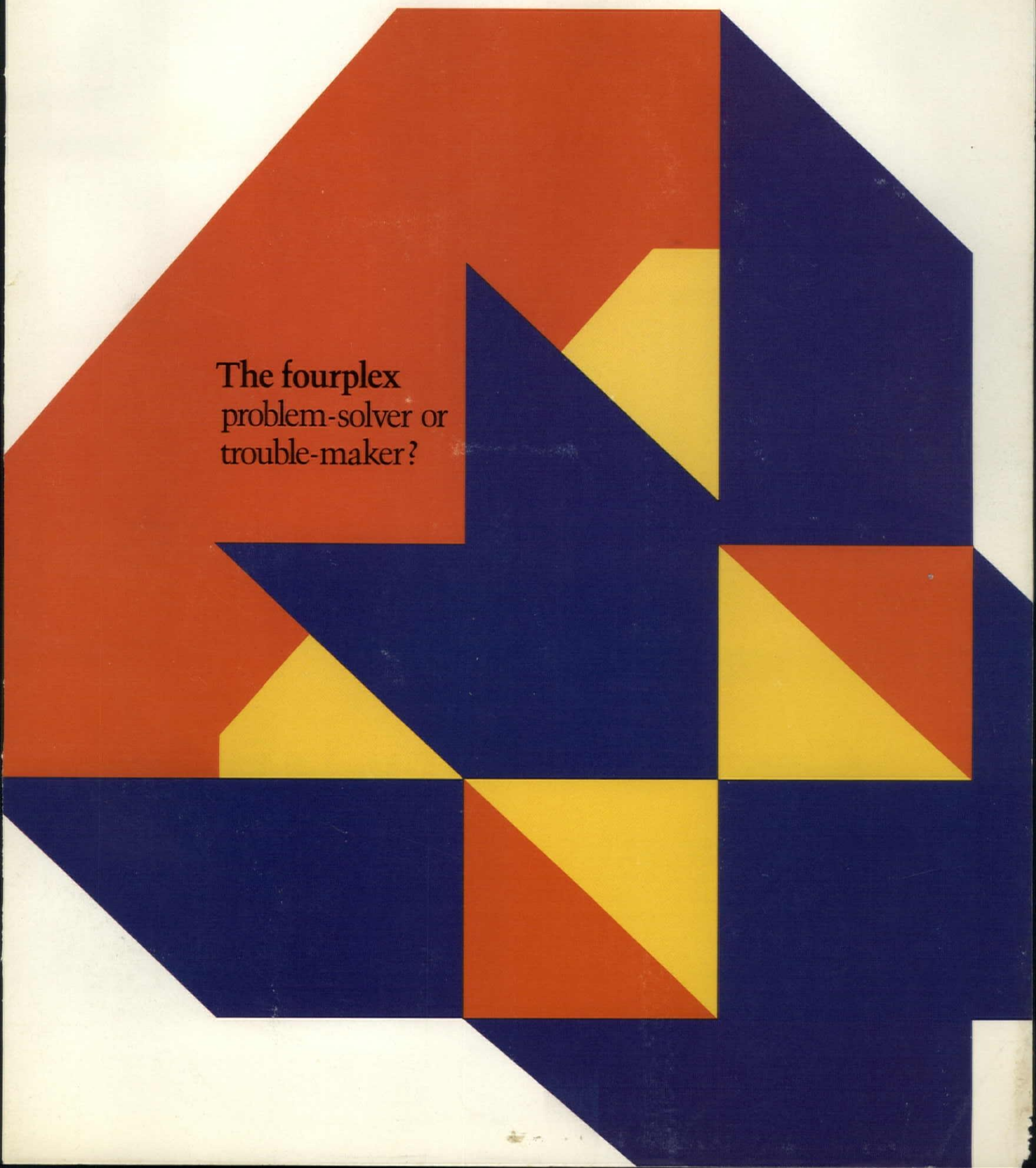


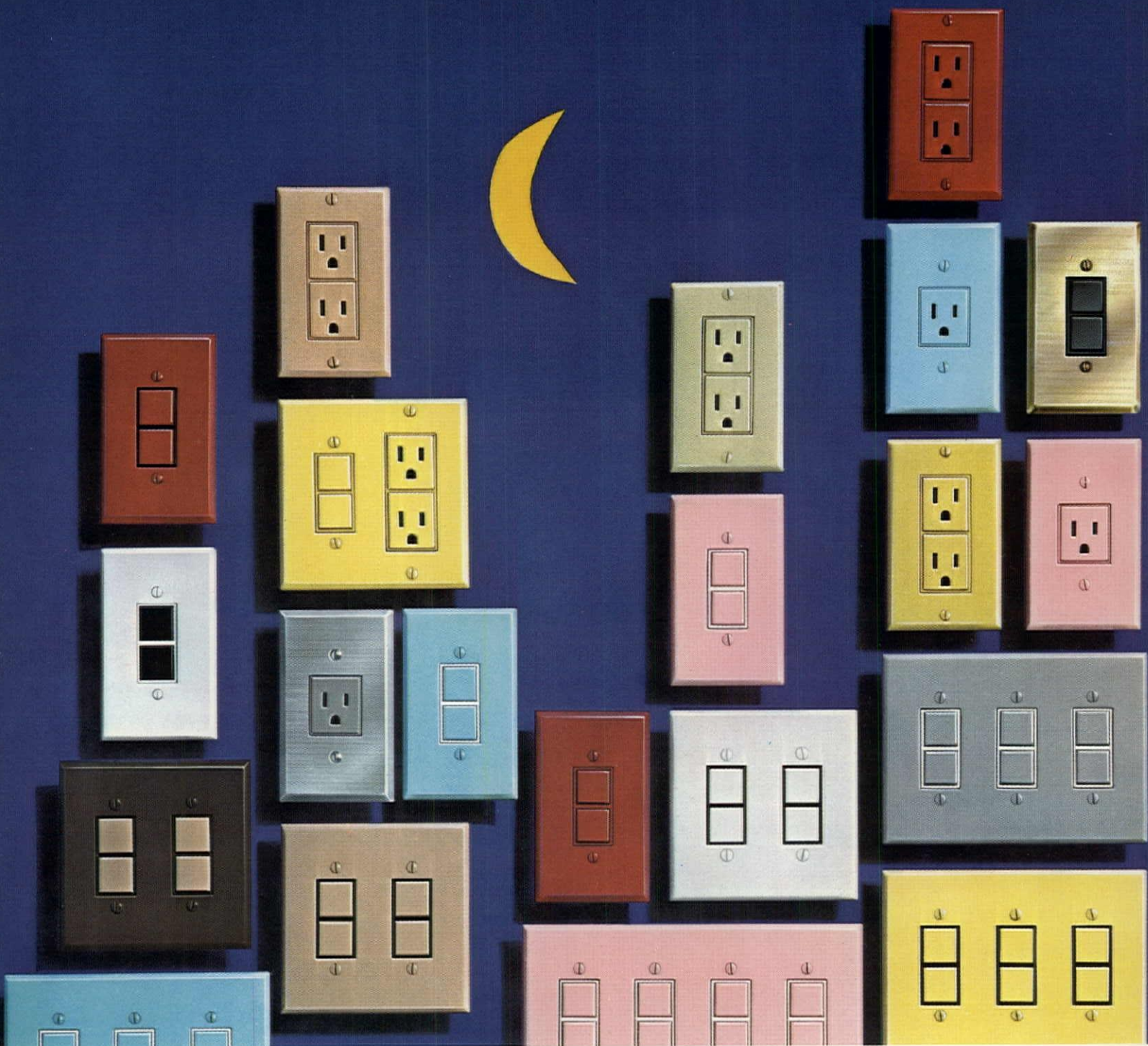
McGraw-Hill's marketing and management publication of housing and light construction

House & Home

JULY 1971

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McGraw-Hill's marketing and management publication of housing and light construction

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Again—President Nixon avoids the hard line on forcing housing integration

In the very first sentence of his 15-page legal brief on his administration's fair housing policies, President Nixon spotlighted the politically agonizing crux of the issue:

"Of all the services, facilities, and other amenities a community provides," the President said, "few matter more to the individual and his family than the kind of housing he lives in—and the kind of neighborhood of which that housing is a part."

Having said that, President Nixon, virtually on the eve of the Civil Rights Commission's mid-June hearings on administration policies, cast the federal government as a high-minded referee—but not a pace setter—in dispersing racial concentrations.

Few specifics. The policy statement, modeled after the President's dissertation in March on the laws and responsibilities of the federal government in school integration, scrupulously avoided comment on specific current issues.

But it seemed likely that President Nixon was pointing toward a carefully balanced policy of gentle, indirect pressure. Such a policy will not satisfy the demands of civil rights advocates for vigorous action to disperse federally assisted low- and moderate-income housing projects into the more affluent suburbs nor fulfill their worst fears of an administration winking at disguised discrimination.

Policy in summary. At the heart of the policy the President sketched were these points:

- The government's role in its housing programs "is essentially one of responding to local or private initiatives, rather than one of imposing its programs on state and local governments... The extent to which HUD program activity is dependent on local initiative and execution is frequently overlooked, but is an important element in considering policy issues."

- Land use and housing pattern questions are matters for local communities to decide. "They represent the kind of basic choices about the future shape of a community, or of a metropolitan area, that should be chiefly for the people of



President Nixon when he signed Emergency Home Finance Act of 1970 last summer.

OFFICIAL WHITE HOUSE PHOTO

that community or that area to determine."

On the other hand:

- "Racial discrimination in housing is illegal, and will not be tolerated... what is essential is that all citizens be able to choose among reasonable locational alternatives within their economic means, and that racial nondiscrimination be scrupulously and rigorously enforced."

- "If all the federally assisted units (that are needed and being built) are packed together in one type of community or one kind of location, we will only exacerbate the social and, in all probability, the racial isolation of our people from each other."

No threats. President Nixon ruled out the tactic of withholding grants under other federal programs from communities considered to be in violation of fair housing requirements. "A careful review" of the background of the Civil Rights Act of 1964, he said, indicates that Congress intended funds to be cut off only from the activity involved in the violation—not in other government programs that may be going to the same place.

And he straddled—at least for the moment—the most explosive issue in the "fair housing" debate: the question of

what action, if any, should be taken against suburban zoning that has the effect of excluding federally assisted low- and moderate-income projects, and thus of excluding poor blacks.

[Three days after the statement, however, the Justice Dept. sued Blackjack, Mo., charging the St. Louis suburb with illegally blocking an integrated housing development.]

Economics. The issues of race and poverty are separate, the President said carefully, "and those who would treat effectively with race and poverty must take care to maintain the distinction."

Economic issue. With that distinction in mind, President Nixon stated: "We will not seek to impose economic integration upon an existing local jurisdiction; at the same time, we will not countenance any use of economic measures as a subterfuge for racial discrimination."

In interpreting that principle, he said, the most important guideline will be the real-life effect of whatever local action may be under question. "If the effect of the action is to exclude Americans from equal housing opportunity on the basis of their race, religion, or ethnic background," he said, "we will vigorously oppose it by whatever means are the most

appropriate—regardless of the rationale which may have cloaked the discriminatory act."

Problem recognized. The President acknowledged—and agreed with—the key point made by the most hawkish open-housing advocates: that racial concentration in the central cities is increasing while suburban rings "remain overwhelmingly white."

Although he insisted that "to some extent" racial housing patterns reflect free choice, he added: "It is also inescapable, however, that continuing, often covert housing discrimination is thwarting or discouraging the efforts of many minority citizens to find better housing in better neighborhoods."

"This is wrong, constitutionally indefensible, and pragmatically unwise," he said.

The record. The President ticked off both HUD and the Justice Department's record on anti-bias enforcement. In 1970, he said, HUD completed action on 169 complaints, settling 89 by conciliation and referring 19 to Justice for court action. Since the Nixon Administration came into office in January 1969, he said, the Justice Department had filed or entered into 85 fair housing suits against more than 250 defendants in 22 states and won out-of-court settlements with several hundred other defendants.

"This vigorous enforcement as required by law will continue," he pledged.

Criticism of 235. The President's statement did not cope directly with the Civil Rights Commission's report issued publicly the night before, which charged that FHA operations under the Section 235 homeownership program had reinforced segregated housing.

Housing Secretary George Romney conceded, in effect, that the 235 program had not yet made a "significant impact" on racial concentration, but that steps had been taken.

It was clear, however, that the President would like local communities and local developers to resolve for him the problem of dispersing low- and moderate-income housing.

—BRUCE AGNEW
McGraw-Hill News,
Washington

Message highlights in President's own words

Racial discrimination in housing is illegal and will not be tolerated.

By "equal housing opportunity," I mean the achievement of a condition in which individuals of similar income levels in the same housing area have a like range of housing choices available to them regardless of their race, color, religion, or national origin.

We will not seek to impose economic integration upon an existing local jurisdiction; at the same time, we will not countenance any use of economic measures as a subterfuge for racial discrimination.

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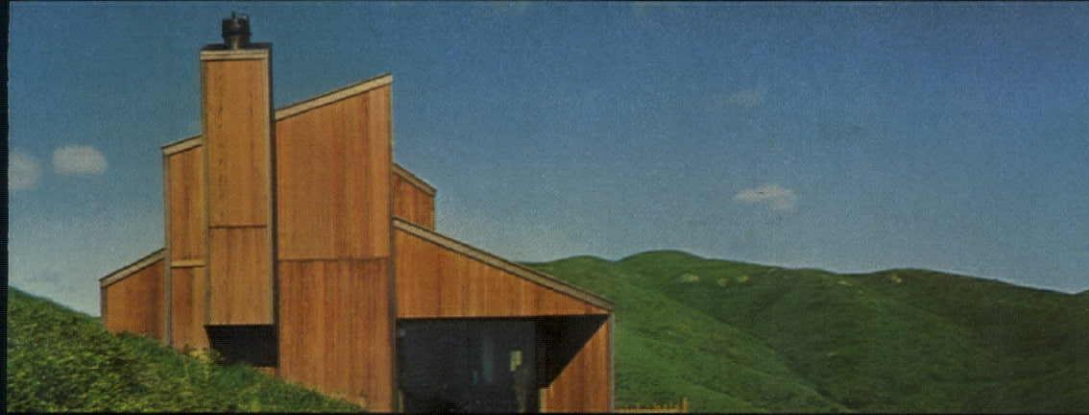
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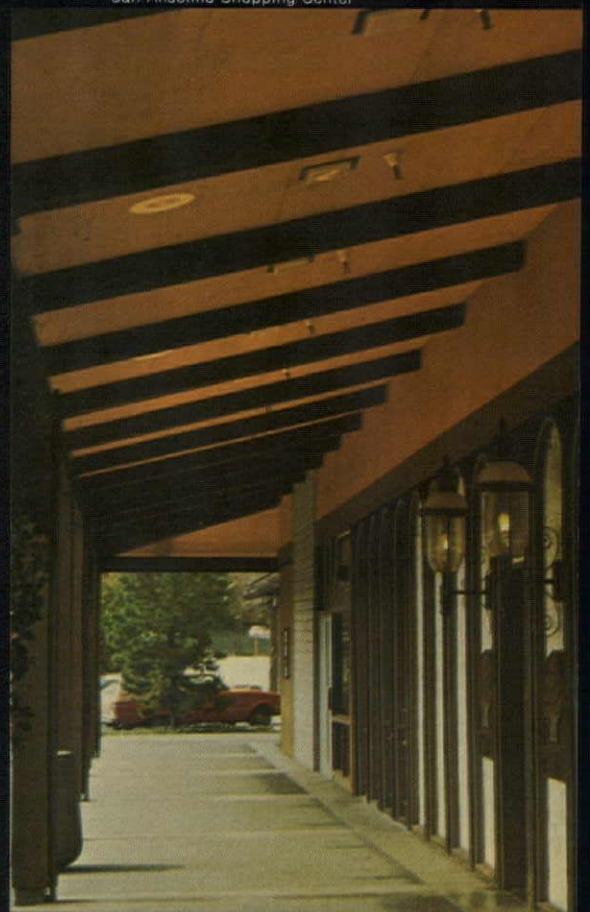
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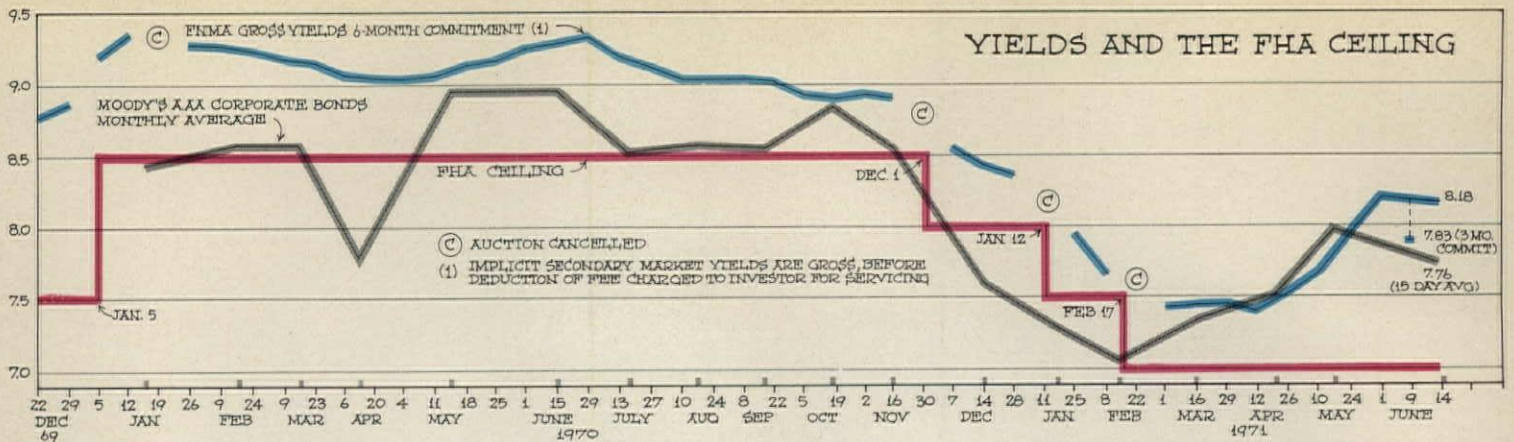
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Mortgage yields rose far above FHA ceiling in second quarter. More important, the yield spread of mortgages over triple-A corporate bonds actually turned negative for two months. Economists say mortgages must yield more than these bonds to win investors, and FHA-VA yields have historically run as high as 100 to 150 basis points above the bonds.

FHA mortgage market tumbles into disarray as pressures build on all sides

"What declining interest rates give us in January, February, and March, increasing interest rates take away in April, May, and June."

This summary by one puzzled but resigned mortgage banker describes the near panic in the mortgage market in early June, after prices for FHA and VA home loans trading in secondary operations took a toboggan ride down a steep yield slope.

The joyride that mortgage men experienced in the first quarter is apparently over, and notwithstanding a high level of funds in the hands of thrift institutions, interest rates are feeling severe upward pressure.

The run for cover. The Federal National Mortgage Association's regular auctions triggered the squeeze. Mortgage bankers, realizing en masse in April that they were not covered with future commitments, had been rushing to Fanny May for such coverage. Heavy offerings became a rule and prices came skidding down hard.

From discounts of 2 and 3 points in late March, Fanny May was buying some loans for immediate delivery at discounts as high as 11 points on June 1.

S&Ls' retreat. Prices were averaging at a discount of 8 or 9 points, and thrift institutions—despite record savings flows—had adopted a "wait-and-see" attitude toward FHA commitments.

They had reason. Bond prices had also begun to slide and yields to rise.

Pressure had mounted in early June for an increase in FHA rate from 7% to 7½%. Increasingly, mortgage bankers were complaining that Fanny May had failed to meet its public purpose

by declining to accept a major share of the commitment bids offered to the corporation.

Fanny May's officials had decided that "an overuse of our facilities was not warranted." And so, when \$1.2 billion in bids were received on May 10, FNMA accepted just 22%. Then, on May 24, when seller-servicers offered FNMA nearly \$800 million in mortgages, the corporation took only \$151.1 million.

FNMA's stand. The result was predictable:

Since FNMA had in effect become the only major investor in the FHA-VA market, prices declined sharply (and discounts rose).

President Oakley Hunter of FNMA was sharply critical of the market's psychology. He complained:

"The market overreacted to psychological factors rather than to anything that is real."

But Hunter said that Fanny May would follow the direction of Congress "to be self-sustaining and to accept bids in the range of market prices."

Savings flows. The Fanny May president was at a loss to understand why prices had fallen so far. Hunter repeatedly pointed to the record savings flows at savings institutions to show that ample mortgage money was available.

Data from the Federal Home Loan Bank Board showed that insured savings and loans had net savings inflows through April of just under \$11 billion, compared with net inflow of \$656 million in the same four months of 1970.

Case for rate rise. But C. E. Bentley, president of the National League of Insured Savings Associations, noted that the

negative spread between mortgage and bond yields was too wide, and he urged Secretary Romney to lift the FHA interest ceiling to 7½% from 7%.

Officials at HUD came under increasing pressure to lift the rate, a step they sought to avoid.

Special auction. Fanny May came to their rescue—if only temporarily.

The corporation set up a special auction for immediate-delivery mortgages as a way to sop up the overhang of business and at the same time avoid a rate increase by paying higher prices for those loans.

The auction, which called for mandatory rather than optional delivery of loans, was welcomed by industry and government alike as a device that could settle the market.

The auction raised prices only about 1¾ points, less than almost everyone expected. The three-month commitment sold at an average of 93.98, and that translated to a discount of about 6 points and a yield of 7.83%. Bids totaled \$1.1 billion; FNMA accepted only \$274 million.

Hunter had said earlier that if prices began to retreat again after the auction, the FHA ceiling should be raised.

Romney's objection. Secretary Romney, however, said after a meeting with President Nixon and officials of the National Association of Home Builders that he had made no move to adjust the ceiling and would not until he could decide to act "on my reading of the underlying conditions of the economy, not on what I consider temporary aberrations."

"There has been a lot of speculation in recent weeks that has had unfortunate effects on mort-

gage rates and lending, and which threatens to cut short the expansion in housing starts," Romney said.

Romney also said he believed there was "some attempt here on the part of some people" to create a psychology driving up rates, but he refused to name names.

Romney quoted President Nixon as saying: "We intend to have a continuing upturn in the economy. Essential to it is a strong homebuilding industry. Essential to that is an interest rate at levels that people can and are willing to pay."

Upward pressure. Romney's assertions notwithstanding, administration officials at HUD stated privately that the special auction was only a time-buying device. Faced with a heavy federal deficit and other demands on the capital markets later this year, the pressure on all interest rates—including mortgages—will be, in the main, on the up side.

Chairman Preston Martin of the HLBB, the chief regulator for the savings and loan business, has focused on this in numerous talks. Martin has cautioned the S&Ls about their heavy savings flows, noting, "They won't last much longer."

If this forecast proves accurate, the S&Ls, as well as other investors, will find they have less money for mortgages. And, while the current mortgage market squeeze may have been somewhat premature, most economists believe the realities of the market place will shortly provide ample reason for the mortgage bankers' recent run for cover.

—ANDREW R. MANDALA
Washington

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California fights to curb promoters of state's subdivisions of nowhere

California's lawmakers have taken a dismayed look at a rash of "premature subdivisions" creeping over the state and have recommended severe legislative curbs on developers.

The fate of the proposals is uncertain, however. The Reagan administration, the powerful California Real Estate Assn., and some of the state's biggest land and lot-sale companies oppose the restraints.

The companies' reason is simple. New laws would cost the companies the quick millions now piling up from wholesale lot peddling.

Criticism. The reformers are members of a state assembly subcommittee named to study premature subdivisions—the subdivisions that spring up out of nowhere when developers chop remote recreational land into city-sized lots and then launch blitz sales campaigns.

The developers, the committee said, were proceeding "as if the land itself were an assembly-line product that could be purchased at the nearest shopping center."

Assemblyman Leo T. McCarthy, a San Francisco Democrat, heads the committee.

His five bills would assign wide powers to the state to reject outright any development that was not "fair, just, and equitable" to the purchaser. One test would be whether the project was purely speculative.

Price of failure. It was Salton City, three hours east of Los Angeles in the bleak Salton Sea Desert, that provided the principal case history for the subcommittee's study. The developers were W. Penn Phillips and Dudley Dean Watson, now 75, a former state real estate commissioner (see accompanying story).

Thomas Willoughby, consultant to the subcommittee, said the study revealed that 20,000 lots had been sold in Salton City from 1958 to 1962 but that fewer than 200 homes now stand on the properties.

"The long run effects of such developments can be highly undesirable," warned McCarthy, and he cited these reasons:

1. Removal of vegetation from the unused lots produces erosion, siltation, water pollution, and disruption of wildlife.



EX-COMMISSIONERS SMITH...
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... AND WATSON
To Salton City



... AND GORDON
To consultant's practice

State's land regulators quitting to join the lot developers

Three of the last five commissioners appointed to protect Californians against high-pressure land salesmen have switched over to become executives or consultants for companies developing and selling lots.

The latest real estate commissioner to go over to the developers is Burton E. Smith, 54, who quit on short notice in April to become senior vice president in charge of land development for Southern California Financial Corp., a development subsidiary of City Investing Co. of New York.

Smith says there could be a reason for "raised eyebrows" if he had joined one of the state's "dirt developers," but he maintains that his joining Southern California Financial should cause no concern. Asked if he had gotten job offers from other firms, he said, "Yes, but I didn't take any seriously."

Smith's predecessor as commissioner was Milton G. Gordon. After leaving office in 1967, he set up Boise Cascade Corp.'s land development operation in southern California and became

a consultant for McCulloch Oil, one of the Southwest's biggest developers.

And then there is Dudley Dean Watson, who maintains the entrepreneurial spirit at 75. He was commissioner from 1948 until 1957, when he left to develop California's Salton City (see accompanying story).

Money and ease. What lures the commissioners from public service?

Money, for one thing.

A commissioner earns \$30,000 a year. A dirt developer for one of the large companies makes twice to four times that.

Another answer may be home life. California's commissioner is a traveler searching out consumer inequities in five real estate offices throughout the state. The corporate realtor does much less traveling.

Companies' gain. Why do the developers, and even the most reputable firms, want former commissioners?

Contacts, knowledge, and savvy.

The commissioners are widely known as real estate figures before they take office. Most,

as were Smith and others, are past presidents of the highly influential California Real Estate Assn.

They know real estate law and how the state's real estate board interprets it.

They remember the flagrant marketing scandals of unscrupulous land deals and dealers.

And they know how to keep their skirts clean. Says Watson: "The developer wants the former commissioner to watch the business."

The record. Gordon, Watson, and Smith had good records.

Gordon imposed controls on out-of-state promoters selling subdivisions to Californians.

Watson's reforms included performance bonds for subdivision builders and complete subordination of all other financial claims against a developer to that of the property buyer.

Smith developed the Real Estate Syndicate Act of 1970 and raised educational requirements for realty broker licenses. His successor as commissioner is Republican Robert W. Karpe, a Bakersfield realtor whose appointment runs to 1975. —J.W.

2. Lots become poor investments. Property values rise sharply during the developer's sales campaign but frequently decline after all lots are sold. Many lots end up worth only a fraction of the purchase price.

3. Initially, the vacant lots produce high taxes for the counties and require few services in return. The price of this tax windfall, however, is frequently the irrevocable commitment "of large areas of a county to face the future as moldering ghost towns."

The promise. Watson insists that Salton City was and is a realistic development. He says:

"If they had only stopped after they had built the community and provided lots sufficient to take care of the need—note I didn't say the demand—to take care of the need, and from that time on let the project take a natural growth, it would have been a tremendous recreational development."

And the debacle. What turned Salton City into a 200-house ghost town?

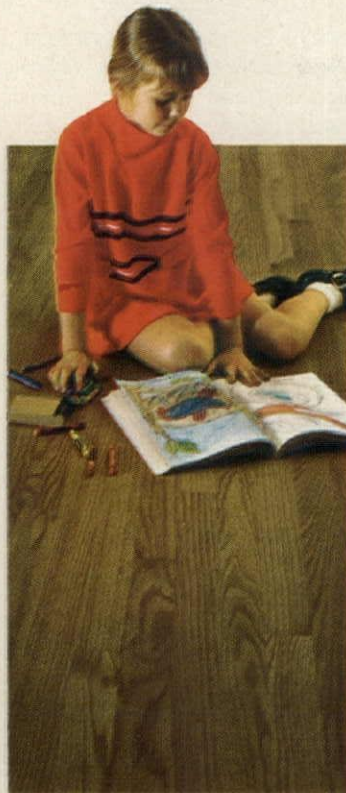
"Sales were terrific," says Watson. "The developers kept developing more lots. They couldn't build homes because they couldn't get the financing. But they continued to develop and sell lots. The people kept coming. New subdividers came out. And people kept buying."

Watson says he could see what was happening. He and his associates had purchased 640 acres and developed about half of them in two subdivisions. The prices ranged from \$2,850

TO PAGE 12



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OAK FLOORS

California tries to curb promoters of subdivisions of nowhere . . . (continued)

to \$3,500 a lot. The rest remains undeveloped.

"But," says Watson, "I never made any money out of it. I thought I was going to. But the development was just too expensive." He says the land initially cost \$400 an acre.

"Salton City was not premature. It was oversold, overdeveloped—not beyond demand, but way beyond need."

Statewide problem. The state's problems are far wider than that of Salton City.

The state real estate board's office in San Francisco reviewed 70 new filings for various types of subdivisions and received 113 complaints about brokers during April. Subdivisions gobbled up 255,073 acres of California land in 1970 alone.

McCarthy says California's mountain and coastal counties and even the great central valley have been riddled with

premature subdivisions of 10,000 and 20,000 and even 50,000 lots. Yet Dugal Gillies, the executive director of the California Real Estate Assn., has appeared at recent hearings to argue against increased regulation of lot sales.

And Watson argues: "The developer is not getting proper credit for all he does."

"He puts out millions and millions of dollars. He acquires the land, maps the lots, builds the roads, brings in water and sewerage and drainage, and turns around and sells the properties for \$5,000 or \$6,000. You or I wouldn't have the money to turn those lands into usable homesites."

Warnings. Yet Watson, while he was still real estate commissioner, cautioned Gov. Goodwin Knight against a federal government plan to sell tiny tracts in remote areas. His bill of par-

ticulars seems every bit as applicable today. It warned:

"The dangers of indiscriminate 'subdividing' have been well demonstrated. Some years ago, desert lands in the Chocolate Mountains and in other remote areas and in desert areas not so remote were sold to 'suckers' by 'slick' salesmen with the aid of imposing maps. For the most part these lands were devoid of roads and water and, in many cases, uninhabitable. Many buyers could not even locate the land which they purchased and the cost of surveying and staking the property was prohibitive—certainly more than the land was worth."

Watson and another commissioner who left office to join a developer, Burton E. Smith, both support McCarthy's legislation. Three weeks before his own resignation as commissioner in April, Smith told the West-

ern Developers Council in San Francisco that it should be more watchful of many promotional land sales projects.

"I want to sound a warning," he said, "that if you cannot clean your own house, I will do all I can to clean it up by even tougher regulations."

Smith warned the developers to strengthen their codes of ethics to avert legislation.

Chances for reform. The new legislation has perhaps an even chance over the long pull. Few expect all five bills to be passed at this session, but most of their provisions will probably be enacted later.

Land reform comes slowly in the big land-peddling states, but California has voted more reforms than most. Time is on the side of tighter control.

—JOHN WOOD

McGraw-Hill World News,
San Francisco

Stastny urges Coast builders: let's reopen those old escalator wage contracts

The built-in increases in building wages signed prior to the Nixon administration's wage stabilization order can completely destroy the order's effectiveness, according to President John A. Stastny of NAHB.

Speaking at the 13th annual Pacific Coast Builders Conference in San Francisco last month, Stastny said the wage stabilization committees created under President Nixon's executive order should review all contracts that contain deferred wage increases.

"How on earth do you face a union with a guideline of 6% or 12% and refuse to look at another contract with a built-in increase of 18% or 30% that goes into effect next week or next year?" he asked.

"Strong efforts ought to be made to accomplish what the executive order was talking about, to bring construction wages to a sensible level compared to other industries."

Support for 6%. Even though the Secretary of Labor has said 12% increases may be acceptable, Stastny said 6% was reasonable and should be set as a goal. He cited wage increases as a principal cause of inflation in both the American and British economies.

Mortgage money. Stastny spoke in sharp terms of the mortgage market.

The NAHB president said that savings and loan associations had their best year in 1970, with inflows of \$11.2 billion, and that the flow exceeded \$13.5 billion for the first five months of 1971. He said the four groups of institutions that supply mortgage money—the S&Ls, savings banks, commercial banks, and insurance companies—have taken in a net \$46.5 billion in 1970 and 1971, and he maintained that \$25 billion would be sufficient to build 1.8 million new houses and sell all the used housing that should be sold this year.

"So I'd like you to tell me," he said, "why is there all this pressure to raise the cost of

money? Does it make sense?"

'Speculation.' Stastny conceded that the European dollar crisis created an uncertainty about money in the United States, but he said the Federal Reserve had responded by increasing the money supply. Yet, he said, the threat to raise interest rates persists.

"You can make all kinds of conjecture about what set it off, but you can't find any single reason in the world, when you consider the supply and the need, for justifying an increase in the cost of money," he said.

Stastny blamed speculation for much of the pressure to raise rates. He said mortgage companies panicked when rates bottomed out. They then stormed the gates of the Federal National Mortgage Assn.,

he said, in fear that they might not be able to sell their loans in the private market once money tightened. (An article on the mortgage market appears on page 8.)

Warning. "Some people say Fanny May is being used as an instrument to establish instant prices for money in other institutions, and our message to Fanny May is that if that's so, then clean house, shape up, learn, and let's get on with the job," Stastny said.

"Let's not be stamped into bringing about an increase (in rates) that would not serve the best interests of the people. It's got to hurt the housing effort."

Turnout. An estimated 5,000 persons attended the PCBC, which was sponsored by an affiliated organization, the California Builders Council.

Prior to the opening, Kenneth J. Bourguignon, president of Dotken Engineering Inc., Encino, was elected president of the council. Stanley C. Swartz, president of Medical Growth Industries of San Diego, a homebuilding company, was elected president of the PCBC.

—JENNESS KEENE

McGraw-Hill News,
San Francisco



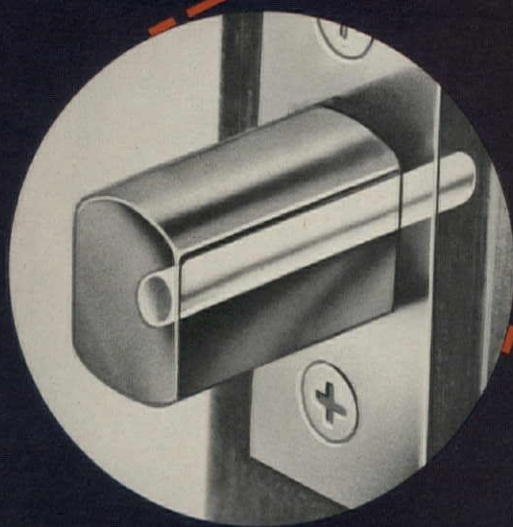
PCBC'S SWARTZ
Presides at the conference



CBC'S BOURGUIGNON
He'll head the council

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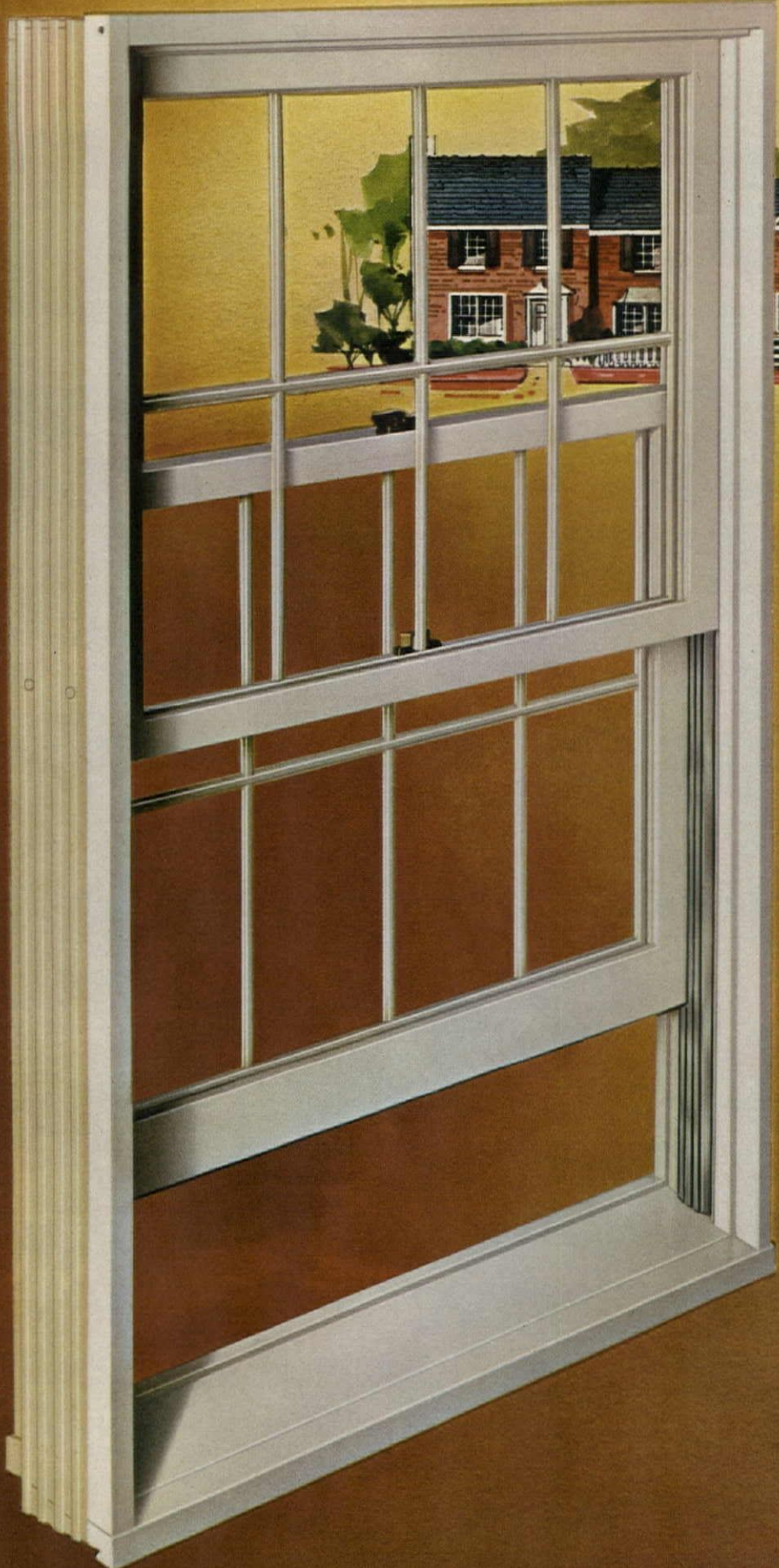
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Cost criticism forcing changes in Breakthrough's performance standards

The performance standards set by HUD for Operation Breakthrough's factory housing have been so severely criticized that Breakthrough officials now concede that modifications are likely.

The critics' principal argument is that Breakthrough's subsidized housing will be built to more costly performance standards than non-subsidized units.

William J. Werner, manager of testing and evaluation for Breakthrough, wants to get the housing industry's comments in hand by mid-July, get evaluations by fall from various consulting organizations—including the National Bureau of Standards and the National Academy of Sciences—and then produce HUD's response to the recommendations for change.

Fear of code. Industry sources fear that the performance criteria will lead to a national standards code for all housing. Top HUD officials, including Harold B. Finger, the assistant secretary in charge of Breakthrough, are already urging state adoption of the criteria.

"You can't have one set of regulations for factory-built housing and another for conventionally-built, over the long run," says one housing industry spokesman in Washington.

"Sooner or later, they (performance criteria) would embrace the entire housing market and raise housing prices."

Caution on costs. The fear that Breakthrough will raise housing costs unnecessarily is one theme struck by the National Forest Products Assn. in a 40-page critique submitted to Finger in May. The document is by far the most comprehensive analysis that Finger has yet received in response to his invitation for comments last March, when the HUD-NBS performance criteria were distributed to the housing industry. Werner agrees that NFPA did "a rather thorough job," and he has already asked the Department of Agriculture's forest products laboratory at Madison, Wis., to "comment."

Says Gerald Prange of NFPA: "They've had so much flak, they just about have to do something."

One immediate response was the hiring of Earl Bennett, a retired official of the Koppers Co., to help Finger deal with the building materials producers and the homebuilding industry generally on modification of the performance criteria.

Reasons for spiral. In presenting NFPA's "Comments and Suggestions on Guide Criteria for Operation Breakthrough Housing," the lumber group's

executive vice president, James R. Turnbull, pointed out that President Nixon has said that a principal objective of the Breakthrough program is "to arrest cost trends," but that the association's study shows that "a number of requirements" in the criteria "will increase the cost of Breakthrough housing and, more importantly, the cost of housing which may be built under future HUD programs."

The gist of the NFPA report: "These more restrictive provisions do reduce design flexibility and innovative uses of new and traditional building products and do increase the cost of Breakthrough systems. Further, in the case of fire safety criteria, there is no evidence that the new requirements will reduce fatalities or property losses from residential fires."

Restrictions. Turnbull described Breakthrough as a "bold and creative approach to the housing shortage" but his report notes that its standards are more restrictive than existing building regulations in at least seven areas: sound transmission, exterior coating durability, thermal insulation, potential heat, surface flammability, smoke generation, and fire endurance.

The NFPA recommends that

HUD get an independent agency to make a comparative economic analysis of the cost of building under its guide criteria and also under present model code regulations. Turnbull suggests the NAHB's research foundation for the study.

The NFPA also repeats a demand it made of Breakthrough officials last March: Let an independent review board be established—including representatives of the building industry and building materials producers—"to evaluate the need for, and the impact of, any new building regulations" proposed by government agencies in the future.

Prospects. There are no indications from HUD that any such review board is being considered, but Werner admits that there is something to the criticism that the criteria would increase costs. "To say there is absolutely no cost impact would be naive," he concedes.

