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Howard Bieze



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House and Home/the magazine of housing published monthly by McGraw-Hill Inc. Subscription rates U.S., possessions and Mexico: for individuals within circulation specifications, \$14 per year; for others, \$24 per year. In Canada: for individuals within circulation specifications, \$16 per year; for others, \$26 per year. All other countries, \$36 per year. The publisher reserves the right to accept or reject any subscription. Allow four to twelve weeks for shipment. The publisher agrees to refund that part of subscription price applying to unfilled part of subscription if service is unsatisfactory. Executive, editorial, circulation and advertising offices: McGraw-Hill, 1221 Ave. of the Americas, New York, N.Y. 10020. Second class postage paid at New York, N.Y. and at additional mailing offices. Title® in U.S. patent office. Copyright© 1977 by McGraw-Hill Inc. Postmaster: send form 3579 to Fulfillment Manager, House and Home, P.O. Box 430, Hightstown, N.J. 08520.

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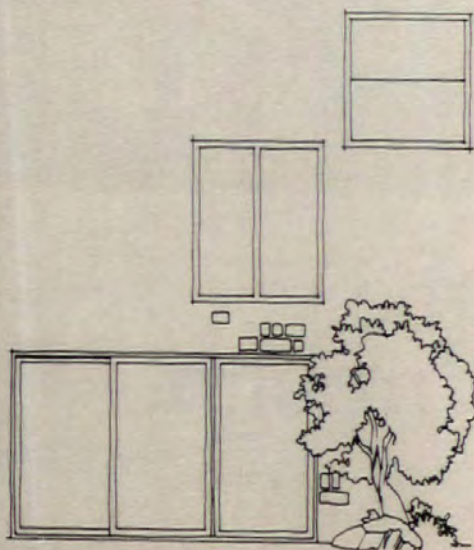
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This issue of House & Home is published in national and separate editions.



What about apartments?

Booming single-family sales hog the housing headlines. Almost unnoticed meanwhile, rental apartment building, in the doldrums for a couple of years, has started a quiet comeback. Nothing big, mind you, but a cautious awakening.

Which is why we treat on the subject with four major articles in this issue.

Question No. 1: Do the numbers work? In other words, does it once again make economic sense to build and operate apartments? For the most part, the answer is still what it has been for the last few years—No. That, however, is not enough to faze some experienced apartment builders. They are going ahead with new projects for other reasons, all of which are spelled out in the roundup on page 66.

But for some apartment builders the numbers do come out right. One of them, a man who also builds for-sale housing, aims at a rental market that many builders don't want: couples or divorced parents with children. Among other things, he has found that small—meaning the small apartment complex—is beautiful. But that's only part of his success formula. For the rest of it, see page 69.

Building the right apartments for the right market is only part of the profitability story. You can still get killed by sloppy management and inflated operating costs.

How can you control those costs, for example, and still keep

your tenants happy? Much of the answer lies with your property manager. So your choice of a person for that job is crucial. How can you choose the best candidate—and how, incidentally, can you size up the managers already working for you? Here are guidelines. They come from one of the toughest critics in the business. You'll find them on page 72.

And then there's the obstacle that upsets so many cash-flow projections: the rising costs of utilities. The logical solution is to switch to individual metering of apartments and let tenants pay for heat, light, hot water, etc. But can you pull off the switch without triggering a mass move-out? You can indeed. It's all a matter of timing and public relations, as you'll see in the article starting on page 76.

Getting back to building for the right market: Don't be fooled by the usual demographics. Traditional formulas will tell you that a certain percentage of your local market is ripe for rentals. But now those figures could be lying because many of the kinds of households that once made up the rental pool are now thinking of buying. They're thinking of buying because they're finally convinced of something the housing industry has been saying for a long time—namely, that home ownership is just about the best hedge there is against inflation.

—J.F.G.

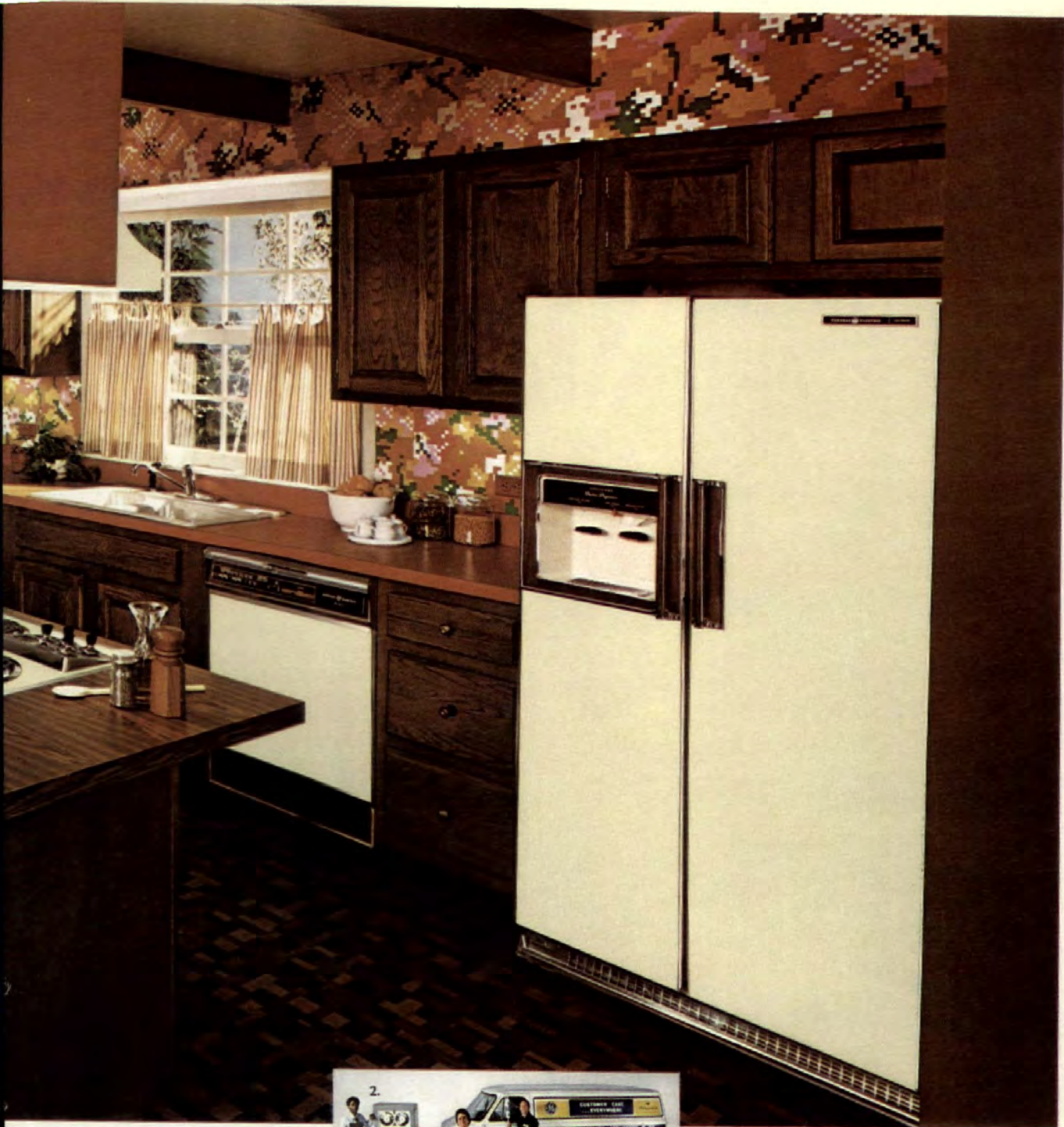


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**A full line of products, our own
experienced people, and a wide
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Old timers walk the plank

As Rogg went, so go Bill Slayton and Ollie Jones—Is Strunk next?

A generation is phasing out of the closely knit Washington establishment of building and lending trade associations.

Those matured leaders who have provided the drive and intellectual direction for housing policy for up to two decades are leaving. Taking their places is a younger generation, less individualistic and more inclined to go by the book.

The departing executives developed the big postwar housing market in the suburbs. Their successors will turn to the nearly impossible job of rehabilitating the urban slums.

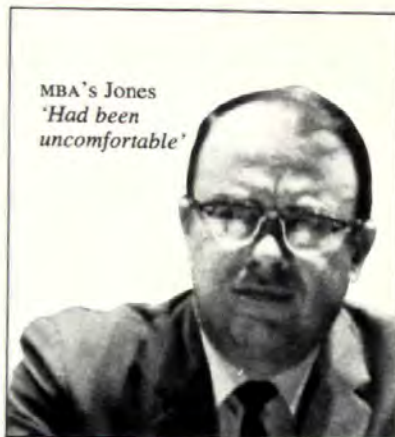
The exit door. No single explanation covers all the departures. In the last several months, no fewer than three executive vice presidents of top associations have left under pressure—Nathaniel Rogg of the National Association of Home Builders [H&H, Sept. '76 *et seq.*], William Slayton of the American Institute of Architects and, most surprising of all, Oliver Jones of the Mortgage Bankers Assn.

In all three cases there was much talk of encroachment by the organizations' elected officers upon the authority of the departing professional leaders.

Yet some departures are wholly voluntary, says the NAHB's director of information, Stanley Baitz: "A number of guys have grown old in the job and want to do other things." At NAHB headquarters alone the number leaving voluntarily includes Stan himself, lobbyists Carl Coan Jr. and Burton Wood and Senior Vice President Charles McMahon [H&H, April].

Government too. The government's own housing establishment is also losing familiar faces. Victor Indiek, president of the Federal Home Loan Mortgage Corp., has resigned. And, though political pressure directed against the Federal National Mortgage Assn. (Fannie Mae) allegedly aims at changing its policies rather than evicting its officers, the reports around Washington still insist that Fannie Mae's President Oakley Hunter and his second-in-command, Lester Condon, will walk the plank ere long.

The high and mighty. Some powerhouse figures still stand strong. Norman Strunk, executive vice president of the U.S. League of Savings Associations,



MBA's Jones
'Had been uncomfortable'

is preeminently one of those.

But even at U.S. League headquarters in Chicago it is expected that the 61-year-old Strunk will succumb to retirement in the next half decade. The association has anticipated his departure by setting up three new power centers below his job, and the jockeying for succession is already fierce.

Changes in mortgaging. The clash between young and old comes to a head most clearly in the MBA, from whose office 55-year-old Ollie Jones surprised the housing fraternity by announcing that he will quit in October.

Behind his departure was a widening incompatibility with trends within the association. Mortgage banking during Jones's tenure has changed from a business of small entrepreneurs tied to the single-family FHA market. It is now a business of large operations reaching into every phase of real estate. Of the 2,500 MBA members, 500 are now commercial or savings banks and 250 are insurance companies.

Officer activism. In keeping with these industry changes the officers, annually elected, no longer see their role as honorary. Younger and business-school trained, they bring cost accounting and other management skills to bear upon the workings of the Washington office. This year's president, Kennon Rothchild, chairman of the H. & Val J. Rothschild Co., St. Paul, Minn., is making a lot of trips to MBA headquarters in Washington.

The point came this summer when Jones decided he had had enough. Rothchild put it this way in a starchy letter to MBA's members:

"The increasing officer activism in

policy matters has been perceived by Dr. Jones as officer activism in management."

Jones "had been uncomfortable with the role exercised by the officers," Rothchild said, and added:

"We agreed that it was unlikely that this situation would change and, accordingly, Dr. Jones remained firm in his decision to resign."

The FHA issue. Rothchild said later that Jones "felt the increasing complexity of our business meant taking much more time as an administrator. The people he knows [in the business] are getting into the later years of their careers."

Part of the rift—which few will admit—is between the small mortgage banker who still hopes to revive the old FHA market and the larger mortgage banking organizations that have no such commitment. There are hints that the latter argue that more of the trade association's lobbying muscle should be turned to advancing their objectives, since the attempt to bring back a big FHA is doomed.

Jones plainly was on the side of FHA. He had turned over his administrative responsibilities at MBA to Peter Williams, MBA's acting chief operating officer, to concentrate on searching for some formula to save FHA.

—STAN WILSON
McGraw-Hill, News, Washington

QUOTE OF THE MONTH

"The remodeling industry is rapidly emerging as a critically important element in the battle to conserve our fuel resources. It will be the home improvement industry that must come to grips with the challenge of making the vast inventory of housing in place today energy efficient."

—EDWARD A. MORE

president, National Home Improvement Council, at NHC's congressional breakfast in Washington June 15



Builders teaming up to buy land

Joint ventures ease pressure of spiraling acreage costs in Chicago area

Along with the boom in single-family home sales in the Chicago area, a shortage of improved lots to put them on has developed. The shortage has gotten so bad that Home Data Corp., a research group based in Hinsdale, Ill., predicts that improved-lot prices will rise 20% this year. Says the group's president, Edward F. Havlik:

"A lot of people are in the street looking for land."

In this market the small builder is hard put to find and afford suitable land for single-family construction. So the builders of 10 to 100 homes a year in northern Illinois are taking the only route they know—they're banding together to buy land.

The Northern Illinois HBA, in Wheaton, has set up three of these groups and is putting together a fourth. The association is trying to buy 200 unimproved acres in Naperville, and 25 builders are interested in joining the partnership.

'Very profitable.' Executive Vice President Robert E. Langguth says builders report good results from the joint ventures. Adds Wilfred Barry, president of D'Abar builders of Downers Grove, Ill., who has built out portions of two joint-venture projects:

"Our experience has been very profitable."

Demand for homes has become so intense in the Chicago area that some small builders are taking deposits four to six months in advance of contract signing—and simply on the basis of a piece of raw land. A custom builder, Cass Collins, president of Springwood Builders, has nine such deposits with nothing to show prospects but a piece of raw land. Collins builds 50 houses a year.

President John Jelinek of Jelinek Builders in Naperville holds two long-term deposits. He sold the two prospects on the basis of plans, and he says the area where they committed to buy is a desirable location. Jelinek has merely estimated the price of the house to be built—"within \$1,000 or \$2,000."

Cost squeeze. Jelinek, who builds 30 houses a year, is in three joint ventures to buy land. He explains:

"With increased land and improvement costs, no one small builder can



Builders Barry . . .
'Very profitable'

. . . and Collins
Deposits six
months ahead

buy raw acreage, install improvements and build model homes on his own."

"But cooperatively it can be done," says the HBA's Langguth.

There are these additional benefits, Langguth says.

- A builder can diversify locations. For the same money he would put into one large subdivision, he can go into several joint ventures.

- A builder can get the benefits of co-operative advertising.

- Financing costs can be lowered. A partnership can sometimes get interest rates ¼% lower because of the stability of a group.

- A sales advantage accrues by virtue of the fact that several builders are pioneering the area. If 15 to 20 houses are up, subdivision sales will go better than when a single builder starts with one model.

Dividing the spoils. Langguth says the group has two ways of selling the land from the partnerships. In the first, each group member takes his share and

pays the partnership. If there are ten members in the group, they draw from a hat for priority in choosing lots. Then each pays one-tenth the total cost of the land.

The second way of selling is to put a retail price on each lot and let the builders buy as they have sales prospects, leaving the balance in a land bank. By this method, not every member of a group will necessarily sell land and built on it, but all will share in the profit made by those who do sell. The group makes a sizeable profit just on the sale of the land.

Langguth says the present trend is for each builder to demand his share of the lots immediately, because of the scarcity of lots. In the last five years the Chicago area has lost several of its largest land development companies. The joint-venture method of land acquisition is, Langguth says, "the salvation of the little builder."

—DAN BROWN

McGraw-Hill World News, Chicago



New Ventures School graduates Carl Dranoff (right), a Philadelphia builder shown receiving diploma from National Housing Partnership's Chairman George DeFranceaux (middle) and President George Brady. One-week course was sponsored by Housing Capital Corp., an NHP subsidiary. Only 31 of 500 applicants got in.

When you want the windows to look custom-built, start by looking at some classic standard units

A window like this bow isn't just a window, it's an architectural asset. You won't find many bows and bays in stock at the local lumber yard, but that doesn't mean they're hard to get. Marvin makes them in many shapes, sizes, and styles. They come from the factory set up, complete with head and seatboards, or without them if you prefer. The material, the workmanship, and the design of these beautiful windows has made them the choice in many of America's finest homes, large and small. Write for the facts on our standard bows, bays, and picture windows. Marvin Windows, Warroad, MN 56763. Phone: 218-386-1430.

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**Marvin
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"After 18 years in the home-building business, we know basic flooring materials like VA tile can present problems. So we switched to Tredway and solved them."

Tredway installs over NPA-approved particleboard with less subfloor preparation.

"We use $\frac{3}{8}$ " particleboard subfloor. Tredway can be laid directly over particleboard. Its great elasticity lets it adjust to many subfloor irregularities

that, from my experience, other resilient floors simply can't. Also the need for more expensive underlayment is eliminated.

That saves us the cost of extra materials and really reduces subfloor preparation time."



Regular flooring can crack or ridge.



Tredway adjusts to seasonal subfloor changes.



Tredway installs fast with staples or a band of adhesive.

"The speed with which Tredway can be installed is really incredible. The flooring mechanic simply cuts the material to fit and staples to the particleboard subfloor around the perimeter of the room. Where he can't use staples, like around doorways, a single band of adhesive permanently bonds Tredway to the subfloor. Because of the minimum installation time required with Tredway, our customers can make an eleventh-hour pattern and color selection, and there's no problem getting their floor installed. Plus, the same flooring contractor who installs our carpet also installs our Tredway. That's how easily it installs."



Tredway cuts easily.



Tredway installs with staples.



Tredway, also available in 6' widths, is perfect for the bath.

Tredway reduces callbacks.

"I don't think I'm different from other builders when I say callbacks are really headaches. Before Tredway, flooring was one of our biggest sources of callbacks. The constant movement of adobe soil, coupled with the sudden temperature

**"We switched to
Armstrong Tredway®
for 1,000 homes.
It's the best basic
floor we've found."**

Barry Scherman
Vice-President
Hofmann Company, Inc.
Concord, California

changes in Northern California, causes more than normal subfloor expansion and contraction. So we had continuing flooring problems—especially with shrinkage and seaming. Moreover, there were problems with broken tile during appliance installation. But now our flooring callbacks have been dramatically reduced. We haven't had any complaints on Tredway. And this is great."

Tredway's ideal for many rooms.

"We've expanded Tredway's use from the kitchen and utility areas to include the bath and family room. And new Natural Brick Tredway will be super for entranceways.

"We can do this because even though Tredway is the only resilient flooring we offer, our home buyers have been

extremely satisfied with Tredway's performance, and its distinctive patterns and rich colors are perfectly suited to the California market. Tredway's cushioning effect is appreciated, too.

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Burned-out owners refuse to flee

Rudin Management Co., a former builder now managing apartments in New York City, refused to succumb to a local disease.

The disease—fire—has devastated much of the housing in the crime-ridden borough of the Bronx. Because of fires, many set by arsonists, whole blocks of previously occupied apart-

ment buildings have been left unrepaired by their owners. The gutted structures stand vacant except for roaming bands of drug addicts seeking shelter or scavenging the fixtures.

'Only thing to do.' When flames swept a Rudin building last fall, however, Jack and Lewis Rudin refused to quit. At a cost of \$250,000 Rudin Man-

agement restored the 60-unit building, built in 1927. All sixteen families that were burned out have returned to repaired units (see photos).

With apartments being abandoned at the rate of 50,000 a year in New York, Jack Rudin says many of the building's tenants were surprised the owners chose to stay and rebuild. Explains Rudin:

"These are loyal, considerate tenants. It was the only thing to do."

'Dad had a soft spot.' There was another reason. Rudin Management was founded in 1927 by Samuel Rudin, father of Jack and Lewis. The late founder's first completed building was the structure burned out last November.

"Dad always had a soft spot in his heart about that apartment house," Jack Rudin says.

Rudin Management owns and manages 30 multistory apartment houses and 11 office buildings in Manhattan.



Before fire in Bronx apartment house.



After \$250,000 repair of the structure.

MANAGEMENT

This woman's place is in the homes

Her name is Pat Ferris. She's a 38-year-old mother of three teenagers. Her husband is a heavy-equipment operator at the 5,000-unit Holiday City housing development being built by Hovsons Inc. in Berkeley Township, N.J.

Pat works at Holiday City too. She's the boss of a 400-man construction crew, a job which places her at or near the top of the ladder as far as women in construction are concerned. Last and, in her mind, least, she's her husband's boss.

Mrs. Ferris began as a secretary in the company's sales office. Three years later she was made processing manager and, according to Hovsons' President Hirair Hovnanian, "she did a little bit of everything." She processed all sales, handled mortgage closings, acted as community liaison and "did

some public relations for us."

'She fit in' Why was Pat Ferris offered the job? Says Hovnanian:

"The project was well under way and we didn't want to go through a period of adjustment. She knew everything she had to know. She fit in."

In the beginning, he says, Pat's presence at the job site "was a hard pill for some of the men to swallow. It took time for them to adjust. But she's proven her interest and ability."

Mrs. Ferris insists her new job "really wasn't much of a transition."

She's worked, she says, with the contractors for "five or six years."

But her supervisors are new. "So far," she says, "they've had no objections to working with a woman—at least not to my knowledge. I try to be fair with them. If they get the job done the way it's supposed to be done we have no problems."

'I want to stay.' "I work about ten hours a day and we've got 500 units to build," Pat says, neatly summing up the future. "That takes care of the next five years." —T.A.



The two faces of Pat Ferris. She's a mother by night, a construction boss by day.

*Hovsons' based in Toms River, N.J., develops retirement communities. It is not affiliated with Hovnanian Enterprises Inc., the giant builder based in Englishtown, N.J., although the companies are headed respectively by brothers Hirair and Kervork Hovnanian.



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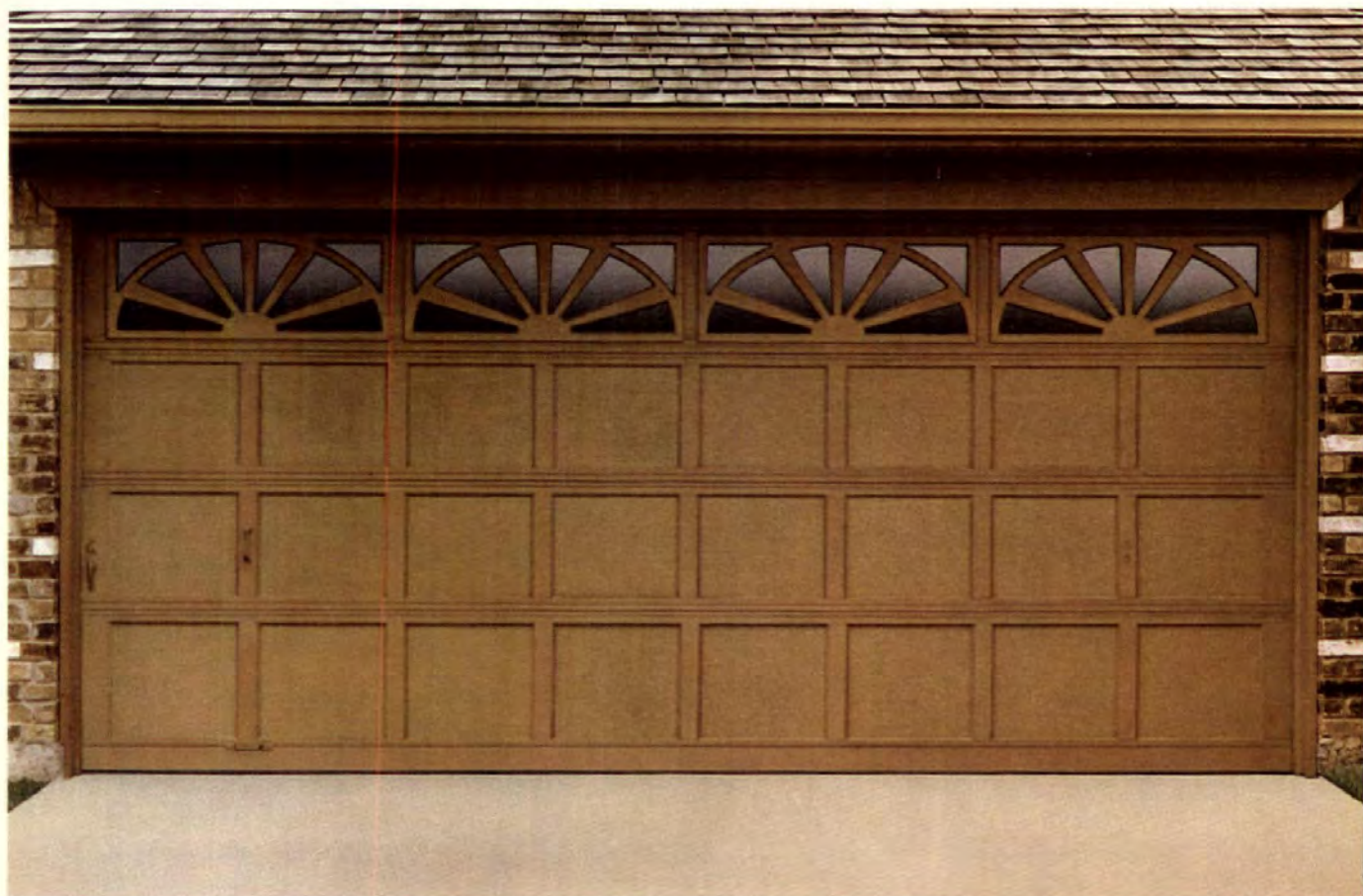


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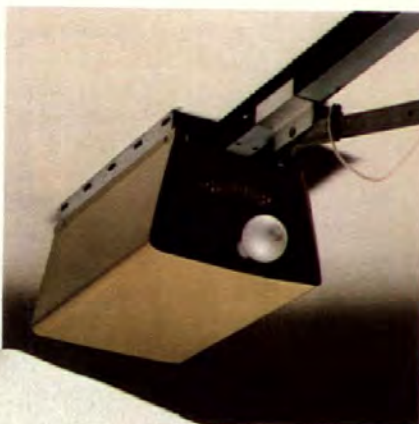
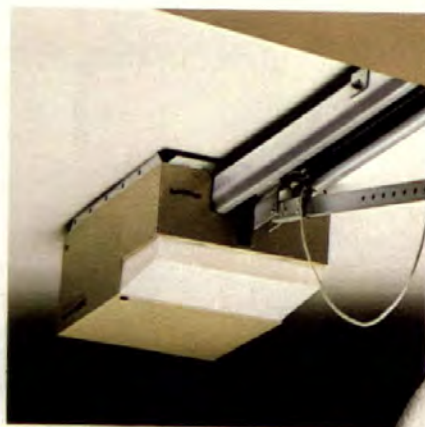
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Mortgage option mart to aid builder

Coming over the horizon: organized-exchange trading in options based on mortgage-backed securities.

It's a development the small builder and mortgage banker should watch closely, for it is supposed to be tailored to his needs. If it works, it should help free him from guessing about the ups and downs of lending rates.

The purpose of the new market will be to spread the risk inherent in these fluctuations so it can't crush the mortgage banker.

The mortgage banker can lose money, for example, under the old system. Say he commits to a builder, in advance of construction, to give long-term home loan financing a year later—after the houses are built. If by that time the market yield on mortgages has risen above what the builder has agreed to pay for his loans, it's a loss for the mortgage dealer.

And the mortgage banker will lose again if market rates rise while he is warehousing loans, waiting until he has enough to sell to a secondary-market buyer. If his loans yield less than the going rate when he is finally ready to sell, they will sell only at a discount.

Options vs. futures. If the mortgage banker has no other way to obviate such losses, he will increase his charges to the builder. So the more ways there are to spread the market risk, the less housing money should cost.

One technique of hedging against surprise moves in mortgage rates is already in use—the trading of futures in mortgage-backed securities. For a year and a half the Chicago Board of Trade (CBT) has run a market in futures contracts for Governmental National Mortgage Assn. (Ginnie Mae) securities.

A futures contract is a commitment to buy or sell a commodity at a given price at some specified time. In theory, it's a good hedge for the mortgage banker who plans to sell mortgages in the cash market six months ahead. By contracting in the futures market to buy mortgages at the same time, he should lock in the current value of his mortgages, no matter which way interest rates go.

Speculation fever. In practice,



Amex's Eckenrode
Sees exchanges moving in

however, some mortgage bankers feel that the booming futures market in Ginnie Maes, with its drawback of mandatory delivery and some technical bugs in the way delivery is made, has turned out to be more useful to speculators than to their industry. They are looking with more interest to plans for exchange trading in options. Says the Mortgage Bankers Association's economist, John Wetmore:

"I have no doubt that people who accumulate loan inventory do use the futures market. But the mortgage banker needs optional delivery. The options market is where the mortgage banker can really benefit."

In particular, the small mortgage banker needs an alternate hedge. For him, options are preferable.

"The futures market should not be used by people who are thinly capitalized," warns Richard Sandor of Conti-Commodity Services, a Chicago commodities brokerage. "There are other ways for them to transfer risk."

The buyer of an options contract gets a choice, not an obligation. For a price—called a premium—a mortgage banker, for example, will be able to buy the right to purchase the underlying security at a stated price within a limited time. With a different option, he can buy the right to sell (the "call" option is an option to buy, the "put" to sell). Options, therefore, amount to a kind of insurance policy.

Over-counter options. The option concept is not itself new. Just as common-stock options were traded over the counter before graduating to exchange trading, so there are already many varieties of mortgage market op-



Board of Trade's Harding
Puts in a word for puts

tions, though few go by that name. The most popular is the four-month commitment issued by the Federal National Mortgage Assn. (Fannie Mae). Dealers in the Ginnie Mae market also make similar standby agreements with mortgage lenders. And, for months, Paine Webber Jackson & Curtis Inc. of New York City, one of the largest Ginnie Mae securities dealers, has been selling one-to-four-month put and call options on Ginnie Maes.

