," says Levitt's Andlinger. "In addition, we're looking seriously at a solar energy storage system as an addendum to the primary energy system, and we will soon field-test heat pumps."

Kettler Bros. of Gaithersburg, Md. is also testing heat pumps in its projects.

many of its subdivisions. The goal is to build an experimental house by next January and to incorporate its basic features into the production homes by early 1976.

"It won't be anything way out," says Rutenberg. "We're not interested in a solar-powered house at this point—that's 20 years from now."

California-based Kaufman & Broad does not think it's too soon to start thinking about far-out solutions and the company, with the help of experts from the University of Michigan and Wayne State, is building a zero-energy-consumption house at one of its model complexes in Novi, Mich.

K&B feels that the sooner interest is stimulated in alternate forms of energy, the sooner they will become practical.

The Michigan house, a Buckminster Fuller geodesic dome, features a solar energy mock-up, a wind-generated electrical system and a system that recycles solid wastes into methane gas for cooking.

Whether far-out or eminently practical, there's no question but that energy conservation features will add to the price of a house.

"At this point we don't know exactly how much," says Rutenberg. "And we don't

Rosner in Illinois, points to the many finishing items, such as faucet handles, that are made of plastic:

"They may seem minor, but a house isn't finished until these things are in place."

So far, how have the shortages affected operations?

In Charlotte, N.C. the American Cyanamid subsidiary, Ervin Industries, reports a 40% cutback in bulk fuel allotments.

In Los Angeles, Bill Bone reports on a subdivision where the electric utility had only enough direct burial cable to connect 35 of the 200 units that were within six weeks of completion and already sold.

In San Francisco, Gerson Bakar changed plans from a concrete to a steel building because rebars were tougher to get than structural steel.

In Kansas City, Russell Baltis reports one of his office buildings is a month and a half behind schedule because of steel.

In Colorado Springs, Jim Arndt, marketing manager of Gentry Development, Co., could get gas permits for only 80 out of a planned 306 units. He switched the rest to electric heating.

Arndt complains:

"The extra insulation required for electric



PRIMACK



BONE



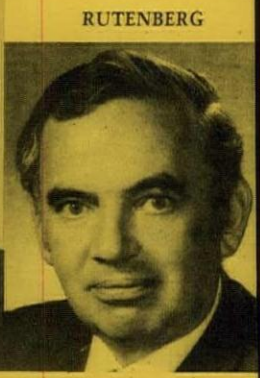
ERRICHETTI



BALTIS



KOTIN



RUTENBERG

As builders find that energy conservation is good business, they look to the suppliers for products that conserve energy and the advertising support that makes them acceptable to buyers.

"We don't have a big enough company to have an extensive research and development program," says Jack Shine of First Financial Group in Los Angeles. "But there are already lots of things, such as timer switches on lights, automatic turnoffs on water, different cycling capacities for heating and air conditioning, that could conserve energy if the industry could make them acceptable."

U.S. Home is convinced that in the future energy conservation features will not only be marketing tools but they will also be inducements to communities to grant zoning changes.

"If we can show a community with enough power and water for 200 new homes that we can house 300 people without using more power and water, we believe we'll have a competitive edge in getting permits," says Chairman Charles Rutenberg.

The company, together with General Electric, is designing a house to use one-third less electricity and water, which is scarce in parts of Florida where U.S. Home builds

know how many more people we're now blocking out of the housing market."

Building materials: The energy crisis simply intensifies shortages caused by price controls

That's the opinion of most builders interviewed by HOUSE & HOME. But few of them see the problem as insoluble.

Says William Goldman, vice president of The Homewood Corp. in Columbus, Ohio:

"Many of the materials we've relied upon in the past may be inaccessible to us. It just means we'll have to innovate."

Says Bill Bone, president of the Sunrise Corp. in Los Angeles:

"We have our purchasing people scouring the East, where the building season is over, for certain types of materials we can't get."

As this issue went to press, the most widespread shortages were in asphalt for paving, asphalt-impregnated sheathing and steel mesh and reinforcing bars. But everyone was braced for shortages of all petroleum-based products, such as plastic pipe, vinyl and shingles.

Jack Hoffman, chairman of Hoffman

heat will add at least \$1,000 to our selling price and then utility bills will be 20% higher. And every thousand dollars knocks out another percentage of our market."

In Denver, Sam Primack of Perl-Mack is also faced with gas curtailments, but he'd rather stop building than switch to electric heat:

"I won't use it in this area because electricity costs over 2¼¢ a kilowatt hour. And on top of that, if there's one thing that's really scarce around here it's insulation. So even if we wanted to make the switch we might not be able to get the material to do it."

Shortages cost money, both directly, in higher materials prices, and indirectly, in higher construction loan costs.

Jack Hoffman is concerned that not only will it be impossible to demand firm delivery dates of scarce items, but even items that are not in short supply will be delayed because the fuel shortage will discourage suppliers from sending out trucks with less than a full load.

Primack describes the predicament of many big builders and confesses that in some 20 years in the business he has never been so perplexed as he is now:

"I do most of my purchasing for a solid

year. And now my suppliers tell me that not only can't they give me a firm price, they don't even know if they can supply me."

In Pittsburgh, Malcolm Prine of Ryan Homes and in El Paso, Woody Hunt of Hunt Building Corp. both face similar problems with suppliers. They have an added complication because their companies build on a contract basis. Says Prine:

"In the past we were able to negotiate with suppliers and subcontractors annually and get firm prices for almost everything. Even when we couldn't, we got a provision that gave us 90 days' notice of any change so that at least we could build out what was in our order book. That's becoming harder and harder to do."

Hunt adds:

"It raises our risk in that we don't have the ability to pass unexpected increases on to the buyer."

Still, a number of builders mentioned an offsetting factor to the shortages and price increases: If enough people stop building because of the poor market, the shortages will soon turn into surpluses.

It has already begun to happen with labor, which has eased substantially in the Florida market according to Alvin Sherman of DCA.

because anything's happening to us now, but we want to be sure that we're not loaded up with inventory in case things should go bad."

Most companies seem to be hedging their bets by building fewer units but not fewer projects.

Typical was the remark by Bill Bone of Sunrise Corp. in Los Angeles:

"Where we were going to start 75, we'll cut down to 35, where we were going to start 120, we'll do 40 or 50. We have to take smaller bites to make sure we don't end up with a tremendous standing inventory."

Most companies are also doing the obvious things, such as restudying their projects from an energy and transportation viewpoint, doing feasibility studies on new projects, organizing car pools for tenants of apartment complexes, turning off billboard lights and neon signs, and in general conserving energy in their day-to-day operations.

Otherwise there are as many ways of coping with today's problems as there are developers.

On the negative side, a number of builders are trimming prices and profits.

For example, Manny Busch, planning director of Prel Corp. in New Jersey, says:

"We have 7% and 7½% mortgages and

come down, the buyers have the opportunity, under the program, to refinance their homes once during the first three years at no cost to them.

The cost is borne instead by the company, which pays an extra point on all loans to the participating S&Ls. As only about half of the buyers are expected to exercise this option, the S&L is in effect getting two extra points for each refinancing.

K&B has just put into effect another program to entice the jittery consumer into buying a home. The company guarantees to make the payments—including principal, interest, taxes and insurance—for any buyer who becomes unemployed or disabled through no fault of his own within the first two years.

Says President Gene Rosenfeld:

"This plus our guaranty to repurchase gives many prospective home buyers who are anxious about the energy crisis and other uncertainties the added psychological security they need to purchase a new home."

Another device to overcome the confidence problem that is being used more widely than in the past is the rent-option program.

U.S. Home is offering such a program at

THOMAS



FOX

ROSENWALD



NELSON

HUNT



ROSENFELD

In Columbus, George Deffet is finding subcontractors more eager for work than a few months ago:

"Quotes are coming in a lot lower now and people are sitting in our waiting room saying they want an answer on the bid they left last week."

And also in Columbus, Homewood's William Goldman has found another advantage to today's problems: finished lots that would have been too expensive in good times are now being offered at bargain prices.

The mood of the industry: wary but not pessimistic

"We're staying liquid and not building too far ahead."

So says developer John Errichetti [H&H, March, '73] of Waterbury, Conn. His remark typifies the wait-and-see attitude that pervades the industry.

Even in the Seattle/Tacoma area, where sales have held up, Richard Fitzpatrick, executive vice president of Evergreen State Builders, says:

"We've started to become cautious, not

we're still not selling the way we should be. We're trying to correct this by lowering our prices, which we're doing both by building smaller units and by accepting less profit."

Others are trimming their staffs:

Typical is apartment builder George Deffet:

"We've tightened the reins on general and administrative expenses and eliminated some staffing in both construction and property management. We'd rather keep the organization spartan and compact through 1974."

On the positive side, builders are tackling the consumer-confidence problem with programs to repurchase or refinance homes or to make the monthly payments should the buyer become either unemployed or incapacitated.

California-based Kaufman & Broad will buy back a new home within the first 18 months at the original sales price less 5% provided the buyer has lived in it at least six months and kept it in good shape.

Florida-based U.S. Home has recently instituted a rate-watcher program in Colorado and in Florida to persuade those buyers who may be waiting for lower rates not to postpone their purchase. Should interest rates

its Monterrey Village condominium development in Park Forest South, some 35 miles south of Chicago.

A prospective buyer who does not have enough money for a down payment may rent a three-bedroom, 1½-bath triplex unit that sells for \$26,990 for \$258 a month. At the end of nine months, the rent equals a 5% down payment (\$1,350) plus closing costs, insurance and accrued taxes (\$972) and so the tenant takes title to the unit. His payments remain roughly \$258 a month.

McKeon Construction has also used the rent-option plan successfully for some time.

"At the rate real estate has been appreciating in recent years, you can't lose," says Lee Friedrich, president of McKeon's eastern division.

Rent-options seem to work at the opposite end of the size scale as well.

Ed Charles, a small Green Bay, Wis. builder, did nearly \$500,000 worth of business in a recent month when almost everyone else was hurting. He attributes this success to his rent-option program. Says Charles:

"We rent a \$29,000 house for \$245 a month and then we give back 20% of the rent if the tenant buys within a year. Inflation has given

us appreciation, and there's no upkeep."

About half of Charles's rentals convert to sales.

Builders are tackling the transportation as well as the confidence problem. They are devising ways of getting prospects to their sites and of assuring them that there will be transportation once they buy.

For example, Levitt's marketing experts are looking at ways to combat the tendency of buyers to stay home on weekends. Under consideration are such things as home displays in key areas closer to the city, where the bulk of Levitt's buyers live, and Sunday bus service to take prospects to the company's subdivisions.

In New Jersey Kendall Development, K&B and a number of other developers have subsidized commuter buses from their developments to New York City.

Kendall is going one step further with a 200-unit luxury high-rise it is building at Monmouth Beach, N.J.: It will have an airplane leaving for Wall Street at 7:30 every morning and returning at 5 every evening.

Local transportation, too, is coming in for its share of attention so that residents will be able to save gas. Rossmoor Corp., for example, is planning to extend the minibus service that it provides to its age-oriented communities to its other developments as well. For example, in the community under construction in Woodridge, Ill., the company is studying whether to have regular bus service to the railroad station.

And for local transportation resort-style, the Sea Pines Plantation is buying a fleet of four-passenger electric carts and leasing them to residents.

In California, Grant Corp. is responding to the poor market by placing more emphasis on sales training. Says Vice President Warren Toman:

"We feel the most important thing we can do at a time like this is to sharpen our sales force so that we can work our prospects that much harder."

Grant is also cutting down on the size and frequency of its advertising to save money.

"We just advertise enough to remind people that we're still in business," Toman explains.

Other companies are capitalizing on the energy crisis in their advertising. Some samples:

From Deltona Corp., a picture of a man teeing off on a golf course and the headline:

"How much energy do you need to live at St. Augustine Shores, Florida? Not much."

From Mission Viejo, a list of things the company is doing to help the community conserve energy under the words:

"Conserving energy is work."

From Rossmoor, pictures of the company's minibus and local shopping mall in Laguna Hills headed by:

"One good answer to the gasoline shortage: Rossmoor Leisure World!"

And from Kendall Development, which has a project called California Classics by the Sea, the picture of a sailboat and the words:

"A classic answer to the energy crisis."

—NATALIE GERARDI

These are the people HOUSE & HOME talked to about the energy crisis:

Herbert L. Aist, president
Herbert L. Aist Associates

Gerhard Andlinger, president
Levitt & Sons Inc.

Jim Arndt, marketing manager
Gentry Development Co.

Gerson Bakar, president
Gerson Bakar and Associates

Russell Baltis, vice president
N. Kansas City Development Co.

Carl Berry, vice president
Innisfree Corp.

Arthur Bond, president
Ski and Shore Properties

William Bone, president
Sunrise Corp.

Neil Bortz, president
Towne Properties

Manny Busch, planning director
Prel Corp.

Edsel Charles, president
Greenbriar Homes

Jack DeBoer, chairman
Jack P. DeBoer Associates

George Deffet, president
G.H. Deffet Co.

Jon DeHaan, senior vice president
U.S. Marketing and Financial Corp.

John Durkin, marketing director
Estes Bros. Construction Co.

John Errichetti, president
John Errichetti Associates

Richard Fitzpatrick, vice president
Evergreen State Builders

Dave Fox, president
Fox and Jacobs Div. of Centex Corp.

Charles E. Fraser, president
The Sea Pines Co.

Robert Friedman, president
Carl M. Freeman Co.

E. Lee Friedrich, president,
Eastern Div.
McKeon Construction Co.

Robert Gladstone, president
Gladstone Associates

Alfred Gobar, president
Darley/Gobar Associates

William Goldman, vice president
Homewood Corp.

Peter C. Haeffner Jr., vice pres.
The Chase Manhattan Bank

Jack Hoffman, chairman
Hoffman Rosner Corp.

Kevork Hovnanian, president
Hovnanian Enterprises

Woody Hunt, vice president
Hunt Building Corp.

Daniel Keiserman, chairman
Horizon Building Corp.

Gary Kotin, vice president
Seay & Thomas Inc.

Richard McElyea, president
Development Research Associates

Nathan Miller, president
Building & Land Technology Corp.

W. E. Mitchell, president
Market Profiles Inc.

Joshua Muss, president
Centex Homes

Les Nelson, president
L.B. Nelson Corp.

Thomas Perine, president
U.S. Properties Corp.

Douglass Perry, vice president
East Sierra Development Co.

Charles Phillips, vice president
Kettler Bros.

Sam Primack, partner
The Perl-Mack Companies

Malcolm Prine, president
Ryan Homes Co.

Phil Reilly, president
Mission Viejo Co.

Eugene Rosenfeld, president
Kaufman and Broad Inc.

Robert Rosenwald, vice president
Rossmoor Corp.

Charles Rutenberg, chairman
U.S. Home Corp.

Joseph Sanson, president
National Apartment Association

Alvin Sherman, president
Development Corp. of America

Jack Shine, president
First Financial Group

David E. Sorensen, president
Shastina Properties

Richard Stevens, president
Wrather Investments

John F. Sweeney, president
Woodland Enterprises

Carroll Thomas, management
services director
Ervin Industries

Warren Toman, vice president
Robert H. Grant Corp.

Elm Weingarden, vice pres.
Kendall Development Co.

Richard L. Weiss, president
The Larwin Group Inc.

George Writer, president
The Writer Corp.

Energy-wasting mistakes we can't afford to keep making

Building housing that conserves energy isn't difficult. Our ancestors knew how to do it, and so do we; the trouble is, up to now we didn't need to. Besides, energy conservation costs money, and we've always assumed that first-time costs were all that counted in the marketplace.

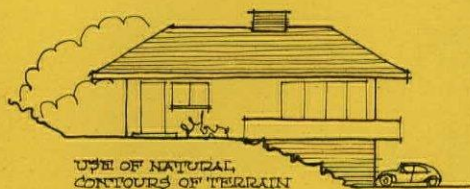
Now that's all changed. We have to start building in all the energy conservation we possibly can. On the following four pages are some of the basics.



We can't afford to keep on siting our houses haphazardly.

Natural terrain should be used to its best advantage. In days gone by people were forced to look to the land for protection; we should look there too. Houses can be tucked into valleys instead of built on hilltops, put on protected sides of hills, built on the sunny sides of slopes or built partly into hills for natural insulation.

We should stop clearing vegetation and rock formations that can act as protection. It may make construction costs lower to level the land and knock down trees, but we'll pay with wasted energy in the long run. Trees can block cold winter winds and provide cooling shade in the summer. Protruding rocks serve much the same purpose. And



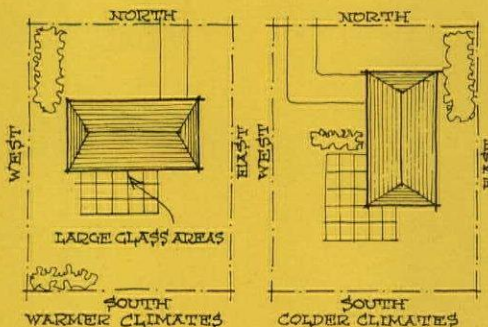
USE OF NATURAL CONTOURS OF TERRAIN

Houses can be built into hillsides for natural insulation.

dowspick up heat almost half the day putting a strain on the cooling system.

Landscaping should protect as well as beautify. A row of evergreens planted a little distance to the north or northwest of a house can be a very effective wind barrier. Shrubs or berms that surround an exposed doorway have the same effect. Tall, deciduous shade trees planted to the south, west or east of a house block the sun in summer, and in winter when the leaves have fallen, do not block the roof and walls from the warming rays of the sun.

Unfortunately, in many communities setback requirements are so inflexible that good siting is difficult if not impossible. And of course, in areas where single-family houses are built five or six to the acre, there is no way on earth to site all of them correctly.



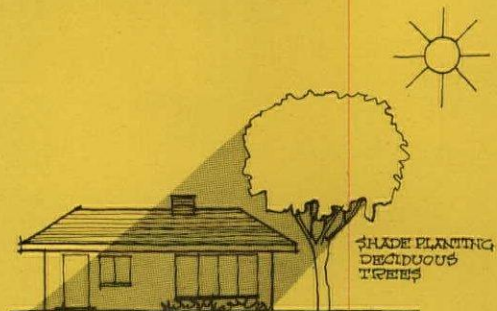
We should orient houses with wind and sun in mind.

Wherever practical, we should build two-story houses, especially in colder areas. Most heat is lost through the roof, and in a two-story unit there is a lower proportion of roof area to floor area. This can save as much as 15% in fuel consumption.

A good floor plan can help to conserve energy. Grouping common living space in one part of a house and the sleeping quarters in another facilitates zoned heating and cooling and also allows one section to be easily closed off when not in use.

Family rooms, living rooms, kitchens and dining rooms should face south and west so that they are warmed by the afternoon sun. Bedrooms should be oriented to the morning sun so that they can be easily cooled down for comfortable sleeping.

Room size also is important. The smaller



WINDBREAK PLANTING EVERGREENS

Landscaping should protect as well as beautify.

natural streams should not be filled in or covered during construction: a site with running water will be cooler in the summer than a dry one.

We should orient our houses with wind and sun in mind. In cold weather areas, winter winds generally come from the north; hence walls with the best insulation and the least glass should face that direction. And if design permits, the shortest wall should face north. If major glass areas are a must, they should face south so that the low winter sun will shine into them during much of the daylight hours.

In warmer climates where cooling is the primary concern, glass areas also should face south. If they have properly designed overhangs, little or no sun will come in during the summer; by contrast, east or west win-

We can't afford to keep on designing houses that don't function.

Local climate conditions must be considered. Too many designs are based only on aesthetics or marketing factors. A house that is functional and practical in southern California might look just as well in Minneapolis; but a sprawling layout and big glass expanse would make it a monster to heat.

We should design houses that are practical to heat and cool. The key is the ratio of wall area to floor area. A round house is the most efficient in this regard, but this shape is difficult to build (and also to live in). A square house is the next best, and after it, the simple rectangular shape. L-shapes, H-shapes, T-shapes and the like tend to be very inefficient.

the room, the more difficult it is to heat or cool; larger spaces allow more free movement of air. One answer: Partitions in place of floor-to-ceiling walls—wherever practical—make for more efficient heating and cooling.

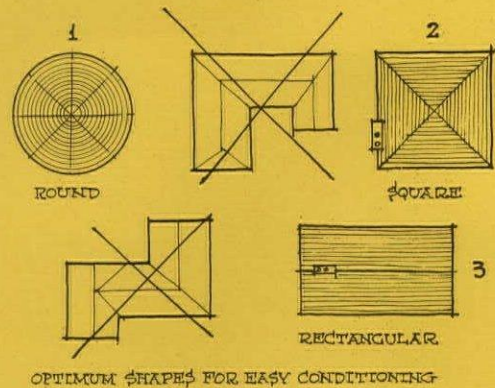
Large glass expanses should not automatically be designed into houses. The reason: Glass is the single largest source of heat loss. Windows should not be positioned only with a view in mind; wind and sun direction also must be considered. Even if the most scenic view is to the east or west, panoramic windows may not be advisable on those sides of a house. As noted previously, large glass expanses should almost always be located on the more temperate southern elevation of a house.

Inoperable, fixed-glass windows shouldn't

be used in any climate. Glass areas that can't help ventilate a house don't make sense.

Roofs should also be designed with climate in mind. A near-flat roof is best in heavy snow regions because the snow stays on it and acts as a natural insulation against extreme cold. Steeper pitched roofs absorb less heat in summer making a house easier to cool. And light-colored roofing materials reflect rather than absorb sunlight and so considerably reduce the load on cooling equipment.

Cathedral ceilings are dramatic but they can create serious problems. In both heating and cooling, energy is wasted conditioning air in the high unused spaces. And since warm air rises, heating high-ceilinged rooms is especially difficult.



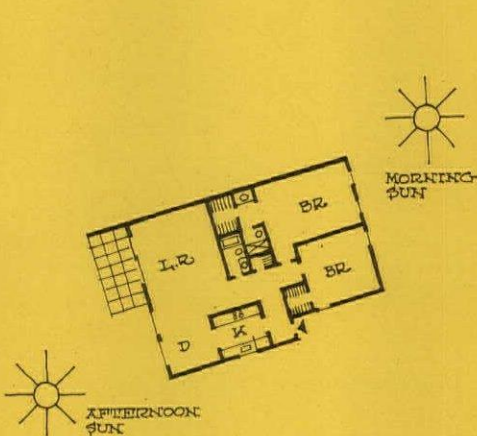
We should design houses that are practical to heat and cool.

outer and inner doors reduce the flow of outside air into the house and prevent the conditioned air from escaping.

We can't afford to keep on settling for inadequate materials and workmanship.

We're not using enough insulation. For years utility companies have been saying that if our houses are sealed too tight we're going to have a vapor problem. Well, now they're telling us to forget that and seal 'em up. It seems the vapor problem is easier to contend with than heat loss.