Werner suggests one result of the HUD evaluation of industry criticism of the criteria might be a two-level set of standards: one set of criteria "recommended," and another fixing a minimum that would be mandatory wherever the criteria are adopted.

—DON LOOMIS
McGraw-Hill News,
Washington

Chicago and its mayor do a turnabout: they'll build integrated public housing

Chicago and the Department of Housing and Urban Development have announced that the city will build 1,700 units of public housing in return for \$61 million of federal funds.

The same funds had been withheld for two years because Chicago had refused to build such housing in white neighborhoods (NEWS, May). Chicago has built no public housing of any kind in that time.

The agreement signals a complete reversal by Mayor Richard Daley, who had said only a month earlier that the city would finance and build its own public housing rather than comply with the 1969 federal court order directing that 75% of all new public housing units be built in white areas.

About-turn. Public housing, the mayor had said, "should be built only where it is needed

and accepted." To build it elsewhere, he warned, would be detrimental to all the people of Chicago.

But that was on the eve of the mayoral election, when white neighborhoods were in near panic over a plan to follow the court's direction.

The mayor's stand obviously

did him no harm at the polls. He won a fifth four-year term by a 2-to-1 margin, and only a few days later he announced agreement with HUD to build public housing in white neighborhoods with federal funds.

Obstacles. Problems arose. The city promised to have sites for the 1,700 units ap-

proved by its city council by December. But the regional director of HUD must see to it that the sites accord with the court order, and the Civil Liberties Union is already complaining that too many of the first group of units are sited in Negro enclaves.

If the council does vote for sites in white areas, it may well have to contend with the bitter reaction that developed on election eve.

The problems were persistent, but most people believed these challenges would be worked out. They reasoned that Mayor Daley would never have made the agreement with HUD had he doubted his ability to keep it. Now that the election is over, public housing is expected to start going up in Chicago.

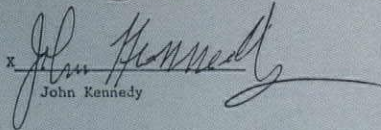
—JANE SHAW
McGraw-Hill News, Chicago



Mayor Daley dedicating some of the last public housing built in Chicago—in 1969.

TERRY'S PHOTOGRAPHY

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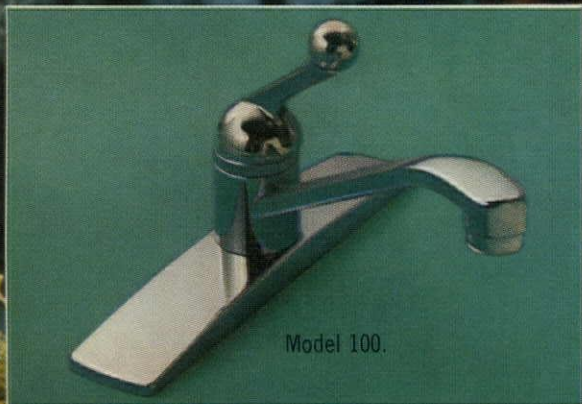
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The merry mutual banks' new credo: all's fair in love and mortgage-making

Flash! The romance between housing and the mutual savings banks may cool somewhat now that the mutuals are playing hard to get.

Despite housing's bended-knee, the banks have decided—as have millions of other sweethearts—that it's folly to give away favors. So the mutuals are whispering coyly: Allow us to behave like the commercial banks and we'll *really* come across with mortgage money.

The hidden reply. The rift became apparent in May when Nat Rogg, NAHB's executive vice president, traveled (as befits a suitor) to Montreal to urge the 51st annual meeting of the National Association of Mutual Savings Banks to continue meeting the nation's mortgage needs.

The thriftmen listened politely but without comment. None was necessary. The bankers' answer was to be found the next day in the NAMS's annual report, some 7,000 copies of which were distributed to member banks, and the press.

The message. Thrift institutions as presently structured, the report explained, cannot cope with the volatile fluctuations in the supply of mortgage money. The feast and famine in deposits that they constantly experience can only mean *reduced* mortgage lending over the cycle. To stabilize deposit flows, the report explained, the



New president of savings bankers, Frederick Ober, welcomes convention to Montreal.

savings banks must have the powers of commercial banks. Then there will be plenty of money at the savings banks for housing.

The mutuals have for years sought the wide lending powers of commercial banks, but this warning of what will happen to mortgaging if such legislation is not enacted is new.

The warning. The mutuals paint a bleak picture based on an assumption that they may *not* get the broader powers:

"Deposit flows will once more be depressed, when interest rates rise rapidly, residential mortgage flows will decline, and the federalization of housing markets will accelerate."

But the outlook brightens considerably when the mutuals see themselves as full-service family financial centers:

"The diversion of savings to

non-mortgage-oriented commercial banks and open-market instruments would be retarded, and thrift institutions would be allowed to generate a larger and more stable flow of funds for housing."

Mortgage decline. The mutuals' stance vis-a-vis residential mortgages is not the result of sudden decision. Disenchantment with home loans has been deepening over the years.

The net increase in 1-to-4 family mortgages held by savings banks fell from \$2.7 billion in 1964 to \$1.4 billion in 1968 to \$1 billion last year, according to a Salomon Brothers study, "Supply and Demand for Credit in 1971."

And another Salomon study—the May 28th edition of "Comments on Credit"—takes a close look at *today's* mortgage scene:

In the first four months of 1971, only 28% of the record-

shattering savings inflows at all thrift institutions went into mortgages compared with 58% in the same period last year. That 28% represents \$7.9 billion in new mortgage formations. And of that total, the mutuals have contributed \$1 billion, the savings and loan associations \$6.1 billion.

Big-bank defection. So much for generalized industry statistics. What about the leading individual mutuals?

In 1966 the Bowery Savings Bank—the nation's largest mutual and a pioneer in residential mortgaging—had 65% of its assets in FHA-VA mortgages and 17.2% in conventionals, chiefly income-producing properties.

Those percentages stood at 51.2% in FHA-VA and 21.6% in conventionals as this year began. And most of the conventional volume was in large, sophisticated loans on income properties.

Comments August M. Strung, the Bowery's executive vice president:

"We've completely reversed our policy. We have gone from emphasis on the single-family house loan to virtually complete reliance on large income-producing loans—the shopping centers, apartments, and office buildings."

So one question remains after Montreal: Will housing carry the torch or find another girl friend? —JOHN KIRK

Mobile home stocks leap 15% on rising sales and promise of higher profit

The mobile home stocks have just rolled up one of the most spectacular advances in the industry's history.

The five mobile issues on HOUSE & HOME's housing stock index advanced 15% in the month ended June 3. All traded to new 1971 highs.

Fleetwood climbed 32%, from 38¼ to 46¾, and both Redman and Skyline made good gains on the Big Board. On the American Exchange, Champion jumped from 20% to touch 24¾, a rise of 21%, and Guerdon added 3¼ to reach 28%.

Prospects. In spite of profit-taking to come, several Wall Street analysts said the mobiles would probably move higher. They noted that the industry's

March unit sales were 21% above March 1970, and they pointed out, too, that this marked the first month this year that unit volume exceeded that for a comparable period of the big mobile year of 1969.

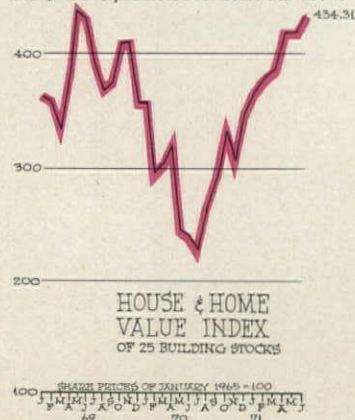
First quarter shipments rose 14% above the 1970 level, and some analysts now predict a full-year gain of 12% to 450,000. Last year was the first in nine when shipments failed to gain.

The industry still has its problems. Park space is scarce and some markets are overbuilt. But several companies reported excellent earnings in fiscal 1971 in spite of a hesitant economy and a slowdown in the mobile home business. One mobile home specialist, James Magid of

the Wall Street house of Burnham & Co., predicted this earning pattern into fiscal 1972.

	F70	F71	F72
Champion (Feb 28)	.53	.74	.90
Fleetwood (Apr 30)	1.00	1.32	1.60-1.70
Guerdon (Apr 30)	1.13	1.13	1.50*
Redman (Mar 31)	1.64	1.38	2.00
Skyline (May 31)	.99	1.30E	1.55-1.65

E—Estimated
* Guerdon is changing to a calendar year; the \$1.50 is predicted for calendar 1971.

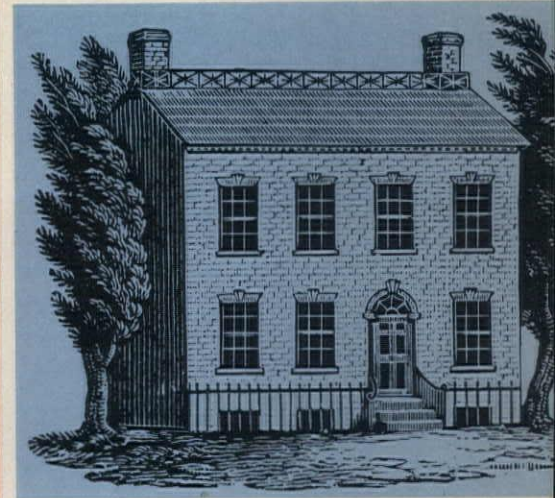
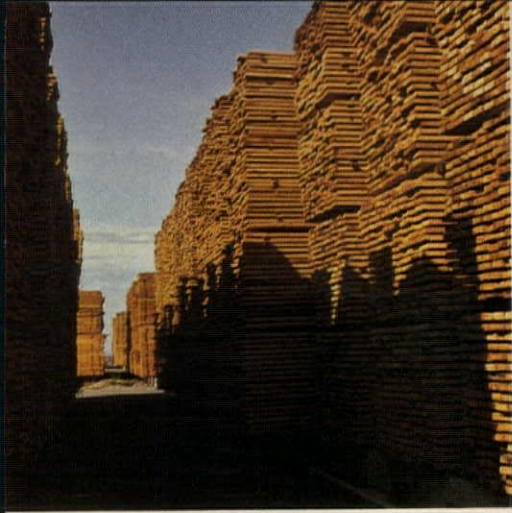


Housing stocks. HOUSE & HOME's composite index of 25 housing stocks rose to 434.31 from 418.93 in the month, largely on the momentum of the mobile homes. The 4% gain kept the index on an up track for the seventh month.

The mortgage banking companies staged a good rally.

Stocks on the index are indicated by dots (•) in the tables on page 24. A trace of the composite index appears at left. Here's how the five issues in each category performed:

	June '70	May '71	June '71
Builders	335	550	542
Land develop.	321	585	583
Mortgage cos.	424	784	799
Mobile homes	400	864	997
S&Ls	119	170	173



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Prices of the housing industry's principal stocks

COMPANY	June 2 Bid/Close	Chng. Prev. Month
BUILDING		
Alodex.....	10 1/2	- 7/8
American Urban Corp.....	8 1/4	- 1/2
Behring Corp. b.....	13 3/4	- 1 1/2
Bramalea Cons. (Can.).....	3 1/2	- 1/2
Capital Divers. (Can.).....	90	- 20
Centex Corp.....	28	+ 1 1/4
Christiana Cos. b.....	11 1/2	- 1 1/2
Cons. Bldg. (Can.).....	1 45	- 15
Dev. Corp. Amer. b.....	38	+ 7/8
Dev. Int. Corp.....	21	- 1 1/4
Edwards Indus.....	9 3/4	- 1 1/2
First Nat. Rlty. b.....	2 1/2	- 3/8
FPA Corp.....	9	- 2 1/4
Frouge Corp.....	2 1/4	- 1
-General Builders b.....	4 1/4	- 1 1/2
Gil Development.....	2 1/2	- 1/4
Hunt Building Marts.....	7 1/2	- 1/2
-Kaufman & Broad e.....	60 3/4	- 1 1/2
Key Co. b.....	12 1/2	+ 2 3/4
Leisure Technology b.....	24 1/4	- 1 1/2
McGrath Corp.....	8 1/2	- 2
McKeon Const.....	34 3/4	- 4
H. Miller & Sons.....	11 1/4	+ 3/4
National Environment.....	1 1/4	- 3/8
(Sproul Homes)		
-Presidential Realty A b.....	12	- 1 1/4
Presley Development.....	37 1/2	- 6 1/4
Pulte Home Corp.....	15 1/4	- 1/2
Robino-Ladd Co.....	24 3/4	+ 3/8
Ryan Homes b.....	77 1/2	- 2 1/4
Shapell Industries e.....	31	- 3/8
Shelter Corp. of America.....	18 1/2	- 2 1/2
Standard Pacific b.....	6 1/4	- 1/2
3-H Building Corp.....	12 1/4	- 1/2
U.S. Financial e.....	56	+ 8
U.S. Home & Dev. b.....	54	+ 2
-Jim Walter e.....	41 1/4	- 1 1/2
Washington Homes.....	23	- 4 1/4
-Del E. Webb e.....	9 1/2	- 1 1/4
Western Orbis b.....	4 1/4	- 1
Wyandotte Indus. b.....	7 1/2	+ 1 1/4
(First Hartford)		

COMPANY	June 2 Bid/Close	Chng. Prev. Month
SAVINGS & LOAN ASSNS.		
American Fin.....	30	- 5
Calif. Fin. e.....	8	- 1 1/2
Empire Fin. b.....	14 1/2	- 2 1/2
-Far West Fin. e.....	12 1/2	- 1 1/4
-Fin. Fed. e.....	17 1/2	- 2
-First Char. Fin. e.....	23 1/4	- 1 1/4
First Lincoln Fin.....	7 1/2	- 1 1/4
First S&L Shares b.....	19 1/2	- 1 1/2
First Surety.....	4	- 3/8
First West Fin.....	2 1/2	- 1/4
Gilbraltar Fin. e.....	21 1/4	- 1 1/2
-Great West Fin. e.....	23	- 2 1/4
Hawthorne Fin.....	12 1/2	- 2 1/2
-Imperial Corp. e.....	13 1/4	- 7/8
Trans-Coast Inv.....	4 1/4	- 1 1/2
Trans World Fin. e.....	13 1/2	+ 1 1/2
Union Fin. b.....	12 1/4	+ 1 1/2
United Fin. Cal. e.....	10 1/2	+ 1 1/2
Wesco Fin. e.....	19 1/2	- 2 1/2

COMPANY	June 2 Bid/Close	Chng. Prev. Month
MORTGAGE INV. TRUSTS		
Alison Mtg. b.....	20 1/2	- 7/8
American Century b.....	25	- 1 1/4
Atico Mtg. b.....	19 1/4	- 3/8
BankAmerica Rlty.....	24	- 4 1/2
Barnett Mtg. Tr.....	21 1/2	- 1 1/2
Beneficial Standard Mtg. b.....	18 1/2	- 1 1/2
Cameron Brown.....	29 1/4	+ 1 1/4
Capital Mortgage SBI.....	25 1/2	+ 1
Chase Manhattan.....	51 1/4	+ 6 1/2
CI Mortgage Group e.....	20 1/2	+ 3/8
Citizens Mtg.....	14	+ 1 1/4
Citizens & So. Rlty.....	26 1/4	- 1
Cleveland Tr. Rlty. Investors.....	18 1/2	- 1 1/4
Colwell Mtg. Trust b.....	24	- 2 1/2
Conn. General e.....	32 1/2	+ 2 1/2
Cousins Mtg. & Eq. Inv. b.....	23	+ 1 1/2
Diversified Mtg. Inv. e.....	27 1/2	+ 3/8
Equitable Life.....	30 1/2	+ 3/8
Fidelity Growth Inv. b.....	27 1/2	+ 3 1/2
Fidelity Mtg. b.....	19 1/2	- 1 1/2
First Memphis Realty.....	20 1/2	- 3/8
First Mtg. Ins. Co.....	13 1/4	- 3/4
First of Denver.....	21 1/2	+ 2 1/2
First Pennsylvania.....	24 1/2	+ 2 1/4
Franklin Realty b.....	9 1/4	- 1/2
Fraser Mtg.....	26 1/2	- 1 1/2
Galbreath Mtg.....	28	- 1 1/4
Great Amer. Mtge.....	26	- 1
Guardian Mtg. b.....	32 1/2	- 3/8
Gulf Mtg. & Rlty.....	18 1/2	- 3/4
Heitman Mtg. Investors.....	11	- 3/4
Hubbard R. E. Investments.....	22 1/2	- 1 1/2
Larwin Mtge. b.....	22 1/2	- 3/4

COMPANY	June 2 Bid/Close	Chng. Prev. Month
Lincoln Mtge.....	9 1/2	- 1/2
MassMutual Mtg. & Realty e.....	25 1/2	+ 3/4
Median Mtg. Investors.....	11 1/4	- 1
Medical Mtge.....	25	- 1 1/2
Mony Mtg. Inv. e.....	11 1/4	- 1 1/2
Mortg. Associates.....	46 1/2	+ 4
Mortgage Trust of Amer.....	24 1/4	- 1/2
North Amer. Mtg. Inv. e.....	27	+ 1/4
Northwestern Mutual Mtg. & Rlty.....	24 1/2	- 1/4
PNB Mtg. & Rlty. Investors b.....	24 1/2	+ 1 1/2
Palomar Mtg. Inv. b.....	15 1/4	- 1 1/4
Penn. R. E. Inv. Tr. b.....	11 1/4	+ 1 1/2
Realty Income Tr. b.....	16 1/2	- 3/8
Republic Mtg. b.....	19 1/2	- 1/2
B. F. Saul, R.E.I.T.....	19	- 1
Security Mtg. Investors b.....	20 1/2	+ 1/4
Stadium Realty Tr.....	11 1/4	+ 1 1/2
State Mutual SBI.....	21 1/4	- 1 1/2
Sutro Mtg. b.....	18 1/4	+ 3/4
U.S. Realty Invest. b.....	19 1/2	- 1/2
Wachovia Realty Inv. e.....	32 1/2	+ 2 1/2
Wells Fargo Mtg.....	19 1/2	- 1/2

COMPANY	June 2 Bid/Close	Chng. Prev. Month
MORTGAGE BANKERS		
Charter Co.....	43 1/2	- 3/8
CMI Investment Corp. b.....	33 3/4	- 1 1/2
-Colwell b.....	33 3/4	- 3/4
Cont. Illinois Rlty.....	32 1/4	- 1 1/2
-Cont. Mtg. Investors e.....	21 1/2	- 1 1/2
Excel Investment.....	12 1/2	- 1 1/4
Fed. Nat. Mtg. Assn. e.....	64 1/2	+ 1 1/2
First Mtg. Ins. Co.....	13 1/4	- 3/4
-First Mtg. Investors e.....	31 1/4	+ 1 1/4
-Lomas & Net. Fin.....	18	- 3/8
-MGIC Invest. Corp. e.....	59 1/4	+ 3 1/2
Midwestern Fin.....	25 1/2	+ 2
Palomar Fin. b.....	15	- 1
UIP Corp. b.....	3 1/2	- 1/2
(United Imp. & Inv.)		

COMPANY	June 2 Bid/Close	Chng. Prev. Month
LAND DEVELOPERS		
All-State Properties.....	1 1/2	- 1/4
American Land.....	1 1/4	- 1/4
-AMREP Corp. b.....	23 1/2	- 2 1/2
Arvida Corp.....	13	+ 2
Atlantic Imp.....	16	- 1/2
Canaveral Int. b.....	5 1/4	+ 1/2
Crawford Corp.....	5 1/2	- 1/4
-Deltona Corp. b.....	34 1/2	- 4
Disc Inc.....	3 1/4	- 1/4
Don the Beachcomber Ent. (Garden Land).....	6 1/4	- 1/4
-Gen. Development e.....	30 1/4	- 3/4
Gulf State Land and Ind. b.....	4 1/2	- 1/2
-Holly Corp. b.....	1 1/4	- 1/8
Horizon Corp.....	35	- 2 1/4
Major Realty.....	10 1/2	+ 1 1/2
-McCulloch Oil b.....	29 1/2	+ 1 1/2
Scientific Resources e.....	7/8	- 1
(Sunasco)		
So. Rlty. & Util. b.....	5 1/2	+ 1/4

COMPANY	June 2 Bid/Close	Chng. Prev. Month
MOBILE HOMES & MODULES		
Conchemco b.....	12	- 1/4
-Champion Home Bldrs. b.....	24	+ 3 1/2
Commodore Corp. b.....	11 1/4	+ 3/4
DeRose Industries b.....	11	- 1 1/4
-Fleetwood e.....	46 1/4	+ 12 1/2
Golden West.....	15 1/4	+ 2 1/4
-Guerdon b.....	28 1/4	+ 3 1/4
Mobile Americana.....	10 1/2	- 1/2
Mobile Home Ind. b.....	19 1/2	+ 1 1/2
Monarch Ind. e.....	19 1/2	- 3/4
-Redman Indus. e.....	39 1/4	+ 4 1/4
Rex-Noreco b.....	22	- 1 1/2
-Skyline e.....	40 1/2	+ 3 1/4
Town & Country Mobile b.....	8 1/4	- 3/4
Triangle Mobile.....	5 1/4	- 1/4
Zimmer Homes b.....	18 1/2	- 3/8
Albee Homes.....	3 1/2	- 3/4
AABCO Industries.....	1 1/2	- 1/4
Brigadier Indust.....	5	- 3/8
Environmental Systems.....	16 1/4	+ 1
Hodgson Homes.....	6 1/4	- 3/4
Liberty Homes.....	21 1/4	- 1 1/4
Modular Dynamics.....	3 1/2	+ 1 1/2
Modular Housing Systems Inc.....	13 1/2	- 5
National Homes A.....	32	+ 3/8
Nationwide Homes.....	9	+ 3/8
Shelter Resources b.....	14	+ 1 1/2
Stirling Homex.....	19 1/4	- 3/4
Swift Industries.....	3 1/2	- 1/2

COMPANY	June 2 Bid/Close	Chng. Prev. Month
DIVERSIFIED COMPANIES		
Amer. Standard e.....	25	- 1 1/4
(Wm. Lyon)		
AVCO Corp. e.....	14 1/2	- 1 1/4
Bethlehem Steel e.....	22 1/4	- 1 1/4
Boise Cascade e.....	37 1/4	- 7 1/4
CNA Financial (Larwin) e.....	24	+ 2 1/2
Castle & Cooke e.....	20 1/4	- 1 1/4
(Oceanic Prop.)		
CBS e (Klingbell).....	46 1/4	+ 3/4
Christiana Securities.....	123	- 1
Citizens Financial b.....	19	- 1 1/2
City Investing e.....	22 1/4	- 3/4
(Sterling Forest)		
Corning Glass e.....	255	- 12 1/2
Cousins Properties.....	30 1/2	- 1 1/2
Dreyfus Corp. e.....	32 1/2	- 1 1/2
(Bert Smokier)		
Evans Products e.....	42 1/2	- 4 1/2
Ferro Corp. e.....	24 1/2	- 1 1/2
Fischback & Moore e.....	33 1/4	- 4 1/2
Frost City Ent. b.....	25 1/2	- 1 1/2
Fruhauf Corp. e.....	35 1/2	- 1
Fuqua Indus. e.....	24	- 3/4
Georgia Pacific e.....	50 1/2	+ 3/8
Glasrock Products b.....	7 1/2	- 3/8
Great Southwest Corp.....	2 1/2	- 1/2
Gulf Oil (Gulf Reston) e.....	32 1/4	+ 3/8
INA Corp. (M. J. Brock) e.....	44 1/2	- 3 1/4
Inland Steel e.....	28 1/2	- 2 1/2
(Scholz Homes)		
International Basic Econ.....	8 1/4	- 1 1/2
International Paper e.....	38 1/2	- 3/4
Internat. Tel. & Tel. e.....	63 1/2	- 1
(Levitt)		
Investors Funding b.....	10 1/2	- 1 1/2
Leroy Corp.....	3	- 1/2
Monogram Industries e.....	11 1/2	- 2
Occidental Petroleum e.....	19 1/4	- 1 1/2
(Occ. Pet. Land & Dev.)		
Perini Corp. b.....	6 1/2	+ 1 1/4
Philip Morris e.....	60 1/2	- 6 1/2
Rouse Co.....	47	+ 7
Santa Anita Consol.....	52	- 4 1/2
(Robt. H. Grant Corp.)		
Tishman Realty e.....	26 1/2	- 3/8
Titan Group Inc.....	4 1/2	+ 1/4
Uris Bldg. e.....	22	- 1 1/2
U.S. Ply-Champion e.....	32 1/2	- 1 1/2
(Lewers & Cooke)		
Weil McLain b.....	22 1/2	- 2 1/2
Westinghouse e.....	92	- 2 1/2
(Coral Ridge Prop.)		
Weyerhaeuser e.....	53 1/2	- 2 1/2
(Centennial Homes)		
Whittaker (Vector Corp.) e.....	11 1/2	- 1 1/4
Wickes Corp. e.....	44	+ 5 1/2

COMPANY	June 2 Bid/Close	Chng. Prev. Month
BUILDING PRODUCTS		
Alcan Aluminium e.....	23 1/2	- 1/4
(Alcan Design Homes)		
Ameron e.....	19 1/2	+ 1
Automated Bldg. Components b.....	13 1/2	+ 3/8
Bird & Son.....	47 1/4	- 2 1/4
Brooks Scanlon.....	22 1/4	- 2
Ceco Corp. e.....	29 1/2	+ 3 1/2
Certain-teed e.....	30	- 2 1/2
(Realtec Inc.)		
Clow.....	18	- 1 1/4
Colonial Sand b.....	11 1/2	- 1 1/2
Consolidated Rock.....	27	- 2 1/2
Flintkote Co. e.....	25 1/2	- 4 1/2
Florida Steel e.....	20 1/2	+ 1 1/4
Glen Gery Corp. b.....	8 1/2	- 3/8
Interpace e.....	29	- 3 1/2
Johns Manville e.....	41 1/2	- 3
Keene Corp.....	12 1/2	- 1 1/4
Kirsch Co. e.....	50 1/2	+ 1 1/2
Knappe & Vogt.....	38	+ 1 1/4
Lowe's Companies.....	59	- 6 1/4
Masonite Corp. e.....	55 1/2	- 5 1/2
Mouldings Inc. b.....	11	- 3/8
National Gypsum e.....	23	+ 1
NL Industries e.....	20 1/2	- 1 1/2
Owens Corning Fiberglass e.....	42 1/2	+ 1 1/2
PPG Industries e.....	35 1/2	- 1 1/2
Permaner Corp. b.....	16 1/2	- 1 1/4
Phillips Industries e.....	15 1/2	+ 1
Pioneer Plastics b.....	12 1/2	- 1 1/2
Ply Gem Industries b.....	10 1/2	- 3/8
Pottlatch Forests e.....	28 1/2	- 4 1/2
Pratt & Lambert b.....	15	- 1
Reliance Universal.....	29 1/2	- 4 1/4
Republic Gypsum.....	9 1/2	- 1 1/4
Robertson (H. H.) e.....	22 1/4	- 2
Scotty's Home Builders b.....	33 1/4	- 3/4
Sherwin Williams e.....	50 1/2	+ 2 1/2
Southwest Forest Indus. e.....	21	- 1 1/2
Standard Brands Paint e.....	59 1/2	- 3/8
Supercrete Ltd. b.....	3 1/2	- 3/8

a—stock newly added to table. b—closing price ASE. c—closing price NYSE. d—not traded on date quoted. g—closing price MSE. h—closing price PCSE. k—not available. —Computed in HOUSE & HOME's 25-stock value index. y—adjusted for 2-for-1 reverse split. z—adjusted for 3-for-2 split. NA—not applicable.

Sources: Blyth & Co., 14 Wall, New York City; N.Y. Hanseatic Corp., Gairdner & Co., National Assn. of Securities Dealers, Philip Beer of Russell & Saxe, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange.

COMPANY	June 2 Bid/Close</
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Never underestimate the power of charm.
And what it can do to sell your houses.

Imagine the warm glow of solid brass on the
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And inside, the durable richness of copper
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If there were such a book in print, it would be only fitting that First Mortgage Investors should write it, since we're the company that invented the mortgage investment trust.

And thereby created the many differences between borrowing interim capital from our MIT and any other financial institution.

What's more, there isn't anything in the area of first-mortgage land-acquisition, development and/or construction loan financing that FMI hasn't done or can't do.

For example, FMI can digest virtually any size interim loan you might need, while leaving your

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Also, FMI includes standby commitments for permanent takeouts (if needed), makes sure you can actually use every penny you pay interest on (with no balance requirements, hidden fees or extras) and keeps closing problems and costs at a bare minimum.

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Jack H. Russell, Regional V.P. Southeast Region
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CIRCLE 27 ON READER SERVICE CARD



Strung retiring from Bowery Bank; he'll be a real estate consultant

August M. Strung, in charge of the mortgage department for New York's Bowery Savings Bank since 1963, is retiring. He will become a real estate consultant.

Strung steps down as an executive vice president after 43 years with the nation's largest savings bank. His career covered the change from the simplest mortgage to the development of the mortgage bond, the highly sophisticated equity-participation loans prevalent in today's lending.

Top performer. Strung was cited by HOUSE & HOME as one of the housing industry's Top Performers of 1966. That was the year of the nation's severest mortgage crisis, and at the peak of the credit pinch he said of the mortgage bankers who clamored to sell him loans:

"I try to keep a little money going to them each month."

And during the year, his bank never withdrew from buying in the secondary market.

Consultant. Strung, 60, lives in Blue Point, on Long Island. He is a trustee of Mass Mutual Mortgage & Realty Investors, a member of the N.Y. State Teachers Retirement Fund, and a member of the advisory committee of the Government National Mortgage Assn. (Ginny May). He will maintain his committee memberships as well as taking consultant's assignments.



BOWERY'S STRUNG
From banking to consulting

Harry M. Gilbert, 62, senior vice president of the Federal National Mortgage Assn., has retired after 33 years with Fanny May.

Gilbert started with the agency on its first day in 1938, when it was a part of the Reconstruction Finance Corp.

He became senior vice president in 1969, while Fanny May was preparing to convert into a private corporation, and he served as acting president from December 1969, when Raymond H. Lapin resigned as president, until February 1970, when Oakley Hunter was appointed.

In 1968, Gilbert acted briefly as president of the new Government National Mortgage Assn. (Ginny May), the agency set up to carry on Fanny May's governmental functions after Fanny May itself became private.

Gilbert and his wife Nancy live in Myrtle Beach, S.C.

Bob Morgan named Colwell president

Robert E. Morgan has been elected president and chief executive of the Colwell Co. of Los Angeles, the nation's fifth largest mortgage banking organization.

Morgan succeeds Bundy Colwell, who had asked the board of directors to relieve him of the daily responsibility of management. Colwell, a co-founder of the company and its president since 1947, becomes chairman.

Morgan left the Federal National Mortgage Assn. to join Colwell in 1951. He has been a senior vice president in charge of loan operations for several years.

The company has nearly \$1.5 billion in its loan administra-



COLWELL'S MORGAN
Into the president's chair

tion portfolio and represents 190 institutional investors. A management subsidiary operates the Colwell Mortgage Trust, and shares of both the trust and of Colwell trade on the American Exchange.



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CIRCLE 135 ON READER SERVICE CARD

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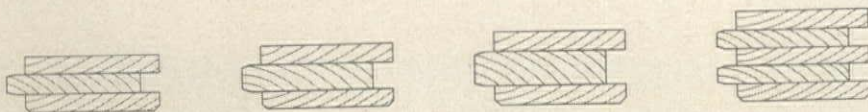


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Potlatch invented Lock-Deck laminated decking, and this spectacular recreational facility at Fairways Royale condominium in Florida takes full advantage of this versatile material. Over a unique frame of glue-laminated arches and beams, the decking for floors, roof and sidewalls is Inland Red Cedar Lock-Deck with saw-textured face. The same framing and decking system is used for a bridge, cantilevered indoor and outdoor stairs, a sun deck and porte cochere. Lock-Deck helped give design freedom to the architect through reasonable-cost wood structures without compromise of aesthetic principles. We can do the same for you. Write for information.

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and A. C. Siegel
Structural Engineers: Bliss & Nyitray
Mechanical Engineers: Alexander & Associates
Construction: Roof Structures of Florida, Inc.

For details see Sweet's Architectural File 1c/PO



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CIRCLE 29 ON READER SERVICE CARD

H&H JULY 1971 29

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Elegantly designed cabinets and countertops are color coordinated to match the appliances you choose. Each cabinet design is available in a wide variety of finishes from lively Spice Birch to darker Mediterranean.



Lady Kenmore Disposer makes quick work of shredding kitchen waste. Thick, molded insulation assures whisper-quiet operation.

Coldspot Frostless Refrigerator-Freezer never needs defrosting. Flush door opening gives that built-in look. Automatic ice maker (130 ice crescents) optional.

Sears Compactor compresses garbage and trash to $\frac{1}{4}$ th of original volume. Packs it in a poly-lined pick-up bag.

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the walls...Consider **Sears**



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CIRCLE 31 ON READER SERVICE CARD

2-HH-771

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NEWS/PEOPLE

Federal jury indicts Jerry Hoffman, the mortgage-money magician of 1966

A federal jury in New York City has indicted Jerome D. Hoffman and his two former corporations in connection with a million-dollar mortgage fraud that involved more than 500 victims from 1966 to 1968.

Hoffman, 38, pleaded not guilty to the 32-count indictment and is free in \$50,000 personal recognizance bond.

The maximum penalty upon conviction, according to U.S. Attorney Whitney North Seymour Jr., could be five years imprisonment and a \$1,000 fine on each of the 32 counts.

Hoffman operation. The jury said that Hoffman's scheme worked this way:

Hoffman and his Institutional Monetary Corp. solicited, by mail from their New York headquarters, applications for mortgage money from real estate brokers, engineers, builders, architects, and others throughout the country.

Once the applicants applied for mortgage financing, they had to pay fees of \$550 to \$750 for "inspection" of their real estate, even though Hoffman knew from the beginning that he would not, or could not, lend money on the property.

When the applicants did come to Hoffman's offices in New York City to try to complete loan arrangements, Hoffman would say they must obtain a "report" by real estate experts from his Criterion Marketing Report Inc. These reports cost \$2,500 to \$25,000.

If a favorable report was obtained, Hoffman then claimed he had access to funds for mortgage loans. But no such funds existed, and so no report or inspection was necessary.

Crisis of '66. Hoffman sprang into prominence virtually overnight during the credit crisis of 1966, claiming that he could find mortgage money when no one else could. He operated freely for two years.

In 1968, however, Attorney General Louis K. Lefkowitz made several of the same charges contained in the present indictment, and the State Supreme Court barred Hoffman from the securities business in New York state. That action led to an investigation by the U.S. Postal



PROMOTER HOFFMAN
After five years, an indictment

Inspection Service, and the present indictment resulted

Current career. Hoffman has been in the news occasionally since '68. He turned up in London and Geneva as the promoter of the Real Estate Fund of America, a real estate mutual fund, and as a bidder to take over Bernard Cornfeld's crisis-ridden Investors Overseas Services, an international mutual fund for mutual fund shares.

When his offer was ignored by IOS, Hoffman launched a full-page newspaper advertising campaign and offered prizes to salesmen to lure investors from IOS to International Investors Group, the London-based firm Hoffman headed and in which he was associated with New York's former Mayor Robert F. Wagner.

Hoffman, a baseball buff, also boasted from London that he was trying to buy the New York Yankees from the CBS network. Michael Burke, president of the club, claimed he had never heard from, or of, Hoffman, and said the club was not for sale.

Hoffman, who gave his address as 325 East 41st St., New York City, was unavailable for comment after the indictment. He was reported to be in Europe.

National League slate

Ross M. Blakely, president of Coast and Southern Federal S&L of Los Angeles, and Raleigh W. Greene, president of First Federal of St. Petersburg, Fla., have been nominated for president and vice president of the National League of Insured Savings Associations.

The nominations were made during the NLISA's management conference in Colorado Springs.



Sanspray. The Great Stone Facing.

Imagine an exterior wall cladding with all the beauty and durability of stone. Plus the low cost, easy installation and maintenance freedom of plywood. And you're into Sanspray®. A natural stone aggregate bonded to plywood. The most exciting thing to happen to exteriors in a long, long time.

That's Sanspray's large aggregate pictured above. There's also a small aggregate (equally distinctive). And a

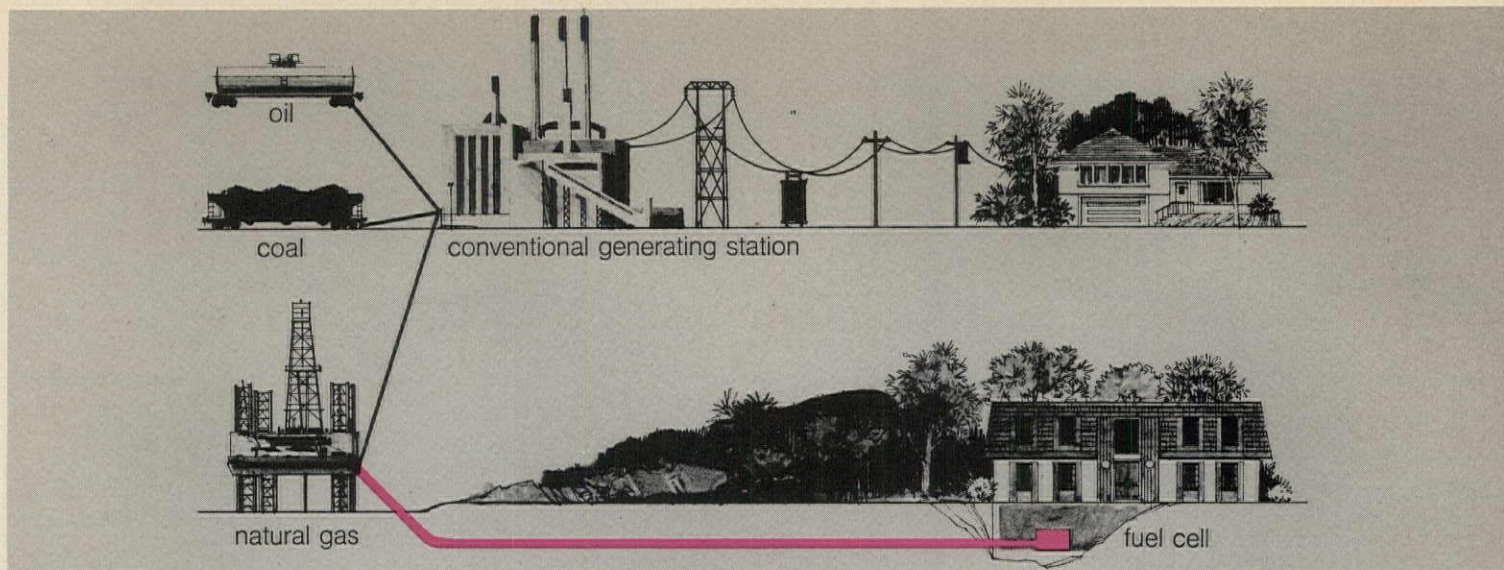
range of colors you have to see to appreciate; like Tangerine, Pearl Gray, Gaelic Green, Monterey Sand . . . and others.

But the hidden beauty of Sanspray lies in its low cost—far less than most stone and masonry wall claddings. Far lighter, too, and much easier to install. Saw it. Drill it. Glue it. Nail it directly to framing members. Then forget it. Because Sanspray is virtually maintenance-free,

in all climates. Sanspray. The beauty treatment for all residential, light commercial and industrial buildings. Find out more about it at your local U.S. Plywood Branch Office.

 **U.S. Plywood**
A Division of U.S. Plywood-Champion Papers Inc.
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Fuel cell powerplant generates electricity "on-site", using natural gas piped in underground as in any gas installation. Most conventional systems (nuclear plants

excepted) burn fuel to produce steam that turns a generator which, in turn, produces electricity that goes out over wires to the ultimate user.

Is there a fuel cell powerplant in your future?

Gas industry leaders hope so—and they're betting on it to the tune of some \$45 million. The answer will come in December 1972, when the fuel cell test-installation phase of their TARGET* program is evaluated. If cost and endurance ratios prove out, residential, commercial, and industrial buildings could be equipped with on-site fuel cell powerplants—that convert natural gas directly into electricity—in the not-too-distant future.

The fuel cell concept, the gas industry states, offers a host of advantages.

- Stack pollution is virtually eliminated since emissions are mainly carbon dioxide and water vapor.

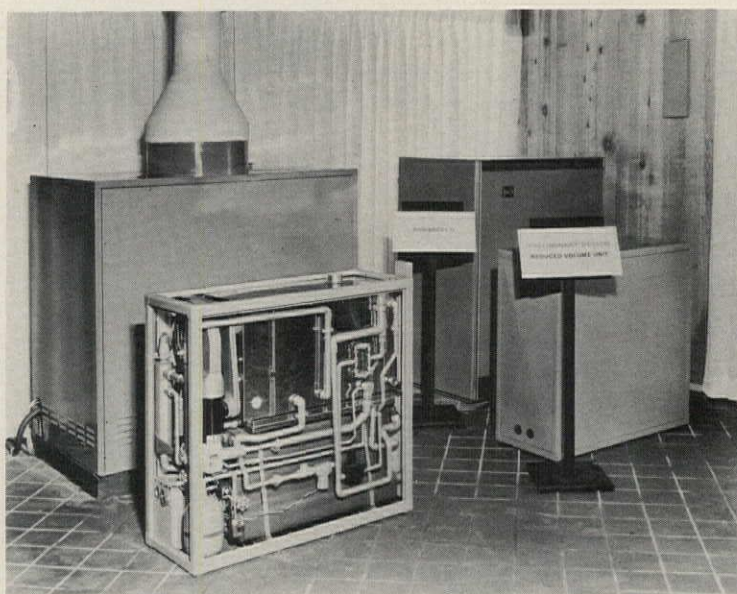
- More electricity per given amount of gas is delivered than from any other generating device—resulting in a more efficient use of the nation's natural resources.

- There are no moving parts so costly maintenance is eliminated.

- Silent operation, adaptability to a variety of spaces, and modular build-up capability to provide AC or DC current for specific load needs could aid the energy industry in locating, financing, and constructing power generation facilities.

- On-site installation does away with unsightly overhead wiring and other facilities found in conventional generating systems (drawing, above).