But if the mortgage-options business shifts to exchanges it will become standardized. And the experience of options trading in equities indicates that standardization in turn will make for highly liquid secondary market trading and a huge leap in volume. If large volume is achieved, it will whittle away at the biggest drawback to options—the cost of the premium. It will also help lengthen the option period.

Schedule. Leaders in the move toward trading mortgage options are the American Stock Exchange (Amex), which has a proposal before the Securities and Exchange Commission to start trading based on Ginnie Mae securities late this year; and the Board of Trade, which is seeking approval from the Commodity Futures Trading Commission (CFTC) to move just as quickly into trading of options based upon Ginnie Mae futures contracts.

Go-aheads from Washington for these two ventures, however, probably would be the signal for a general move by most other exchanges in the direction of Ginnie Mae and other fixed-interest-rate securities.

"I'd be surprised if the other ex-

changes didn't join in," said Robert Eckenrode, an executive vice president of the American Stock Exchange.

Bureaucratic obstacles. While exchange interest in Ginnie Mae options is high, the federal bureaucracy, with the SEC setting the pace, is leery of too rapid a rush of investment money out of other markets and into options trading. This general caution about options is likely to push back the day when exchange options trading in Ginnie Maes actually begins.

Government officials are particularly edgy about encouraging puts. In the stock market, puts have had bearish implications. Even when considering the Board of Trade's request for Ginnie Mae futures options, the CFTC was careful to say that, initially, it was considering a program for trad-

ing only in calls.

But mortgage bankers want the put far more than the call. Their business usually involves selling mortgages, not buying.

Debate. John Harding, manager of research at CBT, pleaded with the CFTC to allow put option trading, saying, "In order to test whether exchange-traded GNMA futures options are superior to cash-market trade options, it is necessary to allow the trading of puts."

Thomas Miller, a Washington mortgage consultant who until recently was the MBA's specialist on this subject, agrees that "the put is crucial." But he adds, "since the CBT option is on a futures contract, the Amex has the edge because it trades on the cash item itself [i.e., the Ginnie Mae mortgage-

backed security]."

Foes of the due bill. Wetmore and Miller voice the mortgage banking industry's objection to the delivery terms set up by CBT in its Ginnie Mae futures market as unfair to their industry. For the sake of homogeneity, the CBT insists on delivery on Ginnie Mae futures contracts not in Ginnie Mae securities but in the form of due bills—a kind of warehouse receipt. The due bill is necessary for a compromise between the interests of buyers and sellers, Sandor claims.

With the Amex moving in competitively with cash-market Ginnie Mae options, the Board of Trade may be forced to shift toward concessions in the futures delivery to keep the mortgage business.

—STAN WILSON

McGraw-Hill News, Washington

How mortgage option trading works

Here's an example of options used to hedge mortgage lending.

The builder asks his mortgage banker for permanent financing for buyers of houses he plans to construct over the next 12 months. The market rate is the current Federal Housing Administration rate of 8½% with 3 discount points. So the mortgage banker makes a commitment to lend to the builder for 50 houses at 8½% less 3 discount points at closing.

Risk in futures. The mortgage banker has no idea how many loans will actually be delivered to him a year later out of the 50 at the 8½% and 3-point commitment. If the market rate a year later is 7½% he will get zero deliveries, since the builder can't force buyers to pay 8½% when they can borrow elsewhere for 7½%. And in this case, if the mortgage banker tries to hedge this risk by selling a futures contract, he winds up with no loans to deliver when the contract comes due. He will take a loss.

If the interest rates over the year go up instead of down, reaching 9½%, the mortgage banker finds that all of the home loans under the commitment to the builder are delivered to him. But he can sell them to investors only at a discount from face value.

Coverage in options. Both the builder and the homebuyer in the examples above have, in effect, optional contracts with the mortgage banker. That means he also needs optional forward cover.

So the mortgage banker buys a put

option reflecting current market rate. He covers the cost of the put-option premium (price) in points charged to the builder.

If interest rates go above the 8½% market rate, the mortgage banker finds all the loans coming to him under the

50-house commitment. He converts the loans into Ginnie Mae securities and delivers the securities against the options contract to the investor who sold him the put.

If rates go down, the mortgage banker lets his put expire. —S.W.

New mortgage bonds bow in

Home Savings & Loan Association of Los Angeles has asked the Federal Home Loan Bank of San Francisco and the California savings and loan commissioner to approve a \$200-million public issue of mortgage-backed bonds in minimums of \$10,000.

Only one other major California S&L has sold conventional-mortgage securities to the public, as far as is generally known. Imperial S&L of San Diego marketed \$100 million in June.

The Bank of America, however, has asked to go to market with \$150 million in pass-through type securities backed by pooled conventional mortgages, and other commercial banks are expected to follow [H&H, July].

George H. Haley, senior vice president of the Bank of America, says his bank's security is not a debt instrument, as is the case with the S&Ls. It is an asset sale that lets the bank pass through principal and interest from mortgages whether or not it receives them from the mortgagor.

Underwriting. The Home S&L offering was to be made through a group of underwriters managed by Goldman, Sachs & Co. of New York City. The maturity date is June 15, 1982.

The initial collateral will consist of 15,000 fixed-rate conventional mortgage loans on single-family dwellings originated in 1973 or earlier, with each mortgage loan having a current unpaid principal balance of not more than \$55,000. The value of the collateral must not be less than \$350 million, or 175% of the amount of the bonds.

Bank's insurance. The Bank of America's offering was made without such over-collateralization primarily because the bank is insured against loss on the mortgage pool (by Mortgage Guaranty Insurance Corp. of Milwaukee). The securities carried no guaranty of any kind, however.

Home Savings, a subsidiary of the H. F. Ahmanson & Co., is the largest savings and loan association in the United States in assets (\$7.6 billion).

The old guard bows out at Irvine

With the papers signed and the deal concluded, the old Irvine Company's three top execs are taking to the exits.

On the eve of Irvine's transfer to the new Taubman-Allen-Irvine development combine, Irvine President Raymond L. Watson and Executive Vice President Lansing Eberling have resigned along with the executive vice president of finance, Thomas Wolfe. They say they will form their own land development company.

Peter Kremer, 38, takes over the presidency of the new Irvine. He has been the executive vice president of Newhall Land & Farming Co. of Valencia, Calif. Eberling and Wolfe will not be replaced.

A bet on wrong horse. The new Irvine owners say the company will not change names and that all personnel and plans will remain "basically unchanged." Kremer, attending the Los Angeles press conference at which the resignations were disclosed, said he would not alter Irvine plans or policies.

Before the sale [H&H, July], Watson publicly disapproved of the Taubman group's supposed plans to speed up development of the Irvine property beyond the pace decreed in its master plan. He was also reported to have favored Mobil over Taubman-Allen before the oil company lost out in the building for Irvine.

During the bidding Watson had stated, "The company is for sale, not me." He reportedly decided to make his move when, during the bidding, Taubman-Allen's competitors discussed their development plans with Watson and other Irvine officials. The Taubman-Allen Group would not do this.

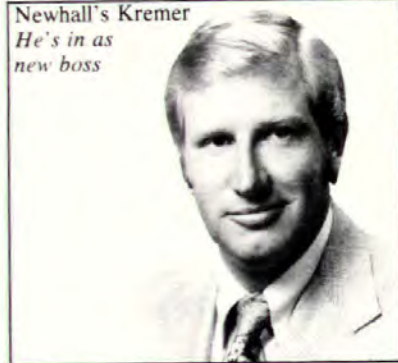
Congenial parting. Watson's remarks to reporters were typical of the surprisingly amiable press conference.

"The new owners are successful quality developers," he said. "They have never been second-rate individuals and I don't expect them to accept that now."

Watson also said he and his two aides had been asked to remain with Irvine but had refused because they wanted to form their own company.



Irvine's Watson
He's off on his own



Newhall's Kremer
He's in as
new boss

All three will serve as consultants for Irvine's new owners for a year.

The new man. A native of Philadelphia and a graduate of Stanford University Business School, Kremer joined Newhall in 1964. He's been responsible for land transactions, leasing and operating commercial properties, residential development and for the marketing and development of Newhall's Valencia Industrial Center.

In addition to being executive vice president of the parent, Kremer has been president and chief executive of the Valencia Corp., Newhall's resi-

dential development and construction subsidiary. The company has developed Valencia, a new community north of Los Angeles.

New regime's plans. Contrary to earlier reports, Irvine's new president said his team would not speed land sales to meet the company's considerable credit obligations.

After consulting with Irvine's lenders Kremer declared: "I can state categorically that accelerated land sales are not part of our plan, nor are they required."

—MIKE MURPHY
McGraw-Hill News, Los Angeles

BRIEFS

An assets-for-debt swap is arranged. Redman Industries exchanges \$6-million worth of property from discontinued operations in settlement of \$11.7 million in long-term debt owed to banks and REITs. The Dallas mobile-home maker thus adds \$7.2 million in profit and trims its total debt by \$12.6 million.

Another tradeoff is made by Cenvill Communities. It deals its California development subsidiary to Pacific Coast Properties of Santa Monica, and Pacific Coast agrees to give up its 80% interest in Cenvill. It's all subject to stockholders' approval. Cenvill is based in West Palm Beach, Fla.

A 5% tile price rise is announced by GAF Corp. for its full line of flooring grades. The increase reflects higher costs of energy, raw materials and labor.

A hot sales pace is set again by realty giant Walker & Lee of Anaheim, Calif. Volume for the first 21 weeks of '77 (ending May 29) is up 74% to \$1,031,581,000. Last year's sales set a record too, but they didn't hit a billion until August.

A halt in sales is ordered at South Lake Tahoe. California's Department of Real Estate directs eight developers to stop selling 11,500 lots because only 1,074 hookups are available. Realtor Ed McCarthy accuses Governor Edmund G. Brown's administration of playing games. "It's all part of a grand scheme to stop growth at Tahoe and then regress what's here," McCarthy charges.

Arabian market opens to the double-wide. National Gypsum's DMH division delivers 76 units to Jedda, in Saudi Arabia, for \$6.2 million.

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Britain giving up on new towns

Labor government turns instead to rebuilding big-city slums

Eighteen miles southeast of Glasgow's East End slums, on the edge of the village of Stonehouse, stands a neat tract of 96 new homes.

Built as the first dwellings of Britain's 29th new town, which was to have a population of 60-70,000, the houses remain an anomalous extension of the old Scot village. Farmers, who sold their land for the new town only a few years ago, are being offered it back. And the Labor government, instead of spending to build anew at Stonehouse, is committed to a \$200-million rescue of what is old in Glasgow's notorious East End.

The decision to abandon Stonehouse is part of a reversal of a postwar government planning policy which drew people and industry away from inner urban areas and so left the heart of many major cities in decay. When Environment Secretary Peter Shore told Parliament this spring that he would spend \$1.7 billion to breathe life back into the London, Liverpool and other metropolitan areas, he signaled the beginning of the end to Britain's controversial new-town program.

'The movement.' The new towns were a cornerstone of the old policy and were acknowledged as one of the boldest planning experiments of the century. But, after a new-town commitment of 31 years and billions of dollars, the development corporations for eight older new towns will be phased out in the next five years. Plans for six newer and larger new towns will be cut back sharply.

For new-town advocates, who speak of "The Movement" as if it were a religion, the policy shift is a national disaster.

"The new towns are one of the few national success stories since the war in terms of economics and planning," says F. Lloyd Roche, general manager of Milton Keynes Development Corp. "To terminate the new-town principle at the very time when we're being inundated by people all over the world for our expertise is a tragedy."

Accomplishments. New-town leaders cite the lack of local political bickering as one reason for their success. New towns are run by non-elected boards, with each member appointed by the secretary of state for the environment.

"If a commission wants to do something, then it gets done, it doesn't end up bogged down in petty local politics," says Jack Pincombe, deputy secretary of the New Towns Assn. He points to a two-mile area under construction 50 miles north of London as an example. Another development corporation general manager adds:

"The absence of political infighting has brought some of the brightest, most dynamic architects and planners in the country to new towns. We're in the process of throwing an immense amount of expertise onto the rubbish heap. Anyone who thinks these people would go to work for local government is wrong."

'All gone wrong.' Still another new-town advocate calls the decision to redirect central government money into the inner cities as "one of the greatest farces in years."

There have been billions poured into urban housing development and the re-

sult is an increasing cancer of deprivation," he says. "Because the cities have failed, they now can't stand to see us succeed."

But to many, the new towns have not succeeded at all and the government policy shift is a long overdue rescue from an idea which has badly misfired.

"New towns were supposed to become industrial villages, taking excess population out of inner areas, giving the cities a chance to regenerate themselves, but it has all gone wrong," says Conrad Jameson, an expatriate American who has lived in London 18 years. Jameson, with an architectural background, specializes in the social psychology of architecture and planning and is one of the most outspoken critics of new towns.

'Have lost track.' "The cities are dying and the new towns have lost track of what they were supposed to be," he says. "The third-generation new towns (six launched in the 1960s with planned populations of up to 250,000—three times that of the original new towns) are programmed to become big cities with no resemblance to the initial concept. The whole idea of low density has gone by the boards."

BRITAIN'S NEW TOWNS

Older new towns. 1-Bracknell, 2-Basildon, 3-Corby, 4-Harlow, 5-Stevenage, 6-Skelmersdale, 7-Runcorn and 8-Redditch. Their development corporations will be phased out within five years.

New towns in limbo. 9-Peterlee, 10-Aycliffe and 11-Washington. Government promises statement.

Completed new towns. 12-Crawley, 13-Hemel Hempstead, 14-Hatfield and 15-Welwyn Garden City. Must turn over all housing assets to local governments by April '78.

Newer new towns. 16-Peterborough, 17-Milton Keynes, 18-Northampton, 19-Telford, 20-Warrington and 21-Central Lancashire New Town. Will be cut back sharply.

Miscellaneous. 22-Cwmbran, which almost reached target size but whose corporation will be phased out. 23-Newtown, which has only 10,000 residents, will be allowed to grow to 18,000.

Scottish new towns. 24-East Kilbride, 25-Glenrothes, 26-Livingston, 27-Irvine and 28-Cumbernauld. Will be allowed to grow to 18,000.



Jameson and other critics say the largely skilled working-class population that fills the new towns is disoriented and that both commercial and industrial development have failed.

"The industrial base is made up of small branch offices of big companies, so there is no cross-fertilization and spontaneous growth because none of the decision-makers are there," he explains. "Big stores will come into new shopping centers only if there is no competition. Then they stock only higher-priced goods, so the residents suffer."

'Utopian ideas.' Although new-town proponents point to waiting lists for entry as proof of the concept's popularity, critics say the new towns are being force fed.

"If you offer someone in a leaky London slum a house in a new town, he will certainly go," Jameson admits. "But he'd be happier if you spent money fixing his roof and clearing the slum."

Jameson is also uneasy about the non-elected boards that run each new town.

"Like all utopian ideas, there is an unpleasant authoritarian streak in the new towns," he contends. "Planners have an overpowering urge to impose a way of life on other people."

New chance for cities. In addition to cutting back on the growth plans for new towns, the government has also called for them to begin taking in larger numbers of minority groups. Critics also say the towns have accepted only workers, leaving the jobless behind to fend for themselves.

While the new government policy spells the beginning of the end of Brit-



Britain's new towns are typified by Milton Keynes, 50 miles north of London.



Rental housing in Milton Keynes, among the newest of English new towns.



Housing and residents of Cumbernauld, in Scotland, 15 miles east of Glasgow.

ain's new-town era, it brings hope of a new beginning for many inner-city areas.

"We've been pressing for this change for years," says David Stimpson, leader of London's Lambeth borough council. "We are hoping to improve our older housing stock and be able to provide some light industrial sites to attract new jobs."

—TYLER MARSHALL
McGraw-Hill World News, London

Book offers guides on development

NAHB Chief Economist Mike Sumichrast has teamed with Maury Seldin, professor of real estate and urban development at the American University, to write a book entitled *Housing Markets: The complete guide to analysis and strategy for builders, lenders and other investors*.*

Intended as a handbook for professionals, the book contains sections on how housing decisions are made by individuals, the government and industry; on supply and demand factors,

*Dow Jones-Irwin, Homewood, Ill., \$30.00.

and on strategies for making development decisions and the tools for market analysis.

It also contains extensive appendixes that explain where to get the necessary information and show examples of market studies, analyses and other statistical tools.

Of particular interest are chapters that suggest strategies for building companies and lenders in unstable markets.

"Too many people make their development decisions by the seat of their

Author Sumichrast
For better
decisions



pants," says Sumichrast. "We're going to continue to have housing cycles, and people have to learn how to protect themselves."

Iran to get a Levittown of condos

At 70, William J. Levitt is moving to a new ballpark where he can play the way he thinks the building game was meant to be played.

The creator of all Levittowns has decided to build another. He has formed International Construction Co. (Iran) to construct 14,100 garden apartments as condominiums in Teheran.

The apartments will sell at \$30,000 to \$40,000 each, with a 25% down payment and a 12 to 24-year mortgage. The \$500-million project is named Levittshahr, the Iranian equivalent of Levittown.

Why Iran? The oil-rich non-Arabic nation (Iran is considered "Asian") is booming. And, Levitt says, it has virtually no housing program. More importantly, Iran has few environmental requirements and labor is "cheaper." Further, Levitt adds, "the currency is

the most stable in the world and we can take our profits out of the country."

There are no unions in Iran, Levitt adds. "Our labor pool will consist of Pakistanis, Koreans, Iranians or anybody else who wants to work."

Complex environmental regulations and expensive labor, Levitt says, have damaged his relationship with the American housing industry. No reconciliation, he declares, is possible. He merged his giant Levitt & Sons into ITT in 1968 and gave up residential building.

"We have no plans in the immediate future to build in the U.S.," Levitt explains. "Standards are now so stringent and complicated that we can't build the way we want."

Into Arab lands? Levitt says he will "build anywhere in the world where we have the same conditions we have in

Iran."

The Arab nations?, the noted Jewish philanthropist was asked.

"Some of my best friends are Arabs..." Levitt replied with tongue firmly in cheek.

So far, International Construction has only a chairman—Bill Levitt. But Levitt & Sons alumni—15 at last count—are expected to rally to the new cause.

In recent years Levitt has served as chairman of Levitt Industries, which has built a chain of discount drug and department stores in ten northeastern and middle Atlantic states. Listed on the American Stock Exchange, the company reported \$65 million in sales and profit of \$2.3 million last year. Both Levitt Industries and International Construction are based in Greenvale, N.Y.

—T.A.

Architects elect their '79 leaders

The American Institute of Architects, meeting in San Diego, votes in new officers.

Ehrman B. Mitchell Jr., first vice president and president-elect, heads the slate. He succeeds **Elmer B. Botsai** as president in December 1978. Botsai, elected at the '77 convention in Philadelphia, takes over next December. Mitchell is a partner in Mitchell/Girulola of Philadelphia and New York City.

Herbert Epstein, **Sarah P. Harkness** and **Charles E. Schwing** were elected vice president.

BUILDERS: Ryland Group (Columbia, Md.) taps **Robert J. Gay**, 43, as president to succeed **James P. Ryan**, 44, who continues as chairman and chief exec.

Allan H. Grossman moves into the president's chair for Centex Homes of New Jersey, a subsidiary of Centex Corp. of Dallas. He had headed the parent company's homebuilding operations in Florida.

John O. Richardson signs up to join U.S. Homes in Des Moines as general sales manager for U.S. Homes and Sandler-bilt Homes, replacing **Jack Piper**. Richardson is a former



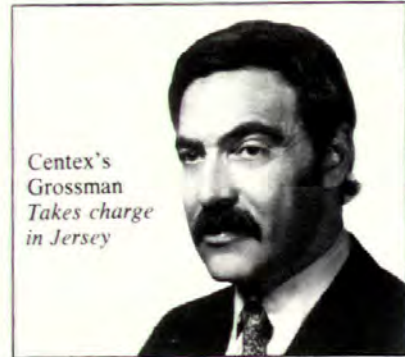
Architects' Mitchell
President
for 1979

president of the National Association of Home Manufacturers.

LENDERS: **Victor H. Indiek** resigns as president of the Federal Home Loan Mortgage Corp. (Freddie Mac) to become president and chief executive of Builders Capital Corp., Santa Monica, Calif. The new arm of Watts Industries specializes in front-end development financing and management services for homebuilders.

Jack Corcoran moves his mortgage brokerage, Jack Corcoran Associates Inc., from 170 Broadway, New York City, to 189 Elm St., Westfield, N.J.

GOVERNMENT: The Carter admin-



Centex's Grossman
Takes charge
in Jersey

istration dips into the local talent pool for its housing man in New York City. **Thomas Appleby**, the city's housing and development administrator, climbs onto the federal payroll as HUD's regional administrator. His jurisdiction: New York, New Jersey, Puerto Rico and the Virgin Islands.

DIED: **Oliver M. Rousseau**, 85, of Rousseau Industries, May 25 in San Francisco after a long illness. He joined the family homebuilding concern while San Francisco was rebuilding from the '06 quake. Sales ads for homes in the city's Sunset district, which he helped develop, still carry the "Rousseau built" imprimatur.

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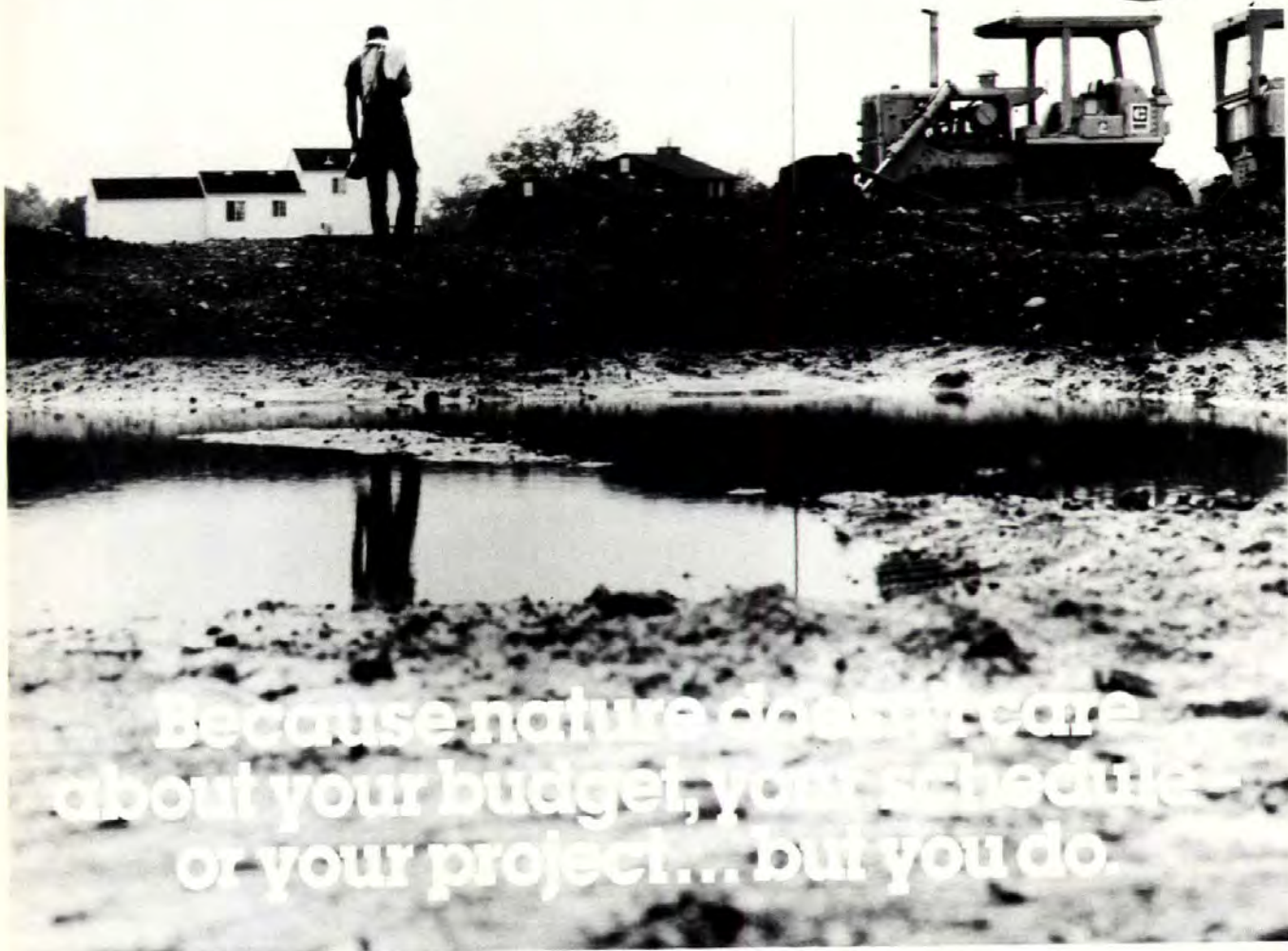
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O-76

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The "affordable home". It's become the biggest boom in the home building business today. And one big headache for the builder.

You see, today's home buyers want to cut their costs without cutting out those luxurious little extras that add flair. And that add to the price.

Now GAF introduces the "affordable floor" for the "affordable home". The GAFSTAR 5400 Series with the Brite-Bond™ surface. An unbelievable value from top to bottom.

On top—the GAF Brite-Bond surface with its high-gloss, no-wax finish that resists scuffs and is practically maintenance free. (If desired, gloss can be restored in heavy traffic areas by

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Also, GAFSTAR 5400 Series is available in 6 and 12-foot widths. Which means less waste. Less seaming. Less labor. Lower cost for you. So throw in the extra features like a microwave, or the stainless sink.

And the "affordable floor" comes in stylish patterns you won't have to sell anyone on.

When you build the "affordable home", look into the "affordable floor". The GAFSTAR 5400 Series. You can't afford not to.

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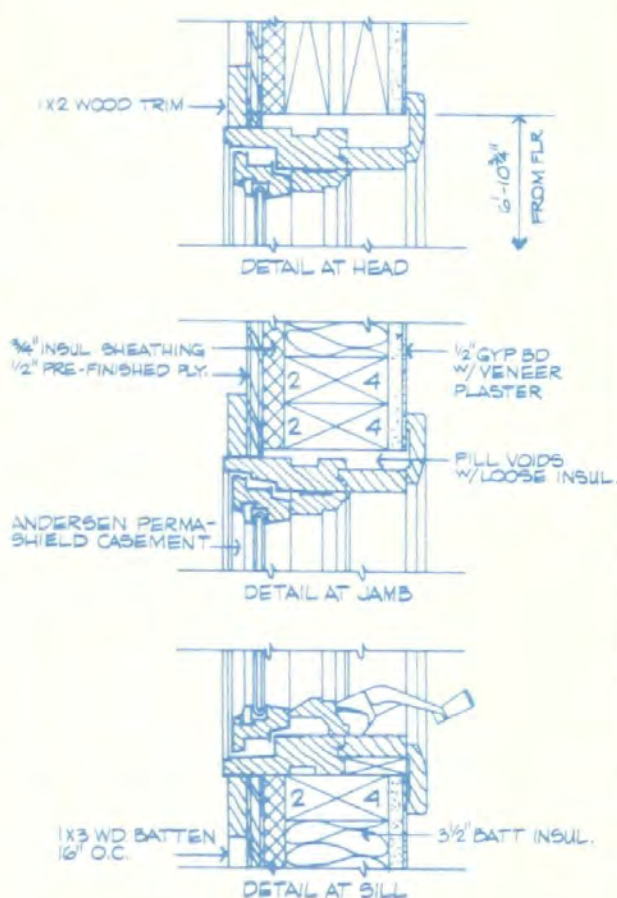
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But will it play in Peoria?

Critics say "yes"...applaud Andersen's colorful new role.



How well you play in Peoria has become a legendary yardstick of how well you'll perform across America.

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We knew our dramatic, new, earth-tone color would be under critical review.

But our Perma-Shield® Casement and Awning Windows in Terratone won the praise of both the developer and the homeowners.

The developer liked how naturally Terratone blended with the wood exteriors of the townhouses. And the beautiful match this rich, warm earth-tone made with brick, stone, masonry and the surrounding landscape.

The townhouse owners applauded how well Perma-Shield complemented their leisure life-style.

Perma-Shield Windows are sheathed in carefree, low-maintenance rigid vinyl that's designed not to rust, pit or corrode. Not to chip, flake, peel or blister.

They're also made of wood—one of nature's best insulators—then built two times more weathertight than industry air-infiltration standards.

And double-pane insulating glass provides a major part of the fuel-saving benefits of single-glazing with storm windows, plus the convenience of no storm window bother.

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Bob Johnston demanded an end to the off-season.



"Thanks to AWWF, we only lost two days last winter, and that was because of a blizzard. Now I don't have to schedule around masons, concrete suppliers or the weather." Bob Johnston, Robert E. Johnston Construction, 200 First Avenue North, Altoona, Iowa.



Chances are, if you've got a construction problem, we can show you a cost-saving plywood solution. Take foundations for example.

When you're trying to pour concrete, bad weather can really hang you up. But you can install a plywood All-Weather Wood Foundation with a crew of carpenters in about half a day, no matter what it's doing outside. And possibly save \$300-\$400 per house.



This is what the APA is all about. To help builders stay competitive by keeping abreast of the latest plywood developments, we act as a storehouse of information, from building codes to the latest construction techniques. But more than that, we're working constantly to develop new plywood systems that cut construction costs and improve quality at the same time.


Like the All-Weather Wood

Foundation.

The AWWF consists of pressure-treated plywood-sheathed stud walls set below grade on gravel footings and a treated wood plate. A polyethylene film covers the exterior and all joints are sealed. And whether you're building a crawl space or a full basement, you'll save both time and money.

Details on the AWWF and answers to everything else you ever

wanted to know about plywood and plywood systems are available free from the American Plywood Association, Dept. H-087, P.O. Box 2277, Tacoma, WA 98401.

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H&H/housing 8/77 **37**

WHAT'S SELLING



Six-unit building (two large units on either end, two smaller in the middle) is one of three configurations being offered.

In Denver, Colo.

