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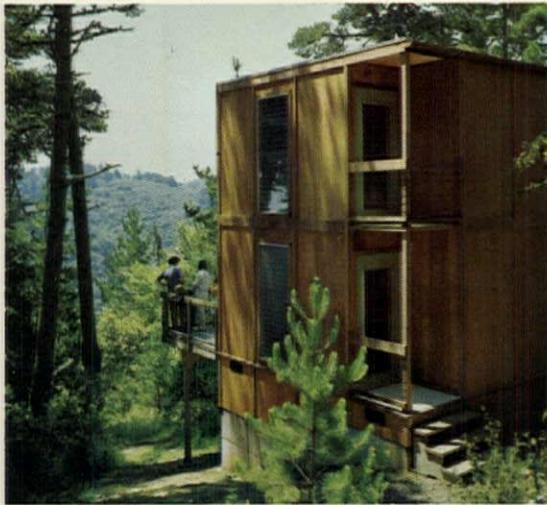
JUNE 1972

House & Home

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House & Home

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

Volume 41 Number 6 / June 1972

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Cover/View of Terra Granada at Rossmoor Walnut Creek, Calif.
Developer: Terra California. Architect: The Compla Corp.
Photo: Joshua Freiwald. For story, see page 60.

Percy demands reorganization of the FHA as a consumer-oriented agency

Republican Senator Charles Percy of Illinois, one of the leaders in creating the subsidized home-ownership program (section 235) back in 1968, has made one of the most slashing attacks yet on the Federal Housing Administration.

In a speech to the 30th annual meeting of the National Association of Building Manufacturers, Percy called for a "complete restructuring of the FHA" into an agency to serve consumers—and if this can't be done, he would take the subsidiary programs away from FHA and turn them over to a brand new agency.

Percy told the Washington meeting that the subsidized programs for home buyers and renters have been a success, measured by the number of units produced and the number of families helped, and the quality of "most housing".

Support for programs. Percy said that "to kill these programs now, as has been seriously suggested by so distinguished a member of Congress as the chairman of the House Banking Committee, Wright Patman, would seriously cripple our efforts to meet the housing needs of the nation."

Percy condemned "those members of the private section—builders and developers, real estate speculators and brokers, mortgage bankers and fee appraisers—all of whom have wantonly and deliberately set out on a course of making an easy dollar by defrauding the



SENATE'S PERCY
New critic of the FHA



BOISE'S SMITH
New president of NABM

poor and rifling the public treasury."

But he added: "Part of the blame . . . can be placed square on FHA and HUD, as Secretary Romney has said. The programs have been miserably mismanaged from the start."

'Attitude.' HUD's own auditors who investigated the 235 and 236 programs, Percy pointed out, found the mismanagement was traceable to "the attitudes of HUD-FHA personnel, the excessive emphasis on quantity over quality in FHA appraisals and inspections and the absence of effective supervision and review of the work of FHA appraisers."

Percy suggested that he would expand the section 518 program, which established HUD's liability for defects in new and existing houses inspected and insured by FHA. He also proposed "a five-year term of liability for both new and used homes" to provide a guaranty of housing quality, and would allow present holders of mortgages on "defective homes purchased under any FHA program to submit applications for re-

lief for a six-month period, no matter when the homes were purchased."

Inspections. The FHA's concern with the home buyer, Percy said, "cannot end with final endorsement. The FHA must commission and pay for regular inspections for both new and existing homes . . . to assist the consumer in spotting and dealing with routine problems of repair and maintenance."

Percy also cited the findings of HUD's audit of the section 236 subsidy program for low-income rental apartments—siting of projects "next to junk yards and factories, under power lines, in former lake beds and far from community services." Congress was aware of the costs of the programs in direct subsidies and tax write-offs, Percy said, "but we were willing to pay this price if it resulted in quality housing at reasonable costs to low-income families."

Private policing. Percy told the association, which elected Robert C. Smith of Boise Cascade's manufactured housing

group as its president, that the housing manufacturers "and your colleagues in the housing industry throughout the nation have a responsibility as well. If in your professional capacity you wish to reap the benefit of public programs, then in your professional capacity you must become the advocate of the consumer."

Percy said the builders "must actively police your own industry" and left the clear implication that if the industry didn't, government would have to take a much larger hand than it does now.

Unification. Smith urged the membership to work harder to "win statewide factory housing laws that provide for reciprocity" to have a freer market for industrialized housing. He also said that, as a result of the public furor over the quality of housing, "if new rules are written (to regulate quality) they will undoubtedly apply to us first."

Smith noted that New York state is now asking ten-year structural warranties and six-year leakproof warranties on manufactured housing and that the state of Maryland "is talking about a 21-year warranty."

The danger to housing manufacturers, he said, is that "our portion of the housing industry" may be "singled out and required to meet much higher standards than other forms of housing production merely because we can be identified."

—D.L.

Congress adds a three-year warranty on FHA houses to '72 housing bill

An omnibus housing bill—with most of its provisions similar to the Senate version but with some major differences—was adopted in May by the housing subcommittee of the House Banking Committee.

The version approved by the subcommittee, chaired by Rep. William A. Barrett (D., Penn.), would continue and consolidate the housing insurance programs and the subsidy programs for low-income home owners and apartment renters and would provide a new system of community development grants. The Senate bill does very much

the same thing (News, Apr.).

But the House subcommittee expanded consumer protection by providing for a three-year warranty of an FHA-approved home against "substantial deviations from approved plans and specifications" and a one-year warranty on rehabilitations. Present law provides a one-year warranty for new houses and a six-month warranty for rehabs.

Change on sewers. In another departure the House subcommittee has decided to exclude sewer and water grants—which have significant political value

to congressmen—from the new community development block-grant program.

The subcommittee version consolidates grants from categorical programs that put money into urban renewal, neighborhood development, neighborhood facilities, open space, public works planning and land acquisition—as does the Senate bill.

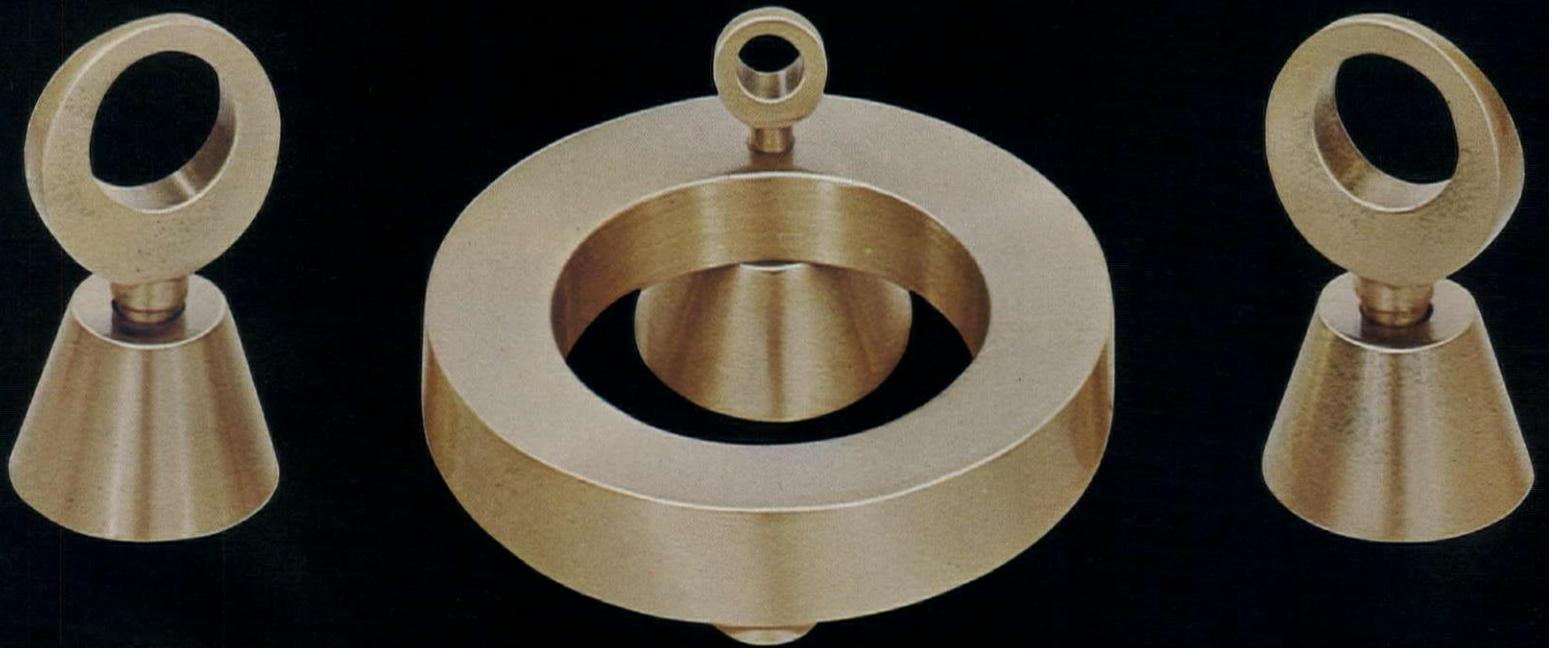
Hearings. Chairman Wright Patman of the full Banking and Currency Committee was planning to hold hearings on the subcommittee bill before sending it to the House floor for a

vote. For weeks, housing officials and lobbyists had been speculating on reports that House opposition might finally sidetrack the housing bill this year—primarily because of political risks of approving high-cost subsidized housing programs with scandals attached to them.

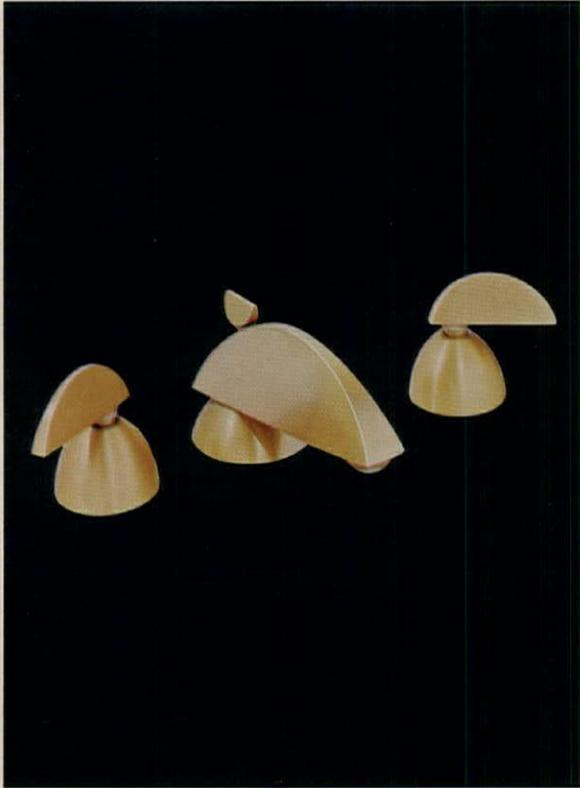
But most observers believed the authorization bill would go through, even though time would be running short—or, if not, they contended that Congress would surely approve a temporary extension of present programs.

—D.L.

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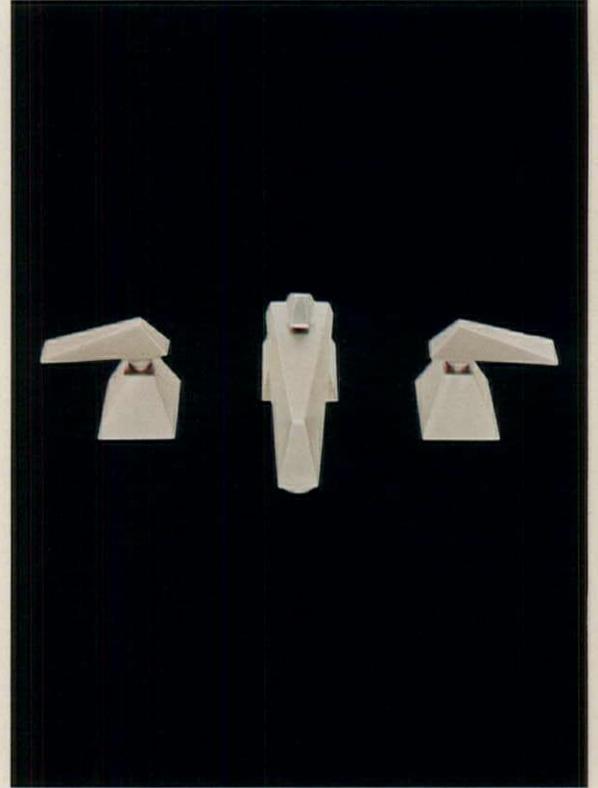
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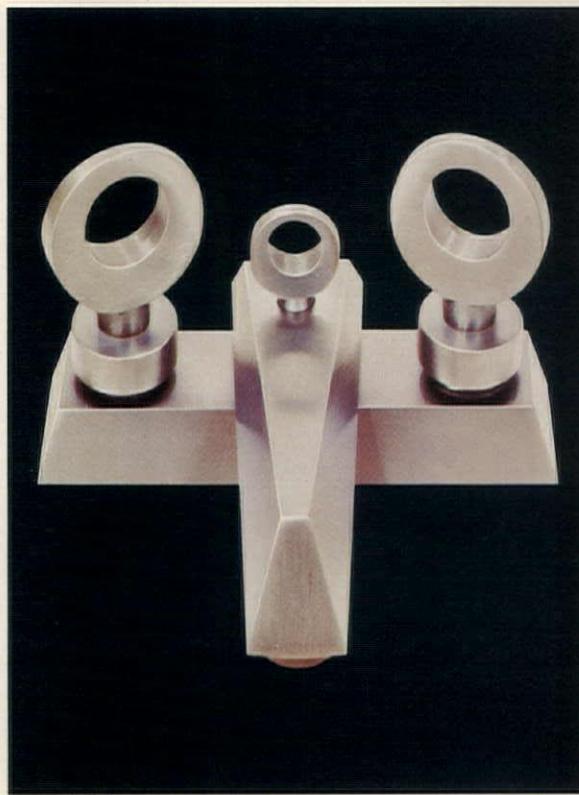
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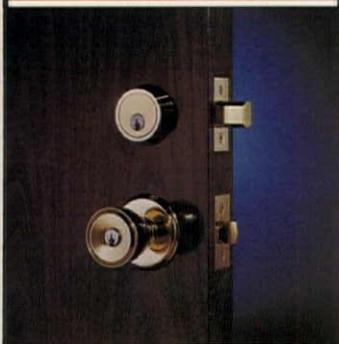
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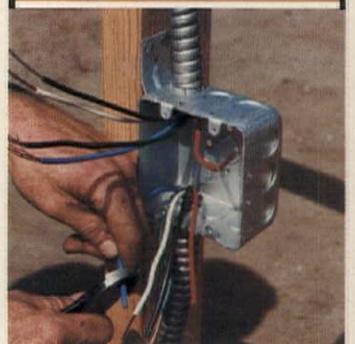
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**CIRCLE 69 ON
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FHA inspects subdivision: no defects; then HUD audits it: 1,000 defects

When Baltimore's Federal Housing Administration inspectors checked the construction of a section 235 suburban development called Country Ridge Homes in 1970, they passed its 122 units with flying colors. No construction defects noted.

Last fall Clarence D. Long, a Democrat who represents the suburban Baltimore County area, took up buyer complaints and forced an inspection by a team from the Washington headquarters of the Department of Housing and Urban Development.

This inspection last December, "just weeks before the warranties expired," turned up more than 1,000 defects in 111 of the 122 houses. The defects required corrective action by the builder, Security Management Corp., one of several companies owned or controlled by Victor Posner, a financial wheeler-dealer who has had his troubles with the Securities and Exchange Commission.

\$2 million in swamp. As Long pointed out in a letter to Housing Secretary George Romney, Posner's Country Ridge development is the result of FHA's insuring mortgages of more than \$2 million and of FHA subsidies to the homeowners of an estimated \$100,000 a year. The houses sold for \$16,000 to \$16,500. The site is "low and is, in fact, a swamp," according to Long's reports.

Long, after receiving HUD's report, told a House investigations subcommittee headed by Rep. John Monagan (D., Conn.):

"Allen Clapp, the current HUD area director and head of the Baltimore FHA office when this project was approved and constructed, should resign or be fired and replaced by someone in whom we can have confidence."

Long also said: "This builder, Victor Posner, should be permanently barred as a builder from further participation in FHA's programs in Baltimore and elsewhere."

HUD sources indicated that Clapp, who had a session with Secretary Romney prior to Long's appearance before the subcommittee, was not expected to leave. Clapp says he has no intention of resigning, and he suggested that before drawing

conclusions about Country Ridge, anyone "should go look at the houses . . . a three-bedroom air-conditioned house for \$16,500."

Builder's answer. Melvin R. Colvin, vice president of Security Management, said of the charges: "We can substantially disprove any allegations Congressman Long has made."

Colvin, in charge of construction for the company, said it has built 10,000 units in the Baltimore area since 1950—all of them FHA- or VA-insured.

As to the defects, Colvin said: "We proceeded to do everything on the list, even though many of them (the repairs) were maintenance items. . . . Anything that's our responsibility, we are going to do."

Colvin suggested that much of Long's motivation was political, since the congressman is up for re-election this fall along with all other members of the House.

Inquiry. Long spread the story of Country Ridge before the government operations subcommittee investigating FHA's management of its housing program just as the committee was beginning to turn to abuses of new housing built under the subsidy programs. Up to that point the Monagan committee had concentrated on sales of used housing in the core areas of Detroit and other cities.

Monagan's staff has collected information on FHA operations in cities such as Dallas, Miami, Atlanta, Los Angeles and Columbia, S.C., usually in cooperation with the General Accounting Office's investigators.

Long was the first committee

witness to focus on a single project in terms easily understood by committee members. His testimony also was of special interest because, as he said, "the scandal does not stop at the city limits—nor is it confined to existing housing. The same rip-off, although generally milder, happens in the suburbs and in new construction."

The dangers. Last summer, Long said, he began getting complaints from Country Ridge homeowners — "unworkable windows, collapsing living room ceilings due to leaking bathroom fixtures, flooding basements, hot kitchen ovens burning children, substandard fire walls, leaking roofs, etc."

Long did what few congressmen have done: "I devoted a good portion of the time of one of my staff members to finding out what happened at Country Ridge." As a starter, Long asked the Baltimore office of the Corps of Engineers to check on one widespread complaint—leaky basements.

(Long has influence with the corps; he's on the appropriations subcommittee that approves its budget requests. Before his election to Congress in 1962, he was a professor at Baltimore's Johns Hopkins University and was at one time a professional on the staff of the Council of Economic Advisers.)

'FHA was guilty.' What the corps inspector found was "a poor or marginal site" with a high groundwater level; "poor design" of sump pump outlets, downspouts and foundation drainage systems; and "poor workmanship".

Last December Long asked

Romney for a full investigation of the role of the Baltimore FHA office, and the report Long got—which was placed in the record of the Monagan Committee hearings—revealed, he said, that "the Baltimore FHA was guilty as charged."

For instance, the report showed that FHA approved plans for another development, Maple Crest, and that it was these plans that were submitted by the builder as his plans for Country Ridge. Maple Crest had been built by the same company three years earlier.

What FHA overlooked. Other deficiencies reported by the HUD investigation of 111 of the houses:

Some 95% of the windows were defective; 70% of the basements had water problems; 50% of the dry walls were improperly finished; 50% of the kitchen floor tiles cracked because the sub-flooring was improperly laid; 20% of the hardwood floors needed repair and 70% of the yards were improperly graded.

"The original FHA inspector . . . did not identify any of these deficiencies on his inspection forms," Long noted, "yet he signed forms in which he claims he inspected each house carefully three times while it was under construction." The inspector's records indicated he averaged 40 inspections a day.

Arrogance. Under questioning Long said: "It looks like they (FHA officials) just let the builder have his own way totally, and the builder used every cheap short cut he could where he thought it wouldn't be apparent at first glance."

Long added that "when the homeowners went to FHA (to complain), they were greeted with arrogance and even with a menacing attitude." Long said he had the impression "that the local FHA doesn't believe it's responsible for making sure that the homes are built right." The attitude of local FHA officials, he told the committee, is "to protect the builder rather than the homeowner."

Country Ridge, Rep. Long said, has been "fully investigated by the FBI," and Long has been pressing the U.S. Attorney in Baltimore to take action.

—D.L.

Philadelphia's former FHA chief indicted

A federal grand jury has indicted Thomas J. Gallagher Jr., former director of the Philadelphia office of the Federal Housing Administration, on ten counts of taking bribes and six counts of tax evasion.

Gallagher headed the FHA office from 1964 to mid-1971. The indictments say he took bribes and gifts worth \$73,000 in return for his assistance in awarding FHA guaranties for multifamily mortgages in Philadelphia and in nearby Bucks

County. He was also accused of evading federal income taxes on \$66,000 of the amount.

Gallagher could not be reached for comment.

Thirteen real estate brokers, five realty concerns, 11 contractors, several real estate salesmen and a lawyer had previously been indicted in a federal jury investigation into scandals in the government's subsidized housing programs in Philadelphia. The investigation by the U.S. panel is continuing.

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CIRCLE 11 ON READER SERVICE CARD

HUD comes up with a no-nonsense watchdog to police developers' land sales

PHOTOS: DENNIS BROCK

"The Secretary wanted a tough regulator on this job," George K. Bernstein said when he was named recently as administrator of interstate land sales in the Department of Housing and Urban Development.

Shortly afterward, it became clear to land developers that Secretary Romney got what he wanted.

Within three weeks of taking office Bernstein used the interstate Land Sales Act of 1968 for the first time to order a developer to suspend all sales.

"We're an enforcement operation now, not just a registration agency," the tough-looking and -talking administrator warned. "From now on, anyone who thinks that because we're a housing agency we are going to be kind to all land developers had better think again."

Law's scope. The law applies to developers selling subdivisions with 50 or more unimproved lots in interstate commerce (see box). The one exemption is for subdivisions in which all lots are five acres or larger. Since March developers have been required to apply for a specific exemption before

selling. During the law's first three years, those who considered themselves exempt were under no such requirement.

Bernstein's beat is a big one to police, and there's a lot of action. The law was passed after much discussion during the 1960s, when, as Bernstein says, "senior citizens tended to be easy marks" for land merchants pushing lots in Florida, California, Arizona and elsewhere. Then came the boom in recreational land built around camp sites, ski lodges and artificial lakes.

Now there are at least 2,000 developers with 3,200 subdivisions who have registered.