- The fuel cell principle permits the use of a mixed batch of



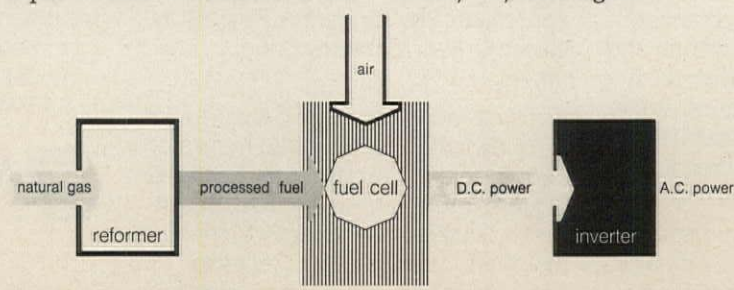
Test installation includes fuel cell, left, rear, and inverter, right, rear. The inverter converts DC current produced in the fuel cell into AC current (diagram, below), but would not be needed if DC current is required. If the fuel cell is produced commercially, units will be in the small size shown in the foreground.

The fuel cell: how it works

Basically, the fuel cell powerplant converts natural gas directly into electricity through a chemical reaction of hydrogen from the gas and oxygen from the air (diagram, below). The unit shown above, the first to be put into operation for the TARGET* test program, is an experimental Powercel 11 de-

veloped by Pratt & Whitney Aircraft.

About the size of a conventional gas air conditioner, the Powercel 11 provides 12½ kilowatts of electricity, more than enough to operate the refrigerator, washer, gas dryer, dishwasher, disposal, gas air conditioner, TV, and lights.



electric and gas appliances all utilizing a single energy source.

The first test installation (photo, left) is in a luxury duplex condominium at Talcott Village, a P. U. D. (planned unit development) being built by James Minges & Associates at Farmington, Connecticut.

Sponsor of this installation is the Connecticut Natural Gas Corp., one of 32 gas and combined utilities that are funding the TARGET program along with Pratt & Whitney Aircraft. (P&WA is the producer of this prototype fuel cell powerplant—an offshoot of one they designed for the Apollo space program.)

During the next year-and-a-half, similar units will be tested in apartment buildings, offices, banks, light commercial buildings, and at electric substations in 19 states and the District of Columbia.

This is not the first attempt by gas interests to sell the idea of a single utility service, à la all-electric living. Gas Total Energy systems have been operating in various parts of the country for some years (H&H, Oct. '66). But these are conventional systems, utilizing generators, etc.

Economics is the key to whether the fuel cell idea becomes a commercial reality. The gas industry knows it works. So, if it proves economically feasible, some day your buyers or tenants could be cooking with gas—but using an electric stove.

* TARGET: Team to Advance Research for Gas Energy Transformation

While everybody else is busy raising their prices, we've actually reduced the price on some of our GAF Flooring.

Now you can get the top designs in our indexed tile for 20% less than you paid last year. And there are over thirteen designs and fifty-three colors to choose from.

All this means that you can offer your customers the custom-designed look of premium tile at regular flooring prices.

In addition, we're introducing a new economy sheet vinyl flooring at a price 20% lower than a similar product sold for last year.

So if you're interested in sav-

ing some money, why not start at the bottom — with your floors?

For more information contact:
GAF Floor Products Division
Dept. HH-7, 140 W. 51 Street,
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We've made our beautiful floors more beautiful.

20% OFF





Balconies and terraces (above) were added to the plain-Jane apartment building (below, right) in a relatively simple fix-up procedure. Results: an increase in monetary as well as aesthetic value, and more privacy from the street for tenants. New grilles block out view of cars and pavement from apartments.

Fix-up: sometimes a small improvement pays off big

For the owner of this eight-unit apartment building, the pay-off from a simple face-lift has been higher rents and a good-size jump in market value. For tenants, there's been an increase in livability. And for Mill Valley, Calif. (a short drive from San Francisco) the result is a shot-in-the-arm for the neighborhood.

Originally (photo, right), the two-story stucco and plywood apartment house could easily have been mistaken for a motel—particularly since parking is at the front as required by local regulations.

Designer John Campbell came up with a simple, and relatively inexpensive solution to the problem—giving each unit usable outdoor space in

the form of a patio or balcony and more privacy at the windows (photo, above).

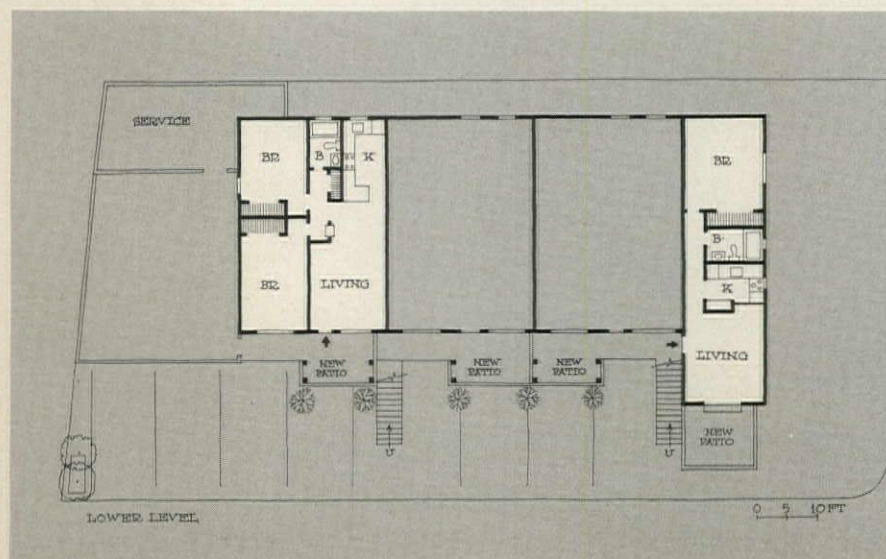
Balconies were created on the second floor by adding 4 ft. to the 3 ft. walkway. The same space was added below for the first-floor units, and an open grille was installed to screen out parked cars and pavement.

Depth of the open area prevents passersby from approaching the windows directly and breaks up the access in the front of the building.

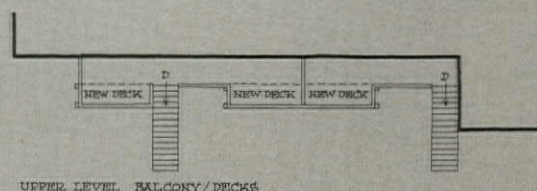
This minor improvement cost a mere 2½% of the value of the building, while raising its appraised value about 30%. Rents for one-bedroom apartments jumped from \$120 to \$140 per month, and from \$140 to \$165 for two-bedroom units.



Parking area was the only "scenery" before remodeling, so tenants kept their curtains closed, completely isolating themselves from the outdoors.



New patios (left) and balconies (below) were created by adding 4' to existing walkways. Floor plans show typical one- and two-bedroom units.



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• Subsidiary of Norris Industries •

CIRCLE 37 ON READER SERVICE CARD

Looking for ways to build sales on a budget?

Send for these:

Homes with personality sell better. Townhouses, too. And Western Wood's new Outdoor Room Idea Kit is full of ideas that help you add curb appeal and living space to houses, townhouses, and apartments.

We show you ways to combine outdoor amenities with a bath, kitchen, family room, bedroom or entry to create another "room." And you can add these touches for a price that won't scare anybody, thanks to Western Wood.

Learn how Western Wood can add sales appeal to your next project. Send for the free, full color "Outdoor Room" Idea Kit and Plan Sheets. Mail the coupon today!

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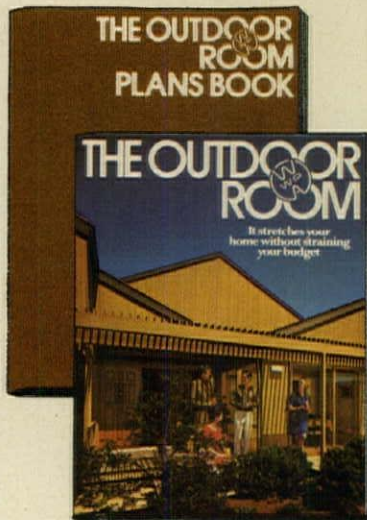
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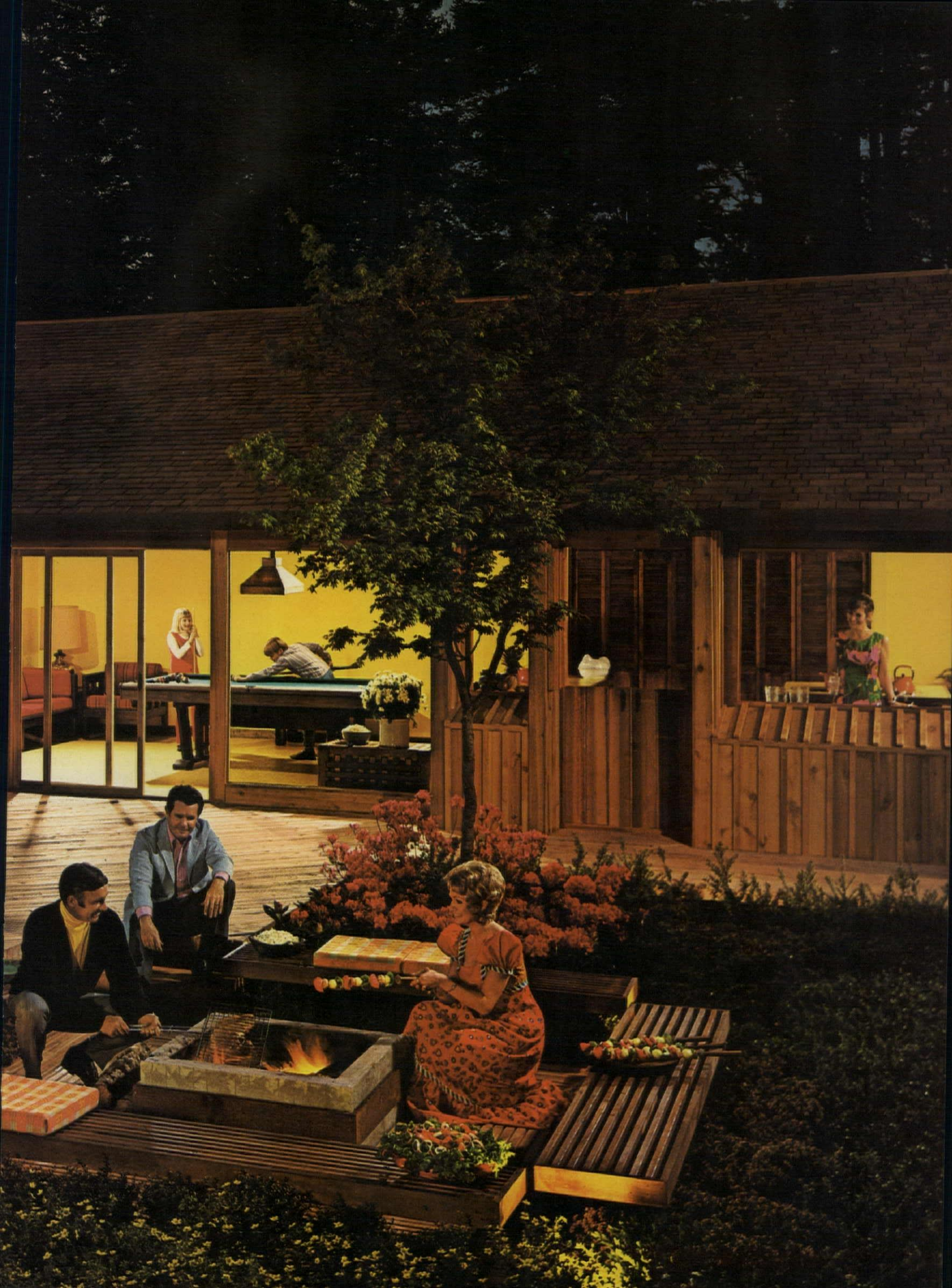
Western Woods include knotty and clear grades of Douglas Fir, Ponderosa Pine, Western Red Cedar, Incense Cedar, Western Hemlock, White Fir, Engelmann Spruce, Western Larch, Lodgepole Pine, Idaho White Pine, and Sugar Pine.



CIRCLE 39 ON READER SERVICE CARD

One of a series presented by members of the American Wood Council







Home-like amenities sparked tenant interests at Monaco Place. Most popular features (above right): apartment fireplaces and clubhouse swimming pool—the first indoor pool in a garden apartment complex in the



PHOTOS: JERRY DEUEL AND WILLIAM THACH

area. Sheltered balconies and patios (above left) are added attractions.

Rentals slowing down? Maybe your tenants can help

They did at Monaco Place, a 193-unit development in Denver, Colo., which still had 20 apartments unrented a year after it opened.

Not a bad record in an overbuilt market? True, but to overcome that factor, the complex had been specially designed to offer home-like, rather than apartment-like living. So fewer empties had been expected.

This February, Interrobang

Inc., an ad agency, surveyed tenants to learn why they had rented their apartments. The results proved the soundness of the original design concept.

Tenant after tenant cited larger-than-usual rooms, working fireplaces, almost-private entrances, and the clubhouse pool as features that had drawn them to Monaco Place.

These answers were used as the nucleus of a new advertis-

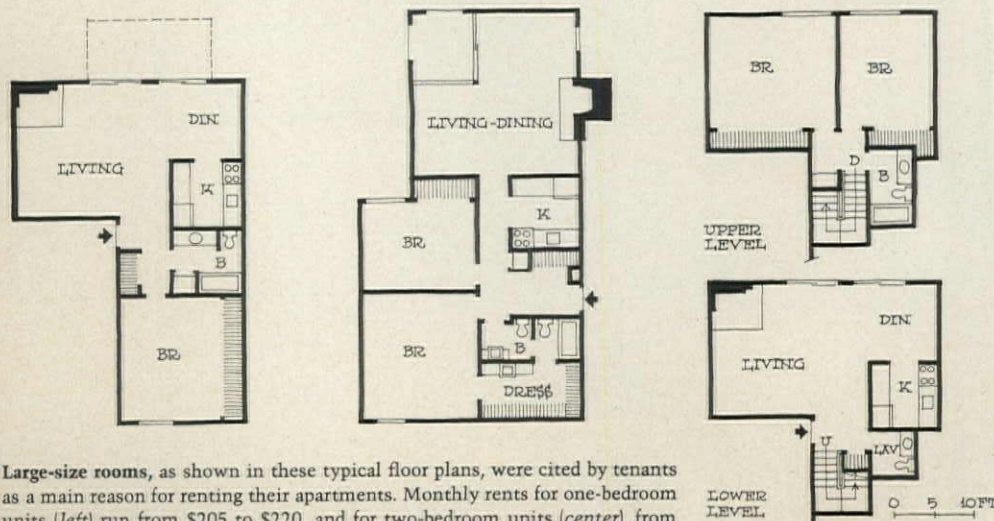
ing approach that resulted in full occupancy within a month.

Before the survey, advertising emphasized the exterior—the fact that Monaco Place was designed to blend with its environment. Amenities like fireplaces and the swimming pool were barely mentioned.

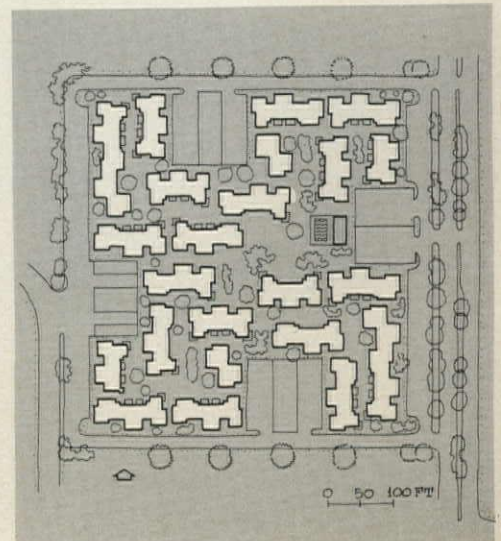
New ads talked about the “un-apartment apartments with floor plans more like a house than just another apartment.”

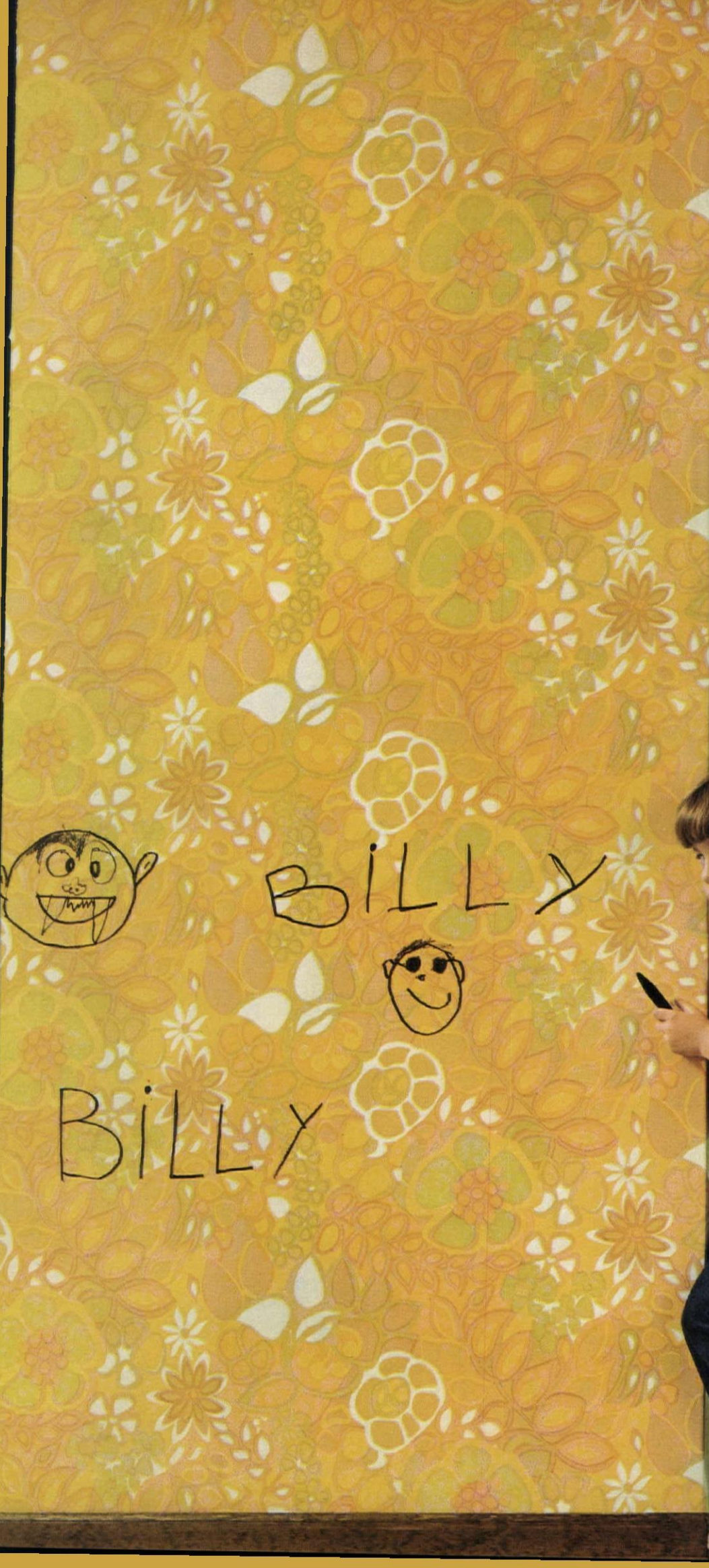
Emphasis was placed on the spacious rooms, with no cramped, closed-in feeling. And, a living room photo, highlighting a blazing fireplace, replaced one exterior picture used in the original advertising.

Monaco Place is owned by Colorado & Western Properties Corp. It was developed by Linden and James Neil Blue and designed by Hobart D. Wagener Associates, architects.



Large-size rooms, as shown in these typical floor plans, were cited by tenants as a main reason for renting their apartments. Monthly rents for one-bedroom units (left) run from \$205 to \$220, and for two-bedroom units (center), from \$240 to \$275. The duplex (right) rents for \$265.





Bare walls will never move Billy Johnson's parents.

What they want is something special on the walls. Durable and scrubbable. Something pretty, too. Like Wall-Tex[®]. It keeps the walls looking nice—just wash away the creative urges of a kid like Billy Johnson. That protects his parents' deposit on an apartment or the value of their new home. And gives you an extra sales point. Wall-Tex. The fabric-backed vinyl wall-covering. Over 700 patterns for any room, any decor. Pre-trimmed for easy hanging. And it's easy to take down when it's time to change. Check out the Wall-Tex sample books. You'll find just what you need. To add sales appeal to your homes or apartments . . . and merchandising value. There's only one Wall-Tex. It's available everywhere and, yes, it will help you move Billy Johnson's parents.

Wall-Tex
First in Vinyl Wallcovering



COLUMBUS COATED FABRICS
Division of Borden Chemical, Borden, Inc.
Columbus, Ohio 43216

CIRCLE 41 ON READER SERVICE CARD

The Electric Door. It'll supercharge your customers' interest.

The word is convenience. We can help you deliver it.

The Electric Door offers your customers the ultimate convenience in garage door operation. They press a button on a tiny transmitter and the garage door opens. An inside light flashes on. They drive in, touch the button again, the door closes and locks. Fast.

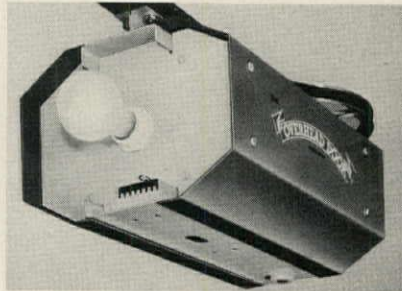
Simple. And very, very safe. The ladies in particular will appreciate that aspect.

The Electric Door concept is based on a brand new automatic garage door opener we created especially for you — the Builder Model 85 Electric Opener. Its low price will surprise you.


And as you know, your local factory-trained Overhead Door distributor will install the opener and warrant it for a full year.

Another reason The Electric Door can help you sell your homes: your customers know us — they know we've been building the finest garage doors in America for 50 years. They trust us. So can you.

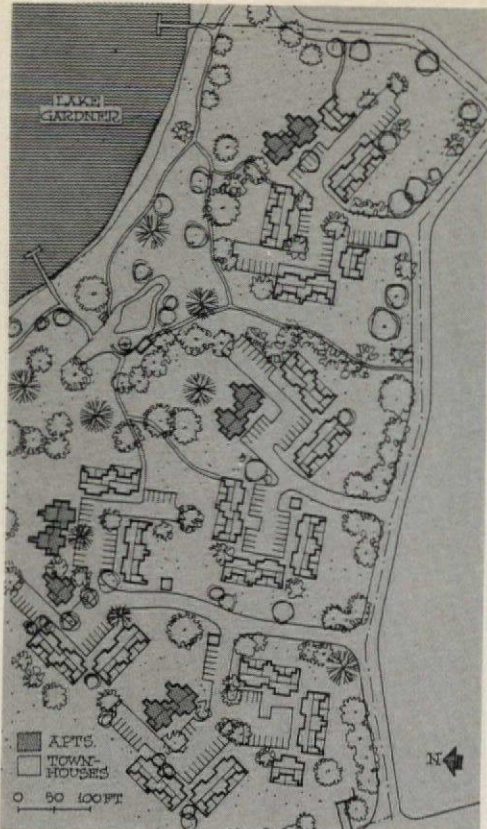
Put The Electric Door in your homes. You'll soon see how it can be a "super closer" in more ways than one.



THE
"OVERHEAD DOOR"
TRADE MARK

 Products of the Overhead Door Corporation.





Site plan of Whitehall Village has three double clusters off feeder roads. Shaded units are apartment buildings.



Aerial view shows nearly completed project, right, and lake with beach, upper left. Except for dense clump of hardwoods, site was barren. A power-line easement off main road is part of the green space.

A lakeside rental project with a high ratio of open space

The project consists of 116 units—70 townhouses and 46 apartments—on 15 acres of farmland. Thanks to the clustering and to the project's low density (7.7 units per acre), nearly 60% of the land has been retained as open space.

The builder-developer, Franklin Yoffe, and the architect, Thomas Holzbog of Environmental Planners, Inc., have opted for a double-cluster plan, with some open space between the buildings. There are four

double clusters, each with six buildings.

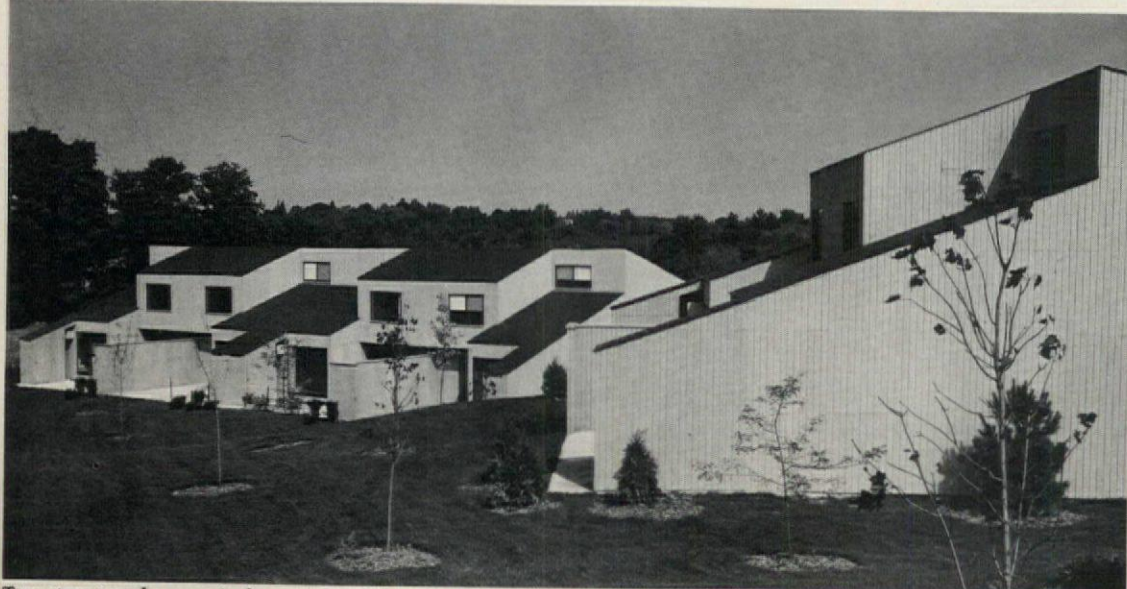
The project is built on a sloping site. Three-story apartments are located on the downhill side of the clusters to permit mid-level entries. Two-story townhouses are on the uphill side and have ground-level entries.

The clusters have L-shaped, open-end courts that spread out parking (1.4 spaces per unit), slow down traffic, and make for easy snow removal.

The developer had to bring in sand to create a beach along the marshy edge of the lake. And, before starting to build, he had to bring in a 2,000-ft. sewer extension.

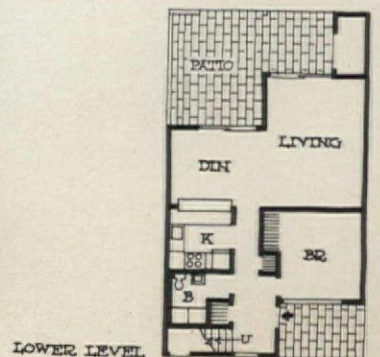
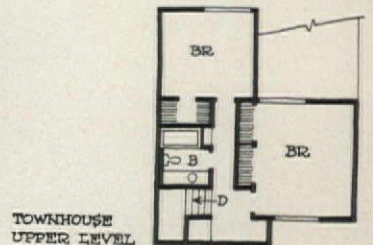
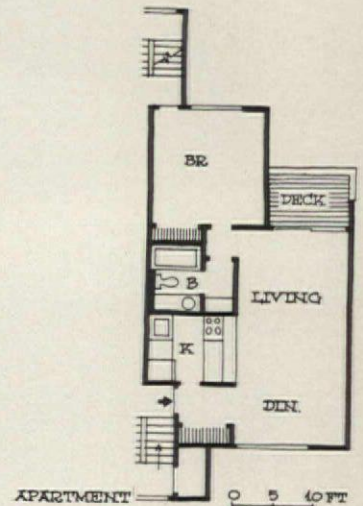
The project has a play area for children, three putting greens, and two tennis courts. It is located near the town of Amesbury in northern Massachusetts. Its two-bedroom townhouses (plans, right) rent for \$245-\$275; its one-bedroom apartments rent for \$165-\$195.

CHARLES L. NORTON



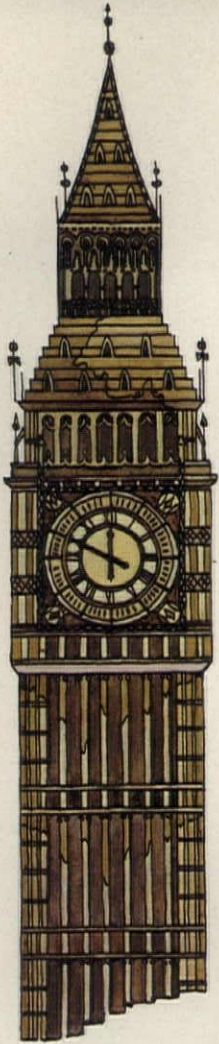
Two-story townhouse units have enclosed patios and are sun-oriented. They are rented mostly by young families with

children. In each cluster there is one apartment used for lounge and laundry. Landscaping includes trees and earth mounds.



There's only one.

MOEN



Boutique is more than just another pretty face. It's got Moen quality built-in—to give your customers convenience and beauty. And it tells people a lot about the quality in your homes. Get Moen and give your customers quality they can look up to.



"All the world's a stage" . . . and especially your bathrooms. That's where people judge the quality of your homes. That's why they look for something different—Boutique by Moen. Boutique is the one that tells them this home is "As You Like It."

Now Boutique coordinates decor with matching handles for shower and lav. And with matching tub spout and shower head. Beautiful. And easy to use. Easy to clean, too. (The exterior is smooth—because the fluting is on the inside.) Offer convenience and elegance with Boutique by Moen. Available in either goldtone or silvertone finish from your plumbing contractor.




MOEN, A DIVISION OF *Stanadyne* ELYRIA, OHIO 44035

B-713

CIRCLE 45 ON READER SERVICE CARD

H&H JULY 1971 45

A woman with her hair in a bun, wearing a bright yellow, sleeveless, high-necked dress with a large bow at the shoulder and a matching long, flowing skirt. She is standing in a room with wood-paneled walls, adjusting a stereo system. The stereo system is housed in two wooden cabinets mounted on the wall. The left cabinet contains a turntable, and the right cabinet contains a cassette deck and a record player. The woman is looking down at the controls of the stereo. In the background, there is a lamp and a red chair.

....you'll be a bit
braggadocious

BUILT-IN STEREO with **CASSETTE RECORDING TAPE PLAYER** and **RECORD PLAYER** are exciting buyer persuasions. The unpretentious beauty of **WOOD CABINETS** add new elegance and a center of interest to interior decor "you can hardly wait to show friends." To provide family **SECURITY** there's new **SAFETY** from **INTRUDERS** with instant **DOOR ANSWERING** from all rooms, selective room to room communication and **CHILD MONITORING**. A **CLOCK** automatically turns the music Off and On. Available in Walnut, Pecan or Custom Finished to Order. Competitively priced \$100.00 below comparable stereo systems.

CIRCLE 46 ON READER SERVICE CARD

MUSIC AND SOUND INC.
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You don't have to know anything about shingles to know this one's exceptional.

It's thicker. Heavier. Looks like a wood shake. It's random-edged like a wood shake. Has character like a wood shake. But it isn't wood.

A wood shake can't begin to protect like this one. Against hurricane winds. Fire. Rain, snow and melting ice.

We've taken the best protection features of highest quality asphalt. And added the heart warming look of natural wood. The result is a distinguished shake shingle of uncommon beauty, ideal for gambrel or mansard roofs on traditional or modern homes.

Because it's thicker, heavier (half again as heavy as an ordinary shingle) and embellished with jumbo granules, the Bird

Bird architect[®] 70 asphalt random shake shingles

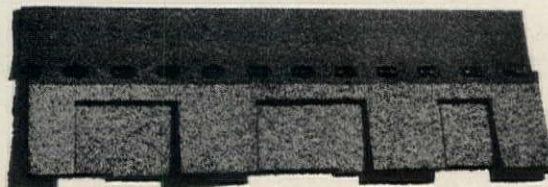


Architect 70 brings massive dimension and character to your roof.

And the random edging, as with natural wood shakes, gives a deep, sculptured shadow line for a look of strength and substance. Warm nature tones of Cypresswood, Oakwood and Ebonywood enhance even more the captivating good looks of the Bird Architect 70.

Planning to build or re-roof? Look into the bold, brawny, beautiful one. See your Bird dealer or send coupon now. See our catalog in Sweets.

Bold, Brawny, Beautiful



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QUALITY PRODUCTS SINCE 1795

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Please send me all the facts on the bold, brawny, beautiful one - Bird Architect[®] 70 asphalt random shake shingle.

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House & Home - July

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"We did."

Weyerhaeuser produces a special hardboard just for siding. We think one try will make you a loyal fan. Now a word from four builders who've tried it more than once:

"It works like wood, not so hard you can't sink a nail. Cuts great. And the prepriming on the lap siding saves me about 30% on finishing."

—Linwood Seaverns, Jr.,
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"Weyerhaeuser backs up their guarantee. Even more important is overall product quality."

—Richard Edwards,
Holiday Homes, Inc.,
Portland, Oregon.

"We use Weyerhaeuser Hardboard Siding because it weathers better than anything I know, and there are no splintered ends."

—John W. Jackson,
Kettler Brothers, Inc.,
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"We can't duplicate the fine quality of the Weyerhaeuser primer for the money."

—Joe Kemp,
Contemporary Homes, Inc.,
Clayton, Missouri.

Contact your Weyerhaeuser dealer for his competitive pricing on 86 choices of Weyerhaeuser Hardboard Siding, including lap and panel; smooth and textured.

Then give it a try ONCE!



Weyerhaeuser



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carpet
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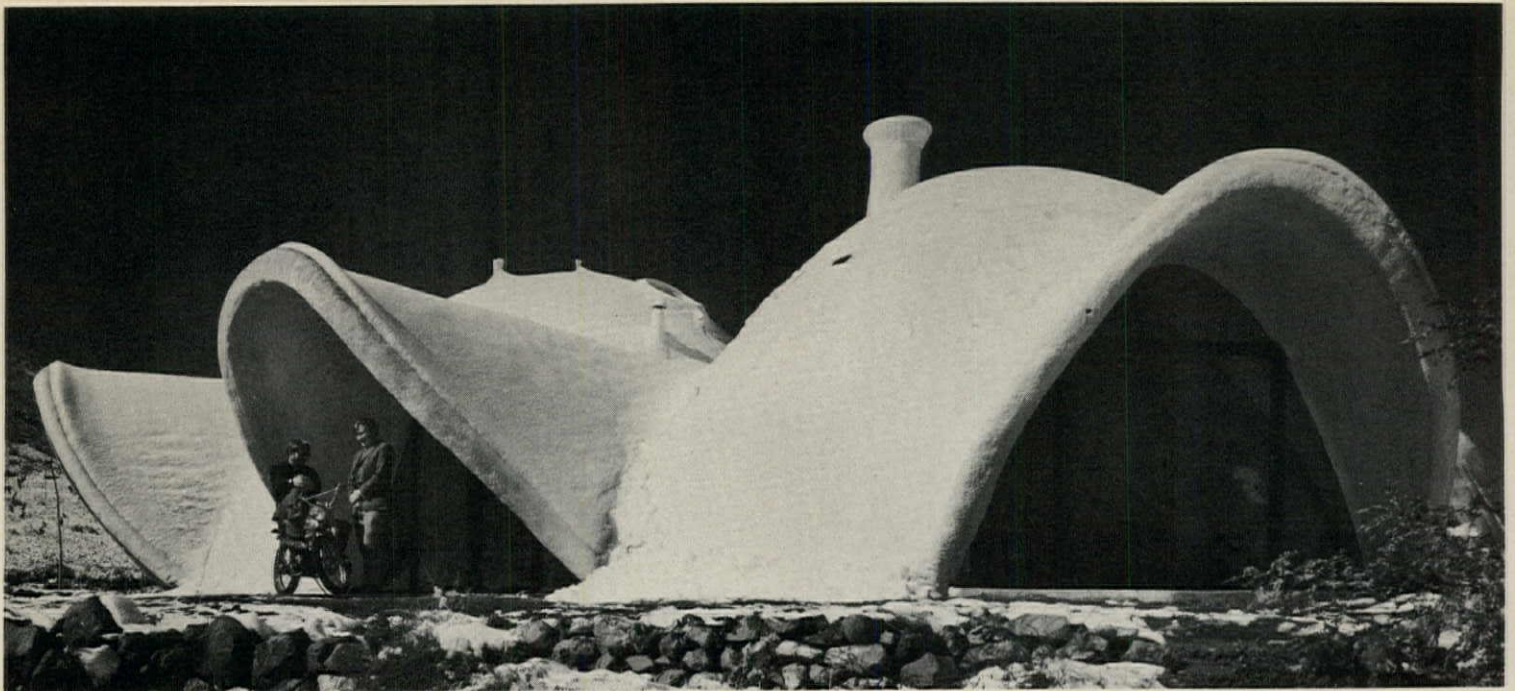
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CIRCLE 49 ON READER SERVICE CARD

PHONE: _____





Foam house sits on high Colorado plateau. House is tied to concrete slab with reinforcing rods and can withstand strong winds. Structure is highly insulating against

heat and cold—it has an electric resistance heating system embedded in the slab. Entrance hoods serve as sun visors for each of the five patios.

A site-sprayed plastic house with two intersecting foam domes

The house was spray-formed over an inflated polyester film balloon. First one dome was sprayed, then the film was stripped off and reinflated for the second dome. The domes are joined at the center (*dash lines, plan below*).

The plastic has a thickness of 6 in. at the base and tapers to 4 in. at the top. Initially a 4-lb. density urethane foam was used. This was built up to a 2-in. thickness. Spraying was

halted to allow for placing the wiring and plumbing, and then resumed, burying the utility runs—until the final thickness was reached. For extra protection, this outside layer is 25-lb. density foam.

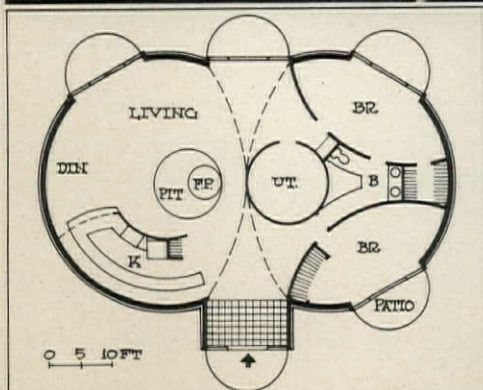
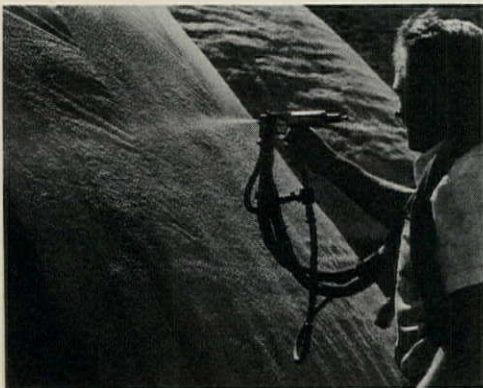
The interior was spray-coated with plaster by the owner.

The house has two bedrooms, a bath, kitchen, and living-dining area (*plan, below left*). Each room has a hooded entrance with sliding glass doors

that open onto a small patio.

Both the house and the balloon form (with 29 taped-together gores) were designed by architect Stan Nord Connolly. The foam contractor was Insul Engineering of Colorado, Inc.; the foam supplier, PPG Industries.

The house was sprayed at a cost of \$1.00 per bd. ft., or \$5.00 per sq. ft. (1,600 sq. ft.). Total cost of house, not including land: \$22,000.



Plan shows two 36'-diameter domes intersecting to form house. Spray job (*above*) took about a month.



Living-dining area has conversation pit with fireplace. Utility core (*beyond fireplace*) is barrel-like wood en-

closure with metal bands. Openings for porthole windows and skylights were jig-sawed from foam.



Announcing the all-new



ABOVE-FLOOR DWV FITTINGS



Now available
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**“The ‘apartment home’—
that inevitable hybrid—
spreads deeper into
the housing market”**

Housing analysts have been commenting of late on the comeback of the low-priced home; not the \$10,500 house of early post-World War II years, but houses selling in the \$16,500-\$25,000 range—which, indeed, are low-priced by today's standards.

Price, however, is not the main difference: more significantly, today's low-cost home is appearing less and less in its traditional detached form, and more and more in multiplex designs.

In many parts of the country, the fastest selling of these is the condominium fourplex. Detached single-family houses cannot compete with the fourplex's low price, and neither can many new rental apartments.

Ex-renters we've talked to in recent months say they bought fourplexes because monthly payments were no higher than rents for medium-range apartments; and living spaces compare very favorably with apartment plans. In short, the renter-turned-fourplex-owner can enjoy the tax benefits and equity buildup of home ownership for the equivalent of his former monthly rent—provided he can put together the modest downpayment.

Compromise solution. By accepting the low-priced fourplex, homebuyers show a willingness to forego the traditional concept of the single-family detached house for something more akin to apartment living. Actually, the low-price homebuyer has no choice. Land and building costs preclude \$16,500 detached conventional homes in every major housing market today.

But acceptance of multiplex homes in general is not strictly a compromise dictated by modern-day housing economics. Multiplexes have advantages that can't be offered in detached homes, and these are particularly strong attractions in the higher price market.

For example, townhouse builders have begun referring unabashedly to multiplex houses as “apartment homes,” promoting the concept of apartment convenience combined with home ownership.

And to many upper-stratum buyers, the apartment home is indeed more attractive than either a house or an apartment. For example, the \$60,000 condominium townhouse overlooking a golf course can match the square footage of a detached house and free the owner from all outside maintenance chores. In addition, more economical land use permitted by townhouse den-

sities allows for the creation of not only golf courses, but recreation centers, parks, and other amenities that conventional detached-house subdivisions don't have space for.