The traditional look scores with a young market

Horizontal lap siding, dormer windows, white exterior trim and shake roofs—that's the look that's speeding townhouse sales at Cobblestone, part of the HeatherRidge PUD near Denver. Almost half of the 74 units sold before models opened June 20; three-quarters were gone by July.

The old-fashioned touches appeal to a young market, says Terry Coke-Kerr, marketing director for the builder, Environmental Developers Inc. Most buyers are professionals in their early 30s who have tired of contemporary design and are looking for a house that looks, well, like a house.

These buyers are conservative

shoppers, too. Influenced by the consumer movement, they seek good workmanship and high-quality materials.

Anticipating these preferences, Environmental Developers broke with a successful HeatherRidge formula—townhouses in contemporary style for less than \$40,000—and offered upgraded units with a traditional look.

Prices are \$37,950 and \$41,450 (only two models are offered), with a detached-garage option for \$1,500. The prices were raised above previous HeatherRidge levels by the more-expensive horizontal siding, the inclusion of six-foot tubs in the



Master bedroom in 1,361-sq.-ft. plan features a dormer window.

master baths, greenhouse windows and ceramic tile in baths and entryway.

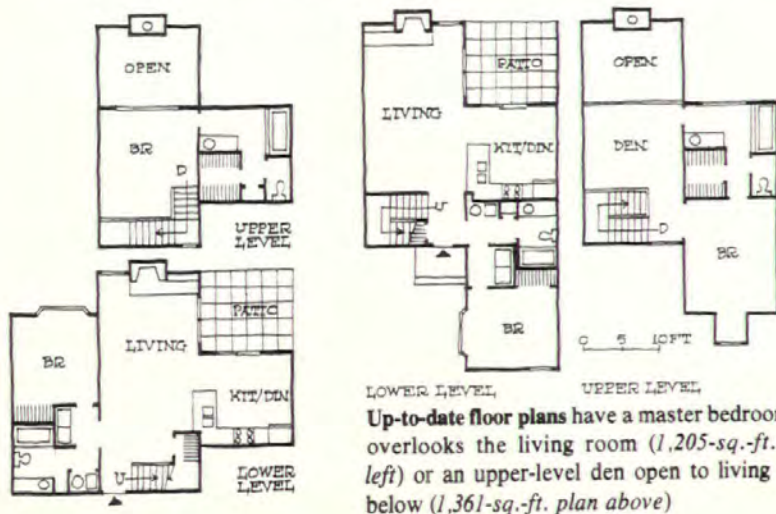
Both models have two bedrooms and two bathrooms (see plans where). Thirty-four of the smaller units are being built; 40 of the larger are planned. Both sell at about the same pace.

Interiors feature cathedral ceilings, master bedroom or den in a loft, and roomy master baths—contemporary touches belied by the exteriors. The living-room fireplaces are of cobblestone, however, and lighting and plumbing fixtures harmonize with tradition.

Sixty percent of the buyers are single, and of the 40% that are married only a few have children.

Ownership is fee-simple. Maintenance costs \$55 a month for the smaller unit, \$59 for the larger.

—BARBARA BEHRENS GERS





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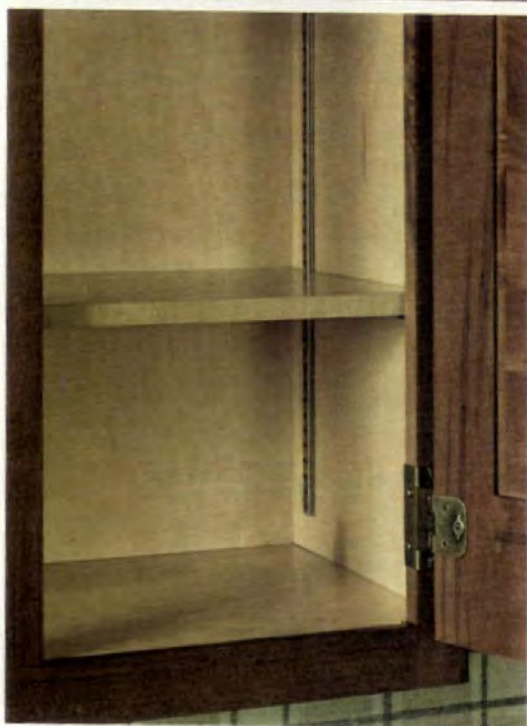
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☐ Have a Salesman phone me for an appointment.

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From NAHB: An energy house that makes sense today

The 1,200-sq.-ft. demonstration house is expected to use one-third to one-half less energy than a typical single-family house of comparable size. And it makes sense for two reasons:

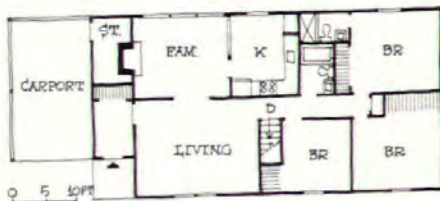
First, it offers a virtual checklist of ways to save energy with readily available technology and products (see page 48). So most builders can adopt the ideas without major changes in the way they design or build their houses.

Second, the house was built to find out how much extra money a buyer is justified in spending for energy-saving items in relation to the amount of time it takes for the extra cost to be repaid through lower energy bills. So the design, siting, construction techniques, materials and equipment are those that the Research Foundation chose as the most cost-effective.

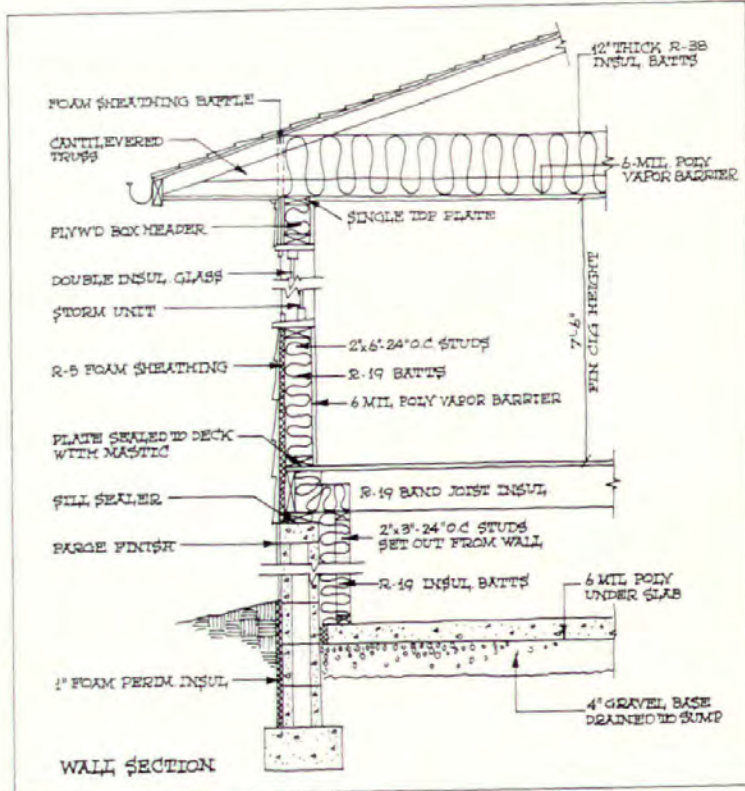
HUD involvement. The NAHB's Research Foundation developed the all-electric house under a HUD Contract. It was constructed in Mt. Airy, Md. by builder David Smith of Gaithersburg, Md. A dozen meters will monitor the occupied house for a year, comparing its performance with that of a house built without the extra energy-saving features. The results will be used to prepare a technical manual on how to build the most cost-effective energy-saving houses under varying conditions.

Payback data. Ralph Johnson, president of the Research Foundation, says the added construction costs for this type of house will be about \$3,000. The table (bottom right) shows how long it would take buyers to recoup that amount, given various projected increases in energy prices over ten years.

The table is based on an estimated saving of \$630 in electricity costs for the first year. Note that the estimated three to ten-year savings do not reflect the full effects of any increases in the price of energy. This is because the additional \$3,000 to be spent on



NAHB energy saver, clad in brick and aluminum siding, is similar in appearance to other houses constructed by builder David Smith. A typical wall section is shown below.



energy-saving extras will require a higher mortgage, and the higher payments (using a 9% interest rate) have been deducted from the estimated savings.

The Research Foundation has designated this house as an Energy Effi-

cient Residence (EER). The project was headed by engineer Donald Luebs.

For more information contact HUD, Division of Energy, Building Technology and Standards, Office of Policy Development and Research, Washington, D.C.

Projected annual rate of increase in price of energy

Estimated payback periods, assuming a \$630 first-year saving in electricity bills

	3 years	5 years	7 years	10 years
15%	\$2,106	\$3,710	\$5,496	\$8,560
12	1,996	3,420	4,923	7,337
10	1,925	3,238	4,575	6,627
8	1,856	3,064	4,251	5,991

Gold River™



A new, more affordable version of an all-time favorite.

Long-Bell® Gold River cabinets have the clean lines and simple beauty that women have chosen for their kitchens for years.

Good looks run deep in Gold River, with a deep honey-tone brown stain over real birch

veneer. And it's less expensive than you'd imagine.

Gold River offers the quality you expect from Long-Bell cabinets.

They're prefinished and assembled, ready to install from carton to wall and with 80

different items in a wide selection of modular sizes, from 9" to 48." You get a fast, precision fit almost anywhere.

So put Gold River in that new or remodeled home. And count on it to open a few eyes... and help close a few sales.

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- ☐ Please have a representative call.
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- ☐ Over 250 units next year.
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- ☐ Other _____

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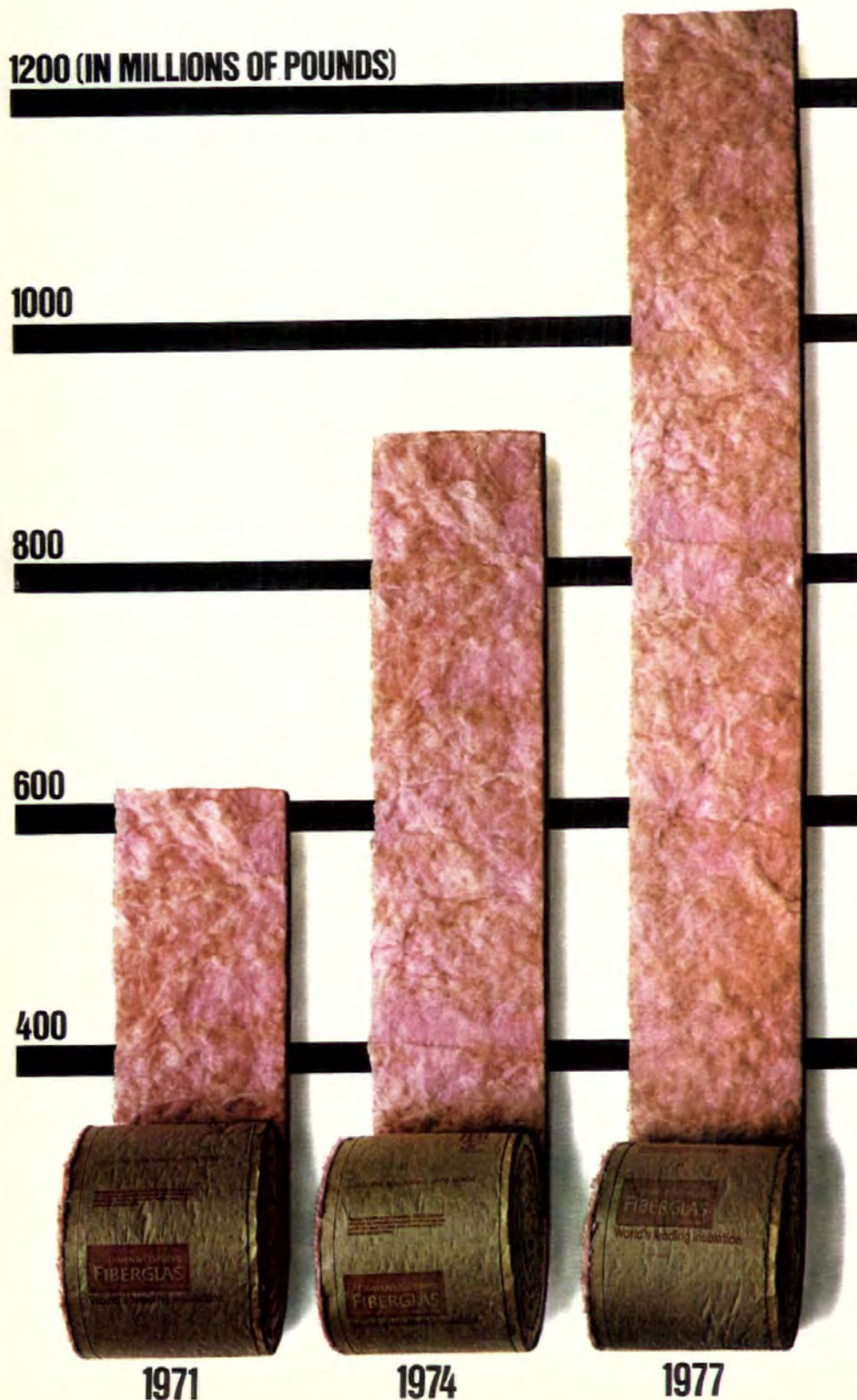
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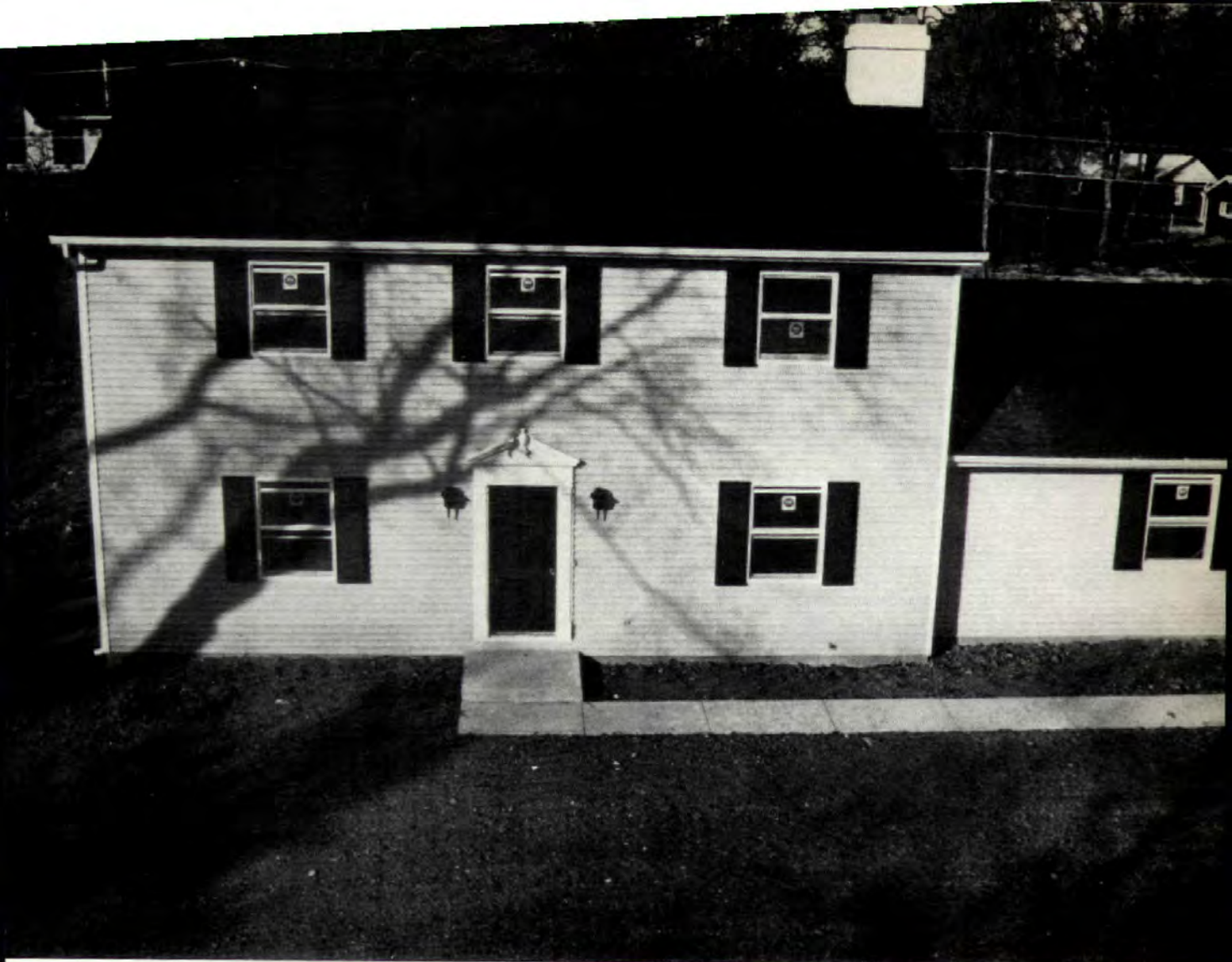
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Energy-saving checklist—NAHB house

Design and Planning Features

- Compact rectangular plan minimizes heating and cooling loads
- Unconditioned vestibule/storage room buffers end wall
- Vestibule "air lock" entrance isolates conditioned space
- 7'6" ceiling height reduces interior conditioned volume
- Family room closes off for comfort conditioning
- Special circulator fireplace uses outdoor air for combustion
- South-facing windows aid heating in winter
- Roof overhang designed to shade south-facing windows in summer
- Deciduous trees provide summer shading at south side of house
- North-facing windows reduced in size to 8% of floor area

House Specifications

Foundation/Floor

- Dry basement construction with gravel and sump under slab
- 6-mil polyethylene film under slab and behind backfilled block walls
- Exposed walls stuccoed to seal concrete block against infiltration
- 2x3-24" o.c. studs set out from wall to accommodate insulation
- R-19 pressure-fit insulation batts on exposed walls
- R-11 pressure-fit insulation batts on below-grade walls
- 2"-thick plastic foam perimeter insulation at exposed slab edges
- 1" glass fiber sill sealer between foundation and sill plate
- R-19 band joist insulation
- All utility entrances sealed with heavy caulk
- Basement storm windows

Exterior Walls

- Wall height at 7'7" (nominal 7'6" ceiling) to reduce volume
- 2x6 studs spaced at 24" o.c. with single top plate
- Bottom plate sealed to deck with construction adhesive
- R-11 unfaced pressure-fit insulation batts in walls
- Continuous 6-mil polyethylene vapor barrier behind drywall
- R-5 plastic foam sheathing extends up between trusses, down over band joist
- Plywood box-header over openings insulated as walls
- 2-stud corner post with drywall backup clips to accommodate insulation corner
- No partition posts; drywall clips accommodate insulation at intersection
- Surface-mounted electrical outlets avoids penetrating wall

Doors/Windows

- Insulated double-glazed steel entry door has magnetic weatherstrip
- Mechanical door closer on entrance door
- Insulated, weatherstripped inner vestibule door
- Interior doors close off family room for comfort conditioning
- Weatherstripped windows with double insulating glass, storm windows
- Insulating drapes used at windows to control heat loss and gain
- Cracks around door and windows filled with insulation and sealed

Roof/Ceiling

- Trusses cantilevered over wall plate allow for insulation
- 12"-thick R-38 pressure-fit insulation batts installed from below
- Continuous 6-mil polyethylene vapor barrier below insulation
- Gable end vents give 1 sq. ft. of ventilation per 300 sq. ft. of ceiling
- 24" soffit overhang provides summer shading for south-facing windows
- Attic access door located in vestibule outside of conditioned area
- Surface-mounted lighting fixtures avoid penetrating ceiling

Heating/Cooling System

- Simplified duct system with low inside registers and central return
- Special reduced-capacity heat pump with compressor installed indoors
- Controlled bypass on inside heat pump coil improves summer dehumidification
- Heat recovery device on compressor to heat domestic water with waste heat
- Manually controlled bathroom heaters for increased comfort
- Heat recirculator to discourage warm air stratification at ceiling in family room

Water Heating/Appliances

- Heavily insulated water heater with isolated jacket set at 120°
- All water pipes insulated to reduce heat loss, control condensation
- Low-water-use devices on kitchen/bathroom faucets and shower heads
- High-efficiency refrigerator with energy-saving feature
- Electric range has heavily insulated oven plus microwave oven
- Energy-saving dishwasher uses less water
- Washer uses less water, has load-size scale and selector switch
- Bathroom vent fans exhaust through second damper in exterior wall
- Fluorescent lighting used wherever appropriate

A HOUSE & HOME SEMINAR

Managing new- home sales and salespeople

Chicago, Aug. 11-12

San Francisco, Sept. 8-9

Washington, D.C., Oct. 3-4

A HOUSE & HOME SEMINAR **Managing new-homes**

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So if you are in any way responsible for a new-home sales program, you can't afford to miss this seminar

The two-day program covers these basic sales subjects

- * Developing sales and market strategy
- * Selecting and motivating sales personnel
- * Creating effective sales environments
- * Prospecting for homebuyers
- * Establishing effective sales management systems
- * Working with cooperating real-estate brokers
- * Training sales personnel
- * Selling specialized housing—condos, patio homes, resort homes and zero lot-line homes

ales-and salespeople

You'll learn how to hone your salespeople's skills in these all-important techniques

- * Qualifying potential buyers
- * Building perceived values
- * Involving prospects in specific properties
- * Handling objections and serious questions
- * Creating a sense of urgency
- * Closing the sale
- * Preventing cancellations
- * Building referrals

You'll take home with you valuable sales-management material, including:

- * Workbooks that are permanent reference guides to all subjects covered in the seminar
- * Sales-training schedules and data
- * Management-system forms that can be applied to your own operation

And most important, you'll have ample opportunity to question and discuss all these subjects with Dave Stone and with your fellow students in both formal and informal sessions.



Dave Stone's sales and sales-management expertise comes from years of front-line experience. He started his housing career as a builder and home salesman, then served as General Manager of Stone & Schulte, a realty firm that represented some of the most successful homebuilders in Northern California. He is currently President of The Stone Institute, a market consulting firm with builder and realty clients in all areas of the country.

In recent years, Dave Stone has become widely accepted as homebuilding's leading instructor in real-estate sales and sales management. He has lectured to more than 100,000 builders, sales executives and salespeople, many of them in House & Home seminars and workshops. He is the author of nine books on real-estate sales, including most recently the best-selling "How to Sell New Homes and Condominiums," published by House & Home Press.

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Managing new-home sales -and salespeople

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Seminar Fee

The full registration fee is payable in advance and includes the cost of all luncheons' workbooks, and meeting materials—\$395.

Workshop Hours

Registration starts at 8:30 a.m. Sessions are 9 a.m. to 5 p.m.

Hotel Reservations

While House & Home does not make individual reservations for workshop participants we have

arranged with the hotels involved to hold a limited block of rooms for the use of attendees. You can reserve your room as follows:

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Please be sure to say that you are attending the House & Home workshop. This will identify your reservation with the block of reserved rooms, and assure you of the special seminar rate.

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An income tax deduction is allowed for expense of education (includes registration fees, travel, meals, lodgings) undertaken to maintain and improve professional skill. See Treasury regulation 1.162-5 Coughlin vs. Commissioner 203F.2d 307

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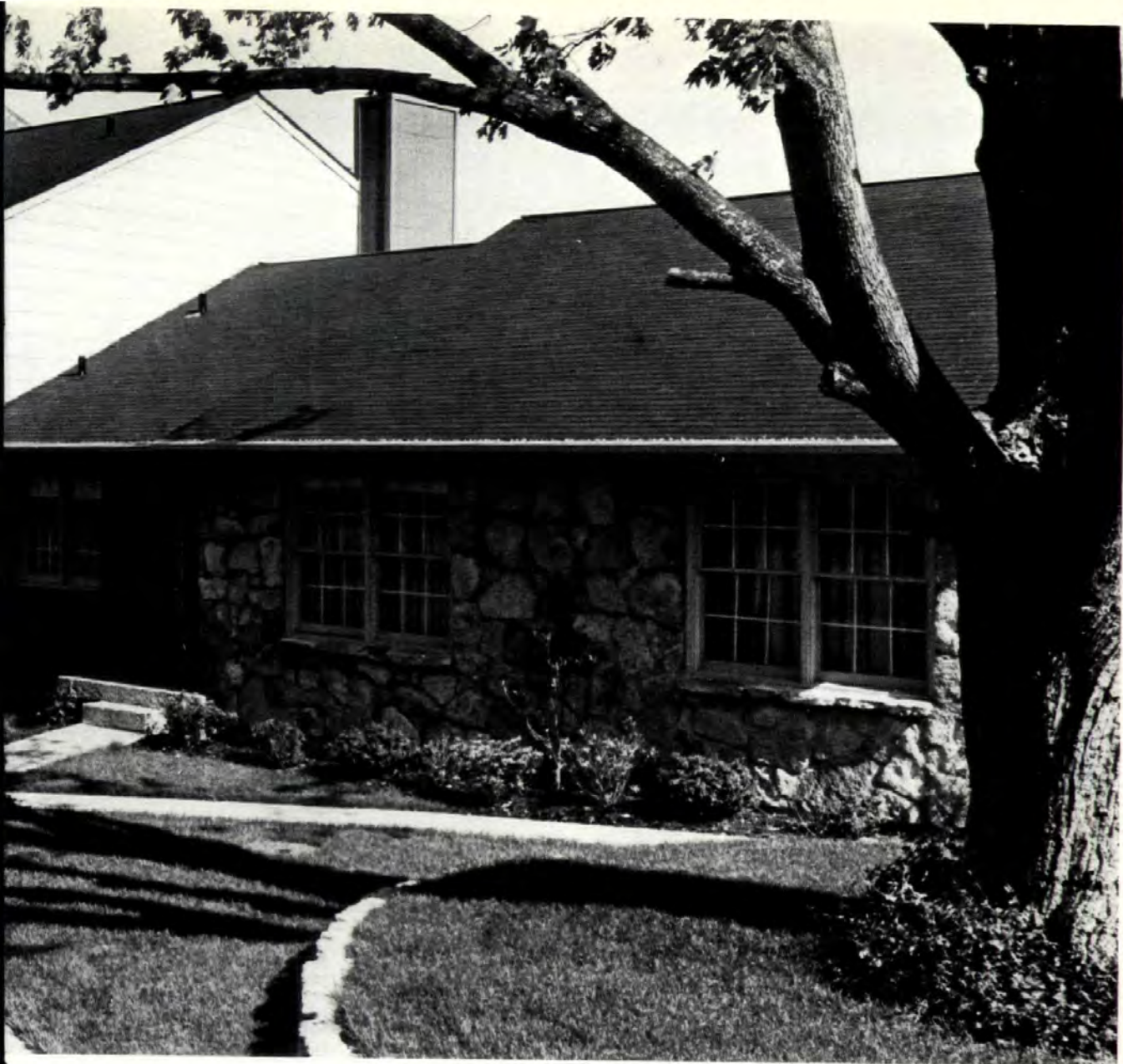
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"GE has had more experience than any other manufacturer with heat pumps.

"Their deliveries to us are right on time, and

we've had absolutely no start-up problems.

"If they ever need it, my customers get service from the GE installing dealer that is second to none. And they know they won't have to worry about fuel shortages.

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PUTTING THE SQUEEZE ON THE SINGLE-FAMILY SUBDIVISION

There's already a squeeze on builders.

On the one hand, their potential market is showing a strong and growing preference for single-family homes.

On the other hand, rising costs are pushing their product further and further away from middle-income buyers. And one of the few ways they can take a meaningful bite out of these costs is to increase density, thus cutting both raw-land costs and development costs.

So, increasingly, builders are applying a squeeze of their own.

They are pushing their single-family units closer and closer together, in some cases actually attaching them.

But, at the same time, they are doing everything possible to maintain the traditional feeling of single-family homes—providing ample outdoor living areas, stressing the individuality of houses, especially the entrances, and in most cases, offering fee-simple rather than condo ownership.

Four such projects are shown in the pages that follow. They provide densities of from 6.7 to 12 units per acre—a range more typical of townhouses than single-family—with corresponding savings in land and development costs. And yet they retain the all-important single-family feeling.

—JOEL G. CAHN

For details on how the squeeze works, turn the page

Tight siting of single, duplex units in Alameda, Calif. See page 60.



SQUEEZE 1: THE OLD, RELIABLE DUPLEX

The duplex still offers the simplest way to increase density without losing the single-family feeling. This project in Long Beach, Calif., shows why.

When completed, the 12.5-acre Crown Pointe subdivision will contain 84 homes—a density of 6.7 per acre. Had the property been developed with conventional detached homes, it would have yielded only 48 units—or 3.8 per acre. The developer, Long Beach Construction Co., estimates it saved \$1,200 in per-unit development costs by going to duplexes (besides cutting per-unit land costs in half).