90% refund rate. Requests for information flood Bernstein's office at a rate of 400 to 600 a day, with complaints against land merchandisers running from 50 to 100 a week. "But 90% of the complaints are resolved by the developer returning the money and canceling the contract," Bernstein says.

Most of the complaints now come from lot buyers, but Bernstein plans to stir up more

protests by generating news about his enforcement cases and by holding public meetings in major cities where land developers run their advertisements.

Bernstein's first suspension order stopped a Pennsylvania recreation development, Charnita Inc., from selling lots after the state had suspended permits for septic tanks. Charnita had already been ordered to offer 158 buyers their money back for failing to fully disclose the sewer difficulties.

A similar suspension order was placed against the Lake Lyndon B. Johnson Improvement Assn., a developer on the Texas lake named for the former President. The developer was charged with changing its development plan to eliminate control of an airport and a stable by property owners and to retain these facilities itself.

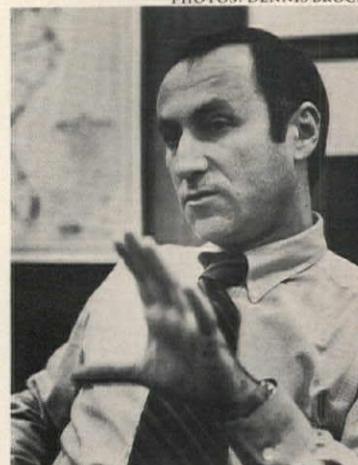
The firm stance. The first conviction under the law came when Edward L. Parker—sometimes known as Colonel Parker—of Miami, Fla., pleaded guilty after being indicted by a federal grand jury in Greensboro, N.C. The charge was selling lots in two North Carolina subdivisions without submitting a required statement of record to HUD and without furnishing buyers with the required property report in advance of their signing a purchase contract.

Bernstein retains his old portfolio as administrator of HUD's Federal Insurance Administration, but the effort to police land sales gets most of his attention right now.

He isn't likely to be charged with being one of those regulators who cozies up to the industry he's supposed to be regulating. In opposing amendments to the law proposed by the American Land Development Assn., he wrote to the House Banking Committee:

"This is an industry that too often preys on the innocent, the unwary and the elderly, not infrequently using high pressure and misleading sales practices to extract hard-earned and precious money from those who can least afford it."

—DON LOOMIS
McGraw-Hill World News,
Washington



Bernstein's mood: Matter-of-fact ...



... or meditative ...



... or mercurial ...



... or mordant.

Here's the new law of the land

Developers selling subdivisions of 50 or more unimproved lots in interstate commerce must provide purchasers with a report making full disclosure of 28 significant factors that affect the buyer's interest in his lot, including the kinds of community facilities to be provided, and when, and the nature of the surroundings.

The property report must be in the form and contain the material required by the Office of Interstate Land Sales. If a copy of the property report is not given to the buyer before or at the time he signs a purchase agreement, he may void the sale.

HUD is sponsoring amendments to the law, the Interstate Land Sales Full Disclosure Act of 1968, to provide additional consumer protection. Passed by the

Senate, the amendments would extend to three business days the present 48-hour period during which purchasers may rescind a sales contract if they did not receive an approved property report at least 48 hours before the sale.

The amendments would also prohibit developers from inducing buyers to waive in advance of purchase their statutory right to rescind the contract.

The American Land Development Assn. has sought an amendment that would give a buyer 72 hours to void a contract, even if he received a property report after signing—but would remove the present provisions allowing him to void the purchase anytime if he hasn't received a property report prior to the sale. —D.L.

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It's a fair question. After all, this new line of Andersen Perma-Shield Gliding Windows incorporates all our accumulated experience in window design and construction. We gave it a lot of thought, improved and refined it through many stages, and gave it thorough field tests before we were satisfied.

So we think that architects, builders and users will all be more than pleased with this, our latest window.

But does it have everything? Before you answer, glance down the summary of features below; send for more detailed information—ask for a demonstration, if you like. We think we've come close. See if you agree.

① Perma-Shield! No painting inside or out. Both frame and sash are stable wood completely covered with a rigid vinyl sheath. No corner joints in frame. Sash corners are welded to form leak-proof joints.

② Sill tank. For added weathertightness under severe conditions of exposure, an integral vinyl dual sill has been built in to drain any moisture to the exterior.

③ Welded insulating glass eliminates need for storm windows. Snap-in rigid vinyl glazing bead eliminates glazing compound on exterior.

④ Weatherstripping is rigid vinyl for maximum weathertightness... factory applied.

⑤ Weathertight, vinyl-sheathed sash. Wood core factory treated with preservative for stability and insulation. Adjustable, chrome-plated steel glides in bottom rail for smooth, easy operation.

● Neat, trim frame is compatible with traditional, colonial or contemporary design. And it matches other Andersen Perma-Shield Windows and Gliding Doors.

● Screen is easy to install and remove from inside. White Perma-Clean® aluminum frame needs no painting. Screen strikes are part of exterior frame—no hardware to apply or lose.

● Weatherstripping of wedge-shaped rigid vinyl and neoprene on meeting stile reduces dust, air, noise, heat and cold leakage to minimum.

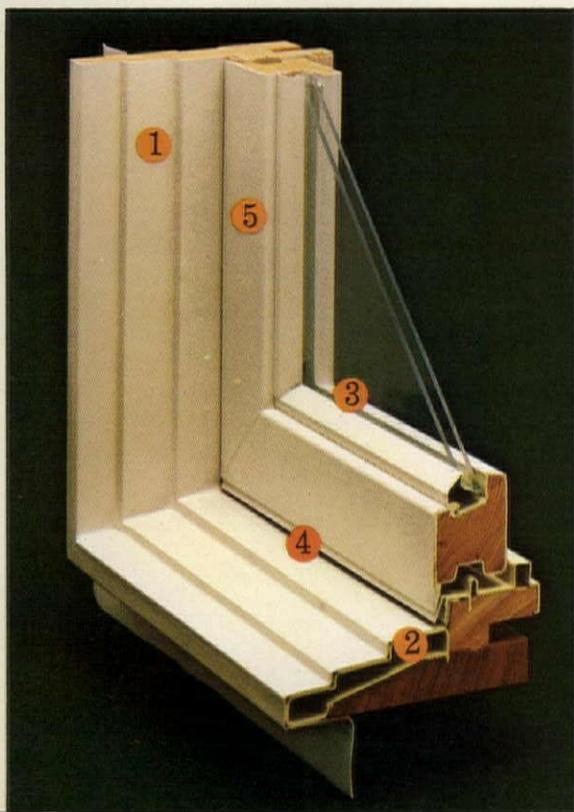
● Removable sash. Both stationary and operating sash can be removed for cleaning from inside by releasing securing screws. This safety feature prevents accidental release of either sash.

● Attractive handle operates spring-loaded rods for positive locking of windows at top and bottom. All factory installed.

Perma-Shield Gliding Windows are available in eleven basic sizes suitable for commercial and residential applications.

Like more information on Andersen's new Perma-Shield Gliding Windows? There are five ways to get it: from your Sweet's File (Section 8.16 An), from your Andersen dealer or distributor, by using the Reader Service Card in this publication, or by mailing the coupon.

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Dept. HH 62

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A debate builds over overbuilding—but the builders build merrily on

The other day a Washington official was playing Cassandra about the danger of overbuilding during the current housing boom, moaning that speculators were spinning out multi-family projects for tax gains in defiance of a market glut in some areas.

But after several chilling statements along that line he wound up observing, "I would look for starts of 2.2 or 2.3 million next year"—in other words, possibly even more than in the back-to-back record years 1971 and 1972.

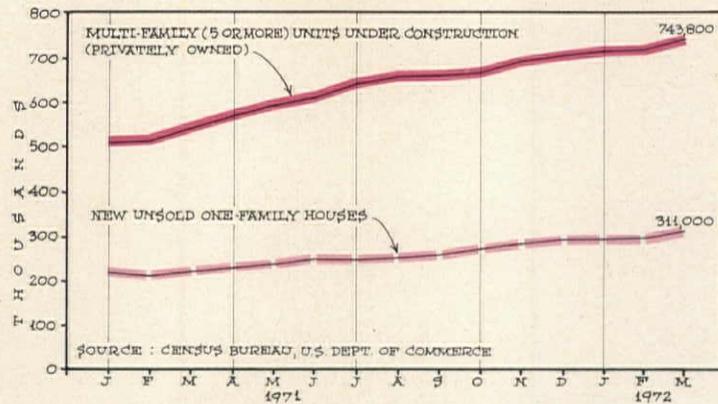
Not all worriers about overbuilding offer projections that bullish for next year. But it is a fact a survey of housing specialists' thinking on the subject reveals few willing to venture predictions of a sharp correction in which either builders or lenders are going to fall out of bed. Either it is not going to come with a jolt, or else it isn't coming soon. Predictions for 1972 cluster around a record-high 2.2 million starts, while those queried who were willing to venture a 1973 number picked one ranging from 1.9 million upward.

Concerned critics. Even so, there are at least as many who are acutely uneasy about the implications of the boom as there are optimists who tut-tut that so far housing statistics on houses in inventory and vacancy and absorption rates are quite reassuring.

For one thing, data are issued with a lag. "By the time the statistics prove the point, you've already had overbuilding," says Oliver Jones, executive vice president of the Mortgage Bankers Assn. What worries Jones and the other pessimists most is the rental vacancy situation and particularly the bulge in the completion of apartment buildings that is expected this summer.

John Yelverton, economist for the National Association of Homebuilders, doesn't concede that the industry is in for a large correction. But he agrees that it will not be until absorption data is available for the fall months that "we can see whether there has been overbuilding or not."

Trouble spots. Even optimists like Yelverton are apt to hedge with observations that spotty



Apartment construction is still accelerating, and question is whether demand will keep pace. Answer may not be apparent until next fall's vacancy data appear. Inventory of new, unsold houses is also rising sharply, and Federal Reserve now fears that oversupply may become apparent by fourth quarter. And in March, for the first time in two years, new-house sales fell below rate for the same month a year ago.

overbuilding is popping up here and there, and there is a risk that a lot more multifamily buildings will be dumped into the rental market in localities where rental business is already soft.

Southern California has been notorious for that kind of imbalance since early 1971. But other localities on the list now include Dallas-Fort Worth and Cincinnati. And Yelverton thinks the potential for excesses exists in Florida, Atlanta and several other southeastern points, where projected starts are already trending down.

Federally assisted housing is another source of concern. Government-backed housing accounted for 400,000 of 1971's 2.1 million starts and should provide 500,000 this year.

Jerry-built sector. John Stafford, economist at the Chicago headquarters of the U.S. Savings

and Loan League, speaks of increasing reports that such housing is so shoddy or so badly located "that even the poor may not be able to tolerate it, and it will lie vacant. It could be that as many as 200,000 units won't be suitable for occupancy." Stafford's misgivings about the sprouting construction under the new federal subsidy programs are widely shared.

Despite all this criticism, the optimists are still riding high. A few weeks ago the Federal Home Loan Bank board decided against raising savings and loan liquidity requirements, overriding qualms about overbuilding because there was no evidence that savings and loan associations were over their heads.

Says Yelverton: "If the personal savings rate (in gross national product accounts) stays

at the 7% level this year, the money will be there for a good year in 1973. I think the market can absorb a lot more units."

"The single-family market still has a great deal of underlying strength," Stafford agrees. "We're mildly optimistic."

Another optimistic note is struck by Catherine Martini, economist for the National Association of Real Estate Boards: "The old housing is being pushed out the bottom. This reduces anxiety about overbuilding."

Demography. The great argument for confidence that the housing market is not drastically overbuilt rests on demographic considerations. The single-family market will benefit further from family formations among the grown-up members of the post World War II baby boom. Meanwhile, government officials say, multifamily structures will find tenants among older people. Thanks to social security and pension rights, they are better able now than in earlier generations to keep up separate residences of their own, and these will be located most often in apartment buildings.

"All factors considered, production is moving at levels necessary to meet the nation's needs," the NAHB maintains in its monthly newsletter.

Fed's warning. But a Federal Reserve study of the situation notes that 1971 multifamily starts outraced completions by more than 200,000 units and comments: "The viability of the recent starts pace still remains to be fully tested."

Douglas Cannon, economist for the San Francisco Home Loan Bank, who has pioneered a service warning California S&Ls about overbuilding, sums up all that is really clear.

"We're at a critical juncture," he says, "moving forward to the peak of a housing construction boom. I don't know when it will be—this year or the middle of next year."

But he adds, "I don't look for a repetition of the early 1960s," when overbuilding on the West Coast was corrected only after the credit crisis of 1966 choked off the supply of new housing.

—STAN WILSON
McGraw-Hill World News,
Washington

Mattson will head mortgage bankers

The Mortgage Bankers Association of America has just nominated Everett Mattson of Houston as president of the organization of 2,000 member companies.

Mattson is senior executive vice president of the Lomas & Nettleton Co. of Houston, a division of Lomas & Nettleton Financial Corp., the world's largest mortgage banker with \$3.4 billion in servicing. He will succeed Philip C. Jackson Jr. of Birmingham, Ala., as president of the MBA at the association's 59th annual convention in San Francisco Oct. 23-25.

Mattson, the MBA's first vice president, was nominated for



MBA's MATTSON

Texan taking a national role

the presidency at the MBA's national mortgage conference in New York last month. He is a past president of the MBAs of both Dallas and Houston, and he received the MBA distinguished service award in 1966.

A bathroom featuring a vibrant color scheme of Sunnygreen. The walls are covered in wallpaper with a wavy pattern of yellow, light green, and white. The fixtures, including a double vanity with two sinks, a toilet, and a bathtub, are all in the Sunnygreen color. The vanity has a white countertop with a grey and white diamond pattern. A framed picture of a basket of oranges hangs on the wall above the toilet. A potted fern sits on the vanity, and another one is in the foreground. A showerhead is visible in the upper right corner.

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The architects turn to politics with blueprints for a brave new world

The American Institute of Architects voted at its convention in Houston last month to end a traditional ban on political activity and lobby for its newly drafted national policy which, among other things, calls for rebuilding the core areas of 65 major cities by the year 2000.

Delegates approved the report of their national policy task force without amendment and set the stage for AIA implementation of a program that was more than a year in the making.

The highlights: new policies aimed at changing the ground rules that shape, or distort the shape of, American communities; creation of a new scale for planning and building in urban areas and a national commitment to a major land acquisition (one million acres at least) by federal, state and local government in urban centers.

The AIA hopes to achieve these goals through a lobbying effort and by appearances before such groups as the House Banking Committee and the platform committees of both major political conventions.

Consent decree. In other action at Houston's Albert Thomas Convention Center, the delegates:

- Voted 2 to 1 to accept a consent decree negotiated with the Department of Justice to avoid a federal action that would have charged them with violation of the Sherman Antitrust Act.*

- Elected Baltimore architect Archibald C. Rogers, FAIA, as first vice president, making him virtually certain of the presidency in 1974.

- Appointed Van B. Bruner Jr., a black architect from Hadson Township, N.J. to the five-man task force on national policy and later elected him and two other architects, Louis de Moll, FAIA, of Philadelphia, and David A. Pugh, FAIA, of Portland, Ore., as vice presidents of AIA.

S. Scott Ferebee, FAIA, of Charlotte, N.C., went unop-



FABIAN BACHRACH

AIA'S PRESIDENT URBANH
Calls for political activism



INCOMING PRESIDENT FEREBEE
Steps up unopposed



VICE PRESIDENT ROGERS
Stresses private enterprise

posed as incoming president. He will succeed Max O. Urbahn, FAIA, as president of the AIA in December and serve through 1973.

Leaders' stand. The outcome of the first report of the task force on national policy was never in doubt, and although debate was expected, few delegates thought changes were in the wind. President Urbahn predicted on the first day of the meeting that delegates would accept the report. He said:

"This morning we begin perhaps the most important debate in the history of the AIA . . .

"Before this convention adjourns it will have taken actions that will strongly influence the future of architecture and the future of the architectural profession. Far more important, the actions taken will also influence the future of the human environment."

The AIA's members, Urbahn warned, must become political activists on ecological issues.

The \$5-billion plan. The report urges that the government spend \$5 billion for one million acres of land, and renovate the core areas of the major cities, in this century.

Vice President Rogers, chairman of the task force, explained that the program could be handled by private developers and controlled through regional planning commissions.

The plan would eliminate restrictive building and zoning codes and would develop total neighborhood units, each self-sufficient with its own shopping centers and recreation facilities. The program proposes a tax incentive to build "well, rather than badly," and recommends elimination of dependence upon property taxes.

Rogers stressed that the program—entitled *A Strategy for Building a Better America*—"is designed to encourage private profit on urban development while discouraging speculation on property values."

Charge of socialism. The land acquisition portion of the report, with its local, state and federal government control as to how land would be used, drew charges of socialism from some delegates. They argued that private developers are best suited to determine the best use of land.

About 5,000 architects, wives and guests attended the convention, which was followed by a two-day work and play session in Mexico City. The convention goes to San Francisco next year.

—BOB LEE

McGraw-Hill News, Houston



PHILADELPHIA INQUIRER PHOTO

Tenants' leader, Rose Wylie (right) emerges from Philadelphia courtroom after earlier arrest in March, vowing to continue fighting against conspiracy and forgery charges.

Rent Board member held in fraud

Rose Wylie, the tenants' representative on the National Rent Advisory Board, has been arrested and charged with extortion and blackmail in an alleged \$10,000 contract kickback. Her son, Aaron Blandon, was also accused.

Mrs. Wylie was already under indictment on an earlier charge of misusing \$5,921 of the Philadelphia Residents Advisory Board's funds.

The latest charges resulted from an audit of the Advisory Board, which Mrs. Wylie heads, by the city controller. When the investigation turned up the \$10,000 payment by Manage-

ment Synergetics Inc., a subcontractor in an education program for trainees of the Philadelphia Housing Authority, the president of Management Synergetics explained in a sworn statement that his contract was for \$30,000 but that after he started on it he was told that a top official in the Residents Advisory Board was to get \$10,000 of the money or the contract would be withdrawn. He acceded to the blackmail, he said, because he feared physical force by the rougher elements that Mrs. Wylie influenced.

Mrs. Wylie and her son went free in \$1,000 bail each.

Addendum

HOUSE & HOME's February report on public housing (p. 80) neglected to credit Aotani & Oka as co-architects with Akiyama/Kekoolani & Associates.

—ED

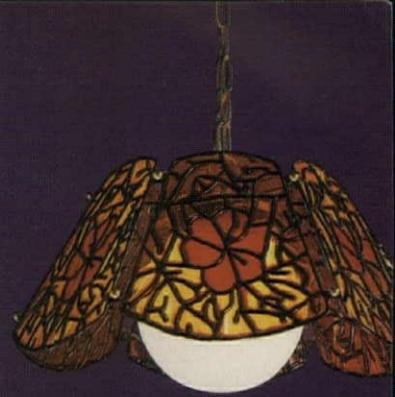
*The department had found in 1968 that AIA's ethical standards restrained trade by forbidding members to quote a fee for services until after they had been selected for a job. Lawyers estimated it would have cost the AIA \$500,000 to fight in court. The AIA board had recommended, 22 to 4, and signing the decree; delegates approved, 1,145 to 612.



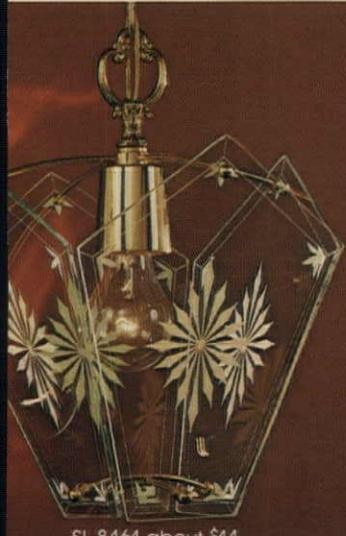
SL-8072 about \$22



SL-8062
about \$38



SL-8260-31 about \$19



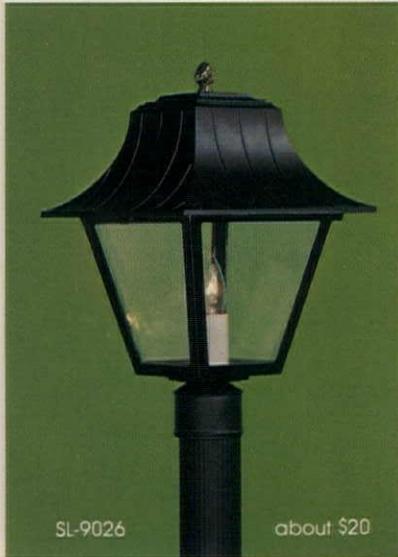
SL-8461 about \$14



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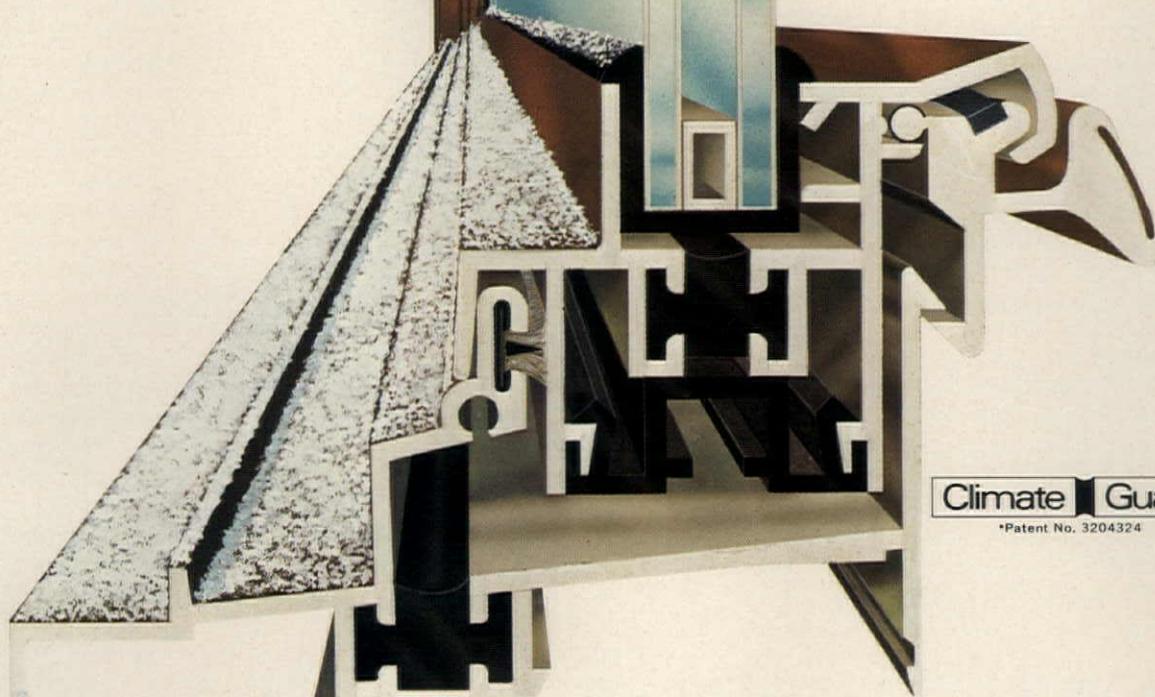
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Builders battle for right to develop their land—and sometimes even win...