Electric heat suppliers have been advocating maximum insulation for a long time. Their reasons were selfish: Electric heat is too costly for use in poorly insulated houses. Now all fuels are too costly—and too hard



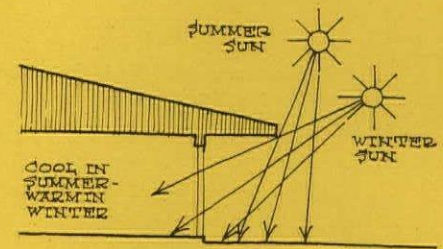
A good floor plan can help conserve energy.

crawl space foundation also needs perimeter insulation. Vents that can be opened in summer and shut in winter help control crawl space moisture problems.

At press time the FHA was about to release a newly revised MPS for insulation (see page 28).

Heating ducts should be fully insulated. We generally use too little insulation on ducts that run through unconditioned areas of a house like attics and crawl spaces. Savings here can be substantial, since a loss of heat in the distribution ducts influences the temperature of the entire house.

We should use double glazing in all windows—either insulating glass or storm windows. No single thickness windows should be installed anywhere. Storm doors and win-



Correctly designed overhangs shield walls from the summer sun and expose them in the winter.

Good ventilation can reduce the need for artificial cooling. In fact, in many regions air conditioning would be totally unnecessary if houses were properly ventilated. Courtyards and atriums, both enclosed and open-ended, create more opportunities for ventilation, and even though they add wall area, on balance they may cut the cooling load. Cross ventilation—once a must—should still be designed in wherever possible.

Old design standbys can save a lot of energy. Correctly designed overhangs shield walls from the summer sun and expose them to the winter sun. Attached porches protect walls and windows from direct sun rays. Operable shutters make excellent sun and wind screens. And outdoor awnings over windows and doors are still another proven means of sun protection. Vestibules with

to come by—to be wasted.

In April 1971 the Federal Housing Administration increased its Minimum Property Standards for insulation. The MPS now specify an R-value of 11 in ceilings and 7 in walls. Translated into practical terms, this means about 3½" of insulation in ceilings and 2" in walls—too little in our present circumstance. We should be putting 6" in ceilings and 3½" in walls: This would cut fuel consumption by more than 30%. Walls in basements should be fully insulated unless they are more than 2' below ground level. And floors over unconditioned basements and crawl spaces should be insulated to at least the same degree as walls.

In slab-on-grade construction, heat loss occurs mostly at the perimeter of the slab. Two inches of rigid fiber glass or polystyrene perimeter insulation is essential here. A

dows are just as functional in warm climates as in cold ones.

We should never install metal windows that don't have thermal barriers. Thermally conductive metal frames cause heat loss and condensation, and make balanced heating almost impossible.

Adequate weatherstripping is a must. Doors and windows seldom fit perfectly into their jambs; weatherstripping is a simple way to make them tight.

Exterior materials should be selected for thermal properties not just price and maintenance. For example, aluminum siding is easy to maintain and moderately priced, but if it is used without a thermal guard or insulated sheathing the initial savings may be eaten up by higher heating costs.

We have to eliminate shoddy workmanship. No matter what materials we use, they are only as effective as the way we put them together, and air leaks caused by putting them together badly are one of the biggest causes of energy waste. Thorough inspections—not just casual once-overs—at every stage of construction are vital.

We can't afford to keep using equipment and appliances inefficiently.

Heating and cooling equipment should be selected for high efficiency. Efficiency ratings of most systems are available and should be consulted before a purchase is made.

Very often we utilize oversized heating and cooling systems. Sometimes the exact sizes needed are not available so we over-

Some heating and cooling systems feature other energy saving extras. Heat retrieval systems capture heat that might otherwise be totally lost and either recirculate it through the system or use it for insulation around the heat source itself. Open air cycle devices, offered on some newer air conditioning systems, automatically compute whether indoor or outdoor air can be cooled more efficiently. Whichever air is cooler and less humid is then cooled and circulated.

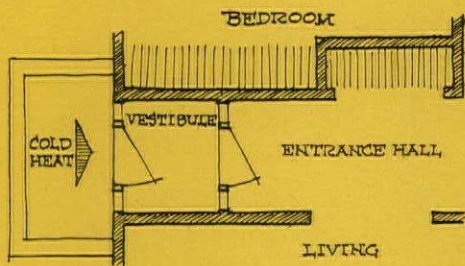
Heating and cooling systems and their ductwork should be designed by a mechanical engineer. When this work falls to the lowest bidder, there is no guaranty that you'll get the best job. If an entire system is designed for optimum efficiency, we can sizably reduce the load and the size of the units needed to condition the house.

lator can completely eliminate the need for artificial cooling. Unventilated attic temperatures can reach 140° or more, and much of this heat will be radiated into the living areas. A ventilating system can pull this temperature below 100°, and the load on the air conditioning system is substantially reduced.

As with all other equipment, ventilators must be positioned properly to operate efficiently.

An attic fan should draw air from the cooler, shadier side of a house and exhaust air from as high up as possible.

Exhaust fans should be installed in kitchens and bathrooms to help reduce the cooling load. Without ventilation these rooms tend to become hot spots and can affect the operation of nearby thermostats.

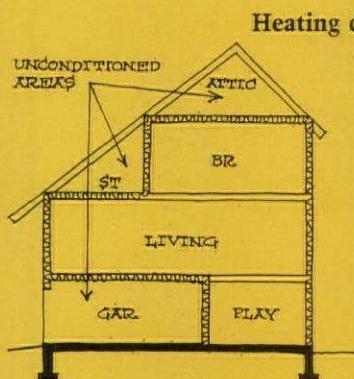


Vestibules reduce the flow of outside air into the house and prevent conditioned air from escaping.

buy, other times our systems are so badly designed that we need larger units to compensate for our mistakes.

Air conditioning condensers should be positioned so that they don't waste energy. A unit set in the afternoon sun is forced to do double duty. It must cool warmer air and work harder to keep the air cool. Place the condenser on the cooler, shadier side of the house for greater efficiency.

Using humidifiers in conjunction with heating systems allows us to keep the temperature a few degrees cooler without a noticeable drop in comfort. De-humidifying in the summer has the reverse effect; it allows us to keep the thermostat setting on the air conditioner a few degrees higher without discomfort.

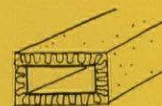


We are not using enough insulation between conditioned and unconditioned areas.

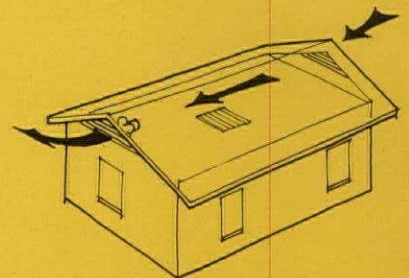
We should use zoned heating and cooling systems. They permit conditioned air to be channeled where it is needed most at specific times. For example, a family room does not need full heat when everyone is asleep in bedrooms on the other side of a house. By the same token there is no need to air condition bedrooms all day when it only takes a couple of hours to make them comfortable for sleeping.

Zoned central air conditioning should be used when an entire house is to be cooled. Individual room units use proportionately more electricity and are less efficient than a proper size central system.

We should use ventilating fans more to reduce air conditioner loads. In some instances, a good attic fan or ridge-type venti-



Heating ducts should be fully insulated to prevent heat loss.



We should use more ventilating fans to reduce air conditioner loads.

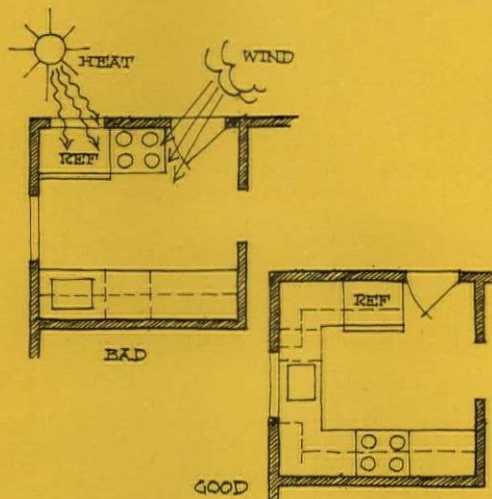
The result can be over-cooling in the summer or too little heat in the winter.

However, over-use of exhaust fans can be more costly than none at all. Timers should be installed to insure that fans are left only for the few minutes it takes to clear the smoke, steam, heat or odor from the air. Leaving a powerful exhaust fan on longer can be an enormous waste of conditioned air. As a matter of fact it can pull most of the heated or cooled air from a one-story house in less than half an hour.

Fireplaces should work and should include heat distribution equipment. Some of the more efficient units are available with ductwork systems that distribute heat to two or three rooms simultaneously. Fireplaces should be placed on inside walls if possible; this way more heat from the chimney is

radiated within the house instead of escaping through an outside wall. Many fireplaces are built for decoration or only for occasional use. In some cases flues and chimneys are not designed to withstand prolonged fires. In fact, there have been reports of house fires attributed to continuous operation of fireplaces over a period of days.

Proper damper control is also very important. Like exhaust fans, fireplaces can be tremendous sources of heat loss. Heat can travel quickly up and out a chimney. The ideal set-up is a fireplace with an automatic damper, a built-in heat distribution system and a glass firescreen. This type of screen insures that none of the house heat will be lost up the chimney; ventilating holes provide the oxygen needed to keep the fire alive and also allow the odor and crackling noise to escape into the room.



Positions of appliances can affect their efficiency.

We use too many energy-wasting appliances. Unfortunately, many of the luxury appliances that we have come to think of as everyday conveniences are great energy wasters. It is possible that we might someday have to sacrifice self-cleaning ovens, automatic ice-makers, even self-defrosting devices—or make them far less energy wasting. Again, we should try to specify the most efficient model and size appliance.

Position of appliances can also affect their efficiency. A refrigerator placed near a radiator, stove or in the direct sun is forced to work much harder than necessary; likewise, a stove installed near a frequently opened window or door has to overwork to keep hot. Laundry appliances should be placed in warm areas to give optimum performance.

—ELISE PLATT

What about solar energy?

Auxiliary fuel costs during an entire winter can be as low as \$4.65 when a home is equipped with a solar energy system (drawing below).

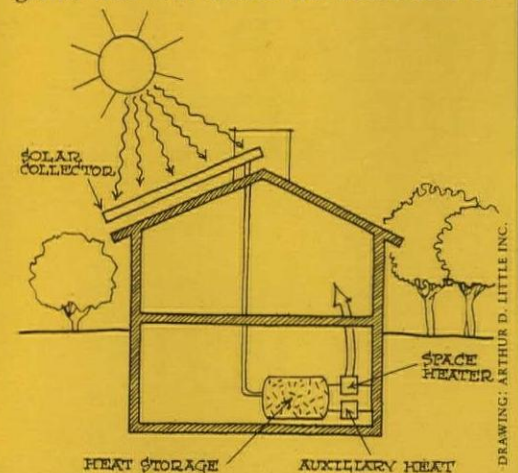
So why have only 20-odd solar energy homes been built in the last 35 years? Because of high initial costs. For example: A solar energy system for a 1,500-sq.-ft. home can cost \$4,000—\$3,000 for 300 feet of solar collector (key element of a system) at \$10 a sq. ft. plus \$1,000 for the other elements.

But the energy crisis—both shortages and price increases in gas, oil and electricity—has stirred up new interest in solar energy. This could lower first-time costs, particularly for solar collectors. Although it's too soon to know how heavy demand would affect prices, some experts believe mass-produced collectors might cost as little as \$2 a sq. ft. compared with \$6 to \$10 for custom-made units.

Says D. Elliott Wilbur of Arthur D. Little Inc., a Massachusetts-based technical and management consulting firm:

"It's the traditional chicken-egg problem. Large scale producers are awaiting the signs of a mass market while the market will not be aroused until the product is available at popular prices."

Wilbur sees a need for government programs that will insure the added cost of

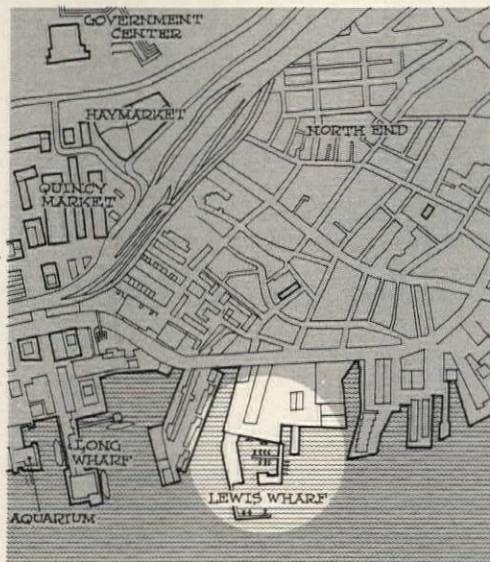


Typical solar energy system consists of a roof-mounted flat plate solar collector (heat absorbent sheeting covered with a transparent layer of glass), piping, a thermal storage tank and a space heater. Sunlight passes through the glass layer to the collector which absorbs the heat, then transfers it by air, water or other fluid to the tank where it is stored for distribution as needed.

installation: subsidies or FHA insurance to stimulate consumer interest.

Some government help may be on the way. A bill before the House of Representatives provides for government sponsorship of solar heating and cooling installations in residential, commercial and government buildings over a three- to five-year period. The bill was introduced by Representative Mike McCormack of Washington whose office also is drafting legislation providing tax incentives to spur the use of solar energy.

—LESLIE LAIRD



REHAB CREATES AN INNER- CITY PUD

Eight years ago Lewis Wharf was a dingy collection of small factories and semi-abandoned warehouses on the Boston waterfront. Today it's well on the way to becoming a viable complex of housing, offices, shops, restaurants and recreation facilities.

The reason for the change is that architect Carl Koch was able to see beyond the dark alleys and refuse heaps. In his opinion, the wharf's possibilities far outweighed the 10.5-acre site's poor image. Specifically:

1. The location was prime—on Boston Harbor and a few minutes' walk from a subway station, diverse shopping areas and the downtown business-financial-government center.

2. The principal buildings were structurally sound and massively constructed.

3. Historic locations are big sellers in Boston, and the wharf is definitely historic. In the 1830s, it was built by merchants who dispatched famous clipper ships like the *Flying Cloud* to bring back tea, spices, furs and

other exotic cargoes eagerly sought by a young expanding nation. Nineteenth century daguerreotypes show Lewis Wharf barely visible through a forest of ships' masts.

4. Government officials, businessmen and developers were increasingly interested in the re-development of the neighborhood, called the North End. And the Boston Redevelopment Authority, with broad powers to condemn property and control growth patterns, was just coming into being. Everyone was hopeful that the BRA would provide the direction and imagination needed to revive decaying neighborhoods.

In 1965 Koch formed the Boston Waterfront Development Corp., which purchased Lewis Wharf for \$1 million. The next eight years were a continuous struggle for city approvals, financing and market acceptance. At times, Koch and his five corporate directors were on the brink of bankruptcy. But today they are close to seeing the project

successfully completed.

Lewis Wharf's primary structure is the six-story Granite Building (*shown above*), a 200,000-sq.-ft. edifice built in 1838 of 14" x 14" pine beams on 14" centers, and granite and brick bearing walls 16" to 30" thick. This building has been stripped of its non-structural elements and divided three ways:

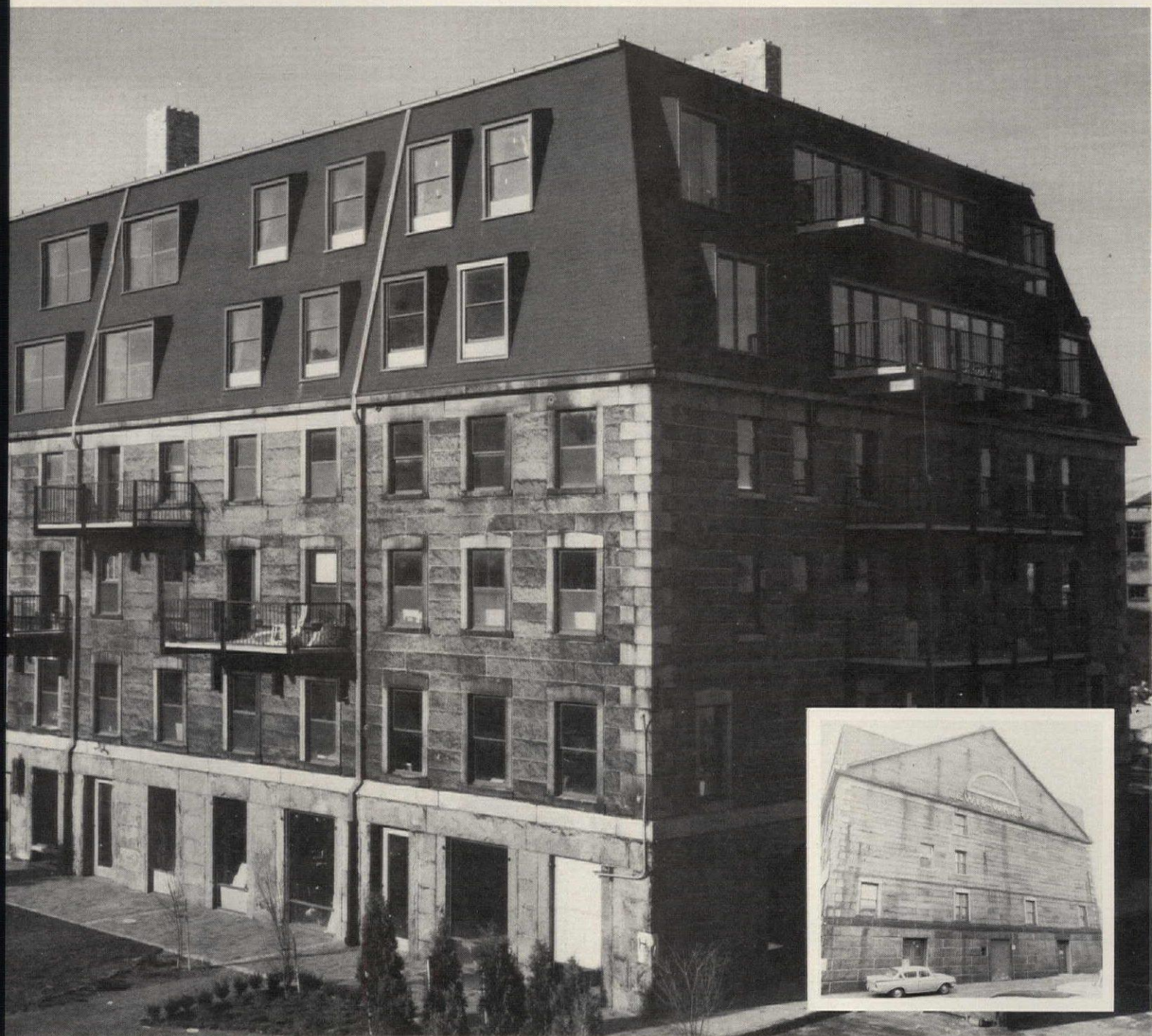
1. The 55,000-sq.-ft. ground floor and basement are 60% rented to ten retail shops, two restaurants and one grocery. Rents range from \$8 to \$12 a sq. ft., plus percentages from 5½% to 8½% of certain tenants' revenues.

2. The 30,000-sq.-ft. second floor is 90% rented for offices at an average rent of \$8.50 a sq. ft.

3. The 102,000 sq. ft. of space on the third through sixth floors is being sold as 93 condominium apartments priced from \$40,000 to \$140,000. Approximately 60% of the units have been sold.

Elsewhere on the site, the Pilot House, a five-story brick building that once housed





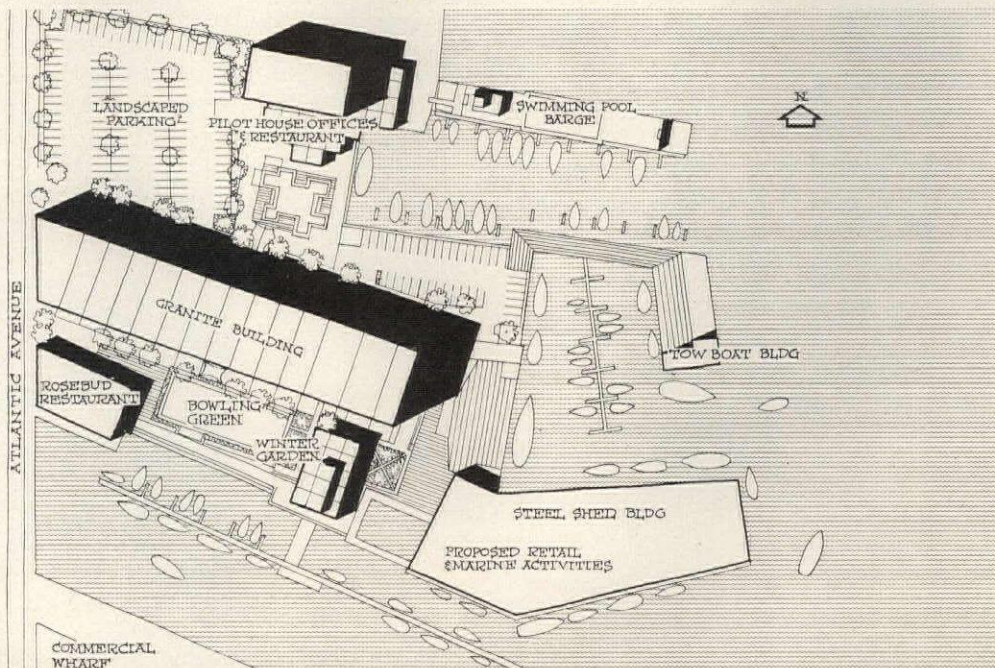
PHOTOS: WAYNE SOVERNS JR.

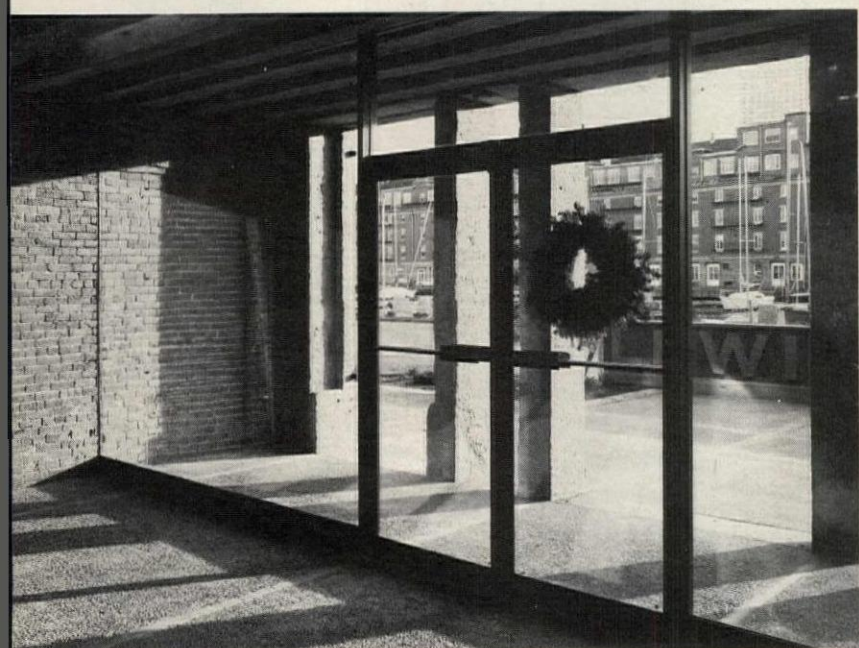
merchants' offices and pilots waiting for incoming ships is being converted into an 11,000-sq.-ft. restaurant on the ground floor and offices on the upper four floors, which total 23,200 sq. ft. The entire building has been leased at an average rent of \$9.70 a sq. ft., except for the second floor which does not have a tenant.