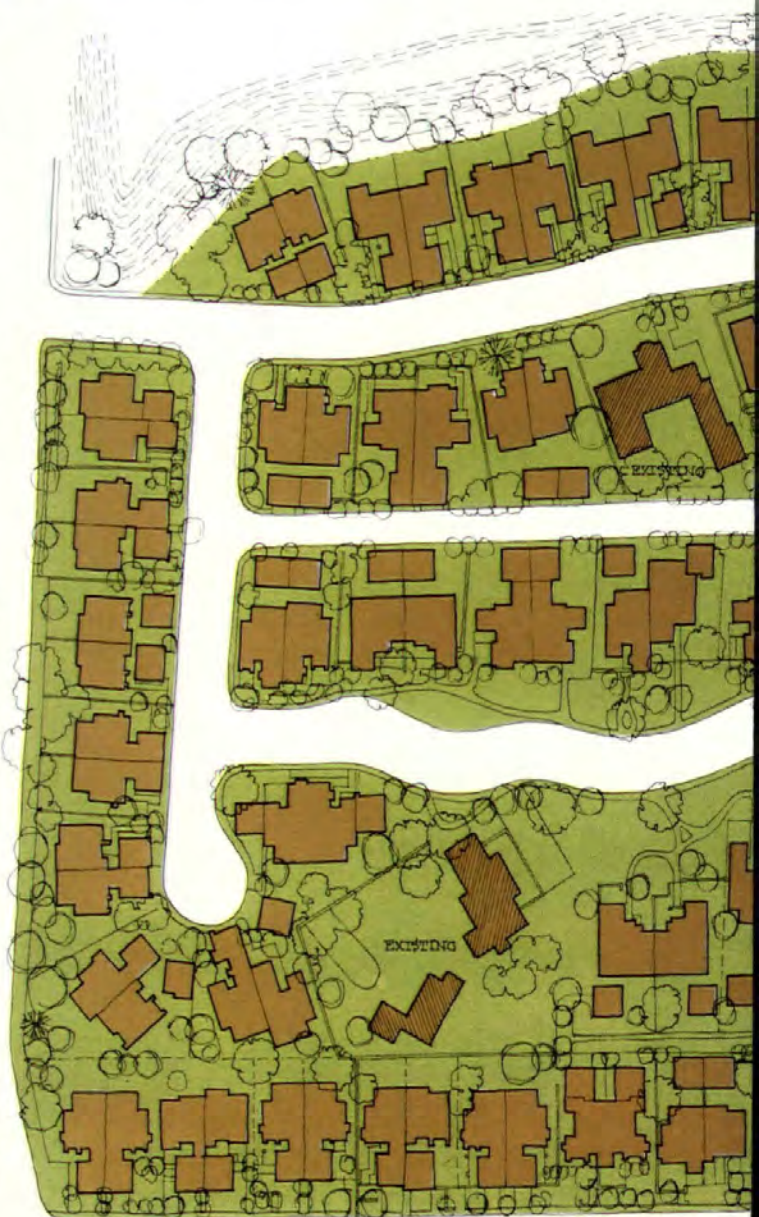
Each duplex gives the impression of one large detached home on one big lot. (Actually, each building is sited on two 35' x 100' lots.) Consequently, a narrow-lot look is avoided even though open space between buildings averages only 15 feet.

"We probably could have achieved the same amount of open space with zero-lot-line homes," says C. S. Jones Jr., president of the development company and the project's architect, "but the space would have been chopped up in many more pieces. And the overall effect would have been rows of skinny houses on skinny lots."

Everything possible has been done to disguise the fact that the units are joined. Five two-story plans, ranging from 2,000 to 2,600 sq. ft., are coupled in different patterns to offer architectural variety. Garages are attached or detached, and are located in front of the units or in the rear. Front yards are enclosed by entry-shielding wrought-iron or stucco walls. And a variety of roof pitches and tiles are used.

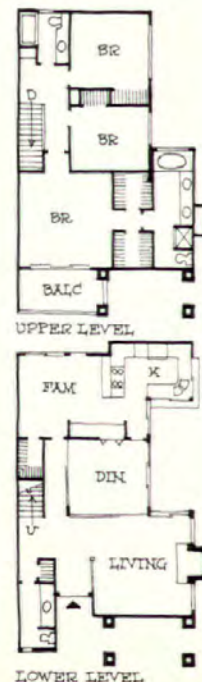
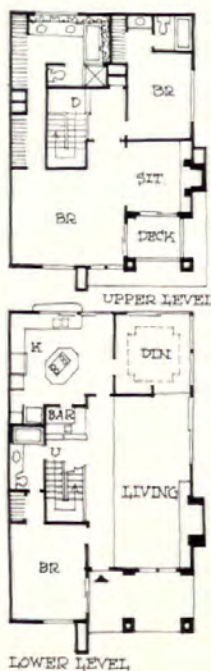
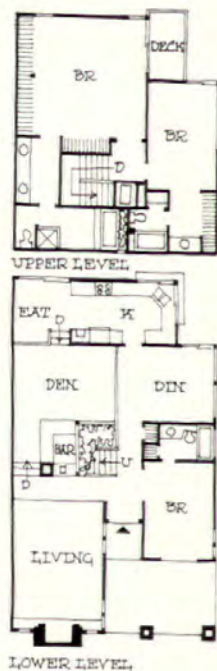
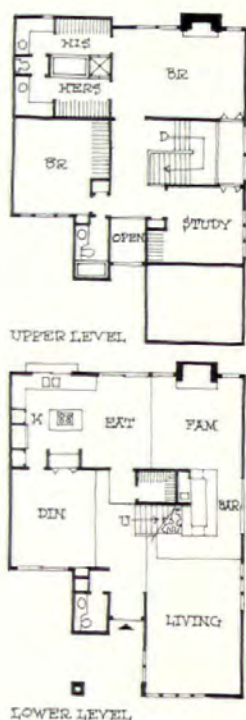
Thus far, 37 homes in the project's 42-unit first phase have been sold at prices ranging from \$96,000 to \$164,000. While the developer expected predominantly empty-nester buyers, nearly half are younger professionals with small families or no children at all.

Still, Jones feels that empty nesters will ultimately turn out to be his best market. And to make the models more appealing to them, he has designed three new plans for the project's 42-unit final phase. They eliminate or reduce the need to climb stairs. (Two of the plans are one-story; the other is a two-level layout with a first-floor master suite).





PHOTOS: JULIUS SHULMAN



Crown Pointe project in Long Beach, Calif., uses walled front yards, varied roof pitches and variously coupled plans to disguise duplex siting (*photo above*). Site plan for 6.3-acre first phase (*left*) arranges 42 duplex units around four manor houses that are still occupied (*shaded*). New units are owned fee-simple. Homeowner association maintains streets.

Five floor plans feature conversation areas on first level. Best seller is plan at immediate right, which offers separate master suite/sitting room. Other master suites have his and her baths or outdoor decks.

SQUEEZE 2: DUPLEXES PLUS SINGLES

PHOTOS: JULIUS SHULMAN

At first glance, the homes in this 239-unit project appear to be townhouses.

They're not. But the developer has achieved a townhouse-like density of nine per acre by siting the units tightly in freestanding and duplex arrangements on 26.6 acres.

There are clusters of eight to twelve homes with their backs to auto courts and their front entrances facing green belts. Privacy is maintained by keeping parking off the auto courts. Residents park in garages attached to each unit and visitor parking is restricted to areas behind the green belt screening.

Floor plans designed by San Jose architect Pierre Prodis vary widely in size (1,215 to 2,356 sq. ft.) and height (from one to five levels). Recessed entries, varied setbacks and walled patios offer single-family privacy and visual diversity.

The developers, Harbor Bay Isles Associates, opened the project with eight plans priced from \$79,000 to \$117,000. And sales have been brisk; 37 homes in the 41-unit first phase have been sold and 20 more have been reserved in the 40-unit second phase which begins construction in November.

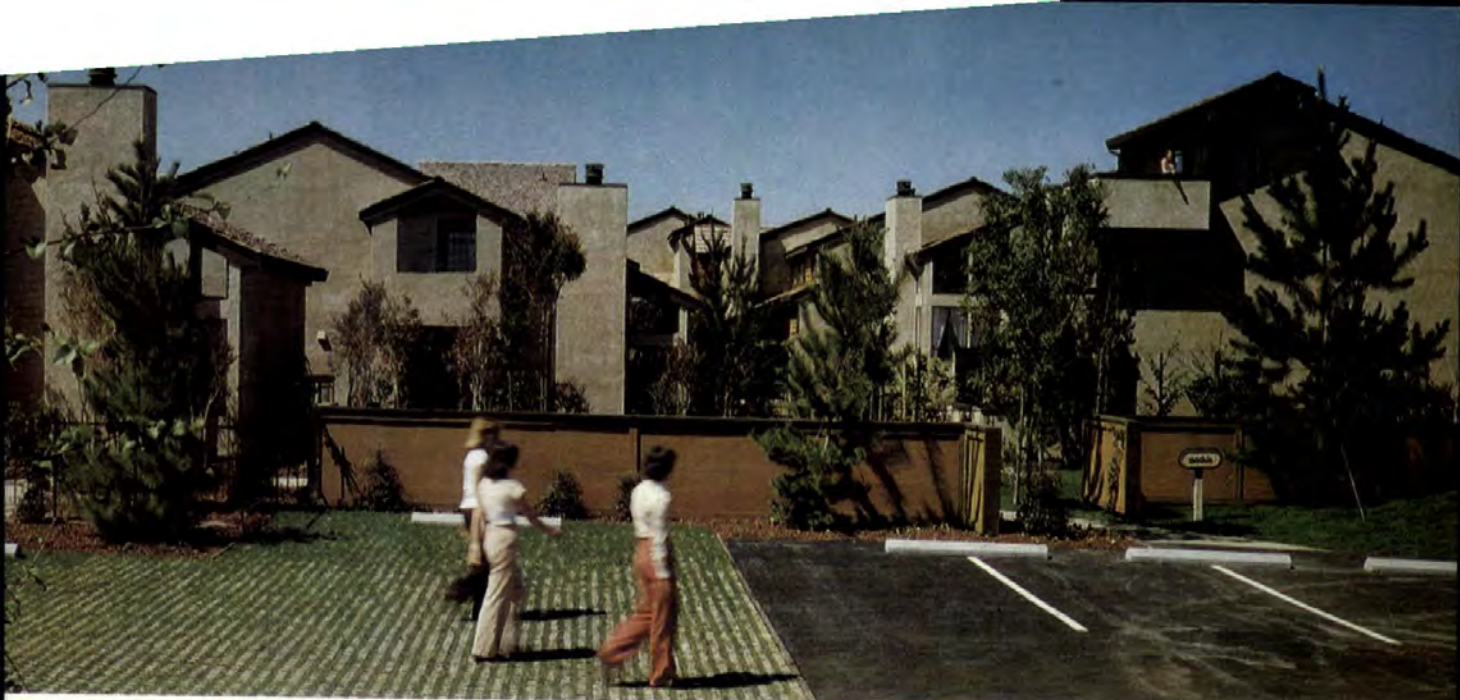
The project, Baywood Village, is on an island in Alameda, on San Francisco Bay's eastern shore. Most buyers come from Alameda as empty nesters, and they are either moving down or moving back up after having moved down to condos and apartments.

The second phase will have larger floor plans and zero-lot-line homes. Why change the mix?

"We tested the market with our first-phase designs," says Dexter Donham, the developer's marketing director, "and we are making changes accordingly. We've already discontinued two first-phase floor plans because of scant buyer interest."

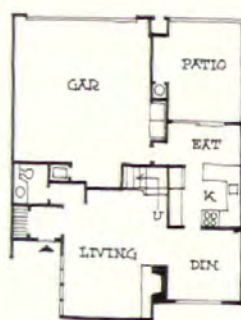
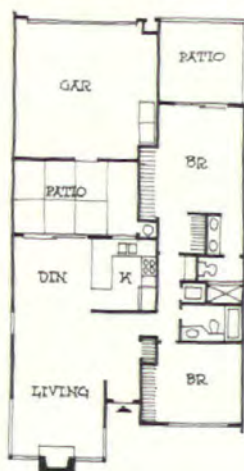
The project is the first portion of a 95-acre residential community which, in turn, is part of a 900-acre PUD planned for the island. Developer Harbor Bay Isles Associates is a partnership of Doric Development and Bay Farm Island Inc., both of Alameda. Bay Farm is a subsidiary of Utah International, which reclaimed much of the land.

Green belts face fronts of units and screen off visitor parking at this project in Alameda, Calif. Forty one houses cluster on 4.6 acres in first phase.

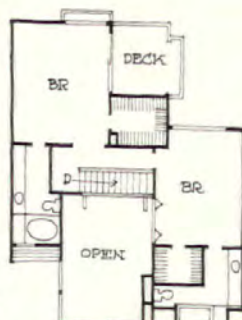


Rear auto courts (photo above) give units shared backyard feeling. Courts are paved with turf-crete—concrete lattice with grass growing through—which offers the impression of grassed-in areas. Units are fee-simple; two homeowner associations maintain house exteriors and common grounds, including a lagoon system.

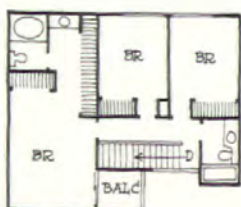
Floor plans (left and below) show six one- and two-story models, with from one to five levels. Windows, patios and decks take advantage of views. One plan (top, far left) features an atrium. Another (middle, far left) offers two masters suites on the upper level.



LOWER LEVEL



UPPER LEVEL



UPPER LEVEL

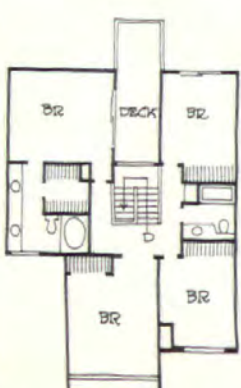
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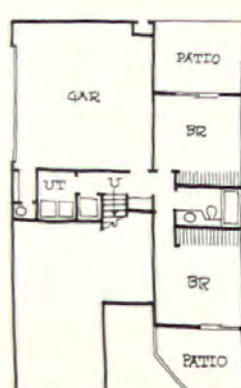
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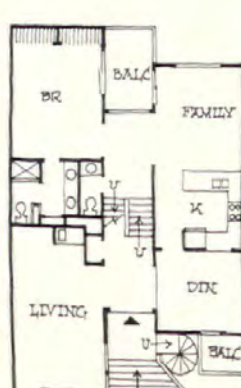
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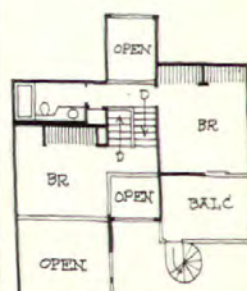
UPPER LEVEL



LOWER LEVEL



FIRST LEVEL



SECOND LEVEL

SQUEEZE 3: A MIX OF PLEXES

There are detached homes, duplexes and fourplexes in this California condo project. (In some cases, a trellis links a single and a duplex to form a triplex.) When built out, the 21.1-acre site will contain 141 homes at a density of 6.7 per acre.

The site plan is a combination of plex grouping and clustering around cul-de-sac roads. Angled siting orients the units to private back yards or waterfront property. (Part of the project is built along a theme lake.) Front yards are commonly owned.

Four floor plans, ranging from 1,477 to 2,148 sq. ft., were designed by Tustin architect Paul Thoryk to look and live like detached units. There is no continuous roofline because plexes are attached at flat roof sections, leaving space between sloping roofs. Different siding materials—shingle, wood and stucco—are used in a single grouping. Side entries and recessed entry walks break up the straight lines of the joined units.

"We have no center units in any grouping," says Ed Akins, whose Akins Development of Tustin is building the project. "So we were able to put windows on one long side of even the fourplexes."

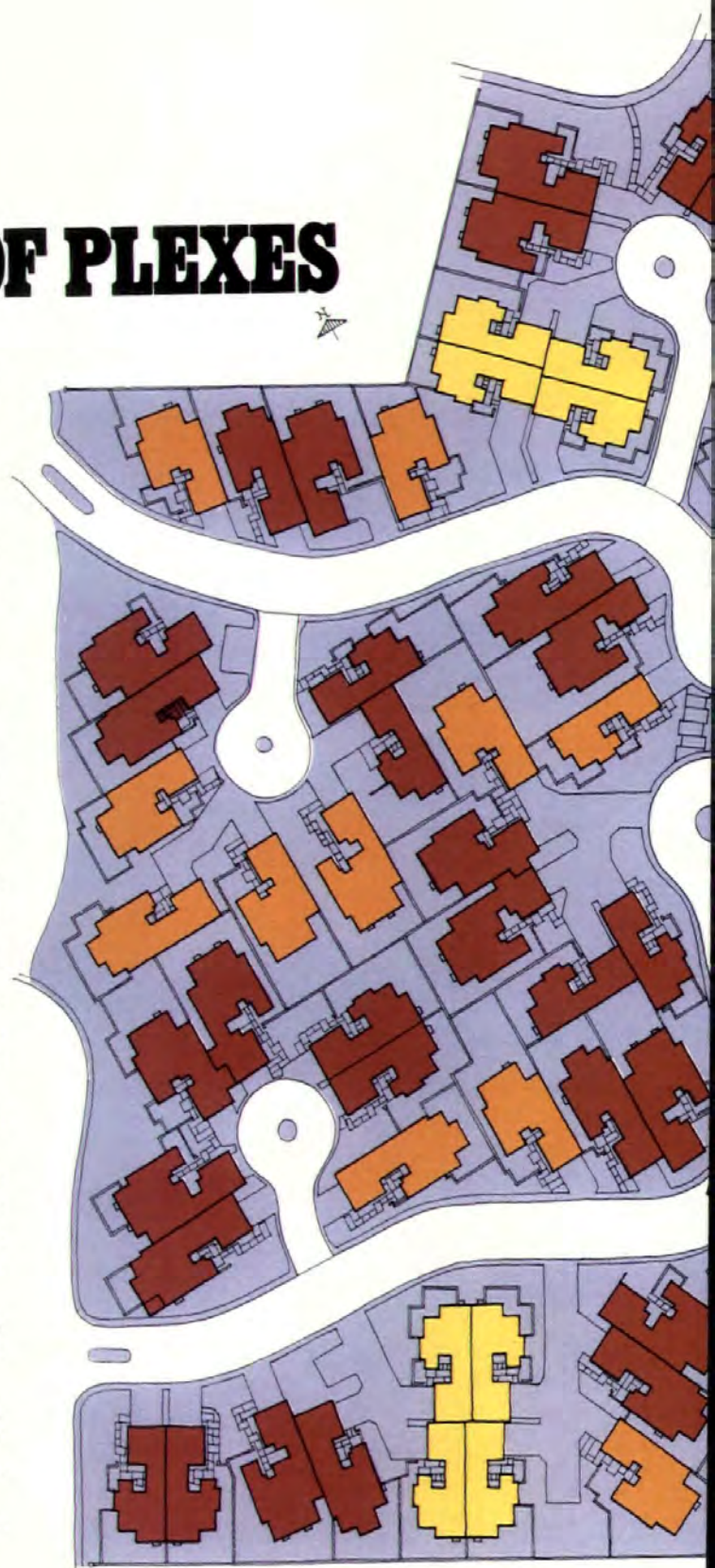
Since conventional single-family projects in the area yield an average density of only four per acre, Akins estimates a saving of approximately \$6,000 a unit by building attached homes. He claims, however, that the site plan was not conceived primarily to save money but to meet the needs of a specific market segment.

"We're after a guy in his mid-forties who is thinking about moving down from a bigger house but who might resist townhouse living," he says. "We believe that a single-family, attached project such as this is just the thing to suck him out of the big house he now owns."

Akins' buyer profile is on target. Thus far they average 46 years of age, earn an annual salary of about \$35,000 and average less than one child per family.

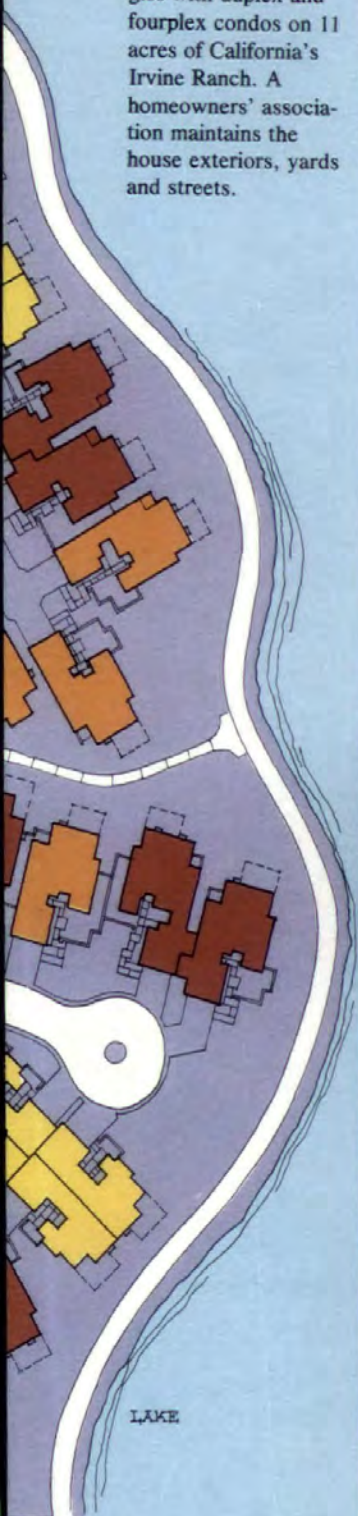
The project's 73-unit first phase (17 singles, 20 duplexes and 4 fourplexes) sold out in a week at prices from \$71,990 to \$122,490. There's a waiting list of 2,800 names for the final 68-unit phase which goes on the market this month.

Named Woodbridge Crossing, the project is the latest residential community in the Irvine village of Woodbridge.



ATTACHED BY 4
 ATTACHED BY 2
 FREE STANDING

Woodbridge Crossing first phase mingles singles with duplex and fourplex condos on 11 acres of California's Irvine Ranch. A homeowners' association maintains the house exteriors, yards and streets.



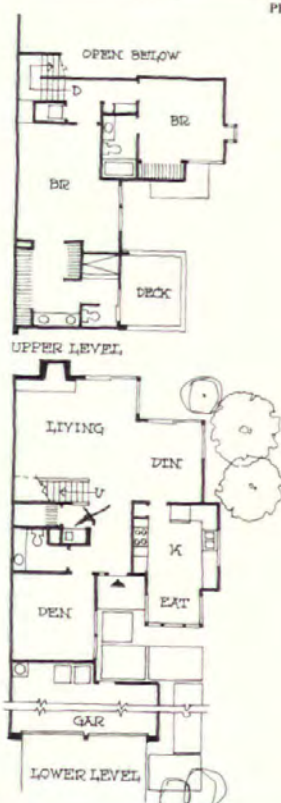
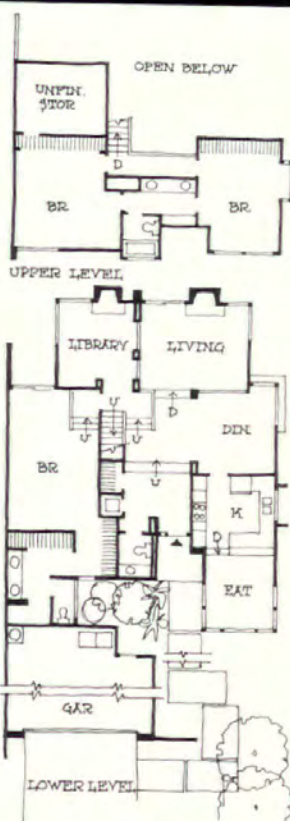
LAKE



PHOTOS: DAVE ROSS

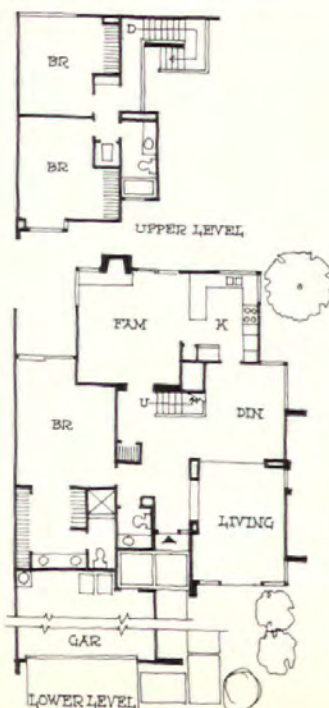
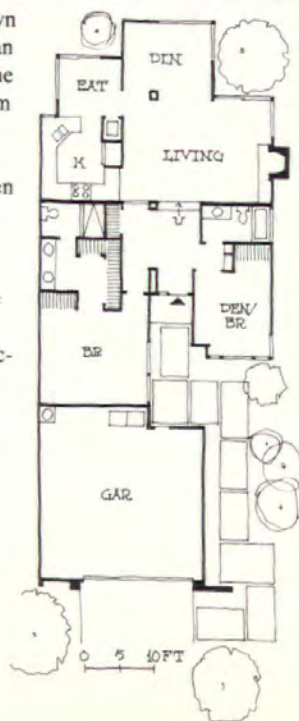
Largest model (photo above, plan at near right) appealed to move-down empty-nesters because of master suite and library downstairs, unfinished storage area upstairs.

Second-floor deck off master suite is offered in model shown in photo and plan at far right.



Smallest model is shown in photo above and plan at near right. It has one level and one bedroom plus a den option.

Family room off kitchen attracted buyers with children to model shown in photo and plan at far right. Here too, master suite is downstairs and the secondary bedrooms are upstairs.



TO NEXT PAGE

SQUEEZE 4: A PINWHEEL OF DETACHED



Wheeled form of siting sets 87 units on 7 1/4 acres at New Beginnings Homes in Denver.

Eighty seven zero-lot-line homes are packed into 7.25 acres in this Denver project, which opens next month.

The resulting density is 12 per acre—higher than most townhouses in the area. And this has helped Denver developer Harvey Alpert put the units on market at \$31,500 (for a 1,288-sq.-ft. split-level).

Compared with typical detached siting, the land plan saves more than 55% in raw land and development costs.

"We're averaging \$2,800 a unit," says David A. Clinger, the project's land planner. "Had we built a conventional subdivision, we'd have gotten 29 homes at a density of four per acre. Land and development costs would average almost \$6,300 a unit."

Alpert saves space by arranging most homes in pinwheels and separating the units with outdoor living areas. The siting keeps at least 12 feet of space between houses. Still more area is conserved by clustering the parking in central locations separated from the units. The plan provides two parking spaces per unit (the local zoning ordinance requires a ratio of only 1½-to-1).

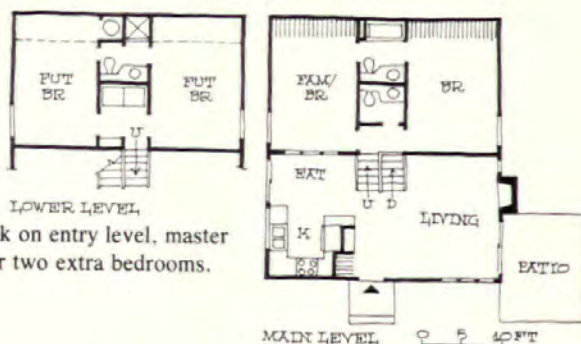
Costs are kept low by building narrow roads and adopting a natural drainage system. The streets are only 24 feet wide; the code usually requires 36. And by using drainage swales, Alpert eliminates storm sewers and catch basins and cuts down on curbs and gutters.

There is only one model—a front-to-back split with one bedroom upstairs (see floor plan below). The 448-sq.-ft. lower level is offered unfinished or with one or two extra bedrooms.

This three-stage approach is tied in with the builder's development plans. He expects to sell the three-bedroom versions (about half of the homes) and rent the one- and two-bedroom units for up to five years.

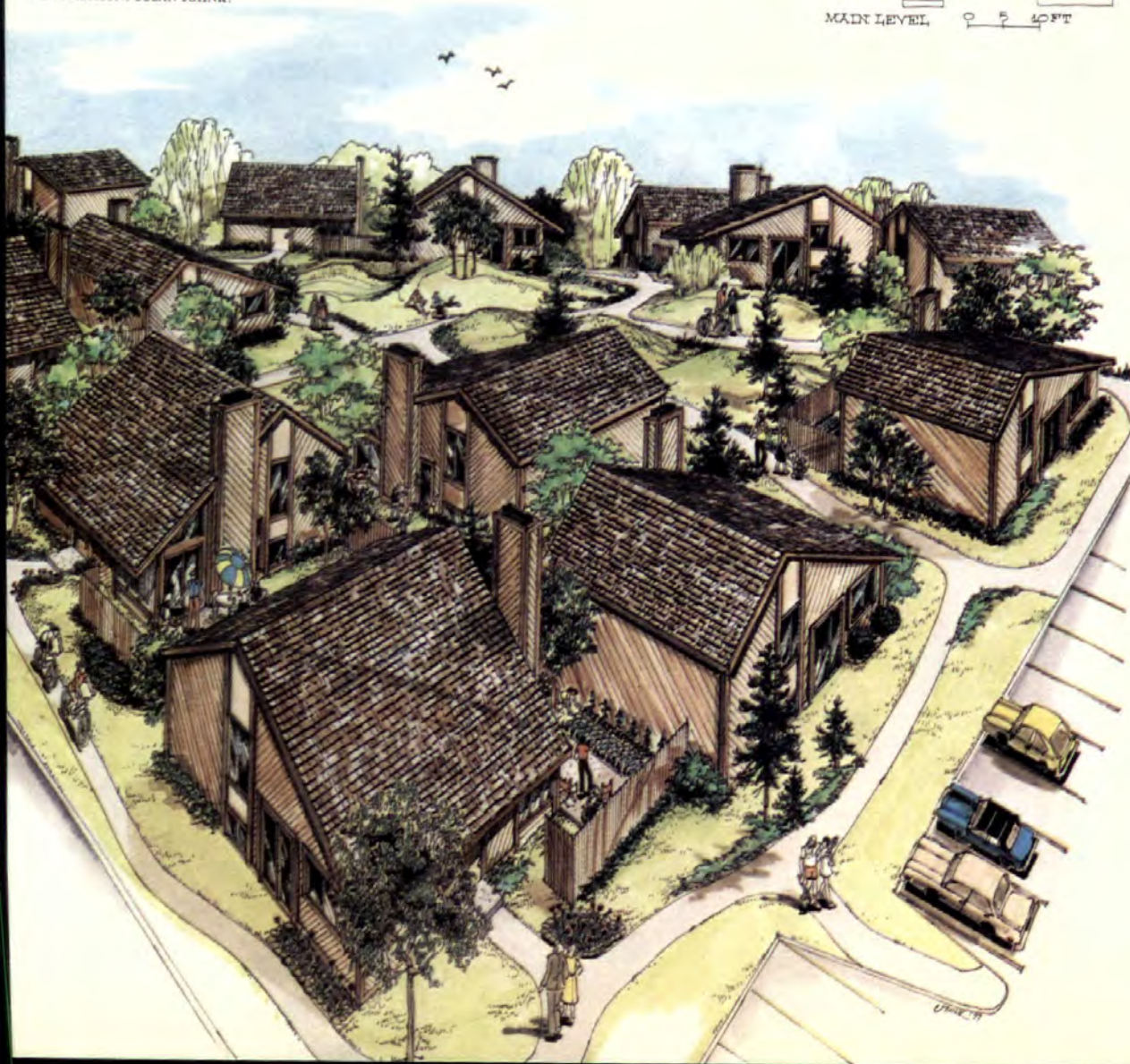
"There's a double profit in renting the homes," Alpert says. "We get depreciation during the rental years and then take appreciation when we sell the units, just like any homeowner who sells his house."