Different advantages. On the other hand, to lower-price buyers, an apartment home can be somewhat less desirable than either a house or an apartment. A stripped-down fourplex, for example, has none of the recreational amenities of a large-scale apartment community and nowhere near the space or privacy of a detached single-family home. But still, for the determined homeowner, the financial and psychological benefits of owning instead of renting override the environmental shortcomings.

In the low-priced fourplex, then, the toughest compromise is an aesthetic one. The buyer accepts apartment-style living to get a privately owned home, but takes it without the aquascaping and clubhouses of a modern apartment community.

Better design and site planning can minimize compromises in multiplex environments to some degree. But is the future of the low-priced fourplex promising enough to warrant large-scale experimentation and development?

While the fourplex permits builders to retain a certain amount of private-home character in apartment-home designs, it does so at the expense of buildable land. So from the standpoint of land economics, the multiplex home is in the same boat as the detached home. In effect, the fourplex makes use of residential land that is too expensive for detached houses but not too expensive for attached houses with per-acre densities of 10 to 16. But as that land disappears, the low-priced fourplex will become as obsolete as the low-priced detached home.

Short-term answer. The fourplex is a temporary phase in the evolution of housing design. And the direction this evolution is taking is obviously toward multifamily design and away from the homeowner's traditional house-on-the-hill.

Land and construction costs, not buyers' tastes, are determining the direction of this trend. As costs rise, housing densities have to increase. And densities must rise fastest in the markets where sales prices have to be held down. This has always been the rule in land-starved metropolitan areas. Now it's dictating housing approaches in the large suburbs.

As less and less land becomes feasible for fourplexes, low-density multiplexes will become as much of a luxury as any other form of low-density housing. So the \$16,500 fourplex, like the \$10,500 detached house, will prove a relatively short-term solution to the problem of supplying low-price homes.

Some apartment owners express concern over competition from low-priced multiplexes. They shouldn't because the situation really hasn't changed.

First of all, apartment owners should realize that rental housing has never competed with privately owned housing where low carrying costs are comparable to rents. Aside from the financial advantages of owning instead of renting, consider the emotional factors. The desire for home ownership is a very enduring one and will surely survive the most drastic revolutions in private-home design and densities. Regardless of how closely homes come to resemble apartments instead of the house-on-the-hill, the strong-willed homebuyer will buy.


Secondly, as the economic facts of housing force the fourplex to expand into the fiveplex, and the sixplex and upward, the low-priced home will exist to a larger and larger degree in the moderate- to high-density condominium apartment complex.

Not that apartments built for homebuyers are going to displace apartments for rent. A growing segment of people like rental apartment living. The responsibilities of ownership, even the condominium way, cramp the free style of life they like.

But for the great majority of those who want to own the roof over their heads, and live within driving distance of a metropolitan area, the only feasible home will be an apartment home.

Any developer who plans a long-term future in the apartment business should start broadening his scope. Instead of thinking in terms of apartments, he should be thinking in terms of multifamily housing; that is, attached living units, of which apartments are just one version. Whether they're for sale or rent depends on land costs, density limits, and market needs, so the successful multifamily developer of the future must be flexible enough to build them either way. “Apartment home” is not just a merchandising phrase, but a housing trend to be taken seriously. (H&H takes a look at the fourplex market on page 60.)

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“What modular housing really needs are marketable designs geared to production-line techniques”

Lately, we've heard and read a lot about the design and sizes of modular housing plants and their production layouts.

On one side, there's been much wringing of hands about the lack of sophistication in many existing plants. Conversely, there's been criticism of excessive costs for plants and new equipment in some of the highly-publicized start-up operations. One faction says huge investments are necessary to realize any plant efficiencies; the other side advocates a small, simple facility as the most sensible start-up approach.

Taken in perspective, both viewpoints could be correct when product design and market-to-be-served are analyzed.

Residential construction is not a monolithic industry. And since modular housing will reflect the same variances as conventional housing, we cannot generalize or set hard and fast inflexible rules.

But, during the past few years, we have seen enough mistakes that have created real problems, and so deserve comment.

The most prevalent has occurred where the product is designed—either in-house or by an outside architect—without enough thought to the mass-production process.

The design, frequently including unwise choice of materials, is turned over to the production “experts” who then get the bulk of criticism when production efficiency fails to reach required levels. However, the primary fault generally can be traced back to design decisions that inevitably stifle production.

Can other industries help? The answer to this problem, some people believe, lies in securing more industrialized knowledge from fields that have more experience, i.e., the aircraft industry. But given the present state of the modular housing industry, this approach could only add a new problem for several reasons.

- A lack of understanding of the total industry could create effort in the wrong direction and cloud the real problems.
- The aircraft industry has been involved for too long with an expensive, highly-complicated product, usually mass-produced on cost-plus contracts.
- They also employ a multitude of engineering specialists who perform very precise, lengthy, and detailed studies—something the modular housing industry can hardly afford at this stage.

Another solution, some say, is to utilize the mobile home industry's production

know-how. But when one takes a good look at the typical mobile home plant, it is obvious that several modular plants are already well ahead, and have acquired what little there was to learn from this area.

Also, like the automotive and aircraft industries, the mobile home company's product is completely finished when it leaves the plant. It is produced in a manner, process and materials governed by its own needs, and it competes with similar products manufactured in plants with the same advantages and handicaps.

By contrast, the multifamily housing module must be transported to a site where it is lifted and structurally joined to similar modules. So, the manufacturing process must reflect this requirement. And, despite the normal inefficiencies of a start-up pioneering operation, the price must be competitive with the conventionally-built product.

Henry Ford sold his initial production at higher prices until increased efficiencies permitted a lower figure. We are allowed no such luxuries, and we also do not have the luxury of cost-plus contracts or years of expensive prototype development.

It is easy for outsiders to criticize. But they quickly display their ignorance when the multitude of problems in the total process of modular housing is presented. We are part of a highly complicated and diverse industry. The factory production line is not an independent function, but must reflect all the other factors involved.

The nature of the problems. Many first-time visitors to a modular housing plant are surprised to see some workers using hand hammers and nails in certain operations. There are reasons for this.

The quickest method of getting a new company into production was to duplicate methods and materials used in conventionally-built houses.

And, the need to meet code requirements and to obtain market acceptance also dictated similarities. What would be the advantage of developing materials and methods that permitted high-volume, mass-production of a shelter product that did not meet codes or did not receive public acceptance? The end result would be failure for a company and a serious setback for the industry.

However, the question is academic since presently no feasible, valid designs exist that allow such mass production efficiencies. Even if they did, the huge invest-

ment required for such a plant would first have to be justified by market research over a wide area with a quantity of full-scale prototypes.

Right now, we have some modular operations where marketing considerations dictate design and materials to such a degree that the product cannot be produced competitively with conventional housing.

Since we cannot force a production operation into any major efficiencies using only conventional materials and methods, some compromise is necessary to permit efficiencies while creating a saleable product.

This narrow middle ground must be reached after intelligent consideration is given to all allied functions in the overall operation. If one department is allowed to dictate unproportionally, the necessary balance can easily be upset, and a subsequent problem in one area can jeopardize the success of the total operation. This condition, in varying degrees, has been evident in many recent start-up modular companies, some no longer with us.

The production line concept is not some computer-age process requiring PhD. consultants. It is a simple logical sequence process governed by knowledge of the product, common sense, and a creative original approach. Each factory layout and equipment must reflect the needs of the individual product design and the materials involved. There must be adequate space for sub-assembly production, for material storage, and for ease of movement of materials throughout the plant. The general concept of as-complete-as-feasible sub-assemblies, pre-manufactured at fixed areas adjacent to the moving stations where they feed the main production line, should be developed to its maximum potential. Main line operations should consist primarily of the assembly of prefinished components. General principles of industrial engineering time-and-motion studies also should be applied.

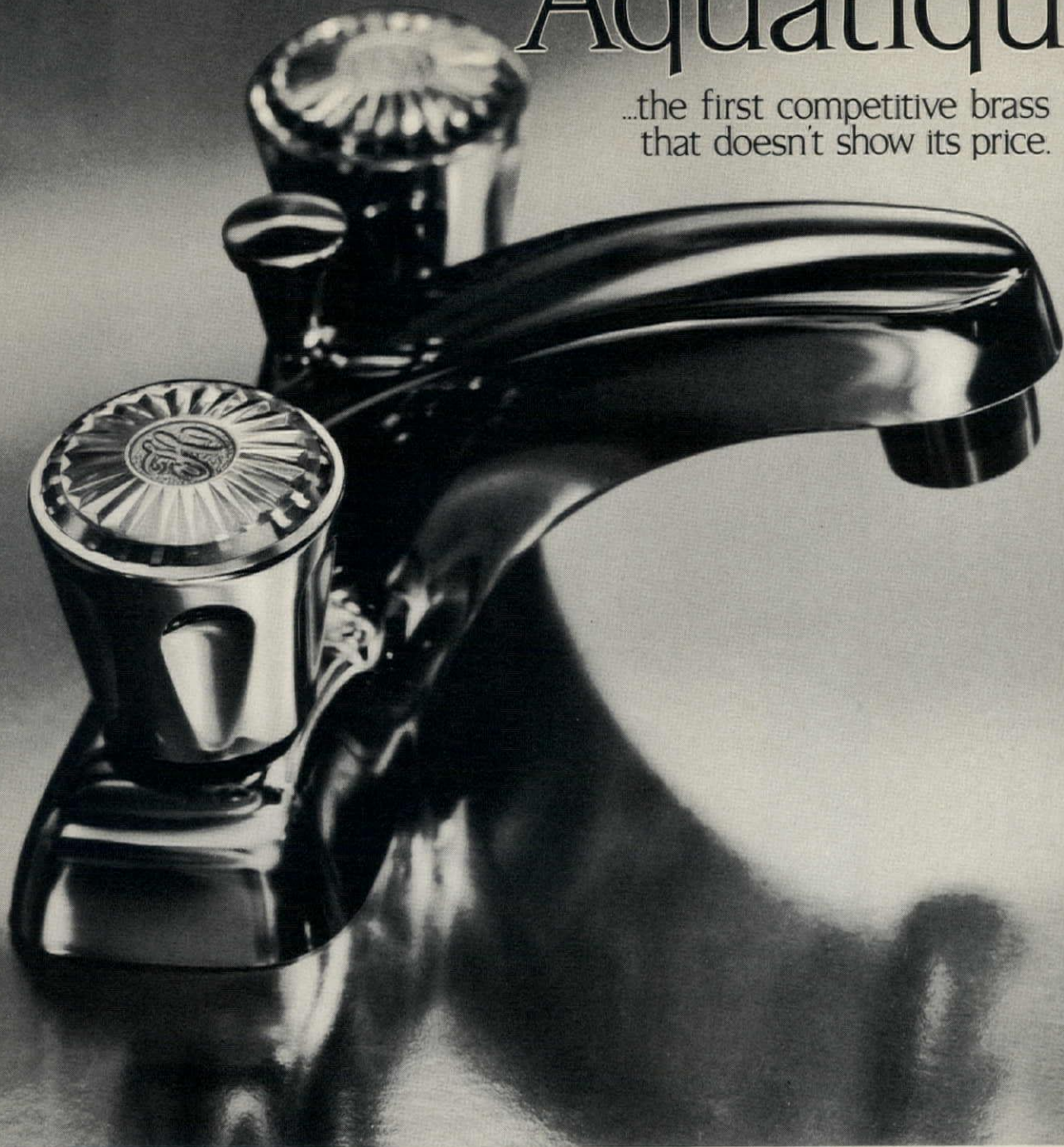
The volume mass-production modular company should be a self-sufficient organization in all areas from design through production to site construction. There must be capable, knowledgeable staffs in all departments consistently working together. And there must be an experienced management able to understand and coordinate all these functions so as to arrive at logical, properly weighted decisions.

Production efficiency is more effected by these decisions than by any amount of industrial expertise or special equipment.

JOSEPH C. GRASSO, EXECUTIVE VICE PRESIDENT, MODULAR HOUSING SYSTEMS INC., NORTHUMBERLAND, PA.

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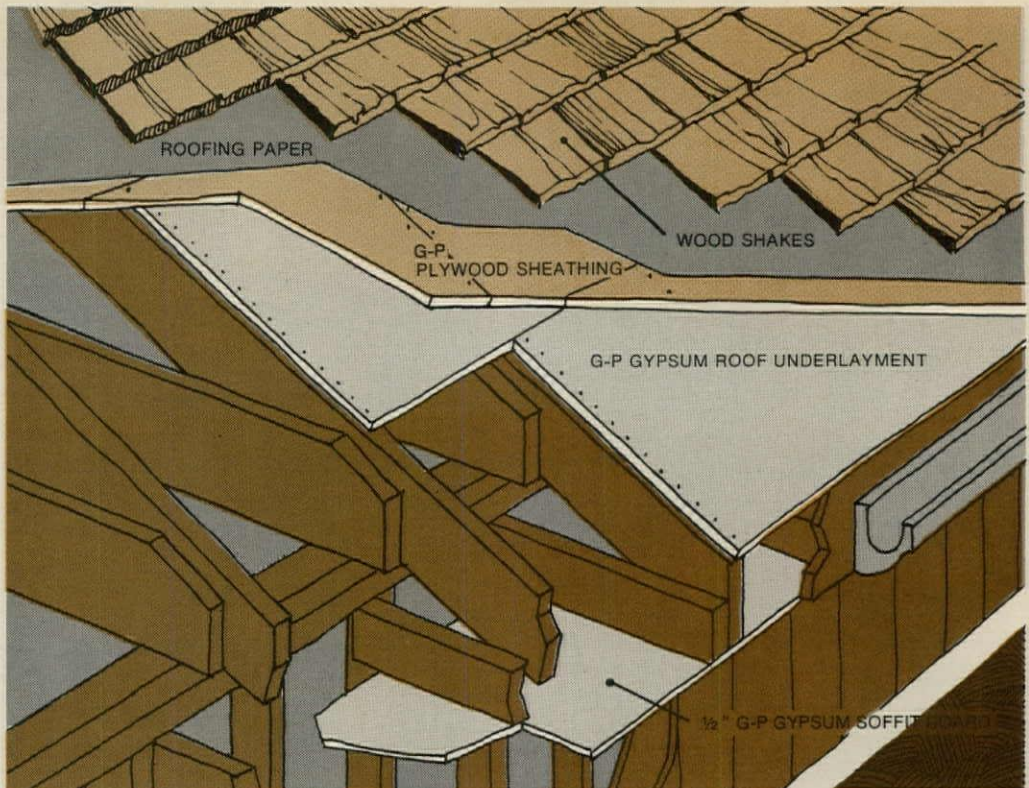
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“Is there a fire control system that really works for roofs?”



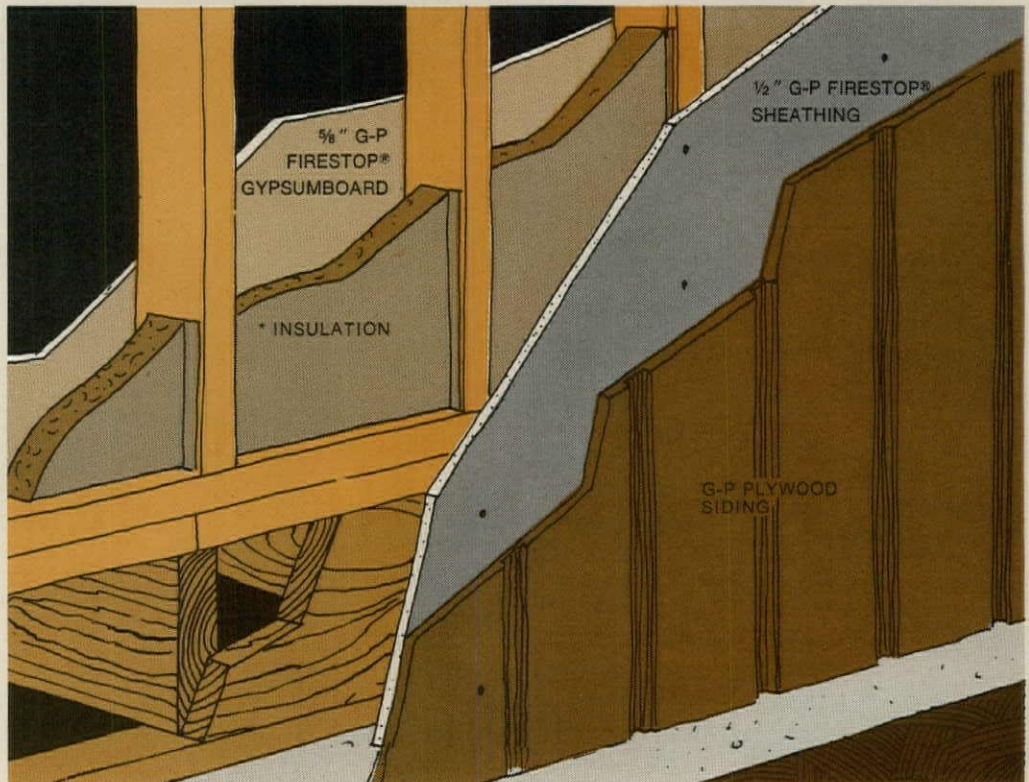
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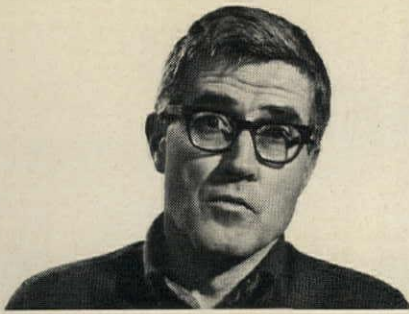
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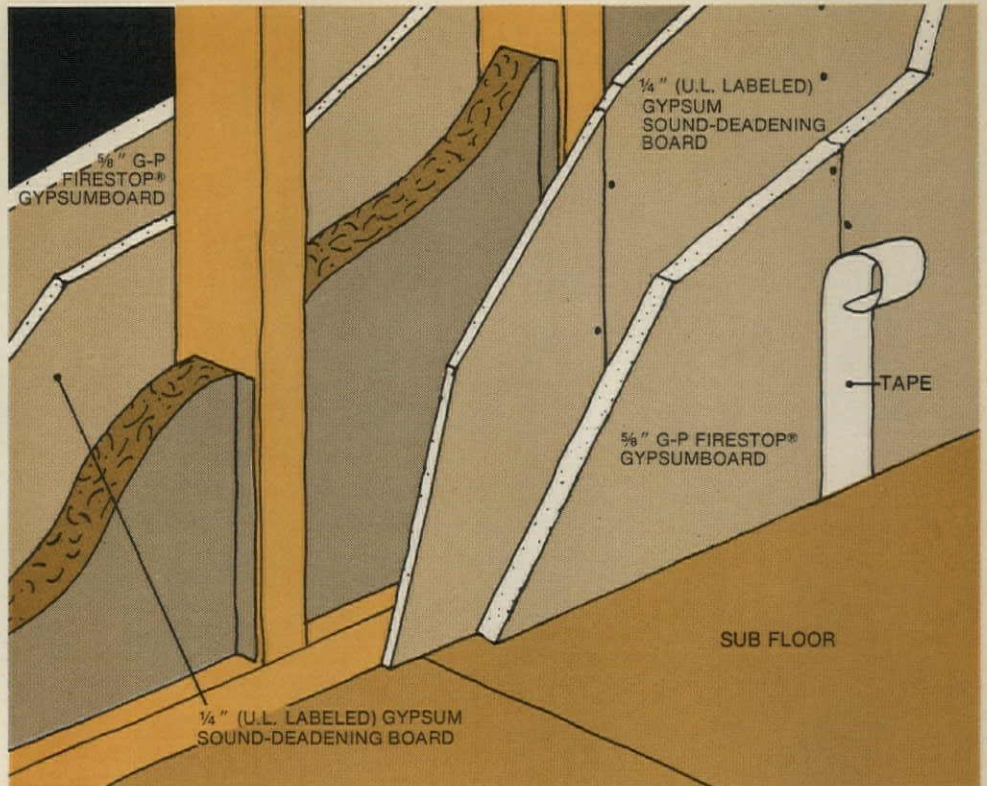
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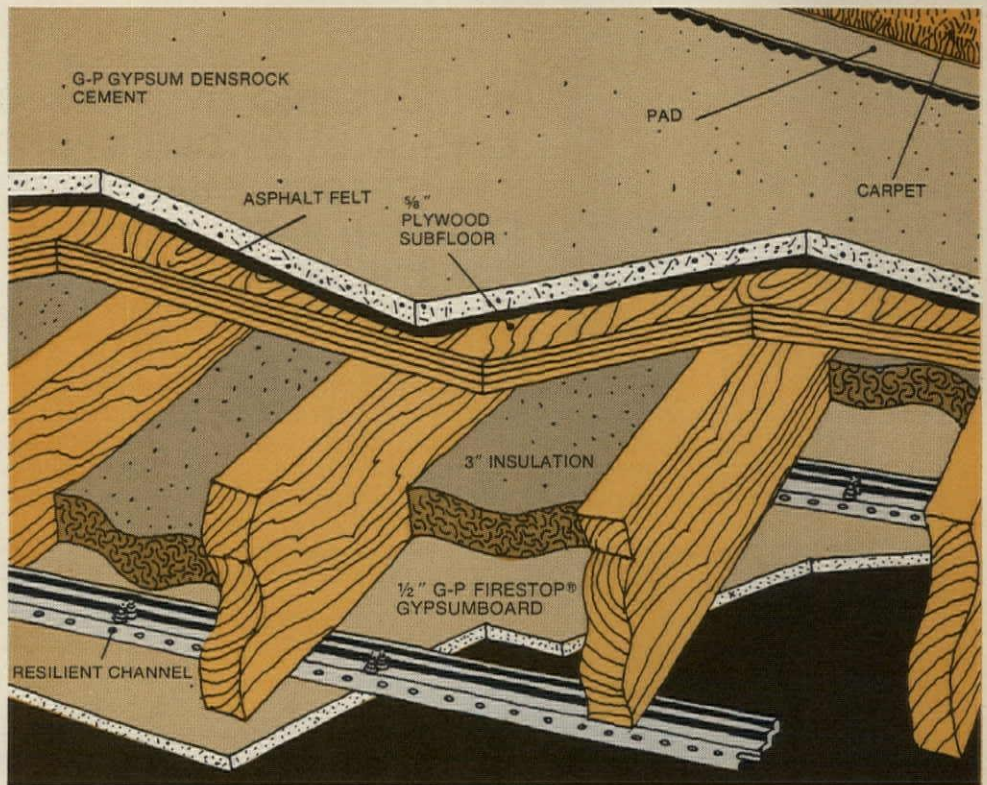
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The builder and the suspicious community

They'll have to be reconciled before we can get the higher densities we desperately need

Homebuilding has a new problem. This time it's the land-use squeeze, and it's potentially just as painful as the money squeeze or the inflation squeeze.

But there is this difference: the land-use squeeze is at least partly the housing industry's own fault, and consequently the housing industry can do something about it.

One side of the squeeze is the growing need for higher-density development—more specifically, the planned unit development in its many possible forms. This need is the result of three pressures:

1. The pressure of high costs. Higher densities cut the per-unit cost of raw land, and clustering cuts the cost of roads, utilities, and other development items; next to financing, these are the most rapidly climbing of all housing costs.

2. The pressure of the marketplace. Right now, rising costs are pushing even middle-income buyers out of the market; P.U.D. development, with its lower costs, can bring them back in. Further, the amenities and environment that P.U.D. makes possible can help reconcile buyers to smaller units. And of course those same amenities create a competitive advantage for builders in any price range.

3. The pressures of conservation. They're getting stronger every day, and it won't be long before every developer has to deal with them. The P.U.D.'s clustering, even at high densities, usually disturbs the natural environment far less than typical lower-density, single-family development.

Thus P.U.D. would seem to be the logical direction for both the developer and the community to follow. Unfortunately, however, few suburban communities see it that way. They want no part of P.U.D. And their reluctance to grant the necessary rezoning constitutes the other side of the squeeze.

The chief reason for this reluctance is fear—fear of the higher taxes suburbanites think growth will bring, fear that multifamily housing will automatically bring urbanization, and

fear that apartments will bring in low-income and minority families who'll swamp the town.

The builder would be able to allay these fears were it not for one thing: the community is afraid of him too. They remember the ugly, ill-planned housing his industry spewed out in the early postwar years, and they suspect that the reason he wants to do a P.U.D. is that it will let him do the same thing, only denser.

This is not an entirely unfounded fear. A lot of bad housing is still being built. And while builders have come up with ideas for higher density land use that are economically sound, their planning aspects are liable to confirm the community's fear of the builder. That's the concern that led to this month's story on the fourplex concept; it starts on page 60.

Can this community resistance be overcome? Yes. But not through any shortcuts or high-powered promotional campaigns. We think it will take the following:

Homework. The builder must know and be able to present effectively all the facts on the impact his P.U.D. will have on the community: how it will affect taxes (it will usually lower them), traffic, the area's ecology, etc. Otherwise he'll be unable to cope with the emotional resistance he's sure to encounter.

First class planning and design. This means finding good planners and architects, and paying them what they're worth.

Complete honesty right from the start. If a P.U.D. is going to cause some problems, they should be brought out immediately. The advantages of a P.U.D. to the community should far outweigh the problems, and any attempt to cover anything up or sugar-coat it will only bolster suspicion that the builder is trying to put something over.

None of these courses of action is easy; all require hard work and patience. But the rewards can be considerable: the chance to build a better and more profitable project, and a mutual respect and trust between community and builder that will make future P.U.D.s more quickly acceptable.

MAXWELL C. HUNTOON JR.

The
fourplex
problem-
solver
or
trouble-
maker?





You have to go back to the early '60s and the raised ranch to find a housing concept that has taken off as fast as the fourplex. This very popularity makes it urgent that the fourplex be very, very carefully analyzed. Otherwise homebuilding could wake up a couple of years hence and find it had created a monster.

In its most familiar form, the fourplex is a building that looks like an oversize single-family house (*see next page*), but actually holds four two-bedroom units. Its greatest virtue is its price: some units sell (as condominiums) for as little as \$13,250, and the average is probably no higher than \$18,000.

Considering the state of housing prices today, it's little wonder that fourplexes are selling like hot cakes wherever they're being built. They're all over California and stirring in parts of the west. At this rate, the whole country will be dripping with fourplexes in a couple of years.

Which could be, to put it mildly, a mixed blessing.

The trouble is that in its most prevalent form, the fourplex creates as many problems as it solves. While it does give buyers good interior living space for their money, it deprives them of any private outdoor space whatsoever. And, though it provides living on the scale of individual homes rather than the often forbidding scale of many large multifamily projects, it is completely devoid of the environmental quality that the best multifamily projects offer.

But most seriously, the typical fourplex project augurs a return to the worst planning of the fifties. The buildings are identical in form, vary only in their cosmetic treatment, and more often than not line up on quarter-acre lots like the cookie-cutter projects that gave so much post-World War II housing its bad name.

This doesn't have to be—as some excellent fourplex projects have shown. Design and planning techniques developed during the last decade can make the fourplex among the best of our housing concepts, combining its low price and intimate scale with proper outdoor living facilities and environmental excellence. Further, the fourplex can be liberated from its present strictures, becoming a sixplex, or even an eightplex (or possibly octoplex) if that is desirable.

On the next twelve pages we analyze the most prevalent type of fourplex from a number of different viewpoints. And we show three projects that have managed to eliminate most of the typical fourplex problems.

JULIUS SHULMAN

These are the fourplexes that started today's galloping boom

They were built by McKeon Construction of Sacramento, Calif. And, according to George R. McKeon, board chairman and chief executive officer of the company, the fiscal year ending August 30, 1970—a period most homebuilders would rather forget—saw the sale of 2,424 units, worth \$35.8 million. This year McKeon expects to start more than 7,000 units; this would put his total production since he began building fourplexes about five years ago at roughly 14,000 units.

McKeon more or less stumbled into this whopping fourplex market. In 1964 his company started building four-family apartment buildings, some to be sold to investors and some retained by the company as rental property. The idea got off to a promising start, but the money crunch late in 1966 cut sales drastically; there were plenty of prospects but they couldn't get financing.

So McKeon hit on the idea of selling the apartments individually as condominiums. The result was instant success.

Price is the biggest reason for the success. Downpayments are usually under \$700 (including closing costs), and monthly payments, including from \$10 to \$15 for maintenance, are around \$140.

But price isn't all. Because the McKeon fourplexes look like houses, they seem to have an appeal that conventional multi-family projects lack. The company trades on this appeal by calling the fourplexes "apartment homes."

The typical fourplex buyer, according to James G. Fuller, president of McKeon Construction, is 38 years old and makes an average of \$10,700 a year.

"Half of our buyers are single, and the majority of these are women," says Fuller. "They are anywhere from 35 to 70 years old, widowed or divorced, and may have one child. They'd like to have a single-family home, but the maintenance is tough for them. In our fourplexes, that maintenance is done for them."

Originally, says Fuller, the

company thought that new family formations would be an important factor. But while some singles and some young marrieds have bought fourplex units, most families in their late twenties or early thirties prefer townhouses with three or four bedrooms.

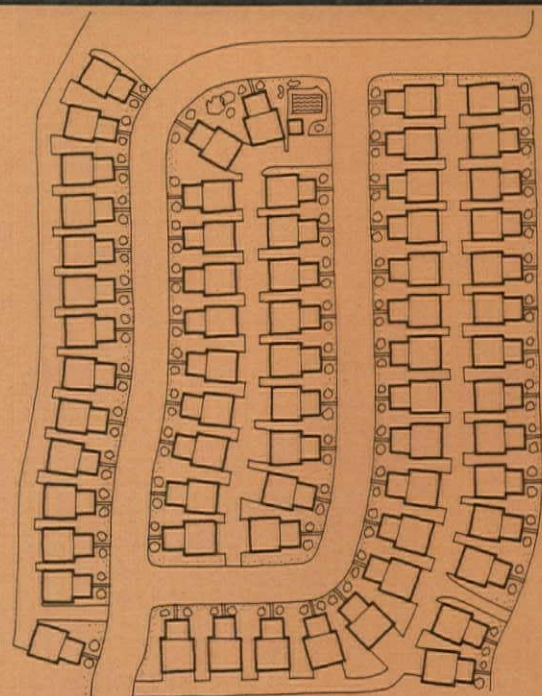
McKeon Construction builds most of its projects on parcels of from 15 to 45 acres, working in phases of from 15 to 20 buildings. Each building sits on a lot of approximately one quarter of an acre in size; the owner of each apartment buys an undivided one-quarter interest in the lot, plus an undivided interest in a small pool and cabana area. Maintenance of the recreation area, plus all outside maintenance of the buildings, is handled by a homeowners' association which the company helps the residents set up.

McKeon Construction has a number of cosmetic variations for its fourplexes (photos, right), but the basic form never varies. And it is this uniformity, together with the rigidity of the setbacks (usually 20 ft. to 25 ft. in front, 20 ft. in the rear, and 10 ft. on either side) that has earned McKeon's fourplex projects much of their criticism. Early models were usually on straight streets; later projects are more curvilinear, but in either case the effect is pretty much one of unrelieved repetition.

Outdoor living also suffers—or rather, doesn't exist. The front apartment faces the road; the lawn around it (which must be shared by all units) offers no privacy. The two-story units open into the alleys formed by side setbacks. And the rear unit overlooks the rear parking alley; it has a small entrance balcony—the only vestige of outdoors in the entire building.

All of this has led to criticism—by architects and planners, city planning officials (some of whom have banned McKeon's fourplexes), and just plain civilians. Three examples are given on the following pages.

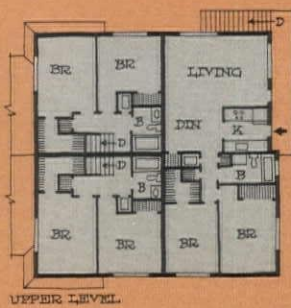
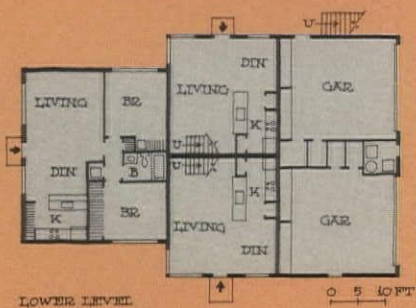
PHOTOS: SIRLIN STUDIOS



Typical project has fourplex units fronting on main roads, garages opening onto parking alleys in the rear.



Streetscape (above) shows 1) the strong single-family impression given by a McKeon fourplex project, and 2) the overwhelming look-alike effect despite modifications in elevation treatment. Individual building (right) has entrance to one unit in front, to one of two townhouse units at right, and stairs leading to rear-unit entrance. Parking alley (bottom right) runs between backs of buildings. Entrance balconies to rear units are above garage doors.



Plan of the McKeon fourplex has one-story unit (1) on ground floor, two two-story units (2 and 3) in the center, and another one story unit (4) on the second floor.

To a house shopper, the McKeon fourplex is a great buy, but short on outdoor living

In the process of researching this article, Jenness Keene of McGraw Hill's San Francisco News Bureau formed some definite opinions on the McKeon fourplexes. Her views are particularly significant because in two key ways she typifies the fourplex buyer: she is a woman, and she's single.

The apartments are pleasant and well-arranged. Although they are small, they are perfectly adequate for one or two persons who spend most of their waking hours at work. The living room and dining areas are compact, but big enough. A pass-through to the kitchen is efficiently designed. The kitchens have substantial-looking ceramic tile countertops, built-in stove with hood, sink with disposal. While the cabinets are placed a little high for the average woman (as they are in most developments), they have adequate space for a small household.

Bedrooms are not large, but the closets are good-sized and have mirrored doors, which is evidently standard and not an option. The bathtub has ceramic tile around it, and the rest of the bathroom fixtures look well-selected.

The two-story townhouse units in the middle of the building were not as appealing to me as the single-story units at the front or over the carport. The flow of space is not as good, and the living room and kitchen felt too small. And the idea of only one bathroom in a two-story house bothers me—perhaps an indication of laziness where climbing stairs is concerned.

The unit I liked best was the "swinger" version of the apartment over the garages. The partition between bedrooms was re-

moved to create one large room. It has space for the normal amount of bedroom furniture, plus a sitting room arrangement with couch at one end of the room. This unit also seems to have an advantage in its balcony. While the balcony is plain and utilitarian, serving as the entranceway to the house, and there is a gap between the deck and the house—bad news to an acrophobic—it does provide outdoor space large enough for a chair or two and a small table. There is no particular view, as it faces the rear drive and the neighbors' garages. But you would be able to see lawns and perhaps even the swimming pool from some units.

On the outside of the building, the air conditioning units are placed along one outside wall near one of the side units, which makes the entrance to both that side unit and the back unit unattractive.

My main objection to living in one of these units is the lack of any private, screened-off patio. Although I have no green thumb, I still like to work with a container or two of plants. And it would be extremely frustrating to me not to have a private place to sit outside for a drink or with a book. To live in one of these units, then, I'd have to consider it as an apartment substitute and not a house substitute.

As the present owner of a house with a quarter of an acre, much of it in lawn, the idea of having no yard maintenance was vastly appealing. So was the notion of having no responsibility for having the outside of the house painted or re-roofed. The swimming pool was another plus factor.

On learning the price (\$14,445), I thought the fourplex was an unbelievable bargain.

If I were working in the area, I think I'd seriously consider buying one of these units. But I'd look around first to see if somebody might be offering one with more contemporary design, with a private patio, and perhaps more landscaped open space to enhance the view.

To an architect, the McKeon fourplex is a good example of bad planning

Robert Hayes is an architect, president of Compla Corporation, a comprehensive planning firm, and a contributor to HOUSE & HOME. As a resident of the San Francisco area, he has had ample opportunity to study fourplexes, and so we asked him for the following critique.

This type of housing certainly meets a need in terms of both price and basic shelter. But, we must ask whether it is in some ways not a minimal answer, but actually below the minimums for today's housing.

The McKeon fourplex is simply a blowup of the single-family subdivision house, on exactly the same size lot, and with the same disadvantages: a front yard used only for show, useless little side yards, excessively wide streets, and sidewalks that are seldom used.

But where the single-family house had a rear yard for outdoor living, the fourplex has none. And since there are now four families per lot, even more space must go into driveways and alleyways to garages.

Let's look at the floor plan (see previous page). If you own the front one-story unit, you have the only meaningful open space in the form of a front yard, although legally you must share it with three other owners. You can enter your home from the street, although this isn't too helpful since your car is parked in the back alley. And if you're used to looking out of your kitchen window, forget it. The kitchen has no windows.

As a two-story-unit owner you also have a front door facing the street, and again, it is a long way from the rear garage. Inside, your living area is back in a corner with the

To some planning officials, the McKeon fourplex looks less and less like desirable housing

Says Thomas Nelson, city planning director of Placentia, Calif.: The city didn't turn down McKeon's fourplexes, but he pulled out. We told him we wouldn't go along with the typical grid pattern he proposed. The problem was density, the grid, the whole works. It was sub-standard. We have other fourplex developments going on in the city right now, and there are no problems. Their density is lower—10 to 12 units per acre as opposed to McKeon's 16 to 18. And they have a much better environment.

Says Sanford Getreu, city planning director of San Jose, Calif.: There are several McKeon projects in San Jose, and they have created extreme difficulties. One problem is the size of the lot; it's just too small. And the units have no open space around them. They don't relate to the outdoors at all. It would be extremely difficult to sunbathe except on a very tiny porch on the second story unit. It kind of hangs you over the alleyway. The alleyways are very dark and sterile and have no trees or vegetation at all. They're really ghastly.

The reason the city council first allowed McKeon to build was that his units were the only kind of low-cost unit anyone could get financing for. After the first units went up and the council could actually see them, they realized they weren't the greatest things in the world. Then the planning department got the council to insist on eliminating street frontage, put in private driveways, and make the lots larger. So the last fourplexes McKeon has built in San Jose have been quite a departure. But there are so many good builders sensitive to good land planning that I'd rather spend time patting them on the back than fighting something like this.

stairs and the kitchen sink; to reach the stair from the front door you must walk through the middle of the living area, thus leaving little leeway for furniture arrangement.

If you buy the rear unit over the garage, you'll get to know a lot about how your neighbors come and go in their cars. You're lucky, though; you get the only private deck in the house. It has to serve as your entry deck too, and it does overlook the alley and garage area, but it's there.

And of course in all the apartment units, you can look straight across the space between buildings into the windows of the adjacent apartment.

Let's take the most important of these disadvantages and see if they can be eliminated.

The site plan below is Town Square, a project our firm designed to meet roughly the same market as the fourplex. It is built in Livermore, Calif., a city which had previously refused to allow the fourplex to be built within its limits.

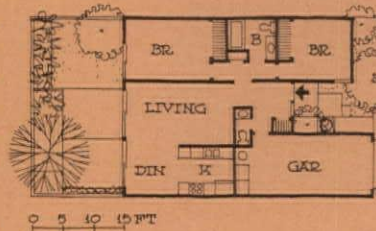
The units are somewhat larger than those of the fourplex—there is a three-bedroom unit, for example—and the price is also slightly higher—up to \$20,000 for the largest unit.

The project strives for convenient automobile access, individual privacy and a feeling of individual houses, common green areas, and private outdoor terrace space—all lacking in the fourplex.

As the plan shows, the units

are grouped tightly around T-shaped turnarounds. There is a one-car garage adjacent to each unit, and the entry is right next to the garage. Common green space is located in two interconnecting areas near the center of the project. In addition, each house has a completely private terrace approximately 15' x 20'.

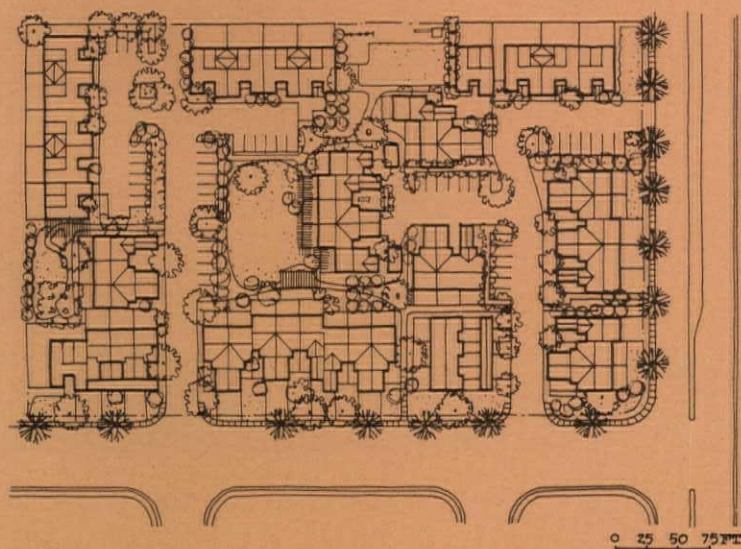
Also shown is the floor plan of the one-story, two-bedroom unit (other models in the project are two-story). Note that it has its master bedroom, living and dining and kitchen



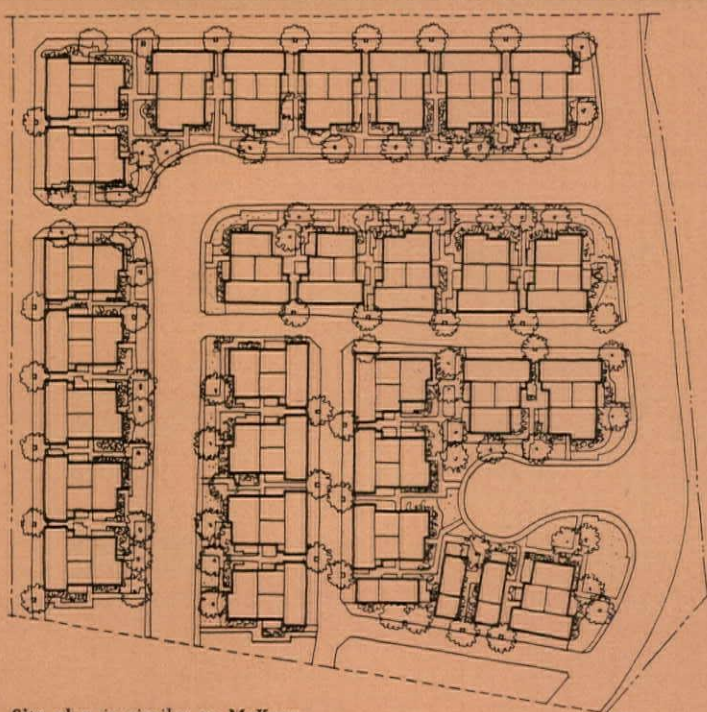
areas all opening onto the private patio. The other bedroom opens to a small entry terrace; none of the rooms faces another unit.