A second 11,000-sq.-ft. restaurant, the Rosebud, will occupy a former celery processing plant. The space has been net leased for \$90,000 annually, and renovation should be completed this summer.

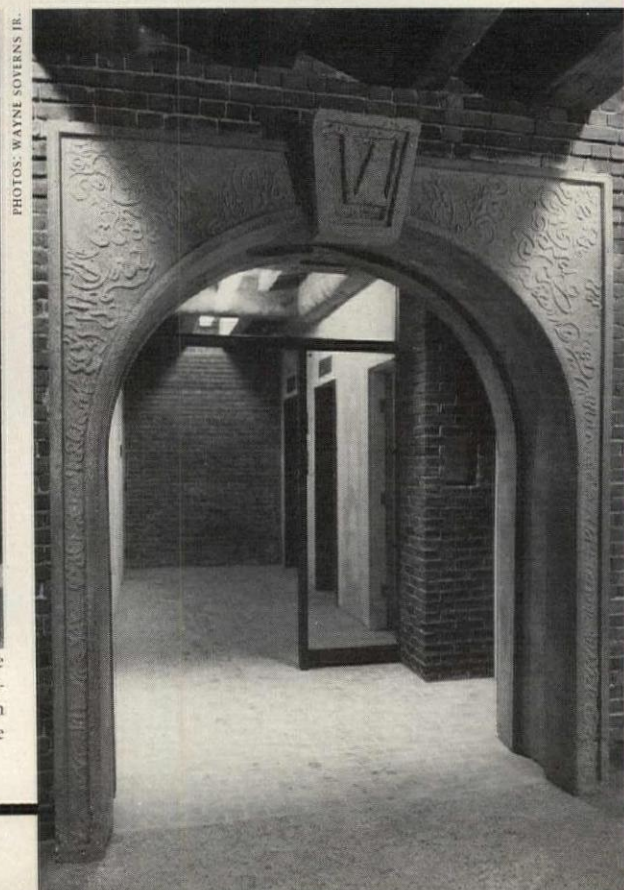
The site also includes the Towboat Building, which will be refurbished but will continue to house office tenants, and the Steel Shed Building, which may contain shops and a yacht broker.

Today the project is well on the road to success—so much so, in fact, that Koch's firm is bidding to the BRA for the right to rehab and develop the adjacent property, Sergeant's Wharf.



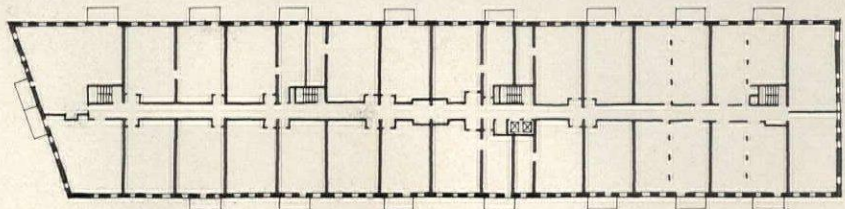


Lobby entrance [above] emphasizes the exposed brick and massive beams characteristic of most of the interior. Between the lobby and the elevators [right] is one of numerous newly built archways.

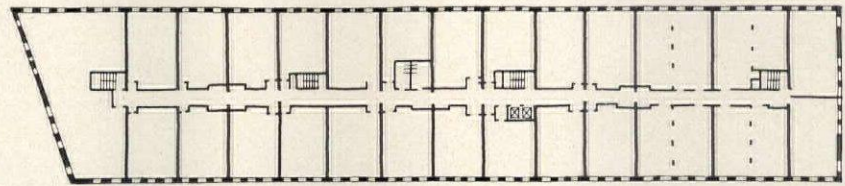


PHOTOS: WAYNE SOVERNS JR.

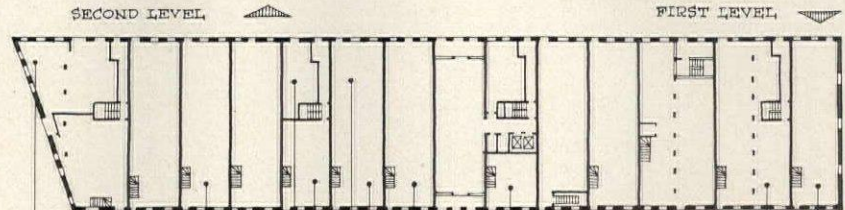




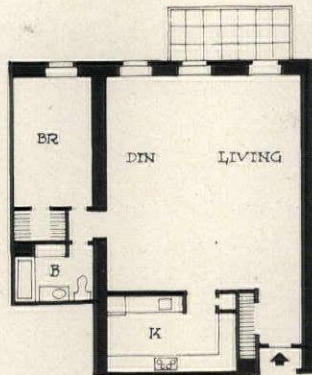
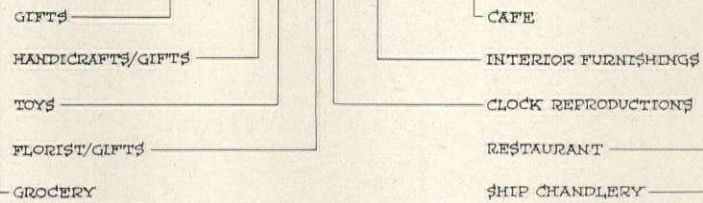
THIRD LEVEL



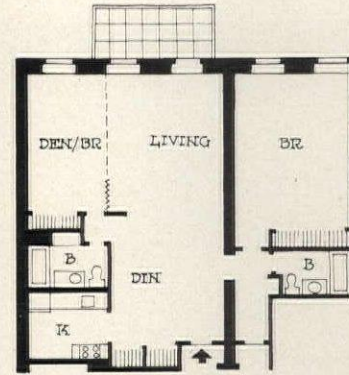
SECOND LEVEL



FIRST LEVEL

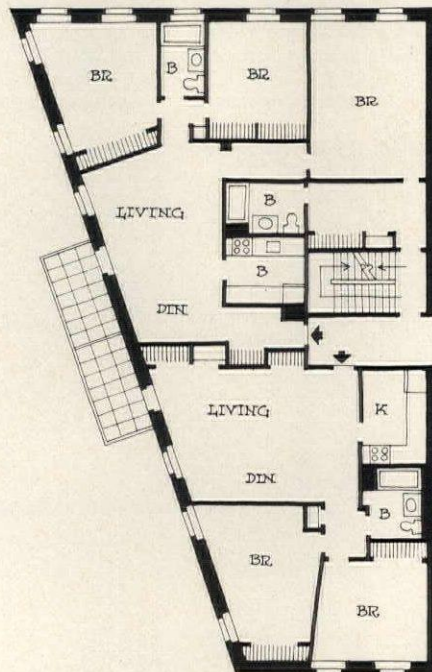


1-BEDROOM - 1 BATH UNIT



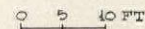
2-BEDROOM - 2 BATH UNIT

3-BEDROOM - 2 BATH UNIT



2-BEDROOM - 4 BATH UNIT

Two plans (above) are typical of most apartments on the third through the sixth floors (an apartment floor plan is at top). One bedroom 850-sq.-ft. units (above left) range in price from \$40,000 to \$53,000; two bedroom 1,300-sq.-ft. units (above right) sell from \$78,000 to \$81,000. In addition, eight street-side angular apartment layouts (plans, left) range from \$53,000 to \$81,000. For buyers who want more living area, 28 small units can be combined into 14 two and three bedroom units of 1,700 sq. ft. These cost from \$85,000 to \$104,000, but one sold for \$120,000 because of a fine location. Upper floor units facing the harbor sold for \$132,000 to \$140,000. Office space on the second floor (center building floor plan) rents for \$8.50 a sq. ft. Ground floor retail space rents for \$8 to \$12 a sq. ft. plus percentages. In addition to the ten tenants listed above, three more—a fabric boutique, bookstore and goldsmith—are expected to be assigned space soon.



Museum exhibit, created by the Museum of the American China Trade, Milton, Mass., was installed in one of the retail spaces to increase traffic and to focus attention on the wharf's romantic history.

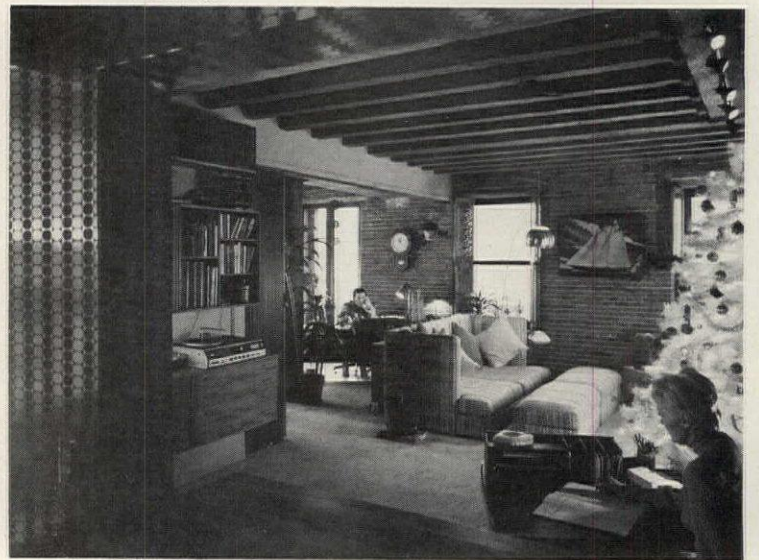
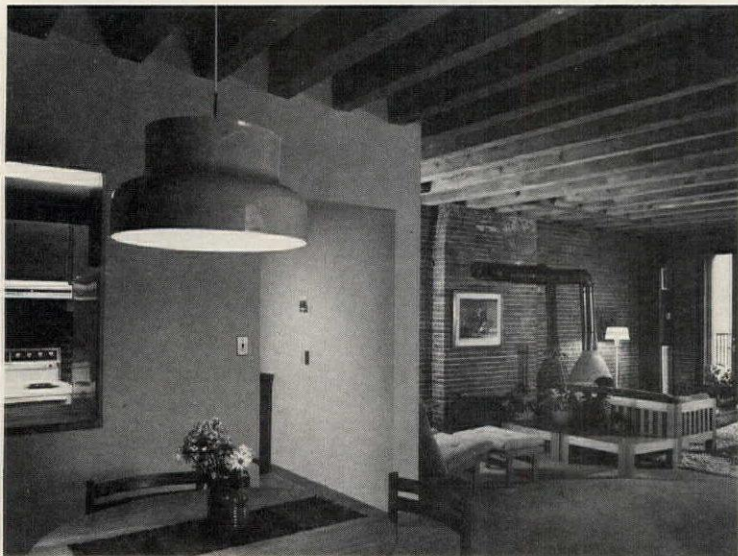


Vast open spaces, called bays, comprised most of the Granite Building prior to renovation.



Living room (right) of two-bedroom model focuses on contemporary fireplace, an option for all units. Dining area and kitchen of same unit is below.

PHOTOS: WAYNE SOVERNS JR.



Office-at-home is the height of convenience for a commodities broker who wants a low-pressure harborside environment for his high-pressure business.

Mansard roof windows with sliding glass offer views of the skyline and harbor from apartments on the fifth and sixth floors.

THE LEWIS WHARF STORY:

EIGHT YEARS FROM IDEA TO REALITY

"It's a nice idea, but it'll never work."

More often than not, that's what lenders said when Carl Koch sought financing for his Lewis Wharf project.

From 1965 to 1971 Koch shopped without success. For a while, he thought he was going to get an FHA loan. FHA stipulated that the Granite Building be vacant before it would consider the loan. So Koch emptied the building of the industrial and commercial tenants who were paying the carrying costs—taxes, insurance, interest, amortization, etc. But the FHA commitment, when it came, didn't cover the rehabilitation costs. So Koch and his directors were left with a distressing situation: no tenants, a \$70,000-a-year negative cash flow and poor prospects of getting a construction loan.

"Our credibility among lenders was nil," recalls Koch, "and the harder we tried the worse it became."

After several years of trying to avoid bankruptcy and keep the project alive, Koch invited James Craig, an experienced hotel developer, to become company president.

Craig's presence did two things: It gave the company instant credibility as a developer, and it provided new financial contacts.

Craig engaged Austin Heath, a prominent Boston mortgage broker, to help obtain financing. His efforts resulted in a two-year \$5.5-million construction loan and a \$1.35-million second mortgage.

The terms called for an interest rate of three points above prime, and an option that permits one of the lenders—a REIT called Builders Investment Group—to acquire 50% of the company's assets and thus 50% of the cashflow. The other lender was CBT Realty Corp., a Connecticut Bank and Trust Co. subsidiary.

Later the same lenders put up an additional \$3.2 million on roughly the same terms. The additional funds covered reconstruction of the Pilot House and the Rosebud Restaurant, reinforcing and refurbishing the wharf, plus minor cost over-runs.

Development loans now total about \$10 million. Koch and his directors have them-

selves invested about \$700,000 to date for buildings, land, carrying costs and finance charges.

What sort of return will the investors and lenders receive?

When the entire project is sold and rented out—probably by mid-summer, according to Koch—the annual rent roll will be over \$1 million: \$550,000 from Granite Building office and retail rents (not including percentage rents); \$360,000 from Pilot House office and restaurant rents; \$90,000 from the Rosebud Restaurant, and \$61,000 from parking.

By 1977 the cash flow before federal taxes is projected to be about \$400,000. That total, to be divided equally between the company and the REIT, is the net after paying out a 10% constant on a \$4.5 million permanent mortgage. Net cash flow should be even higher when percentage rents start coming in. When the Towboat Building and the Steel Shed are refurbished for offices, stores and other uses, they should generate an additional \$80,000.

"The profits will come from the retail and commercial space," says Koch. "Construction costs for the condominium apartments are running \$30 a sq. ft., and the units are selling for \$55 to \$60 a sq. ft. But we're only breaking even because the profit is eaten up by other expenses, mostly interest charges."

Craig says interest and finance charges for the various loans total \$1 million for the two-year construction period.

"When I agreed to three points above prime, the rate was 5½%," he says. "Who could have dreamed that in a year it would go to 10%?"

Fortunately, much of the \$1 million in interest and finance charges has been covered by boosting condominium prices 9% and commercial rents 20%.

"Increased prices were necessary for survival," says Jo Daley, marketing director. "We soon found that people would pay more for the exclusive features of the wharf."

Daley says that while there is no typical condominium buyer, a community of inter-

ests does exist: an appreciation of historic atmosphere, a love of waterside living, a need to be close to the downtown business and government center, a desire to put down roots in a unique neighborhood of the city, and an enthusiasm for pioneering in a re-nascent community.

Most of the buyers are professional and business couples, 27 to 45 years old, earning \$35,000 to \$60,000 plus. There are also a number of divorced men. And some buyers are unmarried couples purchasing their units jointly: "The banks were surprised when we applied for a mortgage together," says a 36-year-old doctor. "But as more people do it, they are getting used to the idea."

Several condo buyers have taken office space: "It's a beautiful way to live," says James Kyle, vice president of Housing Securities Inc., adviser to Builders Investment Group. "After a hard day in the office, you just go upstairs for a quick shower and change of clothes. Then you can go for a sail and come back for dinner at a fine restaurant."

Other office tenants for the Granite Building and the Pilot House include law firms, dentists, management consultants, an advertising agency, insurance companies, accountants, and a cable television firm.

Selling a dingy warehouse to upper-income prospects presents special marketing problems.

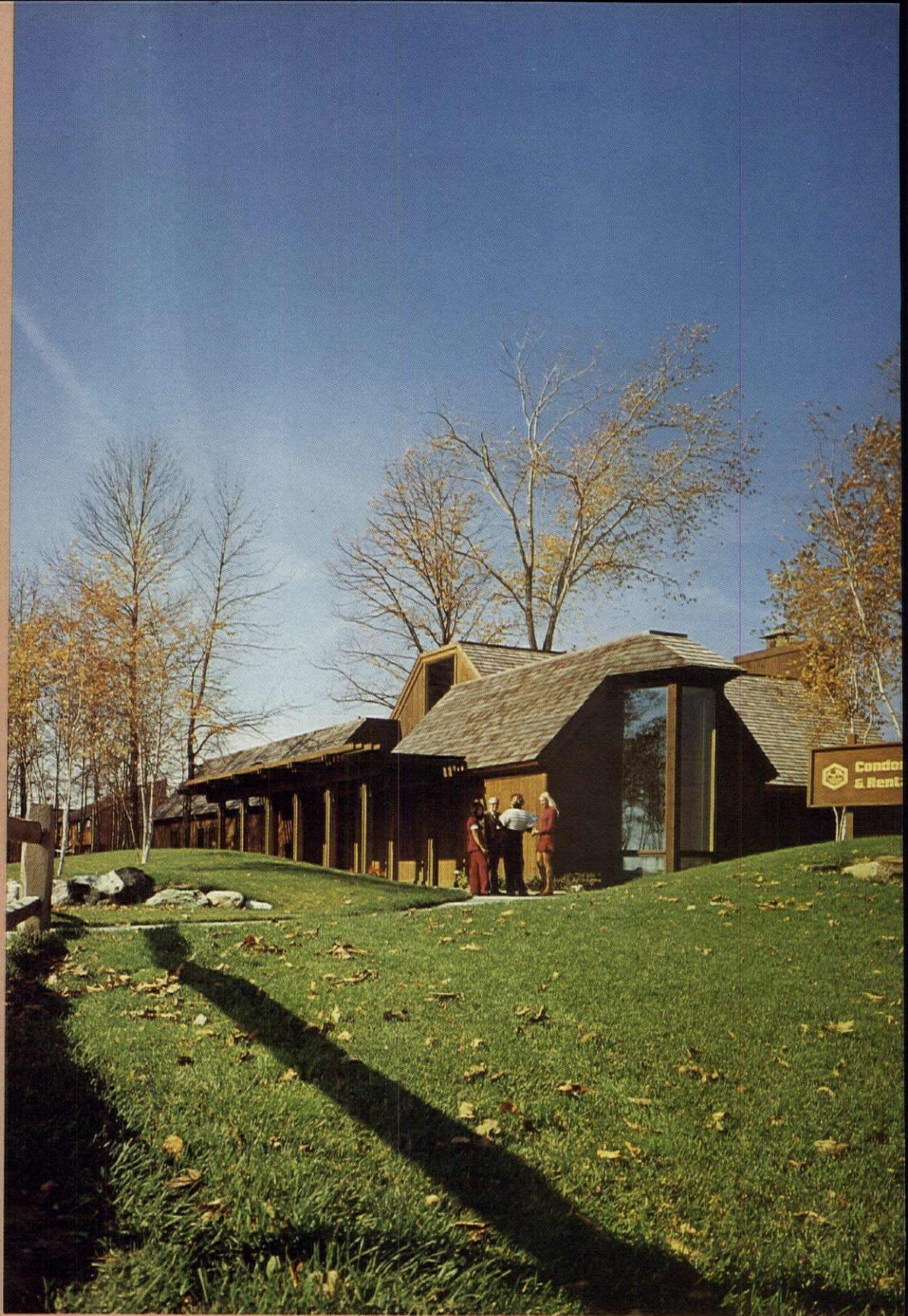
"We sold mostly on vision and energy," says Jo Daley. "Demolition started in April 1972, but we didn't have a model apartment ready until a year later."

She emphasizes that many prospects knew Carl Koch's reputation as an innovative architect. "This gave people confidence that the job would get done."

Daley and her sales team painted verbal images for customers as they walked through areas being demolished. "We could easily separate the buyers from the sightseers," she says, "because not everyone was willing to wear a hard hat and put up with dripping water, muddy floors and the dust and din of demolition and construction."

—MICHAEL J. ROBINSON

JIM HEDRICH, HEDRICH-BLESSING

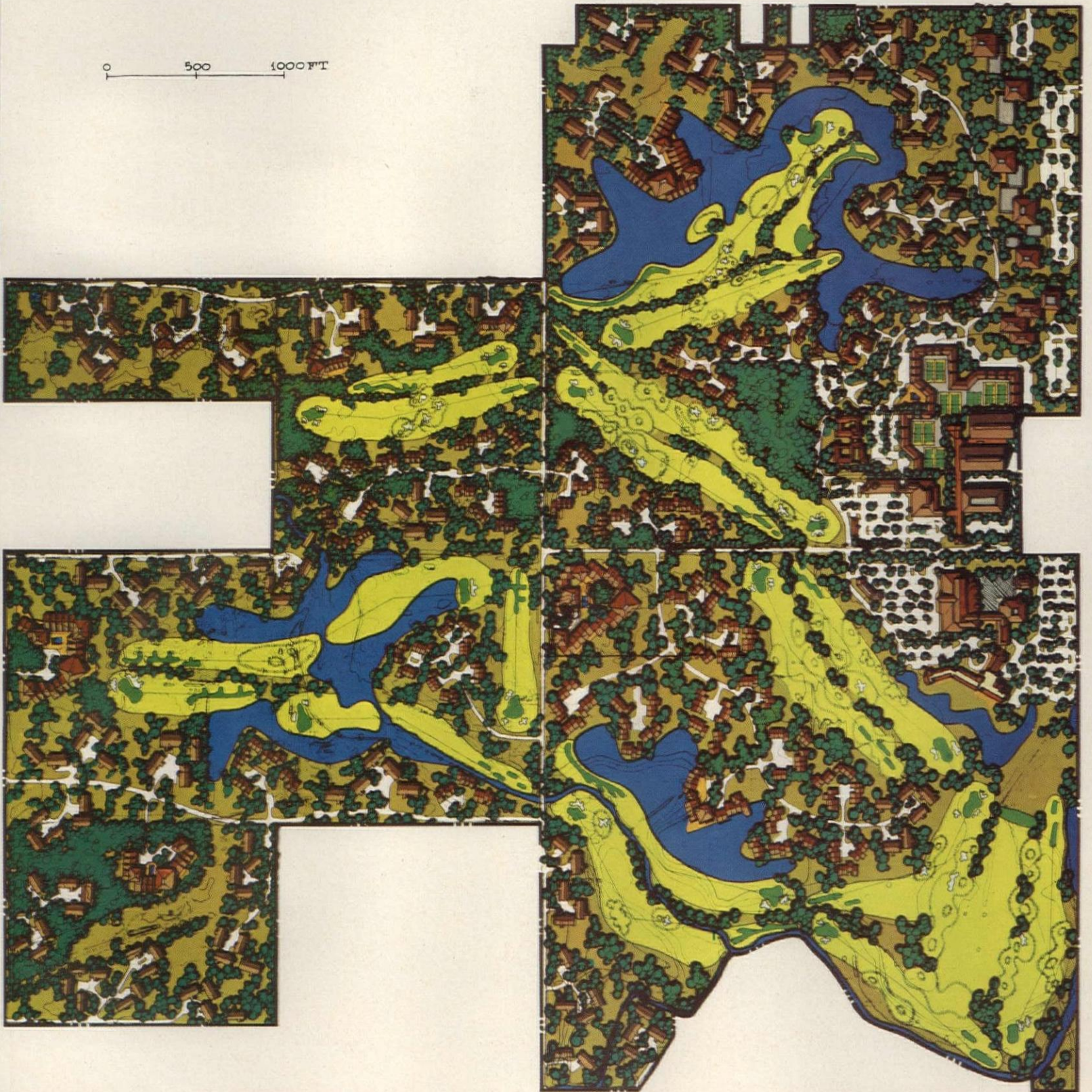


PROJECT PORTFOLIO

15

PROJECT: Bay Valley
LOCATION: Bay City, Mich.
DEVELOPER: Bay Valley Associates
ARCHITECT AND LAND PLANNER: Desmond Muirhead Inc.
GOLF-COURSE ARCHITECT: Desmond Muirhead
ASSOCIATE ARCHITECT: Mell Hemmet
SITE AREA: 480 acres
NUMBER OF UNITS: 2,400 condominiums and rental apartments
PRICE RANGE: \$13,900 to \$65,000
RENTAL RANGE: \$135 to \$600

0 500 1000 FT



When it opened late in 1972, Bay Valley appeared to have two strikes against it. First, it was a pioneer: the tri-city area of Michigan (Bay City, Midland and Saginaw) had never had a major PUD, and condominium ownership was virtually unknown there. Second, the project's opening and first sales year coincided exactly with the money crunch; and finally, with its 18-hole championship golf course, indoor tennis club and 152-room inn, Bay Valley took off with a heavy front-money load. But things have gone better than the developers could have expected. Sales have been steady if not spectacular—about 140 units since opening—thanks chiefly to the project's environmental appeal and its broad recreation package. And the inn has turned out to be a marketing aid, a focal point for the community and a strong cash-flow producer almost from the beginning.