Alpert expects buyers and renters to be mainly young couples looking for their first house. That's why he's named the project New Beginnings Homes.



Split-level design (right and below) places living room, kitchen nook on entry level, master suite on upper level. Lower level can be unfinished or have one or two extra bedrooms.

ILLUSTRATION: SUSAN JOHNK.





The arithmetic still doesn't work for apartments in most areas, but many builders are starting them again nonetheless.

Their reasons for building range from appreciation to a desire for retirement income. In some places, government financing provides the incentive. In a few, rents are high enough so that the numbers do make sense—even at interest rates of $9\frac{1}{4}\%$ or $9\frac{1}{2}\%$.

It all adds up to what the Advance Mortgage-Citicorp survey calls a quiet boom in apartment construction. The survey estimates 1977 multifamily starts at 550,000 units—nearly 45% over 1976 and double 1975. At least 80% of these starts—or 440,000—are believed to be rentals.

The NAHB's chief economist, Michael Sumichrast, is somewhat more conservative, but he too sees a healthy increase in apartment starts for this year. Sumichrast estimates 1977 starts at 366,700, up about 18% from last year's 310,000.

The jump in starts does not portend a repeat of the 1973-74 boom and bust that hit the apartment segment so hard, however. For today's big builders are a conservative breed, picking and choosing their markets, refining their products and weighing their choices until they find a combination that works for them.

Inflation: It's a sure way to get appreciation

Even if the numbers don't work, builders who build apartments for

their own account or who retain a piece of the action when they syndicate them know they can count on a hefty increase in the value of their investment. In fact, inflation was the reason cited most often for building where the numbers don't work.

Typical was a comment by Mitch Gambill, marketing vice president of the Robert Randall Co., Portland, Ore. Gambill says that his company will build about 1,200 units this year even though "there's just no money in apartments."

The company builds mainly for investment, however. "If you hold apartments, they appreciate," Gambill explains. "You just have to wait for the inflation."

In Cincinnati, inflation acts as an incentive for Neil Bortz, president of Towne Properties, to start some of the rental units he has had on the drawing boards for years.

"It may take us a couple of years to get a cash flow of any consequence," says Bortz. "But it may be cheaper to build now and pay an operating loss for a couple of years than it would be to build when construction costs are even higher."

Not everyone is encouraged to build by inflation, however. In the Washington area, Southern Engineering, which builds both apartments and single-family homes, has stopped building apartments even though vacancies in its 12,000 existing units are less than $\frac{1}{4}$ of 1%.

"There's just no incentive to build," says Herman Greenberg, one

of the principals. He points out that garden apartments cost \$21,000 to \$23,000 a unit. With a 70% or 80% loan, the company would have to invest \$6,000 or \$7,000 a unit of its own money, or about \$3.5 million for 500 units.

"That's \$3.5 million in 100% dollars that we've already paid taxes on," says Greenberg. "How long would it take to get our money back when all we'll make is maybe 35¢ dollars?"

Government programs: Often the only game in town

"We're doing no conventional apartments," says Max Ratner, chairman of the giant Forest City Enterprises in Cleveland. "We're just doing government-financed housing; in fact, we're probably the largest builder of housing for the elderly in the country."

Ratner's words are echoed by Donald Ham, a partner in Bruce Properties Co. It will build 400 to 500 units in the St. Louis area this year, all FHA or HUD-insured.

In the Boston area, Thomas Flatley, president of the Flatley Co., says many builders have gone to subsidized units "because they have to. It's a matter of survival."

These builders are part of a growing trend: The Advance Mortgage-Citicorp survey estimates that federally subsidized apartment starts will total 170,000 this year, up from about 70,000 last year. This represents nearly 30% of the entire multifamily market.

They're marching again—but not by the numbers



Tax shelter: It's still a big incentive

Since so few apartments have been started in the last several years, there's a healthy interest among investors in those coming on stream now—even with the new tax laws.

"We have no trouble selling," says Stavros Economou, vice president of A. G. Spanos Construction in Stockton, Calif. "We sell most of our apartments before we start building."

Spanos is building 3,500 units in Texas, northern California and Las Vegas. That's 1,200 more than it built last year.

In many cases, the investors are the builders; many either did not build or did not hold onto their buildings in the last few years, and they are running out of depreciation.

Forest City Enterprises, for example, is keeping four buildings that it would normally have sold off.

Sometimes the numbers do make sense

This is particularly true in the hot markets of the Southwest and California, where tenants can afford high rents.

One such market is Houston, where Jeter Corp. will build more than 3,000 units this year. Rents are currently keeping pace with costs, says Chairman R. A. Beeler, and the company can look to a 9% to 10% cash-on-cash return.

And another builder, L. E. Green Jr. of Fargo, N.D., says: "The num-

bers make sense or we don't build. It's as simple as that."

Green is secretary-treasurer of Asp Construction Co., which normally builds 1,000 garden apartment units a year in the Dakotas, Minnesota, Nebraska, Idaho, Wyoming and Montana. This year will be no exception.

The company sells some apartments for tax shelter and holds and manages the rest. Green admits that rents lag behind expenses but says he can still get at least an 8% return.

"We pick our markets and build the right product at the right time at the right location," says Spanos Construction's Economou. The company still gets the kind of return on its projects that it got five years ago.

Another company that chooses markets carefully: Edward Rose and Sons of Southfield, Mich. This year Rose will build about 4,000 units in Michigan, Wisconsin, Indiana, Illinois, Missouri and North Carolina.

"We have a very sound philosophy, and that is we just exercise unsound judgment all the time," general partner Sheldon Rose jokes when asked how his company makes the numbers work on so many units year in and year out.

Some builders accomplish this by catering to a special market. "We build a better mousetrap, and we can pretty much keep on going even through a recession," says Harold A. Simpson, president of Harold A. Simpson & Associates Development Co. in Denver.

Simpson has about 1,600 units under construction in Dallas, Amarillo, Tucson, Albuquerque and Denver. He builds mainly four-story elevator buildings with concrete floors, masonry party walls, attractive architecture and extensive landscaping and amenities. "We're building a somewhat larger unit this year and our rents are higher," says Simpson, "but we're not having any trouble getting them."

(For a look at how another builder succeeds by catering to a special market, turn the page.)

But for most, building apartments is a struggle

"Money is still the biggest problem to us and to everyone I know in this business," says George Achenbach, managing director of Achenbach Realty in Essex, Conn. "We're paying 9¼% to 9½% for permanent financing and we're making it work, but it's difficult."

One way that Achenbach, who was once one of New England's largest single-family homebuilders, gets apartments to work: He sticks to one market that he knows well and looks for areas where taxes are reasonable and there's a real demand for housing. This year he expects to build around 1,300 units, all in Connecticut.

Achenbach says lender reluctance is one of the biggest problems for builders of new apartments.

"Lenders feel safer loaning and reloaning on existing property," he says. "That just drives up the value of



the existing property and makes it difficult to finance new projects."

Even Dallas-based Lincoln Properties is not immune to this problem. Don Shine, the partner in charge of Dallas, says that his division expects to build about 2,000 units in 1977, up from only 500 last year, because "money is available this year and it's available at a rate where we can afford to build." He, too, is paying $9\frac{1}{4}\%$ to $9\frac{1}{2}\%$.

"When the rates are in the $9\frac{1}{2}\%$ range we start pulling in our horns," says Bruce Properties' Donald Ham. "Depending on the project, the numbers start to make sense when the interest is in the 9% range."

To make up for higher interest rates, Ham would like to see lenders offer longer loan terms—35 or 40 years—so the mortgage constant would be lower and some cash flow would be possible. "We're plagued by rental rates that don't keep up with construction and operating costs, and we think we can handle that," says Ham. "What we can't handle is that plus a high constant."

In the Boston area, Thomas Flatley has a similar problem: with less than 1% vacancy in his 6,000 existing units, he can get rent increases that will average only $6\frac{1}{2}\%$ this year. "We're not making the return that we should, and until this happens there's no way we can build," he says.

Instead of building apartments, Flatley's company is doing condominium workouts for a number of major lenders.

One solution: The no-frills apartment

To cut construction and maintenance costs, many builders have reduced the size of their units and eliminated many amenities.

"We've reached the point where the renter can't afford to pay for anything other than the basic rent," says Don Shine of Lincoln Properties. "So that means eliminating things that are not necessities, such as big clubhouses, rec facilities, health clubs, waterfalls and fountains."

In Portland, the Robert Randall Co. has done the same thing. It has also reduced the size of the apartments.

In Houston, Jetero, too, is building smaller units than it did a few years ago. "We're also more energy conscious," says Beeler. The company is starting to put in individual meters and in some cases is looking at a master-meter program where costs can be prorated.

Builders are also trying to hold down actual construction costs. The Robert Randall Co. did this by going to a standardized design.

Jetero's solution: "to build them as fast as we can," Beeler laughs. And he adds: "The cost of boards and nails keeps escalating, and there's not much we can do about that. So we try to be more efficient in utilizing materials and making the actual building time as short as possible."

And one builder has chosen this time to get into apartments

"Someday I want to retire, and it

would be nice to have a steady income. If you retire from homebuilding, your income stops."

So says Ralph M. Lewis, chairman of Lewis Homes of Upland, Calif., a large single-family builder. And that's why his company is beginning to build apartments.

"Using hindsight, we realize we should have been in apartments a lot earlier," Lewis adds. "What happens with houses is that you build them, sell them and then the value goes up. Then you wish you had held onto them."

Lewis is looking to apartments not only for appreciation, but to shelter some of his homebuilding income.

He is building two garden complexes totaling 254 units in an area 40 miles east of Los Angeles where much single-family housing has been built but few apartments. He is also working on a complex in Sacramento that will eventually contain 401 units and one in Las Vegas that will contain 140 units. For the first year, at least, management will be done by outside professionals.

Lewis is also looking into some of the government programs. "With FHA red tape it might cost 10% more to build," he says. "On the other hand, with a 90% loan we would hardly have to put up any capital at all."

Does this plunge into apartments mean the end of his single-family business? Not at all. Lewis's three sons are already in the business and figure on building for years to come.

—NATALIE GERARDI

How one apartment builder makes the numbers work

He builds units large enough for people with children and rents them at prices young families or divorced parents can afford.

If this sounds more like a do-gooder effort than a way to make money, consider the advantages. First, there is virtually no competition, so demand is extremely high. This means quick rent-up: Projects are always full within a week of completion. It also means the manager can pick and choose to get the best tenants.

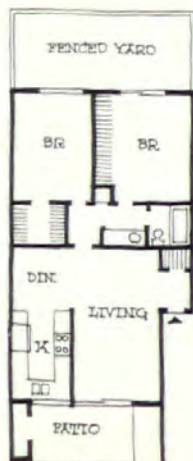
Second, this market has high turnover. Young families buy their own homes; divorced parents either remarry or move to other areas. The builder benefits by being able to raise rents frequently. He also gains a substantial income from forfeited cleaning and other deposits. At the same time he loses little rent because apartments are vacant only long enough to make them ready for the next tenant.

Third, land costs are generally low. Such apartments work best in small complexes; thus they lend themselves to bypassed parcels. A further advantage: These parcels are often already zoned for multifamily, and so a minimum of time is lost in getting permits.

Fourth, construction costs can be pared. This market is looking for space rather than frills, so the builder can save money through standardization and cutting down on amenities.

Builder John Konwiser of Newport Beach, Calif. has been building apartments of this type (in addition to single-family homes and condominiums) in Orange County, Calif. for four years. He has six such complexes and is starting a seventh. Part of the reason for his success is the product itself and part is the efficiency with which he manages his finished projects. Here's what his experience has taught him.

Typical Daisy complex consists mainly of two-bedroom apartments (*plan below*).



Keep projects small

Otherwise they can turn into a jungle of children, and management can be a nightmare.

Konwiser's six projects range from 20 to 60 units each. The seventh will have 204 units, but it will be divided into five separate entities of 36 or 48 units each, with five swimming pools, five tot lots and five managers.

"Before I started my own company I built a large family complex for a big developer," says Konwiser. "I learned that a resident manager just can't get around enough to do all the supervision that's necessary with a lot of children."

A dividend to keeping projects small: They fit on bypassed parcels of land. Konwiser likes to pay about \$3,500 a unit for land; recent projects have come to about \$4,000. Most of the sites had already been zoned for apartments. The large one had to be rezoned, but that was no problem as there was adequate school capacity in the area. And, in fact, school capacity should not even be an issue with these apartments, as most of the children they generate are preschoolers.

Don't let construction costs get out of hand

If you have cost overruns on a for-sale project, you can raise the price. In apartments you can raise the rent \$10 or so, but that doesn't cover much of your extra cost. So you have to pay attention to every detail.

Konwiser's construction costs (not including off-site costs) come to about \$16.85 a sq. ft. A typical unit is 923 sq. ft., with two bedrooms and only one bath. "We know that people would like a second bath," he says, "but they can't afford it. So we build a large, compartmentalized bathroom that serves a family pretty well."

Other cost savers include:

- Using 12 ft. widths wherever possible, which makes it easy to lay carpet or put up sheetrock.
- A design that avoids such architectural details as high ceilings or skylights; they slow down production.
- Use of paint-grade cabinets that are inexpensive and easy to maintain.
- Offering a choice of only two color schemes.
- Limiting the depth of swimming pools to four feet, which saves on excavation, concrete, steel and water.

(And, interestingly enough, is very popular with parents who feel 4 ft. pools are safer than 8 ft. pools.)

"Building these apartments is a production job," says Konwiser. "The subtrades like them because they can make a lot of money on them. The design is so efficient that they're fast to build."

Konwiser does not skimp on the things that make the apartments livable however. First of all, they're big: 923 sq. ft. is as large as some basic houses. Double party walls with plenty of air space insure good sound privacy between units. Units have private entrances. Each has an outdoor living area, either a fenced patio or a balcony. Closet space is generous. And all units are equipped with dishwasher, garbage disposal, carpeting and draperies.

Manage finished projects with an eye to detail

Konwiser keeps his expenses below 40% of income (see table below), which is one reason he can offer his tenants such good value and yet show a high return.

How does he do this? "Tight control" is the only answer he could give.

"I personally visit all the projects at least once a week and talk to the resident managers," he says. "We try to fix things before they require major repairs."

And, in fact, with a project that has many children, it's particularly important that management be vigilant. If children spot a missing picket on a fence, for example, it doesn't take them long to enlarge the hole until half the fence is down.

Keeping the projects small also saves money indirectly, according to Konwiser. If a child breaks a window or does some other damage, tenants can usually point out the culprit and Konwiser can get the parents to pay for the damage.

Another money-saver: "We don't own any equipment—not even a lawn mower or a broom," Konwiser's rationale: If the outside people who handle maintenance chores bring their own tools, they will respect them because they know their jobs depend on them. Equipment that belongs to a project tends to get lost or broken.

"We buy all our services from out-

And now for a look at the numbers

Konwiser's projects are owned for the most part by limited partnerships. "The *pro forma* usually shows an 8% cash-on-cash return," he says, "but none of the projects have failed to yield less than 14% the first year. In fact, most of the yields are up in the low 20's."

Among the reasons for the high first-year yield: Tax assessments are set March 1, when the projects are still under construction, so the first year's tax bills are abnormally low. In most projects this advantage would be eaten up by the expenses of the rent-up period. But as Konwiser has no rent-up period or expenses for advertising, brochures, flags, signs and other promotional materials, the low tax bill allows profits to carry right down to the bottom line.

"It's critical that a small project be filled immediately," he says. "Even one month's interest on an empty or

half-empty project would destroy the numbers."

The chart (right) shows an income and expense statement for the project Konwiser considers his most typical: a 26-unit complex in Costa Mesa with 24 two-bedroom units and two one-bedroom units (built only when necessary to allow the project to meet parking requirements).

Rents averaged about \$245 a unit (they now average \$275), and rental income also includes refrigerator rentals, which Konwiser is now discontinuing because the income is not worth the effort.

In the rental expense column, building maintenance includes the *pro rata* share of the Konwiser employee who services all the complexes. The management fee represents income to Konwiser for his services. Typical items not included in the expense column: heating, for which the ten-

side people," says Konwiser. "All we do is manage."

An exception is a floating jack-of-all-trades, a Konwiser employee who makes the rounds of all his projects every ten days or so (in between he works on Konwiser's new construction). This workman keeps a record of the time he spends at each project, so each pays a small portion of his salary. Konwiser supplies him with a truck and all the equipment he needs, and he can do everything except major plumbing or electrical repairs. These, however, are rarely needed. Outside companies take care of the landscaping and pool maintenance.

Don't overlook extra sources of income

One such source is the laundry equipment, which generates more than \$8.50 a month per apartment for Konwiser. "I used to lease the equipment, but I found out that in a family project, with diapers and kids getting dirty every day, laundry is very significant," he says. "So we emphasize the laundry and try to make it neat, clean, bright and cheerful. That way people will use ours

instead of the laundromat."

Other sources of income are the cleaning and damage deposits. Because there is a fair amount of turnover, these deposits generate a good deal of money. Typically, Konwiser returns only about a third of the cleaning deposit unless the tenants leave their units very clean. Some of this money goes to clean up the apartment, but much is retained as income.

Keep the units filled without advertising

"This may seem like a little thing," says Konwiser, "but advertising costs can add up and destroy the numbers."

Two things Konwiser does to keep his units filled without advertising: He builds all his projects in very visible locations, and he makes them look inviting.

"Most people choose apartments by driving by and saying subconsciously, 'Gee, I'd like to live there,'" says Konwiser. "Then one day they stop in." That's why he builds all his Daisy line of apartments on busy residential streets.

He also put a good deal of money

into the planning and design of the buildings to make them both attractive and easy to maintain. (This was money well spent, however, as he uses the same design for all projects.)

Diagonal cedar siding is used to accent the front and sides of the buildings, and cedar shakes are used on the roof. All units have large outdoor walk-in closets, which discourages tenants from using balconies or patios for storage.

Konwiser pays particular attention to the landscaping, and through trial and error has discovered which plants grow well in southern California and which are particularly hardy and childproof. He keeps children from wandering off the sidewalks by planting particularly large, hardy bushes in the places where they are likely to cut corners. And he recognizes it is impossible to keep them from playing on the grass, so he plants a coarse, tough variety that can survive traffic.

This attention to the appearance of the projects serves its purpose: Konwiser hasn't run an ad in three years, and yet his vacancies never last more than a day or two. This was true even during the recession. —N.G.

ants pay; and replacement reserves, which Konwiser considers unnecessary as most such expenses would be small enough to be financed from cash flow.

The debt service represents an 83% loan at 9¼%.

Would he recommend that other builders put up similar projects? "Yes," says Konwiser, "wherever the market conditions call for them." But he adds: "I think you have to be fair and say that control is very important. You could lose your bottom line in no time if you didn't fill up quickly or if you got some bad tenants. There's a high risk factor."

Konwiser also foresees a time when the rate of inflation in the building trades will make such projects so expensive to build that the numbers won't work out. "But I know it can still be done," he says, "if you pay attention to detail."

TYPICAL INCOME AND EXPENSE STATEMENT for 26-unit complex in Costa Mesa

RENTAL INCOME

Rent — for 25 apts., one given free to resident manager	\$73,530	
Refrigerator rentals	1,210	
Cleaning Deposit	1,260	
Laundry	2,602	
Total Income	78,602	100.00%

RENTAL EXPENSE

Landscape Maintenance	2,204	2.80
Pool Maintenance	463	.58
Trash Service	540	.68
Building Maintenance	5,196	6.61
Gas (for ranges, dryers, pool)	1,716	2.18
Water	1,204	1.53
Electricity	639	.81
Property Taxes	9,962	12.67
Insurance	915	1.16
Advertising	—	—
Office & Phone	416	.52
Management Fee	3,558	4.52
Miscellaneous Expense	2,177	2.76
Total Expenses	28,990	36.22

NET OPERATING INCOME

Debt Service	32,088	40.82
NET SPENDABLE INCOME	\$17,524	22.29

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How to hire the best property manager for your job



(or size up the one you already have)

You've invested in a 300-unit apartment complex and you need someone to manage it. So you call a few management firms and ask for bids.

The next day a parade of property managers troops through your office. One uses plastic flip charts to describe his computerized accounting system; it will keep you abreast of what's going on at all times. Another emphasizes how good he is at dealing with tenants; he pulls out a three-ring binder filled with form letters covering everything from late payment to cooking on the balcony. A third is capable of doing everything the other two do, but he really wants your business so he'll pare down his fee.

Before you choose, take a look at the following guidelines. They were developed by Ed Kelley, a former property manager who now heads a consulting firm that advises some of the country's largest lenders, corporations, universities and private investors on how to manage their properties.

Or apply the guidelines to your present property manager to see if you'd hire him today. The conclusions you reach may come as a surprise.

1. Don't evaluate a property manager by sitting in your office listening.

Presentations will tell you what he promises, not how he performs. And presentations tend to overlook the one thing on which success depends: how diligent he is at keeping the property in good shape. There's no way around it: If he doesn't keep the property in A-1 condition, you're not going to get A-1 results.

Most presentations zero in on two items: accounting techniques and management forms. But it really doesn't matter whether the financial statements are done on a computer or a typewriter; either way, all they amount to is a running history of the changes that have taken place during the month, a record of cash receipts and disbursements.



Some may be harder to read than others, but you can get used to them. Remember, though, you can't get good results from a rundown property just because your manager is an accounting ace.

Other property managers rely on forms; they seem to have one for every occasion. Beware. They've designed the whole system so they can manage from the office, and that's exactly what you don't want.

No matter how elaborate the system, the manager who attempts to manage real estate from his office is bound to fail. This is a people business, and no number of forms can take the place of being on the scene.

There's one basic rule about managing real estate: The manager must know more about the property than anyone else. More than the owner. More than the tenants. More than the

...ent manager. He can't get that knowledge by sitting in his office. And you can't judge how much he knows by sitting in yours.

2. Insist that the prospective manager submit a plan of action.

All too often he will tell you that he was out at your property and isn't it terrible how bad the lawns look, how dirty the halls are, how poor the caliber of tenants is, how the rents are probably too low, and on and on. The only thing he doesn't tell you is what he's going to do about it.

Even worse is the manager who submits a proposal without even inspecting the property. "We didn't want to let on that you were considering another managing agent, so we just drove through," he says.

Anyone who submits a proposal to manage your property should include a plan of action that lists priorities, timetables, associated costs and the expected effect on the property's profitability.

If all the property needs is some soap and water, the manager may tell you he will hire a few boys on their summer vacation, map out a program for cleaning up the place and cutting the grass and everything will be fine. But perhaps the property needs some cash investment—new carpeting in the corridors, redecoration of the lobby, new signage and landscaping. Or there may be an even more serious problem: The apartment size you offer won't rent in the marketplace. The manager should be willing to suggest changes: If you spend X dollars on such and such items you can expect to get these rents and these savings in operating costs, and here's what it will do to your net operating income over the next five years.

Devising such a plan of action involves work for the prospective manager, and it's not unreasonable for him to expect a fee. If your account is small or if there is little competition among property managers in the area, some old-line real estate companies may refuse to submit a proposal. Others may offer the service free if you finally hire them and charge a fee if you do not. The fee may range from a token amount to prevent every apartment owner in town from taking advantage of the company's expertise to a sum that covers its costs or even includes a profit.

You may tell the prospective manager: "I realize that the study I'm asking for is worth \$2,000. I'm willing to pay you \$500 if you'll submit the study and your proposal. And if I take you as the managing agent you'll get nothing for the study."

All you're doing is minimizing his costs, not covering them. But at least he has some assurance that you're serious about hiring him and that you're not going to get five proposals from five different professionals and then implement their best ideas yourself.

3. Be realistic. Even the best management firm can't work miracles.

Too many apartment owners respond to the pinch of rising costs by skimping on repairs and maintenance. It's easy to get away with this while the property is relatively new. But then all of a sudden the property begins to look seedy, the vacancy rate jumps and so do the losses. And for this the owner blames the managing agent's inability to rent the apartments quickly or to find desirable tenants.

These same owners shy away from the prospective managers who come in and say: "We can get you out of your predicament, but it's going to take two years and we're going to have to ask you to spend some money." The attitude of these owners is: "I don't need someone to spend my money; I can do that myself. What I want is a guy who will collect the rents when they're due and who will keep the property clean. Soap and water is cheap."

Don't fall into this trap. If the carpeting in your lobby is spotted and balding and has chewing gum stuck in it, a new property manager is not going to be able to attract first-class tenants simply because he comes from a firm with a good reputation. He may be creative enough to dye the carpet, or he may have some other solution that's cheaper than replacing it. And he may be able to devise a plan to spend a limited amount of money on those things that will pay off immediately, then take the return from those improvements and do a few more, etc., until the property is finally in good shape.

But don't expect him to come in, change a few policies, clean up the place a bit, raise rents substantially and effect an overnight turnaround.

You can expect, however, that changing managers will improve the condition of your property—at least temporarily. Because unless you've made a really bad choice, the new manager will make some improvements simply because he's new.

For one thing, he'll start cleaning up some of the more obvious problems, so the property will look like it's getting more attention. He'll try to balance the books to see where he stands, and he'll probably find all kinds of discrepancies. He'll make an inventory of the vacant apartments and will probably find more than you thought you had. He'll size up the help and make some changes. And initially, at least, he'll also give the tenants better service. In fact, he'll probably unearth problems you didn't know existed, because when tenants fail to get action on their complaints they often get discouraged and stop complaining. When a new face comes on the scene, they see new hope and try again.

(Incidentally, the same thing is true of changing resident managers. A resident manager who stays on a project for more than two



years often becomes too familiar with it. He gets used to stepping over that dead bush, and he doesn't notice the hole in the fence anymore. He also gets to know the tenants too well. He knows which ones are the big complainers and avoids them.

If a company had two 300-unit projects, it would be wise to switch resident managers back and forth every couple of years. The managers would then see new problems and rise to new challenges. The airlines use this reasoning when they don't allow their pilots to fly the same routes too long; they want to be sure they're alert at the controls.)



4. You have a right to meet the manager who will be assigned to you.

And to ask for some assurance that you're going to be able to keep him for a while.

Many management companies balk at this because they like to move their people around. The moment anyone shows promise, they want to promote him to a bigger project. Or they may use one or two of their better managers to get new jobs started and then move them on to the next.

So they're quick to point out that you're hiring the company, not the individual. You're going to benefit from their 100 years of experience, and if Charlie gets hit by a train they'll have someone on hand to take his place.

But if Charlie's the one you're going to be talking to day after day, you want to be sure you're going to understand and get along with each other, and that he's going to be around for a while.

What sort of person makes a good property manager? He's a rare breed, because on the one hand he's a nuts-and-bolts kind of guy who likes gutsy, mechanical things, and on the other hand he's got to be able to coordinate all sorts of specialties, delegate responsibility and get people to perform well.

The supervising property manager ought to know about maintenance, for example. He should know where the pumps are, the cycle on which they're serviced, what needs oiling and what doesn't. He doesn't have to be a mechanic but should be the sort who's uncomfortable when he doesn't know how something works.

At the same time he has to think like an entrepreneur. He must make every decision as though he owned the property. And that takes a phenomenal amount of involvement.

Take a man who owns a six-unit building, for example. If he were just scraping by, the tenant who didn't pay his rent on time would find him sitting on his doorstep when he came home at night, because without that rent he couldn't pay his mortgage, and if he didn't pay his mortgage he'd lose the property. That's what's meant by involvement and intensity.



tenant who has paid his rent on time. His wife is in the hospital, his kid's bike has just been stolen and he's working a short week. He tells the property manager: "I'd like to pay you an extra \$50 a month to get caught up." Most wouldn't think twice about accepting.

But put it another way: Suppose the owner won't accept. Would the manager then go to the bank, take \$300 from his own account, loan it to the tenant and let him pay back \$50 a month? All of a sudden he remembers an outfit in town called a bank and another called Household Finance. They are in business to rent out money. It's easy to loan the other guy's money, but not your own. Just as the guy with the six-unit building wouldn't take out a loan to cover the tenant's delinquent rent. That's the difference an owner mentality makes.

5. Have the prospective manager take you through properties he now manages.

Remember, if he doesn't know more about the real estate than anyone else he can't be successful.

So ask him some simple questions. What's the mix? The rent schedule? What's included in the rent? How many vacancies are there? Then watch to see if he answers promptly or if he turns to the resident manager. He has chosen to take you through this property, so he should know all about it.

Next, ask to see his collection records. If it's the 14th of the month, ask how many tenants owe rent today. What you really want to know is how many tenants owe two, three or even four months rent. If he's a good rent collector and has low delinquencies, he's not likely to object. If he isn't, you'll hear about how unhappy the owner would be to have another owner looking over his records.

On the subject of rent collections, does he try to collect rent with a series of reminders, final notices and lawyer letters? There's only one way to collect rent, and that's to get it in person.

So ask to see his forms, and beware of managers who show you a fancy book full of them. Some, of course, are good. Work orders that are filled out when a tenant makes a complaint, for example. Or purchase orders that control what the maintenance staff can buy at the hardware store. But a manager who has a form for every occasion is probably trying to manage property from his office, and that won't work. To manage property successfully, he must spend 80% of his time on the property. That way he can deal with problems as they develop. He need not have to react to crises, which is expensive and a waste of time.

While you're at the property, ask to see the janitor's schedule. If the property manager

... when you where the janitor is supposed to be working, what he's doing, what equipment he was provided to do it, when he's expected to finish and what he will do next, he's a poor manager.