Builders are finding it necessary to fight not only the environmentalists, but also the planners, the voters and, in one case, even the U.S. Corps of Engineers for the right to develop their land.

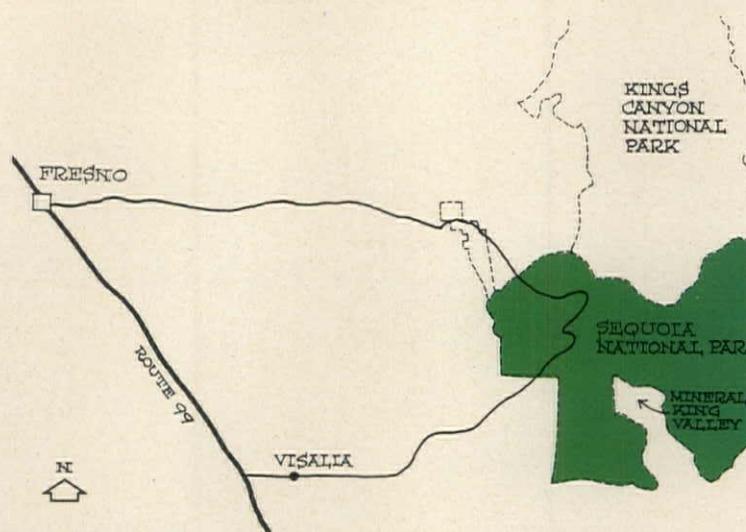
But they are winning some of the skirmishes.

- The Supreme Court rejected, four-to-three, a Sierra Club challenge to Walt Disney Productions' plan to build a complex of motels, restaurants, pools and other facilities that would eventually draw 14,000 visitors a day to the Mineral King Valley of California.

- In Virginia Beach, Va., a circuit court judge ruled that the city council cannot use school overcrowding as a reason for denying applications for apartment complexes. Michigan's attorney general issued a similar opinion.

- Miami's city commission voted three to one to grant developer Tibor Hollo zoning variances to build an \$88-million residential-commercial complex in downtown Miami despite vigorous opposition from the head of the planning department and the American Institute of Architects.

- And yet to be decided are



Disputed Disney site is at an altitude of 7,800 ft. flanked by peaks up to 12,400 ft.

three suits the McKeon Construction Co. of Sacramento, Calif., brought against the Corps of Engineers, five environmentalists and three Sacramento county planners over its right to develop its Elliott Ranch property.

Temporary victory. In most of these cases the developers won just one round in a battle that may finally be decided against them. For example, the Supreme Court set aside the Sierra Club's suit against the Walt Disney organization because the club had "failed to

allege it or its members" would be harmed by construction of the resort. But the Court then went on to say that the club could turn to a lower court and attempt to amend the suit.

"We feel that we can meet the test raised by the Court," said Michael McCloskey, executive director of the club. And the club is amending its suit as the Court suggested.

The dispute involves a permit the Department of Agriculture issued to Disney in 1969 to develop the valley, which is in Sequoia National Forest, adja-

cent to Sequoia National Park. Disney planned to build a complex of motels, restaurants, swimming pools, ski lifts, trails and other facilities to accommodate 14,000 visitors a day.

To prevent construction, the Sierra Club sued the Agriculture and Interior secretaries, charging that the Agriculture Dept. had issued the Disney permit without a public hearing and without legal authority and that the Interior Dept. had illegally issued construction permits for a highway and electric lines across Sequoia National Park to serve the development.

Disney later offered to scale down the plan, substituting a 15-mile cog railway for the highway. It claimed that this would reduce the number of daily visitors to around 8,000. However, the club feels that the area should be made part of the Sequoia National Park and remain undeveloped.

School issue. The school overcrowding case was taken to court by David I. Levine, a Norfolk, Va., developer, when he was refused permission to build 384 apartments in Virginia Beach. Levine's plan came before the city council shortly

TO PAGE 26

...but the trend is still to tighter controls because they save tax money

The taxpayer revolt is spreading, and builders are a prime target.

Communities are balking at the idea of wider growth because it costs them money. Californians have taken the lead.

- The Alameda County cities of Livermore and Pleasanton voted to prohibit any further building permits whenever schools are overcrowded, water rationing is imminent or sewage facilities are inadequate.

- Palo Alto turned down a proposed subdivision after a study showed it would be less expensive for the city to buy the land and keep it as open space than to pay the cost of schools and services for the proposed subdivision.

- The Sacramento city council levied a special tax on all new housing units to pay for purchasing and developing parks. For one-bedroom units and mobile home pads the rate is \$124, for two bedrooms it is \$158 and

for three or more bedrooms it is \$191. Builders may contribute land instead of fees.

- The Sacramento County planning commission developed a plan that includes an urban limit line around the city of Sacramento and some of its suburbs. The planners contend that the line will not reduce the growth and development but merely guide its location.

Half the land inside the line is now vacant, they say, and could accommodate all growth to 1990. They also estimate a \$53-million savings over 20 years because it is so much more expensive to supply schools and other services to subdivisions located far from town.

- San Diego developers voluntarily accepted an assessment of \$750 for each new school child their houses generated to keep the city from imposing a construction moratorium (NEWS, May).

- And Corvallis, Ore., voted 3,283 to 980 to impose a fee when new construction creates new demands on sewer, water and street facilities. The city council had turned down the proposal, but backers forced it to a public vote.

Counterattack. Needless to say, builders and developers are not taking all of these restrictions lying down. They won a partial victory in the Sacramento urban limit fracas when, after a series of stormy meetings, the planning commission backed down and voted to hire a consultant to study the economic impact of such a line. The move returns the issue to the board of supervisors, which would have to provide the funds for a study, and has the effect of postponing the plan indefinitely.

Builders' crusade. In Berkeley, Calif., the Associated Home Builders of Greater Eastbay has

been quick to react to restrictions against building. The group commissioned the Real Estate Research Corp. to examine the methods used in the Palo Alto study that recommended rejecting a new subdivision and leaving the land as open space.

The new study concluded that the original report had failed to consider the "income multipliers" (i.e., the effect of spending and respending income brought in by the new subdivision) and that if these multipliers had been taken into account, there would have been a net profit.

The same builders association also mounted a publicity campaign to prove that when builders are assessed for new community facilities, such as sewer plants, schools, etc., the homebuyer pays as much as 30% more than if the same facilities are financed by the community.

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Stirling Homex shakes up management, denies report of banks taking over

The big modular producer, which has been sailing through a heavy overcast of financial rumors for six months, has displaced its president and named the treasurer to his post.

And the authoritative housing newsletter, *Audit's Housing & Realty Investor*, published by consultant Ken Campbell, has just reported:

"We hear Stirling Homex has been effectively taken over by its banks."

The company denied that report outright. A few hours earlier its headquarters in Avon, N.Y., 20 miles from Rochester, had announced that Paul M. Kuveke Jr., treasurer and a vice president, has been elected president and chief operating officer.

Kuveke left New York's Irving Trust Co. to join Stirling only two years ago. He replaces



STIRLING'S KUYEKE
A banker steps up

one of the founding brothers, William G. Stirling, in the president's chair. Stirling becomes vice chairman.

The other brother, David Jr., remains chairman and, the company says, chief executive.

Drop in earnings. Stirling reported sales of \$3.26 million, and a loss of \$2.07 million for the January quarter, compared with sales of \$10.24 million and profits of \$893,000 in the

October quarter.

Stirling had never solved the modular industry's biggest problem, regulating factory output to on-site demand. The company shifted out of subsidized housing and into private markets in January, but experts express doubt that the switch will be of much help.

Production was cut back hard in January to permit retooling of the production line for more concrete and steel modules and a new line of Patio Home units, and a severe winter slowed some on-site installations. These factors accounted for much of the loss in earnings.

The line has re-started, but it was expected that production would remain at low levels for the April quarter.

Stock. Stirling Homex went public in a blaze of publicity in February 1970, selling 1,175,000

shares at \$16.50. The stock climbed to 51½ as Wall Street worked itself into a frenzy over assessments of modular producers as the building industry of the future.

That enthusiasm has cooled considerably as the industry has given off such danger signals as the trip of McGrath Corp. of Seattle to bankruptcy court (News, May), the sale and subsequent shutdown of Behring Corporation's \$5-million modular plant in Fort Lauderdale, Fla., and the decision of Potlatch Forests Inc. to close Speedway Corp., its modular subsidiary.

Stirling's shares collapsed to nine only two months after attaining their peak, and they dredged their way down to 4¼ amid the gloomy rumors of the last few months. They were 5¼ bid the day of the shakeup.

Builders fight for right to develop land—and sometimes even win... continued

after the voters had defeated an \$18.4-million school bond referendum by nearly two to one, which caused the council to impose a moratorium on large apartment complexes. At the same time the school board reported that the proposed apartments would aggravate overcrowding in two schools.

"It is the function of the city council to provide the city with adequate schools," Judge Paul W. Ackiss noted in his decision to have the council reconsider Levine's application. "I don't think the city can say to some, 'You can have your permits,' and then say no to Mr. Levine just because of the school situation," he said.

The Michigan opinion on school overcrowding did not involve a proposed project but rather a general moratorium on new homes and apartment buildings that the city of Taylor hoped to impose.

"No municipality can be said to have the authority to prohibit any and all residential buildings... for such purpose [school overcrowding]," said Attorney General Frank J. Kelley. "Individual permits may be withheld upon reasonable showing of health or welfare hazard—but this does not include the overcrowding of schools."

Miami victory. One developer who came up with a clear-cut victory was Tibor Hollo of Miami, Fla. Despite fierce opposition to Hollo's plan, the Miami city commission granted variances to allow him to build a commercial mall with a major department store, other retail shops, movie theaters, a high-rise motel and a parking garage plus a 27-story, 810-unit apartment tower and parking garage that would be connected to the commercial mall by a pedestrian crossover.

George Acton, head of the city's planning department, had fought the project claiming that Hollo wanted to build too much on too little land.

And George Reed, speaking for the American Institute of Architects, called the plan "the most blatant example of spot zoning in the city's history."

But Hollo won the zoning variances with the support of Miami's downtown business community which contended that the complex would revitalize the area.

Triple threat. The most vigorous battle for the right to build is the one the McKeon Construction Co. is now waging to develop its Elliott Ranch property. In the process McKeon has taken on the planners, the



BUILDER MCKEON
Fights for project

environmentalists, even the U.S. Corps of Engineers, and hauled them all into court.

The company accused the Corps of using "false and misleading information" about the costs and benefits of the proposed project and charged the environmentalists and planners with conspiring to prevent the "lawful real estate development" of the land.

The ranch covers some 5,400 acres of marshland which lie outside of Sacramento's proposed urban limit line (page 24). McKeon planned to drain the land under a 1962 county plan. In 1970, however, the U.S. Corps of Engineers developed a new drainage plan that involved purchasing 7,800 acres, including the ranch, and turning the area into a flood storage area to be used also for recreation and a wildlife refuge.

McKeon sued the Corps and at the same time explained that the court action did not amount to a retraction of an earlier company offer to make the west side of the property available if the government wanted to buy it.

But, the statement continued: "Company executives and its board are seriously reassessing that offer. In the light of present hearings relating to the proposed adoption of an urban limit line... the company feels the protection of its property rights and investment... requires the filing of this court action."

The next day the company returned to court to charge five conservationists with conspiracy to prevent lawful real estate development. McKeon based its charges on the testimony the five had given during hearings before the county board of supervisors. The suit, which asked \$40 million in damages and another \$40 million in punitive damages, also named 50 John Doe defendants, making it easy to add other names.

A day later the company was in court for a third time to file suit against the county planner and two of his staff. The planners had not only testified against the company at the hearings, but they were the ones who had devised the urban limit line.

5895



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CIRCLE 27 ON READER SERVICE CARD

H&H JUNE 1972 27

Couples join swinging-singles fun, and occupancy rate swings up with them

One look at the classic scenario shows why.

Boy meets girl in singles-only apartment project.

Boy marries girl.

Couple moves out.

For an apartment owner shooting for 100% occupancy, that's a hell of a way to run a business.

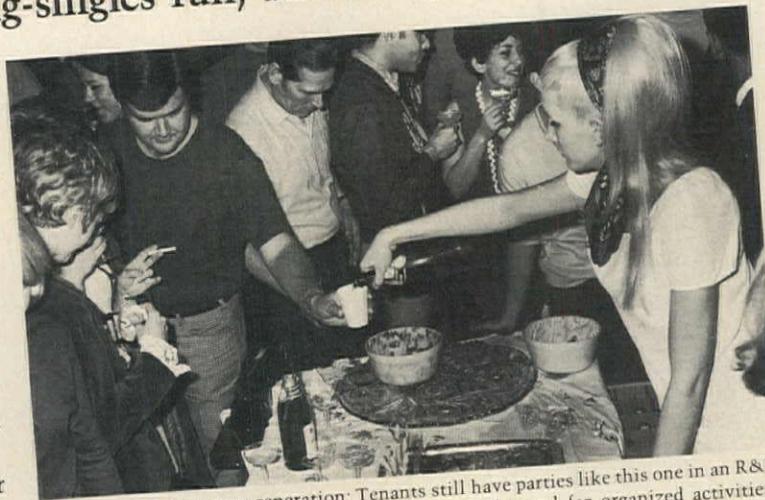
Especially as the young couples generally move into projects with the very same amenities they enjoyed as singles.

Turnabout. Singles pioneer R&B Development of Los Angeles [H&H, Sept. '69] decided to test the idea of accepting married couples. It worked so well the company has switched to all-adult complexes.

"We've gone out of all-singles permanently," says Larry Carlin, R&B's marketing vice president. Carlin explained that there had been so many telephone calls from married couples who wanted to live in R&B's Phoenix, Ariz. singles-only South Bay Club that the company finally decided to give them a try.

"They pushed occupancy from 95% to 99%, and so we changed the name to Oakwood," says Carlin.

Adults only. Oakwood's complexes are recreation-oriented garden apartments geared to



New approach for a new generation: Tenants still have parties like this one in an R&B South Bay Club, but there's no longer the same demand for organized activities.

young marrieds without children. Like the South Bay Clubs they feature exercise equipment, saunas, pools, whirlpool baths, and tennis and volleyball courts, plus such social activities as Sunday brunches and barbecue parties.

However, Oakwood facilities have larger living areas and more closet space than South Bay apartments to meet the couples' living and entertainment demands.

Fewer revels. Accepting married couples has not been the only change in the South Bay Clubs. "We've de-emphasized the activities a bit," says Carlin. "Instead of having, say, a party

every Friday night, maybe we have one every other Friday. And instead of going in with hard rock, maybe we go in with a more middle-of-the-road type thing in terms of activities."

The company has also done away with age limits. Early South Bay Clubs had a 25 to 35 range which was later extended to 40. "If you like the looks of the place and feel you can fit in, we'll take you," says Carlin.

New culture. Marketing people see a trend away from singles-only places, whether apartments or bars, particularly where young people are concerned.

"People in their 20s are more

into the new cultures," says one expert. "More are living together without getting married. The singles-only type of thing is probably a bit artificial for them."

"But," Carlin demurs, "the singles are still there, and they still want something they don't have to be tied down to. Even our projects that originally started out as Oakwoods are almost 50% singles, and we're still pulling them in. And throwing married people into the South Bay Clubs has had a stabilizing effect on singles. We tend to keep them longer."

Expansion. The company has 13,000 units in 22 complexes in California, Arizona and Texas. Fifteen were built as singles-only South Bay Clubs and seven were adults-only Oakwoods. Total occupancy is about 97.3%.

The company is now expanding to the East. This summer a 1,500-unit Oakwood built as a joint venture with Connecticut General Life Insurance Co. at a cost of \$26 million will open in Alexandria, Va. Other projects are planned for Falls Church, Va., Columbia, Md., and perhaps for Georgia.

—BARBARA LAMB
McGraw-Hill World News,
Los Angeles

Model state law for factory-built housing wins backing of industry groups

A model law that states can adopt to regulate and certify factory-built buildings, including housing, has just been approved by major interest blocs that are concerned with the industry.

The endorsement comes from representatives of the states, building code officials, the National Association of Building Manufacturers, the U.S. Department of Commerce and the Department of Housing and Urban Development.

This new model law covers all kinds of industrialized buildings, not just housing. It spells out how a manufacturer would be regulated and how his product would be inspected and approved by state agencies.

The model law—which states are urged to adopt as their manufactured buildings act—was approved at the recent fifth annual conference of the National Con-

ference of States on Building Codes and Standards (NCSBCS) in Boise, Idaho.

Laws in 22 states. With the recent adoption by Pennsylvania of its own Industrial Housing Act, 22 states already have basic legislation for regulating manufactured buildings or industrialized housing. Some, but not all, are consistent with the model law just approved.*

The new model law is not a building code. It is the enabling legislation under which a state can set up the agencies and advisory committees and assume the authority to adopt a state code for building manufacturers. It spells out the certification process to be applied and provides for reciprocity with

other state codes to simplify shipment of products across state lines.

Reciprocity. "This is a big step toward reciprocity," a crucial issue to the factory-built housing producers, according to Richard L. Bullock, vice president of the NABM.

Robert C. Smith of Boise Cascade, new president of NABM, told NABM members that "only seven of the states with existing laws provide for interstate acceptance" of each other's manufactured housing. Smith stressed the demands being made for long-term warranties on housing and concluded, "if we do not align ourselves with a nationally accepted regulatory system, there will surely be one forced upon us."

The model legislation will be approved by the Council of State Governments and passed along to the states for approval

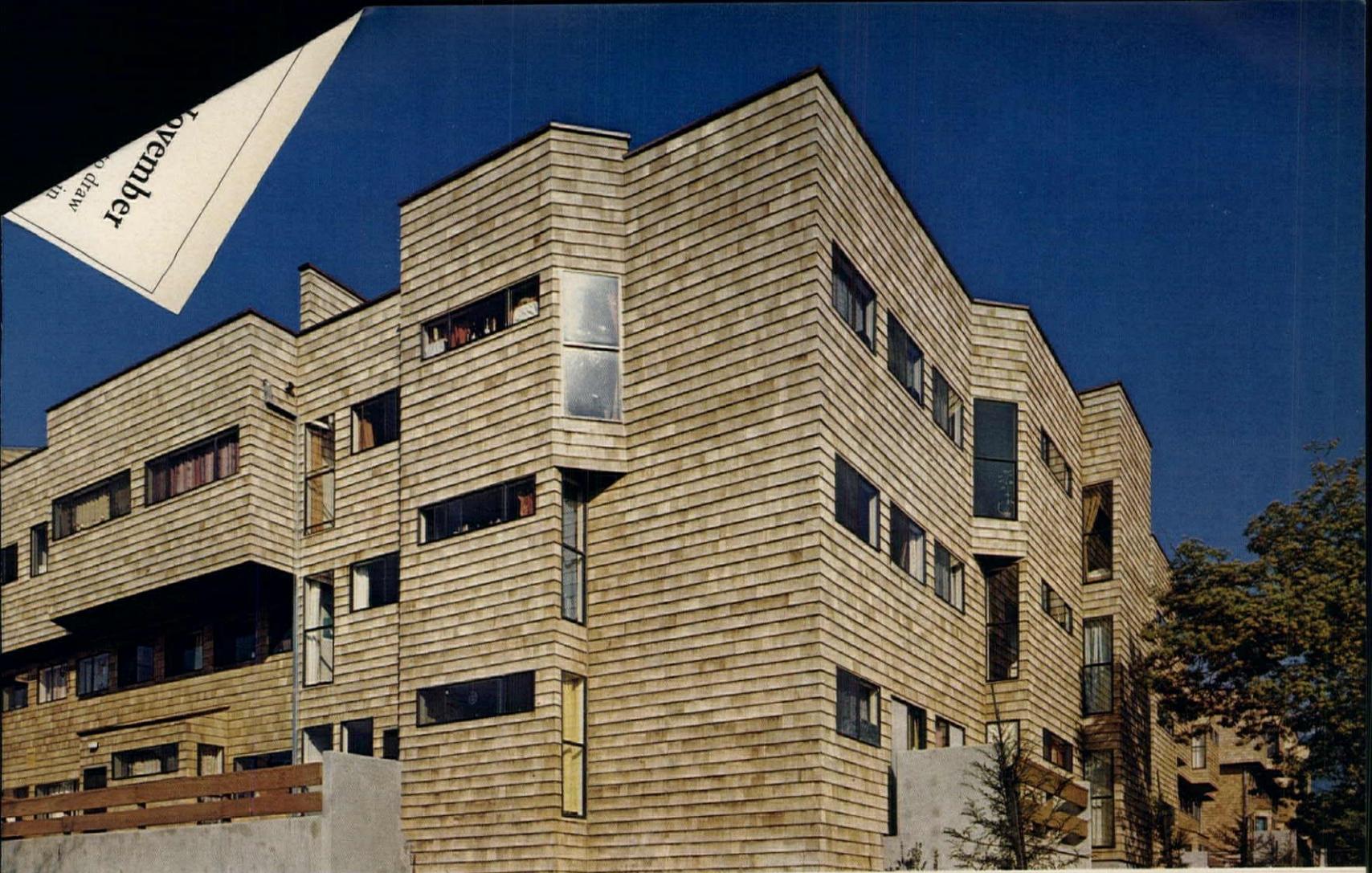
as they see fit. Also about ready for distribution to the states is a model set of rules and regulations to be recommended for adoption by the state regulatory agencies, once they begin functioning.

Codes. Officials of NABM are recommending that state regulatory agencies adopt one of the three model housing codes, each of which incorporates a uniform code for one- and two-family housing. The goal is a uniform national market.