The Bay Valley Inn has proved an enormously important part of Bay Valley. It opened toward the end of April last year, and within a month it was pumping cash flow back into the project.

Much of this success is the direct result of the inn's synergistic interaction with the project as a whole. For example, it would have been impossible to build either a golf course or a tennis club to serve only the inn. However, these facilities, built for the project, are also available to guests at the inn. This has been a major factor in bringing in guests, and at the same time, the guests have contributed significantly to the cash

flow of the golf and tennis operations.

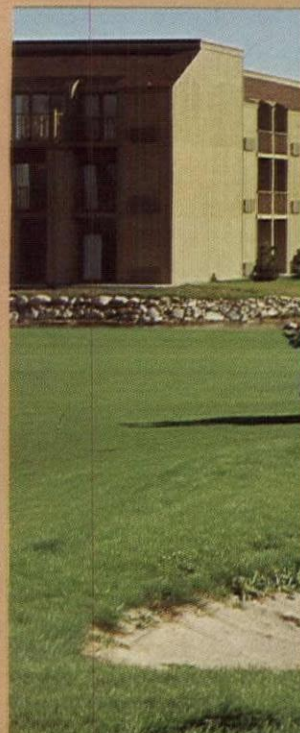
Another point: The golf club itself is housed in the inn and shares many of the facilities—notably the bar, dining room, and the indoor-outdoor pool. As part of the inn, the eating and drinking facilities are on a paying basis—an impossibility were the club operated privately. And the club members using those facilities in turn contribute to the profitability of the inn.

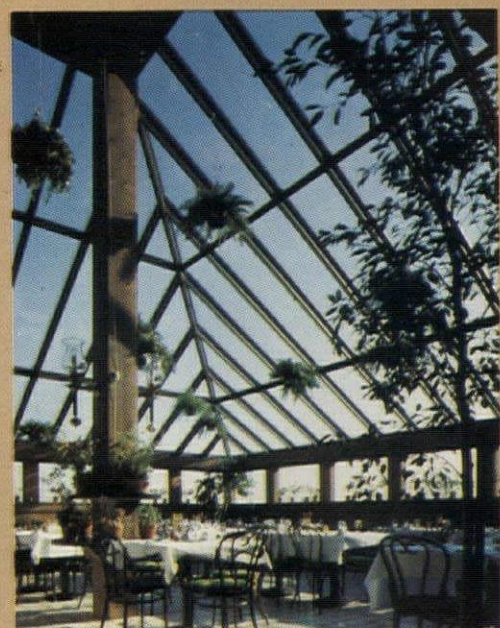
Finally, the inn serves as an important social focal point for the project—so much so, in fact, the dining space is already insufficient and plans are underway for another res-

taurant.

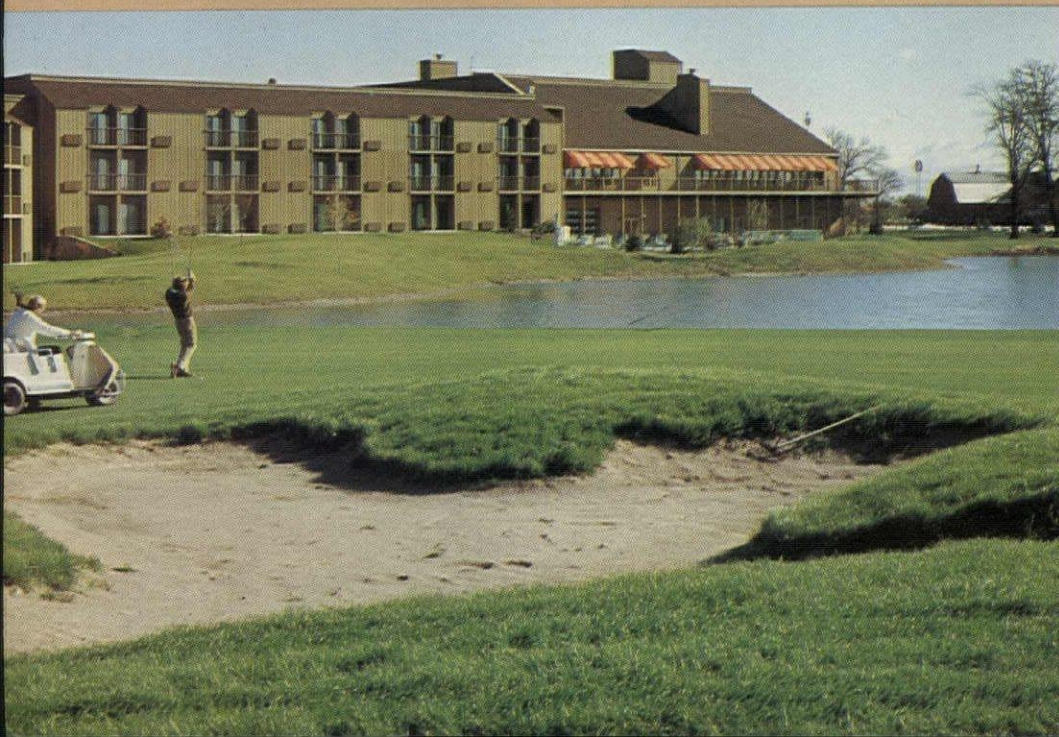
The inn has 152 rooms, seven suites and three meeting rooms, the majority of which are full most of the time. During the week the resident mix is roughly 35% commercial travelers, 50% attendees of conferences and 15% resort guests. On weekends it changes to 60% resort guests and 40% conference attendees. The inn is booked several months in advance.

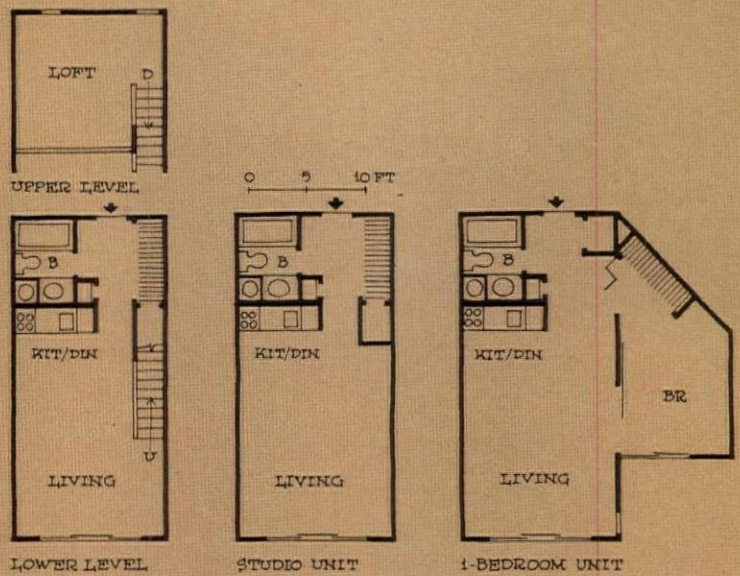
The photo above shows the entrance side of the inn; at right is the rear which opens onto the golf course; and at far right is the glass ceilinged dining room, whose exterior is visible in the photo above.





PHOTOS: JIM HEDRICH, HEDRICH-BLESSING

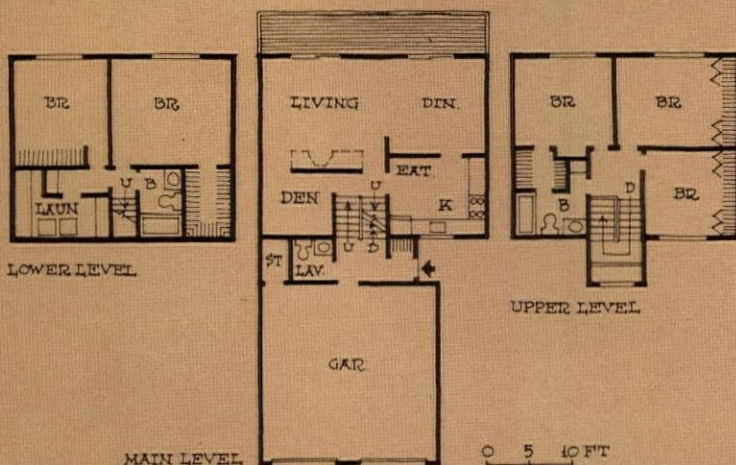




Tennis condominiums have been Bay Valley's best sellers; of the first 63 units, 54 have been sold and there is a waiting list of 24 for the two larger models, which sold out first. The three models include an efficiency (*center, above*) with 394 sq. ft., priced at \$15,400; a loft model (*left*) with 523 sq. ft., at \$17,500, and a one-bedroom model (*right*) with 550 sq. ft. at \$18,900. A fourth model—two bedrooms and 1,200 sq. ft. for about

\$36,000—is being test marketed. Eventually, 113 units will be built.

The tennis club around which the condos are built has six outdoor and six indoor courts. Non-resident indoor memberships cost \$155 a year for families, \$75 for individuals; residents pay 30% less. There is also an hourly charge for courts. Outdoor memberships are \$100 and \$75, residents get a 30% discount, and there are no court charges.

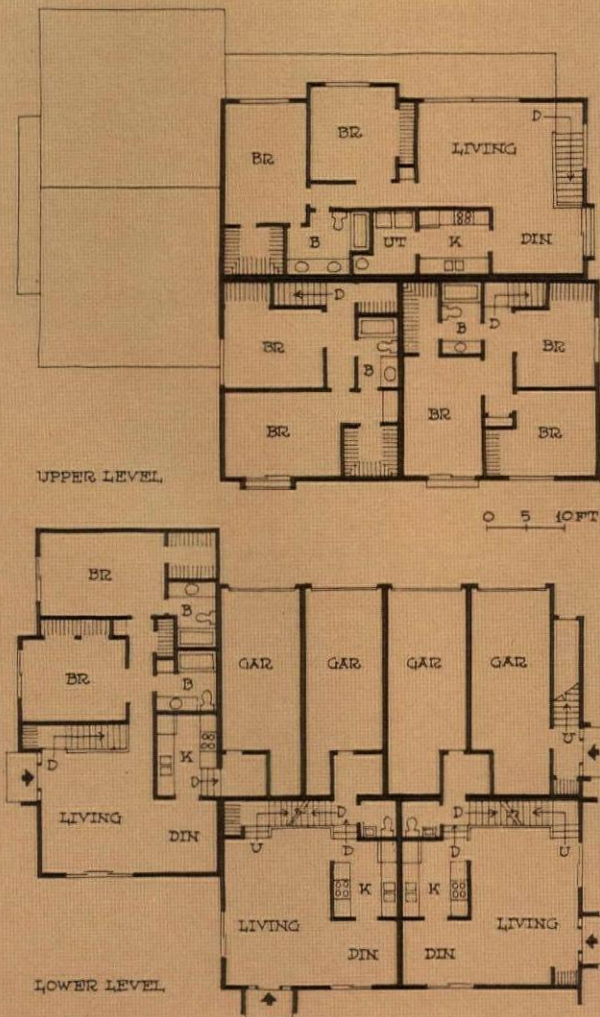
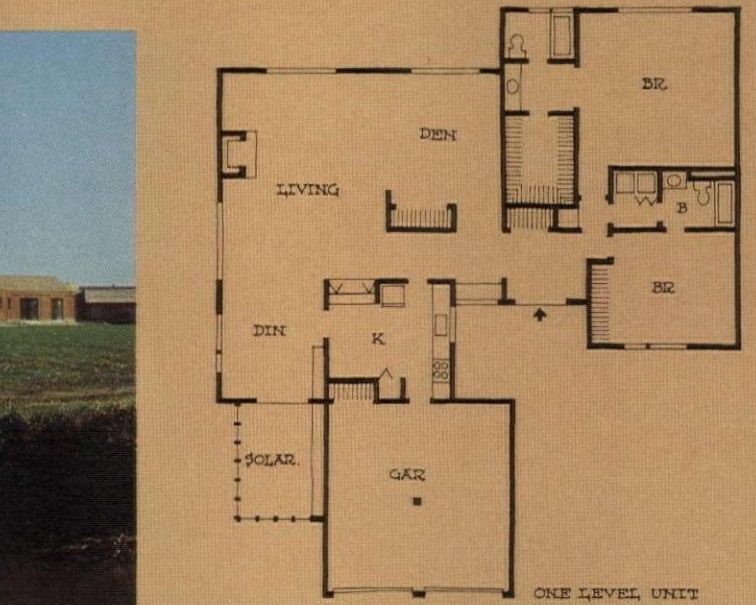
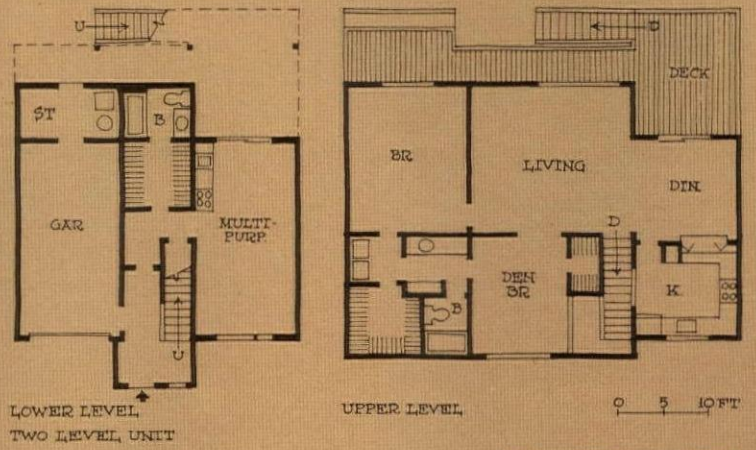


Medium-priced condos range from 1,200 sq. ft. to 1,900 sq. ft., have from two to five bedrooms and carry price tags ranging from \$35,000 to \$52,000. The floor plan at left is of a five-bedroom model; two of the bedrooms are on the lower level created by cutting the unit into a slope. Smaller units lack the lower level; all units have a two-car garage.

The first phase of this program includes 25 units, and so far 17 have been sold. Surprisingly, the smaller units have sold better than the larger ones, and two bedrooms have attracted the most buyers. Empty nesters make up one large segment of this market; another is young families with either no children or one small child.

Luxury condominiums are priced from \$44,000 to \$65,000, and offer buyers a wide choice: Units are either one or two story, two or three bedrooms and include from 1,300 sq. ft. to 2,200 sq. ft. They are built at a density of about 4½ per acre—about half that of the medium-priced condos. The plans at right show (top) a two-level unit with living areas on the upper level and (bottom) a two-bedroom, one-story unit that features a solarium. One unit with a solarium is visible in the photo

below, just to the left of the golfer. This program is designed for two markets—families with and without children. Seventeen units are set apart from the former, they are well away from the lakes which border this program and might be hazardous for small children. The other units may not be sold to families with children under 16 years of age and this has been the most popular group. Of the 63 units built, 43 have been sold, and all but three of them to families without children.



Fourplex condominiums are the lowest priced full-sized homes in Bay Valley. They have from 1,000 to 1,200 sq. ft. of area, plus basements with finished rec rooms or one-car garages. The price range is from \$29,300 to \$36,000. Also, like all units in the project, these include a complete line of luxury-range appliances and full carpeting.

The first phase of this program includes 40 units, and 24 have been sold so far. Buyers are fairly evenly divided between empty nesters and young families with children. Like all Bay Valley programs, this one has appreciated considerably since the project opened late in 1972. The average price increase to date has been approximately 12%.

Bi-fold Doors by C-E Morgan offer unique advantages

THE LOOK, THE FEEL, THE BEAUTY OF WOOD
AND SOMETHING MORE...THE PERMANENCE OF

Structured Polymer

Bi-fold Doors of Structured Polymer have proven their worth to both builder and buyer. For the builder, Morgan offers a choice of designs, each having solid unitized construction. Complete with hardware, ready for installation. Attractive white factory prime finish... install as-is or paint if desired. Doors can be trimmed in height for a perfect fit.

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Structured Polymer is a unique material which offers a variety of advantages. Morgan makes it available to you now in bi-fold doors and window and door shutters. Write for complete information.

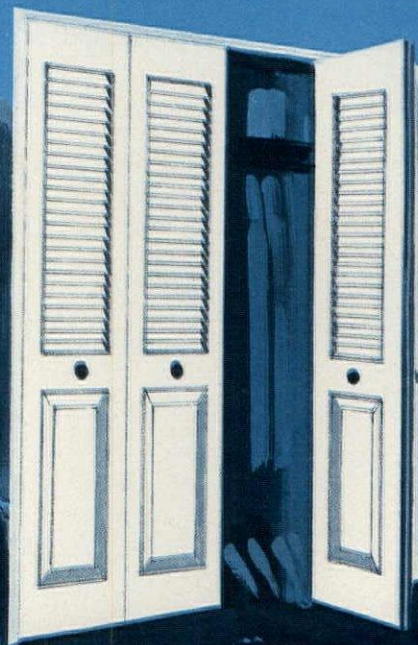
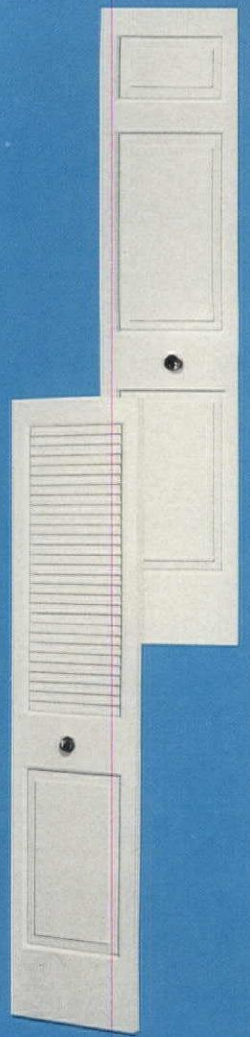
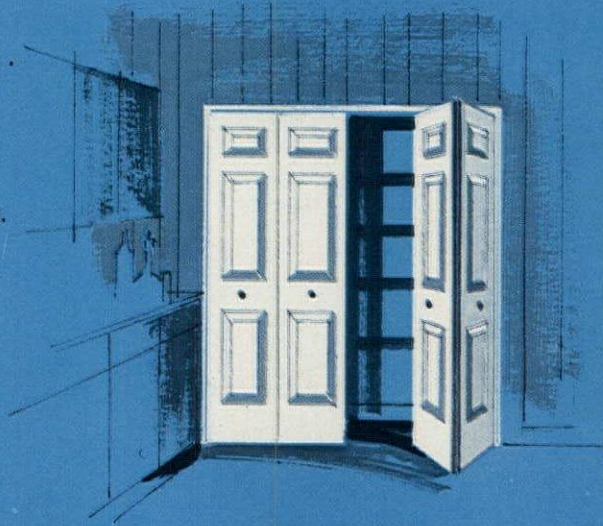
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That's why we have 20,000 Service Technicians wearing the same hat—working on only Sears appliances. There's no better way for us to offer you fast, dependable service.

There's constant field training, of course. There's also our five regional training centers. And last year, 9,766 men went through them. Some for the first time. Many for refresher courses—just to keep up with the many new features on major Sears appliances for the kitchen, laundry, home entertainment and home environment.

In addition, our Service Technicians are backed by other Sears service employees. And there are thousands of them.

Like the people in each service center's "Customer Inquiry Center" who schedule service calls, morning or afternoon, for customer convenience.

Like the parts specialists who make sure that each of our 14,000 service trucks are stocked with the parts called for in most service situations.

But the right people is only part of our national service department. The right equipment is important, too.

And Sears is continually devising new methods and new equipment to give you more efficient service.

Take our trucks, for instance. Now they've got "lazy susan" racks for quicker access to parts and tools.