This may seem harsh. But every project that's in financial trouble always suffers from two things: poor housekeeping and overstaffing. It's paradoxical but true. And it stems from poor management.

The productivity of apartment house maintenance people is the worst of any group of workers in the country. You'll see the mower and the gas can, the bucket full of water with the mop in it, but you won't find anybody pushing the mower or swinging the mop. What you'll see is maintenance people walking from place to place; that's all they ever seem to do.

And the reason is that they're reacting to crises, not working according to a predetermined schedule. Even if there is a schedule, chances are it's in an operating procedures manual that's never taken off the shelf. So on Monday the resident manager goes wherever Monday happens to take him. That way some things get overlooked. Maintenance is usually best around the office and gets worse the farther away you go.

One more test: ask to see the vacant apartments that are market-ready. That may seem like a waste of time, but it will tell you a lot about how much the manager cares about the physical condition of the property. If he gives you a series of excuses about how this one's going to be painted tomorrow and that one's going to be shampooed the next day, remember he said these were *market-ready* apartments. And prospective tenants pay for what they see, not for what they're promised.

6. Discuss the policies he would set for your project.

Would he allow children, for example? If so, how many and in what size units?

How about pets? Would he allow them in all buildings? Would he limit height, weight, number, species?

How does he evaluate prospective tenants? For example, what income-to-rent ratio would he use? How long should the tenant have been employed in one place? Would he accept a tenant who had moved five times in two years?

These are policies he'll need the day he takes over your property, so he should have thought about them. A good manager will have the answers to these questions right on the tip of his tongue.

What often happens, however, is that the prospective manager tries to tell you what he thinks you want to hear. Or else he is overly restrictive; he won't accept anything or anyone that might possibly cause problems. This is not good, for it limits the number of poten-



tial tenants to the point where you can't charge the highest rents.

Get his ideas about rent levels. Some managers are very conservative about raising rents, and when you look at it from their point of view you can't really blame them. Lower rents give them greater latitude in choosing tenants. There's less turnover. And besides, their management fee won't reflect the increased work a \$10 or \$20-a-month rent increase might entail. Not only that, but management companies are generally judged on occupancy rather than on monies delivered; it's hard to yell at your managing agent if your project is full.

Your project could be full and still not make money, however. So when you find a manager who's more concerned with occupancy than with cash dollars, watch out. Remember, you're looking for an owner mentality, and that means enthusiasm for the highest rents.

You're also looking for boldness. So often a manager will tell you: "We've got 80% occupancy and I don't want to risk a rent rise at this time." Or, "We're already \$10 over market and I don't think we ought to be doing anything yet." With that attitude he's bound to fail.

7. Don't think you can get a good property manager at bargain rates.

And don't open the job to bids; the lowest management fee is not necessarily the best.

If you take bids, the good, responsible managers will back off and you'll be left with the man who doesn't care. Say a property manager is willing to work 50 hours a week. That means he can handle about five properties. He's going to take the five properties that give him the greatest earnings. If he does get into a bid situation, chances are he's using it as a stopgap until he gets something better. Either way you lose.

Property managers' fees are traditionally charged as a percentage—usually 4% or 5%—of gross collections. Owners like this system because it ties the manager's fee to what he collects; if he wants more money he has to raise the rents.

There's a better way. In practice, 80% of the rents come in automatically. So if a project had gross rent collections of \$50,000, it would make sense to pay the property manager only 4% on that first \$40,000, or 80%, because he really doesn't have to work for it. He has to work a little harder for the next \$10,000, so he deserves more, say 5%. And he should get 7% of anything over \$50,000, because that's money the owner has never seen before.

Such a sliding scale would offer a manager more incentive to raise rents than a straight percentage, and at the same time it would be a good deal for the owner.

—N. G.

If you own a master-metered apartment project and pay for all utilities, you can pass on those expenses directly to your tenants. You may think that the technical side of remetering is your biggest problem. Not so. Keeping your residents after the conversion is what you've got to worry about. Here's . . .

How to switch utility costs to tenants without a mass move-out

Seven months ago tenants in two Atlanta garden-apartment projects stopped getting "free" utilities and began paying for their own heat, hot water, etc. Hardly a murmur of complaint has been heard.

The switchover is being worked out by Roberts-Ornstein Co., a Boston-based development and management firm. It took over the projects in a distressed-property deal two years ago and then turned them around [H&H, April '76].

Last winter's energy costs convinced the owners they could no longer pick up the tab for utilities, and on March 1 the company began the phase-out program.*

Richard Ornstein, a partner in the company, admits he had expected tremendous resistance from tenants. (In fact, in estimating effects of the switchover on bottom-line figures, a below-normal occupancy rate was used—see chart facing page.) Yet few tenants have moved and normal occupancy and rent-up patterns continue at both projects.

Why is the switchover going so smoothly? Ornstein thinks it's because 1) the conversion was timed properly and 2) his company mounted a strong pre-switchover tenant P.R. program.

"If you plan your billing conversion as carefully as you plan your building and marketing programs, chances are you'll lose few tenants," he says.

Ornstein and Ben Ludwig, vice president in charge of operations, offer these tips on how to time a metering switchover and how to sell the idea to your tenants.

Timing Tip #1: Don't be the first owner in your area to make the switch

Pioneering can cost you a lot of tenants, Ornstein and Ludwig say, "unless your complex is highly desirable or in a prime location, or the vacancy

factor in your area is extremely low."

The vacancy factor is critical, according to Ludwig: "If it's high and other owners still are paying for utilities, you'll be in trouble if you switch first. But if there aren't many vacant apartments and other owners are planning to convert, you'll probably be okay."

So before you convert to direct tenant billing, Ornstein says, study your competition.

Before switching in Atlanta, Ornstein learned that 100 of 115 local apartment communities had either a) already been remetered and were switching bills to tenants or b) were committing contracts for rewiring.

"We used that information in our pitch to stem move-outs," he says.

First, resident managers were instructed to tell tenants which other complexes had switched or were about to. "In effect we were asking tenants 'Where are you going to go?'" Ornstein explains.

Second, resident managers were told to explain that the few landlords who weren't converting probably couldn't afford to—which meant that "the quality of their apartments, maintenance and quite possibly even their tenants might be low," Ornstein says.

If your market research shows that few, if any metering conversions are planned in your area, try to stir up a joint effort through your local apartment association, Ornstein advises.

Timing Tip #2: Plan to switch when your tenants are least likely to move

Late winter or early fall are the best times to start direct tenant billing, Ornstein and Ludwig say.

*One of the projects was individually metered when Roberts-Ornstein took it over; the other was rewired for individual metering (except for final connections) during rehab work after the take-over.

That's when utility usage is minimal, so the first bills tenants receive should be relatively low.

In Atlanta, for example, Ornstein began the switch in March—after the worst of the heating season was over. He's glad he held off until then.

"If our tenants had been stuck with last winter's bills, we'd have lost a lot of them at renewal time," he says. "They'd never have believed how abnormally high those bills were."

Another reason for choosing late winter or early fall: Children are in school, and parents usually don't like to move during the school year.

Late winter is especially good for switching if you operate in a cold climate, Ornstein says. "Who wants to think about packing up and moving when the weather still is bad?"

The worst time to switch, he feels, is during traditional heavy turnover months—say, just before the school year begins or right after it ends: "Converting then could disrupt your lease renewal program to such an extent that it's not worth the effort."

P.R. Tip #1: Kick off a communication program with carefully worded letters

The letters to tenants should be more than a cold announcement of the switchover date, Ornstein says. They should point out:

- The positive aspects of your total management policy—for example, how you're constantly trying to upgrade the quality of your services.
- The problem of rising utility costs, stressing the fact that they're beyond your personal control.

- The amount that the tenant's rent will be reduced because of the switchover, and an explanation of how that reduction was worked out.

And, Ornstein advises, the letter also should invite tenants with questions to telephone you or your resident manager.

... utility switchover is a psychologically disturbing event," Ornstein says. "So it's important to keep the lines of communication between you and your tenants wide open."

P.R. Tip #2: Follow up with visits from your management team

Whether or not you get any feedback from your letters, every tenant should talk to your resident manager or his/her assistant(s), Ornstein advises. "Personal interaction is highly important, and these talks often determine whether residents move or stay."

The meetings, he says, should include a review of why the switchover is necessary, a reminder that other communities are doing the same thing and a discussion of the procedures involved in utility company deposits because many tenants will not realize they're required to post such a deposit.

Your management people should also talk up the inherent values of your community, with an accent on features tenants won't find elsewhere, Ornstein says.

Most importantly, the meetings should be held at the tenants' convenience—even if that means many hours of night work for your management people. "Never barge in on tenants unannounced," he warns.

Ornstein says his management

people were surprised to find so little hostility among the tenants.

"A few were difficult," he says. "But many admitted they were surprised the switchover hadn't come sooner."

P.R. Tip #3: If tenants have trouble meeting utility deposits, help them out

Ornstein's tenants—primarily low middle-income families with two wage earners—were required to post \$75 utility deposits. And surprisingly, he says, many were hard-pressed to come up with the \$75.

"If you're faced with that kind of problem in your project, see if you can arrange it so the deposit won't cost tenants any money out of pocket," Ornstein says. "They'll be less inclined to move."

Here's what his company arranged:

Atlanta has a private security bonding program and tenants can buy a bond—usually for 10% to 20% of the normal apartment security—that guarantees the landlord's full security.

So Ornstein told his tenants that if they used the bonding program, he would return their apartment security in the form of a \$75 check (made out jointly to tenants and the utility company) plus cash, which could be used to pay for the security bond.

The result: "We were the good guys

in a bad situation, and that's always good P.R.," he says.

P.R. Tip #4: Get utility company reps to meet with your tenants

Half the battle in stemming tenant unrest when you change operating procedures is convincing residents that what you're doing really is necessary, Ludwig says.

And a third party—in this case someone from the local utility company—will have better credibility than you, the landlord with a "vested interest."

For one thing, the utility company has access to the latest "energy crisis" data—for example, fuel cost figures that *prove* what you've been telling your tenants is true.

For another, the utility company can pinpoint the other complexes that have changed or are planning to change to direct tenant billing. This will bolster your argument that moving won't solve the tenant's problem.

Finally—and this, Ornstein says, is crucial—the utility company can provide tenants with literature and advice on how they can conserve energy, thus keeping their bills at a minimum.

"A utility switchover usually means a reduction in the tenant's standard of living," Ornstein says. "And anything you do to help soften that blow will be in your favor."

Bottom line effect of billing switchover—twelve-month projection

1	2	3	4	5	6	7	8	9
Lease Expir.	# Units ^(B)	Old Rent	Less Utilities	Actual Rent	New Raised Rent	Net Income Increase ^(A)	X	# of Months
Month								
2/28/77	10	\$ 2595.00	\$ 590.00	\$ 2005.00	\$ 2280.00	\$ 275.00	12	\$ 3300.00
3/31/77	12	2925.00	645.00	2280.00	2565.00	285.00	11	3135.00
4/30/77	9	2410.00	550.00	1860.00	2095.00	235.00	10	2350.00
5/31/77	18	4800.00	1040.00	3760.00	4045.00	285.00	9	2565.00
6/30/77	6	1615.00	350.00	1265.00	1370.00	105.00	8	840.00
7/31/77	18	4800.00	1040.00	3760.00	4030.00	270.00	7	1890.00
8/31/77	18	4765.00	1020.00	3745.00	3975.00	230.00	6	1380.00
9/30/77	25	6680.00	1710.00	4970.00	5580.00	610.00	5	3050.00
10/31/77	41	10680.00	2300.00	8380.00	8990.00	610.00	4	2440.00
11/30/77	13	3295.00	725.00	2570.00	2740.00	170.00	3	510.00
12/31/77	21	5385.00	1155.00	4230.00	4470.00	240.00	2	480.00
1/31/78	16	4105.00	890.00	3215.00	3410.00	195.00	1	195.00
86%								\$22135.00

Note:

(A) Column 7 reflects the actual increase in rents that will occur in 1978, however this figure does not include the 7% increase which is scheduled for 1978.

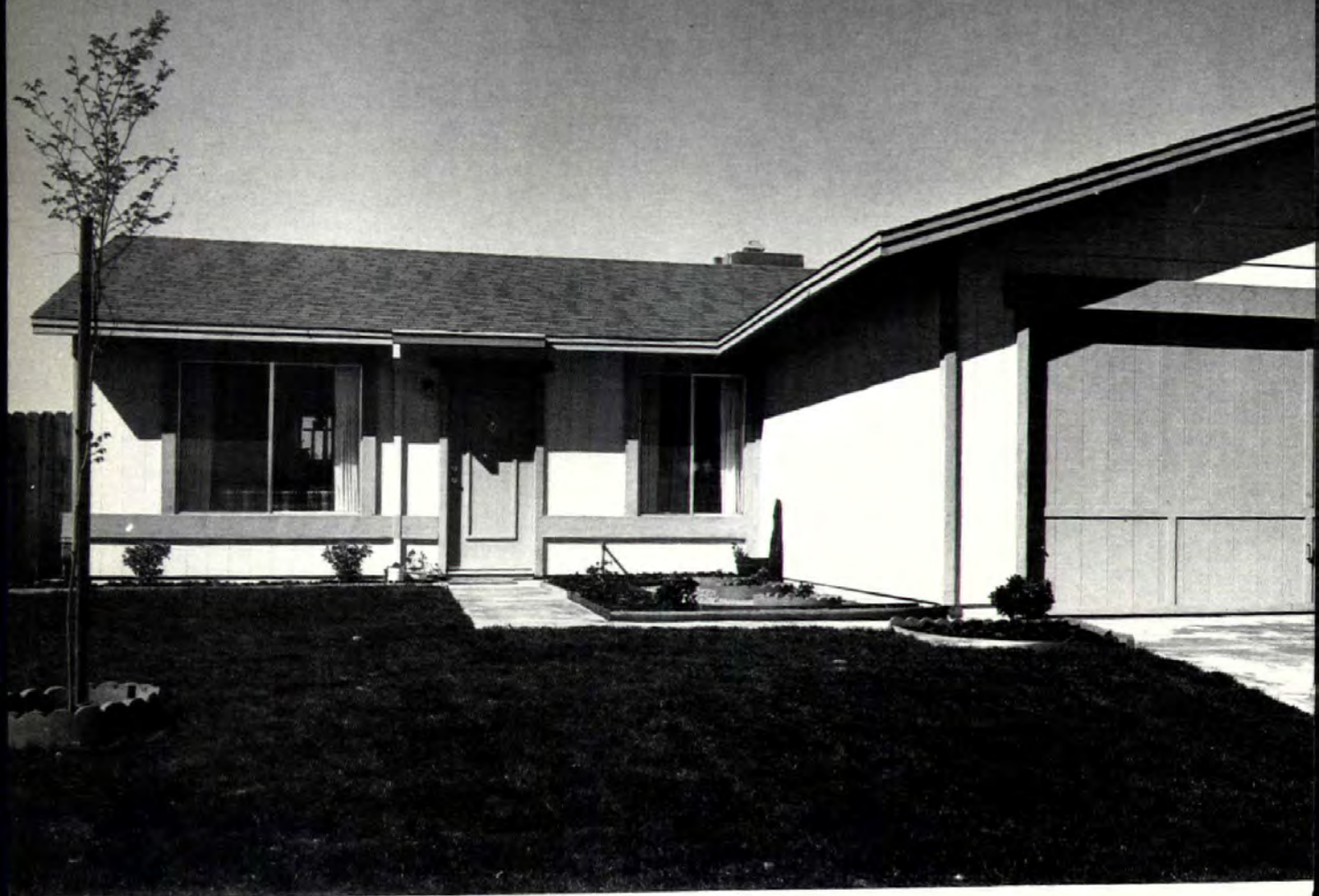
(B) 86% occupancy has been used instead of the actual 90% because we feel there will be some vacancy loss resulting from the transfer of utilities to the tenants.

This chart, prepared by Roberts-Ornstein before the billing switchover began, estimates the net gain (Column 9) expected at one of the switchover projects during the year of billing transition. The estimated net gain is based on 86% occupancy (Column 2) rather than the normal 90% because the owners expected many more move-outs than actually occurred. Note that switchovers in billing from the landlord to tenants are timed to begin after existing leases expire (Column 1) because old leases did not permit tenants

to be billed for utilities. The amount of old rent allocated to utilities (Column 4) was determined by checking utility bills from similar-size apartments in another complex that was individually metered, but where landlord was paying for utilities. Where such a comparison is not possible, the local utility company should have data based on square footage that can be used to figure "average utility costs" for your apartments when you begin to prepare plans for a metering switchover.

How to win the young blue-collar

Offer a solid-value house
Make it expandable
Make it easy to finance



They were priced out of Sacramento's single-family market until Dave Bohannon introduced the models shown here. Now young working people in the \$12,000 to \$14,000-a-year bracket are leaving apartments to buy Bohannon's houses.

The Timberline series consists of four expandable models. The teaser is the 816-sq.-ft., two-bedroom model at \$27,950. It can grow into a four-bedroom, two-bath unit with a family room. Bohannon has sold 55 of these since January 1.

The best sellers are the 960 and 970-sq.-ft. units, almost identical three-bedroom models with the larger featuring a second bath. Selling for \$30,450 and \$31,450 respectively, they are planned with an expandable living room. Buyers have snapped up 90 of the smaller and 62 of the larger units so far this year.

A four-bedroom, two-bath, 1,108-sq.-ft. unit sells for \$32,950. A country kitchen type of family room can be added. Bohannon has sold 70 of these during 1977.

All the houses have forced-air central heating and air conditioning, gas ranges, garbage disposals, 220-volt wiring for washer and dryer hook-ups, ceiling and exterior insulation.

Trade-up options include carpeting, dishwasher, fireplace and butcher-block kitchen cabinetry. These features reinforce the claim that these are forward-looking starter homes—not stripped-down, dead-end models. But the most important component of that claim is the expandable house plans.

The Bohannon organization

The David E. Bohannon Co. (DEBCO) is one of northern California's faster growing housing companies. Bohannon (*at right in photo*) broke away from his highly successful builder father, David D. Bohannon, a founder of NAHB, in 1969. The son founded his own company and built 40 houses during its first year. In 1976 he sold 307.

His key to success is the housing line shown here. Bohannon found a hole in the Sacramento market and filled it. With this success he is creating his own mini-conglomerate.

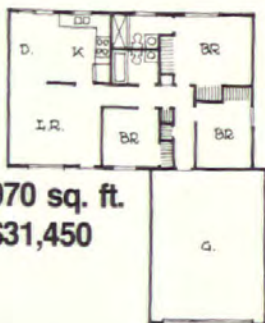
The first offspring was Woodbridge Interiors, a

design firm run by his wife Linda. She acts as consultant to the young buyers and decorates all the models.

Next, in May 1975, came Bohannon Realtors. Now run by a Bohannon vice president, Ross Lytle (*left in photo*), the division sells \$12 million in homes monthly out of five offices.

Bohannon has also launched Frontier Mortgage Co.

All three satellite companies operate on the same premise: They work first with Bohannon buyers and owners. After that, they can work with outside clients.



970 sq. ft.
\$31,450



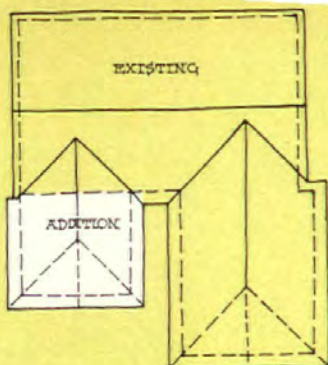
1,108 sq. ft.
\$32,950

PHOTOS: JIM MAZZUCHI

For a close look at the expansion plans and the financing, turn the page



Here's how the original houses will expand. . .

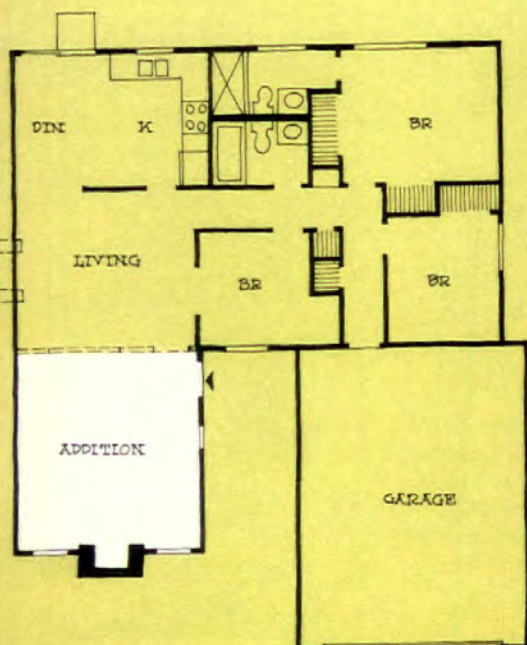


The 970-sq.-ft. house

There are three bedrooms and two baths. The limited living area (*photo below*) readily accommodates a family with young children. But as the children grow, more activity space is needed.

The expansion plan provides such space. The living room's front wall is pushed forward more than 15 ft., the front door is moved and a hip-and-ridge roof that matches the garage wing is added.

The changes more than double the size of the original living room.

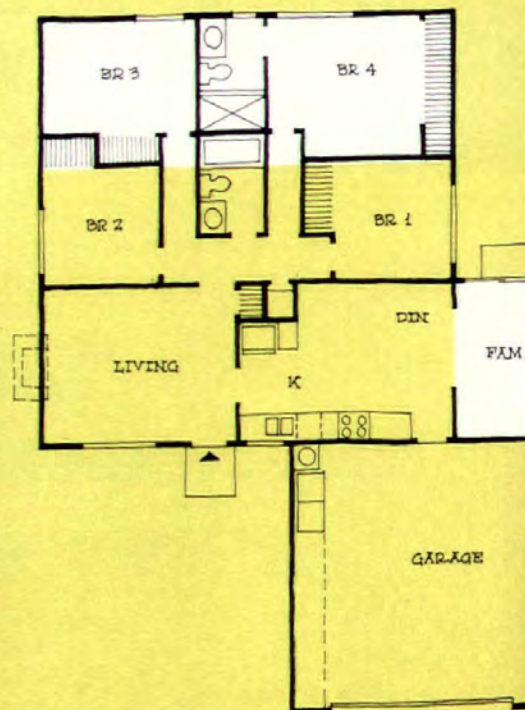
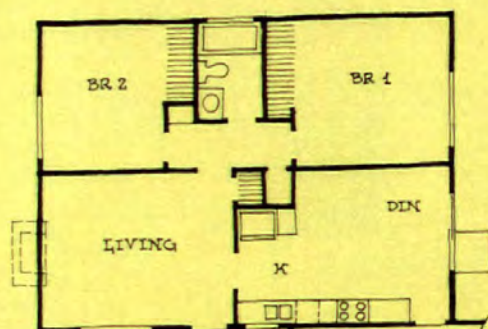


The 816-sq.-ft. house

Designed as a basic starter house, this compact two-bedroom model is no bigger than an apartment. But it grows into the largest house in the series.

The rear wall is pushed back more than 12 ft. to accommodate two more bedrooms and a bath. Closets in existing bedrooms are moved to provide space for hallways leading to the newly created rooms.

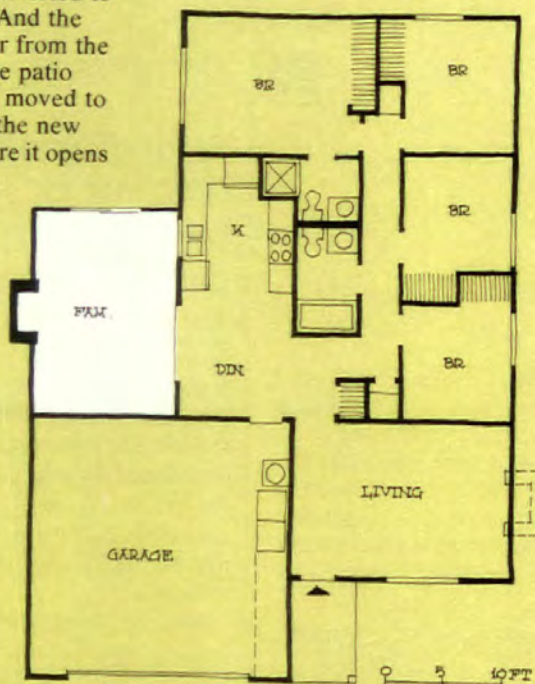
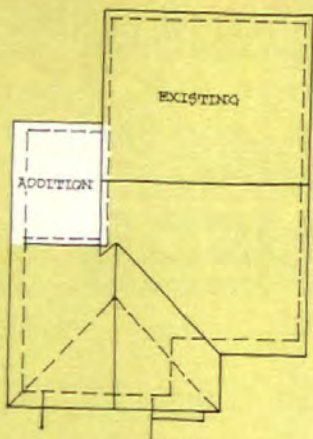
Still another expansion of the original plan enlarges the kitchen/dining area into a large family room/country kitchen.



The 1,108-sq.-ft. house

This four-bedroom, two-bath model has the simplest expansion plan of all to create a family room.

An existing patio slab is used as the base for the addition. The window in the kitchen is converted to a pass-through. And the sliding glass door from the dining area to the patio (photo below) is moved to the rear wall of the new family room where it opens to the backyard.



... And here's how the financing works

Timberline houses qualify under the FHA minimum-down 203B program. The down payment is 3% of the first \$25,000 and 10% of the next \$10,000. For the least expensive unit (\$27,950), this works out to about 4%. Thus, the down payment is about \$1,118. Add roughly \$800 for closing costs, and the out-of-pocket expense to the buyer runs between \$1,900 and \$2,000.

That sounds appealing to a knowledgeable buyer, but it can still frighten the unsophisticated. Bohannon's sales staff must convince young people that buying is not only feasible, it will also improve their financial position.

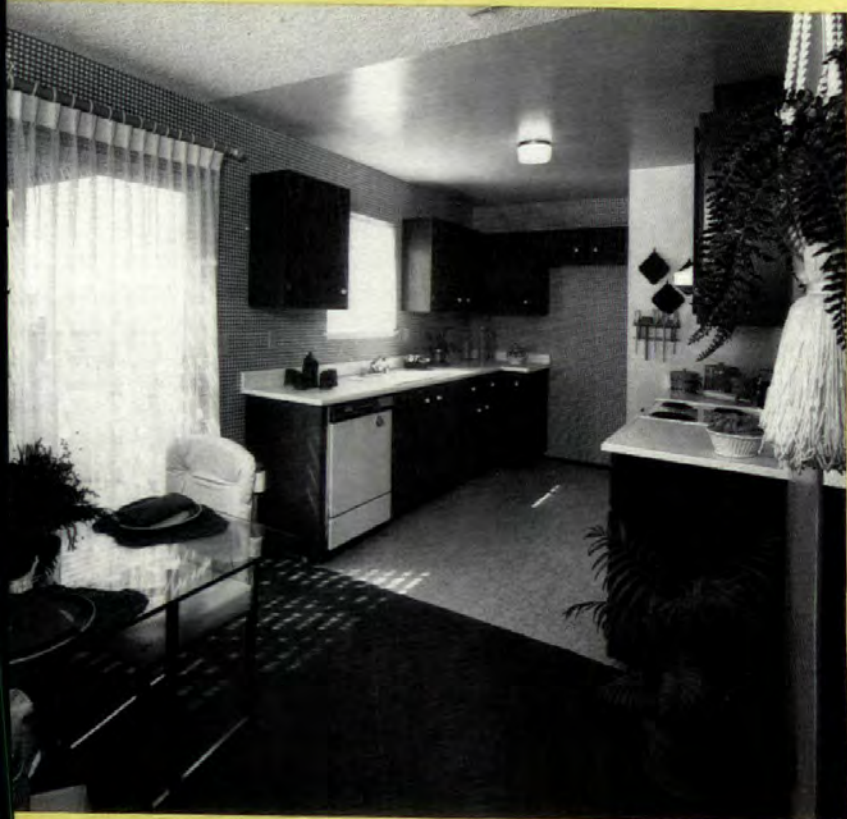
Sales people work closely with prospects, explaining the economics involved.

A computer program helps to make the point. It gives prospects all pertinent data about the individual's financing, including the amount of down payment needed and the monthly loan payment. Moreover, it provides a five-year projection for average cash outlay per month, equity, income tax, and appreciation all based on the current growth rate for the area (now about 8%).

In almost all cases the computer proves that the average monthly net cash outlay is the same or less than the prospect pays in rent.

These hard facts, coupled with a lot of patience and understanding are behind Bohannon's sales success. He simply makes buyers an offer they can't afford to refuse.

—ELISE PLATT



PHOTOS: JIM MAZZUCHI

FIVE REMODELING WINNERS



give new life to old buildings as there are old buildings awaiting new life. Each of these five HFBL* award winners is a case in point. You'll see:

- A 145-year-old mill that's now a contemporary custom home (*below*).



Eclectic design of remodeled house (*below*) is a blend of traditional and modern architectural shapes. Note that the original stone foundation walls (*photo, left*) were sandblasted and left exposed in the remodeled portion of the house.



AWARD OF MERIT

From dilapidated grist mill to contemporary custom home

Chances are slim that you'll ever find a property exactly like this. The site—at the crest of an 80' waterfall—is pretty special. But the chances of locating an abandoned structure like this 145-year-old, three-level grist mill (*photo left*) are better. And the HFBL jury believed that the way it was remodeled is right on target.

For one thing, while the design of the new wing (*left in photo left*) is quite contemporary, it does not conflict with or overpower the traditional shape of the revamped portion.

For another, many of the old building materials were reused inside (note beams and closet doors in the photo on the facing page). So even though the interior design is contemporary, there are traces of the old-mill heritage.

Third, the major living areas of the house were planned to take advantage of both the height and breadth of the old structure. Hence, there is a light, open feeling throughout.