At the Boise meeting of NCABCS J. Dillard Powell of Continental Homes Inc., Roanoke, Va., warned against each state having "its own laws, its own codes and its own bureaucracies." If reciprocity "is not established in the near future and a workable solution reached for certification of product," he said, "federal control will come."

—D.L.

*Ala., Calif., Colo., Conn., Fla., Ga., Hawaii, Ind., Maine, Md., Minn., Nev., N. Mex., N.Y., N.C., Ohio, Okla., Penn., S.C., Va., Wash., W. Va.

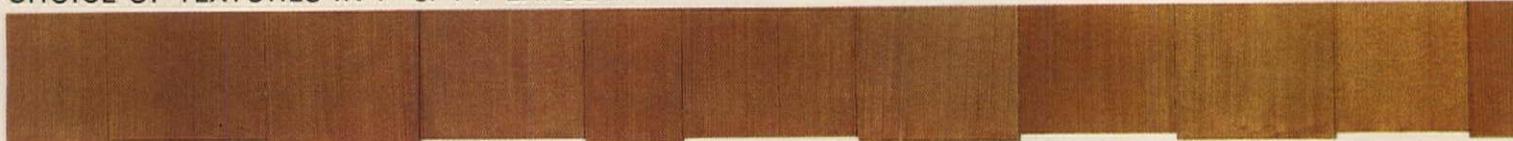


Student Owned Co-op Housing Project, Berkeley, California. Syed Husain, Ratcliff, Slama and Cadwalader, Architects

Stunning Shakertown 8-foot Colonial panels for student housing

All of the wall surfaces of the new Co-op Housing Project for students near the University of California are faced with the multi-ply Shakertown Colonial Shingle Textured Panels. The panels are a combination of textured shingles or shakes and undercoursing shingle backerboard with a cross bind core of plywood veneer. Panels are self-aligning and come with match-CHOICE OF TEXTURES IN 7" or 14" EXPOSURE

ing color nails for fast application. The 7" exposure, rustic texture and heavy butt lines enhance the appearance of this vast living quarters. Shakertown shake and shingle panels provide years of beauty and service to any building for sidewalls or Mansard construction. On your next job consider Shakertown 8-foot panels for beauty and protection.



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Sparkman, Patman win primaries and widen odds on victory in Nov.

John J. Sparkman (D., Ala.) and Wright Patman (D., Tex.) are expected back as heads of the Senate and House Banking Committees next year. Both have survived strong primary election tests and are now well set to withstand their Republican challengers in November.

As a result, the politics of legislation affecting the housing and banking industries will not be much different in the next session of Congress.

Sparkman's backing. Sparkman drew support from the banking and housing industries, which had been fearful of the changes that might occur if Sen. William Proxmire (D., Wis.), next in rank on the Senate Banking Committee, were to become chairman. Proxmire has not differed a great deal from Sparkman on specific housing issues, but would certainly be a stronger challenger of established practices in the banking and lending fields. He succeeded this year in tacking an amendment onto the



Old-fashioned fish fry adds a down-home touch to Senator Sparkman's primary campaign in Alabama against five rivals. Shown with the Senator are his grandson Tazwell Shepard III, his daughter Julia Ann Shepard Jr. and his wife Ivo, in Foley, Ala.

omnibus housing bill that would prevent kickbacks by title and mortgage companies in the granting of home loans and require the Department of Housing and Urban Development to come up with new federal standards for settlement costs in real estate transactions.

Next year the recommendations of the Hunt commission on financial institutions (NEWS, Feb.) will be before Congress,

and Proxmire certainly would be more aggressive in pressing structural changes in finance.

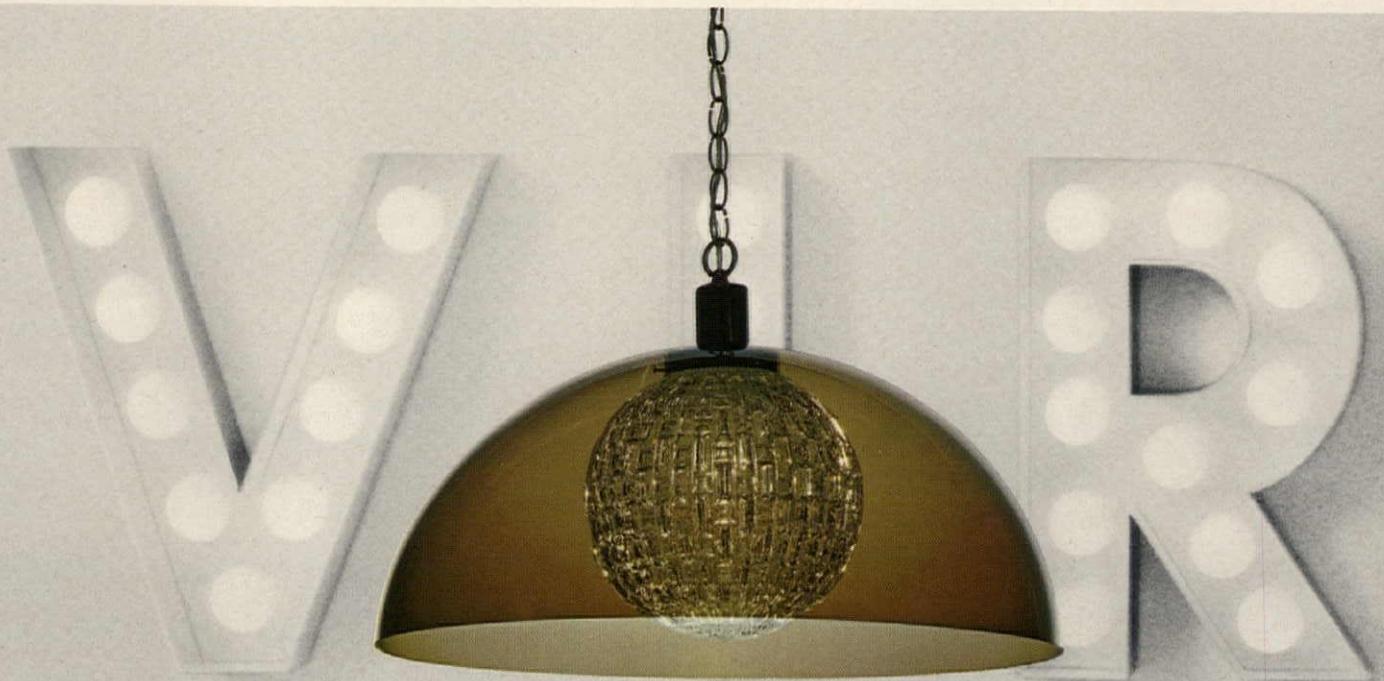
Sparkman won just over 50% of the Alabama vote, enabling him to avoid a runoff. The opposition vote was divided among five challengers, one a woman. The Senator, now 73, will face former Postmaster General Winton M. Blount in the general election, but the business support a Republican

would naturally expect. Sparkman is generally behind Sparkman on the interests of keeping him as banking committee chairman.

Patman's campaign. Patman's election prospects were not of as vital interest to the housing industry, since the next ranking Democrat, Rep. William A. Barrett (D., Penn.), who heads the housing committee, agrees with Patman on most issues.

Patman had an unusually strong challenge in the primary from Fred Hudson Jr. of Center, Tex., a lawyer and owner of a savings and loan association, who won about 44% of the vote. Hudson, who is 46, made Patman's age an issue in the campaign, and the congressman even charged that his opponent overstated that age, 78, by at least two years. Republican opposition in Patman's east Texas district, 21 counties around Texarkana, is considered perfunctory.

—DAVE SECREST
McGraw-Hill World News,
Washington



Inside your home or out, Virdeen

The Fed raises the bars to banks moving into the real estate business

The Federal Reserve Board has just denied one bank holding company's application to acquire a mortgage banking concern and told another that it could retain control of a mortgage company only if the subsidiary did not buy and sell land or participate in realty ventures.

The board turned down the requests of a third to go into real estate syndication and of a fourth to participate in an urban renewal project.

These rulings indicate that, although no new regulations resulted from the Fed's 1971 hearing to determine whether bank and mortgage company mergers should be restricted (NEWS, Jan.), the regulatory agency is nevertheless tightening its reins on banks to keep them from intruding into non-banking businesses.

Crocker-Sutro. In a 4-to-3 vote the board turned down the application of Crocker National Corp. of San Francisco to acquire the Ralph C. Sutro Co., a Los Angeles mortgage banker,

because the acquisition would produce an unfavorable concentration of economic resources and would be likely to eliminate future competition between the two in markets where neither now operates.

Crocker National controls Crocker National Bank, with deposits of \$4.4 billion. Sutro services \$560.2 million in mortgages.

UB Financial-Pickrell. In a similar case involving smaller companies, the board let UB Financial Corp. of Phoenix, Ariz., retain the voting shares of H.S. Pickrell Co., also of Phoenix, but added a caveat against buying or selling land or joint venturing in realty development.

UB Financial controls the United Bank of Arizona, with deposits of \$157 million. Pickrell's mortgage portfolio stands at \$138 million.

No syndications. A third decision rejected the BankAmerica Corporation's proposal to let one of its subsidiaries, Bank-



EMPIRE PHOTOGRAPHERS

SUTRO'S BOB SUTRO
A word from the Fed: No

America Realty Services Inc., organize and manage realty syndications.

BankAmerica Corp.—whose principal subsidiary, the Bank of America, San Francisco, is the nation's largest bank with deposits of \$35 billion—contended that managing syndications would be little different from providing management advice to a realty investment trust (which banks can do) and would not violate the Banking Act of 1933, which separates securities underwriting from commercial banking.

The board disagreed. It said,

first of all, that the holding company and BARS would violate the 1933 act by selling securities, i.e., syndication interests. And the board ruled that BARS's activities were not closely related to banking.

Too profitable. The board's fourth decision involved the RIHT Corp. of Providence, R.I., which controls Rhode Island Hospital Trust National Bank. The bank wanted to participate through a subsidiary in a partnership to develop a shopping complex in a renewal project.

The board noted that promoting community welfare must be a project's "primary thrust" to qualify as a permissible activity for a bank holding company. It concluded unanimously that RIHT's purpose "is to enter into a potentially highly profitable commercial venture." It said no.

The Fed's new position follows a decade of mergers that has left more than half of the 75 largest mortgage companies in the hands of banks and other entities (NEWS, Apr.).

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CIRCLE 31 ON READER SERVICE CARD

Housing stocks take sharp drop

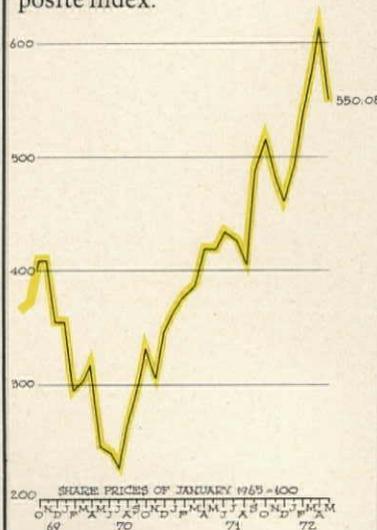
There were two reasons for the break: a wide price decline in the entire market and analytical articles, now beginning to appear, that indicate that the housing boom is peaking out (see page 36).

HOUSE & HOME's index of 25 housing issues plummeted to 550.08 from 612.33 in the month ended May 8. It was the list's first retreat in five months.

The index equates share values of January 1965 with a base figure of 100. The stocks on the index are indicated by bullets (•) in the tables and are overprinted in color.

Four issues were substituted for others last month to make the building company section of the list more representative of the homebuilding industry. Centex, Ryan Homes, U.S. Home and U.S. Financial were factored into the index to replace General Builders, Presidential Realty, Jim Walter and Del Webb. The substitution had no effect on the averages.

Here's the trace of the composite index.



How the companies in each group performed.

	May '71	Apr. '72	May '72
Builders	550	609	515
Land develop.	585	687	614
Mortgage cos.	784	1,115	1,063
Mobile homes	864	2,033	1,775
S&Ls	170	211	198

Company	May 8 Bid/Close	Chng. Prev. Month
BUILDING		
Aldex	9 1/2	+ 1 3/4
AVCO Community Devel.	4 1/4	- 1/2
American Urban Corp.	5 7/8	- 1/8
Behring Corp.	9	- 2
Bramalea Cons. (Can.)	5 1/4	+ 3/8
Building Systems Inc.	20 1/2	- 3 3/8
Capital Divers. (Can.)	62	+ .02
Centex Corp.	29 1/2	- 6 1/2
Christiana Cos.	6 3/4	- 3/8
Cons. Bldg. (Can.)	2.55	
Dev. Corp. Amer.	45 1/2	- 3 3/8
Dev. Int. Corp.	5 1/4	- 1/8
Edwards Indus.	8 3/4	+ 1/8
First Builders Bancorp.	6 1/2	- 1 1/2

Company	May 8 Bid/Close	Chng. Prev. Month
First Hartford Corp.	4 3/4	- 1/8
First Nat. Rlty.	1 3/4	
FPA Corp.	12 1/2	- 1 1/8
Frouge Corp.	3 7/8	- 1/8
General Builders	4 1/4	- 5/8
Gil Development	1 1/4	- 3/8
Hallcraft Homes	17 1/4	- 5 1/2
Hoffman Rosner Corp.	10 1/4	+ 1/4
Homewood Corp.	24 1/4	- 1 1/2
Hunt Building Corp.	17 1/4	+ 1/2

Company	May 8 Bid/Close	Chng. Prev. Month
Kaufman & Broad	42 3/4	- 8 1/4
Key Co.	9 1/4	- 2 1/4
Leisure Technology	19 1/4	- 3 1/4
Lennar Corp.	29 1/4	- 5 7/8
McCarthy Co.	6 3/4	+ 5/8
McKeon Const.	18 3/4	- 9 7/8
H. Miller & Sons	11 1/4	- 1 1/4
National Environment (Sprout Homes)	17 1/4	- 3
New America Ind.	17 1/4	- 3
Prel. Corp.	21 1/4	- 3 1/8
Presidential Realty	12 1/4	- 1/8
Presley Development	17 1/2	- 6 1/8
Pulte Home Corp.	13 1/4	- 5/8
Robino-Ladd Co.	18 1/2	- 1 3/8
Ryan Homes	28 1/4	- 4 3/4
Ryland Group	51 1/4	+ 9 7/8
Shapell Industries	28	- 2
Shelter Corp. of America	23 1/4	- 2 3/8
Standard Pacific	5 1/4	
3-H Building Corp.	12 1/4	+ 1 1/2
Universal House & Devel.	4 1/4	+ 1 3/4
U.S. Financial	34 1/2	- 6 1/2
U.S. Home Corp.	31 1/4	- 4 3/8
Jim Walter	34 1/4	
Washington Homes	11 1/4	- 1 1/8
Del E. Webb	9 1/4	+ 1 1/4
Western Orbis	3 1/4	- 1/8
Westchester Corp.	17 1/4	- 3 1/4

SAVINGS & LOAN ASSNS.

American Fin.	36 1/4	+ 2 3/4
Calif. Fin.	8 1/4	- 1 1/8
Empire Fin.	14 1/4	- 1 3/4
Far West Fin.	10 1/4	- 1 1/4
Fin. Corp. of Santa Barb.	26 1/2	- 1 1/2
Fin. Fed.	23 1/4	- 1 1/4
First Charter Fin.	27 1/2	- 1 1/4
First Lincoln Fin.	6 1/4	- 1 1/4
First S&L Shares	27 3/4	+ 7/8
First Surety	3 1/4	
First West Fin.	2 1/4	+ 1/8
Gibraltar Fin.	23 1/4	- 3 1/8
Great West Fin.	28 1/4	- 2 1/4
Hawthorne Fin.	14	- 2 1/4
Imperial Corp.	14 1/4	- 2 1/4
Trans-Coast Inv.	4 1/4	- 1/2
Trans World Fin.	13 1/4	- 7/8
Union Fin.	13 1/4	- 5/8
United Fin. Cal.	12 1/4	- 3/4
Wesco Fin.	15 3/4	- 3/4

MORTGAGE BANKERS

Charter Co.	28 3/4	- 1 3/8
CMI Investment Corp.	63 1/4	- 7/8
Colwell	26 3/4	- 1 1/4
Cont. Illinois Rlty.	30	- 3 1/4
Excel Investment	18 1/4	- 1 1/8
Fed. Nat. Mtg. Assn.	23	- 1 3/8
First Mtg. Ins. Co.	27 1/2	+ 3
Lomas & Nat. Fin.	24	- 2 1/4
MGIC Inv. Corp.	113 3/4	- 5 7/8
Midwestern Fin.	25 1/2	+ 1
Mtg. Associates	30 1/4	- 5 1/4
Palomar Fin.	12	- 1
UPI Corp.	3	

MORTGAGE INV. TRUSTS

Alison Mtg.	26 1/2	
American Century	27 1/4	- 1 3/4
Arien Property Invest.	15 1/4	- 1/2
Atco Mtg.	21 1/4	- 2 1/4
Baird & Warner	18 1/4	- 1/2
BankAmerica Rlty.	25 1/4	- 1 3/8
Bennett Mtg. Tr.	26	- 2
Beneficial Standard Mtg.	25 1/4	- 1 3/8
Cameron Brown	30 1/4	- 3
Capital Mortgage SBI	26 3/4	- 2 1/4
Chase Manhattan	56 1/4	- 9 1/4
CI Mortgage Group	24 1/4	- 1 1/2
Citizens Mtg.	13 1/4	- 3/8
Citizens & So. Rlty.	31	- 3
Cleve. Trust Rlty. Investors	19 1/2	- 1 1/4
Colwell Mtg. Trust	28 1/4	- 1 1/2
Conn. General	27 1/4	+ 1/4
Cont. Mtg. Investors	13 1/4	- 5/8
Cousins Mtg. & Eq. Inv.	25 1/4	- 3/8
Diversified Mtg. Inv.	27 1/2	- 2
Equitable Life	29 1/4	
Fidelco Growth Inv.	34	- 1 1/8
Fidelity Mtg.	26 1/4	- 1 1/4
First Memphis Realty	21 1/4	- 1 1/4
First Mtg. Investors	24 1/4	+ 3/4
First of Denver	20	- 1 1/4
First Pennsylvania	25 1/4	- 1 3/8
Franklin Realty	9 1/4	- 3/4
Fraser Mtg.	25	+ 1/4
Galbreath Mtg.	27 1/4	- 1
Great Amer. Mtg. Inv.	32 1/4	- 1 1/4
Guardian Mtg.	42 1/4	- 1 1/4
Gulf Mtg. & Rlty.	17 1/2	+ 1/8
Hamilton Inv.	15 1/4	- 1/2

Company	May 8 Bid/Close	Chng. Prev. Month
Heitman Mtg. Investors	14	+ 3/4
Hubbard R. E. Investments	20 1/4	- 3/8
Larwin Mtg.	28 3/4	- 3 1/4
Lincoln Mtg.	9 1/4	+ 3/8
Mass Mutual Mtg. & Realty	30 1/4	+ 2 1/2
Median Mtg. Investors	12 1/4	- 5/8
Mony Mtg. Inv.	12 1/4	- 1/8
Mortgage Trust of Amer.	23 1/4	+ 1 1/4
National Mortgage Fund	13 1/2	- 3/8
North Amer. Mtg. Inv.	33 1/4	- 3/8
Northwestern Mutual Life Mtg. & Rlty.	24	- 1/8
PNB Mtg. & Rlty. Investors	24 1/4	- 1 1/8
Palomar Mtg. Inv.	15 1/4	- 5/8
Penn. R. E. Inv. Tr.	12 1/2	- 1/2
Property Capital	23	- 1 1/4
Realty Income Tr.	12 1/4	- 2 1/8
Republic Mtg.	18 1/4	- 3/4
B. F. Saul, R.E.I.T.	25 1/4	- 1/4
Security Mtg. Investors	16 1/4	- 3/8
Stadium Realty Tr.	12 1/4	+ 3/4
State Mutual SBI	24	- 2 1/2
Sutro Mtg.	18 1/4	+ 1/4
Unionamerica Mtg. & Eq.	27 1/4	- 1 1/8
U.S. Realty Inv.	18 1/4	+ 1/4
Wachovia Realty Inc.	31 1/2	- 1
Wells Fargo Mtg.	22 1/4	- 1 1/4

LAND DEVELOPERS

All-State Properties	1 3/4	- 1/8
American Land	1 1/4	
AMREP Corp.	23 1/4	- 5
Arvida Corp.	12 1/4	- 1 1/8
Atlantic Imp.	7 1/2	+ 2
Canaveral Int.	4 1/4	+ 1/4
Cavanagh Communities	7 1/4	- 1 1/4
Crawford Corp.	6 3/4	+ 1/4
Deltona Corp.	36	- 7
Disc. Inc.	3 1/4	+ 1/8
Don the Beachcomber Ent. (Garden Land)	4 1/2	- 1/4
Fairfield Communities	4 1/4	+ 1/4
Gen. Development	28 1/4	- 3 3/8
Gulf State Land & Ind.	4 1/4	- 1/8
Holly Corp.	1 1/4	- 1/8
Horizon Corp.	38 1/4	- 3 7/8
Land Resources	4	- 1/4
Major Realty	10	- 1 1/8
McCulloch Oil	31 1/4	- 2 1/4
Southern Rlty. & Util.	7	- 2

MOBILE HOMES & MODULES

Conchemco	18 1/4	- 2 1/8
Champion Home Bldrs.	82	- 5 1/4
Commodore Corp.	15 1/2	- 1 1/8
De Rose Industries	9 1/4	- 1 1/4
Fleetwood	41 1/4	- 7 1/4
Golden West Mobile Homes	19	- 2 1/4
Guerdon	27	- 3 1/4
Mobile Americana	14 1/4	+ 1 1/2
Mobile Home Ind.	27 1/4	- 1 1/4
Monarch Ind.	5	- 3/8
Redman Ind.	31 1/2	- 4 1/4
Rex-Noreco	14 1/4	- 3 1/2
Skyline	61 1/4	- 12 1/4
Town & Country Mobile	10 1/4	- 1 1/8
Triangle Mobile	7 1/4	- 1 1/4
Zimmer Homes	15 1/2	- 1

Albee Homes	3 1/4	- 5/8
AABCO Ind.	3 1/4	
Brigadier Ind.	6 1/2	- 1/4
Environmental Communities	5 1/2	+ 1/4
Hodgson House	6 1/4	- 1/4
Liberty Homes	15 1/2	- 6 1/4
Lindal Cedar Homes	19	- 13
Modular Dynamics	1	
Modular Housing Systems	12 1/4	- 7/8
Nationwide Homes	14 1/4	- 2
Shelter Resources	17 1/4	- 1 1/4
Stirling Home	5 1/4	- 1 1/8
Swift Industries	3 1/4	- 1 1/4