Obviously houses like this, with terraces and fences around them, are going to cost a little more than the fourplex. But there are ways to save money too, by eliminating sidewalks and making roads smaller, for example.

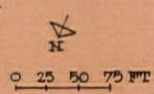
The important thing, it seems to me, is that we approach housing more on the basis of people-needs and less on the mechanical basis of the very lowest price and the easiest method of subdivision.



To see some of this better fourplex planning, turn the page



Site plan is similar to McKeon fourplexes, but buildings are more separated. Density is 16 units per acre.



Capistrano Villas: the fourplex attains a bigger, more livable form

The biggest single objection to the McKeon fourplex plan—lack of outdoor living—is taken care of in these units by Westport Home Builders Inc., in San Juan Capistrano, Calif. Specifically, the buildings are spaced out to allow private patios between them. For the rear units over the garage there are patio decks; a single stairway serves the decks of two buildings.

The units themselves are bigger than the average fourplex: from 950 to 1,200 sq. ft., priced at from \$15,995 to \$21,995. And while price continues to be important, it isn't the only criterion. In its latest section, the company raised the price of its largest three-bedroom unit by \$1,000, to keep its sales in balance with other units, then saw the entire inventory wiped out in the first weekend.

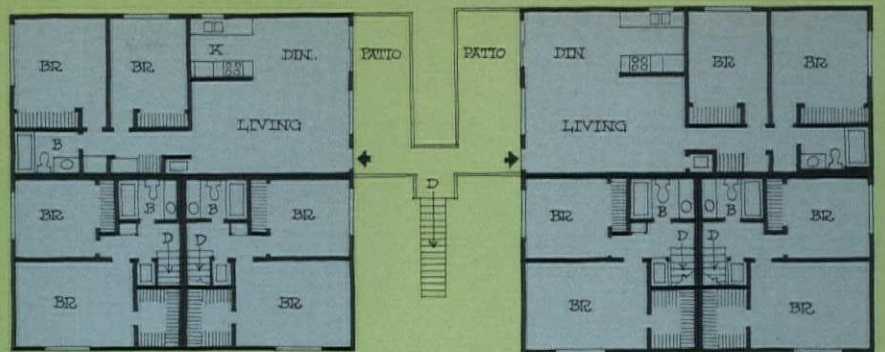


PHOTOS: DAVID ROSS

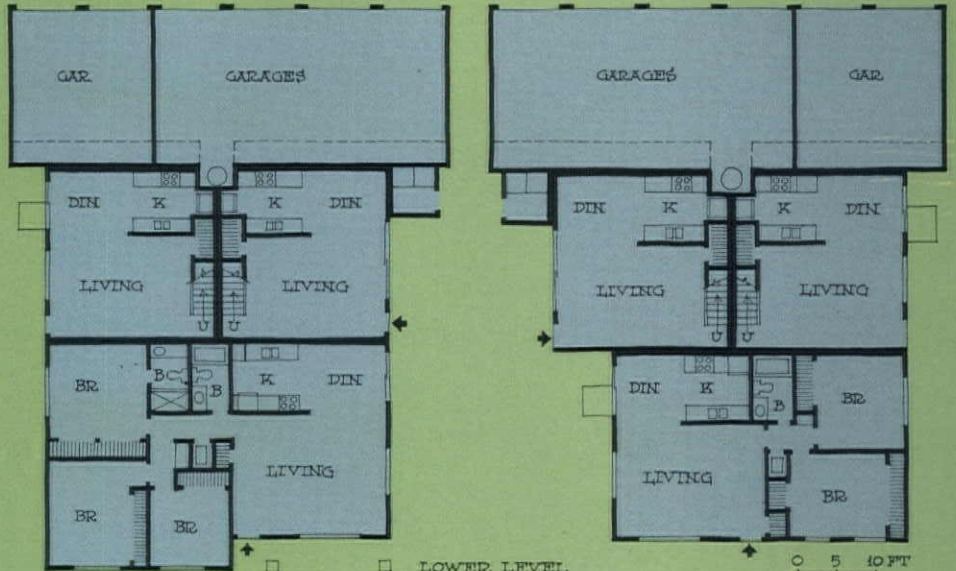
"Most of our buyers are being pulled out of apartments," says Dean Rickbeil, president of Westport. "We have a number of retired couples—usually over-qualified and sometimes cash buyers—and a lot of young marrieds who can't afford the extra \$3,000 or \$4,000 for a single-family house. We even have a couple of second-home buyers, because the project is not far from the ocean. We average about one child for every two families."

The biggest appeal of the project? "Price," says Rickbeil, "and then the maintenance-free living."

Westport is building 860 units in San Juan Capistrano, and will open another fourplex project with 535 units in July. Later plans call for fourplex projects in Las Vegas.



UPPER LEVEL



LOWER LEVEL

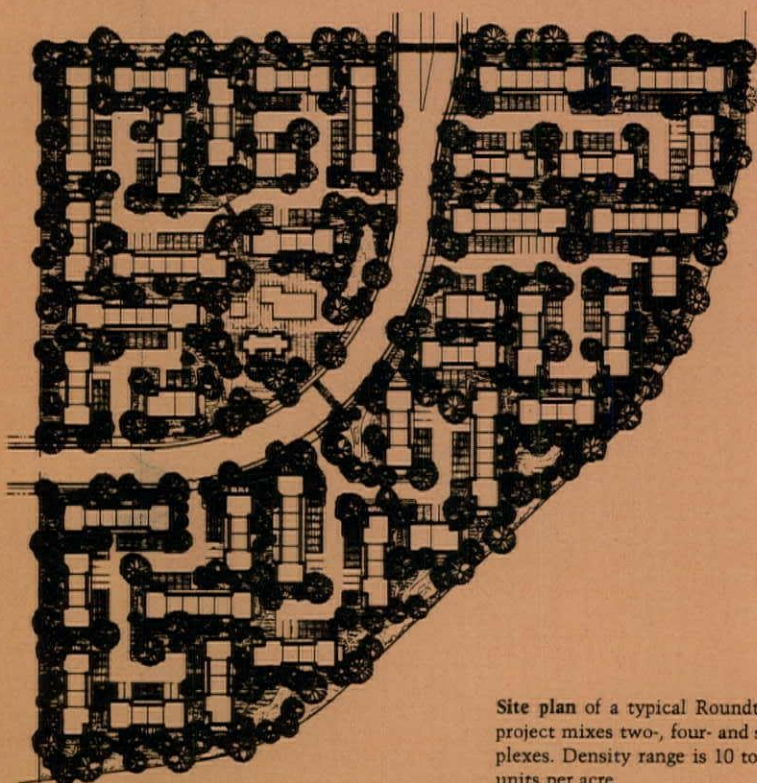
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Floor plans (above) include four different models, three with two bedrooms and one with three bedrooms. Most buildings are

paired (left) so one entrance stair can serve the rear units. Private patios (below) open off all units. There are six garage spaces, with

two each apportioned to the one-level units on the first floor in front and second floor rear, and one each to the other units.





Site plan of a typical Roundtree project mixes two-, four- and six-plexes. Density range is 10 to 14 units per acre.

Roundtree: more flexibility is planned into this fourplex concept

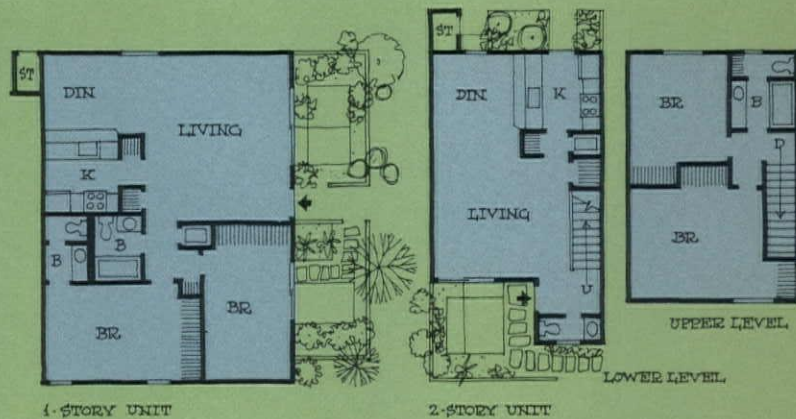
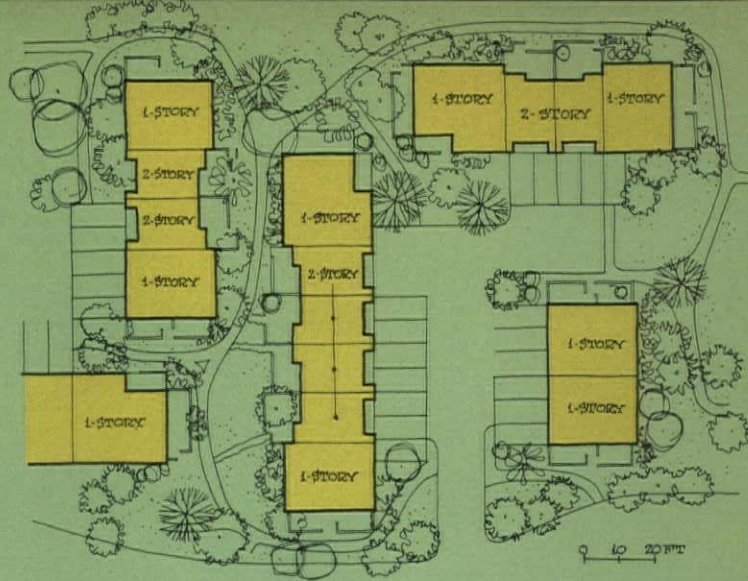
As the land plan at left shows, the fourplex can shrink to a twoplex and expand to a sixplex. Hence the basic concept can be adapted to a wide variety of site plans.

Roundtree projects—the name denotes the concept, not a specific development—appear to be on their way to a McKeon-like success. U.S. Development Corp. of Walnut Creek, Calif., a subsidiary of First Builders Bankcorp, sold 500 units in 1970 and looks forward to doubling that figure in 1971. Having already built in seven different areas of California, the company is shooting for ten more in the immediate future, plus single projects in Denver and Reno.

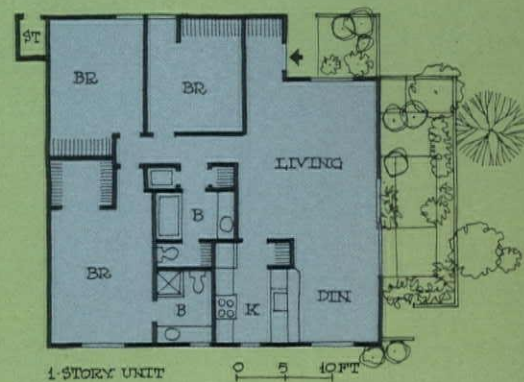
Price remains the most important factor in Roundtree sales: the range is \$17,500 to \$26,000, depending on location, for units



PHOTOS: RICCO-MAZZUCHI



Floor plans (above and right) include two- and three-bedroom models. There are five plans altogether. Cluster plan at top of buildings, one-story units on the ends. The result, shown in the photos at left and below, is a project with single-family rather than multifamily scale.



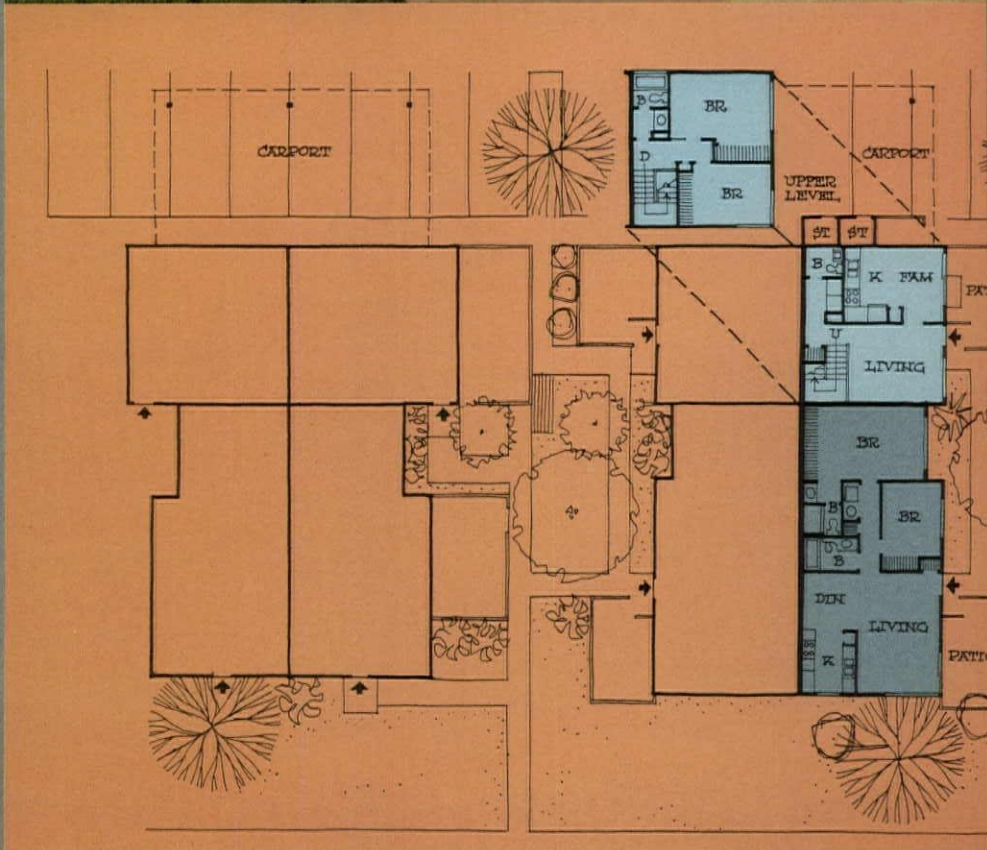
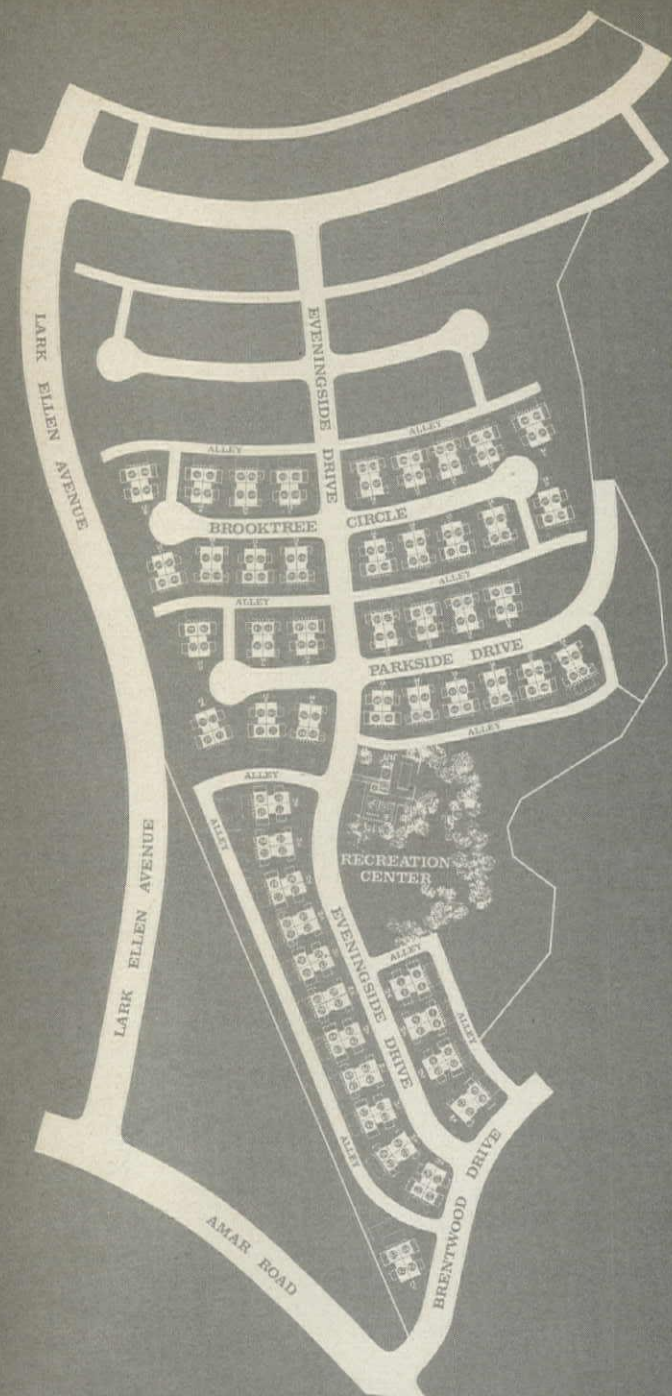
with 923 to 1,170 sq. ft. of living area. In a typical project, 60% of the units have two bedrooms and 40% have three.

But environment is also important. Charles Delk & Associates, who did both the design and planning, have faced the units into landscaped greenbelts, and kept automobiles in short drives and carport areas in the center of the clusters. For each 200 units or so there is a swimming pool and a recreation building.

Ken Poulsen, president of U.S. Development, thinks it's possible to adapt his concept to the McKeon price range.

"With slightly different land planning, and assuming we weren't burdened with a lot of the unnecessary requirements our cities exercise, we could build homes like these for \$12,000 to \$14,000."





Site plan (above) of Woodside Village is similar to McKeon projects, with rear parking alleys. Building plans (right) show different plans offered in the project. Photo of model area shows front elevation of two fourplexes. Grass area will become street.



JULIUS SHULMAN

Woodside Village: a standardized fourplex plan gets the full treatment

In theory, there's very little difference between these units and the McKeon fourplexes. Both have repetitive design (these have even fewer architectural variations). Both have standardized floor plans (although this project has two options: the two-story unit can have two or three bedrooms, and the one story unit can have one or two baths). And both are built to about the same density: Woodside has 14 units per acre, McKeon fourplexes average 16.

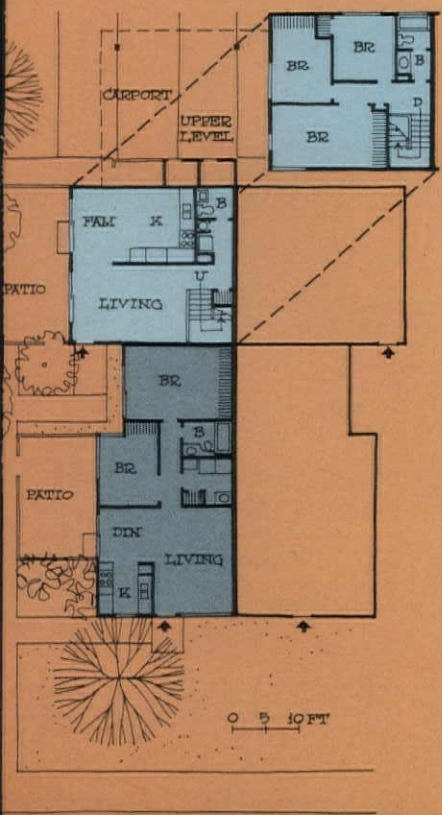
But in practice, as the pictures here and on the next two pages show, the difference is considerable. In particular, Woodside Village, built by The Bren Co. in West Covina, Calif., offers lush landscaping, good-looking contemporary design, and a wealth of outdoor living space, including private patios.

One-story units have 814 sq. ft. of living area, two-story units have 1,175 sq. ft. The price spread is from \$16,995 to \$21,995. And buyers, according to James L. Manley, marketing vice president, tend to be families rather than single people.

"It's too early for a profile," says Manley, "but our big market seems to be couples— young or old, and some families with children. Singles sales are under 5%.

"The private outdoor areas are very important," he adds. "We just couldn't get family sales without them."

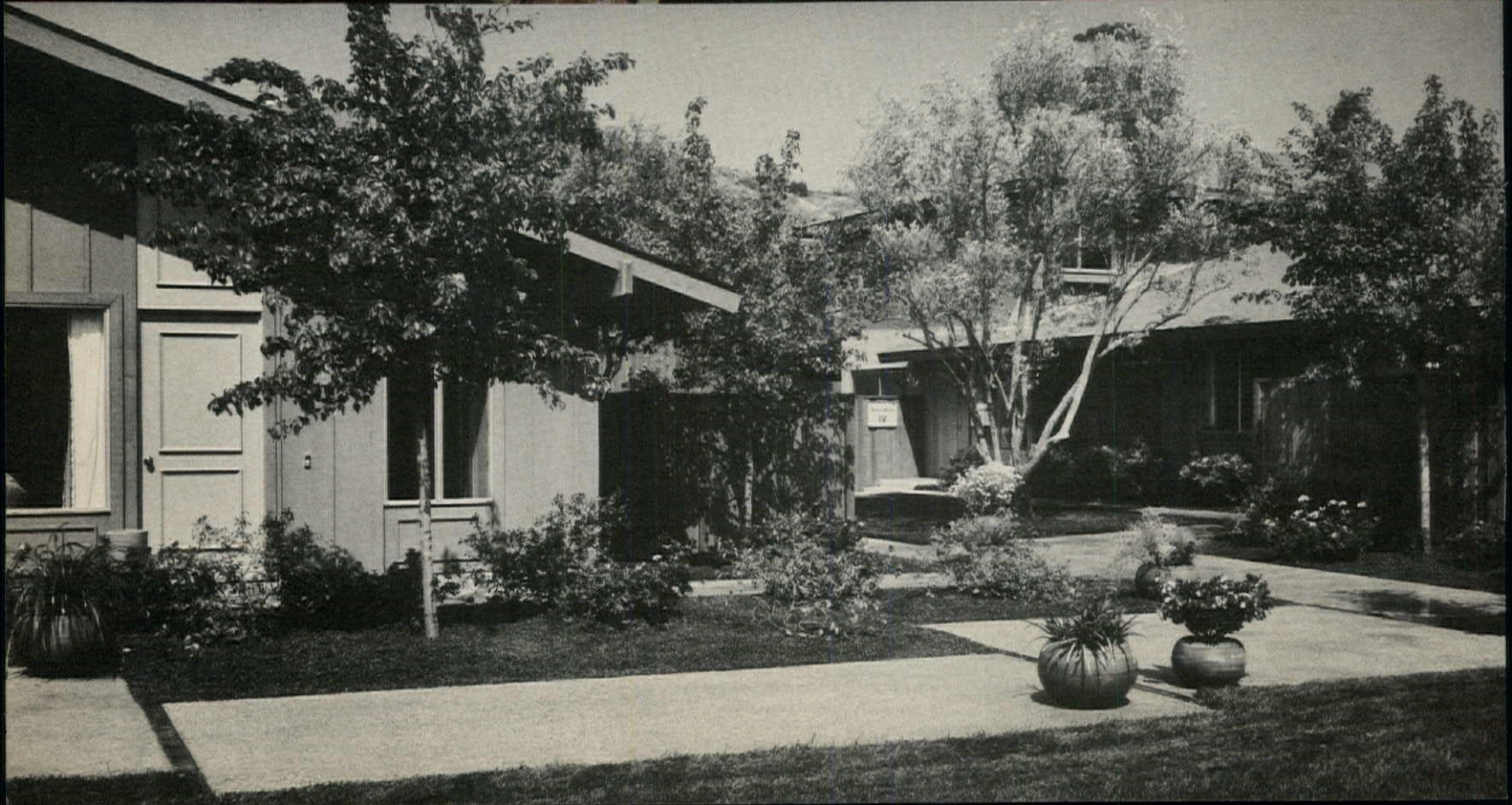
Woodside Village opened late in January, and by the end of June about 125 fourplex sales had been chalked up. And at another fourplex project, Oakbrook, which The Bren Co. opened in March, 93 fourplexes have been sold.





PHOTOS: JULIUS SHULMAN

Private patios (left) are the key to Woodside Village's family sales. Landscaping is part of the standard package. View from street (below) shows entrance to a one-story unit at left and to a two-story in background at right. Photo at right shows between-buildings area as seen from the street. Planning and design by B. A. Berkus Associates.





21 designs win Homes for Better Living awards

Award-winning houses and apartments are a fertile source of ideas for an industry that grows more and more aware of the need for good design.

Six such winners, all custom houses, are shown on pages 76 through 87. Fifteen more winners will be published in forthcoming issues: seven multifamily projects in August, followed by merchant-built houses, vacation houses, and remodelings in subsequent months.

All 21 (listed right) were selected by two seven-member juries. One group (photo, opposite) reviewed custom designs. The other (to be shown next month) evaluated merchant-built and multifamily housing.

*The winners were selected from 300 entries in the 1971 Homes for Better Living program, the oldest and largest design competition devoted solely to housing. The program, now in its 16th year, is sponsored by The American Institute of Architects in cooperation with American Home magazine and HOUSE & HOME.**

Over the years the HFBL program has expanded to reflect the changing character of the housing industry. For example, multifamily projects were added in 1961. And this year the competition was opened to modular houses, systems-built housing, remodelings, and renovations.

Many design ideas first seen in award-winning houses and projects have been widely adopted for homes and apartments in all price ranges. Mansard and shed roofs, master bedroom suites, compartmented baths, and varied ceiling heights—to name a few—made their debuts in award-winning custom houses and now are common all over the country. The obvious question: What ideas from this year's crop of winners will catch on?

* Program registration, open to all architect-designed residences (excluding high-rise towers), begins each year around Christmas. For information on the 1972 program, write to HOUSE & HOME.

MULTIFAMILY HOUSING

multi-building projects and P.O.D.s

First Honor Award

ARCHITECT: Backen, Arrigoni & Ross
BUILDERS: Macco Corp.
OWNER: Friendship Apartments
LOCATION: Tustin, Calif.

First Honor Award

ARCHITECT: Daniel, Mann, Johnson & Mendenhall
BUILDER: Hawaiian Dredging & Construction
OWNER: Kukui Gardens
LOCATION: Honolulu

First Honor Award

ARCHITECT: William Kessler & Assoc.
BUILDER: Holtzman & Silverman
OWNER: Housing Commission, City of Wayne
LOCATION: Wayne, Mich.

Award of Merit

ARCHITECT: John Louis Field, Bull, Field, Volkmann, Stock
BUILDER/OWNER: Systech Financial Corp.
LOCATION: Concord, Calif.

Award of Merit

ARCHITECTS: Donald Sandy Jr., James A. Babcock
BUILDER/OWNER: Avery Construction
LOCATION: Cupertino, Calif.

Award of Merit

ARCHITECT: Davis, Brody & Assoc.
BUILDER: HRH Construction
OWNER: Riverbend Housing
LOCATION: New York City

townhouses

Award of Merit

ARCHITECT: Sauer & DeVito
BUILDER: Smith, Langhans & McLaughlin
OWNER: Spring Pond Development
LOCATION: Painted Post, N.Y.

renovations

First Honor Award

ARCHITECT: Richard Meier
BUILDER: The Graphic Starrett Co.
OWNER: The Westbeth Corp. Housing
LOCATION: New York City

CUSTOM HOUSES

under 2,800 sq. ft.

First Honor Award

ARCHITECT: Robert Whitton
OWNER/BUILDER: Marc Firestone
LOCATION: Miami

Award of Merit

ARCHITECT/OWNER: Myron Goldfinger
BUILDER: John Sutton
LOCATION: Waccabuc, N.Y.

Honorable Mention

ARCHITECT: James Baker, Baker & Blake
OWNER/BUILDER: Frederick Q. Shafer
LOCATION: Annandale-on-Hudson, N.Y.

Honorable Mention

ARCHITECT: Thomas P. Reilly, Crites & McConnell
BUILDER: Paul Witter
LOCATION: Cedar Rapids, Iowa

Honorable Mention

ARCHITECT/BUILDER/OWNER: Edward L. Starr
LOCATION: Nogales, Ariz.

over 2,800 sq. ft.

Award of Merit

ARCHITECT/BUILDER/OWNER: Raymond Kappe,
Kahn, Kappe, Lotery, Architects
LOCATION: Pacific Palisades, Calif.

vacation houses

First Honor Award

ARCHITECT/OWNER: Christopher H. L. Owen
BUILDER: Sweeten & Sons, Inc.
LOCATION: Block Island, R.I.

Award of Merit

ARCHITECT/BUILDER/OWNER: Yiannis Byron Antoniadis
LOCATION: Coconut Grove, Fla.

remodelings

Award of Merit

ARCHITECTS: L. Jane Hastings
BUILDER: Ray Roberts
LOCATION: Seattle

Award of Merit

ARCHITECTS: Jones, Peacock, Garn with
William Schickel, designer
BUILDER/OWNER: Jerry Schickel
LOCATION: Ithaca, N.Y.

Award of Merit

ARCHITECT: William D. Koster
OWNER/BUILDER: Richard Russell
LOCATION: Cleveland

VOLUME-BUILT HOUSES

up to \$75,000

Award of Merit

ARCHITECT: Copelin & Lee
BUILDER: Robert Graves
LOCATION: Hilton Head Island, S.C.

Award of Merit

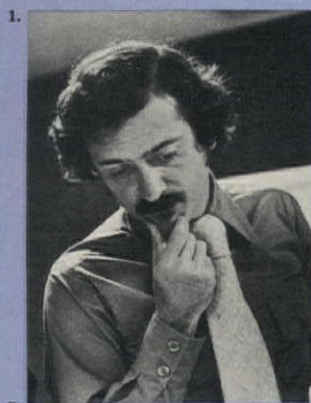
ARCHITECT: Walz & MacLeod
BUILDER: Heathman Construction
LOCATION: Palm Springs, Calif.

Not swayed by architectural tours de force, the seven-member custom house jury singled out winners for their pleasant living qualities. After two days' careful—and often agonizing—deliberation, they selected 11 custom designs: six year-round houses, two vacation homes, and three remodelings.

Besides being pleasing places to live, the winning houses make good use of their sites, solve difficult problems, bring in the view while maintaining privacy, conform to the land wherever possible—all with careful regard for surroundings and neighbors.

The custom-house jurors:

"If it doesn't live well, it's out"



1. Donald Singer, AIA
Ft. Lauderdale
2. Barbara Plumb, Architecture and
Environment Editor,
American Home
3. Milton Grigg, FAIA, Director,
Middle Atlantic Region,
The American Institute of Architects,
Charlottesville, Va.
4. Jenepher Walker, Associate Editor
in charge of Homes for Better Living,
HOUSE & HOME
5. Richard Wurman, AIA
Philadelphia
6. Charles Tapley, AIA
Houston
7. Paul Rudolph, AIA
New York City

The six year-round custom houses shown on the following 12 pages were characterized by the jurors as "comfortable," "livable," "delightful," "expansive," "with generous spaces"—and "uncontrived in form." Each has a pleasant interior: one because of a large continuous flow of space, another because of upward spiraling spaces, a third because of a long glass wall looking out on a panoramic view, a fourth because it captures the sound—and sight—of rushing water, a fifth because it brings in the feeling of the surrounding woods, and the last because of its inward orientation in a crowded neighborhood.

For a look at six custom house winners, turn the page

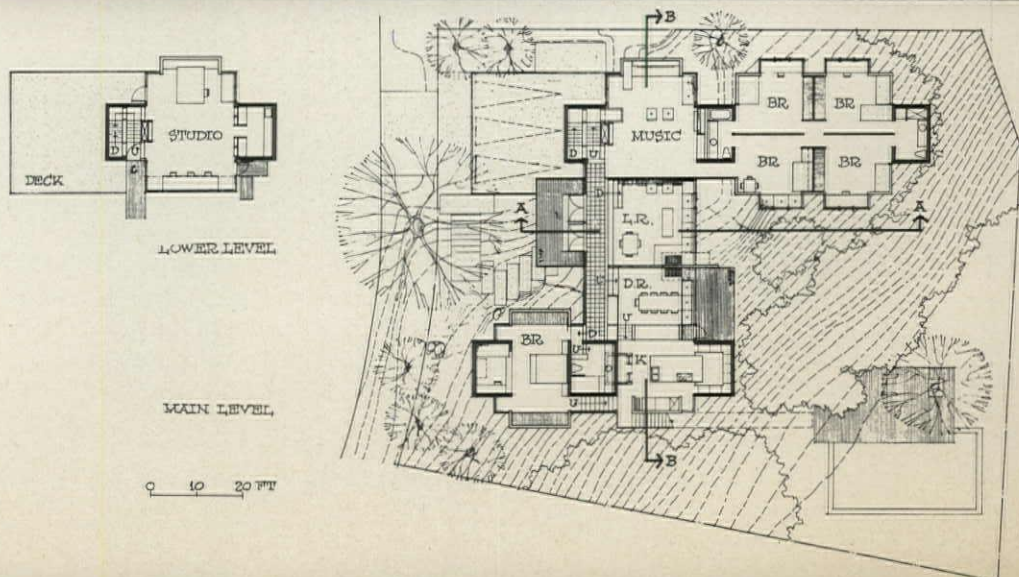
AWARD OF MERIT

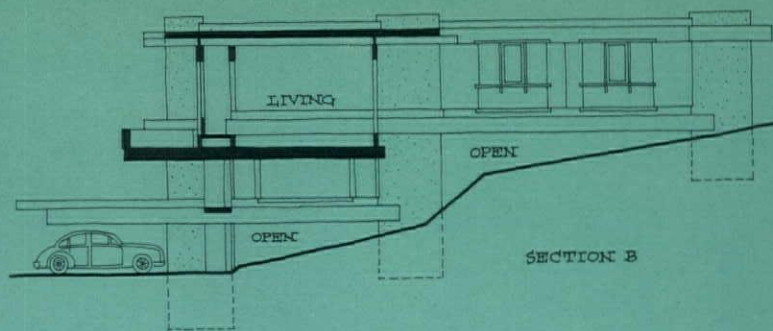
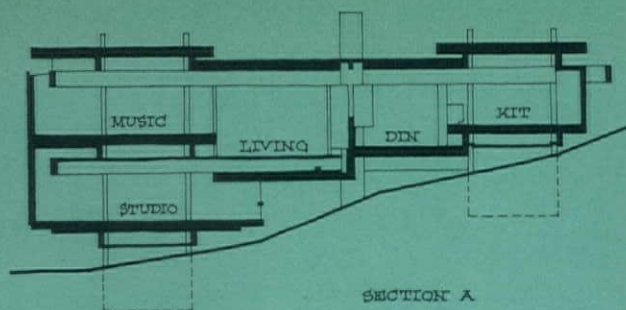
ARCHITECT/BUILDER/OWNER: *Raymond Kappe*
 LOCATION: *Pacific Palisades, Calif.*
 SIZE: *4,000 sq. ft.*

PHOTOS: JULIUS SHULMAN



Uphill house nestles into its 1/2-acre wooded canyon site. Because underground springs make the top 7 ft. of soil too wet for a conventional foundation, the house sits on six large pads. From these rise exposed aggregate concrete towers (photo, above), topped by skylights, which act as enclosures for baths, the stairwell, and alcoves off the master bedroom, music room, and studio (plan, right). Suspended between the towers are laminated beams carrying the various levels that conform to hillside contours.





Multi-level interior space flows in two directions from the mid-level living room (center in photos, above and left). Towards the downhill side a music room floats over one end of the living room (section A, above) and over a lower-level studio. Towards the uphill side there are steps from the living room up to the gallery, from the gallery up to the dining room, and from the dining room up to the kitchen. From the kitchen, the house appears to be one continuously flowing space, broken only by gradual changes in

level. However, from the gallery that runs along one side can be seen the separate children's bedroom wing projecting out from the studio (far right in photo, left). And the master bedroom is also a separate wing up two steps at the kitchen end of the gallery.

Outdoor areas include a small deck off the lower-level studio, a large deck uphill from the house, the deck off the dining room, and the gallery deck below which is the sheltered entrance walk from the carport (section B, above).

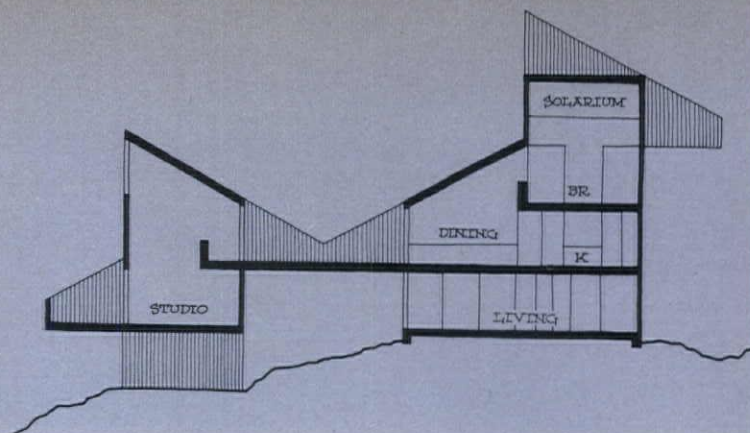
AWARD OF MERIT

ARCHITECT/OWNER: *Myron Goldfinger*

BUILDER: *John Sutton*

LOCATION: *Waccabuc, N.Y.*

SIZE: *2,628 sq. ft.*

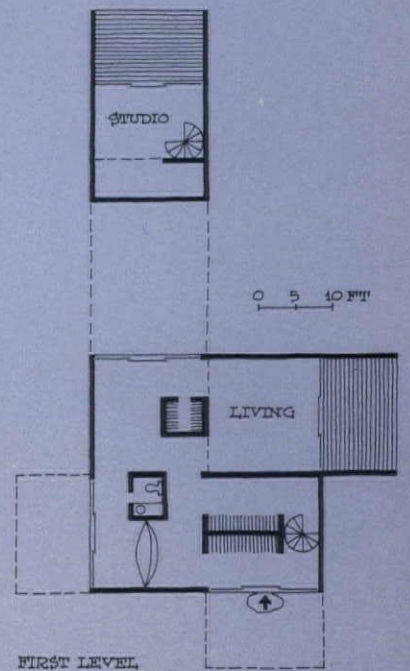
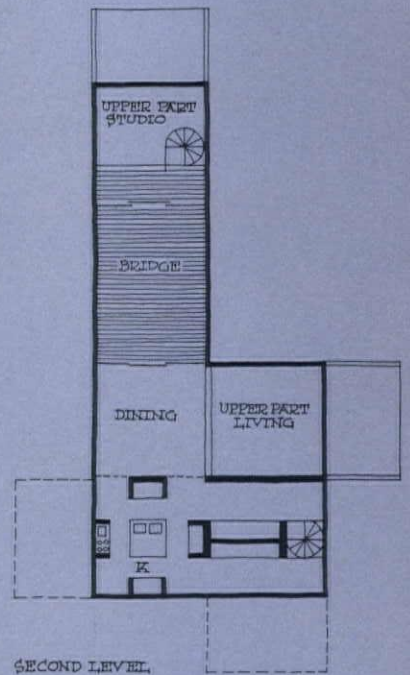
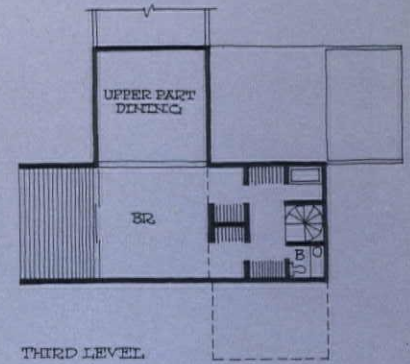
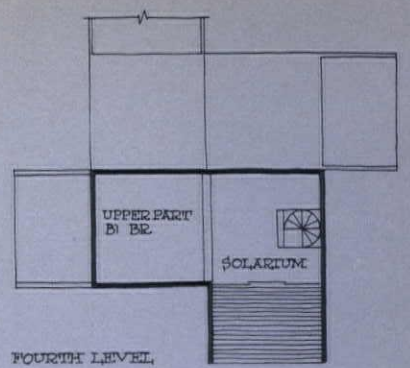
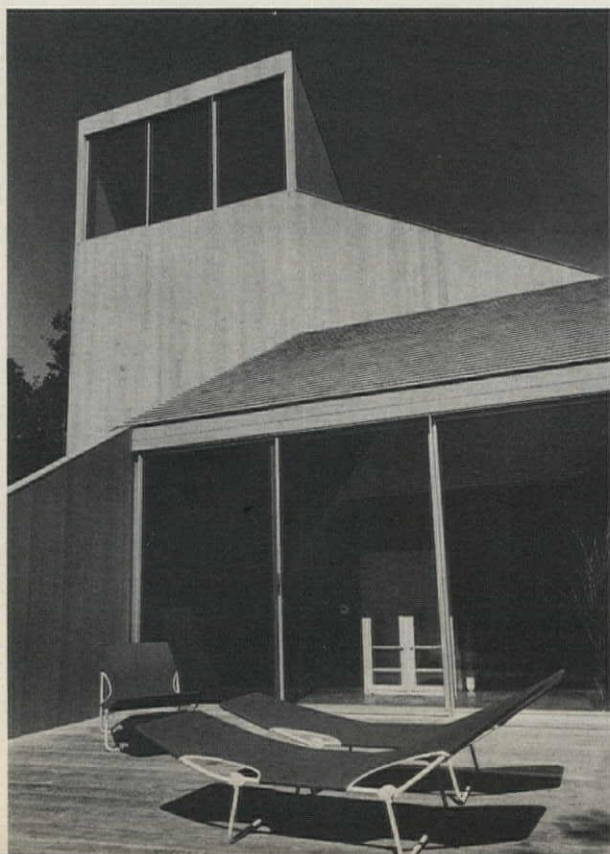


PHOTOS: NORMAN MCGRATH





Modular plan is a cluster of four boxes tilted upright on a rocky hilltop. Each is 15' x 15', so they form a 30'-square house with four projecting decks. One deck is also a bridge to a fifth box, the two-story studio (foreground in photo, opposite). Boxes are different heights: working clockwise from lower left in plan (right), one is four levels, the next three, the next two, and the fourth only one. Shed roofs spiral down and around (photo, right), as do interior living spaces. Each level looks down into the next (section, opposite). Lowest levels are one-story entrance and two-story living room (photo, above). These are unplumbed boxes, as is the studio, since the architect envisions the boxes as a system of prefab plug-in units, flexible enough to form any size house, cluster of houses or even a whole village.