This is the home of a father and young son. One requirement was for a super-private master suite with access to a view of the waterfall. So the entire lower level is designed as an adult retreat complete with a view-oriented terrace. Other requirements: an attached two-car garage and expansion space for a future bath and two bedrooms. Hence the new wing.

Architect: Einhorn-Yaffee Associates P.C.; Builder: VanWoert & Sons Inc.; Landscape Architect: E. Bruce Hiser; Location: Upstate New York.



- A fire-gutted rowhouse that's rebuilt as part of a 17-unit condo apartment building (page 84).

- A rooming house that's become an owner/tenant residence (page 86).

- A restored Victorian house that has been expanded with a new wing (page 88).

- An historic building that's been converted into 122 rental units plus commercial space (page 89), the only First Honor Award remodeling winner.

These projects illustrate some of the opportunities in the recycled building business. For more remodeling/rehab ideas, see the

November issue of **HOUSE & HOME**.

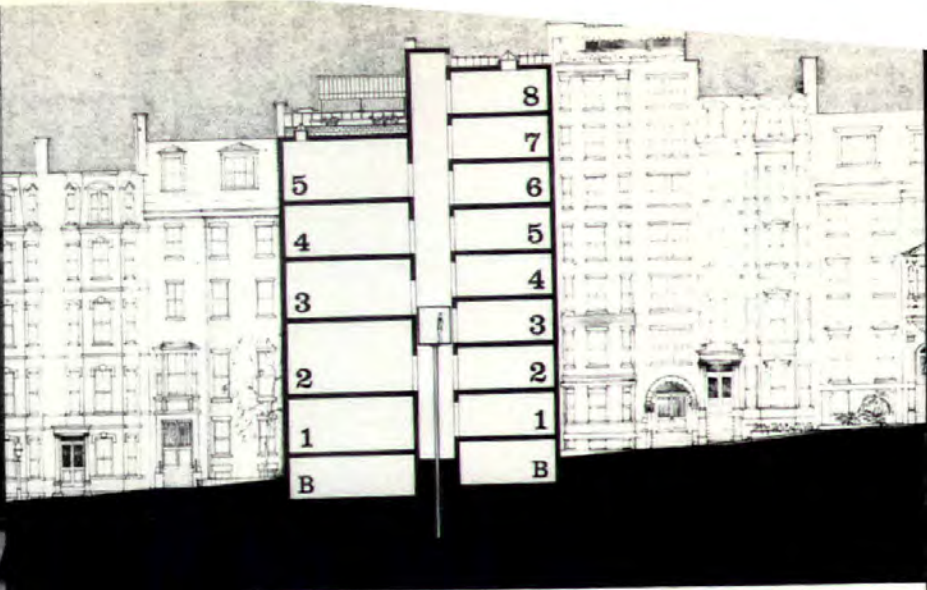
* The Homes for Better Living awards program is sponsored by the American Institute of Architects in cooperation with **HOUSE & HOME**. More winning projects in future issues.



PHOTOS: LEONARD TANTILLO



Floor plans and section show how old and new wings fit together. The wall defining the lower-level terrace is the foundation of a part of the old structure, which had deteriorated beyond repair.



AWARD OF MERIT

From fire-gutted shell to condo apartments

Perhaps the most interesting element in this renovation of two row houses into a single 17-unit condo apartment building is the way the architect solved a tough interior planning problem.

To attain the required number of units, the burned-out half (*photo above*) was rebuilt as an eight-story structure with 9' distances from floor to floor. But existing 8'6" to 14' heights were retained in the other half. Despite the resulting disparity in floor levels (*see diagram above right*), the building is served by a single elevator, a single stairwell and a single fire escape. They are designed to be entered from either side wherever each floor occurs.

Another feature that impressed the HFBL jury: the way the new facade echoes the design of the older building. "The new construction is unusual and interesting," said one juror. "But it's still in character with its neighbors."

The judges also praised the way the floor plans work, especially the arrangement of the ground-floor units (note particularly the private entrance for the two-bedroom unit).

Architect: James McNeely AIA; Builder/Developer: Phoenix House Partners; Project: 34 Hancock Street; Location: Beacon Hill, Boston; Unit Price: \$40,000 average.

Special elevator design, as shown in section above, provides direct access to each unit despite different floor heights on the two sides of the renovated building.

Rebuilt portion of facade (*angled windows, photo near right*) is contemporary, yet does not conflict with the traditional feeling of the existing streetscape.

Original materials—old brick and rafters, for example—were retained in designing new units for the portion of the building not gutted by fire. The interior photos on the facing page show (*top*) the penthouse living room and (*bottom*) the major living areas in the basement unit (neither floor plan is shown). The penthouse unit was created by expanding existing dormers.



Entry level of building (*lower plan, left*) was designed so that all public areas—lobby, elevator and stairwell—could be built in the fire-gutted half, leaving the other half for a highly private, floor-through unit. Typical layouts for the upper-floor apartments are shown in the top plan.



PHOTOS: WILLIAM W. OWENS JR.





AWARD OF MERIT

From run-down rooming house to townhome plus rental unit

This renovation typifies the jobs that revitalize old neighborhoods in the inner cities.

The structurally sound rowhouse on a landmark block had been a five-unit rooming house. A professional couple with young children wanted a variety of rooms to separate formal and informal activities plus an income-producing unit.

The primary problems: 1) introducing more light and 2) organizing the required rooms into limited space—900 sq. ft. on each of the three floors that comprise the owner's unit.

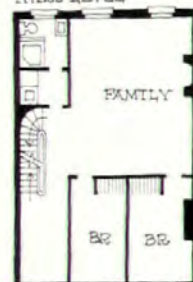
To solve the first problem, the architect designed a skylighted well in the center of the two upper floors (*see section above*). Note that this well is augmented by supplementary skylights atop one wall in each bedroom (the master bedroom skylight is shown in photos on the facing page). The HBFL jury felt this was an excellent feature because it maintains bedroom privacy at the same time it brings in light.

The light well also solved part of the second planning problem because it helps link the parents' and children's bedrooms, even though they're on different floors. Some other notable planning features: the open loft, which serves as a home office; the family room location—adjacent to the children's bedrooms; and the orientation of the kitchen and garden to make serving outdoor meals as easy as possible.

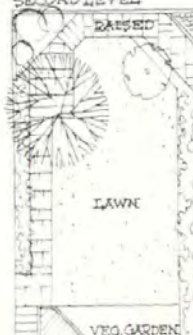
Architect: Benjamin Baxt; Owners: John and Margy Falk; Location: Brooklyn, N.Y.



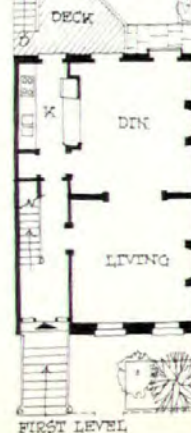
THIRD LEVEL



SECOND LEVEL



FIRST LEVEL



FIRST LEVEL

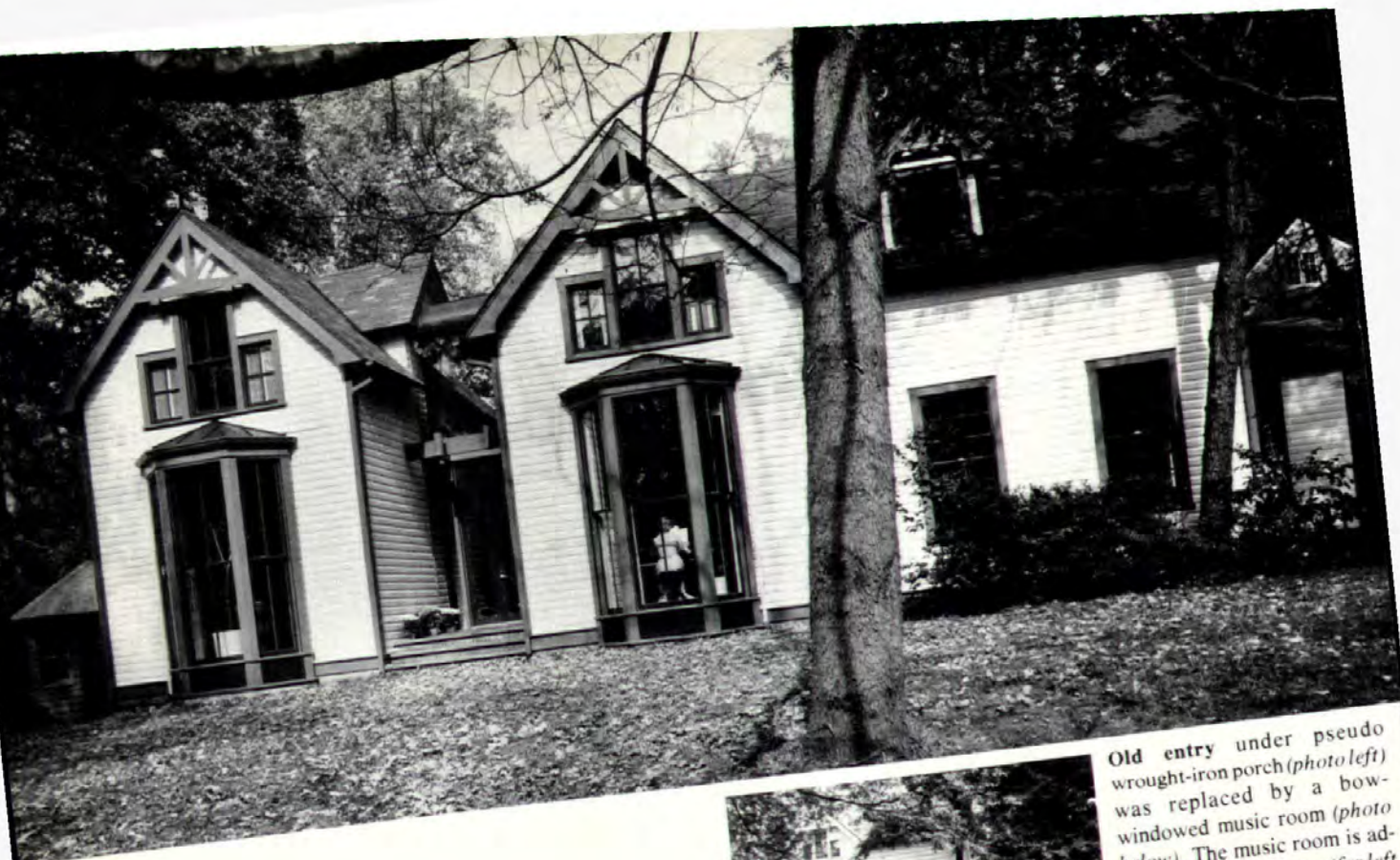
Innovative skylight system (*section above*) channels daylight to both open living areas and enclosed bedrooms on the top two floors of a three-story apartment. The system is a combination of a typical rooftop skylight (arrow) and sloping, transom-like wall sections like those shown in the photos at right.

PHOTOS: D. M. DALTON



Kitchen and dining room (*above*) open to a triangular deck, and both also provide direct access to the rear garden (*lower plan, left*). Outdoor living space for the rental unit (floor plan not shown) is provided under the deck (*see section, top*).





AWARD OF MERIT

From disfigured to rejuvenated Victorian

The old part of this house (*shaded area in plans and photo right*) was the outbuilding for a large rural home built 106 years ago. Its Victorian character had been altered by a pseudo wrought iron (aluminum) entry porch, window sash changes and repainting of the siding to a bright turquoise.

In planning the new wing (*left in photo above*) the architect and owner decided on an architectural style reminiscent of the genuine Victorian style. The same detailing is repeated in the altered old structure, where the porch was removed and a high bay window installed to replace the original front door.

In contrast, a new entry, built to link the old and new sections, was designed in a contemporary style to signal the "new" character of the house.

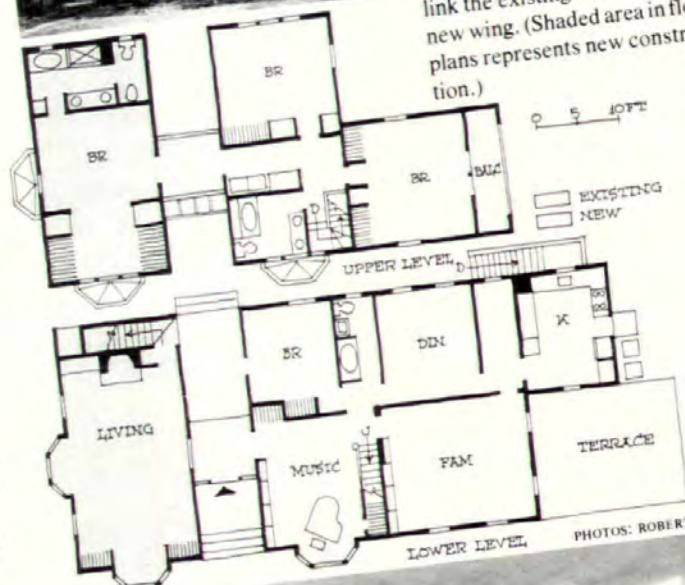
Said the HBFL jury: "The simple addition and minor alterations result in a sophisticated home that respects the historical heritage of the original design."

This remodeling was triggered by a fairly typical situation: A couple with children needed more sleeping quarters and space for their at-home cultural activities.

Architect: Hugh Newell Jacobsen FAIA;
Structural engineer: Kraas & Mok; Owner:
Mr. & Mrs. Robert Elliott; Location: Chevy
Chase, Md.



Old entry under pseudo wrought-iron porch (*photo left*) was replaced by a bow-windowed music room (*photo below*). The music room is adjacent to the new entry (*far left in photo*), which was built to link the existing house with the new wing. (Shaded area in floor plans represents new construction.)



PHOTOS: ROBERT LAUTMAN



FIRST HONOR AWARD

From mercantile use to apartments and stores

Turning unused non-res buildings into economically viable mixed-use projects is a growing business. And this project—the subject of HOUSE & HOME's March cover story—is an outstanding example of just such a conversion.

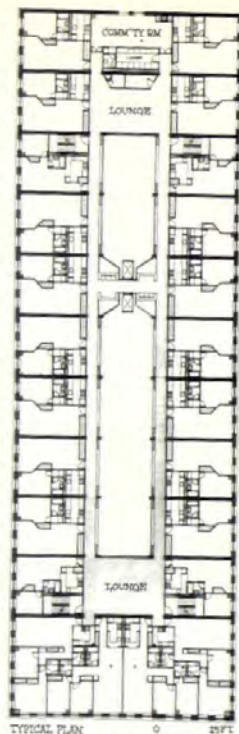
The renovated structure, which contains 122 apartments and 12,000 sq. ft. of store space, started life in 1856 as 12 separate seven-story buildings attached with a common facade. Originally tenanted by ship chandlers and sail makers, then by food processors and packers, the building slowly deteriorated. In the early 1970s it was included as part of an urban renewal area on the Boston waterfront.

Because the building had landmark status, little could be done to dress up the rather dreary exterior. Hence the need for interior excitement, which was created by carving a central glass-topped atrium (photo right) out of the 100'-wide structure. The atrium—a highly marketable amenity—can be seen from the building's multi-level units as well as from the stores.

As one of the HFBL judges noted: "The courtyard gives a tremendous lift to what otherwise would have been a dull building."

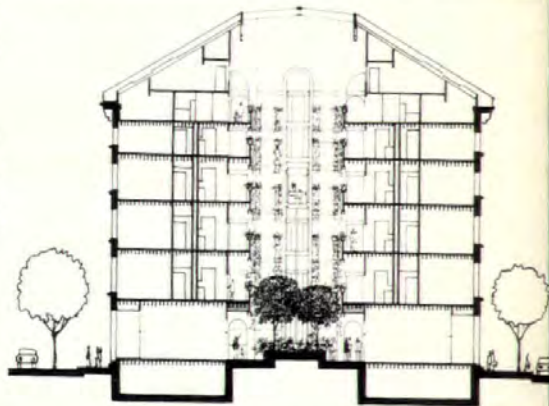
The atrium also solves a structural problem: It eliminates the need for double-loaded corridors and very deep apartments.

Architect: John Sharratt Associates Inc.; Builder/Developer: Peabody Construction Co.; Owner: Mercantile Associates; Project: Mercantile Wharf Building; Unit size: 700 to 1,650 sq. ft.; Market rents: \$410 to \$650; Subsidy rents: 25% of income.



Old granite facade (above) is virtually unchanged because of building's designation as a landmark.

Typical plan for floors two through five (left) shows the layout of flats. Multilevel units (plans not shown) are on the top floor.



Skylit atrium (photo below, section right) is surrounded by ground-floor shops and open apartment corridors.

PHOTOS: STIVE ROSENTHAL



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The contemporary woodgrain cabinetry at left, the modular bedroom furniture shown below far left, the European-style cabinets below left and the wall/storage system below are all manufactured from these easy-to-handle panels. No special

tools, gluing or wet surfacing are required. The warp-resistant laminate resists scuffing, scratching and denting. The melamine component panels are also easy to clean

and are impervious to common household stains—ammonia, citric acid, wax crayon, coffee and vinegar. Fade-resistant, heat-resistant material will not peel or splinter and delamination or surface softness will not occur. Quality controls assure uniformity in color.

A variety of woodgrain designs and clear decorative colors allows for design versatility. MCP can be routed for a plank or grooved effect.

MCP can be edgebanded with high-pressure laminate, polyester tapes or wood veneers. Formica, Cincinnati, OH. Circle 282 on reader service card





Wallcovering, "Parfait" (above), is part of the "Follow the Sun" collection. One of 18 screen-printed designs in the line, the pretrimmed, paper-supported vinyl wallcovering is easy to maintain. Katzenback and Warren, New York City. *Circle 212 on reader service card*



Textured vinyl wallcovering, "Barn Door" (above), has the look of barnsiding. Part of the VINCO® line, the design is on a bias so that the pattern forms a chevron effect. "Barn Door," suitable for areas exposed to heavy traffic, is abrasion-resistant. Stauffer, Westport, CT. *Circle 213 on reader service card*



Washable vinyl wallcoverings are part of the Small Prints™ collection. "Hardwick" (above left) has a 2" pattern repeat and is offered in three colorways. "Malden" (above right) is a stencil motif available in four colors. Both are prepasted. Imperial, Cleveland, OH. *Circle 214 on reader service card*



Accent paneling (above), part of the "Brasilant" series, simulates expensive tile. The 4'x8' Brazilian hardboard panels are available in three patterns in five colors. Easy-to-install paneling has duo-coated melamine finish that damp-wipes clean. Panels can be installed over old walls. Marlite, Dover, OH. *Circle 215 on reader service card*



Fabric-backed vinyl wallcovering, "Terrarium" (above right), is shown with its coordinating pattern, "Window Weave." Washable wallcoverings are strippable. Reed, Atlanta, GA. *Circle 216 on reader service card*

Paneling, "Weldwood Ashcroft" (below), is a printed woodgrain on Lauan plywood. Paneling, which simulates the grain of ash hardwood veneers, is fire-rated. Champion, Stamford, CT. *Circle 217 on reader service card*



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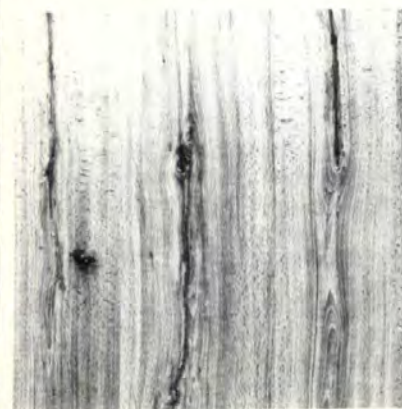


Ceramic tile, Renaissance™ (above), is suitable for application on interior walls and countertops. Available in 4¼"x4¼" and 6"x6" sizes, glazed tiles come in copper, bronze, gold and olive. Easy-to-clean, ⅝" thick tiles can be used with color-coordinated grout. American Olean Tile, Lansdale, PA. Circle 218 on reader service card



Ceramic tile, "Algiers" (above), is one of four patterns in the "Terra Villa" collection. The 6"x6" tile is hand decorated by a brush outline technique. Franciscan, Interpace, Los Angeles. Circle 219 on reader service card

High-pressure laminated plastic, "Beech" (below), is for cabinetry, paneling or countertop applications. The surfacing comes in a range of widths and finishes. Wilson Art, Temple, TX. Circle 220 on reader service card



Fabric-backed vinyl wallcovering, "Don't Fence Me In" (above), is shown with coordinating plaid pattern. "Open the Door." Part of the Growing Up with Wall-Tex® collection, wallcovering comes in bright primary colors and earthtones. Columbus Coated Fabrics, Columbus, OH. Circle 221 on reader service card

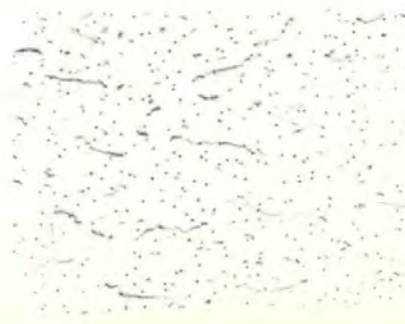


Hardboard paneling, Countryside™ (above), comes in earth-tone colors that complement contemporary interiors. Lightly textured 4'x8' paneling features random plank design. A choice of honey or off-white ash woodgrain pattern is offered. Masonite, Chicago. Circle 222 on reader service card



Scrubbable wallcovering, "Navajo" (above), features an American Indian motif. Its coordinating design, "Sunlight" (shown in the entryway), is a boldly scaled grille. Both come in a range of colorways. James Seeman, Garden City Park, NY. Circle 223 on reader service card

Noncombustible ceiling tile (right), part of the "Solitude" line, is stain resistant. The mineral fiber tile comes in the linear fissured pattern shown and a nondirectional fissured pattern. Gold Bond, Buffalo, NY. Circle 224 on reader service card



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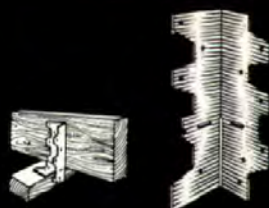
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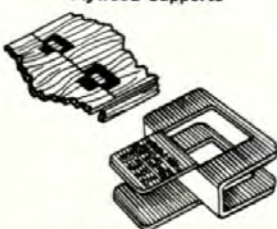
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Contemporary cabinetry (above), part of the "Spacemaker II Decorator Series," features smooth, durable polyester surfaces inside and out. The line offers a selection of interchangeable doors in six colors. Yorktowne, Red Lion, PA. Circle 200 on reader service card



Energy-efficient refrigerator (above) features "Serva-Door," a convenience compartment designed to provide easy access to most often-used items. The no-frost unit features ice-and-water service in the door. Whirlpool, Benton Harbor, MI. Circle 201 on reader service card

"Corning 3+1" range (right) features three Temp-AssureTM heating elements, each with built-in thermostat. Electric range has one conventional MultipanTM element. Amana, Amana, IA. Circle 203 on reader service card



Electric washer and dryer for small loads (below) feature easy-to-use controls. Single-speed washer has Mini-BasketTM and easy-to-install dryer a "High-Thrust" blower. G. E., Louisville, KY. Circle 202 on reader service card



Self-cleaning electric oven (right) features selection of cleaning cycles and smokeless broil. Insulated unit has 19 1/4"-capacity interior. Modern Maid, Chattanooga, TN. Circle 204 on reader service card



Double-bowl sink of stainless steel (below) features integral drainboards on either side. Convenient unit also comes in single-bowl, single drainboard model. Elkay, Broadview, IL. Circle 205 on reader service card





Refrigerator (left) features bottom-mounted freezer compartment. The 19 cu. ft. unit, with 5.9 cu. ft. freezer, comes in white, tawny gold, copper and avocado. Sears, Chicago. Circle 206 on reader service card

Postforming-grade laminate, "Eldorado Leather" (below), has surface embossing. The material, available in a range of sheet sizes, comes in brown "Antique," "Tawny" or "Bleached" shades. Formica, Cincinnati. Circle 207 on reader service card



Cabinet organizer, "Pantry Pride" (above), is designed to meet food and utensil storage needs. The convenient swing-out door-and-drawer system comes in a wide range of sizes. Units, of all-wood construction, can be supplied installed or fitted into existing Excel cabinets. Excel, Lakewood, NJ. Circle 209 on reader service card

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"Aqua Brain" (left) is a watering control system. Moisture sensor tells the master unit when to water the ground. Aqua Brain, Northridge, CA. Circle 225 on reader service card

Self-priming pump (below) is designed for suction-lift applications. Unit comes with a direct, belt or variable-drive motor. ITT Marlow, Midland Park, NJ. Circle 226 on reader service card



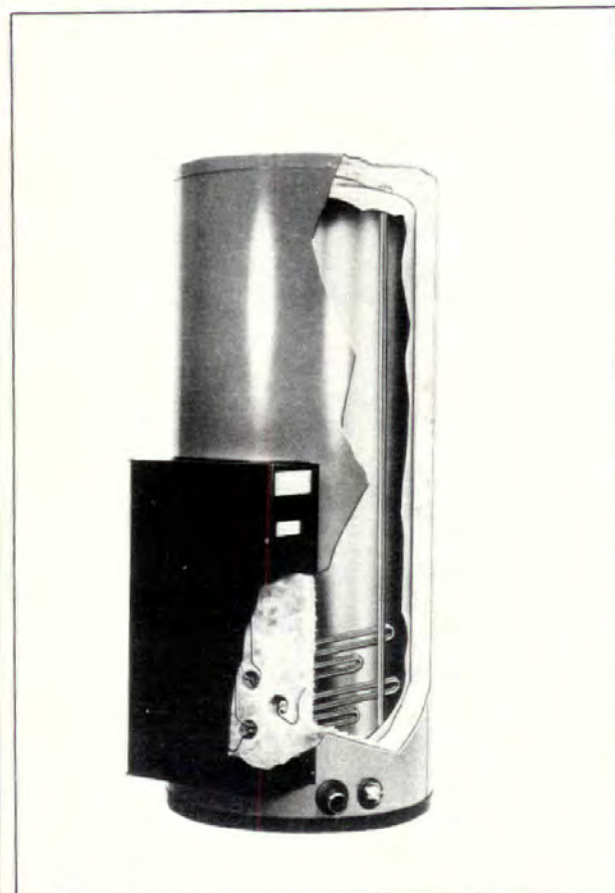
Submersible pump, "ESS 400" (above), pumps 63 gals. per minute. Power cable with plug, hose adapter and lowering rope are standard. Wacker, Milwaukee, WI. Circle 228 on reader service card



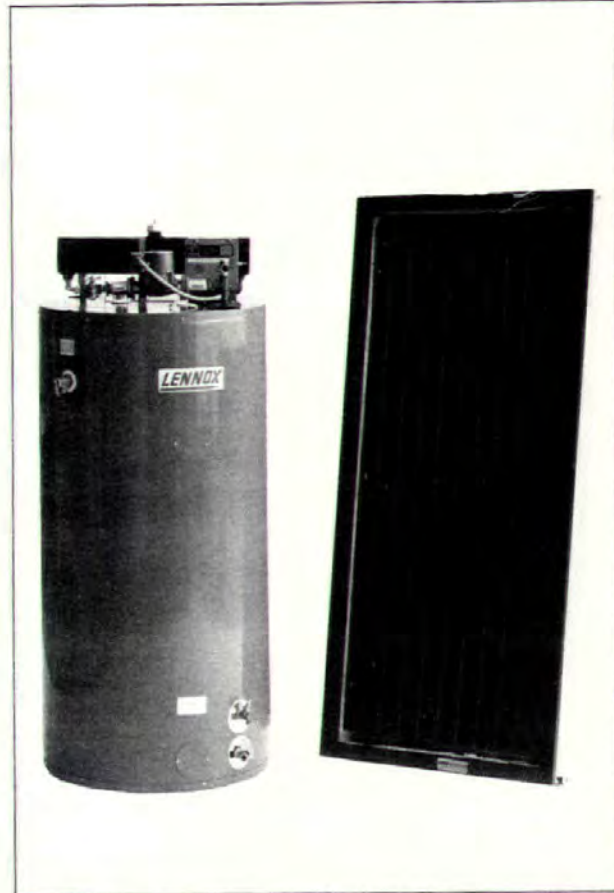
Submersible sump pump (above) has switch hermetically sealed in a stainless steel capsule to prevent corrosion. Unit handles solids up to 3/4". Hydr-O-Matic, Ashland, OH. Circle 229 on reader service card



Sump pump well (left) is for basement drainage. Heavy-duty plastic unit, with snug-fitting lid, comes in 2 sizes. Well has preformed drain inlets and outlets. Hancor, Findlay, OH. Circle 230 on reader service card



Commercial electric water heater (above) comes in capacities of 50, 85 and 120 gals. UL-listed unit comes with surface-mounted or immersion thermostat. Ten inputs ranging from 9 to 54 kw are available in each size. Rheem, Chicago. Circle 227 on reader service card



Solar hot water system is composed of a solar hot water module (above left) and a flat-plate solar collector (above right). System acts in combination with new or existing conventional hot water heater. Lennox, Marshalltown, IA. Circle 231 on reader service card



**Microwave/Self-Clean
Cook Center Range (with optional hood)**



**Microwave/Self-Clean
Double Oven Cook Center**

Hotpoint's wave of the future can help improve your sales today.

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Control. Hotpoint's Microwave Cook Centers are both equipped with Automatic Temperature Control for microwave cooking. It senses the food's internal temperature and shuts the oven off automatically at the desired serving temperature. Both Cook Center models have 1.3 cubic foot microwave ovens and multiple power levels for a wide

range of cooking flexibility.

2 Conventional cooking in a self-clean oven, too. The lower conventional oven of both Cook Centers features automatic self-cleaning. And both models offer large oven capacity in minimal space. The Cook Center Range is only 30" wide and the Double Oven Combination fits in a 27" cabinet.

3 Service that's a selling point, not a sore point. We stand behind our products with Customer Care® Service — a network of factory service centers in over 800 cities plus thousands of franchised service people across the country. We've always believed that service problems are our responsibility, not yours.