DIVERSIFIED COMPANIES

Amer. Cyanamid	35 1/4	- 2 1/8
Amer. Standard (Wm. Lyon)	13 1/4	- 1 3/8
Arien Realty & Develop.	20	- 3 1/8
AVCO Corp.	16 1/2	- 1 1/8
Bethlehem Steel	31 1/4	- 2 1/4
Boise Cascade	1 1/4	- 2 1/4
CNA Financial (Larwin)	25 1/4	- 1/4
Castle & Cooke (Oceanic Prop.)	17 1/4	+ 1/8
CBS (Klingbeil)	50 1/4	- 7 1/4
Christiana Securities	154	+ 10
Citizens Financial	12 1/4	- 2 1/2
City Investing (Sterling Forest)	17 1/4	- 2 1/8
Corning Glass	226 1/4	- 16 1/4
Cousins Properties	23 1/2	- 6 1/4
Dreyfus Corp.	21 1/4	- 3 3/8
(Bert Smohler)		
Environmental Systems	13 1/2	- 2
Evans Products	26 1/4	- 5/8
Ferro Corp.	33 1/4	+ 1 1/8
First Gen. Resources	3	- 3/8
Fischback & More	55 1/4	- 3 1/8
Forest City Ent.	29 1/2	- 1 1/4
Flagg Industries	10 1/4	- 7/8
Frank Paxton Corp. (Builder Assistance Corp.)	16 1/4	+ 2
Fruehauf Corp.	41 1/4	- 1 1/2

Company	May 8 Bid/Close	Chng. Prev. Month
Fuqua Ind.	23 1/8	- 3 3/8
Georgia Pacific	44	- 3 1/2
Glasrock Products	8 1/4	+ 1/4
Great Southwest Corp.	2 1/4	- 1/4
Gulf Oil (Gulf Reston)	24 1/4	- 1 1/4
INA Corp. (M. J. Brock)	53 1/4	+ 3 1/4
Inland Steel (Scholz)	34	- 2 1/4
International Basic Econ.	7 1/4	+ 1 1/4
International Paper	36 1/4	- 2
Internat. Tel. & Tel. (Levitt)	54 1/4	- 2 1/4
Investors Funding	11 1/4	- 1/4
Killearn Properties	18 1/2	- 1 1/4
Leroy Corp.	2 1/4	- 1/2
Ludow Corp.	26	- 2 1/4
Monogram Industries	15	- 2 1/4
Monumental Corp. (Jos. Meyerhoff Org.)	59 1/2	- 3 1/2
National Homes	22 3/4	- 4 1/4
Occidental Petroleum (Occ. Pet. Land & Dev.)	11 1/4	+ 1/4
Pacific Coast Prop.	3 1/4	- 1/8
Perini Corp.	4 1/2	- 1/8
Philip Morris	91 1/2	- 1 1/4
Prosher Corp.	5	- 2 1/4
Rouse Co.	27 1/2	- 2 1/4
Santa Anita Consol. (Robt. H. Grant Corp.)	27	+ 1 1/4
Sayre & Fisher	2 1/4	+ 1
Shareholders Capital Corp. (Shareholders R.E. Group)	3 1/4	- 56
Temple Industries	27	- 4 1/4
Tishman Realty	24 1/4	+ 1/4
Titan Group Inc.	5	- 1/2
UGI Corp.	20 1/2	+ 1/4
Uris Bldg.	15 1/4	- 3 1/4
U.S. Ply-Champion (Lewers & Cooke)	23 1/2	- 3 1/4
Weil-McLain	21 1/4	- 3
Westinghouse (Coral Ridge Prop.)	49 1/4	- 2 1/4
Weyerhaeuser (Weyer. Real Est. Co.)	51	+ 2 1/4
Whittaker (Vector Corp.)	10 1/4	- 3 1/4
Wickes Corp.	42 3/4	- 3 1/4

SUPPLIERS

Alpha Portland Cement	17 1/4	- 1 1/4
Armstrong Cork	42 1/4	- 7/8
Automated Building Comp.	13 1/4	- 1 1/4
Berven Carpets	37	+ 1
Bird &		



PPG glass doubles the space and glamour in the owners' suites you build.

You can magnify all the beauty of an owner's suite like this with mirrors made of PPG's *High-Fidelity*® float glass. Mirrored sliding wardrobe doors make a dull wall glamorous and exciting. And wall-to-wall mirrors above a vanity are more than a beauty aid. They double the spaciousness of a small area at a reasonable cost.

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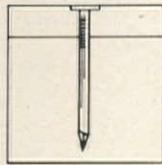
together with a dry air space between to keep out all the weather. Build them safely with *Herculite*® K tempered safety glass. *Herculite* K is many times stronger than ordinary glass. And if it ever does break, it crumbles into small rounded pieces that reduce the chance of serious personal injury.

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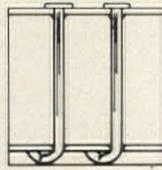
PPG: a Concern for the Future



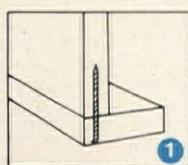
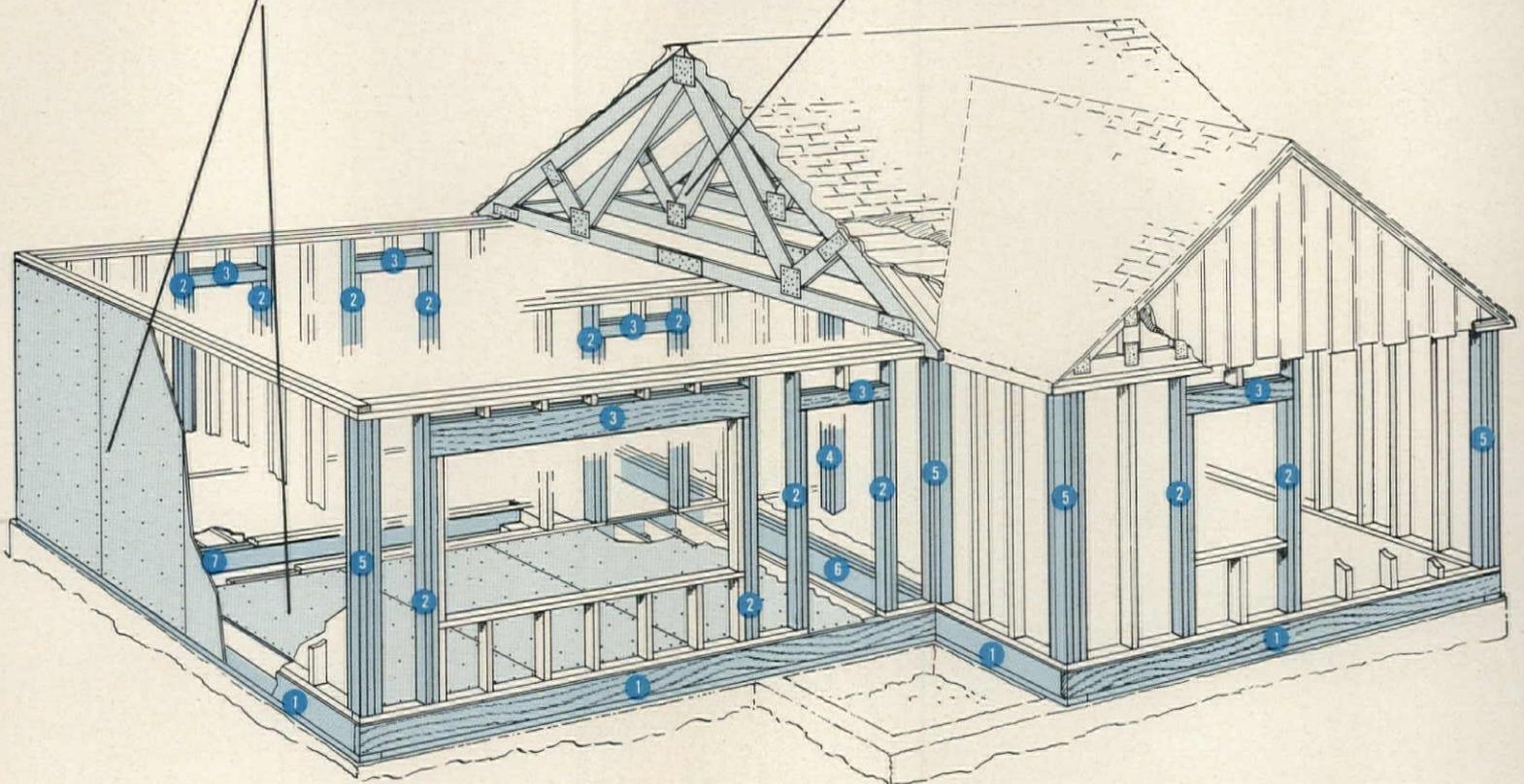
The house that Bostitch builds.



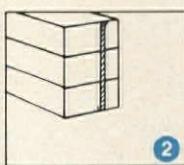
For faster, easier subflooring and sheathing installation, Bostitch supplies nailers and staplers for portable use, or gang mounted installation in a totally automated setup.



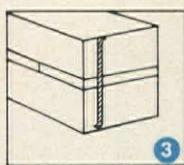
For roof truss fabrication, the Bostitch Clinch-Nail System locks members between two steel plates with clinch nails for rivet-like strength. No other truss connector system can match it for strength of joints. Even the roughest treatment won't destroy a clinch-nailed truss joint.



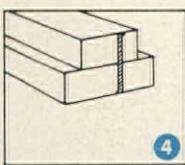
Box Sill



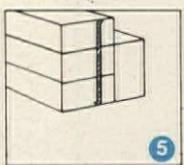
Jamb Post



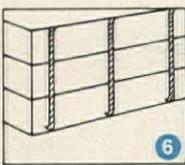
Header



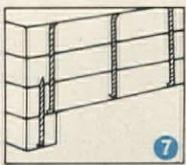
Wall Junction Post



Corner Post



Triple Beam



Girder with Ledger

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fabricates a wide variety of housing sub-components. Its unique Magic Fingers clamping device automatically aligns members, removes warpage and presses pieces together while threaded nails are screwed from bottom up, locking members into one solid unit. This method is up to four times faster than hand nailing, and provides sub-components so uniform they're interchangeable.

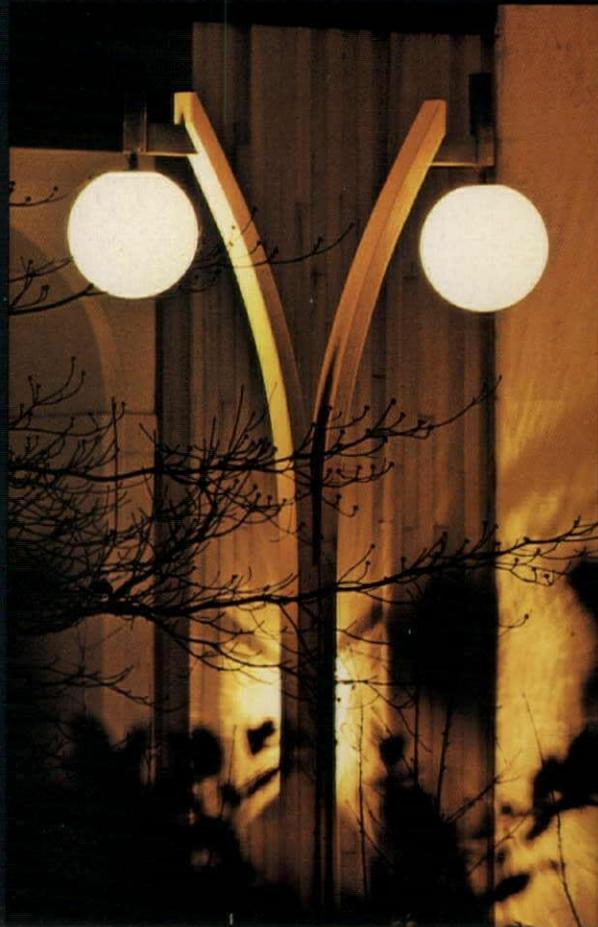
For mass producing window frames, outside

door frames, and two-piece sills, Bostitch offers its Auto-Nailer Model Hercules-9 high speed jamb nailer. This machine can be a profitable addition to your systems building facilities on as few as seven window units a day.

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Weyerhaeuser



JOAN SYDLOW

The housing boom is winding down so it's up to S&Ls to avert a bust. They should curb lending and—heresy— cut rates they pay to attract savings

The housing sector is particularly vital to the savings and loan business, and so it is now doubly important for lending leaders to look hard at the direction of housing output.

It is also time to weigh some new responsibilities of the savings and loan industry in the light of a change in the pace of housing.

Never has housing output reached the peaks achieved in 1971 and early 1972. Before 1971 our biggest year had been 1950, with 1,950,000 starts. That record was broken with 2,050,000 in 1971, and the annual rate of starts has continued upward in 1972, with the first quarter average reaching 2,500,000.

But there is now a good chance that starts will drift slowly but steadily downward through the rest of 1972. I look for a drop in the annual rate from 2,500,000 units to about 2,000,000 by year's end. Dollar expenditures for residential construction are likely to dip from an annual rate of about \$48 billion in the first quarter to about \$44 billion in the fourth. The year's totals for starts and spending will be higher than in 1971, however.

Policing the excesses. The economic picture implies an exceptionally favorable atmosphere for the savings and loans in the months ahead. But the picture also poses important and difficult questions—the sustainability of current output and the responsibility of the industry for housing stability.

There simply is no need or excuse for the extreme swings in housing activity which this country has experienced so often in the past 25 years, for the basic demand for housing over a three-to-five-year period can now be predicted with a fairly high degree of accuracy. Let's ask ourselves what that figure is at present, and how it compares with current housing output.

A sensible look at demand. Housing demand stems from the net increase in households and the need to replace structures worn out or destroyed. The number of families or single persons now living in separate quarters is rising by 1,370,000 a year. So 1,370,000 additional housing units are needed each year. Another 725,000 units must be built each year as replacement shelter.

The total demand, then, is for about 2,100,000 units a year. And a part of this

is supplied by mobile homes. Since the increase in mobiles runs about 300,000 units a year, the demand for housing from the construction industry is 1,800,000 units. This provides a measure of the pace at which housing construction can be sustained without leading to a boom-bust cycle.

Some additional construction is needed at present because of insufficient construction in the years 1966-70. But that shortage, at the most, could boost demand over the next three years to 2,000,000 units a year. Yet output is now running at an annual rate of 2,500,000 units. For a brief period this excess output will do no harm. But if it is continued, it must lead inevitably to a future glut, to foreclosures, builder failures and a repetition of the unnecessary and wasteful cycle that has characterized homebuilding in the past.

Tighter loans, lower rates. What must the savings and loan industry do to avert or lessen this instability? Here are the practical steps:

1. Associations must resist the temptation, to which a few are now succumbing, to accept even riskier loans in order to invest all of the huge flood of savings. A tightening, rather than a relaxation, of lending standards is what is needed, not only to improve the quality of loan portfolios and ensure the soundness of institutions, but also to exercise a salutary restraint on incipient overbuilding. It is no favor to the housing industry or the savings and loan industry to encourage additional home building in areas where vacancy rates are already high or in situations where large numbers of homes are built without steady market confirmation of demand.

2. Associations should place greater emphasis on investments other than home-construction and home-purchase loans and should devote more funds to building liquidity. Unfortunately, the scope of loans permitted to associations is still far too restricted. The ideal loan to which associations should be diverting funds is the consumer installment loan.

3. There is today a pressing need to reduce rates offered to savers on certificates, and in some cases to reduce pass book rates as well. The notion that associations should ever do anything which might lessen the inflow of savings may seem heretical, but it makes sense both from the standpoint of society and from the stand-

point of the association.

From the standpoint of society a rate reduction would be desirable because, by lessening the incentive to save, it would dampen the flow of funds to the housing market at the same time that it provided some impetus to increased consumer spending. Furthermore, a rate reduction paid to savers might make possible a further decline in interest rates charged on loans. Such a decline would contribute to the fight against inflation.

A rate reduction would be desirable for lenders because it would lower their cost of money, would lessen the current pressure to reach for riskier loans and would not reduce earnings even if it were accompanied by some decline in rates charged on new loans. Earnings would probably increase.

4. If the flow of savings and the pace of housing do not abate, federal regulatory authorities must bring these sectors to a more sustainable pace.

Home Loan Board's duty. The Federal Home Loan Bank Board has not yet fully assumed its responsibility to guard against oversaving and overbuilding. Just as the Federal Reserve Board recognizes that there are times when the lending ability of commercial banks should be curbed, the Bank Board must be willing on occasion to tighten the availability of funds to savings and loan associations so as to restrict the thrift institutions' ability to pour funds into the housing and mortgage markets.

The time may fast be approaching when the Bank Board should use its restrictive powers. In the coming months the Board should give careful consideration to these actions:

1. An increase in the rate on advances to member associations.

2. An increase in the minimum liquidity ratio.

3. In coordination with other federal regulatory agencies, a reduction in the maximum rate payable on savings.

The year ahead promises growth and prosperity for the savings and loan industry. But it also is a year which presents a challenge and a responsibility. The challenge is to be imaginative enough to deliberately adopt a policy designed to dampen the volume of savings and housing today in order to stabilize these important sectors of the economy in the future.

Cost control... The way the Kingsberry Man does it, you save.



You probably know our fine quality. And the ready availability of our single family, multi-family and leisure home models, designed to meet

FHA, VA and conventional financing requirements. But there's more. A cost control system only a top manufacturer could offer in such detail... a calculated method that guarantees you savings!

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- The Kingsberry Man sits down and shows you predetermined pricing... exact costs ... on whatever package you choose.
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- You don't waste time getting quotes... on lumber, concrete, etc... and prices won't vary like those of local sources.
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No. lots I now have ready to build on:

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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.

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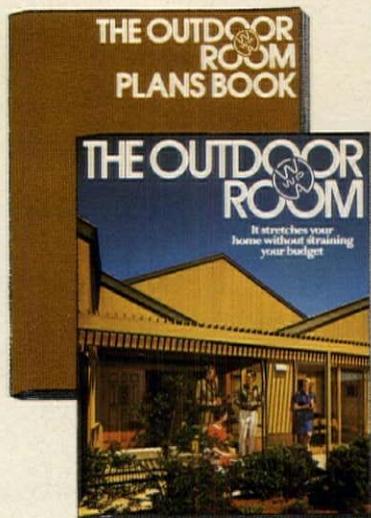
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CIRCLE 38 ON READER SERVICE CARD

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





Building method uses foam blocks filled with reinforced concrete

The resulting houses are cheaper yet stronger than framed structures, require only eight man-days of labor to frame up, need almost no maintenance, resist fire, insects and rodents and provide excellent insulation and sound suppression.

Builder's cost is as low as \$13,700 for a 1,450-sq.-ft., 4-bedroom, 2-bathroom house, including carpeting, dishwasher, range, zoned resistance heating system, etc. Only the roof is not included in the package. Retail prices range from \$15,000 to \$30,000.

The system can also be used for low-rise residential and light commercial buildings up to 40' high.

The component maker, Structural Foam Inc., of Parkersburg, Pa. (near Philadelphia), ships a package consisting of outside walls, windows, doors, siding and interior partitions and doors. The frame-up goes this way:

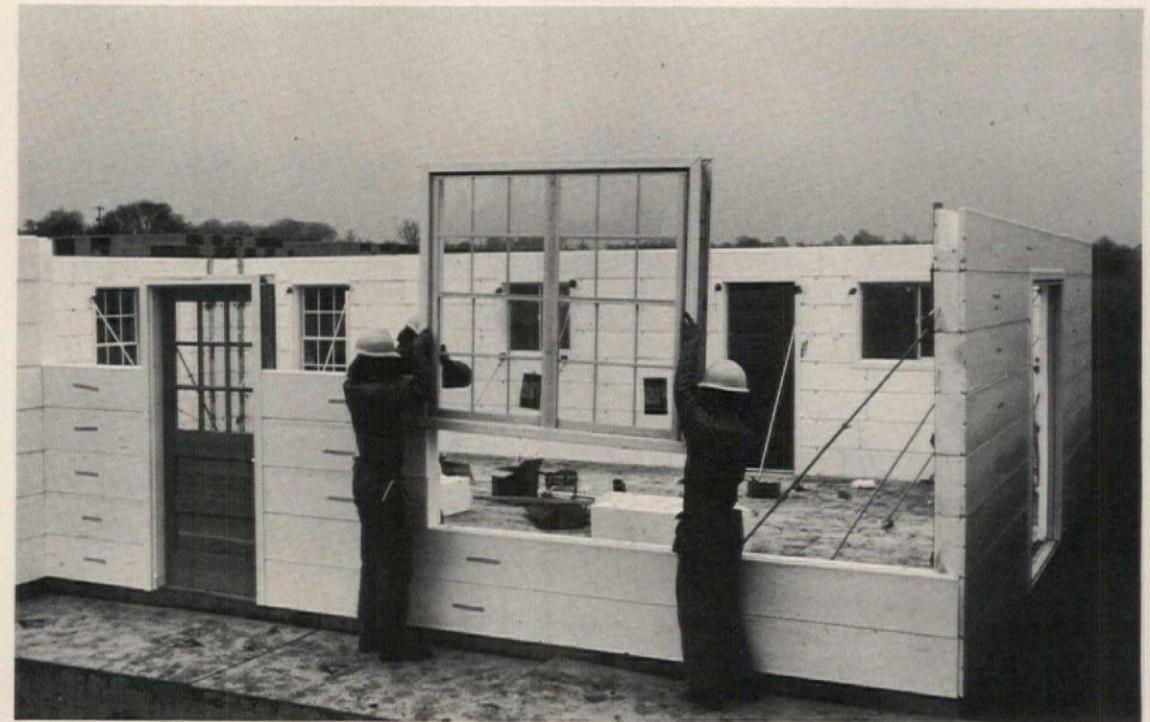
The heart of the system is a polystyrene block measuring 6" wide by 11 3/4" high. The block does triple duty: It provides a form for the reinforced concrete columns; it serves as the backing for both the outside siding and interior finish of any conventional type and it serves as an effective insulator and acoustical barrier.

The blocks have been cut to desired length at the factory; in the process the vertically running holes are aligned.