HONORABLE MENTION

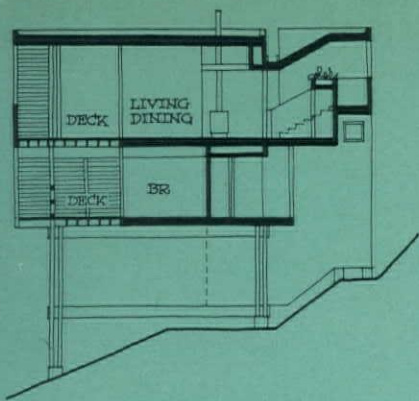
ARCHITECT/BUILDER/OWNER: *Edward L. Starr*

LOCATION: *Nogales, Ariz.*

SIZE: *1,758 sq. ft.*

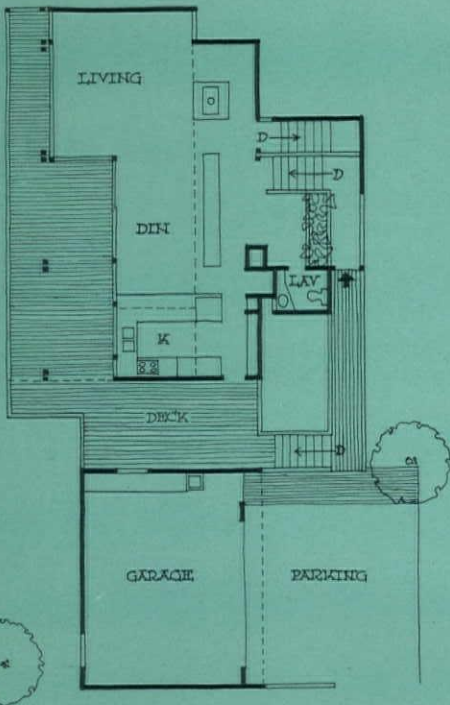
PHOTOS: JERRY DUCHSCHERER



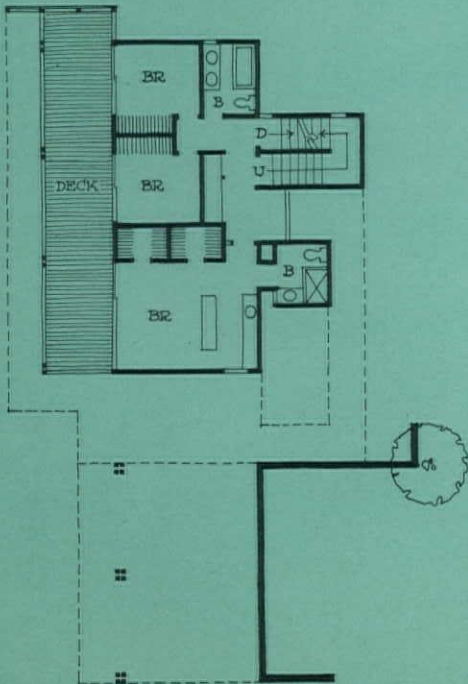


SECTION

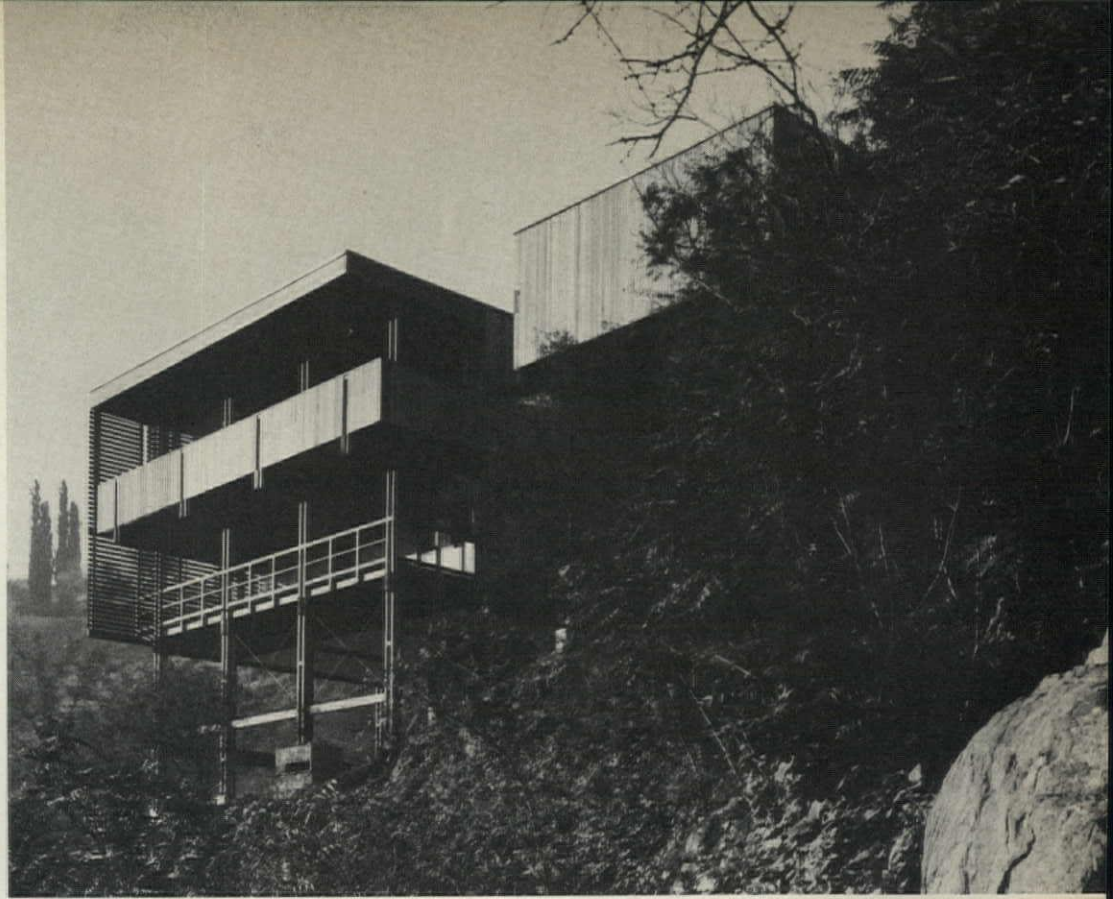
0 5 10 FT



UPPER LEVEL

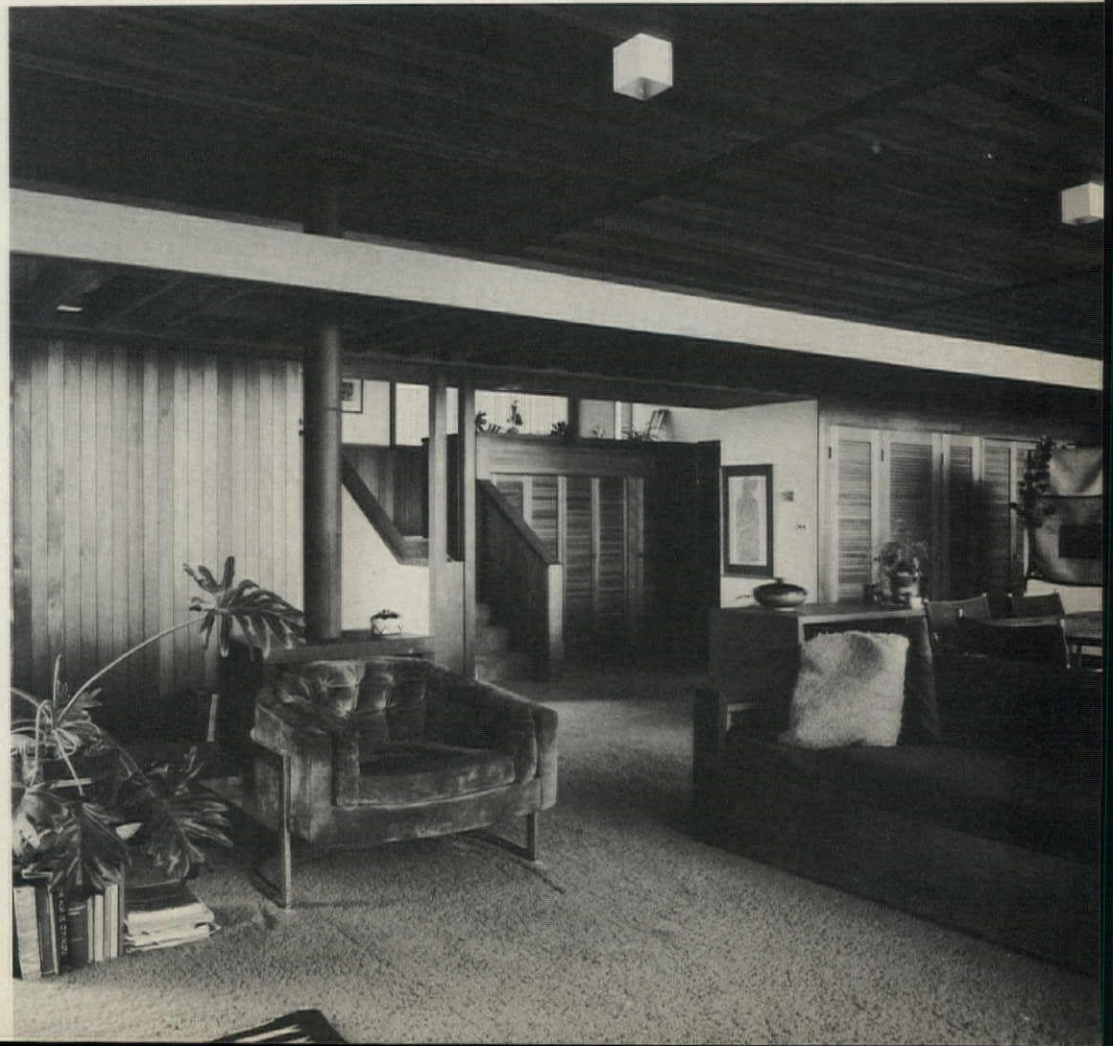


LOWER LEVEL



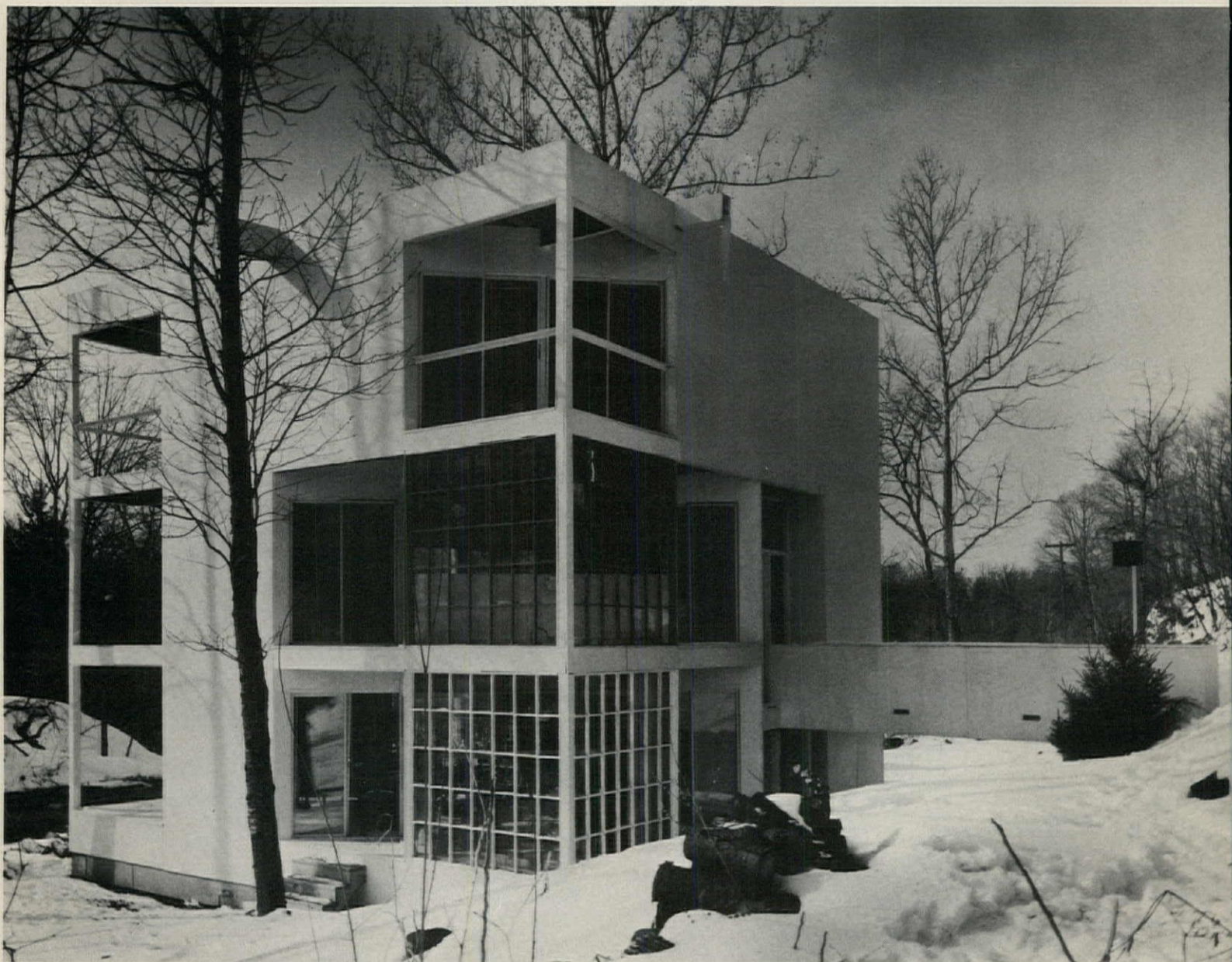
Downhill house sits on steel framing anchored to the side of a mesa. The two living levels are raised above an open area that may be closed in for future expansion (photo, opposite). From the uphill garage, located at one corner of the ½-acre site, a bridge leads to a raised entrance at one corner of the top level (plan, left). Stairs lead down (section, left) into the

living room (photo, below), then down again to the lower-level bedrooms. Both living levels have decks that run the full length of the house (photo, above). These are screened from neighboring hillside lots by wooden lattices. One entire facade of the upper level is a glass wall with a view of distant mountains by day and the lights of a town at night.



HONORABLE MENTION

ARCHITECT: *James Baker, Baker and Blake*
OWNER/BUILDER: *Frederick Q. Shafer*
LOCATION: *Annandale-on-Hudson, N.Y.*
SIZE: *2,628 sq. ft.*

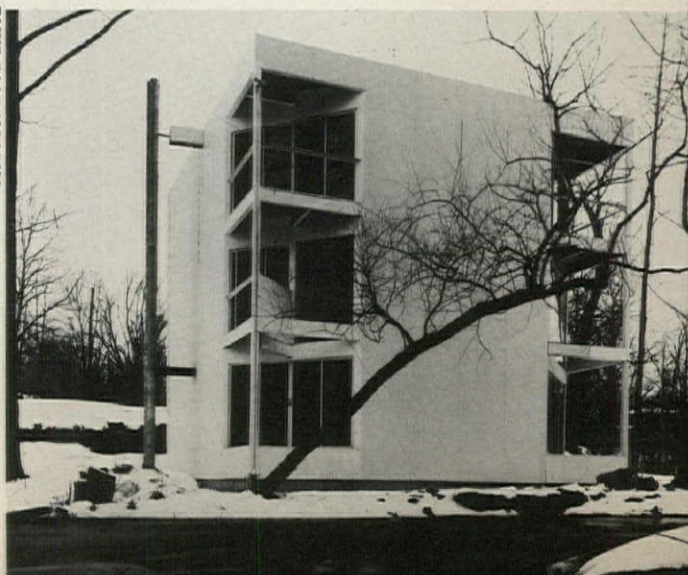


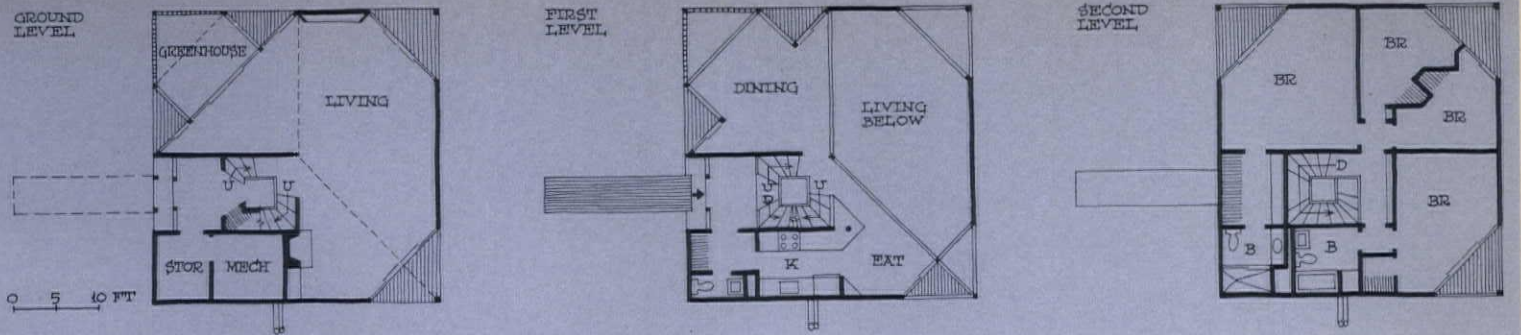
Three-story cube, tucked in the bend of a creek, capitalizes on views of water while overcoming serious site problems. Not only is the land 9 ft. below the street and all utility and sewer lines, but the $\frac{1}{3}$ -acre site—a former mill pond filled in—is at flood level. So the house is entered by a mid-level bridge (photo, above), and no plumbing is below that level. The house is supported by nine columns. A central one, carrying the major weight, is four-angled. Beams, radiating from it, support balcony levels. Thus,

the house literally floats over the site, and spring floods flow under corners unobstructed.

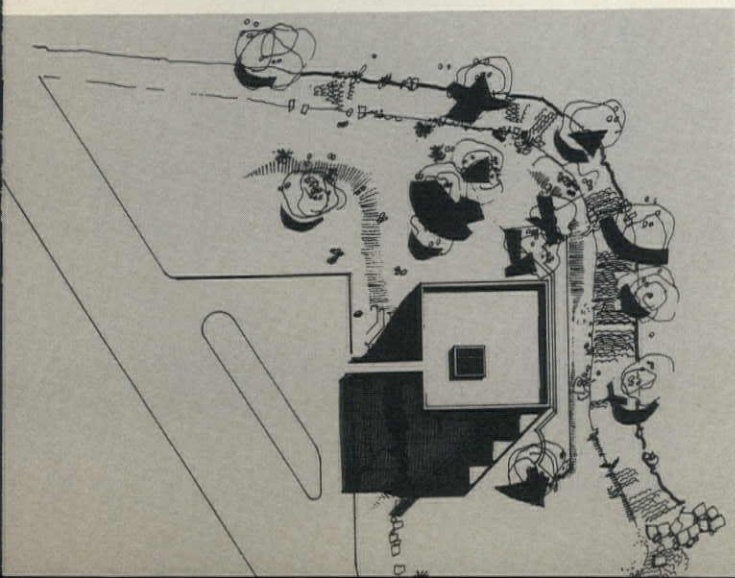
To capture views, and to keep costs down, the walls on three corners were cut back and standard sliding glass doors set in. On two corners, these doors open onto small triangular projecting decks that overlook the creek and a small waterfall (foreground in photo, right). On the third corner, a sliding door on the lowest level (floor plan, opposite) leads into a plant room enclosed by two tiers of greenhouse windows.

PHOTOS: OTTO BAITZ





NATHANIAL LIEBERMAN



Two-story living room on the lowest level of the house leads into two one-story areas: a fireplace corner below the kitchen and a library nook beneath the dining room (plan, above). The library, living room, and dining room look into the plant room and out through the greenhouse windows (photo, above). These rooms, plus the kitchen, all on the river sides of the house (site plan, left), capture not only different views of the creek, but the changing sounds of the water as it slows, passes, and drops over the falls.

HONORABLE MENTION

ARCHITECT: *Thomas P. Reilly, Crites & McConnell*

BUILDER: *Paul Witter*

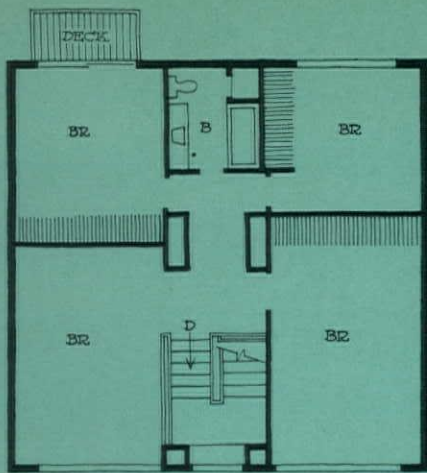
OWNER: *Paul D. Farris*

LOCATION: *Cedar Rapids, Iowa*

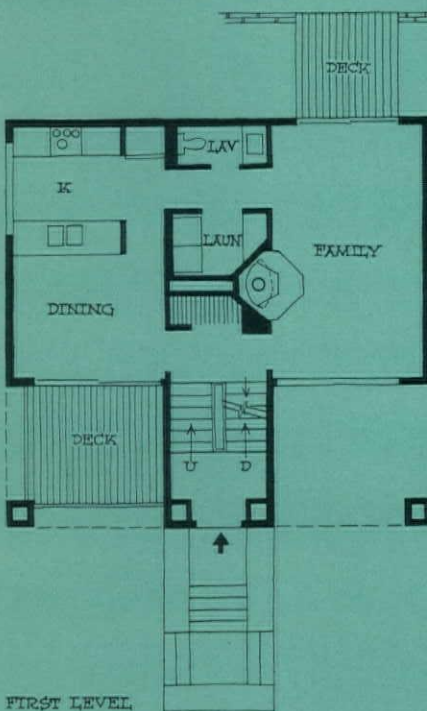
SIZE: *2,431 sq. ft.*

PHOTOS: JOEL STRASSER

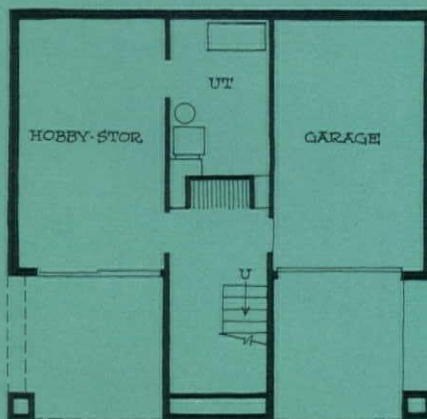




SECOND LEVEL

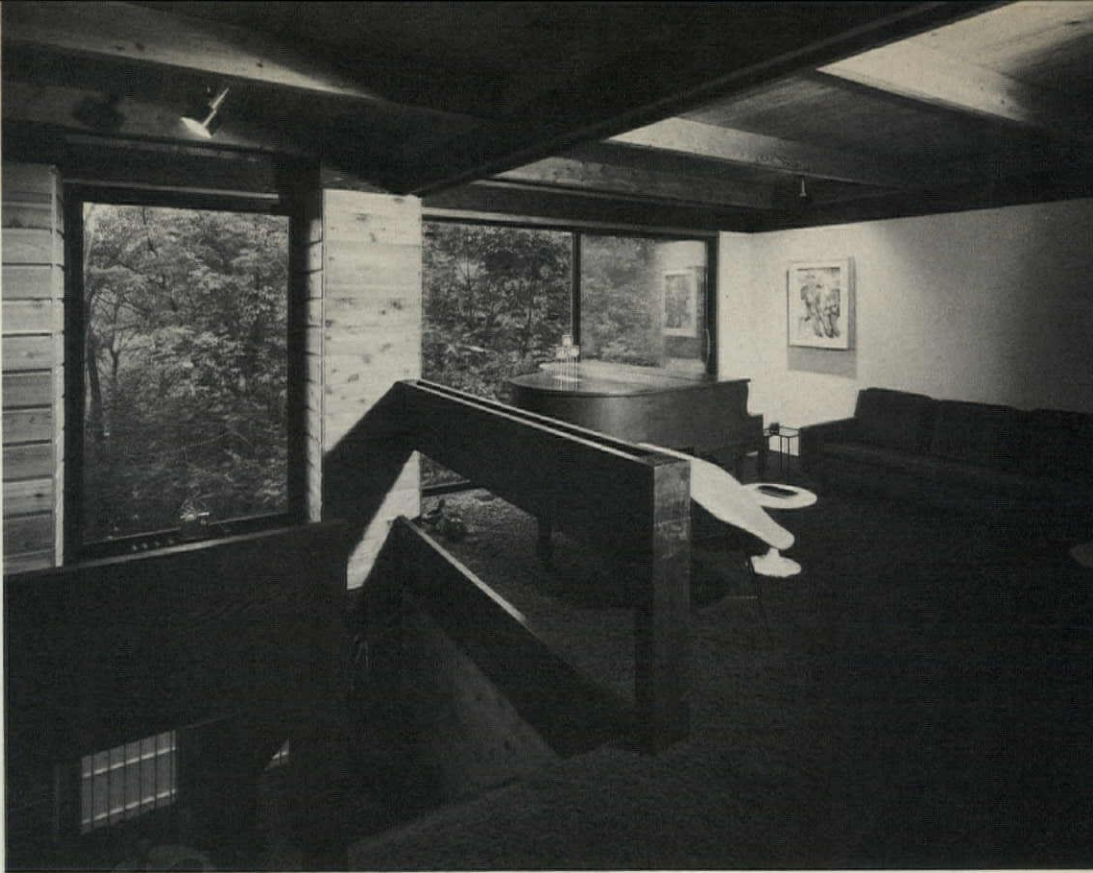


FIRST LEVEL



GROUND LEVEL

0 5 10 FT



Indented cube is square on the top level and T-shaped on the lower two levels (plan, left). The stem of the T is an enclosed stairwell leading to the multipaned entrance door (photo, opposite). Separated by the stairwell are a middle-level porch off the dining room and a sheltered rainy-day play space

in front of the garage. Plans for the levels will change with future expansion: the living room (photo, above) will become a fourth bedroom; the family room (photo, below) will become the living room; and the hobby room will be the new family room. All levels look into surrounding woods.

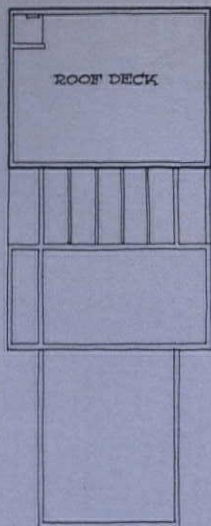


FIRST HONOR AWARD

ARCHITECT: *Robert Whitton*
OWNER/BUILDER: *Marc Firestone*
LOCATION: *Miami*
SIZE: *1,730 sq. ft.*

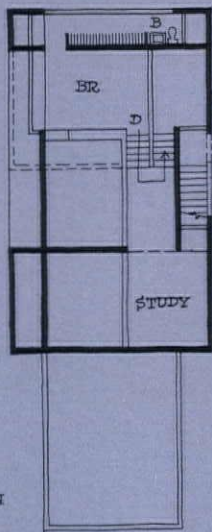
PHOTOS: JOHN SACCO



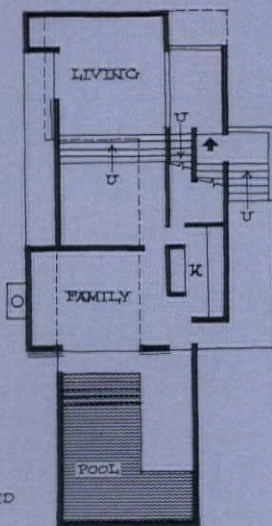


0 5 10 FT

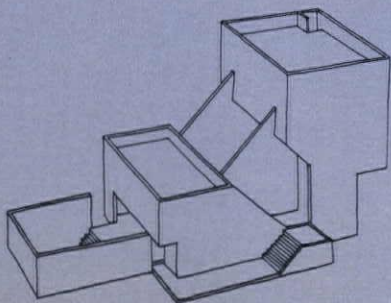
TOP LEVEL



THIRD & FOURTH LEVELS



FIRST & SECOND LEVELS



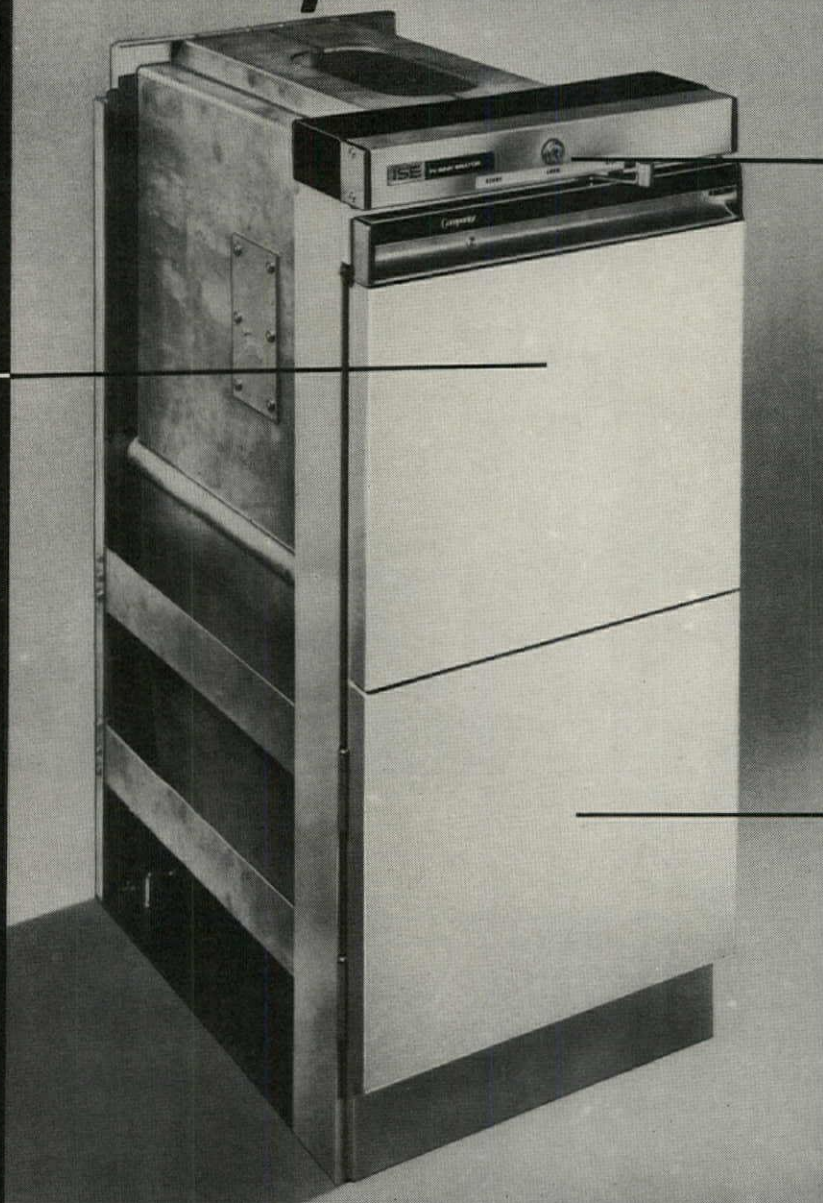
Inner-oriented plan screens all living areas from the street and adjacent neighbors. What windows there are catch only glimpses of the many trees on the 100' x 150' lot because they are recessed, protected by overhangs, or placed high above eye level (photo, opposite). The only distant view—that of the nearby ocean over the tree-tops—is provided from a roof deck above the master bedroom (model, left). All other views turn inward to a central two-story room with a skylight roof (plan, left). Most of the rooms look into this space, which is used for dining. From it, room-wide steps lead up to a living room beneath the master bedroom balcony (photo, above). Another set of wide steps leads from the patio off the family room down into the walled-in pool (photo, right).



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ISE built-in model, without top or side panels, fits into any standard 15" wide cabinet space! It requires no special wiring or plumbing. Plugs into standard electrical outlet. Tough acrylic enameled front panel will retain its beauty for years.

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SPECIFICATIONS

BUILT-IN MODEL 3000

Height (adjustable to 1")	34-1/2"
Width	14-15/16"
Depth	24-3/4"
Motor H.P.	1/3 (heavy duty)
Current	6.2 Amp.
Voltage	115V/60 Cycle
Bearings	Permanently Lubricated
Motor Overload Protector	Automatic Reset
Door Panel Finish	Acrylic Enamel
Motor Bearings (Upper and Lower)	Permanently Lubricated
Shipping Weight	205 lbs.

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Can be used in the kitchen, utility room, basement, garage, covered patio . . . wherever a convenience outlet is available. Accepts standard casters so unit can easily be moved around. Mar-resistant top provides extra counter space, wipes clean with a damp cloth. Can be built in later. Specifications same as builder's model except that with top and side panels, shipping weight is 225 lbs. Ask for Model #7000.

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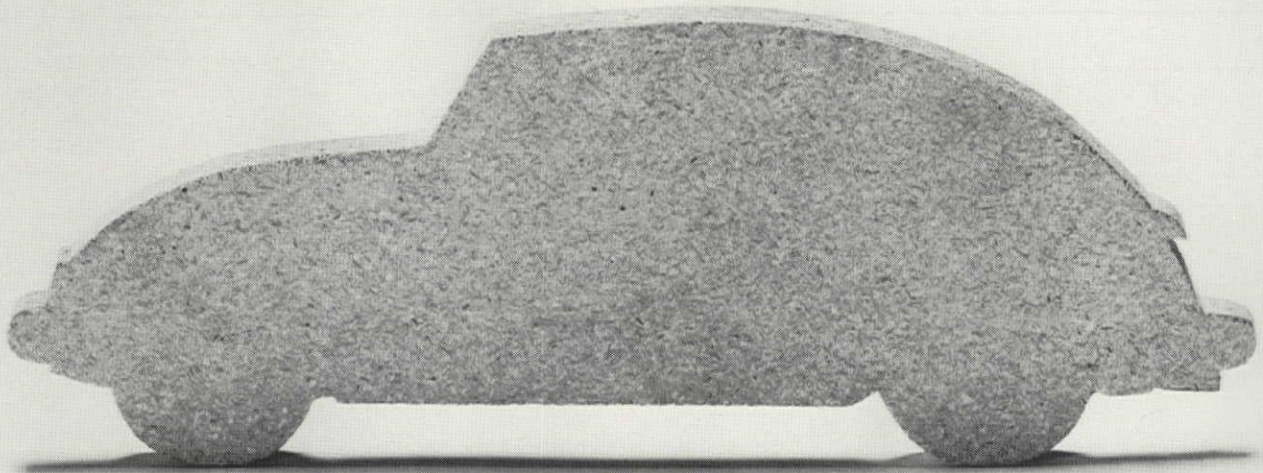


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You just increase production.

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new market research documents the importance of advertising in the sale of building products, materials and equipment

Two major conclusions emerge from a comprehensive Subscriber Profile Study conducted by HOUSE & HOME in order to determine the importance of advertising in the sale of building products, materials and equipment:

1. To reach the market, *you must advertise*—because two out of three people with a voice in product selection say they seldom see salesmen.
2. To sell the market, *you must advertise to all industry groups*—because all industry groups are significantly involved in product selection.

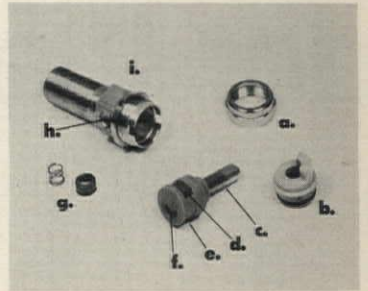
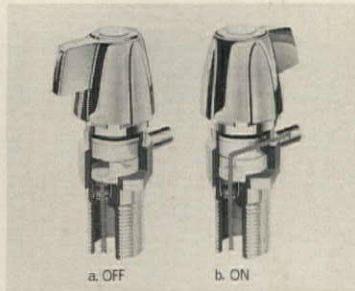
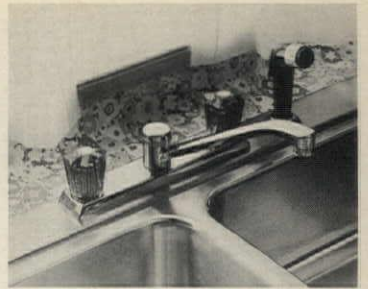
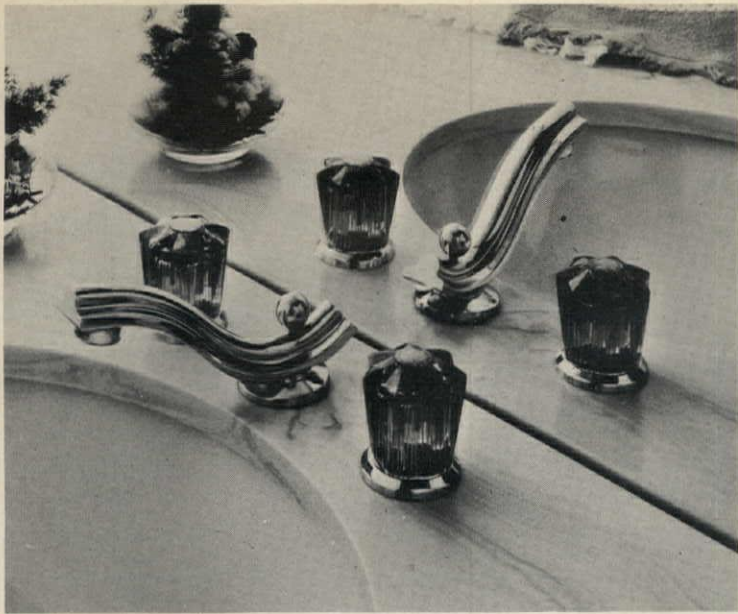
Advertising—and only advertising—can make all the sales calls required to sell all industry groups in the housing & light construction market. The following summary table shows why:

<u>INDUSTRY GROUP</u>	<u>VOICE IN PRODUCT SELECTION</u>	<u>SELDOM SEE SALESMEN</u>	<u>VALUE HOUSE & HOME ADVERTISING</u>
Builders & Contractors	94.3%	66.5%	79.3%
Subcontractors	87.3	64.3	73.2
Government	52.6	74.4	58.3
Commercial/Industrial/Manufacturing	68.2	65.1	71.4
Architects/Designers/Engineers	91.3	52.9	77.7
Realty	65.2	88.6	74.4
Financial	48.7	87.9	68.0
Dealers & Distributors	86.3	35.9	74.5
All Industry Groups	83.7%	66.3%	75.9%

HOUSE & HOME is the *only* magazine making regular sales calls on all industry groups—including full-time builders, those working *for* builders, those working *with* builders, and others who build in addition to their normal activities.

We have prepared a 56-page booklet filled with quotations on *specific* sales actions taken by HOUSE & HOME subscribers in all these groups—now available from your House & Home representative.

McGraw-Hill's marketing and management publication
of housing and
light construction **House & Home**
330 West 42nd Street, New York, N.Y. 10036



Faucets priced for builders offer high style—and are drip-free

The two-handled faucets above simply cannot drip. Unlike other two-handled sets, they don't work on the compression principle and have no washers. Instead, they have rotating valves. When the valve is rotated (*cutaway*), the holes are lined up, and the water flows. When they

aren't lined up, it can't flow. Thus no drips, fewer maintenance calls, reduced repair costs.

Tests show valves still working after 500,000 cycles. Units last three to seven times longer than comparable sets at competitive prices. Should repairs be necessary, how-

ever, they are simple: valve slides out, is replaced by a new one; spring and seat (*G in drawing*) snap out for replacement. Valves can be used for right- or left-hand installation, are made of polysulfone plastic—so they can't shrink or swell—reinforced with glass fibers and

mixed with Teflon—so they can't stick.

Besides the Delex sets shown here for kitchen and bath there are also units designed for tub and shower. Delta Div., Masco, Greensburg, Ind.

CIRCLE 250 ON READER SERVICE CARD

Marble-like countertop adds glamour—plus long life—to kitchens

Opalescent "Corian" looks like marble, and its beige, gray, or olive veining runs throughout. Unlike marble, however, it can be cut, sanded, routed, or drilled with ordinary tools. Basically an acrylic plastic, but toughened with fillers, it resists steam, scratches, and scorching from cigarettes or hot pans. Stubborn stains can be scoured or sanded. Countertopping is $\frac{3}{4}$ " thick in 25"x98" or 30"x98" sheets that go on with adhesive, need no edge strips. Also available: $\frac{1}{4}$ " sheets for backsplashes or walls, and a special stainless sink that needs no hole cut, fits flush in front (*below*). DuPont, Wilmington, Del.

CIRCLE 251 ON READER SERVICE CARD



New information on building products and systems for the seventies.

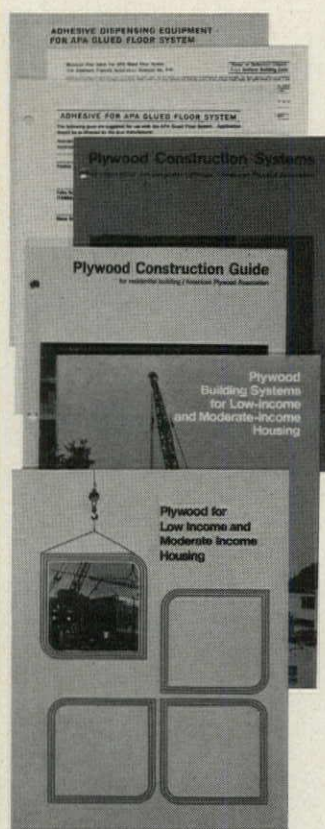
For free copies, use Circle Service Card at back of magazine.

The housing revolution is here. Read all about it.