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Here are 10 good reasons to consider

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 Send address of nearest Contract Sales office

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Position _____

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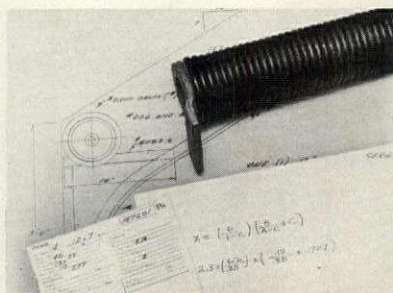
City _____ State _____ Zip _____

Dept. 733G, Sears, Roebuck and Co.,
Sears Tower, Chicago, Illinois 60684

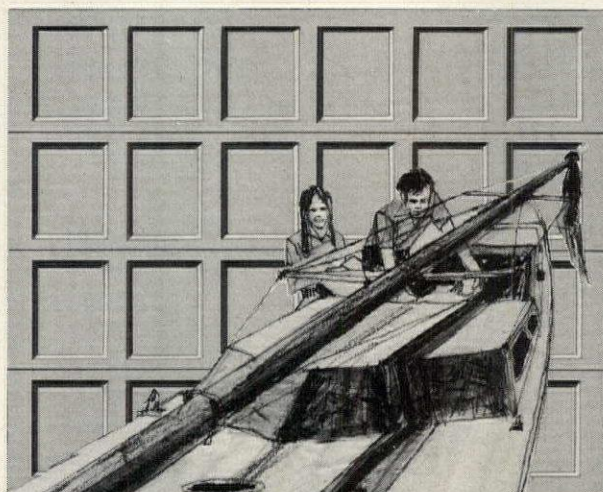
26-HH-274 SERVICE

If It's Worth Protecting, It Deserves A Raynor Door

There are good reasons why Raynor doors are appearing on more and more homes and apartments throughout the country. It's largely due to the many extras that only Raynor offers. There's a wide choice of materials, from wood to steel to fiberglass. And a choice of styles to blend with any architectural decor. Increasingly, builders are looking to Raynor for the new and better idea — like



the low-priced Rebel door that features rigid extruded aluminum rails so panels stay straight and true longer. There are extra quality touches, too. Springs are custom wound and all hardware is custom engineered to perfectly suit the characteristics of each door. It's extra work to do it that way, but Raynor goes to the trouble so you won't have trouble later. Whatever protective purpose you have in mind, it deserves a Raynor door.



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It'll tell buyers you're saving them money
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The fuel shortage is hitting homeowners right where it hurts—their pocketbooks. Result: *well-insulated* houses have something extra going for them nowadays.

So let your buyers *know* you're insulating with at least six inches (R-19) of Fiberglas* insulation in the ceiling and three inches (R-11) in the walls—to save fuel, cut costs.

That's why we're offering you these free thermostat hangers—to give you a little extra help in selling your houses.

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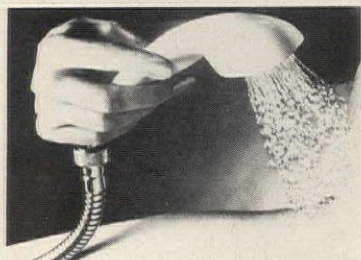
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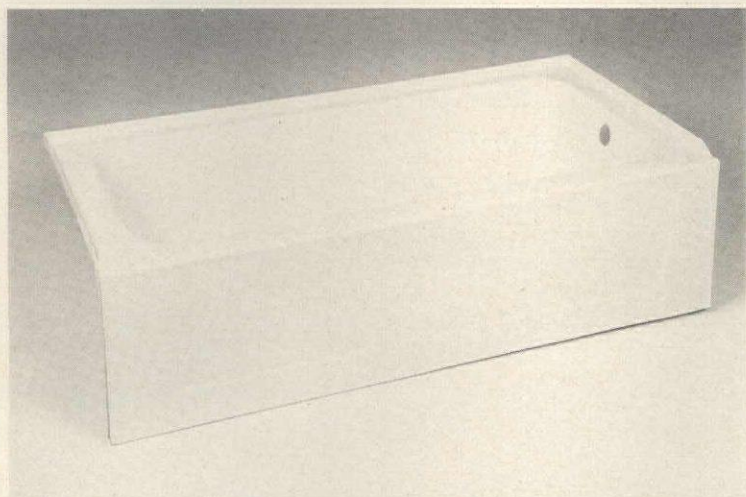
Personal hand/wall shower, "Tivoli", can direct water anywhere. Ideal for shampooing and child or pet washing, shower is secure and easy to install. Adaptable to existing plumbing fixtures, "Tivoli" features a diverter valve that simply screws onto shower arm. The unit comes in four models. Jacla, Brooklyn, N.Y.
CIRCLE 202 ON READER SERVICE CARD



Steam bath converter is easy to install in new or existing glass enclosed shower stall or bathtubs. A mini electronic steam generator is hidden away in a closet, vanity, attic, floor or ceiling up to 50' away. Silver-dollar size steam outlet heads in the shower are controlled by a timer. ThermaSol, New York City. CIRCLE 203 ON READER SERVICE CARD



Bathtub surround and vanity top are fabricated of DuPont "Corian". The material resists stains, mars, scratches and even cigarette burns. The one-piece vanity top and bowl comes complete with a backsplash in a range of standard sizes. Four panel tub-surround is designed to fit any standard size unit. E.I. DuPont, Wilmington, Del. CIRCLE 206 ON READER SERVICE CARD



Luxury-styled bathtub, "Venture Seventy", features a contoured backrest and generous bathing area. Fabricated of Duracil®, a continuous cast cross-linked acrylic sheet reinforced with structural plastic, the unit comes in a choice of colors. Tubs are stain- and impact-resistant. Peerless Plastics, Evansville, Ind.
CIRCLE 204 ON READER SERVICE CARD



Cultured marble vanity top features one-piece molded construction. A tough jellcoat surface on the solid cultured marble makes top impact- and marproof. Surface resists damage from detergents and will not stain. Unit features a drip lip, 4" backsplash and integral soap dishes. Dorex, Arlington, Tex.
CIRCLE 205 ON READER SERVICE CARD

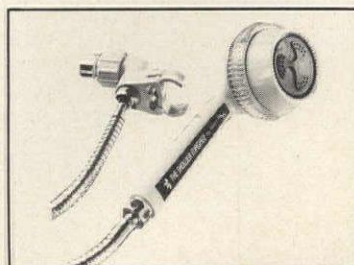


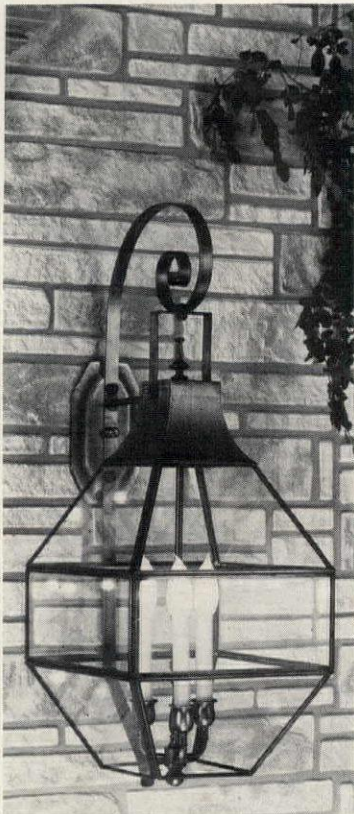
Rotary nozzle shower head massages as it sprays. Providing therapeutic effects of a whirlpool while you shower, the Rain Jet® is available in contemporary shapes in a choice of chrome, gold plate or Mother of Pearl (shown). Unit fits standard 1/2" bathtub pipes or any type shower stall. Rain Jet, Burbank, Calif.
CIRCLE 207 ON READER SERVICE CARD



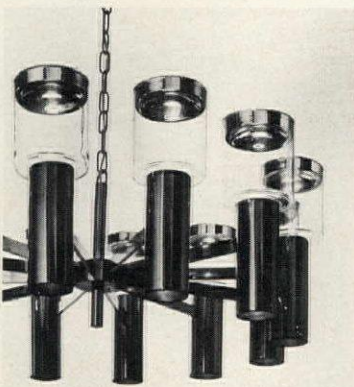
Single-handle tub/shower mixing valve features highly visible color-coded, graphic representations of hot and cold water supplies. They can be read by bathers despite steam, running water or lack of eye glasses. The "400 Hydroguard" has a durable charcoal acrylic handle control. Powers Regulator, Skokie, Ill.
CIRCLE 208 ON READER SERVICE CARD

Shower head, Shower Massage by Water Pic™, can be adjusted to provide a massaging spray, a conventional spray or a combination of the two. Unit, in a chrome-finished wall-mount style or a hand-held model with a 60" hose, attaches to standard shower arms. Teledyne Aqua Tec, Ft. Collins, Colo.
CIRCLE 209 ON READER SERVICE CARD



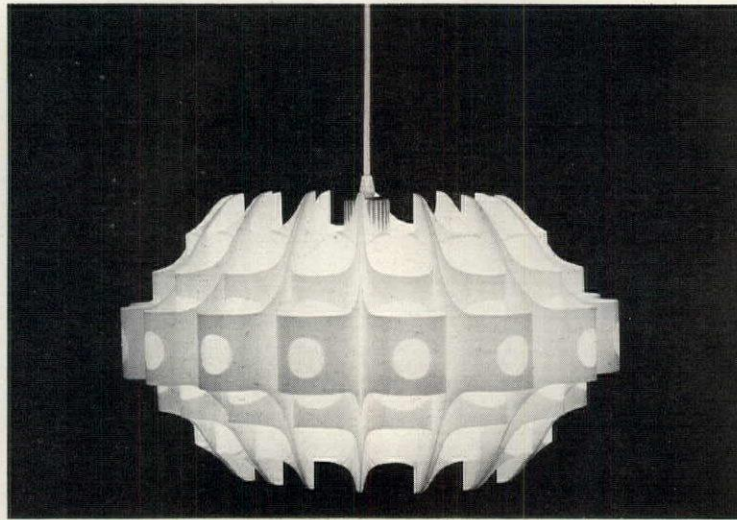


Old world style lantern, with a cast brass mounting plate, is well suited for high outlets. Measuring 32" high, 11½" wide and extending 13", the unit accommodates three candle-style bulbs suspended from a hang-straight ball swivel. Brass or bronze finish is offered. Georgian Art Lighting, Lawrenceville, Ga. CIRCLE 210 ON READER SERVICE CARD



Contemporary chandelier utilizes a totally indirect reflected light principle with no exposed lamps. The chain-hung fixture is available in 6, 9 or 12-arm configurations with a matching single light wall bracket. Two circuit capabilities allow dimmer controls on uplights and downlights. Prescolite, San Leandro, Calif. CIRCLE 215 ON READER SERVICE CARD

Indoor/outdoor wall fixtures are a series of geometrically shaped units. Lights, which can be mounted vertically or horizontally, feature opal glass, die-formed aluminum back-plates and cast aluminum hoods. Positive locking, glass-holding clips make for easy maintenance. Lightolier, Jersey City, N.J. CIRCLE 216 ON READER SERVICE CARD



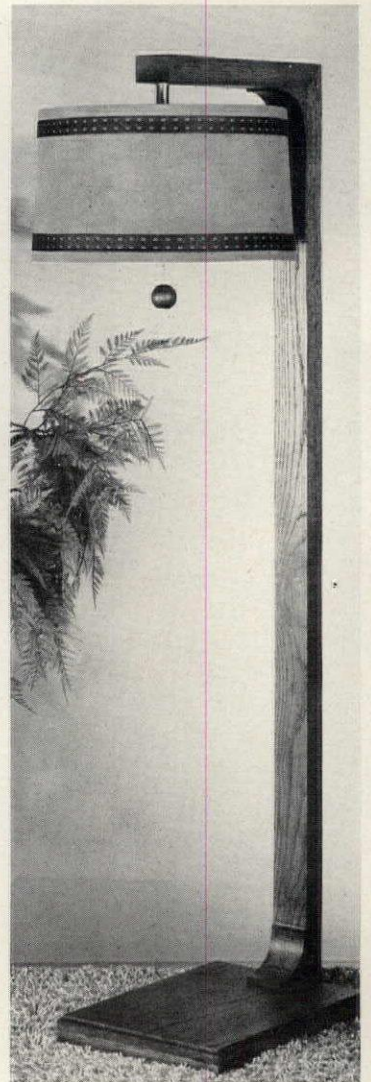
Contemporary chandelier is well suited for informal dining rooms, family rooms or entranceways. The unit, hung from a single thin cord, gives appearance of floating on air. The lightweight white plastic fixture with an airy look is a modular unit that is easily assembled on the site. Koch & Lowy, Long Island City, N.Y. CIRCLE 211 ON READER SERVICE CARD



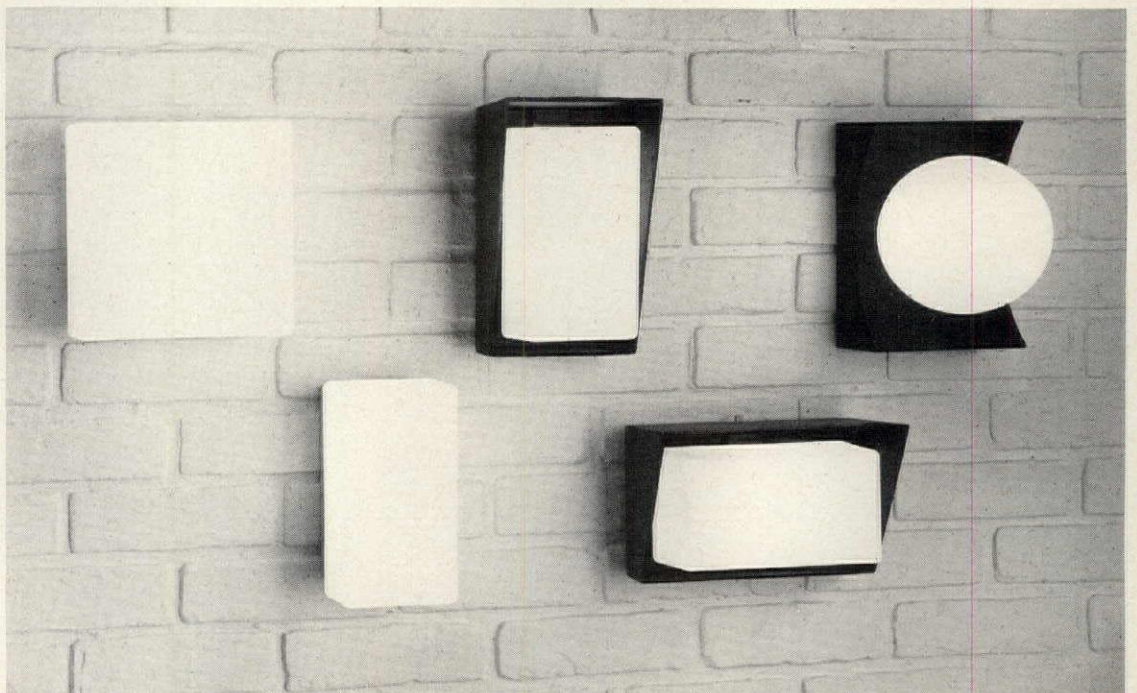
Heavy duty floodlight, "Ultra flood", is available in mercury vapor, metal halide or high pressure sodium. Cast aluminum fixture is sealed and gasketed and finished in a baked enamel. Easy-to-install and -maintain unit features a high-impact thermal shock-resistant lens. ITT Landmark Lighting, Southaven, Miss. CIRCLE 213 ON READER SERVICE CARD



Clear prismatic luminaire provides maximum output with minimum glare. The vandal-resistant fixture, suitable for indoor or outdoor use, is constructed of non-corrosive materials. Accommodating 100w incandescent lamp, light distribution is controlled through a prism pattern. Art Metal, ITT, Vermilion, Ohio. CIRCLE 214 ON READER SERVICE CARD



Sophisticated floor lamp, "C", is constructed of solid oak. The rugged looking unit features a concealed wire hidden in a recessed groove that is covered by flush-fitting strips of oak inlay. The oak is a warm honey-tone. Vinyl suede shade features belted top and bottom trim. London Lamps, Redondo Beach, Calif. CIRCLE 212 ON READER SERVICE CARD



Does anything you build face problems like these?



Extremes in weather threaten long-term beauty? Building products made of Geon® vinyl retain their decorative appeal through hot and cold, sun and rain, snow and ice. These Perma-Shield® shutters by Andersen Corporation are vacuum-formed vinyl over a primed wood sub-frame and wood center braces. The vinyl outer surface is complete in one piece. Offers high impact strength. Low maintenance. Resists chipping and peeling.



Your customers are asking for maintenance freedom? Siding made of Geon vinyl provides minimum upkeep. Resists denting, retains a soft, even color. There are 60 squares of siding on this 137-year-old First Presbyterian Church in Princeville, Illinois. The church building committee chose Contour T-lok® solid vinyl siding made by Mastic Corporation, who use Geon vinyl.



Are installation headaches upping your costs? Here's how Geon vinyl helped cut costs in Charlotte, North Carolina, in the Diplomat Apartments. More than 130 units required over 20,000 lineal feet of fully-enclosed electrical system made by Johnson Rubber Company. The system doubles as a baseboard molding. Installation is a snap. A rigid vinyl strip is affixed to the wall. Wiring harness is laid in place. Retainer clips keep it there. Vinyl cover strips are snapped into position and become the finished baseboard. Snap-on molded corners finish the job.



You want a fence that won't rot? Harvel Plastics, Inc., Easton, Pa., uses Geon vinyl to make a fence that's rot-proof. In fact, they guarantee it. It's also impact resistant. Insects and adverse soil conditions won't harm this fence. Geon vinyl also helps resist abrasion. For more information about Geon vinyl as a material in building products, ask B.F. Goodrich Chemical Company, Dept. H-31, 6100 Oak Tree Boulevard, Cleveland, Ohio 44131. The people who started it all in vinyl.

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Smoke

The new **EMHART** **911*** SMOKE DETECTOR

Sell safety. Sell fast. Sell profitably. The Emhart 911 Smoke Detector is a brand new addition to the front line of fire safety. It's not just another gadget — it's designed to help save lives and build big new profits at the same time.



It smells smoke and sounds a loud, audible alarm.

The Emhart 911 Smoke Detector works on the latest ionization principle to detect smoke or invisible products of combustion in the air. Then the alarm sounds — loud and clear.



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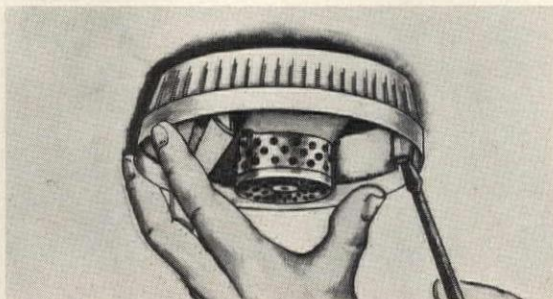
The home fire protection market is taking off like blazes. It's your chance to fire your customers with enthusiasm for dependable family protection. The Emhart 911 Smoke Detector is a natural profit maker in a new market that's just been sitting there.

* Patents Pending

Complies with NFPA Standard No. 74. U.L. Listing and F.M. Approval applied for.

Kills.

sells on sight.



Simple to install. Every homemaker will want one.

Anyone can install this good looking unit. Just two screws and the Emhart 911 Smoke Detector is in. No special tools are needed. Self-contained power unit. If power starts to fade, it automatically signals for a replacement.



Promotion and advertising will smoke out millions of potential customers.

We've got a hot advertising & sales promotion campaign designed to smoke out customers for you. Everyone with a home, a family, or a desire for self protection is your potential customer. We'll help you reach and presell those customers with hard hitting point-of-purchase displays, stuffers, and a complete kit from film to flip chart and fireman's helmet "on loan" to you for school and club presentations!

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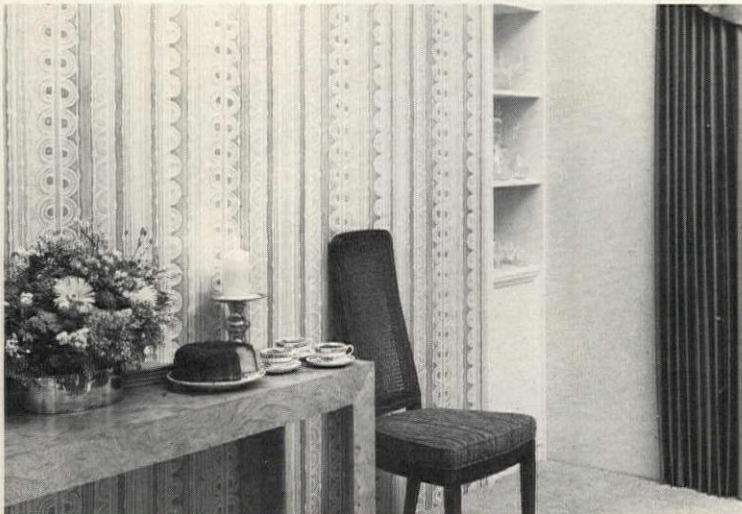
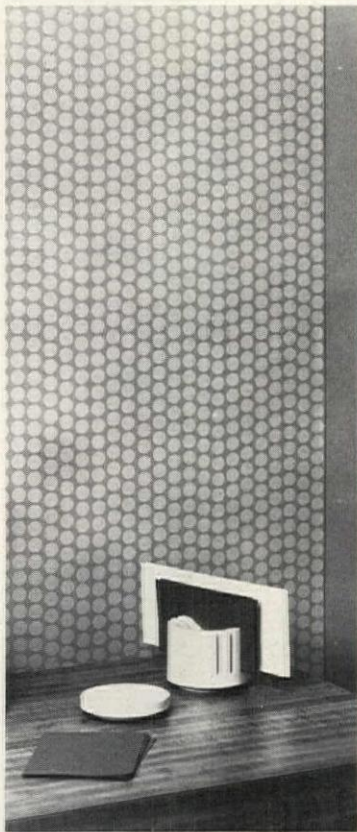
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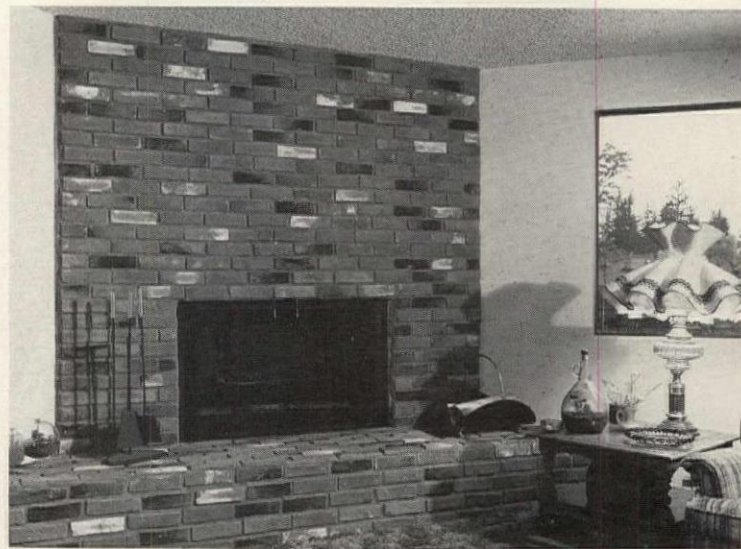
Striped foil, "Arundel", is part of the "London 3" collection of Vymura wallcoverings. Available in two colorways, the pattern is shown adding extra dimension to a small bedroom. "Vymura", a tough, supple layer of vinyl on a paper backing, is an easy-to-maintain wallcovering. ICI America, Wilmington, Del.
 CIRCLE 217 ON READER SERVICE CARD

Graphic pattern wallcovering, "Orbit", is a contemporary overall dot design. Used on a large wall or viewed from a distance, the wallcovering offers an interesting textured effect. Part of "Genon" line, "Orbit", in 22 colorations, coordinates with a solid color style. General Tire & Rubber, New York City.
 CIRCLE 219 ON READER SERVICE CARD