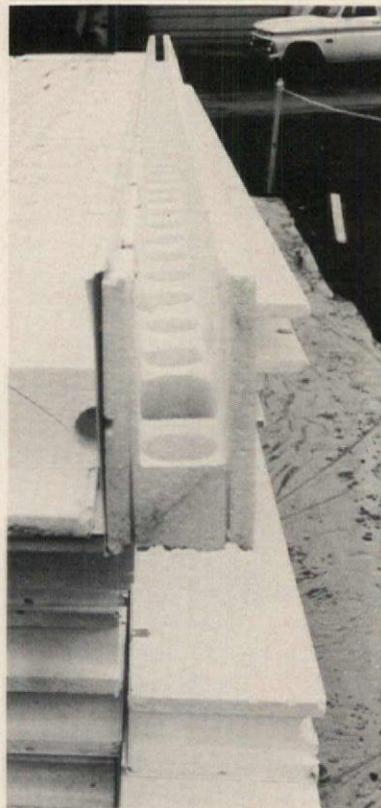
On site the blocks are stacked as walls and partitions, with holes aligned and tongues and grooves engaged. Window and door frames and outside and inside corners are then set in place. Next, two #3 steel rods are inserted through designated holes, typically at 24" intervals. Rebars are also sunk on both sides of all doors and windows.

The last step in the frameup is the pumping of concrete first through each of the selected holes, which are 3 5/8" in diameter on 6" centers. After the holes are filled, pumping begins immediately to form a horizontal rebar beam in the specially formed top block.

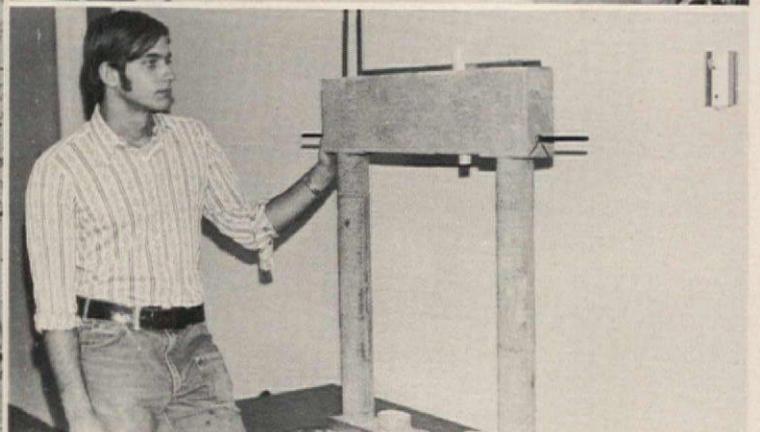
Any conventional roof can be installed without waiting for the concrete to cure. Exterior siding is of either aluminum



Windows, supplied in package, go in after major framing is done. Note braced walls to insure plumb before pumping concrete. Lightweight components go over well with building trades workers, according to Structural Foam Inc.



Foam blocks are shown stacked at jobsite (left). Top block has a U-cavity which will form the horizontal beam. Concrete is



being pumped in photo at upper right. Bottom right: model of framing with blocks cut away to reveal concrete.

or vinyl, with longitudinal edges formed so that they interlock with the plastic blocks. The siding is anchored in place as each block is set in place.

Complete erection, excluding cleanup, can be accomplished in eight calendar days, or 36 man-days of labor—half journeyman and half semi-skilled.

The system, which has been FHA-approved, is completely flexible as to architectural and design factors, since the basic blocks are shipped pre-cut; if frontage greater than the maximum 28' length is required, blocks can be joined together by clips.

Structural Foam's present

market area is within about a 1,200-mile radius of Philadelphia. But the company is in the midst of negotiations for subsidiary plants in the Midwest and Florida, with a nationwide network of plants in the hoped-for future. Present manufacturing capacity is two houses per day on a single shift.

Many wood window manufacturers won't sell you a true divided lite window any more. Marvin will, and we furnish windows like this for some of the most enchanting homes in North America. We don't stretch out our delivery to do it, either.

Marvin's authentic muntin bars have a full 7/16-inch face, giving them a rich, solid look.

Bewitching windows aren't all hard to get

We offer this beautiful glazing on all of our double hung, glider, casement and picture windows. We offer wood or vinyl decorator grilles on *all* windows. And we offer a lot of other things that are considered "special" by many manufacturers.

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Opens the door...turns on the light...closes the door...locks up tight!

Genie! The extra touch that closes home sales faster.

Genie! Pre-sold through national advertising and local promotion.

Genie! Backed by a nation-wide network of reliable dealer service outlets.

Genie! Performance-proved by satisfied users everywhere.

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Send booklet about Genie
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from Nature's palette—
a warm rich color
by American-Standard



Nature's Gold. The natural gold of a lovely girl's hair. The gold of autumn leaves; of a ripe wheat field; of Kansas corn in September; of a lovers' moon.

It's a perfect color for the bath because it's warm and friendly; complements any color scheme.

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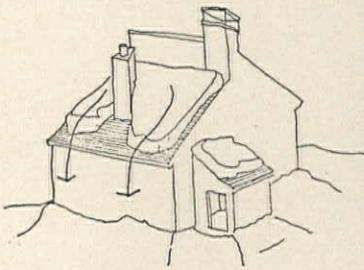
*Trademark of American Standard Inc.

A condominium project for snow-belt country

PHOTOS: TOM F. WALTERS, COURTESY CALIFORNIA REDWOOD ASSOCIATION

Since major storms often dump up to 10' of snow in the Kings Beach area of Lake Tahoe, Calif., critical design elements for the entire 20-acre project shown here evolved around the snow.

For example, to prevent ice dams from forming and to encourage snow to slip off, roofs were specially designed to distribute building heat uniformly under the entire roof structure. Chimneys are triangular so that snow can easily slide past them (*drawing, below*). Vents, clus-



tered at roof ridges to discourage snow build-up, repeat the roof slope which was planned to protect entries and decks from heavy snows.

Because foundations had to penetrate the frost line, a three-level, vertically oriented plan was chosen for the 269 townhouses. This arrangement also reduced roof areas which must support snow loads of up to 200 lbs. per sq. ft.

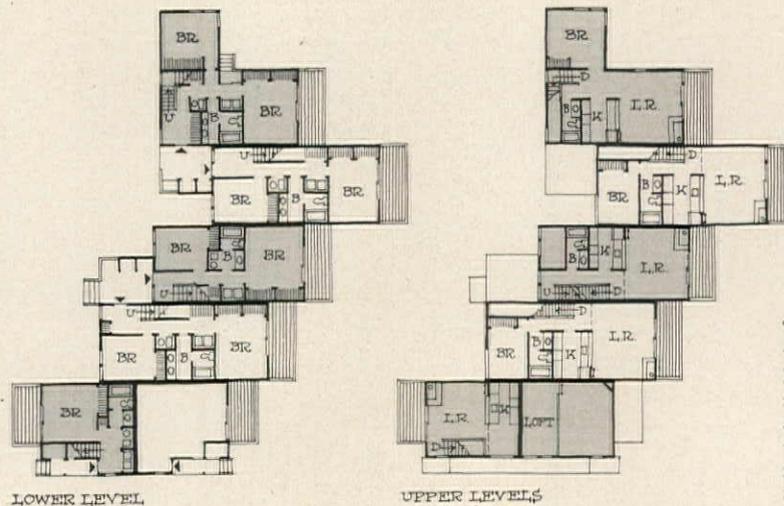
The units have most bedrooms on the first level where shutters can be placed on windows during the snow season. Living-dining rooms and kitchens are at mid-level, and the third level can be used as a TV room or additional bedroom.

Even the parking areas were designed to circumvent snow problems. Cars are parked at the center so that plows can push snow to the edges and into spaces between building clusters—without burying cars or building entrances.

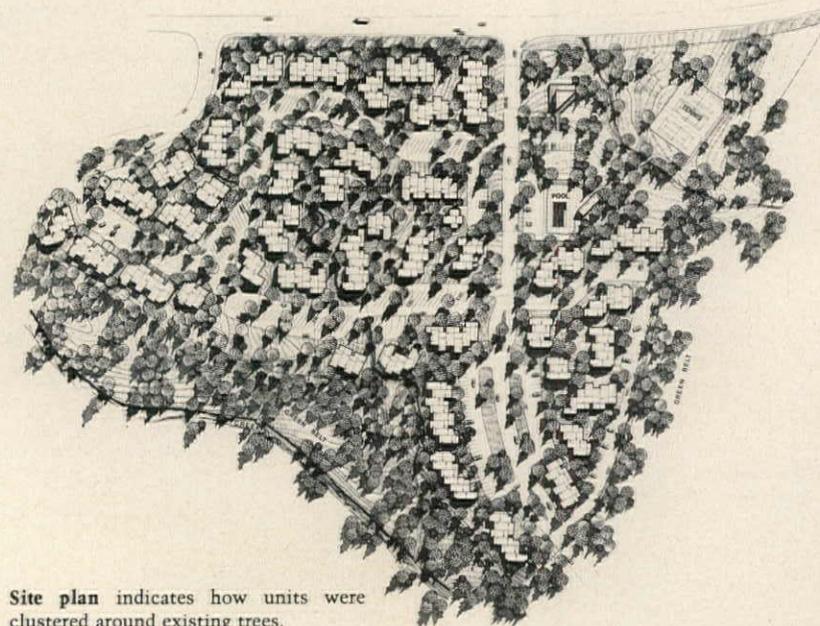
Kingswood Village was designed by Mackinlay/Winnacker AIA & Associates. Owner-builder is Homewood Investment Company.



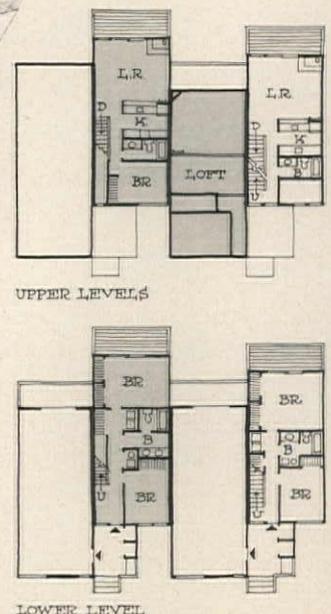
Removable shutters for lower part of ground-level windows provide wintertime protection against the deep snow.



Typical floor plans and section show three-level arrangement of living space. Living-dining rooms and kitchens are at mid-level where they can take year-round advantage of the views. The two- and three-bedroom townhouses range in size from 976 to 1,396 sq. ft. and sold for \$32,000 to \$45,000.



Site plan indicates how units were clustered around existing trees.



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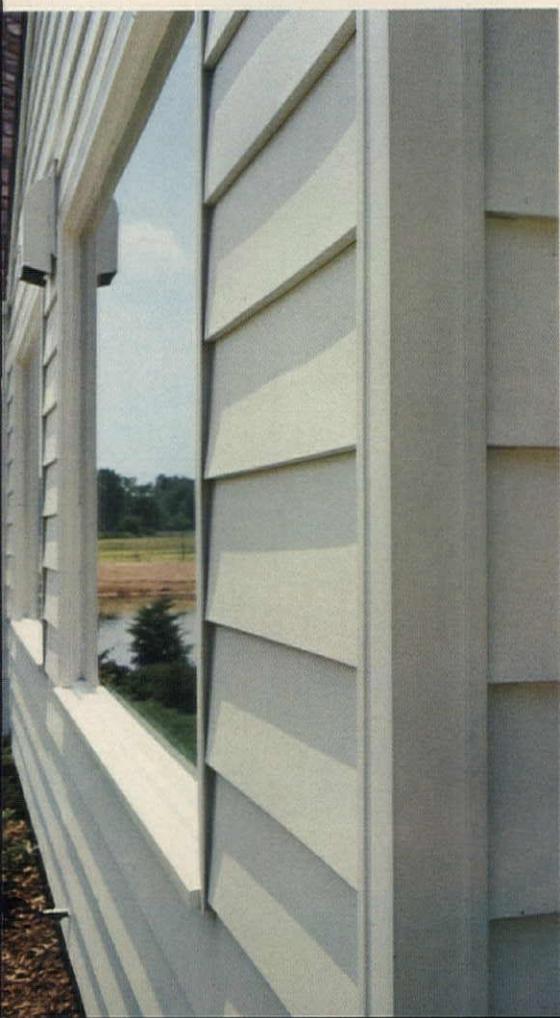
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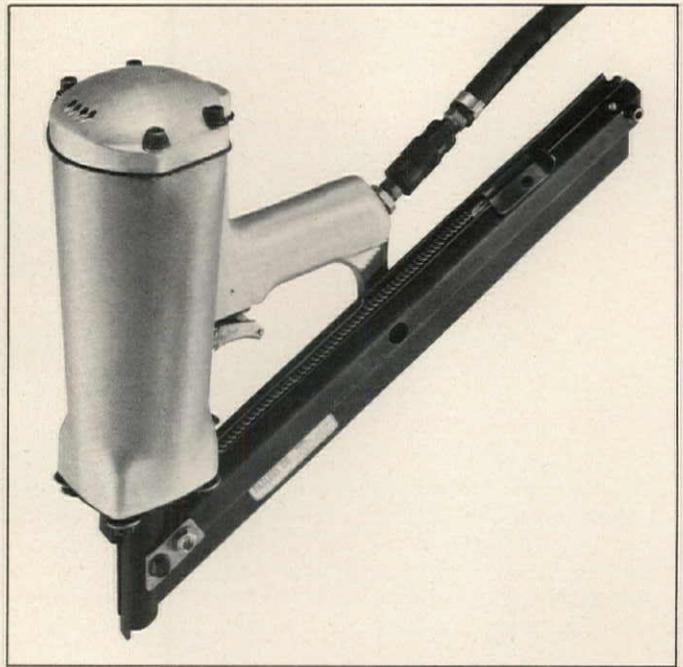


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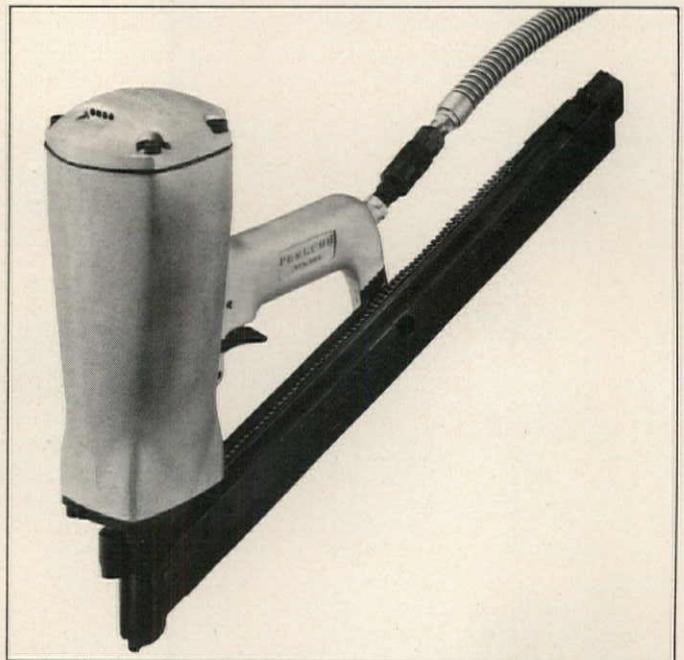
CIRCLE 45 ON READER SERVICE CARD



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We did even more with the door pictured. We

prefinished it with a smooth white factory coating, to bring out the full richness of the wood texture. It's easy to see why this *practical* eye-ful has tremendous buyer appeal. For more facts on Caradco Sculptured Doors, please call us or write.

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Scovill

Main Plant, Dubuque, Iowa 52001 Eastern Assembly Plant, Hainesport, New Jersey Ohio Assembly Plant, Columbus, Ohio

CIRCLE 47 ON READER SERVICE CARD

A low-cost plastic house that can be cleaned with soap and water

Despite its appearance (even the manufacturer admits that most Americans resist round houses), this dome-shaped entry into the plastic house market may have several things going for it.

First, Unidome's completely assembled price (including foundation slab, partitions, kitchen and bathroom fixtures and water heater) is just \$4,500.

Second, it can be erected in three or four days, using unskilled or semi-skilled labor.

Third, it is practically maintenance-free and indestructible. Panels are color-impregnated so they don't have to be painted. All that's needed to restore the original color is a washing with mild soap and water. The plastic does not attract rodents or termites or support fungi.

And to top it off, says Georgia-American Corp., the plastic is nonporous and contains insulation similar to that used in nuclear submarines. Thus, heating and cooling will cost less than they do in a conventional house.

The key to all of this, says Diane Davis, company secretary, is the combination of the plastic material used and a thermoforming process which shapes the Unidome panels.

The material is Vik-O-Lite, a sandwich formation consisting of an extruded polystyrene foam core between two layers of ABS polymer materials. The forming process produces panels in the prescribed curvature—so that someone 6' tall can stand upright within 18" of the perimeter. One pass through the thermoformer produces panels up to 10'x26'

The process was developed by Laminex Corp. of Maple Plains, Minn., and thermoforming is performed by Viking Engineering & Manufacturing Co. of Lakeville, Minn. Operations have been consolidated under Georgia-American Laminex, Engineering & Manufacturing Corp.

The company has commitments for its first year's production of about 20,000 units. Most will go overseas, but some are destined as vacation houses in the United States.

—STAN FISHER

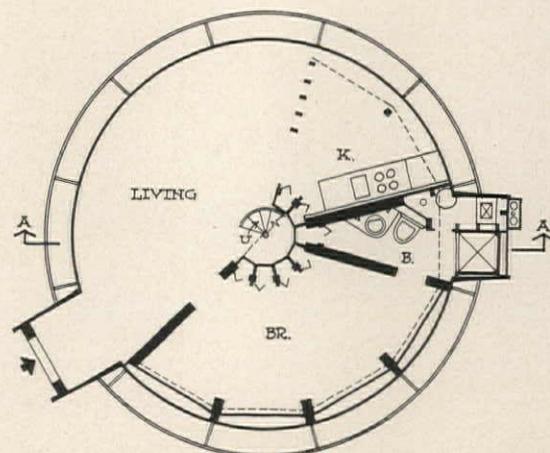
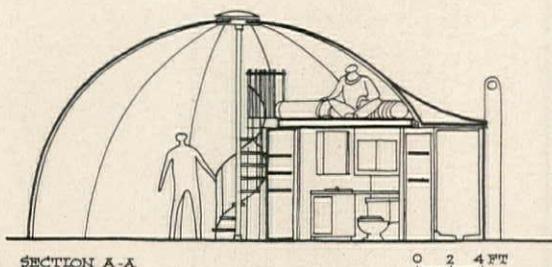
McGraw-Hill World News,
Atlanta



Unidome, which weighs about 1,200 lbs., consists of 11 tapered panels, an entrance panel, 12 aluminum joining ribs (which may be replaced with neoprene gaskets), a base ring clamp, center pole and skylight assembly. Unit shown, as assembled on Georgia-Tech campus, is windowless. When windows are desired, standard frames can be installed in an entrance panel which is substituted for a wall panel. Also available: panels incorporating porthole-type windows using the same element shown in the skylight (top).



Interior view shows how the tapered panels are joined by aluminum ribs. Main living area is in foreground in front of kitchen-dining room. Spiral staircase leads to the loft.



Ground-floor plan and section show layout of 977 sq. ft. of living space—531 sq. ft. on the ground level and 266 sq. ft. in the loft. The latter encompasses about half the circumference of the house. Unidome is 26' in diameter, 13' high. Units can be joined for larger structures.



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on wall repairs.

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- Informative technical literature.
- Large 4'x5' sample of SHEETROCK W/R.

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UNITED STATES GYPSUM 
BUILDING AMERICA

CIRCLE 49 ON READER SERVICE CARD

H&H JUNE 1972 49

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1



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wood, masonry or steel frame constructions. They are relatively light and easy to handle. So installation costs are cut way down. Once in place, Sanspray is virtually maintenance-free, in all climates.



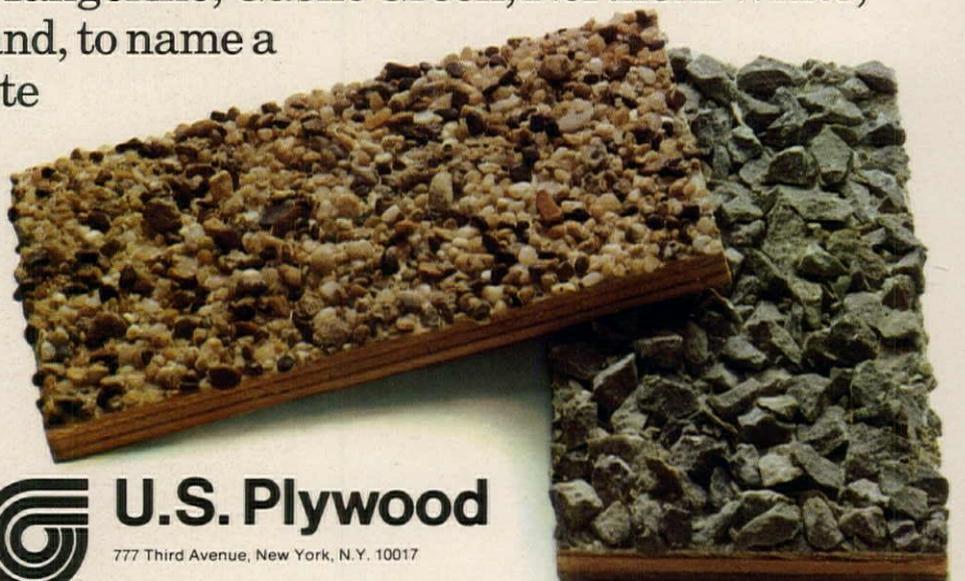
3

Sanspray comes in two aggregates — large and regular, both of which are shown below. And a wide selection of natural stone colors — like Tangerine, Gaelic Green, Northern White,

Pearl Gray and Monterey Sand, to name a

few. But to really appreciate Sanspray, you ought to see and feel the real thing. We'll be happy to supply you with hand-sized samples, as pictured, if you'll call your local U.S. Plywood Branch

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1972 House & Home Directory

the new 1972 Directory of Modular Housing Producers

Fresh facts on the influx of new companies joining the ranks of modular manufacturers . . .

Fresh facts on personnel changes; plant number, size and location; marketing methods; firm addresses . . .

Fresh facts on actual 1971 production and 1972 estimates supplied by the modular manufacturers themselves . . .

. . . all from continuing House & Home research designed to keep pace with frenetic change in the fast-growing modular industry!