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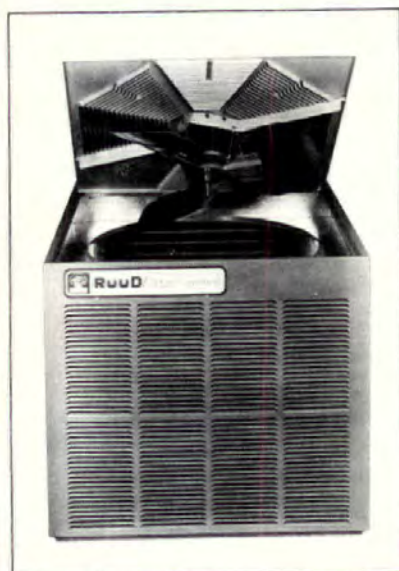
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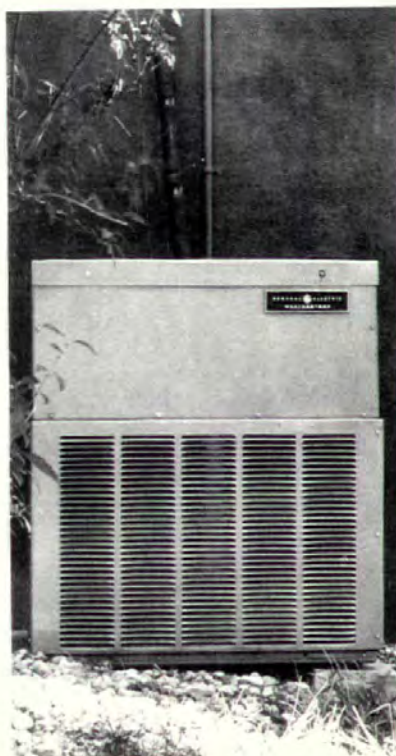


Add-on heat pump, "MaxiMizer" (above), consists of an outdoor unit and an indoor coil. Unit can be installed on any type of furnace. York, Borg-Warner, York, PA. Circle 268 on reader service card

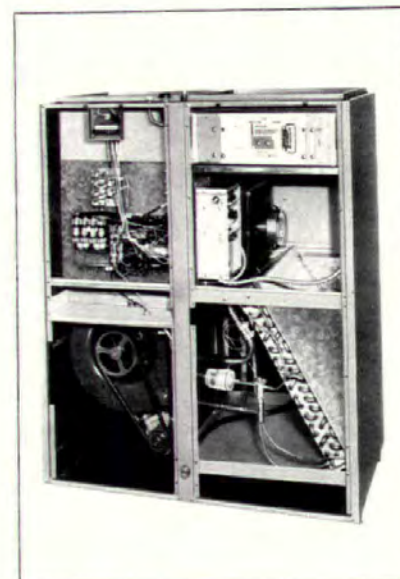
Weathertron® heat pump (below) can supplement existing forced-air systems. All-electric, outdoor unit can operate in case of short supply of primary fuel. G. E., Louisville, KY. Circle 270 on reader service card



Remote condensing unit (above) has 10.0 and 10.3 EER in the 2- and 3-ton capacity. Standard features: start components, compressor time delay and pressure controls. Ruud, Fort Smith, AR. Circle 269 on reader service card



Power roof vent (above) features thermostatic control to maintain constant attic temperature. Designed to ventilate 1,614 sq. ft., unit is made of ABS plastic in neutral gray. Leigh, Coopersville, MI. Circle 271 on reader service card



Five-in-One™ heat pump (above) has heating, air conditioning, humidifying, dehumidifying and air cleaning in one package. Compact pump is self-contained. Williamson, Cincinnati, OH. Circle 272 on reader service card



Split-system heat pump (above) is part of the "Hi/Re/Li" series. The units provide from 28-59,000 Btuh cooling and from 30-63,000 Btuh heating. Westinghouse, Pittsburgh, PA. Circle 273 on reader service card

We've just added a great new twosome to your sales staff. Jack & Barbara Nicklaus.



No need to tell you Magic Chef is a magic name when it comes to selling kitchens.

But now that you've got The Golden Bear and his wife, Barbara, on your side, you'll find selling homes and apartments with Magic Chef kitchen appliances can be a real Golden Opportunity for you.

To make sure it all works for you, we'll be running a full-page, full-color

ad in special issues of Better Homes & Gardens, House Beautiful, Redbook, McCall's and others.

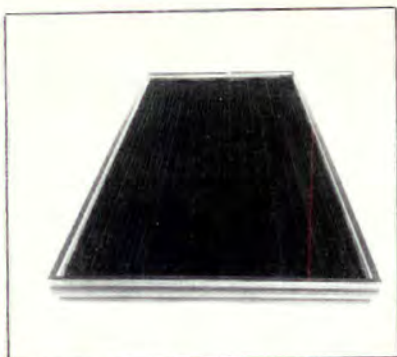


The ad features the cooking speed of a Magic Chef microwave combination gas range, the cleaning ease of our self-cleaning range, and the energy-savings of a Magic Chef pilot-

less gas range. It also talks about our refrigerators and dishwashers.

Jack and Barbara Nicklaus. A great new twosome that'll really help you tee off on your competition.

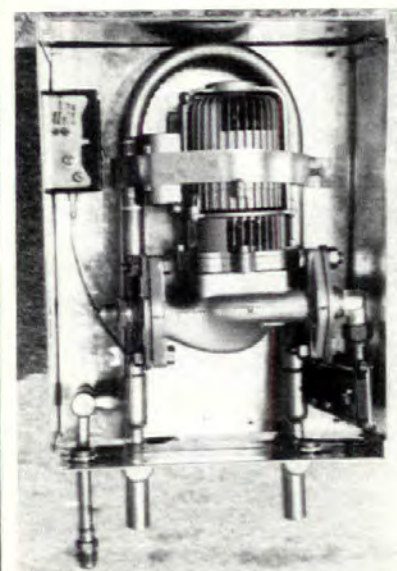
 **Magic Chef**
The difference will surprise you.



Solar collector (above) features copper piping and extruded aluminum frames and absorbers. Unit has tempered glass cover and fiber glass insulation on back and sides. Alten, Mountain View, CA. Circle 274 on reader service card



Residential air cleaner (above) removes 90% to 99% of pollen and larger pollutants from the air and 75% of pollutants as small as .01 microns. Electro-Air, Emerson, Harrison, AR. Circle 275 on reader service card



"Desuperheater" (above) uses waste heat from an air conditioner to heat domestic hot water. Device installs between air conditioner and water tank. Solar-Way, Fort Lauderdale, FL. Circle 276 on reader service card



Fan-forced wall heater (above) is designed for supplemental heating in residential applications. Easy-to-install unit has built-in thermostat. Emerson-Chromalox, St. Louis, MO. Circle 277 on reader service card

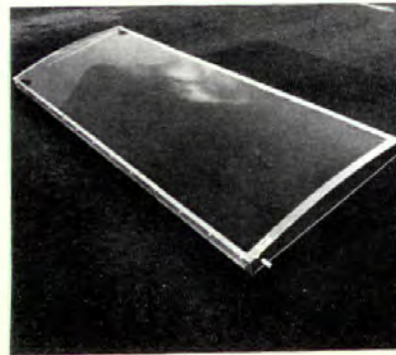


Condensing unit (right) is available in 7 cooling capacities from 18,000 through 60,000 nominal Btuh. EER's of all sizes of the units are ARI certified at 7.0 Btuh/watt or above. BDP, Indianapolis, IN. Circle 278 on reader service card

Split-system heat pump (right) features valve which eliminates annoying noise at the end of each heating cycle. Discharge muffler is standard equipment. Rheem, Fort Smith, AR. Circle 279 on reader service card

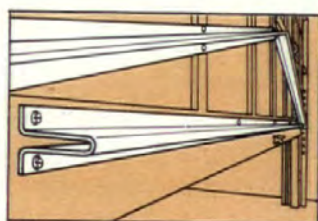


Electric fin tube heater, "Draft Barrier" (above), is suitable for window sill application. Unit can be installed wall-to-wall or partition-to-partition. TPI, Johnson City, TN. Circle 280 on reader service card



Solar heating system features panel with clear acrylic curved lens (right). Panels have aluminum housing and end plates with copper manifolds. TechniTrek, San Leandro, CA. Circle 281 on reader service card

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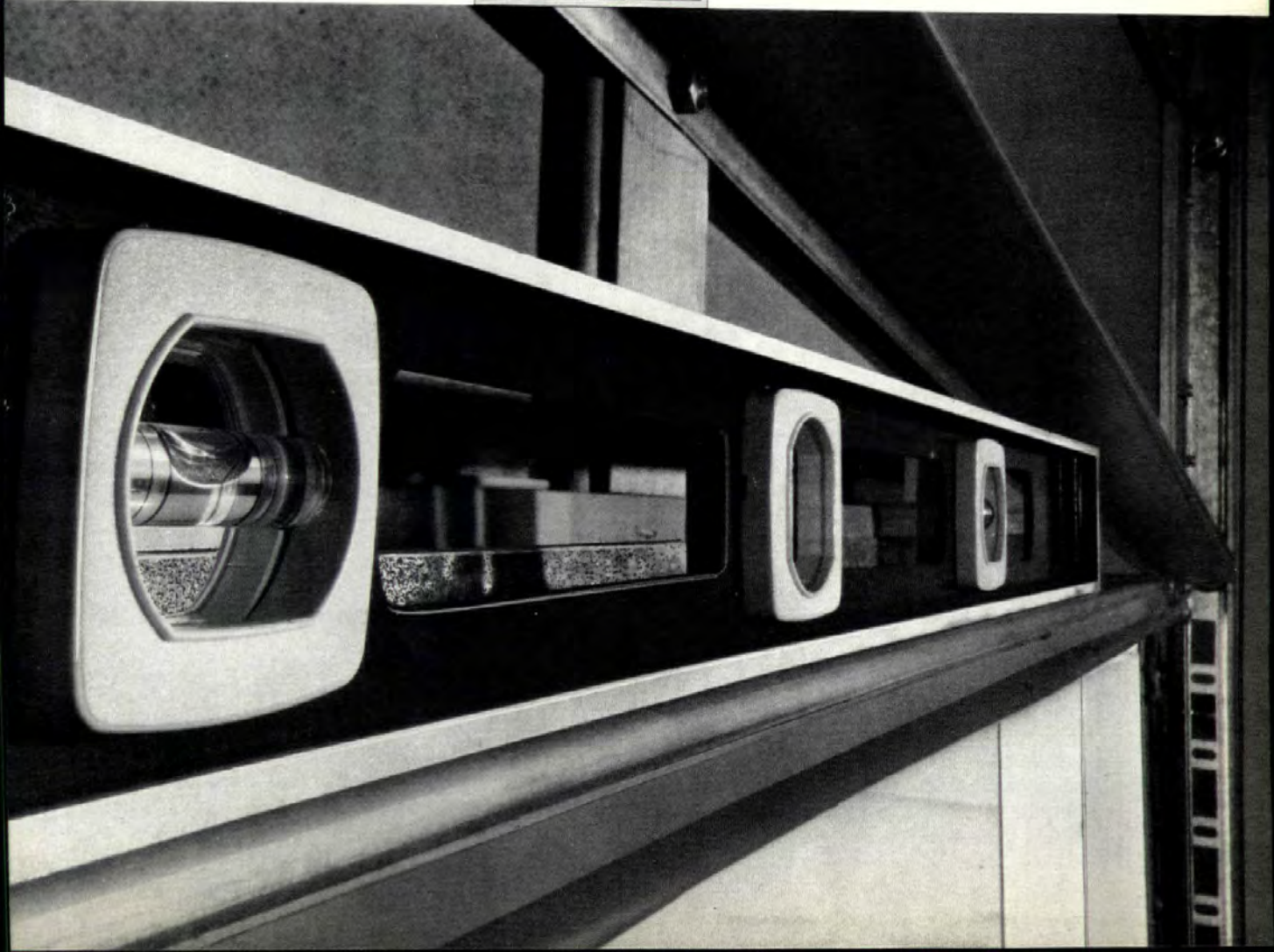
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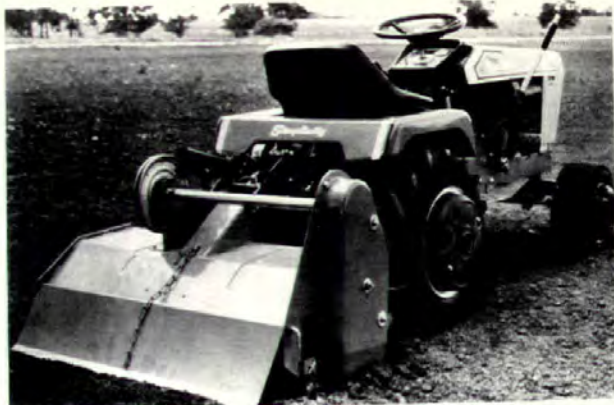




Ladder stabilizer arm (above) provides a lean-forward work position. Adjustable unit attaches to most ladders without tools. Gregory Rennie, Boston, MA. Circle 232 on reader service card



Safety tip guard for Binks airless spray gun (left) is designed to protect the user from accidental harm. Device comes in two sizes to fit all gun models. Binks, Franklin Park, IL. Circle 233 on reader service card



Tiller attachment (above) is designed for use on garden tractors in the 13 to 16 hp range. Small unit is an adaptation of the 48" tiller. Simplicity, Port Washington, WI. Circle 235 on reader service card



Pipe cutter (left) cuts pipe from 1/4" to 1" in diameter. When space is restricted, the handle requires only a 10° arc to operate. Kelley Kutter, Costa Mesa, CA. Circle 236 on reader service card



Lift truck (above) is part of the "Challenger" series. Units in the pneumatic-tire line have capacities ranging from 15,000 to 27,500 lbs. at 24" load center. Vehicle has hydrostatic steer axle and shock-absorbing seat suspension. Hyster, Portland, OR. Circle 234 on reader service card



Heavy-duty angle grinder (left) is designed for use in tight places. Unit features a rotary protection guard, instant-release paddle switch and insulated gripping surfaces. Black & Decker, Towson, MD. Circle 237 on reader service card



Double-drum vibratory roller, "W74" (above), compacts up to 21,000 sq. ft. per hour of sand, gravel and mixed soils. Unit, which can be used static as well, delivers 9,000 lbs. of centrifugal force. Wacker, Milwaukee, WI. Circle 238 on reader service card

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("Last year I did it 28 times.")

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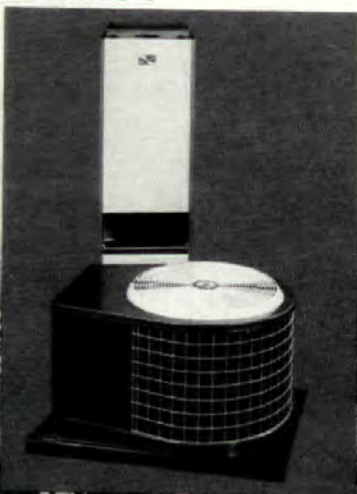
If it's good enough for you, too, call us in Nashville at (615) 244-0450.

Mr. Charles K. O'Connor is one of the 12 custom builders selected to participate in developing Kingwood, "The Livable Forest," Houston, Texas.



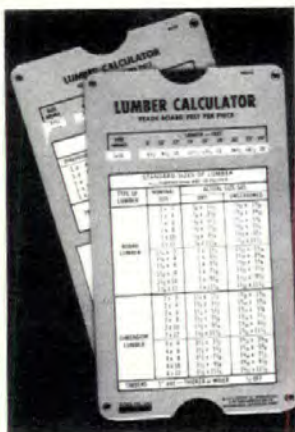
Whirlpool

HEATING & COOLING PRODUCTS





Turf tractor, "MF 20C" (above), features hydrostatic power steering and a heavy-duty, adjustable front axle. Unit has 8-speed transmission. Massey-Ferguson, Des Moines, IA. Circle 239 on reader service card



"Lumber Calculator" (left) figures board feet of all standard lengths of lumber from 8' to 24'. Lumber sizes are listed from 1" x 2" to 16" x 16". Wadlington, Kalamazoo, MI. Circle 240 on reader service card



Driveable work platform (above) features dual-wheel hydrostatic drive and forward and reverse speeds. Unit has control panel on platform for driving, turning and raising and provides working heights to 26'. Economy, Bensenville, IL. Circle 241 on reader service card



Tape-Pak™ with easy-to-read counter (above) tells how much cable is needed for a pull within +2%. Unit has magnified digits. Ideal, Sycamore, IL. Circle 242 on reader service card



Powerlock® rules (above) are available in 12' and 16' models with 1" blades. Device features "Tru-Zero" hook and wipe-clean "write-on" label. Stanley, New Britain, CT. Circle 243 on reader service card



High-speed polisher (above) is a ½ hp unit that produces 1150 rpm. High-heat polishing hardens the shine to a mirror-like finish. American-Lincoln, Bowling Green, OH. Circle 244 on reader service card

Pneumatic vacuum saw (right) is capable of collecting up to 95% of its own process dust. Lightweight unit discharges dust into attached bag. Dotco, Hicksville, OH. Circle 245 on reader service card



Trencher, "M-485" (below), is designed for direct burial of underground distribution systems. Heavy-duty unit, with various chain and boom options, digs a trench up to 16" wide. Vermeer, Pella, IA. Circle 246 on reader service card



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Apartment owners: You can reduce your energy bills

So says a handbook published by the Institute of Real Estate Management (IREM), which asserts a 20%-30% net cost reduction is possible. And it shows how by giving case histories of apartment projects where energy costs have been cut considerably. (Analyses were made by an independent engineering firm.)

For instance, a garden apartment complex in the South installed temperature-limiting thermostats in return air ducts (settings were 70° maximum for heating, 74° minimum for cooling). One-time installation costs: \$5,465. First-year saving: \$6,522.

And adding storm windows to a New England garden apartment project saved its owner \$1,671 on gas costs the first year. At an initial expense of \$7,700, the investment will pay for itself in about four years, especially if fuel prices continue to rise. Over a ten-year period the owner of this complex should save about \$23,000.

Heating and cooling costs aren't the only ones that can be substantially reduced. The handbook points out that using low-energy light bulbs instead of standard ones and reducing the wattage of bulbs in overlit areas can lower apartment project electricity costs significantly.

By relamping, a low-rise garden apartment complex in the southwest decreased its electrical usage 94,541 kwh in one year (\$3,315 in electricity costs). The initial expense for new bulbs at the master-metered complex was \$1,623. In addition, in order to encourage tenants to use the low-energy lamps, free replacement bulbs are being provided at a cost of \$650 annually. Estimated ten-year savings are almost \$40,000. (For a full explanation of projected savings resulting from relamping this apartment complex, see chart above.)

There are many other cost-saving

Economic Projection: Relamping Apartments

(1) Initial Investment	.....\$0
(2) Initial Expense	.....\$1,623
(3) Differential Maintenance Cost	.....\$650
(4) Units of Savings	.....94,541 kwh
(5) Current Price Per Unit	......034/kwh
(6) First Year Pretax Savings	.....\$3,215
(7) Payback, Before Taxes	.....0.6 yrs
(8) Projected Energy Price Rise, Yrs. 1-5	.....3%
(9) Projected Energy Price Rise, Yrs. 6-10	.....3%
(10) Projected Annual Inflation Rate	.....6.5%

Year	(A) Pretax savings	(B) Implementation/maintenance costs	(C) Pretax cash flow (A) - (B)
0		\$ 1,623	\$ 1,623
1	\$ 3,215	650	2,565
2	3,520	692	2,565
3	3,855	737	3,118
4	4,221	785	3,436
5	4,622	836	3,786
6	5,061	891	4,171
7	5,542	948	4,594
8	6,068	1,010	5,058
9	6,645	1,076	5,569
10	7,276	1,146	6,131
10 Yr. TOTAL	\$50,026	\$10,394	\$39,632

Chart from handbook shows ten-year effect of relamping on southwestern low-rise apartment complex with 144 units; all the book's case studies are so documented.

methods described. Replacing shower-heads and sink aerators with low-flow units is one. Doing this saved a New England high-rise \$8,590 on electricity the first year, and, as a bonus, \$980 in water costs. The initial investment: \$943.

Some other ways to save:

- Reduce hot-water temperature.
- Install a timer on the hot-water circulating pump.

- Improve and maintain boiler efficiency

The handbook notes that the cost and savings figures given show the kind of savings it is possible to achieve, although actual amounts will vary with building size and local utility rates.

The 64-page handbook is available for \$3 from IREM, 430 N. Michigan Ave., Chicago, Ill. 60611.

Doors and windows: five booklets you can order

Ideas for using windows in remodeling and new construction are presented in 20 illustrated pages. Seventy color photographs show a wide variety of applications for wood windows in casement, double-hung, glider and other styles. Marvin, Warroad, MN. Circle 300 on reader service card

Insulating glass, how it works and why it should be specified, is the subject of an illustrated flyer. Text explains why double-paned insulated windows allow less heat transfer than single-pane units. Supplementary tables show the comparative U-values for various window types (1/8" single-pane, 1/4" single-pane, 1/2" insu-

lated with 1/4" air space, etc.) Thiokol, Trenton, NJ. Circle 301 on reader service card

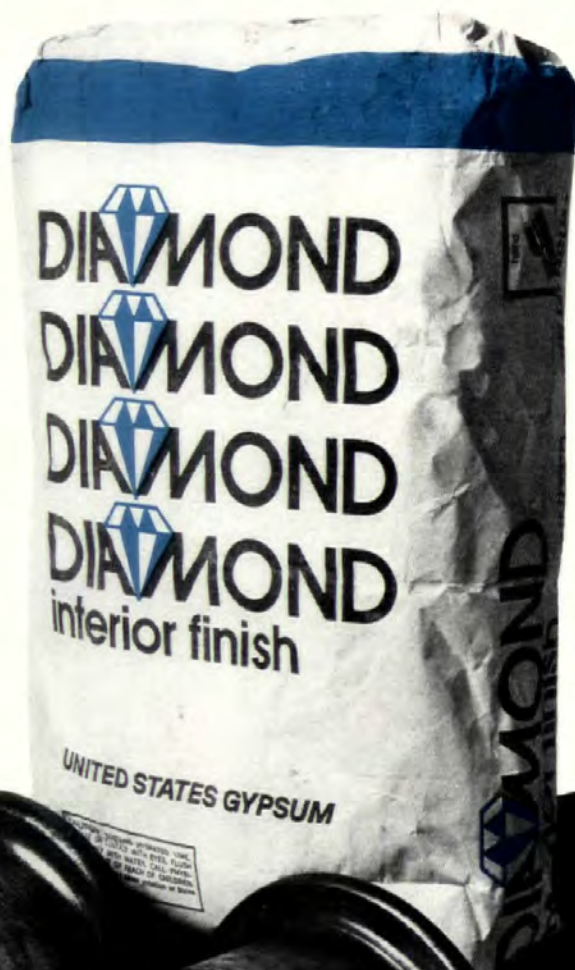
Door and window catalog presents a wide range of primed wood and vinyl-sheathed units. The line includes casement, awning and basement windows and a selection of gliding doors. Each product is pictured in color; basic sizes and installation details are sketched. Text lists standard features and options. Andersen, Bayport, MN. Circle 303 on reader service card

Handcarved doors in mahogany or rose-wood are cataloged in 8 pages. The tradi-

tionally styled doors are shown in color with specs and list of available sizes. Decorative hardware is also pictured. Elegant Entries, Worcester, MA. Circle 302 on reader service card

Garage doors for industrial and commercial applications are the subject of 24 illustrated pages. Six door series are shown: steel, fiber glass, combination steel/fiber glass, wood panel, wood flush and aluminum. Specifications for each type of door are included as well as a track selection guide, drawings of framing and jamb details, and a list of accessories. Raynor, Dixon, IL. Circle 308 on reader service card

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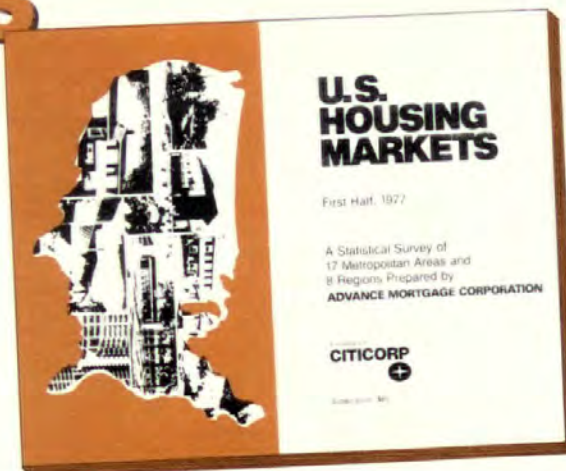


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- E Engineering (brown)
- I Industrial Construction (blue)
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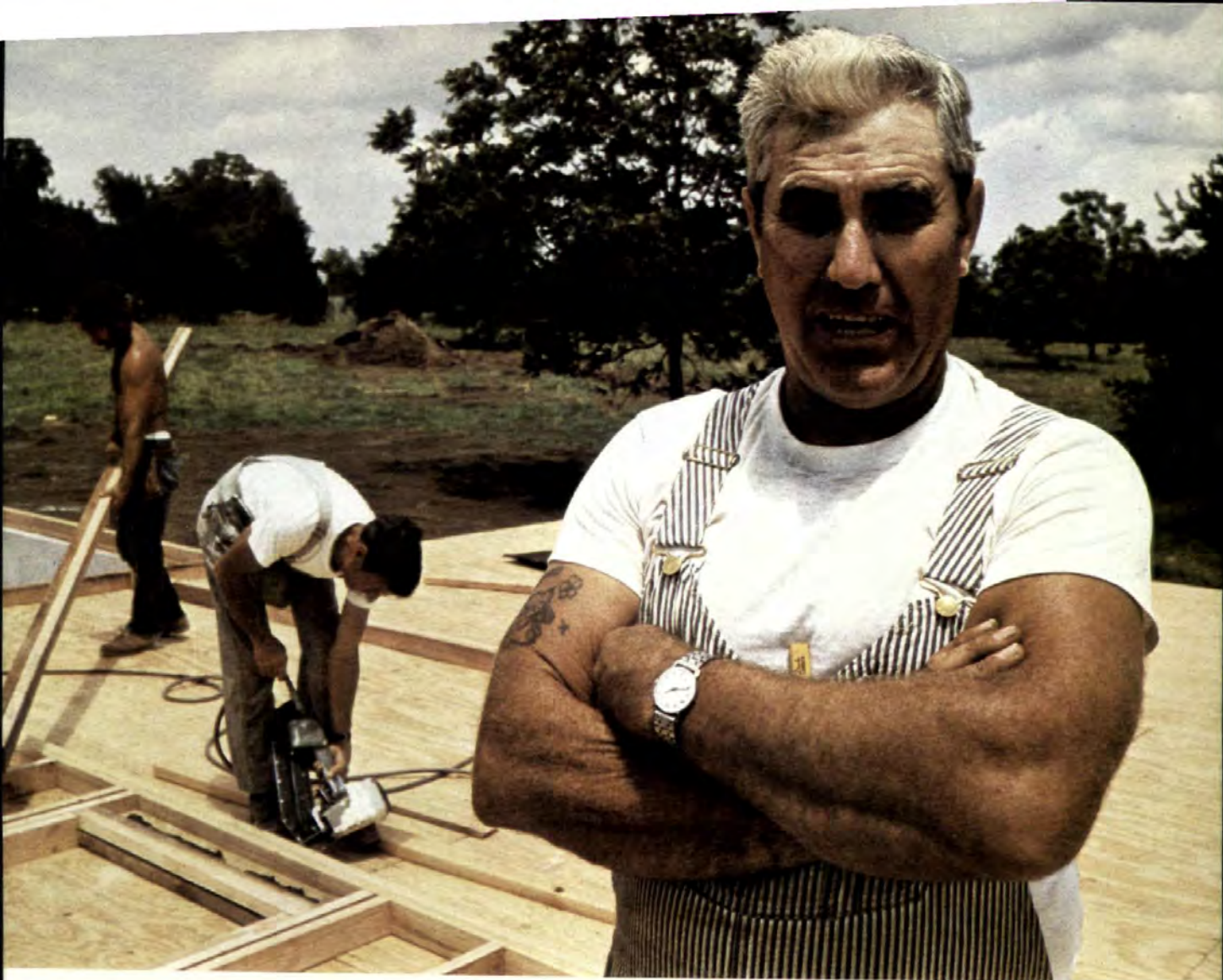
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**James Russell, President
James Russell Construction Co., Inc., Blue Springs, MO**

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H&H/housing 8/77 **118a**



118B H&H/housing 8/77



Richard Hinrichs (right), Director of Purchasing, Wick Homes, talks to Senco's Len Alu in Mazomanie, Wisconsin.

In 1970 Senco took Wick Homes' challenge. "They cut our costs. Increased our production. And never fell down on deliveries and service. They're still doing it."

Today Wick Homes is using just over 500 Senco staplers and nailers — 12 different models all together — in their Wisconsin plant, in its cabinet shop, and for on-site construction.

In fact, Wick is so sure Senco won't let them down that they use nothing but our tools and fasteners in their Moberly, Missouri and Coldwater, Michigan operations, too. All three facilities expect to complete more than 3,000 high-energy-efficient homes this year.

"Senco tools really measure up," says Dick Hinrichs. "But the best tool in the world is no good if it isn't backed by on-call servicing and a steady supply of fasteners. Senco's got it all. No one beats their performance."

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Take these two examples. Senco worked with Wick to get UL approval of the 16d 3 1/2" framing

nail, driven by the heavy-duty, hand-balanced SN-IV nailer. Now UL is Wick's third-party inspector, and sales are rising fast in such code-tough states as Iowa and Minnesota.

"We switched from nails to staples for exterior plywood application, using the compact M-I and 1 1/2" staples — and saved \$6,000 the first year alone," Dick Hinrichs says with a smile.

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The goal of zero defects is, of course, an impossible one for any manufacturer. But the Kwikset Wrecking Crew is doing its best to come as close as is humanly, mechanically and scientifically possible.

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