Decorative wall panels in an interesting striped pattern are part of the "Mirage" series. Complementing this collection of pastel designs is a line of matching "Linen-Wall" panels as shown at right in photo. All panels feature a tough, stain-resistant, thermal-fused finish. Hearin, DG Shelter, Portland, Ore.
 CIRCLE 221 ON READER SERVICE CARD

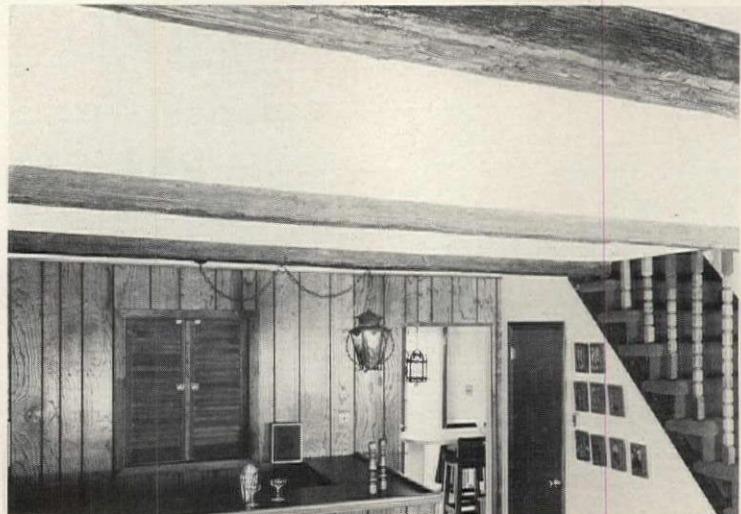


Wallcovering, featuring Pennsylvania Dutch motifs, "Thorne Inn", is part of the "Famous Traditionals" series. The convenient prepasted, scrubbable, strippable wallcovering is offered in three colorways. Companion design in the same geometric pattern as the background is also available. United-DeSoto, Chicago.
 CIRCLE 218 ON READER SERVICE CARD

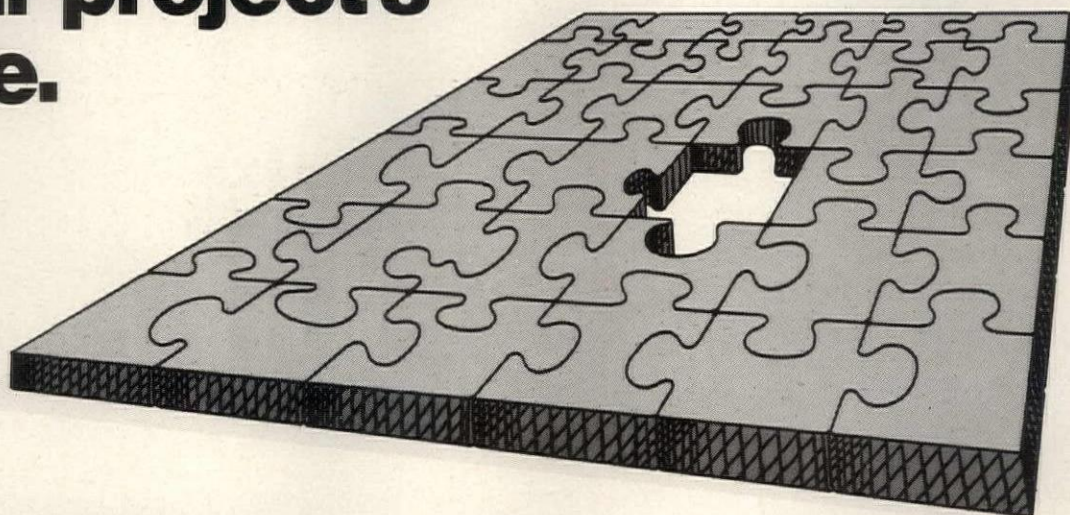


Synthetic brick, made from cement, is lightweight and easy to install. Part of the "Eldorado Stone" line, the fire-resistant brick comes in a rough texture cast in a choice of colors or in a smooth texture in light red with a mottle of black and white to simulate an antique effect. Eldorado Stone, Kirkland, Wash.
 CIRCLE 220 ON READER SERVICE CARD

Decorative polyurethane beams are made to simulate hand-hewn wood. Easy to install with adhesive or grip clips, beams can be mounted on any surface, vertically, horizontally or overhead. Available in dark walnut, mahogany or light oak, beams come in a range of dimensions. Urethane Fabricators, Red Hill, Pa.
 CIRCLE 222 ON READER SERVICE CARD



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You're a professional at detailed planning of every aspect of every project... minimizing risks... maximizing profit potentials... and knowing how and where to select outside talent to further your goals.

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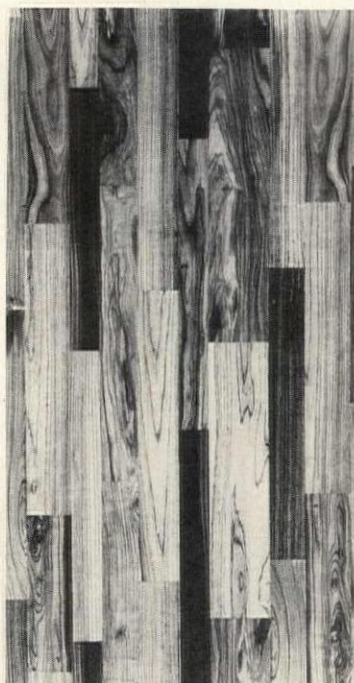
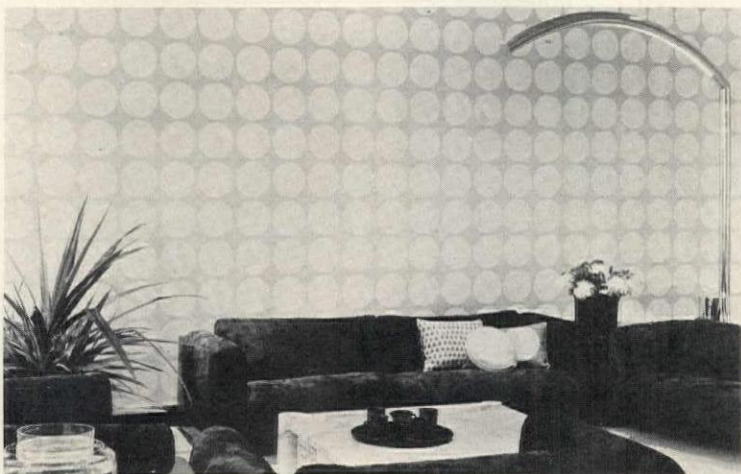
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Stylized floral pattern, "Floride", is a three-color handprint stocked on vinyl. Available in three colorways, the pattern, with a 32" repeat, also comes in custom colorations on paper, vinyl metallic and grasscloth. Gene McDonald, New York City. CIRCLE 223 ON READER SERVICE CARD

Contemporary wallcovering design of globes on a toned background, "Time and—I Wonder", is part of the "Illusion 20" collection. Available in a range of colorways, the pattern creates the impression of added height. Jack Denst, Chicago. CIRCLE 224 ON READER SERVICE CARD



Random-planked rosewood laminate is suitable for both vertical and horizontal applications. Planked sections vary from 3" to 6" in width and in length to 30". The highly abrasion-resistant material is available in maximum 4' x 10' sheets in thicknesses of 1/16" and 1/32". Lamin-Art, Fabricon, Los Angeles. CIRCLE 227 ON READER SERVICE CARD



Weathered-wood printed vinyl for prefinished wall panels can be laminated to a variety of substrates. "Barn Door", a .006" flexible vinyl, comes in a range of rustic colors including neutral shades and bright blues and greens. Easy-to-maintain material has no dirt catching crevices. Stauffer, Passaic, N.J. CIRCLE 228 ON READER SERVICE CARD



"Stone-craft" stone replicas are proportioned for indoor use. Molded of high-impact polystyrene, they simulate the texture, size variation and colorations of natural stone. Easy to install with the "Applicon Adhesive System", stones come in beige and gray with complementary mortar. Decro-Wall, Elmford, N.Y. CIRCLE 225 ON READER SERVICE CARD

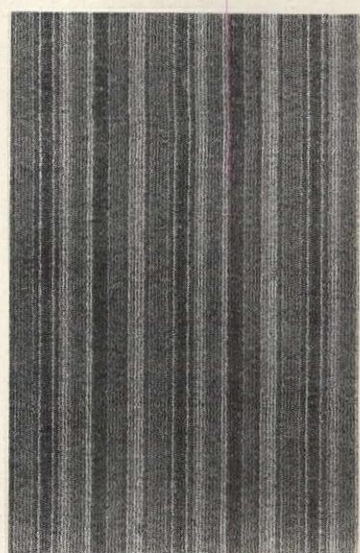


"Wal-Lite" hardboard panels, with a tough vinyl finish, come in a range of contemporary and traditional patterns. Shown in "Wildflower", the easy-to-install panels can be maintained with a damp cloth. Bonded-on vinyl finish resists chipping, scratching, peeling and denting. U.S. Gypsum, Chicago. CIRCLE 229 ON READER SERVICE CARD



Decorative hardwood paneling, "Trailblazer", features a rough distressed outdoor look. The paneling adds a rustic look to den, study or family room. It is available in a choice of eight finishes ranging from dark to light. Matching stains and coordinated nails are also offered. Pavco Industries, Pascagoula, Miss. CIRCLE 226 ON READER SERVICE CARD

Sound-absorbing tufted wallcovering, "Fashionwall", offers added insulation value. Requiring little maintenance, the fabric—of Acrilan and Vinyon PVC—comes in 4' widths. Shown in a striped pattern available in five colorations, it also comes in solid colors and tweeds. Wallcraft, Barwick, Chamblee, Ga. CIRCLE 230 ON READER SERVICE CARD



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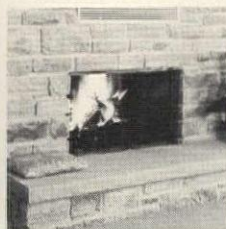
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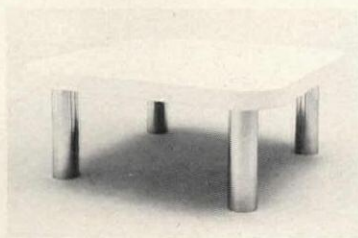
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Contemporary "Manitoba" table designed by Paul Mayen features 3½" chrome legs. Available in three sizes, the table comes in a choice of black, white, red or dark blue and in walnut, oak, rosewood, teak and elm burl finishes—all in high gloss or lo-glare. Intrex, New York City. CIRCLE 232 ON READER SERVICE CARD

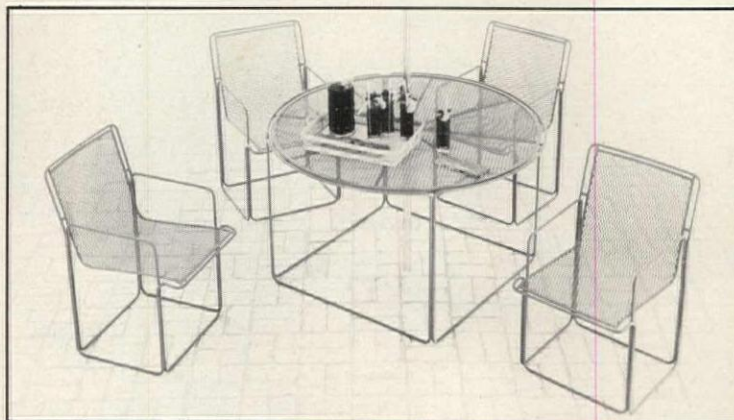


Clover-shaped dining table features a leaf for each place setting. Designed for indoor or outdoor use, the table has a molded urethane pedestal base and a 1"-thick polyester top. The three-legged "Owosso" side chair is also molded of a rigid urethane foam. The furniture is offered in ten color finishes. Vaungarde, Owosso, Mich. CIRCLE 233 ON READER SERVICE CARD

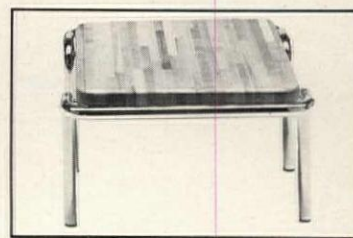


Sofa and companion lounge chair designed by Milo Baughman stand on recessed jumbo legs of polished chrome. Low rectangular back cushions and square seat cushions are filled with waterfowl feathers and polyester fibers. Thayer Coggin, High Point, N.C. CIRCLE 234 ON READER SERVICE CARD

Casual yet elegant outdoor furniture designed by John Mascheroni is constructed of wrought iron mesh. The unique contemporary collection, with a squared-off look, includes the umbrella table and dining arm chairs shown, a cocktail table and easy chairs, a settee and a petite end table. Salterini-Gallo, Vecta, Kalamazoo, Mich. CIRCLE 235 ON READER SERVICE CARD



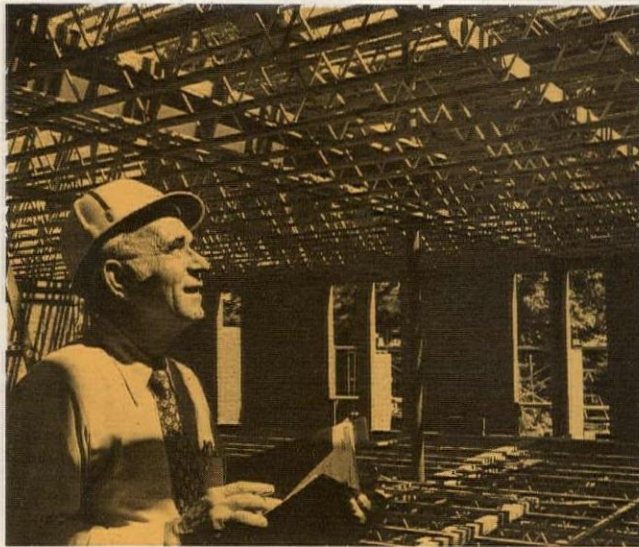
Occasional table, available with an overhang top as shown or an inset top, is part of the "Rye Collection". The table, in a choice of shapes and sizes, features natural maple butcher block or glass tops and a mirror-chrome finished steel base. Marble, WH Furniture, Bedford, Ohio. CIRCLE 236 ON READER SERVICE CARD



Contemporary outdoor furniture collection, "Contempra", features two dining ensembles, each with umbrella tables and matching side chairs and a seating group consisting of a loveseat, two chairs and a cocktail table. All are available in seven frame finishes. Optional seat cushions are offered. Plantation Patterns, Birmingham, Ala. CIRCLE 237 ON READER SERVICE CARD

Housing Starts Down Building Picture Gloomy

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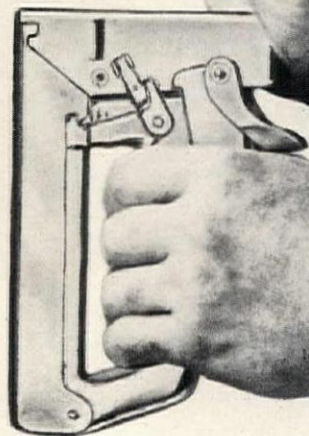
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Storage furniture, "Group 5", includes a selection of freestanding systems such as the four-section wall shown. Units, including file cabinets, desks, and wardrobes, can be attached in various ways making an infinite variety of arrangements possible. Standard woods are oak and walnut in a choice of finishes. Jens Risom, New York City. CIRCLE 238 ON READER SERVICE CARD



Vertically stored, concealed bed, "Cheshire", ideal for a one-room apartment, features concealing-panels with grooves and buttons. Panels come in ash, birch or plywood which can be stained or painted. Counterbalanced bed, in a choice of sizes, anchors to the floor. Carter Bed, Kansas City, Mo. CIRCLE 239 ON READER SERVICE CARD

Indoor outdoor dining ensemble is molded of ABS plastic. The round, 43"-diameter table features a tempered glass top available with or without a center umbrella hole. Table and chairs come in white and brown. Syroco, Syracuse, N.Y. CIRCLE 240 ON READER SERVICE CARD



Wall-stored "Converta-bed" helps solve space problems in small apartment. It is recessed into the wall when not in use, leaving floor space free, and is easily lowered for sleeping, using handles on the face of the concealing panel. Sico, Minneapolis, Minn. CIRCLE 241 ON READER SERVICE CARD



Casual furniture, "Bel-aire Grouping", has the appearance of wrought iron. Group, including a club chair, two- and three-seat sofas and end and coffee tables, features aluminum frames finished in electrostatically applied, baked-on acrylic paint. Cushions are filled with polyurethane foam. Lawnlite, Miami, Fla. CIRCLE 242 ON READER SERVICE CARD

Modular wall system provides flexible storage for limited spaces. Unit shown incorporates shelves, a bar, a desk, drawers and a magazine rack. Modules are supported by uprights mounted on the wall. System, which includes a variety of components, comes in a choice of woods. Royal System, Woodside, N.Y. CIRCLE 243 ON READER SERVICE CARD



Easy on the eyes

The rustic texture and bold horizontal butt lines of Shakertown Shakes in 8' panels enhance the mansard design and emphasize the quality appearance of this project. Hand-split Western Red Cedar Shakes in panels contrast beautifully with other materials and blend with the surroundings. They help insulate, weather handsomely without maintenance, and add the look of quality that appeals to value-conscious buyers and renters.

Shakertown Shakes and Shingles in 8-foot panels

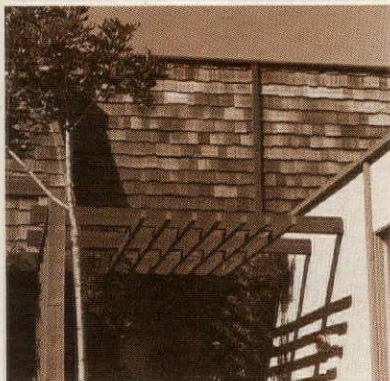


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Golfview Estates, San Diego, Calif. Designer: Marvin E. Parker, A.I.B.D. Shakertown Colonial Barn Shake Panels carry out low-profile design of project.

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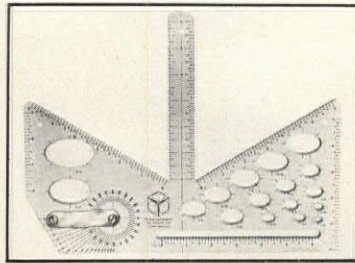
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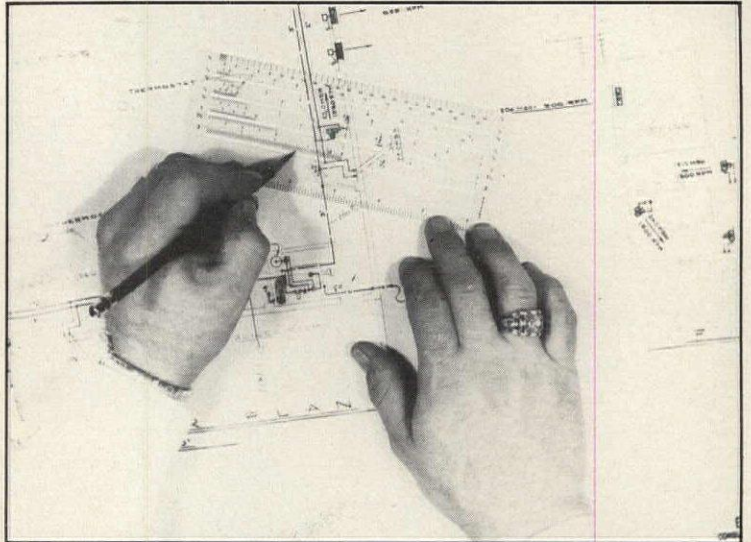
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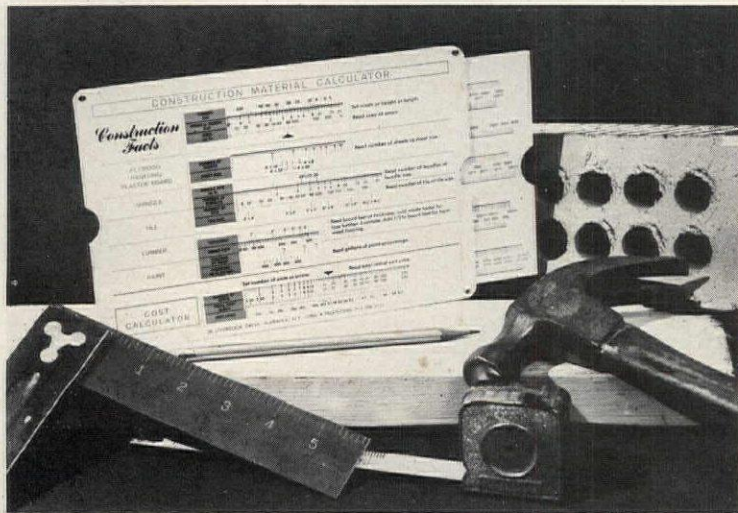
Automatic drawing system, "Autograph", features a Micro-Plane® drawing board with a solid vinyl surface, a single-toe control pedal, floating action counter-balance and an electrical outlet. Roomy table with a solid steel base is available with an optional auxiliary drawer unit and a matching reference desk. Stacor, Newark, N.J. CIRCLE 244 ON READER SERVICE CARD



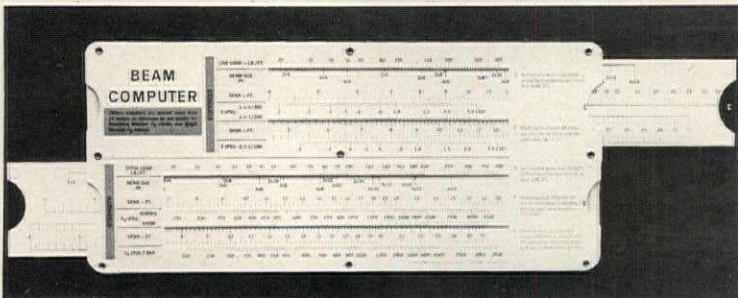
One-piece drawing instrument combines all the angles and elliptical rules usually needed to make isometric three dimensional and orthographic views. The versatile "Miller Y", with drawing edges printed in inches or metric, attaches easily to most standard drafting machines. David Miller, Beverly Hills, Calif. CIRCLE 247 ON READER SERVICE CARD