With additional firms added right up to press time, House & Home's new '72 Directory updates the modular marketplace for supplier, producer and buyer of modular housing who want to do business with each other.

A handy Reader Inquiry Card gives easy access to further information both from suppliers, who are indexed alphabetically, and from modular producers, who are indexed both alphabetically and geographically.

The new '72 Directory of Modular Housing Producers includes the following data on virtually every known company active in modular housing production:

1971 Modular Production: Single-Family Units, Multi-Family Units.

Modular Manufacturers: Company Name/Address, Names of Principals, Parent Company Affiliation.

Factory Data: Number of Plants, Location of Plants, Total Plant Capacity.

Marketing Methods: Use for Own

Projects, Sale to Builders/Developers.

With the 1971 Directory sold out, copies of the new '72 Directory of Modular Housing Producers will also be available on a first-come, first-served basis at a cost of \$2.00 each.

To order copies, print your name and address clearly on the coupon below and enclose check payable to House & Home.

Modular Housing Producers

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"Steel or concrete, panels or modules, stack-on or plug-in— what's really the best system for high-rise construction?"

The modular housing concept began as an extension of the mobile home industry using code-complying double-wides, commonly known as sectionals. And this type of unit still represents a major share of current production in modular units.

But the best part of the modular industry's growth in recent years has been in low-rise multifamily where project size and duplication provide the volume and repetition required for a mass production factory operation. For these and other reasons medium- and high-rise housing (including hotels and motels) offers a tremendous potential for modular construction.

Wood-framed modules, which make up the bulk of today's production, do not meet most high-rise fire codes nor do they have the necessary structural strength for multi-story buildings. The same is generally true for light gauge steel-framed modules. Concepts have been devised where structures or platforms of steel or concrete are erected separately, and the modules are then plugged-in. But these designs introduce excessive time-consuming ordinary site work and other expensive complications.

Cost and weight problems. Another system utilizes an expensive jack-up device with the heavy structural steel incorporated into the basic modules involved. As a result the factory manufacturing process requires extraordinary operations, and structural connections and fire-proofing of the steel at the site are necessary. Additionally, the huge weights plus required stability place definite limitations on the heights of such buildings.

Therefore, a concrete modular system which provides sufficient strength and fire resistance is the logical answer. However, the weight of concrete and lack of manufacturing simplicity have been the main restraints to any major breakthroughs in this area.

There are several concrete modular systems in limited production, and there have

been two highly publicized one-time projects. The first was Habitat at Montreal's Expo '67 where the excessive module weights and limited production created extremely expensive apartments.

The second was the Hilton Hotel in San Antonio which again proved that expensive production equipment should not be absorbed into the cost of one building.

In these and similar buildings concrete modular construction has proved its quality as being equal to or better than conventional high-rise construction.

Since a modular building incorporating a steel structural system normally requires additional coverage of concrete or other materials for fire-proofing, a complete concrete modular system would be most desirable (except, maybe, if you happen to be a steel company) if the major problems of excessive weight and manufacturing could be solved.

Combined systems. A number of Operation Breakthrough's winning proposals were concrete panel systems which are hardly major breakthroughs in high-rise construction. All of these systems leave a very large percentage of site work—by both the mechanical and finishing trades, where the greatest portion of the costs are concentrated.

And, there is some use of a combination of utility modules plus panels so that the mechanical areas are set in modular form and the balance in some form of panels. Again, while this concept has greater flexibility than total modules and can make greater logic in certain types of buildings, it only achieves part of the job that can be handled by a complete modular package.

High-rise modules can include complete baths, kitchens, and heating systems, plus carpeting, finished partitions and even furniture. Such a high degree of completeness in the factory creates tangible savings that cannot be duplicated by any panel system alone.

At first glance architects will prefer the greater design freedom available with a panel-plus-core module concept over the total modular system that places definite restraints on design flexibility. Complete modules, however, offer the greatest challenge to both the designer and manufacturer. They also offer the greatest potential for real economies. Residential buildings are particularly adaptable to extremely at-

tractive designs utilizing modules and can offer the talented creative architect ample opportunity to express his real ability.

Opportunities for a manufacturer of a feasible concrete modular system are therefore unlimited. But for such a system to be successful, it must incorporate definite cost- and labor-saving features, not the least of these are:

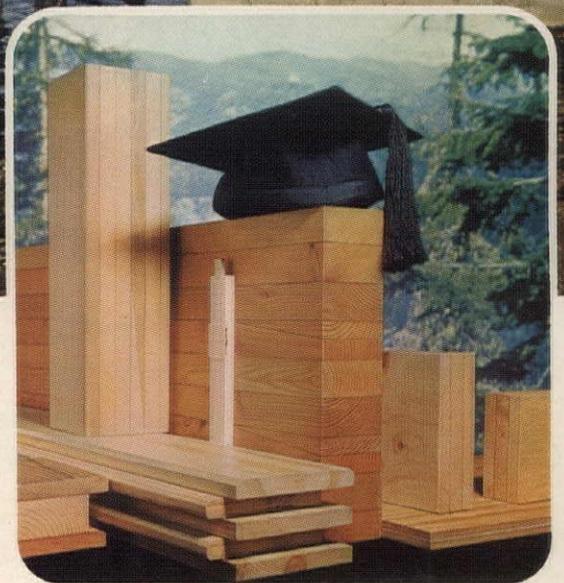
- **Lightweight, high-strength modules.** Modules must be transported from factory to site and lifted into place. Excessive hard-rock concrete weights cannot be tolerated. Sufficient strength with minimum thickness of module components must be accomplished.

- **Simplicity of manufacturing.** Complicated expensive molds with limited production capacity and less flexibility stifle production. Module manufacturing must be accomplished without such complications and at sufficiently high levels of production.

- **Fast, simple erection procedure.** Excessive site work or separate structural elements must be eliminated since the system must be sufficiently economical for medium-rise buildings and also adaptable to high-rise buildings without a major revision in the module specifications. Connections between modules must be simple and secure.

- **Maximum factory finishing.** Modules should incorporate complete mechanicals and be fully finished in the factory. The interior finish on the concrete walls and ceiling of the module should require no additional covering materials.

After three years of careful research and development on this project, Modular Housing Systems has developed a concrete modular system which includes these important features among others. A six-module prototype has been completed, and additional modules are currently being manufactured for the first eight-story high-rise with 32 luxury apartments.



Engineered wood products that can match your imagination

This dramatic waterfront house uses Cedar Lock-Deck laminated decking to form both structural and finished wall and roof surfaces in one imaginative application.

Potlatch manufactures wood in countless forms, as strong and versatile as they are beautiful. They open the door to a whole new world of warm, natural designs that once had to com-

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CIRCLE 53 ON READER SERVICE CARD

H&H JUNE 1972 53

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CIRCLE 55 ON READER SERVICE CARD



"A woman prospect's decision can make or break a sale... So be sure your model kitchen decor puts the sizzle in the steak"

Two hundred years ago the hearth was the center of family life. It was here that Grandma boiled her stews, baked her bread and made her soap.

The hearth, of course, often was in the living room where its warmth and light attracted the family and sparked conversation.

Today, the hearth is the kitchen. And with all due respect to Women's Lib, the kitchen is still where the woman of the house spends a great many of her waking and working hours. So, an attractive, easy-to-manage kitchen ranks very high in her priorities.

Once price, location and size of a new home are agreed upon, more often than not it's the woman who really has the greatest influence on which specific home to buy.

How often in your model homes have you seen her pause for the moment in the living room, then head for the kitchen?

At first her considerations are practical—the built-in appliances, cupboards, shelf space, counter tops. Then, looking around, she takes in the entire room with a single glance to find out if she fits into the picture.

Overall decor. The kitchen is generally the woman's special province. It must be functional, but it should also convey warmth, brightness and, to a certain degree, the magnetism of the hearth of yesterday. Remember, the ten o'clock coffee break with the neighbor is still a thriving institution.

This is your merchandising challenge. It can only be achieved through decorating. There are various approaches. In one (Photo A) the desired warmth and charm are realized through color, material and accessories.

Any number of patterned wallpapers can be used—floral designs, stripes or plaids—and they should be lively, vivid. A painted kitchen doesn't necessarily have to be white.

Floor coverings are extremely important to the woman. If the kitchen is small or if there is not a clear break from one room to another, you might continue the carpet used in the rest of the home. Usually, however, you should try to specify some type of vinyl flooring.

Above all, the kitchen must have a personality. I prefer the cluttered look. Use plenty of greenery, and casually place pans, utensils, small appliances, plaques or keepsakes about the area.

Accessorizing. The final touches to make the kitchen look lived in are absolute necessities: pots on the range, table settings, bowls of fruit or vegetables (artificial, of course), coffee service tray on a breakfast bar—practically anything that says "this is a warm and welcome room to be in."

The accessories should be consistent with the basic theme of the house. For example, a contemporary home could be accessorized with a fondue set or gourmet cookbooks. A Mexican theme could include earthenware jars or hand-painted plates on the walls.

The contemporary kitchen layout (Photo B) has been given a more spacious feeling by facing one wall with a mirror, crisscrossing it with fencing wire and then hanging pots and other kitchen accessories.

If space permits, a handy addition is a small desk or built-in shelf where milady can plan her shopping list or write a note to the milkman. A wide range of accessories can be used here such as a kooky address book, a desk set, flowers or lamps (Photo C).

Many kitchens are kitchen-family rooms. If this is the case in your model, then there should be a consistency in theme, color and accessories in the two areas. At the very least these areas should be complementary and visually oriented to each other (Photo D).

The kitchen is a valuable sales tool. Make sure it works for you when you're reaching out to that prospective woman decision-maker.



A.



B.



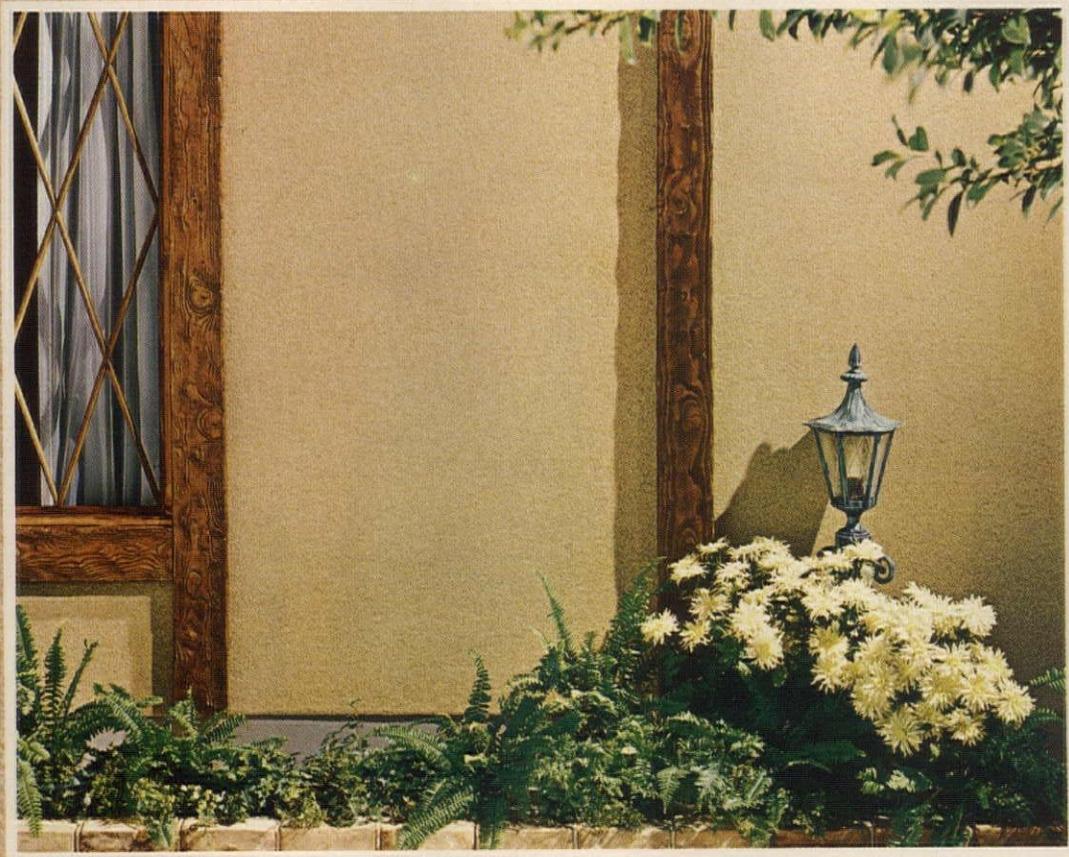
C.



D.

CAROLE EICHEN, CAROLE EICHEN INTERIORS INC., FULLERTON, CALIF.

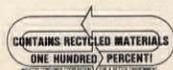
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H&H JUNE 1972 57



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If you're bombing out on a rezoning application, maybe a hard-nosed community isn't the only problem

Some of the fault could be yours.

Last month we came across a case in point at a New Jersey public hearing where a developer was asking for higher-density zoning to permit apartments for low-income families. There was nothing wrong with his proposal. It was a good plan—well thought out and a lot better than many we see. But his presentation was a fiasco.

Townpeople came to the hearing with legitimate questions about the impact of the project on their community. They made it clear that they were worried about such potential problems as overcrowded schools, overloaded roads and soaring taxes to pay for extra municipal services. But the developer, supported by a battery of outside experts, never came to grips with those questions. Instead, as one citizen put it, "he spent all his time telling us what was good for us and appealing to our social conscience."

Through it all we had the distinct impression that the developer didn't understand what made the community tick, and furthermore that he wasn't particularly interested in finding out.

Asked where residents of his apartments would work, he said there was plenty of employment in the area. People in the audience knew better—a number of them had just been laid off because of cut-backs by nearby companies.

Asked what the need for new schools would do to the real estate tax, he told his audience not to worry, adding that by the time his apartments were built, the courts would have ruled out the use of realty taxes to support schools. Hardly anyone in the audience was ready to take his word on that.

It would be easy, and comforting, to dismiss the developer's tactics as an isolated example. But sad to say, they are more the rule than the exception. Despite all the hard lessons of the past, too many developers are botching the case for higher-density zoning.

Too many developers are still playing the same old political game—counting on a local attorney to carry the ball for them and trying to capitalize on

contacts with entrenched local politicians. That sort of pull won't get you very far today because the mushrooming growth of the suburbs has changed their political character. Entrenched officials are being ousted by newcomers, and the citizens themselves are better informed. As land planner (and H&H columnist) John Rahenkamp puts it, "Today everything is out in the open."

Too many developers are being lulled into a false sense of security by the courts' recent tendency to knock down snob zoning. Favorable court decisions, such as those cited by attorney (and H&H columnist) Lenard Wolffe [Feb.], do indeed offer hope for the future. But they have also tended to harden local resistance to zoning changes. So right now you may be up against even stiffer opposition.

Too many developers are still plunging into zoning hearings without adequate preparation. As far back as nine years ago, HOUSE & HOME spelled out the steps to take. Those steps still make sense.

What it all comes to is this: Most zoning cases, as you well know, are fraught with emotion. So long before the emotion starts to boil up—before you go into a public hearing and even before you submit your plan to local officials—take the temperature of the community.

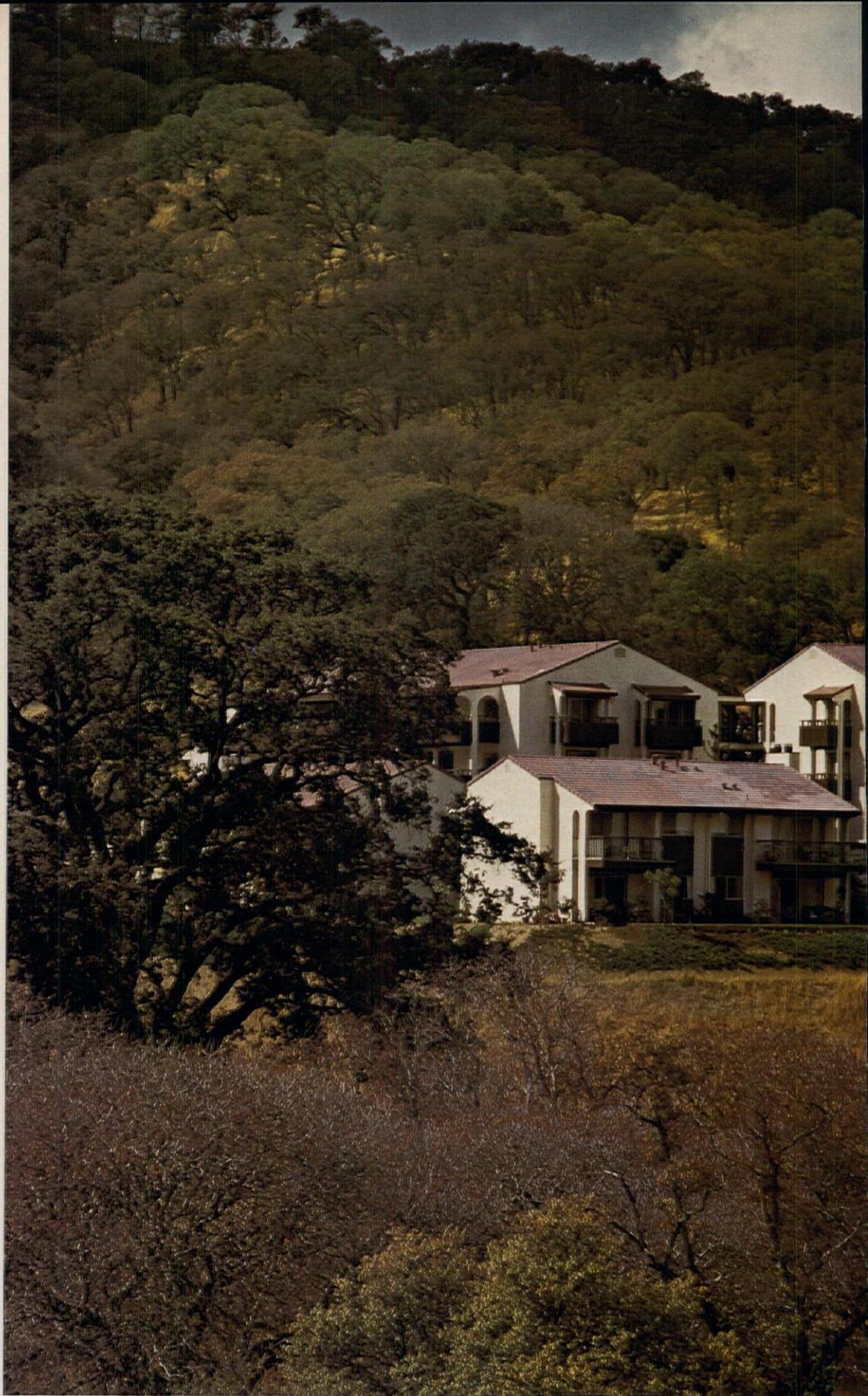
What, for example, are its problems? Will your project help to solve them? If so, how? If not, how can you revise your plan to make it more acceptable? How will your project affect the community? Specifically, what will be its impact on taxes, schools, traffic, business and the like? What groups are most likely to oppose you? Are they influential? If so, how can you get your story across to them?

If you can come up with the right answers to such questions, you'll be able to talk sense not only to the zoning and planning boards but also to the elected officials who must make the final decision. Give those officials sound reasons for approving your proposal—in other words, a place to hang their hats—and you'll have a lot going for you.

JOHN F. GOLDSMITH

PROJECT PORTFOLIO

7



PROJECT: Terra Granada at Rossmoor Walnut Creek

LOCATION: Walnut Creek, Calif.

DEVELOPER: Terra California

ARCHITECT: The Compla Corp.