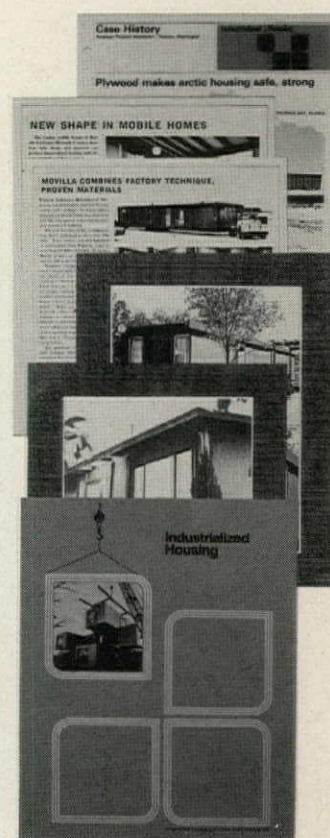
APA Glued Floor System Package. Includes a step-by-step application sequence manual, with how-to photos and information on the new no-squeak, no nail pop, no call-back floor. Tells how to produce a quality floor at minimum cost. 8 pages of case histories. Lists of glue manufacturers and equipment suppliers.

Circle 180 on Reader Service Card



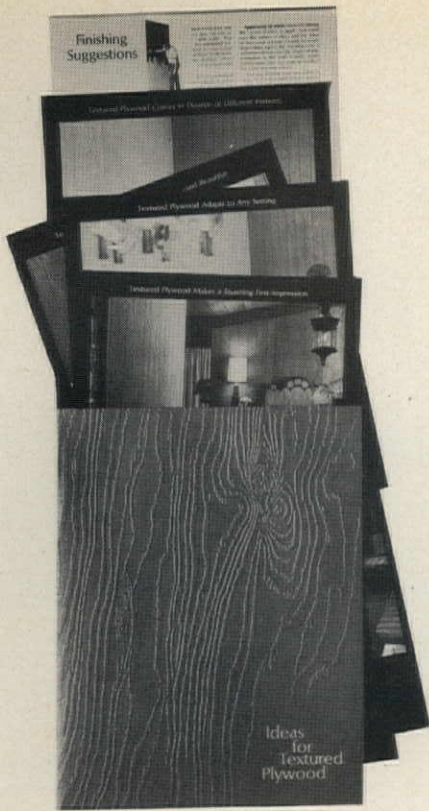
Plywood Building Systems for Low-income and Moderate-income Housing. Includes 20 down-to-earth approaches to low-income housing. Plywood Construction Guide for residential building. Plywood Construction Systems for commercial and industrial buildings.

Circle 181 on Reader Service Card



Industrialized Housing Portfolio. Six new case histories on plywood in industrialized housing construction. For example: Stacked up student housing. Glued components on an assembly line. Post and plywood panel components around a utility core. Data sheets on roof joist and truss assemblies.

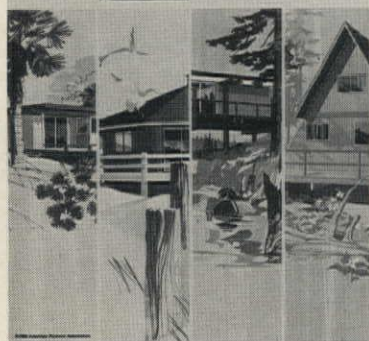
Circle 182 on Reader Service Card



Textured Plywood Portfolio. We've added to the APA textured plywood idea collection. Beautiful full-color photographs show the many varieties, patterns and species. Suggestions for dozens of exterior and interior applications, ideas for paneling, siding, redecorating or remodeling; for office buildings, apartments and restaurants. Application and finishing suggestions; brand names, list of manufacturers.

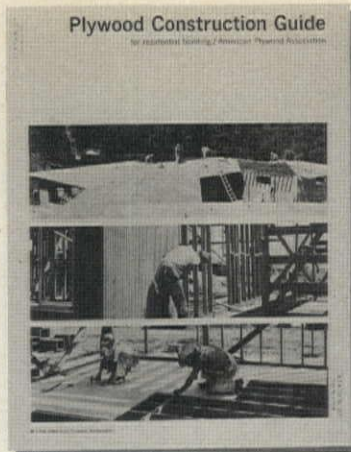
Circle 183 on Reader Service Card

Great Ideas for Second Homes
A Portfolio of 20 Distinguished New Designs in Plywood



Great Ideas for Second Homes. A new collection of 20 outstanding designs—from luxurious year-round leisure homes to rugged mountain cabins. Full-color views of interiors and exteriors. Floor plan for each. Book tells how to get complete building plans.

Circle 184 on Reader Service Card



Plywood Construction Guide for Residential Building. Explains applications, types, grades for plywood in residential construction. Diagrams showing wall, roof and floor construction methods. Grade-use guides. Suggestions for applying and finishing plywood paneling.

Circle 185 on Reader Service Card



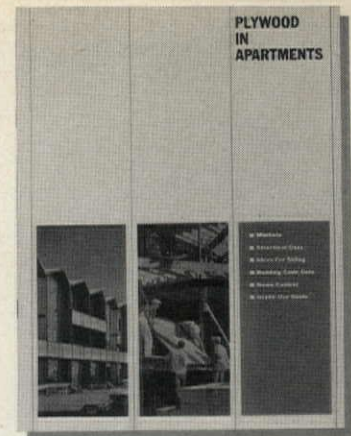
Guide to Plywood for Siding. 12-page booklet has grade-use guide for plywood siding. Application details. Finishing guide. Facts on insulation values, strength and durability.

Circle 186 on Reader Service Card



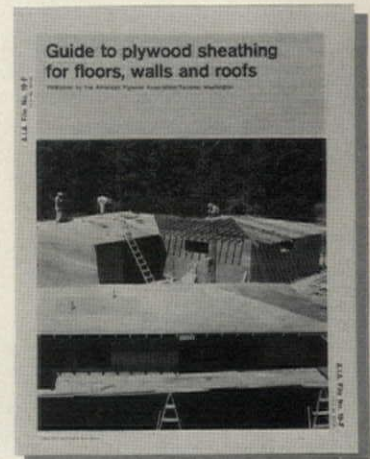
Pocket Guide to Plywood Grades Under PS 1-66. Compact booklet has key definitions, species classification, veneer grades, basic grade charts. Span tables for roof sheathing and subflooring.

Circle 187 on Reader Service Card



Plywood in Apartments. 28-page booklet tells how to cut on-site costs with plywood subfloors, wall sheathing, roof, decks. Includes span tables, grade-use guides and 8 pages of the latest sound control data.

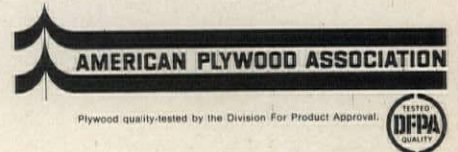
Circle 188 on Reader Service Card



Guide to Plywood Sheathing for Floors, Walls, Roofs. Diagrams, photos show uses, advantages of plywood sheathing. Facts on diaphragm construction, special floor systems (including plywood and plastic foam over concrete). Grade-use guides, load-span charts; sound control and fire resistant construction systems.

Circle 189 on Reader Service Card

For free copies, use Circle Service Card at the back of the magazine. Or write American Plywood Association, Dept. H-071, 1119 A Street, Tacoma, Washington 98401. Or get in touch with one of our field service representatives. Offices: Atlanta, Chicago, Dallas, Los Angeles, San Francisco, Tacoma, Washington, D. C.





For smooth siding: a plastic skin

These siding panels, wrapped in Korad (an acrylic film by Rohm & Haas), have satin smooth surfaces. They are also sunproof, rainproof, and unaffected by temperature changes, termites, rot, or fungus. Korad is bonded to the face of manu-

facturer's building board—4'x8', 10', or 12'—and wrapped around the edges. Lightweight "Durasote" panels come in slate blue, sage green, gold, and white. Homasote, Trenton, N.J.

CIRCLE 252 ON READER SERVICE CARD

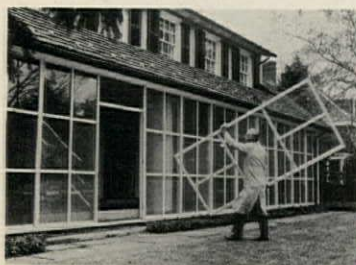


For a prefab fireplace: an oil drum

This prefab fireplace is exactly what it appears to be: an old metal drum cut to the right length to hold a fire and set on its original legs. For convenience, however, a swinging screen door has been added, there is an iron grate and fireback, and an

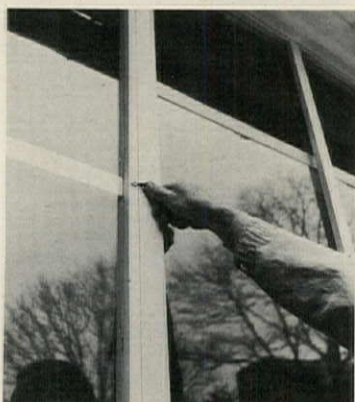
ash pan lifts out for easy cleaning. In black or porcelain colors, it is part of a traditional line including Franklin and parlour stoves. Washington Stove Works, Everett, Wash.

CIRCLE 255 ON READER SERVICE CARD



Porch enclosure system is based on panel (above) that, despite its size, is easy to carry because its glazing is 1/8"-thick Plexiglas. The 4' x 8' sheet floats loosely in grooves in the wood frame so it can flex and shift, during temperature and wind changes, and can be removed for painting when screws in top rail and center mullion are loosened. Panels are mounted from outside: tops are inserted in slot at ceiling height, bottoms rest on a sill below floor level, and sides are clamped together by turn buttons so the overlapping flanges seal out air. Not attached to structure itself, panels conform easily to its irregularities. Designed by Philip M. Adress. Rohm and Haas, Philadelphia, Pa.

CIRCLE 253 ON READER SERVICE CARD



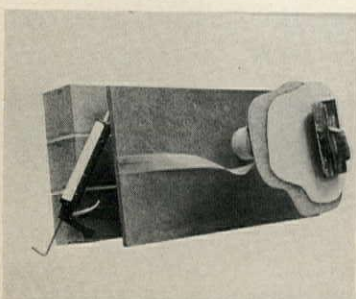
Counter insert, made of ceramic glass called Ultraceram (by 3M), forms a work surface that won't scratch, stain, burn, retain odors, or stick to dough. Shown in Zodiac pattern in gold and black, it also comes in solid white, avocado, or gold, is 16" x 20", and has a stainless steel frame. "Surface-Saver" replaces old counter-tops, preserves new ones. Vance, Chicago.

CIRCLE 256 ON READER SERVICE CARD



Flexible ceiling panels, bent to fit during installation, will snap back to original shape. Made of fiberglass, they can be cut to fit, won't break. Vinyl face wipes clean, loses any wrinkles caused by bending. "Apollo" panels, priced competitively with other ceiling panels, offer thermal and acoustical insulation. Certain-teed Saint Gobain, Valley Forge, Pa.

CIRCLE 257 ON READER SERVICE CARD



Rigid insulation cuts installation costs because it can be laminated directly to masonry wall. The side that takes adhesive is designed to form the best possible bond, the other is rough to take plaster coats. "Inso-Bak" comes in 2' x 8' sheets, 1" thick, is fire resistant. U.S. Gypsum, Chicago.

CIRCLE 254 ON READER SERVICE CARD



Vinyl molding is prefinished to look like wood, comes in eight natural grain finishes or six solid colors, handles like wood. Unlike the wood molding shown, however, it can't split or crack. Nor will it warp, shrink, or show hammer blows because of its cellular construction. Gossen, Milwaukee, Wis.

CIRCLE 258 ON READER SERVICE CARD

HOTPOINT HUSTLE

it's a guy willing to mind your business
as well as he minds his own.

He's your Hotpoint sales representative, and he does a lot more than sell you our complete line of appliances. He hustles.

He'll supply help with kitchen design problems, even at the blueprint stage.

He'll look for savings in your project that you might never see.

And he'll try to make extra sure that the order you gave him arrives when he promised it would. (He knows it costs you time and money if it doesn't.)

Finally, when your buildings are completed, he'll help provide you with all the promotion and sales support you'll need to sell or rent them.

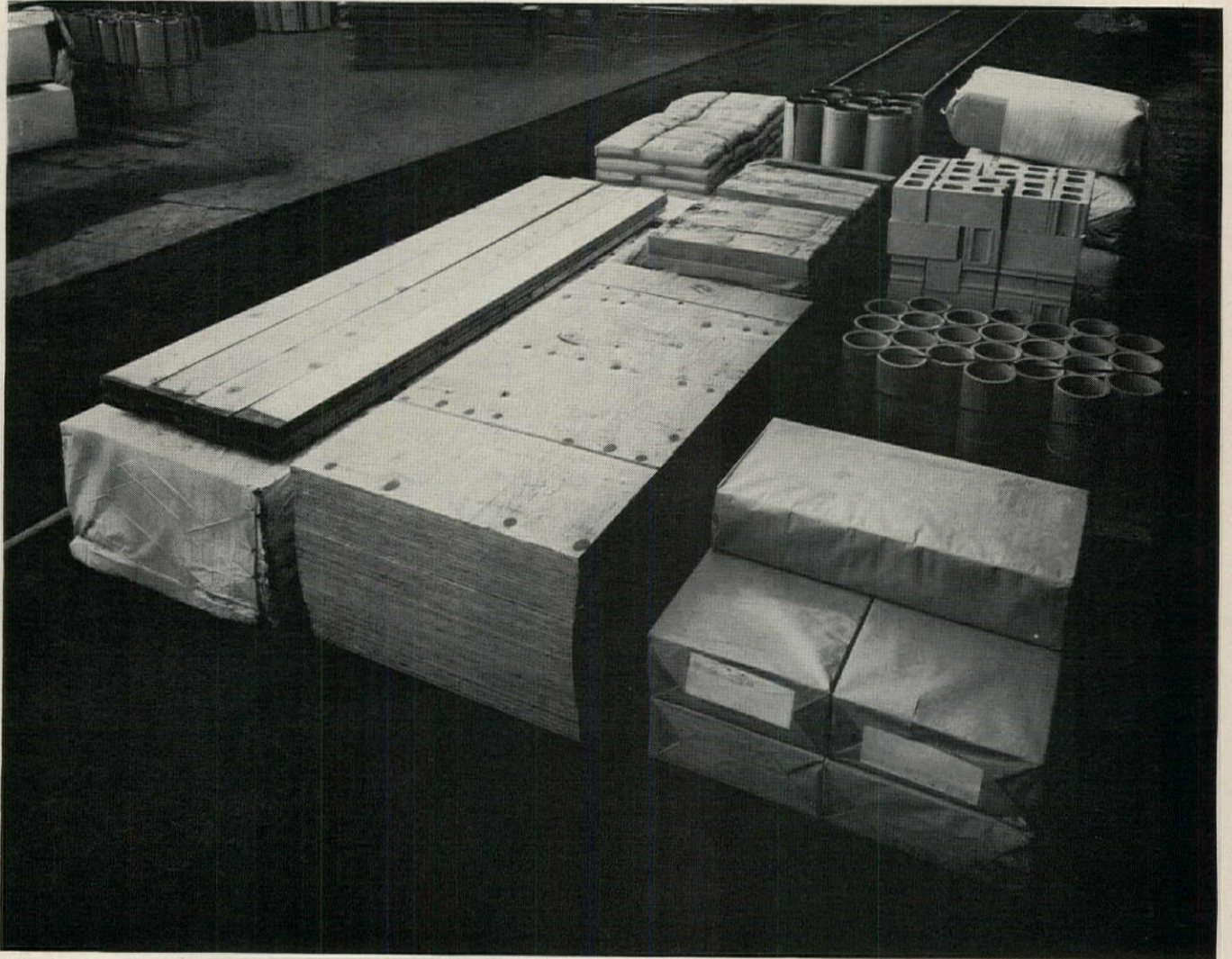
In short, he'll do more for you to make sure that his competitors do less.

He hustles, and for a very selfish reason. He really wants your business and he'll hustle to keep it.



Hotpoint
General Electric Company
The difference is Hustle

Here's why Loadstar is the



Building materials. They're murder on ordinary trucks. But not on the LOADSTAR® truck.

You pick building materials up locally and move them around in a hurry. There's a lot of stop-and-go driving.

You have to move them cheaply, with an economical truck. The same truck you use for light-weight insulation materials has to have the beef to handle brick, sheet rock and cinder block. Right over the curb, onto the site...

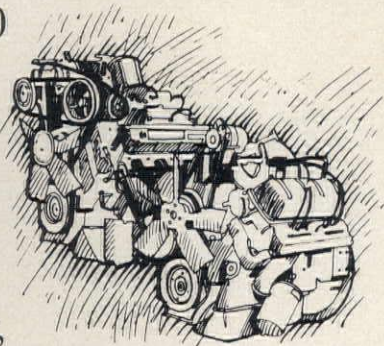
best truck for these loads.

straining through muck and rubble. Or bouncing over rough streets. Making frequent stops and starts on hot days in heavy traffic.

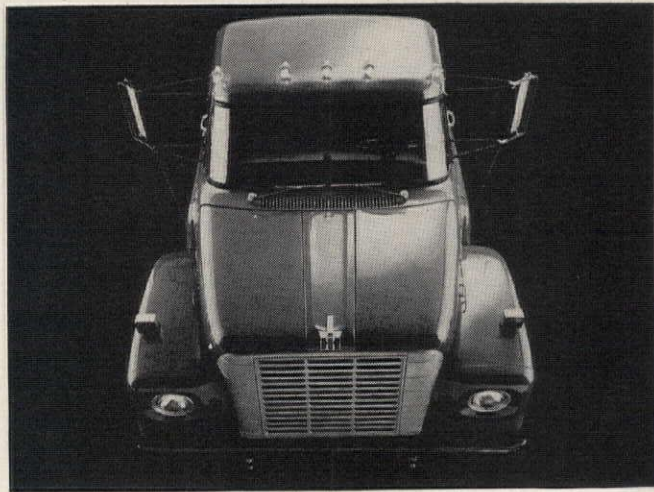
Nothing destroys trucks faster. Nothing burns up engine valves or chews up clutches and transmissions faster. Nothing twists frames and shakes bodies to pieces faster. But the Loadstar is built to take it.

For years the Loadstar has been used, evaluated, re-engineered and perfected for every kind of building material job in every part of the country. Loadstar is the leader...the tough, economical, long-lasting favorite.

Loadstar covers a GVW range from 18,200 to 46,000 lbs...30,000 to 65,000 GCW. You can equip it with engines anywhere from 150 HP to 253 HP in a 6 or 8, gas or diesel. That lets you get a perfect match between power, weight, speed, economy, and your needs.



Loadstar's short BBC, tight turning radius and excellent visibility let drivers snake in and out of docks and construction site paths with little or no wasted time. Low cab for easy



driver entry. The radiator is a big 700 sq. inches, to keep engine heat under control on the hottest days in the tightest traffic. And the cost is low because this is a no-nonsense truck...everything you need to do the job right is built in.

It all adds up to a dependable workhorse that needs very little maintenance and delivers top performance for a long time. A truck you can drive day and night.

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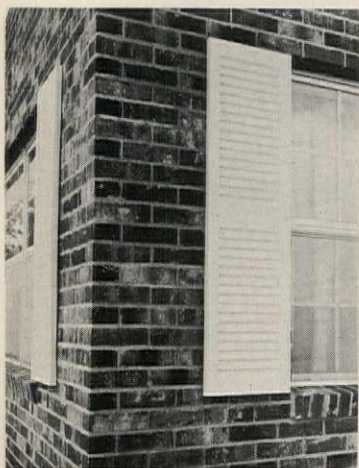
INTERNATIONAL HARVESTER COMPANY • CHICAGO, ILLINOIS 60611



Imitation mission tile, unlike real clay tiles, is difficult to break. Made of ABS plastic, the 2'x4' sheets have very high impact resistance and extremely high shear strength. Also they are lightweight and flexible and easy to install because they can be nailed or stapled. The 2" overlap

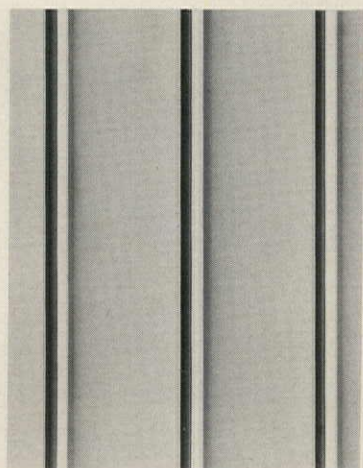
all the way around prevents leaks. The ABS will withstand all types of weather, and the integral color—tile red—won't fade in the sun. Rated by the U. L. as non-burning. The panels are fire retardant. Modular Fixtures, Gardena, Calif.

CIRCLE 200 ON READER SERVICE CARD



Solid vinyl shutters are not only decorative but practical, as they reduce maintenance and repair costs. Molded in one piece, they have no joints to split, no slats to come loose, as with wooden shutters. Nor do the permanent colors of white, green, or black ever need refinishing. And they won't warp or get out of alignment. Bird, East Walpole, Mass.

CIRCLE 201 ON READER SERVICE CARD



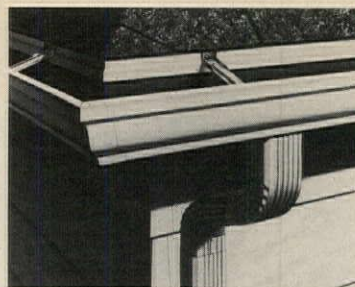
V-grooved vinyl siding provides a three-dimensional look. The interlocking vertical panels are 7" wide and can be used with batten strips in a variety of designs, alternated with perforated V-groove panels, applied alone over an entire wall, or combined with horizontal siding. "Contour T-lok" siding comes in white, green, and gray. Mastic, South Bend, Ind.

CIRCLE 202 ON READER SERVICE CARD

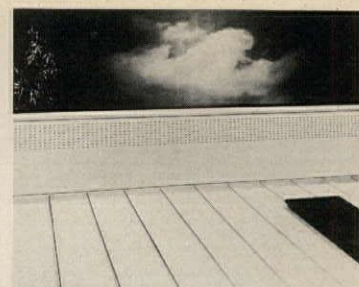


Low-cost hardboard siding is factory-finished for reduced installation and maintenance costs. The 12"x16" horizontal lap "Insulite" panels come in three consumer-selected "Color-Side" colors of burnt gold, moss green, and sage yellow, plus white. Metal corners, nails, and other accessories are color-matched. Boise Cascade, Boise, Idaho.

CIRCLE 203 ON READER SERVICE CARD



Aluminum gutter and downspout are free-floating system that supports ice and snow. Rain carrying equipment now comes in "Woodland Brown" to contrast or blend with sidings. Uss Alside, Pittsburgh. CIRCLE 204 ON READER SERVICE CARD



Slotted soffit panel, for good ventilation, has 5 sq. in. of open area per lineal ft. "X-90" hardboard panels are 8' long, 3/8" thick and come in widths of 12", 24", or 36". Masonite, Chicago.

CIRCLE 205 ON READER SERVICE CARD



Aluminum gutter shield won't rot, rust, or stain. Its 8x8 aluminum mesh keeps out all leaves, trash, twigs, and limbs, leaving gutters and downspouts unclogged and reducing maintenance time and costs. Mesh comes on a roll 25' long and is 7" wide. Phifer Wire Products, Tuscaloosa, Ala.

CIRCLE 206 ON READER SERVICE CARD



Modular panels, finished outside in exposed aggregate as shown, or in face brick, stone, marble, or a ceramic-like glaze, are finished on the inside as well, in any of the above materials, or in wood grains or vinyl fabrics. Panels have wood

fiber cores, are lightweight, insulating, acoustical, and non-combustible. "Exide Insulrock" system also includes doors, windows, trim, and hardware. Atlas Minerals & Chemicals Div., ESB, Mertztown, Pa.

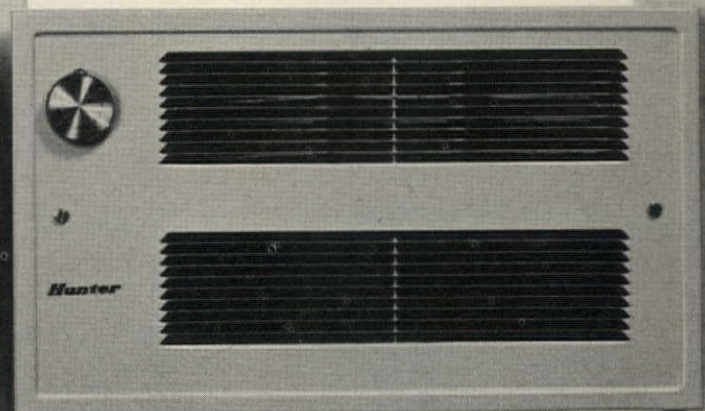
CIRCLE 207 ON READER SERVICE CARD

It's time to be narrow-minded about electric heat



Insist on the unit that fits between standard wall studs

Don't prejudge. The narrow Hunter Hide-Away is bigger than it looks. It pours out plenty of heat for most rooms. It gives a choice of three wattages (1500, 2000, 2500) in one size. It keeps a cool grille at high heat, sells at budget prices, installs easily, works with unit or wall thermostat. It also comes with chrome grille (as well as standard beige) in 1250 and 1500 watts for bathrooms. Can be surface-mounted in mobile and modular homes using accessory kit. So down with prejudice! Be narrow-minded . . . by keeping the Hunter Hide-Away on your mind.



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Please send full information on
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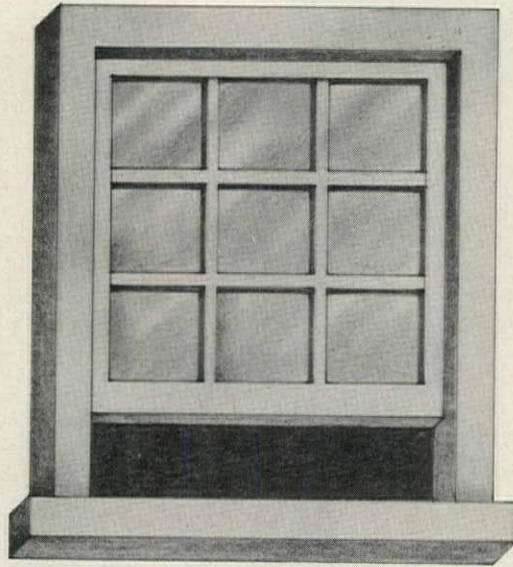
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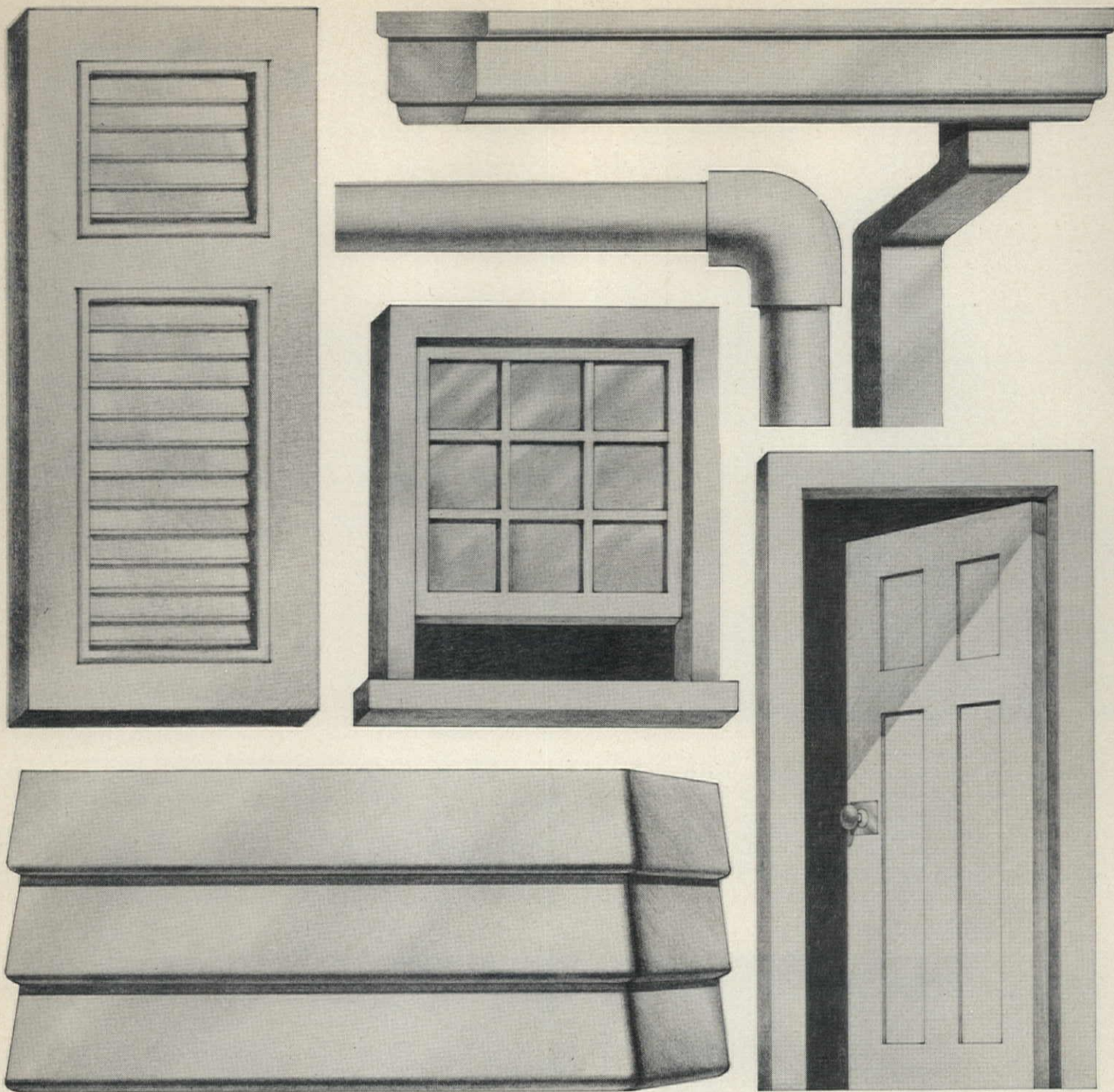
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for building products.**



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Today there are at least five major manufacturers using our Geon® vinyl for windows. Windows that stay warm and need no painting. Seven or more using Geon vinyl for siding that resists denting, retains a soft, even color. Siding that can be horizontal, vertical or look like stone.

And there are scores of people using Geon vinyl to make hot and cold water pipes, drain pipes, shutters, gutters and downspouts, entrance ways, venting systems, corner beads, cabinet door frames, prefinished

moldings, paneling trim, weatherstrip and more.

The buyer of houses today likes the maintenance-free beauty that vinyl gives him. And you can't get too much of a good thing like vinyl.

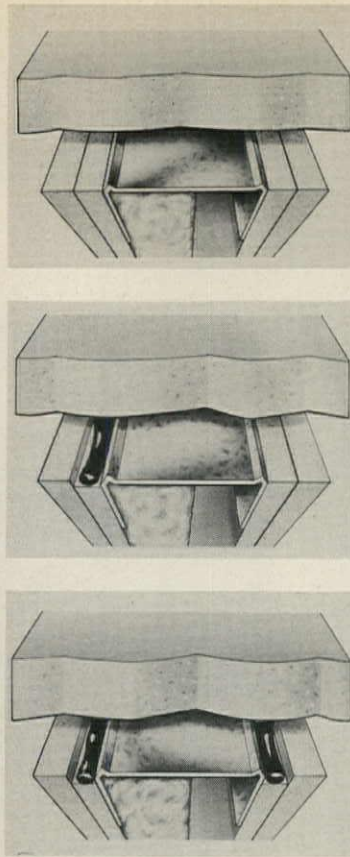
B.F. Goodrich Chemical Company. The people who started it all in vinyl. Dept. H-23, 3135 Euclid Avenue, Cleveland, Ohio 44115.

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Concrete sealer protects sidewalks, floors, roads, or patios from spalling caused by freezing or salts. It resists oil and rust stains, makes ice and snow removal easier, eliminates dusting of new concrete. Used as a curing agent, it makes straw, burlap, paper, plastic, or water sprays unnecessary, and prevents evaporation

of water to insure a dense non-porous slab. Clear "Accuseal" goes on with spray or roller, dries in 30 min., covers 200 sq. ft. per gal., costs less than 2¢ per sq. ft., can also be used over asphalt. Allerton Chemical Div., Voplex Corp., Rochester, N.Y.
CIRCLE 208 ON READER SERVICE CARD



Acoustical sealant technique will block leaks around interior partitions. Drawings show unsealed partition (*top*) with sound rating of 29 STC, partition with one sealant bead (*center*), rated 49 STC, and partition with two beads (*bottom*), rated 53 STC. Trick is a relief narrower than standard 1/4" and a new water-based flexible elastomer sealant. U.S. Gypsum, Chicago.
CIRCLE 211 ON READER SERVICE CARD



Contact cement, when brushed, rolled, or sprayed on, instantly forms—without clamping—a permanent bond that grows stronger with time. "Stanfix" is not affected by water, heat, or freezing, and high-pressure laminates applied with it won't lift, curl, buckle, or bubble. Standard Chemical, Hoboken, N.J.
CIRCLE 212 ON READER SERVICE CARD



Water-based epoxy, a two-part formula, brushes or rolls on immediately after mixing, thins with water, but becomes insensitive to water after it cures. "Dur-A-Poxy" waterproofs patios, below-grade concrete floors, interior or exterior masonry walls, water tanks, etc., is a sealer for pools or epoxy terrazzo or seamless floors, a grout or adhesive for tiles, and a permanent house paint. White or tinted. Dur-A-Flex, Hartford, Conn.

CIRCLE 209 ON READER SERVICE CARD



Clear plastic cement acts much like a metal weld. Two plastic parts are held together, and a small amount of cement applied. It travels across the face of each part, dissolving a thin layer of the plastic, then evaporates, leaving the two pieces permanently welded together. "Plastic Weld" works on ABS, styrene, or acrylics for repairing or bonding new pieces, such as the parts of models. Plastruct, Los Angeles.

CIRCLE 210 ON READER SERVICE CARD



Plastic waterproofing compound will seal the cracks or seams—or even the entire surface—of a masonry wall. It brushes on, even over damp basement walls, dries in eight to ten hours. It is colorless and can be painted over. It won't shrink, expand, or corrode and is unaffected by heat, cold, or changes in temperature. One qt. will cover 40 sq. ft. Shepco, Whitestone, N.Y.

CIRCLE 213 ON READER SERVICE CARD



Bonding liquid needs no heat or pressure to form a bond in just 60 seconds. "Zipbond" will bond, to themselves or to each other, most man-made materials—such as plastic, porcelain, or glass—as well as rubber, metal, and wood. It is a one-part system that can be used on production lines, as well as for repairs and maintenance. Tescom, Minneapolis.

CIRCLE 214 ON READER SERVICE CARD

"Anything associated with Lawrence Welk's name must have the hallmark of quality. So Lawrence Welk Plaza is equipped with KitchenAid appliances."

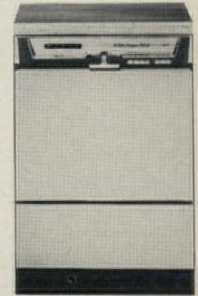
High above Santa Monica Beach rises a new 16 story apartment building and a 21 story office building. This is Lawrence Welk Plaza. The apartment building is called Champagne Towers. It consists of 119 prestige apartments, each equipped with a KitchenAid dishwasher and a KitchenAid food waste disposer.

Ted R. Lennon, executive of Wilshire West Company, explains why KitchenAid was chosen over six other appliance makes. "It is Mr. Welk's policy in all his real estate undertakings to provide more than the minimum, and anything associated with his name must have the hallmark of quality.

"KitchenAid has the reputation of making the best kitchen appliances. Since Lawrence Welk Plaza will provide the most luxurious apartments in California, the best appliances were chosen.

"It was also considered more economical for the long term to select KitchenAid. Our survey indicated less maintenance would be required, and the appliances have more powerful motors and a superior appearance."

Ask your KitchenAid distributor about his builder plan. Or write KitchenAid Dishwashers, Dept. 1DS-7, The Hobart Manufacturing Company, Troy, Ohio 45373.



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“Sure, I’ve had a Yellow Pages customer call me and tell me he needs a house in two weeks.”

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service, most likely they’ve heard of us. I think any businessman is wise to take advantage of such a well published book.”

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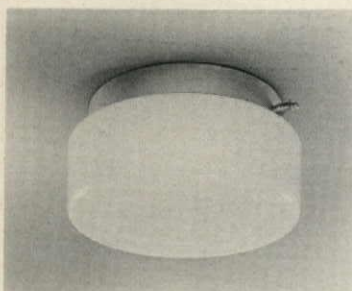




Wrought iron chandelier is one of a series of hanging lamps and wall sconces in Mediterranean styling. The "Spectra III" line includes this chandelier with intricately designed wrought iron scrolls and

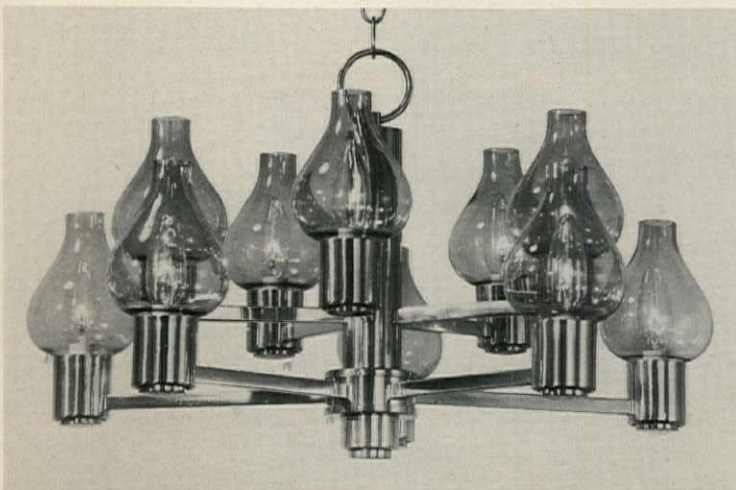
leaves. Fixture is 9" in diameter, 12" high, and suspends to 36". It takes four 60W candelabra bulbs in its white "candle" sockets. Del-Val, Willow Grove, Pa.

CIRCLE 233 ON READER SERVICE CARD



Hinged ceiling drum light features hand-blown opal glass cover, a one-piece aluminum holder, and the manufacturer's special safety latch. The fixture—designed for soft light in offices, apartments, and homes—is available in several sizes and wattages from an 8" round for one 60W bulb to a 16" round for three 100W bulbs. Markstone, Chicago.

CIRCLE 234 ON READER SERVICE CARD



Ten-light chandelier has two tiers of five lights each. The 12½"-high lighting fixture, which blends contemporary and traditional lines, uses chimneys of amber glass imported from Sweden to enclose candelabra bulbs, as shown. The

arms and column have a polished brass finish. The spread of the "Consonare" chandelier is 25", and its over-all drop is 32". Other similar style also available. EJS Lighting Corp., Los Angeles.

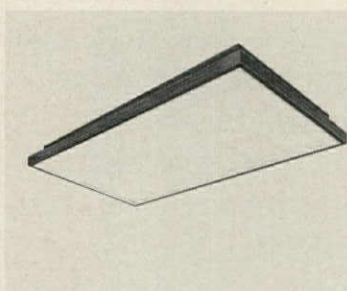
CIRCLE 237 ON READER SERVICE CARD



Heating/lighting unit combines two necessities for baths and dressing areas. The wide-angle heating element—that delivers up to 5,118 BTU—is in nickel chrome. The grille, which surrounds a moon-

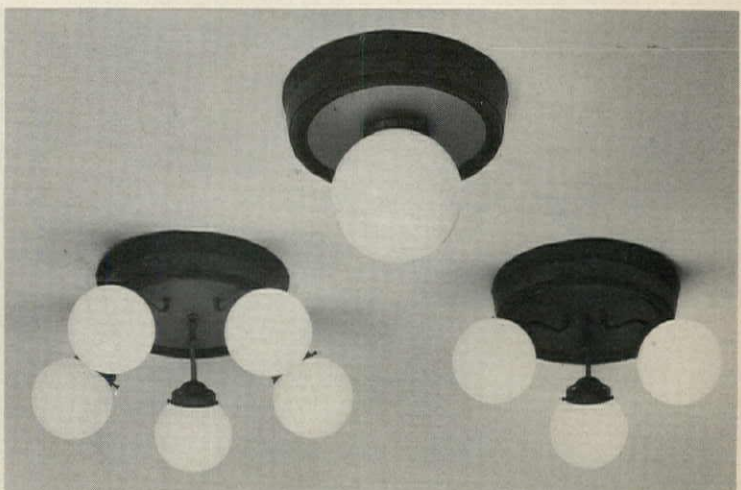
stone glass lens, is anodized aluminum and measures 11½" x 15¾". "Heat-A-Lite" has a plug-in motor, cuts installation time and costs. NuTone, Cincinnati.

CIRCLE 238 ON READER SERVICE CARD



Solid walnut frame around this light fits in with any home or office decor. The fixture has a birch screen with a white diffuser for even distribution of light. And the regressed housing of the "Woodcrest" line—in a variety of sizes—gives a custom look, whether suspended or installed close to the ceiling. Sim/Kar, Philadelphia.

CIRCLE 236 ON READER SERVICE CARD



Colonial style fixtures look like old wooden barrel-heads, but are actually molded of polyurethane, complete with strapping, rivets, and nail heads. The frames are finished in two-tone woodgrain, to go with cabinets, paneling, and

furniture, or in one of 12 colors including copper. Available in one-light fixture with 15" diameter and 8 globe, or in three or five lights, with 20" or 23" diameters and 6" globes. Melolite, Brooklyn, N.Y.

CIRCLE 239 ON READER SERVICE CARD



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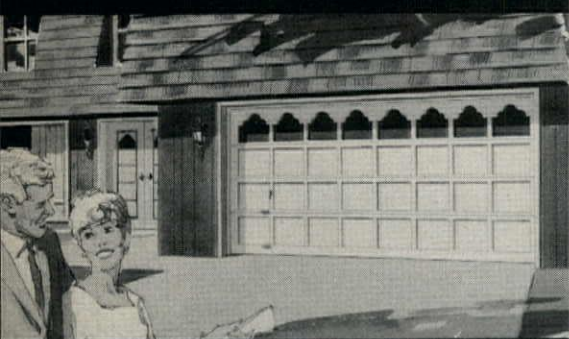
homasote company

TRENTON, NEW JERSEY

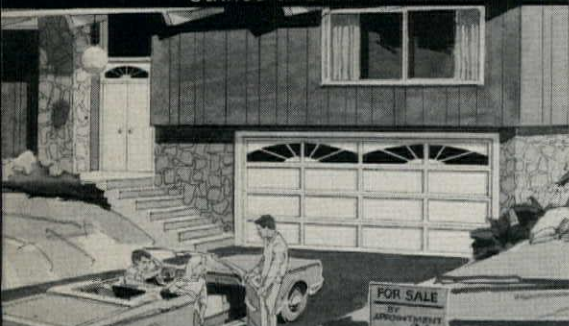
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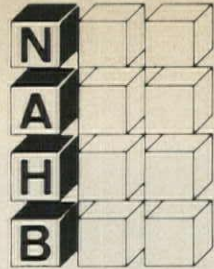


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For sliding glass doors, use Thermopane® insulating glass units made with Tuf-flex® tempered safety glass.