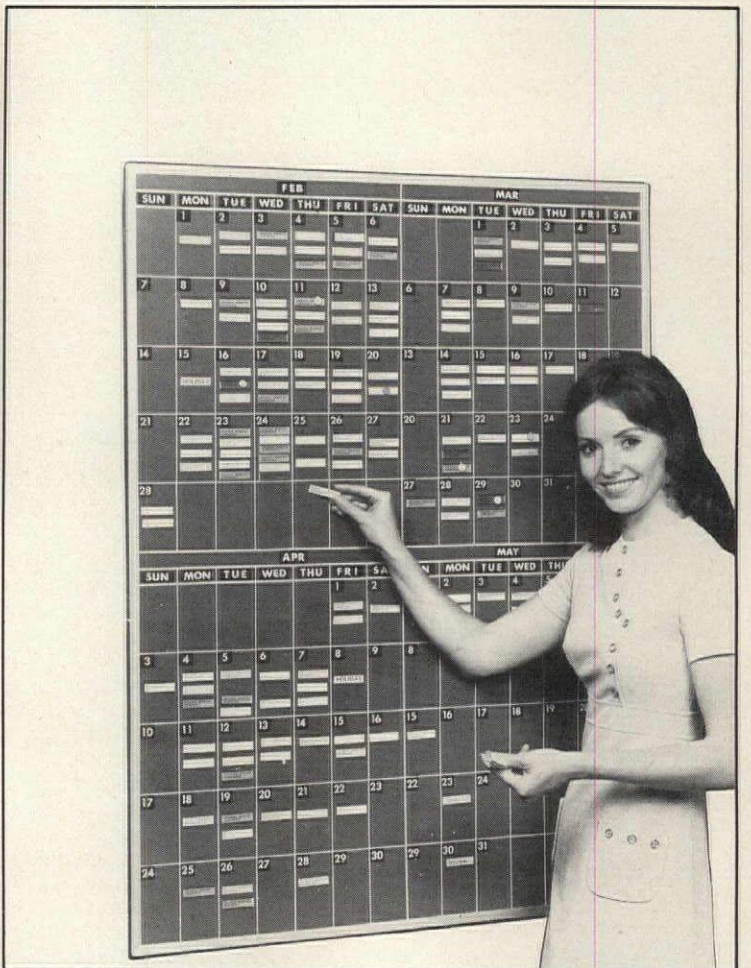
Architectural and engineering scale is a pocket-size device for on-the-job use. The transparent tool eliminates hidden areas so there is less chance for error. Instrument, with slots for drafting, features all scales running in the same direction and printed on one face of the device. Plasti-Scale PPI, Kewanee, Ill. CIRCLE 248 ON READER SERVICE CARD



Construction materials calculator provides complete information on amounts of each material needed for a specific job from numbers of shingles and gallons of paint to board feet of lumber. The pocket-sized slide-rule-type tool, featuring a cost calculator, comes with a construction facts book. Handy Manuals, Syracuse, N.Y. CIRCLE 245 ON READER SERVICE CARD



Pocket span computer determines requirements for lumber joists, rafters and beams. Using the "NFPA Span Tables", the calculator computes grades and sizes for nine western wood species. It covers sizes from 2"x4" to 4"x14", all spacings and common deflections and loads from 10 lbs. psf to 400 lbs. per linear foot. WWP, Portland, Ore. CIRCLE 246 ON READER SERVICE CARD



Perpetual magnetic calendar makes for organized scheduling. Shown is a four-month board with the capacity to hold six events daily. Offered as a kit, the calendar comes complete with magnetic dates, write on/wipe off magnetic tags and color-coded card holders for differentiating among jobs. Magnatag, Mendon, N.Y. CIRCLE 249 ON READER SERVICE CARD

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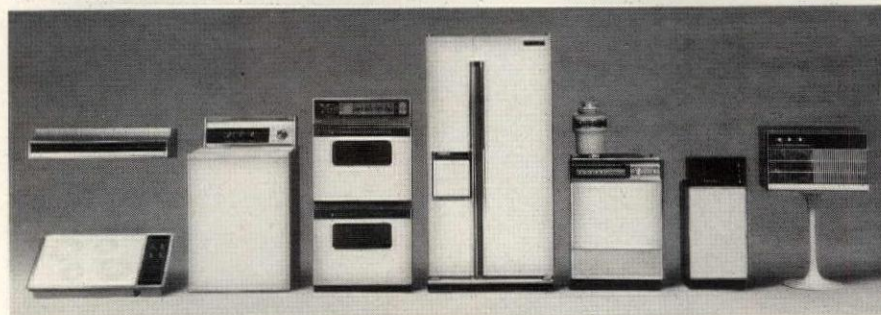
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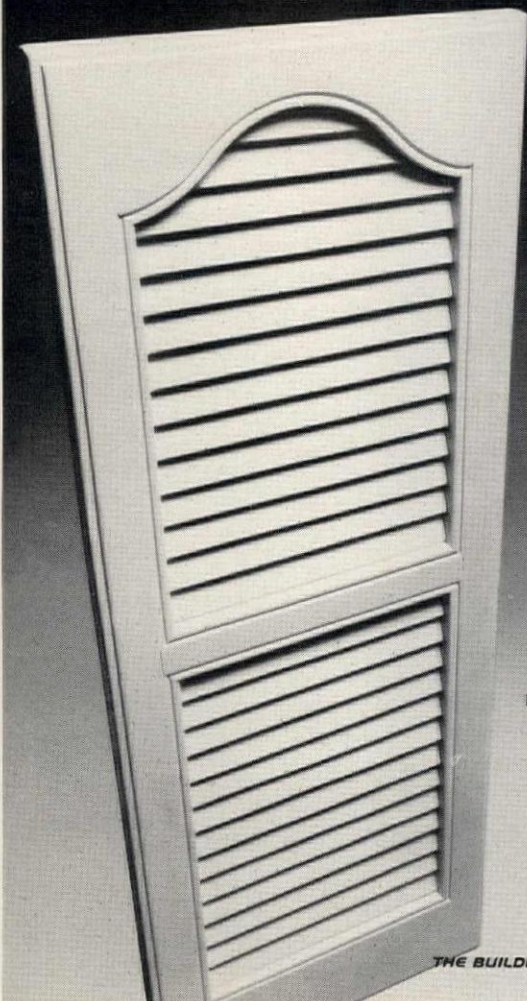
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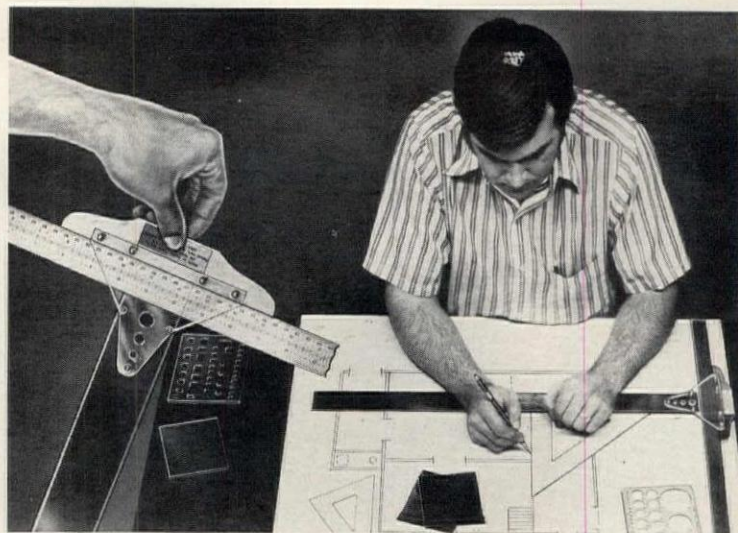
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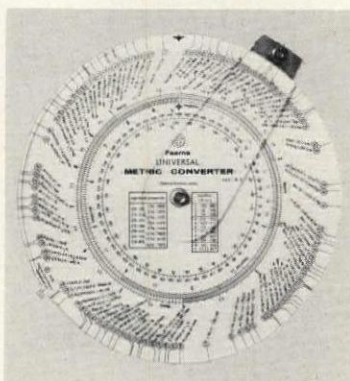
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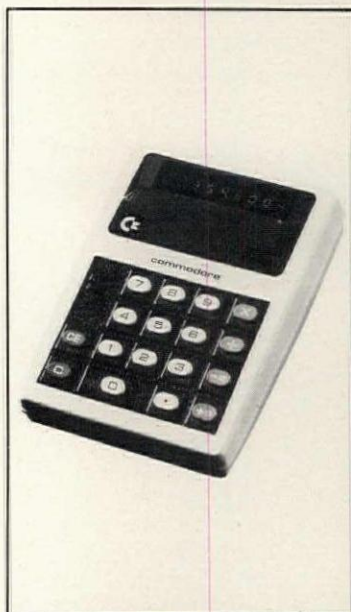
"Measurcraft" scale drawing system includes a specially designed T-square that slides over thick metal rules for positive holding. Two calibrated rules allow the T to work vertically or horizontally. Rules feature $\frac{1}{6}$ ", $\frac{1}{10}$ ", $\frac{1}{16}$ " and metric scales and a precision reading hairline device. Jig Rule, Bowie, Texas. CIRCLE 250 ON READER SERVICE CARD



Modular file cabinets, Thin line Conserva-File[®], can be placed side by side or stacked one on top of another. Cabinets measuring 3' long and 10" high, are available in 13" or 16" depths in fifteen matte finished colors. Supreme, Brooklyn, N.Y. CIRCLE 251 ON READER SERVICE CARD



Universal metric converter calculates at least 210 different conversions. Tool, which serves as a circular slide rule, is of non-warping opal-white and transparent acrylic with engraved calibrations. Industrial Scientific, Rouses Point, N.Y. CIRCLE 252 ON READER SERVICE CARD



Pocket electronic calculator, "Minuteman 3", features an eight-digit lighted display panel. It adds, subtracts, multiplies, divides, does chain and mixed calculations, constant multiplication and division. Commodore, Santa Clara, Calif. CIRCLE 253 ON READER SERVICE CARD

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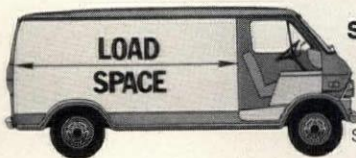
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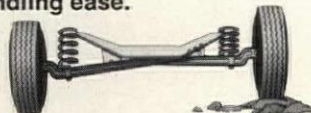
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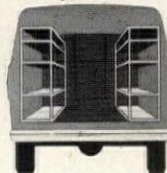
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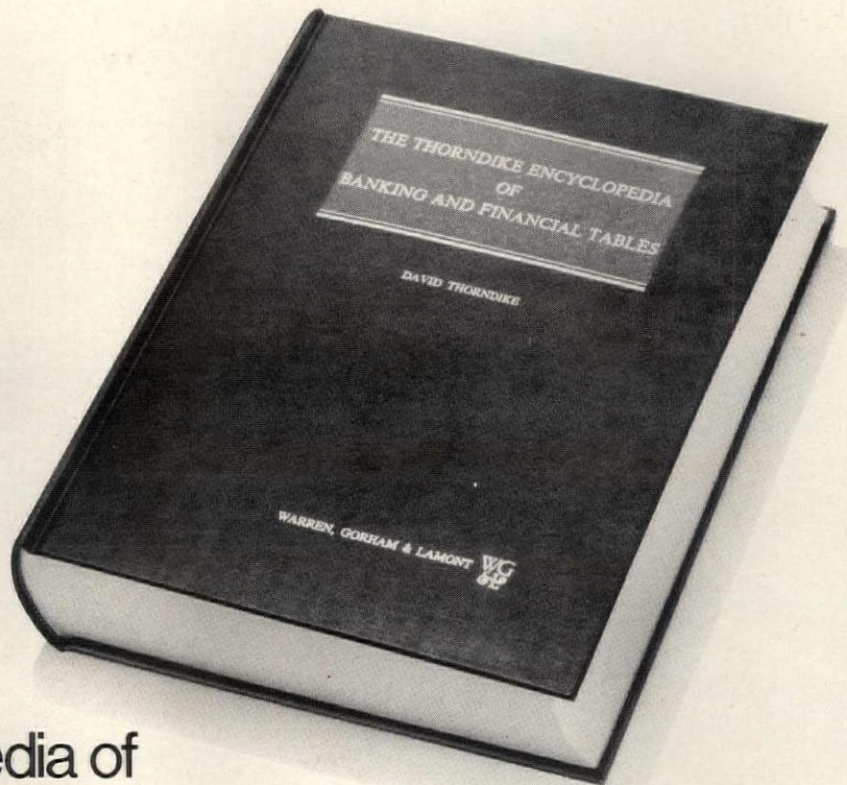
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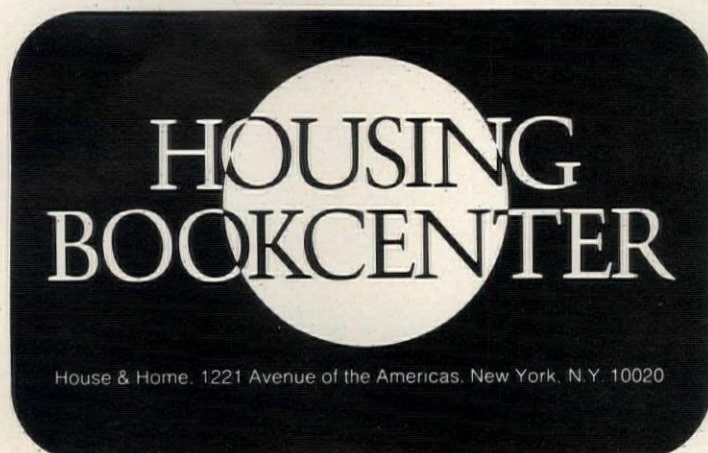
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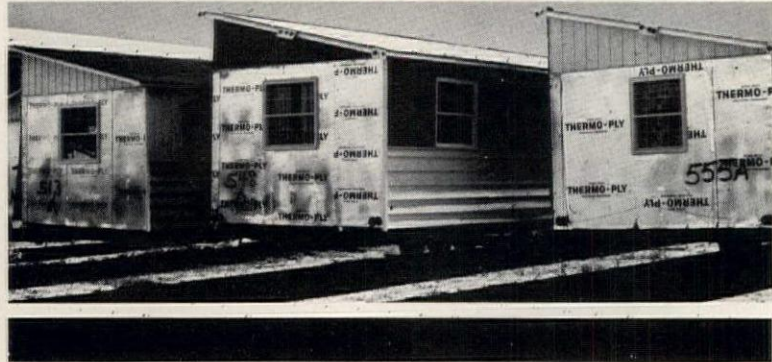
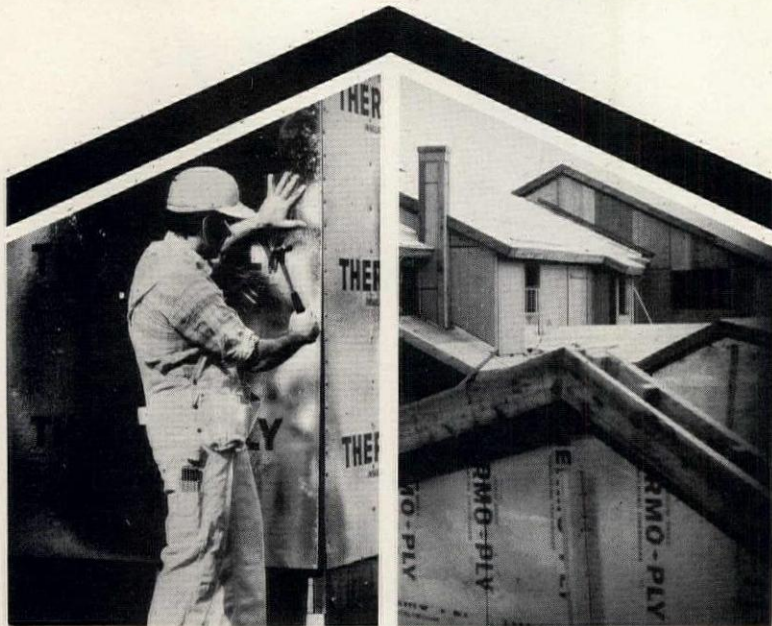
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Thermo-ply structural insulative sheathing is the sheathing product with attractive money-saving bonuses for you. Its thermal resistance characteristics make it an effective insulating material. And structural grade Thermo-ply is approved for use without corner bracing. Rely on Thermo-ply. It can cut your labor and material costs.



SHELTER COMPONENTS DIVISION
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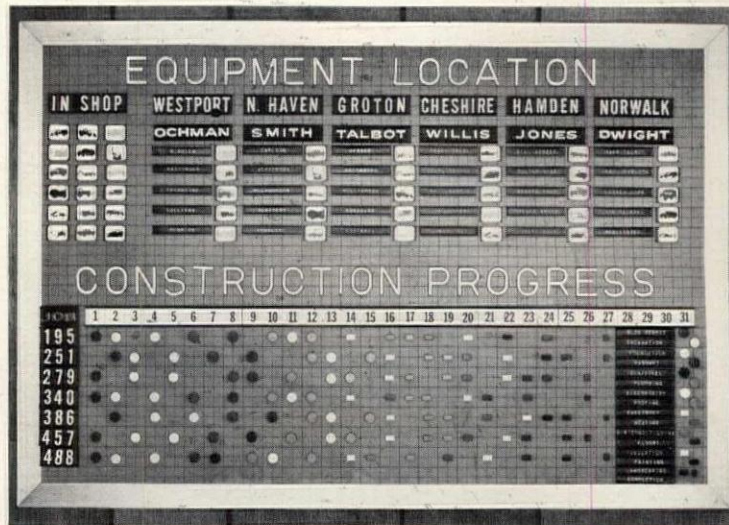
**SIMPLEX
INDUSTRIES**

ALABAMA • CALIFORNIA • INDIANA • MICHIGAN • N. CAROLINA • TEXAS

128 H&H FEBRUARY 1974

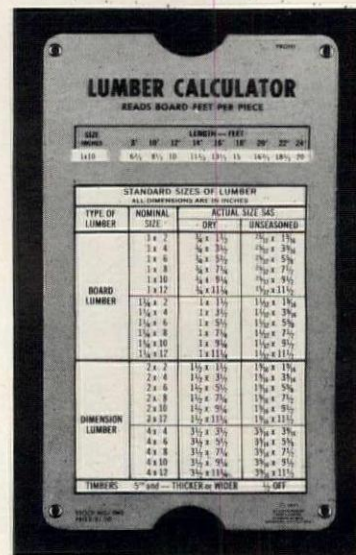
CIRCLE 128 ON READER SERVICE CARD

PRODUCTS/OFFICE

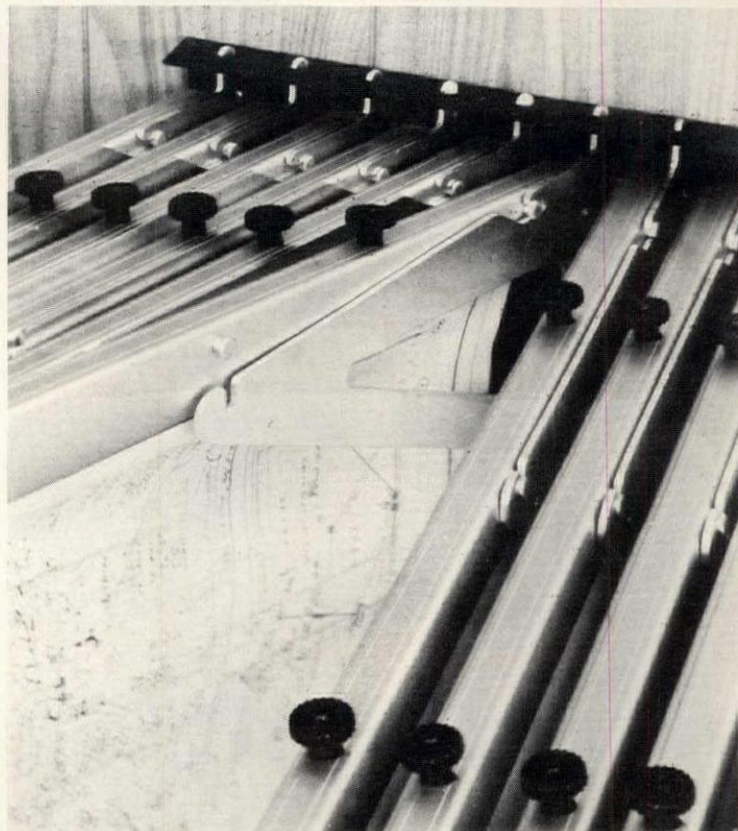


Visual control system permits complete monitoring of construction progress. The system consists of the magnetic control board and a wide range of symbolid magnetic tags. Over 40 different size and shape magnets, in a selection of 32 colors, provide for clear coded organization. Edward Ochman, Fairfield, Conn. CIRCLE 254 ON READER SERVICE CARD

Pocket-size lumber calculator operates like a slide rule and reads like a table. It quickly computes standard lengths of lumber from 8' to 24'. Lumber sizes are listed from 1"x2" to 16"x16" timber. Board feet for other sizes or lengths can be determined using a formula provided. Wadington Slide Rules, Kalamazoo, Mich. CIRCLE 255 ON READER SERVICE CARD



Pivot plan filing system consists of two-piece lightweight aluminum binders that will clamp up to 100 sheets without prefastening or punching. Labeling is done with color-coded embossed plastic tapes. Unit comes in the wall model shown, a mobile version and a conventional drop-lift file. Plan File, Los Angeles. CIRCLE 256 ON READER SERVICE CARD



Right now you can have a Quality Inn franchise in any of these cities.

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Burlington
Chicago
Columbus
Dayton
Fort Wayne
Hartford

Lansing
Little Rock
Milwaukee
Miami
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Montgomery
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Omaha
Ottawa
Philadelphia
Portland, Oreg.
Providence
San Diego

Spokane
Springfield, Ill.
Springfield, Mass.
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In 5 years there may be no vacancy.

If you presently own or plan to invest in a motel in any of the cities above, talk to Quality Inns.

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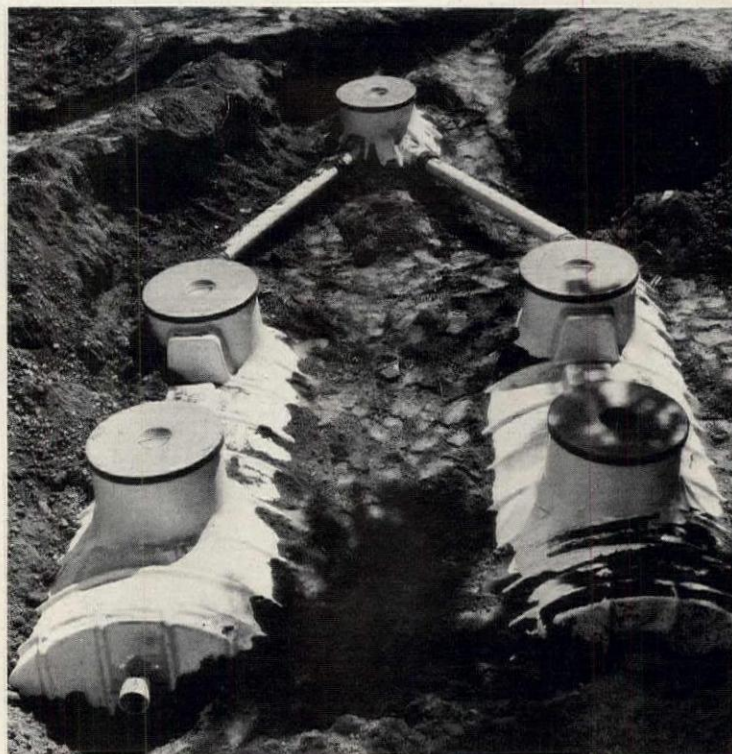
LOOK AGAIN



If you think all shower doors are the same, take a better look at TUB-MASTER Folding Shower Doors

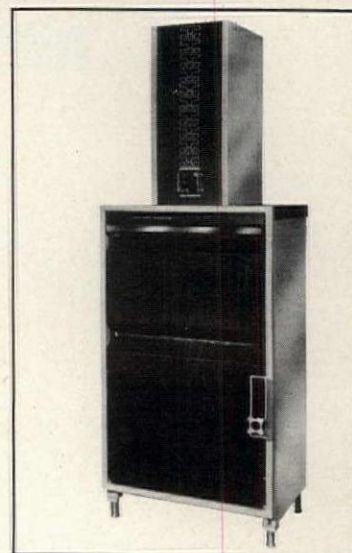
TUB-MASTER CORP. 413 Virginia Dr., Orlando, Fla. 32803
2165-B S. Dupont, Anaheim, Cal. 92806

CIRCLE 130 ON READER SERVICE CARD



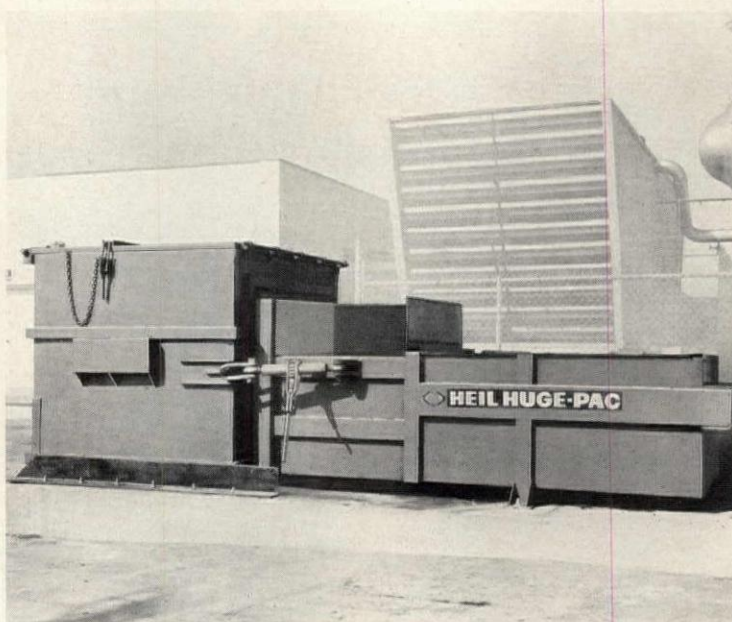
Aerobic wastewater treatment system is designed to prevent short circuiting or flow-through of untreated wastes. Made of corrosion-resistant fiber glass, tanks can be installed in modules as shown. Discharged effluent is semi-clear, odorless and can be absorbed by soil. Cromaglass, Williamsport, Pa.

CIRCLE 257 ON READER SERVICE CARD



Waste compactor Tite-Wad[®] II, features a solid state transistorized electronic control system with no moving parts to wear out. The easy-to-operate machine has four indicator lights on the control panel; a start light, a return light, a stop light and a light to indicate a full box. Trans-World, Overland Park, Kan.

CIRCLE 258 ON READER SERVICE CARD



Stationary solid waste compactor, "HP-10 Huge Pack", suited for multifamily use, is the smallest model in a line of eight. Machine, with a large charge opening, can handle up to 118 cubic yards of compactable waste per hour. Unit is engineered for use with either front loader or roll-off type containers. Heil, Milwaukee, Wis. CIRCLE 259 ON READER SERVICE CARD

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PACIFIC OCEAN



Seascape I, Solana Beach, California. Roots: Certigrade shingles No. 1 Grade, 24" Royals. Walls: Certigrade shingles No. 1 Grade, 16" Fivex. Architects: Oxley & Landau. Builder: Westward Construction Corp.

A California condominium measures its success in many forms.

Circular, angular and rectilinear forms create a highly appealing sculptured look for Seascape I near San Diego. The fifty-unit condominium quickly sold out, prompting construction of Seascape II.

Red cedar shingles had a lot to do with it. They establish a single and inviting identity for the community of diverse structures

and shapes. Their rich texture blends naturally with the environment. Their look of quality proves a welcome sight to residents and local planners as well.

Equally important, red cedar shingles are durable. They weather beautifully, even in harsh marine air. They'll retain their natural elegance

for decades with little or no maintenance. And they'll withstand hurricane winds.

For details and application tips on Certigrade shingles and Certi-Split handsplit shakes, write us at 5510 White Bldg., Seattle, WA 98101. In Canada, write 1055 W. Hastings Street, Vancouver 1, B.C.



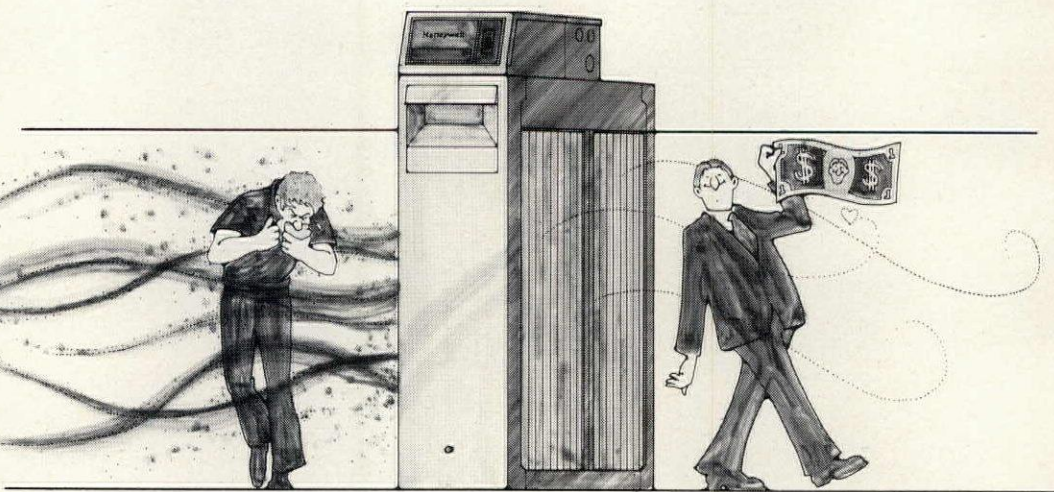
Red Cedar Shingle & Handsplit Shake Bureau

One of a series presented by members of the American Wood Council.

CIRCLE 131 ON READER SERVICE CARD

H&H FEBRUARY 1974 131

Pull dust, pollen, smoke and profit right out of the air.



You wouldn't think of designing or building a home without central air conditioning, right?

For just a little more, you can add the Honeywell Electronic Air Cleaner . . . and offer air that's both cool and clean.

This efficient unit removes up to 95% of all dust, smoke and pollen passing through. Homebuyers go for it because it helps them live in a cleaner environment. And the lady of the house is sure to like the fact that walls, drapes and furniture remain clean longer.

From your point of view, the Honeywell Electronic Air Cleaner provides a tangible, competitive

point of difference. You add major extra value to your homes at minor extra cost.

The Honeywell Electronic Air Cleaner installs in the return air duct or grille of any forced air furnace or central air conditioning system. Lightweight cells remove easily and clean in the dishwasher.

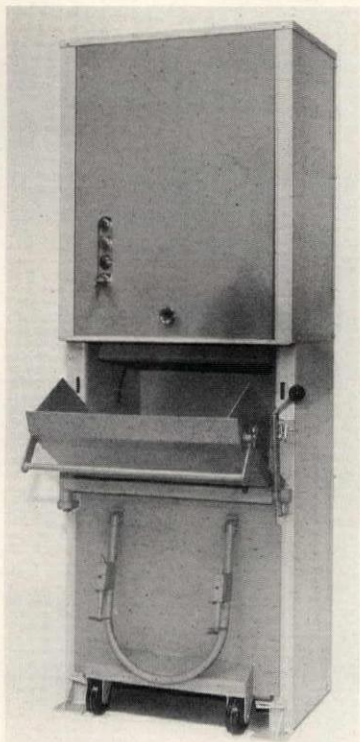
Clean air for the home buyer. Extra profit for you, right out of the air. That's the story of the Honeywell Electronic Air Cleaner. You'll find complete specs in Sweet's. For special contractor quotations, call or write Honeywell.

Honeywell



Heavy-duty trash compactor features a durable, easy-to-clean, stainless steel front and a double wall stainless steel compactor drawer. Button-activated unit compacts up to 35 lbs. of trash into one insulated package. Cory, Chicago.

CIRCLE 260 ON READER SERVICE CARD



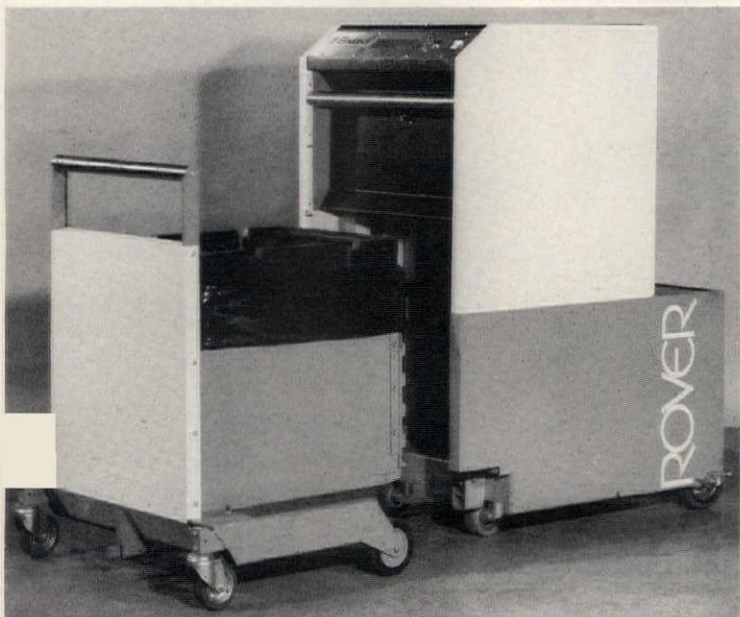
Vertical compactor, for multifamily use, requires only 3.6 sq. ft. of floor space. Ruggedly constructed unit accommodates all types solid wastes. A pre-set weight system signals when machine is full. Rear-, chute- and automatic-hopper loading designs are available. Union Pak, Philadelphia, Pa.

CIRCLE 261 ON READER SERVICE CARD



Chute-fed compactor for multi-story buildings is activated by refuse passing an electric eye in the chute. Unit, which can be manually loaded from the front, features an automatic warning system that indicates that compactor is full. A device automatically locks chute openings. Tony Team, Minneapolis, Minn.

CIRCLE 262 ON READER SERVICE CARD



Portable trash compactor, mounted on 5" casters, can be moved from building to building or floor to floor as necessary. Solidly constructed unit, with a 5 cu. ft. capacity, offers 3 tons of compaction force. Easy-to-maintain compactor has an "Inserta-Liner"TM that assures uniform packing. Environmental Pollution, New Hyde Park, N.Y. CIRCLE 263 ON READER SERVICE CARD

Heyco nylon bushings...

**all-around protection
for wire and
cable openings.**

Use them to protect non-metallic sheathed cables, communication and utility lines during and after installation in metal studding and joists. Keeps cable insulation from being skinned, chafed or cut. Adaptable to round, elongated, oval, angular and slotted holes.



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CIRCLE 138 ON READER SERVICE CARD

**Covers like paint,
performs like stain,
will not crack, peel
or blister**



Cabot's OLD VIRGINIA TINTS®

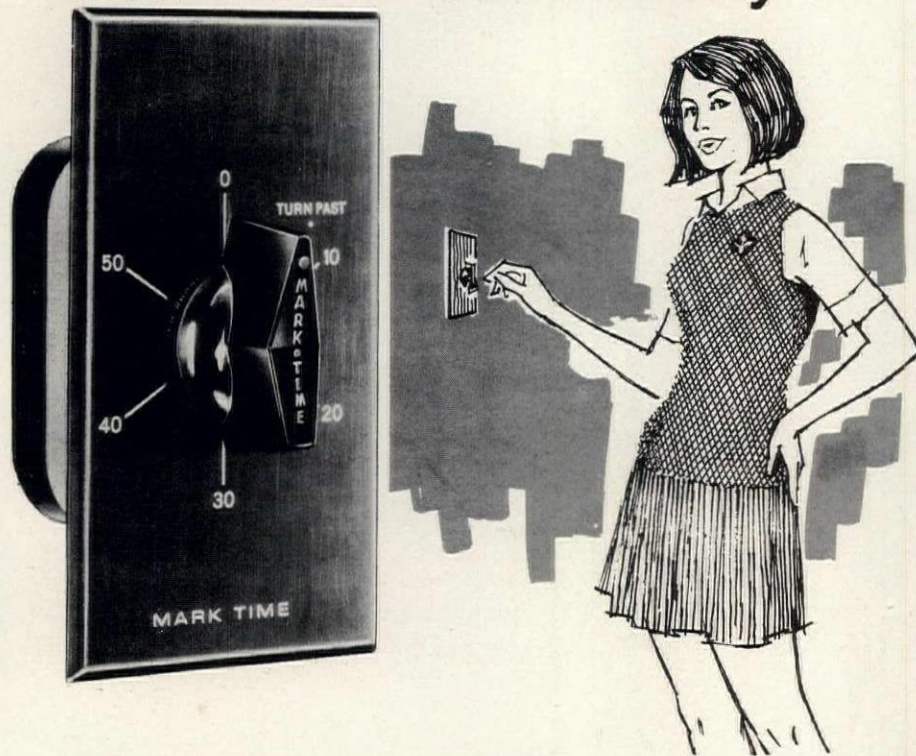
A proven product combining the best features of a paint and a stain, Cabot's Old Virginia Tints offer unique advantages to the builder and architect.

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LITERATURE

Power venter application data is described in a 12-page black and white brochure. Text and illustrations pose and solve venting and draft problems. The literature contains wiring diagrams for both gas and oil fired equipment. Specifications and performance information included. Walker-Carolina, Kinston, N.C.

CIRCLE 301 ON READER SERVICE CARD

One-piece locks are featured in six pages of photographs and text. Booklet contains complete product descriptions, specifications and unit dimensions. Eaton Lock & Hardware Div., Charlotte, N.C.

CIRCLE 302 ON READER SERVICE CARD

Equipment for material handling is described in 12 pages of black and white photographs, charts and specifications. The catalog includes hoist wheels, power buggies, conveyors, brick carts, trash chutes, etc. Aeroil, South Hackensack, N.J.

CIRCLE 303 ON READER SERVICE CARD

Ceramic gas fireplace logs are described in a single full-color page. Product advantages are discussed and specifications are listed. Carnation-Glo Specialties, Sebring, Ohio.

CIRCLE 304 ON READER SERVICE CARD

Locks are displayed in a 16-page, full-color catalog. Over 60 photographs show knob styles, one- and two-piece entry-handle keylocks, lever handles, deadbolts, miscellaneous locks and decorative trim. Specifications are included. Weslock, Los Angeles.

CIRCLE 305 ON READER SERVICE CARD

Non-electric thermostatic heating controls and related valves are described in a leaflet. Detailed information covers design, specifications, dimensions and capacities. Diagrams and illustrations are included. Ammark, Fair Lawn, N.J.

CIRCLE 306 ON READER SERVICE CARD

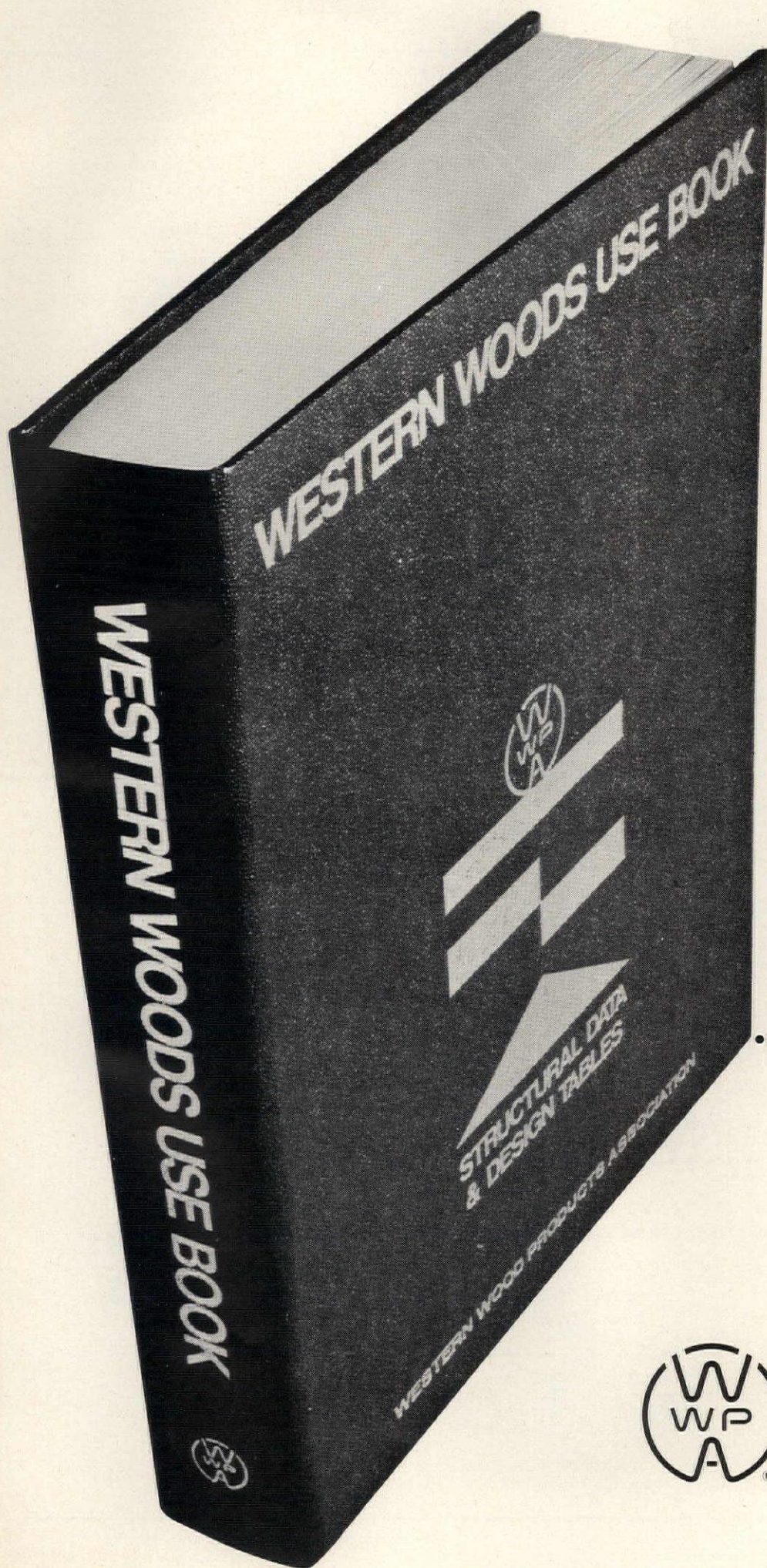
Ceramic tile is shown in a 36-page, full-color catalog, which also lists bathroom accessories. The ceramic, mosaic and pregrouted tile products are shown in photographs of room settings as well as close up. Charts contain color, pattern and relief representations. Installation specifications are included. A mural and swimming pool mosaic design service is offered. American Olean, Lansdale, Pa.

CIRCLE 307 ON READER SERVICE CARD

Hardboard is the subject of two brochures: a paneling and siding guide for homebuilders and a listing of voluntary product standards. Each booklet is illustrated with diagrams and charts. Both are hole punched for ring binder filing. American Hardboard Assn., Chicago.

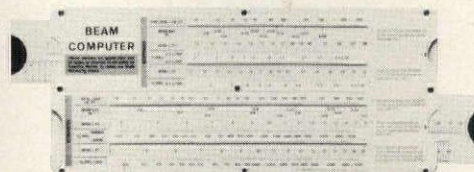
CIRCLE 319 ON READER SERVICE CARD

FOR SIDING/PANELING GUIDE; CIRCLE 320 FOR STANDARDS LITERATURE



The ultimate reference book for designing wood structures

The new Western Wood Use Book is an indispensable aid to the design of wood structures. Beautifully-bound 8½" x 11" volume has over 300 pages containing structural data and design tables for softwood lumber species graded by WWP. About half the pages are devoted to text, illustrations, examples, and photographs on all timber design subjects. The remainder provides tabular data. Includes free Span Computer. Cost: \$10.



Span Computer

Span Computer slide rule quickly figures spans, spacing, and loading of Western lumber joists, rafters, and beams.

Pocket-size computer gives you the correct span for all sizes, grades and species of Western lumber 2" to 4" thickness, and 4" and wider widths. Include with Use Book above or separately at \$1 each.

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Representation Available—Vigorous sales organization calling on architects, builders, and subcontractors in the Baltimore/Washington marketing area can effectively promote one or two more lines. Prefer exterior wall components, systems, or specialties. David Keppel, III, Exterior Coatings, Inc., 2705 South Oakland Street, Arlington, Virginia 22206.

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H&H 2/74



What the energy crisis means to a builder and what he can do about it.

The energy crisis, a matter of concern to everyone, is a matter of *vital* concern to the builder.

Already, in some areas around the country, there are prohibitions and restrictions on the use of gas and fuel oil for heating. And this situation is intensifying all the time.

What can the builder do to meet it?

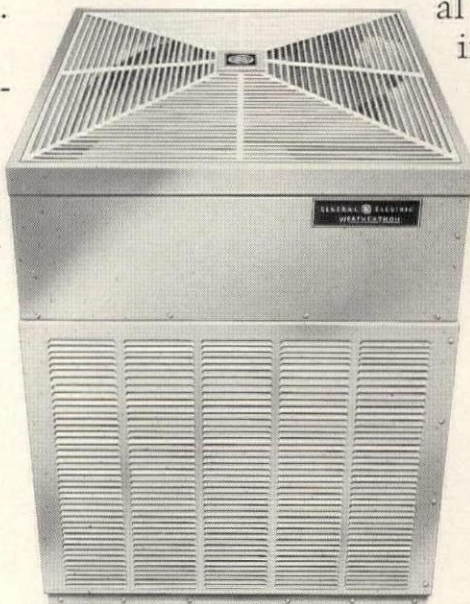
One way is to install the General Electric Weathertron® Heat Pump. This all-electric refrigeration system heats in winter and cools in summer. It cools and heats by efficient use of electricity without burning fuel of any kind.

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For the complete story on the Weathertron Heat Pump and our National Service Contract Plan, get in touch with your GE central air conditioning dealer. He's in the Yellow Pages under, "Air Conditioning Equipment and Systems!"



The GE Weathertron Heat Pump

GENERAL  **ELECTRIC**

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- A Architectural File (green)
- I Industrial Construction File (blue)
- L Light Construction File (yellow)
- D Interior Design File (black)

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