To shut out cold after sliding glass doors are closed. To reduce down drafts near them, so more of the room can be used. To reduce condensation on the glass.

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Thermopane units made with clear, bronze and grey glass are available in standard sizes. Made only by Libbey-Owens-Ford Company, Toledo, Ohio 43624.

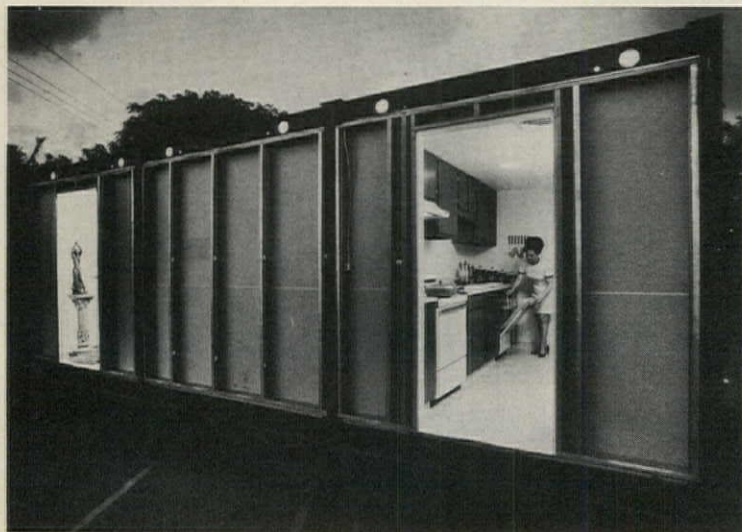
LIBBEY-OWENS-FORD





Arched cabinets are specially designed for homes with high cathedral ceilings. Cabinet doors all feature deeply sculpted arches that echo the height of the kitchen ceiling. Accessories include dining hutch, swinging door pantry, matching range hood, ceiling beams, plate rails, and planning desk. The "Cathedral Kitchen" is offered in a variety of natural and painted finishes. Quaker Maid, Leesport, Pa.

CIRCLE 218 ON READER SERVICE CARD



Kitchen/bath/laundry modules are 24' long, 12' wide, and 9' high and include all kitchen, bath, and laundry room appliances plus heating, ventilating, and air-conditioning units. Module is ready for use after water, electricity, and sewage are connected. Included in the steel-

frame module are refrigerator, dishwasher, electric range, sink with disposer, washer and dryer, 2 lavs, 2 toilets, tub and shower, and hot-water heater as well as cabinets and lighting. Westinghouse, Pittsburgh, Pa.

CIRCLE 219 ON READER SERVICE CARD

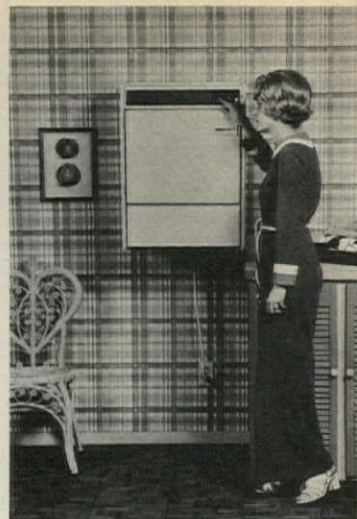


Self-cleaning oven is easily installed at eye level with standard cabinetry and includes clock-controlled cooking, black-tint door, timer, range illuminator under the oven, balanced heat control, and top-boiling element. Range top has surface ventilation system that traps odors, smoke, and steam at the cooking level, exhausts them outdoors. Jenn-Air, Indianapolis, Ind.

CIRCLE 220 ON READER SERVICE CARD



Compact dryer fits in closet or hangs on wall, as shown, or stores in bathroom corner or under kitchen counter, rolls out for use. It weighs only 60 lbs., measures 21" wide, 18 3/4" deep, and 28 1/2" high,



needs no outside venting, takes up to five lb. (dry) loads. Cycles include a no-heat fluff and one for permanent press items. General Electric, Louisville, Ky.

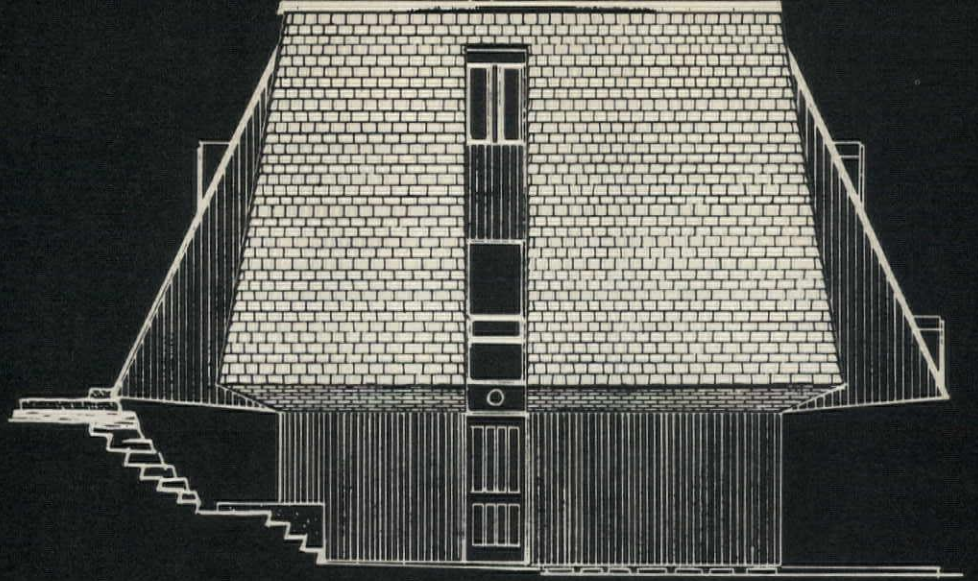
CIRCLE 221 ON READER SERVICE CARD



Reversible door panels provide a change in kitchen decor. A simple fastening device holds panels firm but allows them to be switched in an instant from a smooth surface (top photo) to a plank-like look

(bottom photo). Both sides are finished in walnut. "Tudor" cabinets in Woodcarv line have antique brass door pulls and escutcheons. NuTone, Cincinnati, Ohio.

CIRCLE 222 ON READER SERVICE CARD



Apartments at Seattle, Washington. Certigrade Shingles No. 1 Grade, 16" Fivex. Architect: Jan Kiaer. Owner-builder: Fred Peterson.



Red cedar shingles outside. No vacancies inside.

An investment in beauty made a beautiful investment at these Seattle apartments. Even before construction was completed full occupancy was assured. Now there's a long waiting list. It's easy to see why.

There is individuality here. Space. Elegance. Harmony. Architect Jan Kiaer did it with low-density site development.

With imaginative design. And with the native beauty of red cedar shingles.

The red cedar mansards do more than embellish. They permeate the area with warmth, creating a community instead of a complex. They blend with and extend the natural charm of the wooded environment. And they retain their

beauty for decades without maintenance.

For your next apartment project, specify red cedar Certigrade shingles or Certi-Split handsplit shakes. For details and money-saving application tips, write: 5510 White Building, Seattle, Wa. 98101. (In Canada: Suite 1500, 1055 West Hastings St., Vancouver 1, B.C.)

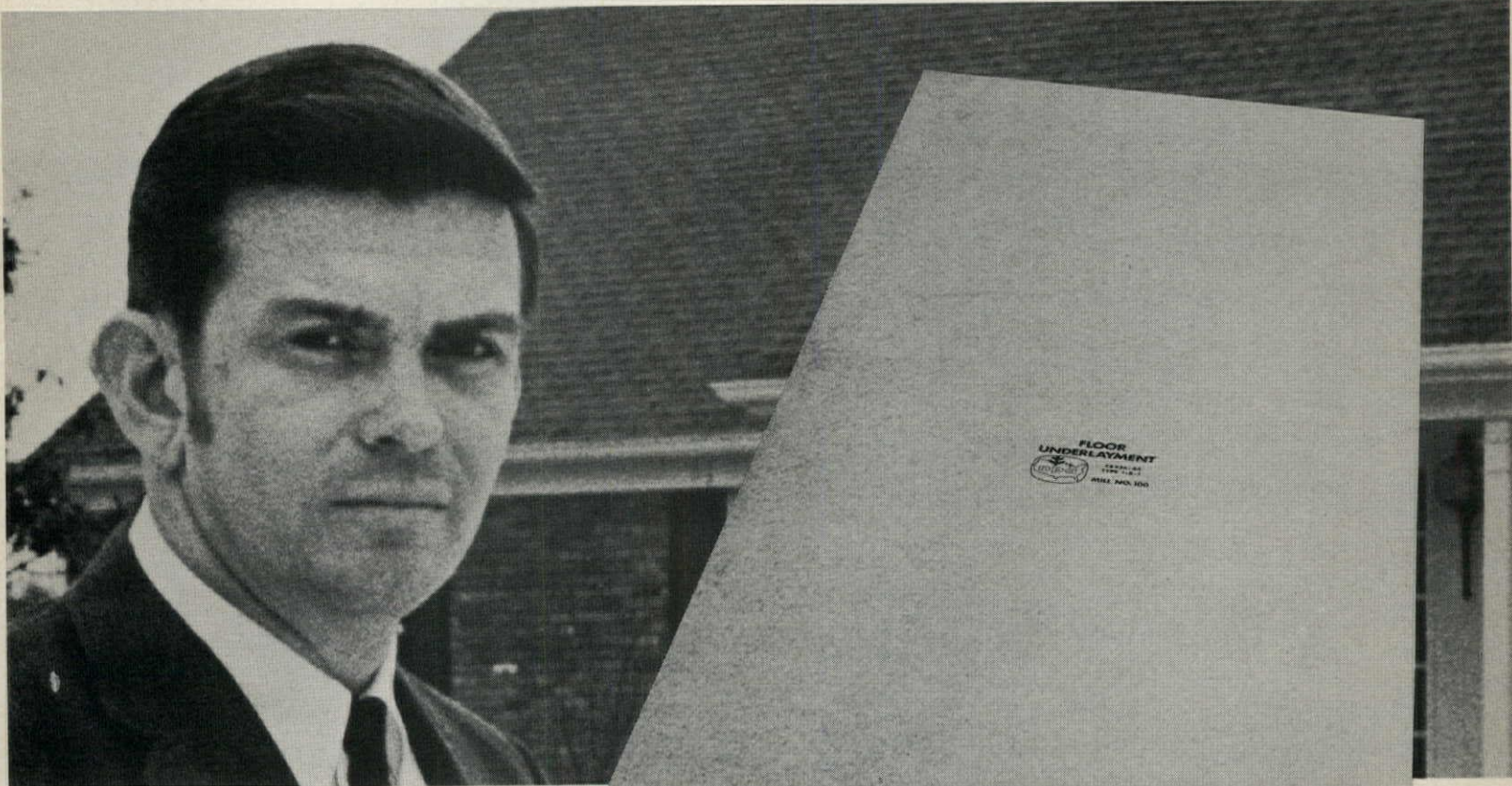


Red Cedar Shingle & Handsplit Shake Bureau

One of a series presented by members of the American Wood Council.

"Look for the NPA grademark when I buy particleboard floor underlayment."

Roger Dardenne, Dardenne Building Corp., Akron, Ohio



Roger Dardenne is like hundreds of other builders who want a trouble-free floor underlayment.

One that installs easily. That's easy to cut, smooth, stable, solid and free of voids. One that will do the job right and eliminate costly call-backs that eat into profits.

That's why he makes sure when he buys floor underlayment that it's particleboard with the NPA grademark clearly stamped on it and that it's installed according to instructions.

The National Particleboard Association's grademark is his assurance that the panel was manufactured to meet or exceed U.S. Commercial Standard CS 236-66. And only those manu-

facturers agreeing to a rigid in-plant testing and quality control program that is verified by NPA through unannounced visits to the mills and tests of board in an independent laboratory are permitted to use the NPA grademark.

So next time you buy floor underlayment, make sure you specify NPA grademarked particleboard.

It's the underlayment you can trust.



NATIONAL
PARTICLEBOARD ASSOCIATION

2306 Perkins Place, Silver Spring, Maryland 20910

NPA Members: (those with asterisks manufacture underlayment)

- | | |
|------------------------------|-----------------------------|
| *Boise Cascade Corp. | *Olinkraft, Inc. |
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| *Cascade Fiber Company | Resinwood Division |
| Collins Pine Company | Southwest Forest Industries |
| *Duraflake Company | *Temple Industries |
| *Georgia-Pacific Corp. | *Timber Products Company |
| Hambre Forest Products, Inc. | WESTVACO Corp. |
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| *Mexwood Products, Inc. | |

FLOAT-AWAY ADDS THE FINISHING TOUCH* TO THE BEST CLOSET SYSTEM YOU CAN BUY

* Float-Away has just made a revolutionary improvement in closets that pays off handsomely for you, the builder.

Until now, all prefinished closets—wood or steel—were spray painted. It was an adequate finishing method as far as it went.

But now there's something better. Float-Away has just installed a totally new kind of finishing process, one that makes painting obsolete. Instead of simply spraying, the new Float-Away finish is actually plated to the metal. That's right, *plated*.

In punishing laboratory tests, this new finish doesn't chip or crack even when the metal is bent at a 180-degree angle. Dent it with a hammer, it still won't fail. Rip away door braces, the finish stays intact. It's the closest thing yet to a permanent closet finish.

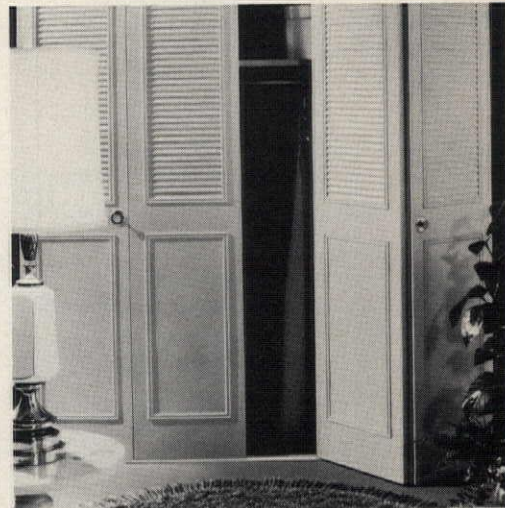
Technically called electro-deposition, the new process creates an inseparable bond between finish and metal. Edges, screw holes, mounting holes, corners, louvres, every part of the unit gets a deep, uniform finish.

Then, the electrically plated finish is baked hard for 22 minutes. (Not the usual two to five.)

Result? A prime coat so smooth and lustrous that it's actually superior to a finished coat. Tough. Lasting. Maintenance-free for years to come. Better looking than any other finish you can buy today.

Yet this remarkable finish costs you not a penny more.

We call this process Floata-Plate. It's exclusive with Float-Away, nobody else has it. If you're not getting it, you're getting taken. For complete information, write: Float-Away, Department HH-07, 1123 Zonolite Rd., N.E., Atlanta, Georgia 30306 (404) 875-8021.



FLOAT-AWAY®

COMPLETE CLOSET SYSTEMS

Division of Kinkead Industries



PROPERTY MANAGEMENT

We are looking for an assistant to the president of one of the top 100 development organizations in the United States, located in and around the Minneapolis-St. Paul, Minnesota area.

The man selected will head up our newly formed property management division, and assume full responsibility in the operation of over 1,000 apartment units. He will also be expected to purchase and sell land inventory; manage, rent and control a number of smaller commercial enterprises; arrange joint ventures, limited partnerships and related transactions.

This man must have a complete college background and experience in the field of property management. He can expect to receive a liberal commission and an exceptional salary.

Our firm will be highly selective in choosing the right man for this position. If you feel you have the experience and initiative to handle these responsibilities,

Send resume to: 4806 Howe Lane
Minneapolis, Minnesota 55429

PRODUCTS/LIGHTING



Outdoor floodlights are made of die-cast aluminum. The truncated spheres on concealed internal yoke, can be adjusted as much as 90° vertically and 355° horizontally. Light distribution is so flexible that special features can be pinpointed by a very narrow beam or an entire facade can be lighted up. Five protective lenses and grilles are shown. Lightolier, Jersey City, N.J.

CIRCLE 223 ON READER SERVICE CARD



510 NAILS A MINUTE:

THE KLINCHER GOES AT A FAST CLIP

Panel-Clip's Klincher Truss Press and Clips are the most economical fastening system for trusses on the market today. The lease cost of the Klincher and Jig is less than \$2.00 a day, and that includes our free design service (Klincher and Jig can be leased for just \$37.88 per month or purchased for \$1,114.00).

If you're a growing truss fabricator, you'll appreciate MAXIMUM SPEED—MAXIMUM PROFIT—MINIMUM INVESTMENT.

For complete information, write:

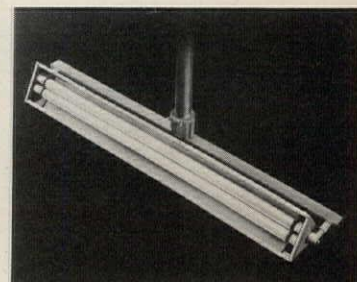
The Panel-Clip Co.

BOX 423, FARMINGTON, MICHIGAN 48024



Trailer-mounted lighting provides up to 1,000,000 lumens of day-like light. System includes a generator, a 30' folding telescopic mast (40' mast also available), and the luminaire with a 20-KW xenon lamp. The "Sun-Tower" is mounted on a small trailer that can be hauled by a passenger car. It gives true color rendition, which is useful for camera work, exhibits, model areas, or advertising displays. Holo-beam, Paramus, N.J.

CIRCLE 224 ON READER SERVICE CARD

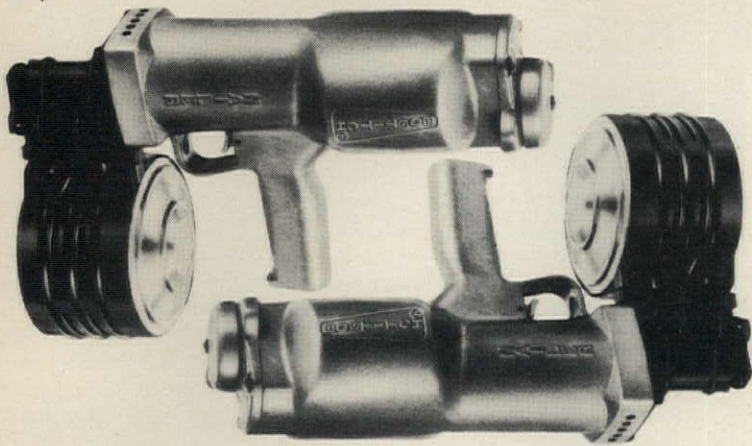


All-weather fixture is totally enclosed and gasketed so it can be used for up- or down-lighting. It provides high-level illumination for parking lots, facades and entrance of buildings, as well as service areas. The fixture measures 5" x 6½" x 51¾", has a rugged aluminum housing and an unbreakable clear lens protecting the two 48"-long lamps. The remote ballast may be ordered for 118 or 277 volts. Magna-Lite, San Gabriel, Calif.

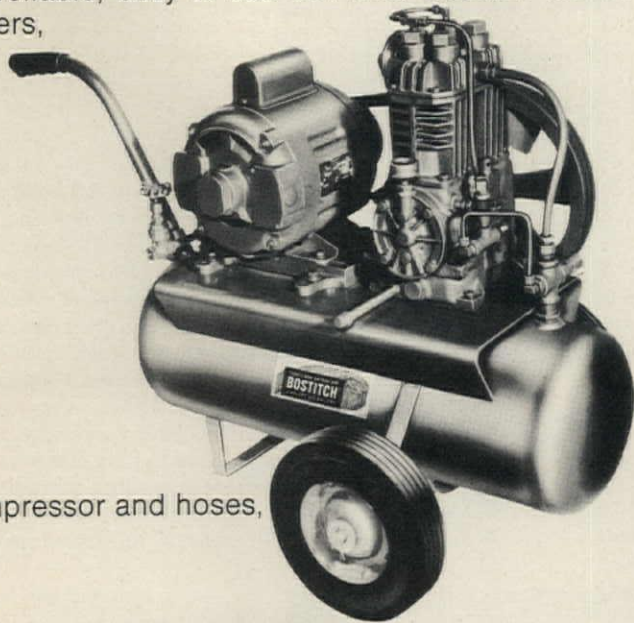
CIRCLE 225 ON READER SERVICE CARD

Only Bostitch makes building roof trusses so easy.

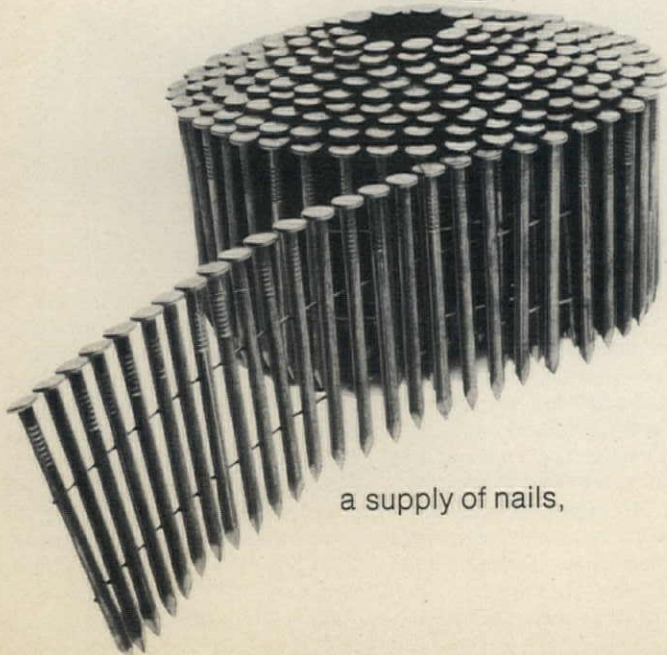
Complete, compact Bostitch Clinch-Nail System gives you everything you need to build roof trusses except lumber and saws. And the Bostitch Clinch-Nail System meets every builder's and remodeler's needs for strong, dependable, low-cost wooden roof trusses.



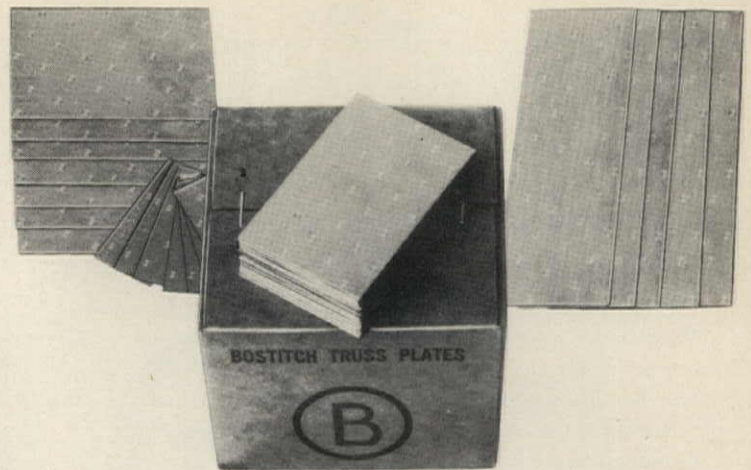
The Bostitch Clinch-Nail System "package" includes reliable, easy-to-use coil-feed Bostitch Model N3 Nailers,



compressor and hoses,



a supply of nails,



plates, jigs and clamps, plus complete, illustrated installation and operating instructions. You can set up anywhere you want, and build trusses in half the space normally required.



And Bostitch Clinch-Nailed Roof Trusses have exclusive "rivet-joint" construction to stand up under the toughest conditions in transporting and handling. For complete information on the high-strength, economical Bostitch Clinch-Nail Roof Truss System, talk to the man with the fastening facts - your Bostitch man. Or write Bostitch, 247 Briggs Drive, East Greenwich, Rhode Island 02818.



"Women's Lib" can move wives

(right into your homes and apartments).

Ban The Garbage Can



"Women's Lib Begins At Home" . . . our theme for 1971 which millions of women will read and heed. Because In-Sink-Erator disposers ensure freedom from garbage problems, they're powerful sales persuaders. Eight models to choose from; over 800 Service Centers nationwide. With 50 units or more you get a free maintenance program that saves a sinkful of service costs.



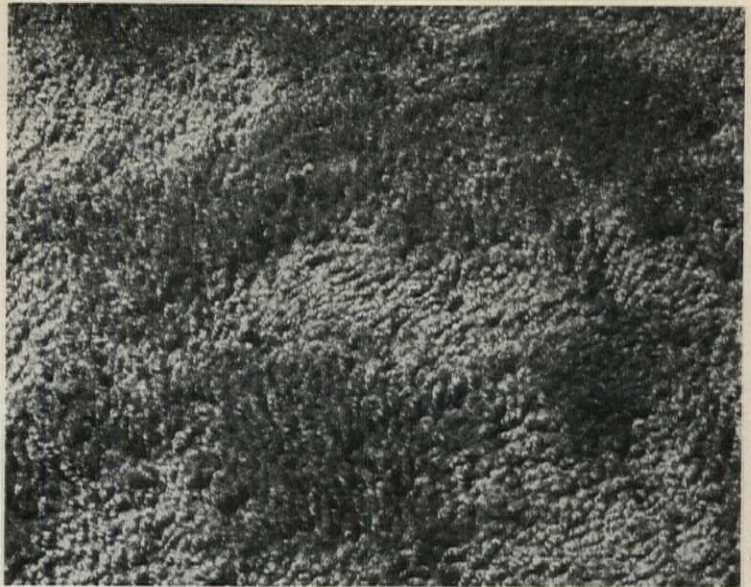
IN-SINK-ERATOR DIVISION
EMERSON ELECTRIC CO.
4700 - 21st STREET, RACINE, WIS. 53406
EMERSON

IN SINK ERATOR®

World's Largest Producer of Garbage Disposers and Trash Compactors

CIRCLE 120 ON READER SERVICE CARD

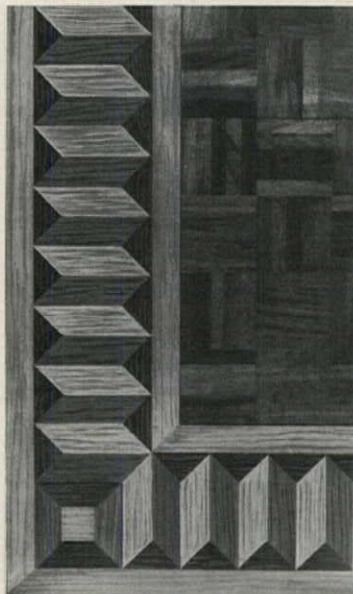
PRODUCTS/FLOORING



"Splush" carpet combines the constructions of shag and plush carpets in nylon fiber for a lustrous look and long wear. The two-ply yarns are heat-set for greater durability. "London Terrace" comes in 17 colors, including those of the

rainbow, plus ember, ivory, and such tones as "Celery", "Vermouth", and "Pineapple". It is 12' wide and retails for about \$9.99 per sq. yd. Monticello Div., Burlington, New York City.

CIRCLE 226 ON READER SERVICE CARD



Ornamental wood border comes in assembled sections that are easy to install. The 28"-long paper-faced sections and accompanying corner-blocks are applied with adhesive. In this "Rio" three-dimensional pattern, the sections are 7" wide so that the total border is 10½" wide including the two divider strips. Teak, Karpawood, and Karuni are used to form this border and another geometric pattern. Bangkok, Philadelphia.

CIRCLE 227 ON READER SERVICE CARD



Stain-releasing carpet, being tested above with motor oil, also releases stains from lipstick, coffee, mustard, etc. Level loop construction called "Bold Venture", is designed for commercial use of "Beaunit Super Stuff" polyester yarn that resists abrasion and crushing and retains its appearance. Also static-resistant, it registers well below the level of 2,400 static volts where human sensitivity begins. Johns-Manville, New York City.

CIRCLE 228 ON READER SERVICE CARD



Shag tiles, made of continuous filament DuPont nylon, have a high-density foam rubber backing. Self-stick tiles are 12" square and have a protective vinyl backing that keeps them from sticking together during installation and permits them to be positioned before backing is peeled off and they are pressed into place. "Shag-Time" comes in seven tri-color colorations. GFI/Crown Div., Okonite, New York City.

CIRCLE 229 ON READER SERVICE CARD

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Please give five weeks notice before change of address becomes effective. Attach mailing label here and print your new address below. If you have any question about your subscription, include address label with your letter.

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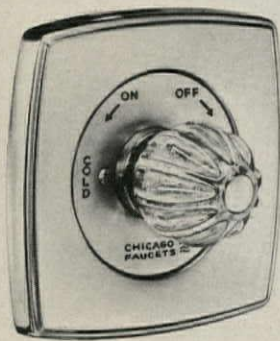
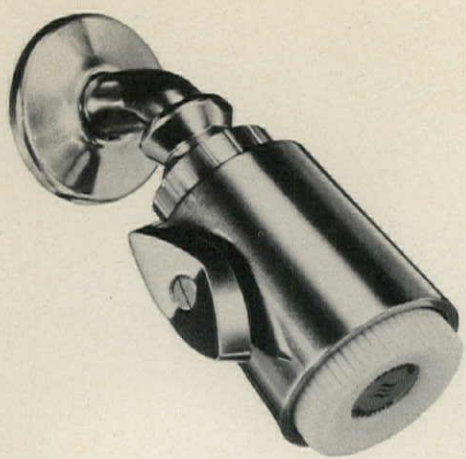
**To make it on the docks
you've gotta be tough.**

Tough enough to stand alone against the elements.
Tough enough to bear up under almost any weight.
Tough enough to be stepped on by 2000 people a day.
Grid Pattern Permaply® is that tough. Or it wouldn't be on the Governors Island ferry docks. And it's been there for more than 3 years. So think how long it could last on a patio, a balcony or beside a pool.
Grid Pattern Permaply combines the strength of plywood with a resin-fiber surface that withstands wear and tear.

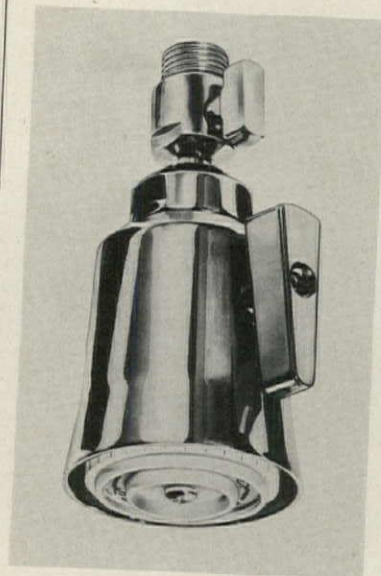
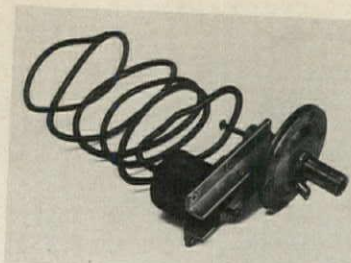
The embossed grid pattern makes it skid-resistant. It needs no painting or finishing and is easily handled with regular carpentry tools. It comes in standard panels of 48" x 96", special sizes to 60" x 120", and in thicknesses from 5/16" to 3/4".
Grid Pattern Permaply is tough all right. Tough enough to last where other materials won't. Let's face it. Once you've made it on the docks, anything else has gotta be easy.

 **U.S. Plywood**
A Division of U.S. Plywood-Champion Papers Inc.
777 Third Avenue, New York, New York 10017

CIRCLE 121 ON READER SERVICE CARD



Single-handle shower control has a pressure-balancing valve that maintains water temperature within 1° of original setting, despite any sudden drains on the hot or cold supply lines. "Hydro-Poise" can have decorative Lucite handle (left) or lever control and can be ordered for just the shower or tub and shower with diverter and with a selection of showerheads like the adjustable one above. Chicago Faucet, Des Plaines, Ill. CIRCLE 231 ON READER SERVICE CARD



Adjustable showerhead hydraulically balances the water pressure inside so that making adjustments in spray, from flood to needle, is effortless even at high pressures. Four jets provide an overall wetting pattern. "Super Shower Head" is chrome-plated brass, and interior parts are solid plastic so that they cannot corrode and minerals cannot build up. Symmons Industries, Braintree, Mass. CIRCLE 232 ON READER SERVICE CARD

stant hot water at the turn of a faucet by bleeding out cold water near the tap when it senses a drop in the water line temperature. It also maintains hot water temperatures during showers. For use in homes as well as apartments, motels, and offices, the "Hot-Master" is self-contained, needs no power for operation, and is easily installed. Samada Sales, Oklahoma City, Okla. CIRCLE 230 ON READER SERVICE CARD

(ADVERTISEMENT)

Maybe we can help get your PUD* into the ground.

For the past few years we've worked with architects, builders and planners around the country in the development and promotion of many kinds of innovative housing.

Along with most people in the housing industry, we believe that these new solutions are badly needed. But we've found as you may have that they aren't easy to come by.

So perhaps some of the things we've learned will add to what you already know and can help get your project into the ground.

If you'd like to know more about our organization and activities, just write **American Wood Council**, 1619 Massachusetts Avenue, N.W., Washington, D.C. 20036.

*Planned Unit Development



OUTSTANDING

STUDIO-STAIRS assure "custom-designed" appearance and save substantial space. Each stair is produced to individual job specifications for easy assembly of components.

AMERICAN PANEL PRODUCTS, INC.
1735 Holmes Rd., Ypsilanti, Mich. 48197

CIRCLE 138 ON READER SERVICE CARD

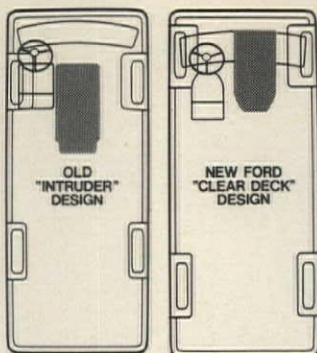
Only the best-selling van gives you all these better ideas



Easy, out-front servicing.

Simply raise the convenient outside hood and your routine service points are right at hand: radiator, oil level, battery, windshield

washer reservoir, voltage regulator, wiper motor, brake master cylinder. Better ideas make servicing fast, easy.

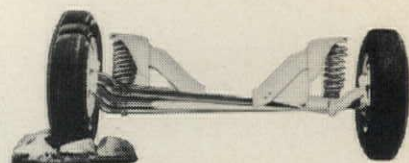


Engine clear forward.

The engine is moved forward in Ford's clear-deck van—all the way out of the cargo area. Clear floor space behind driver's seat measures over 8½ ft. in Econoline Van . . . over 10 ft. in the Supervan.



Sales leader for 10 straight years.



Strong, smooth-riding Twin-I-Beam.

The independent front suspension that has revolutionized truck riding qualities. Two forged steel I-beam axles give it strength . . . big coil springs give it a smoother ride.

Biggest payload of all.

Husky construction and high capacity axles allow you to carry a heavier load than any other van. Maximum payload of 4320 lbs. is largest in industry.

Shorter outside, easier to park.

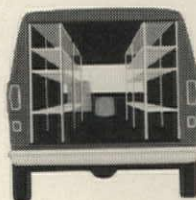
Overall length of Econoline Vans is significantly shorter than other makes. This means easier parking and better maneuverability in city delivery operations



—time saved on every trip.

Wider at top for built-ins.

Body sides are more vertical, wider apart at top than other vans. So built-in units fit better and leave more aisle. Modular units, designed to fit and work together allow you to custom design almost any interior you need. Job packages, such as insulated florist's van, are also available.



Driver's "walk-thru" to rear.

Econoline's forward engine position clears the deck for the driver, too. He can easily step from his seat into the rear load area and exit through side or rear doors.

See your Ford Dealer and see all the better ideas in America's best-selling van—Ford Econoline.



A better idea for safety: Buckle up.

Model	Max. Payload	Max. GVW
E-300	4320 lbs.	8300 lbs.
E-200	1800 lbs.	5400 lbs.
E-100	1120 lbs.	4500 lbs.

FORD ECONOLINE VANS





A manual of ideas for windows of all sizes and shapes



Blinds and shades that enhance the decor while regulating light are described and pictured in a full-color design catalog called "Window Magic." Every window decorating need from the tiny laundry-room window to the A-frame (far left) can have its solution in one of the lines of blinds and shades featured. Standard venetian blinds need never look ordinary because of the variety of colors and contrasting tapes available. And woven aluminum and thin-slatted brass and aluminum (left) offer countless possibilities for accenting or camouflaging windows. Blinds for special purposes—such as "Sleepyhead" blinds for darkness in daytime—are also available. Levelor-Lorentzen, Hoboken, N.J.

CIRCLE 350 ON READER SERVICE CARD

Framing anchors. "Ty-Down" anchors for framing rafter and truss anchorage are described in a specification sheet that includes information on sizes, types, recommended safe working values, and suggested applications. The anchors come in two sizes: $1\frac{9}{16}$ " wide x $10\frac{3}{4}$ " long, and $1\frac{9}{16}$ " x $5\frac{1}{4}$ " for anchoring rafters or trusses to the plate. Timber Engineering Co., Washington, D.C.

CIRCLE 300 ON READER SERVICE CARD

Early American paneling. Rooms decorated with "Antique" hardboard panels are shown in an idea book that gives information on the 3-step application of the paneling as well as on how to match moldings to the line's five colors. The versatility of the paneling is demonstrated in views of a breakfast room, bedroom, dining room, family room, and garden room all paneled in "Antique". Colors available are Cambridge red, Yorktown blue, Suffolk green, Georgetown white, and Jamestown gold. Masonite, Chicago, Ill.

CIRCLE 301 ON READER SERVICE CARD

Plywood in apartments. Ideas for cutting costs are the subject of this new publication. Plywood subfloors, wall sheathing, roofs, and decks are discussed. Span tables, grade-use guides, and data on sound control are also included. American Plywood Assn., Tacoma, Wash.

CIRCLE 302 ON READER SERVICE CARD

Air entrainment. By allowing tiny air bubbles to exist in concrete, space is provided for expansion of water and plasticity and workability

are improved. Also segregation is reduced, as are bleeding and permeability, and resistance to freeze-thaw cycles are greatly increased. That is the word from the manufacturer of an air-entrainment admixture described in a new information sheet. Instructions on use, plus information on dosage, dispensing, and performance are given. Master Builders, Cleveland, Ohio.

CIRCLE 303 ON READER SERVICE CARD

Redwood plywood homes. A full-color idea book, available in two versions—one for builders, architects, and specifiers, and a shorter one for consumers—contains many photographs of architect-designed homes of redwood. A chart shows thicknesses, widths, groove depth/width, face patterns and edge patterns of standard size redwood plywood. California Redwood Assn., San Francisco, Calif.

CIRCLE 304 ON READER SERVICE CARD

Conserving heat. A report issued by the Ad Hoc Committee on Fuel Conservation of the Department of Commerce lists and illustrates 7 ways to reduce fuel consumption in household heating through energy conservation. Weatherstripping, insulation, and storm windows are some of the solutions given. National Bureau of Standards, Washington, D.C.

CIRCLE 305 ON READER SERVICE CARD

Ceramic tile. A new line of natural, handcrafted-looking tile has been introduced and is illustrated in a new full-color brochure. Primitive tiles come in an unglazed, earthy color or in seven rich, muted glazes.

The tiles, which come in 8" squares or two softly curving styles, are suitable for residential or commercial buildings. Trim shapes are also shown and applications are illustrated. American Olean, Lansdale, Pa.

CIRCLE 306 ON READER SERVICE CARD

Textured coating. Cracks and pores in concrete and masonry construction can be attractively sealed with the textured coating described in a new technical bulletin that includes suggested uses, test data, and advantages. A sample color chart shows the 16 colors that are available. Standard Dry Wall, Miami, Fla.

CIRCLE 307 ON READER SERVICE CARD

Gas lamps and grills. An extensively illustrated catalog gives suggestions for fun and attractive ways to make a patio a real center for outdoor activity. Gas lamps, in styles ranging from Hawaiian to New England, coordinate with gas grills for elegant and easy outdoor eating. "Patio designs for the fun of it" is available for \$1 per copy from Charmglow Products Inc., Dept. H&H, Antioch, Ill. 60002

Choosing carpet. Many factors come into consideration when planning carpeting for an office building, hospital, or school. And knowing how to deal with and evaluate these factors can make all the difference in choosing the proper carpet for a particular installation. A new booklet, entitled "The Aldon Carpet System" explains the procedure necessary in planning a large installation from analysis of the floor's

traffic load, use, and aesthetics, through installation and maintenance. Aldon, Lenni, Pa.

CIRCLE 308 ON READER SERVICE CARD

Insurance for contractors. A concise and complete guide to the complex subjects of insurance dealing with the construction industry has been written by Walter T. Derk, vice president of the insurance brokerage that makes this booklet available. Some of the subjects discussed are: hold-harmless clauses, directors'/officers' liability, employee benefit liability, and architects'/engineers' professional liability. Copies are available for \$3 each from Fred S. James & Co., 1 North La Salle St., Chicago, Ill. 60602.

Range hoods. Two versions of the same information sheet make the literature suitable for all uses. One piece is a loose-leaf notebook-size insert; the other is a pocket-size folder. Both are done in full-color with photographs, drawings, and charts to give complete information on the complete line of range hoods. Broan, Hartford, Wis.

CIRCLE 309 ON READER SERVICE CARD

Contemporary lights. The newest catalog supplement from this manufacturer of stylish lighting fixtures features a wide selection of designs from modern chrome-and-smoke acrylic fixtures to traditional Mediterranean and crystal styles. For the first time the line also includes bright modern colors such as orange and yellow. The price range is wide, with many pieces falling under \$25. Progress Lighting, Philadelphia, Pa.

CIRCLE 310 ON READER SERVICE CARD