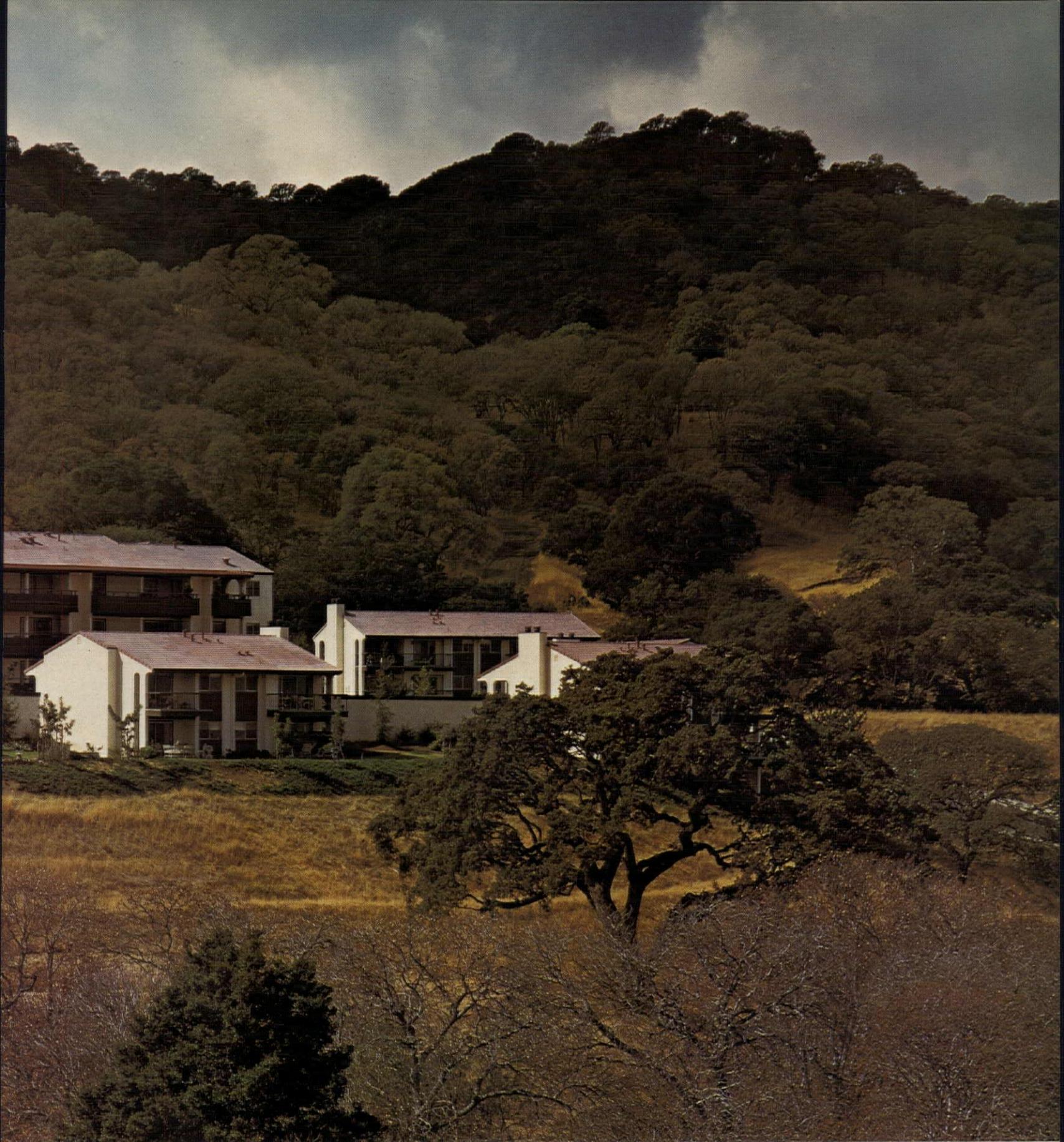
LANDSCAPE ARCHITECT: Mel Lee

LANDSCAPE CONSULTANT: Royston, Hanamoto, Beck & Abey

SITE AREA: 1,200 acres

NUMBER OF UNITS: 6,000 condominium apartments

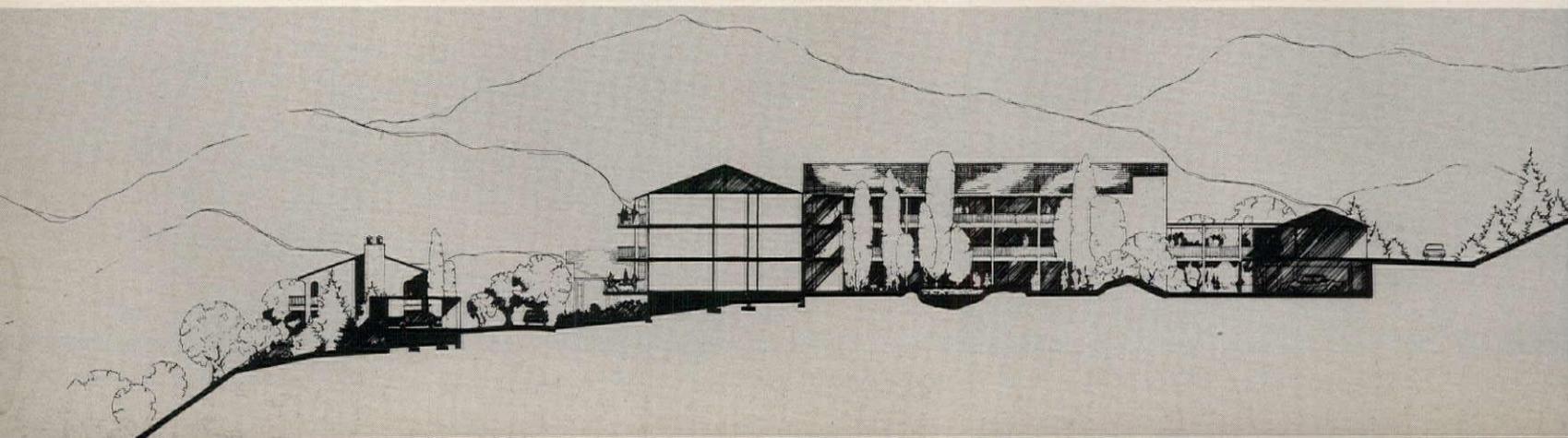
PRICE: \$21,100-\$52,500

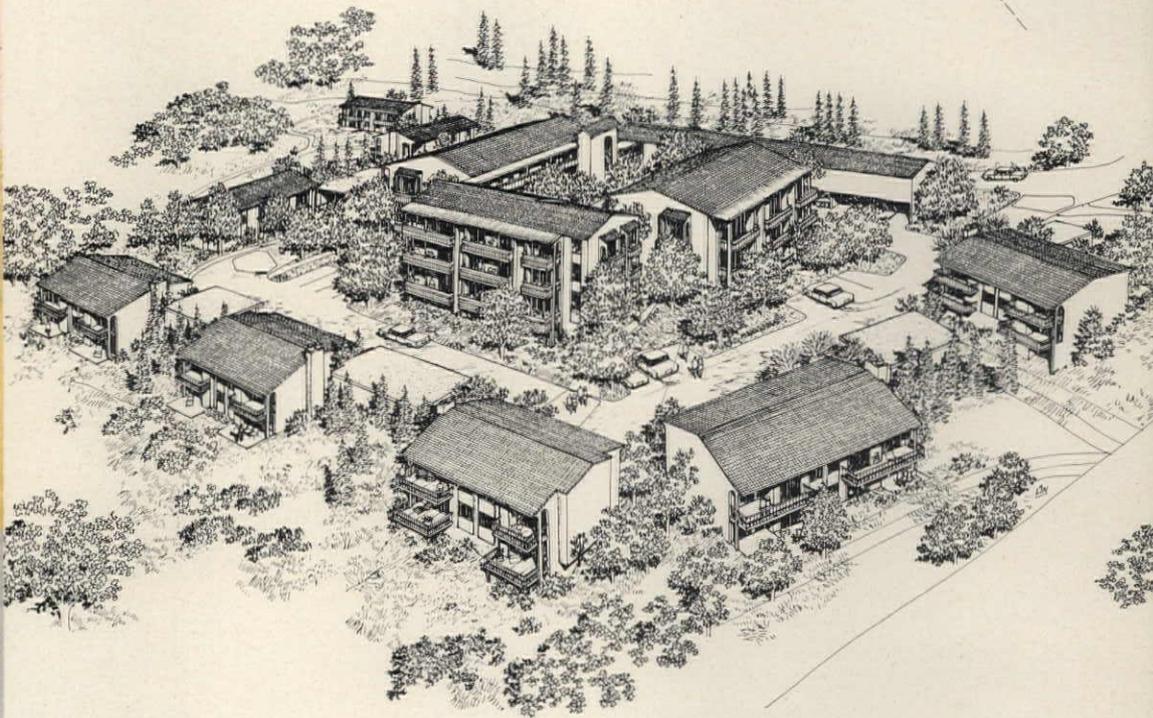
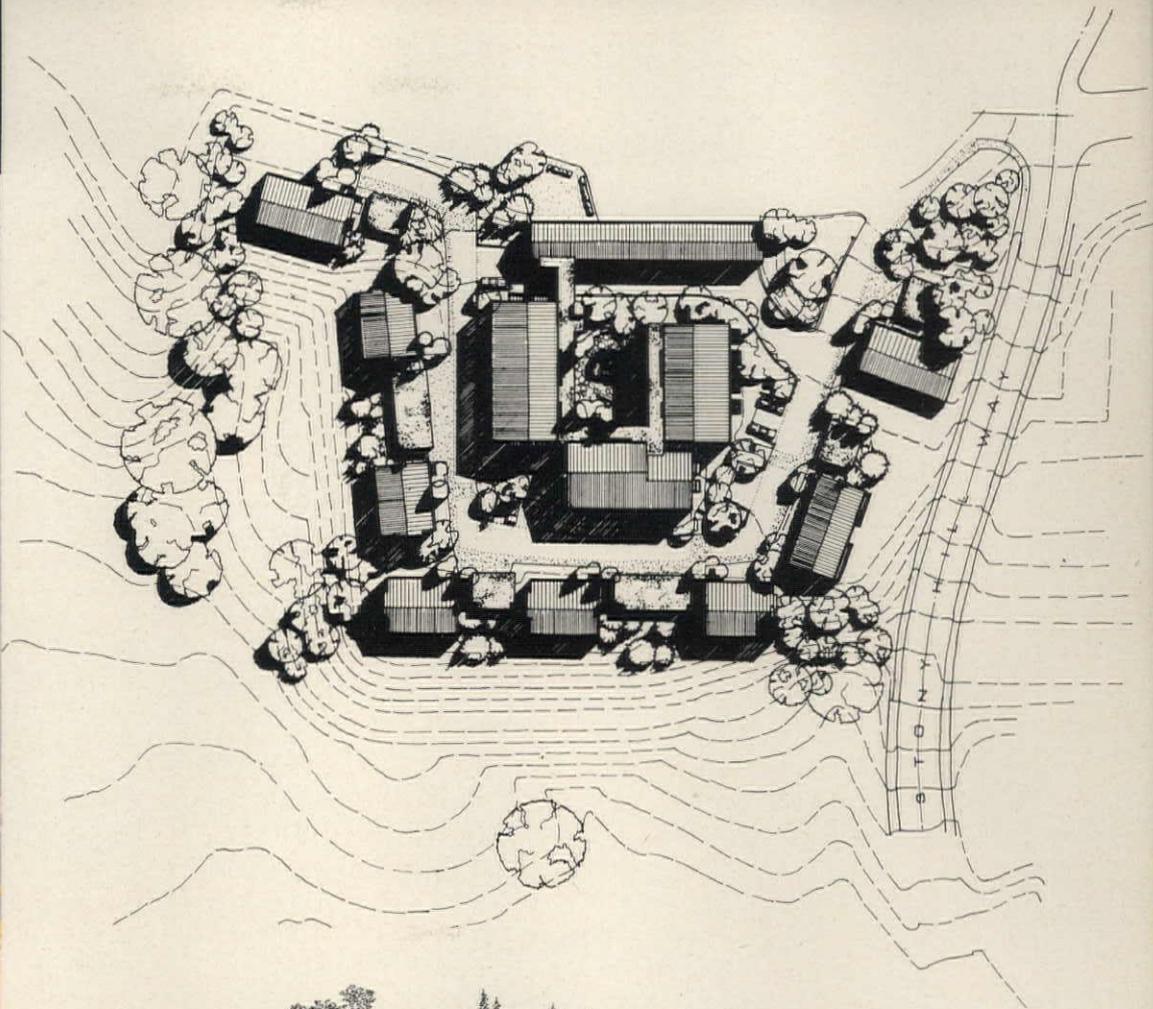
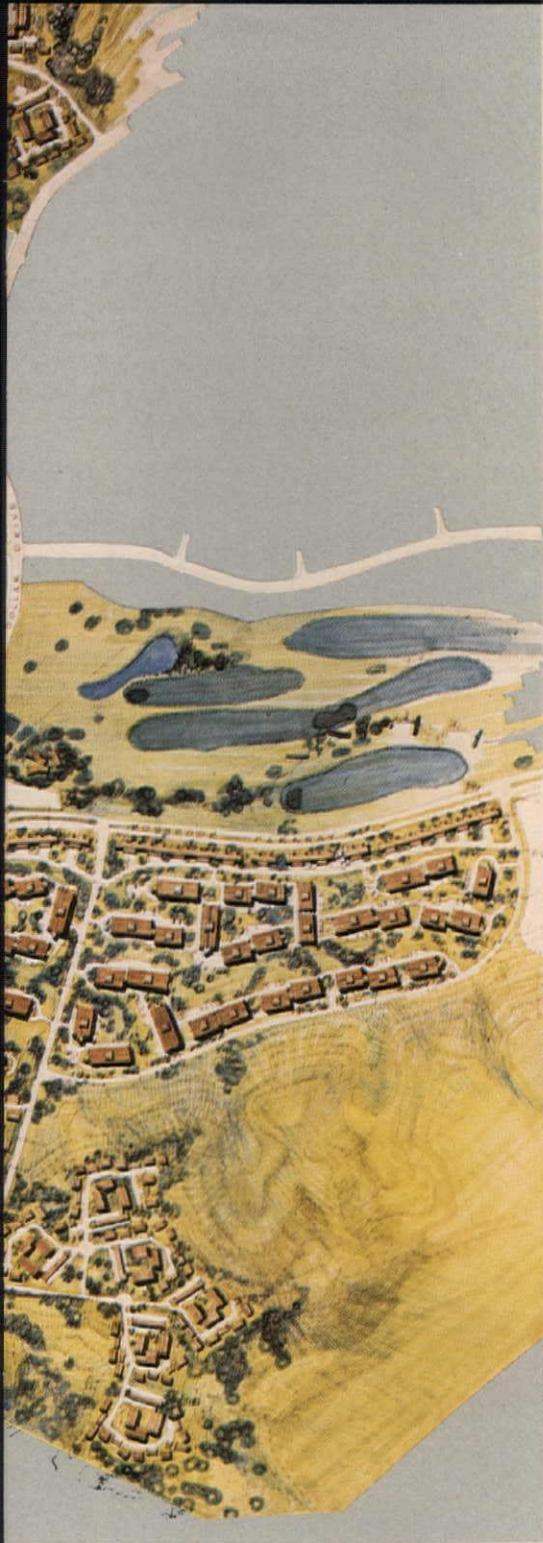


JOSHUA FREIWALD

Terra Granada is an adult community in the newest section of Rossmoor Walnut Creek. Its condominium apartments, clustered atop knolls that push out from major hills, form a series of villages designed around the diverse topography and existing vegetation. Two golf courses (one is complete) plus open areas that ring the apartments work in tandem with the clusters to provide an open atmosphere that belies the net density of 24 units per acre.

TO NEXT PAGE





Terra Granada's units are built in the hills above the main golf course in the 1,200-acre section of Rossmoor Walnut Creek. As the master plan above shows, most of the 6,000 projected units will be in the form of a basic cluster (*drawings above, right*). However, Compla Corp. designed two possible variations for future building in the area below the main golf course. Details of how the master plan evolved are shown on page 68.

The basic cluster plan—a three-story center building surrounded by two-story structures—is repeated throughout Terra Granada. The drawings above and section at far left indicate how existing slopes and plant life were incorporated into the clusters to eliminate expensive and excessive grading and to provide a view for each unit. The shed-like structure at the rear is a carport for owners in the three-story buildings. TO NEXT PAGE

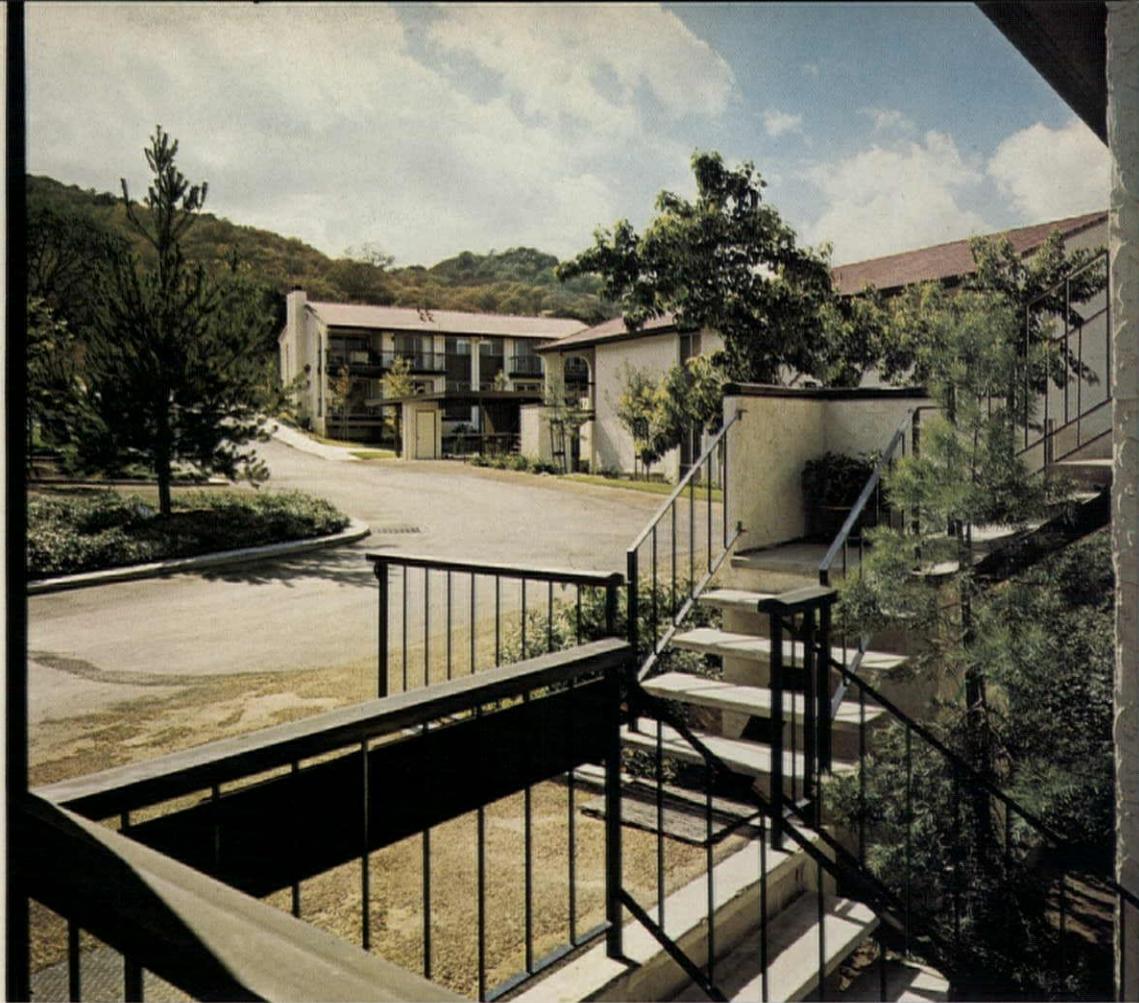


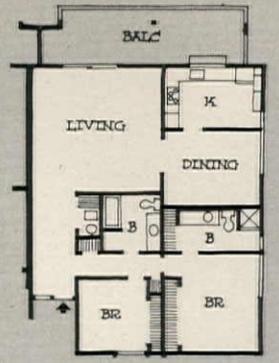
PHOTOS: JOSHUA FREIWALD

Despite the repetitive basic cluster plan, there is no feeling of design monotony at Terra Granada. Two-story buildings (*above and top, right*) are buffered from each other by carports and heavy landscaping (*drawings and section, previous overleaf*). Each apartment overlooks the golf course, landscaped areas or surrounding hills. Units with stairs have less than full flights up or down, an important feature for an adult community.



There is one fixed factor in each cluster—a central, U-shaped, three-story building which is wrapped around a lavishly landscaped courtyard (photo, right). An elevator eliminates stair-climbing for apartment owners in the three-story buildings, and parking is provided by a nearby covered carport which can be seen just beyond the courtyard. The highly rolling nature of the project's site is clearly evident behind the carport. TO NEXT PAGE

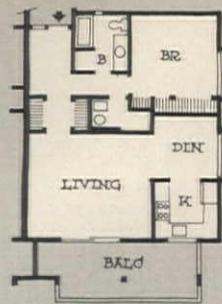




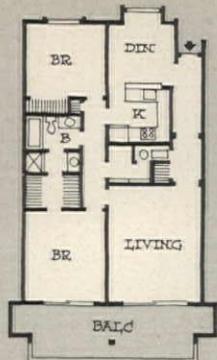
TWO-BEDROOM UNIT

Price and size run the gamut from \$21,100 for a one-bedroom unit to \$52,500 for a three-bedroom apartment. Four plans (*above, left*) are available in the three-story buildings (*left*). Two-story buildings (*below*) contain two larger over-and-under layouts (*above right*). Despite the variety in room layout, there is one constant: Every kitchen provides a view of the outdoors—either through a window or across the dining area.

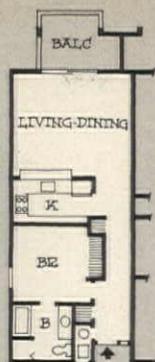




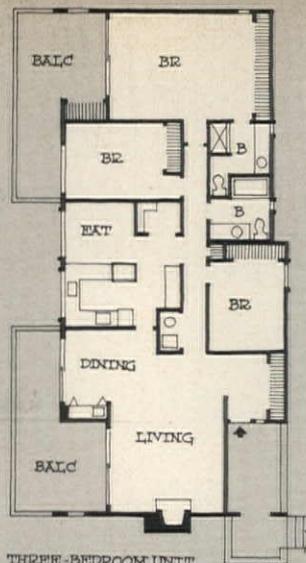
ONE-BEDROOM UNIT



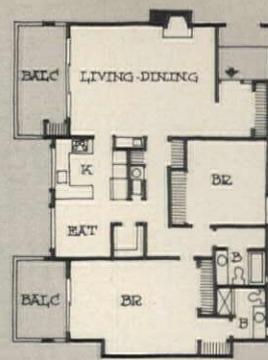
TWO-BEDROOM UNIT



ONE-BEDROOM UNIT



THREE-BEDROOM UNIT



TWO-BEDROOM UNIT

0 5 10 FT



PHOTOS: JOSHUA FREIWALD

Environmental considerations received priority throughout the project. As shown in the photos at left and on the preceding overleaf, formal landscaping was designed to complement the indigenous vegetation and surrounding hilly greenbelts. The result is a village-like effect for each of the clusters. Views from each unit are oriented to the green areas from balconies or patios that open from living rooms (above) or dining areas.

Anatomy of a Master Plan

—or how the new Rossmoor Walnut Creek came into being

Looking back on the nine months it took to replan Rossmoor Walnut Creek, land planning consultant (and architect) Robert W. Hayes recalls that one of the major tasks was to create an entirely new character for the project, which had been started by Ross Cortese as one of his Leisure Worlds.

The original Rossmoor concept was aimed at the lower-price market; the new one was to be higher. The original housing had been designed for relatively flat land on a valley floor, while the new units were to be in hilly areas. And finally, the original housing was focused on, and built around, the project's large golf course, while the new area's housing abutted a much smaller portion of the golf course.

In 1968, when the 1,863-acre site was purchased from Cortese by Terra California, the new owners called in the Compla Corp., of which Hayes was then president. The assignment: Come up with a new plan for the 1,200-acre portion of the property that had not yet been developed and solve the problems that had evolved from the original concept.

One of the most serious problems resulted from the success of the first units. As flat land was used up and development spread into the surrounding hills, architectural and building plans were not changed to accommodate the hillier areas. So excessive grading and difficult terrain was causing soil erosion problems and also a considerable loss in gross density over the original 11 units per acre.

Another problem: Since the best-selling of the original housing had been built in long,

linear buildings, eventually, Hayes says, a view of the valley floor revealed a boxcar-like effect with repetitive placement and style of unit.

Specifically, then, Compla had to:

- Come up with a new image for the project.
- Find a new approach to grading.
- Work out a new way to handle streets since they were using up twice the amount of land they should have been.
- Provide for a greater range of housing to satisfy a wider market.
- Establish a gross density of 12 units per acre in the new areas.

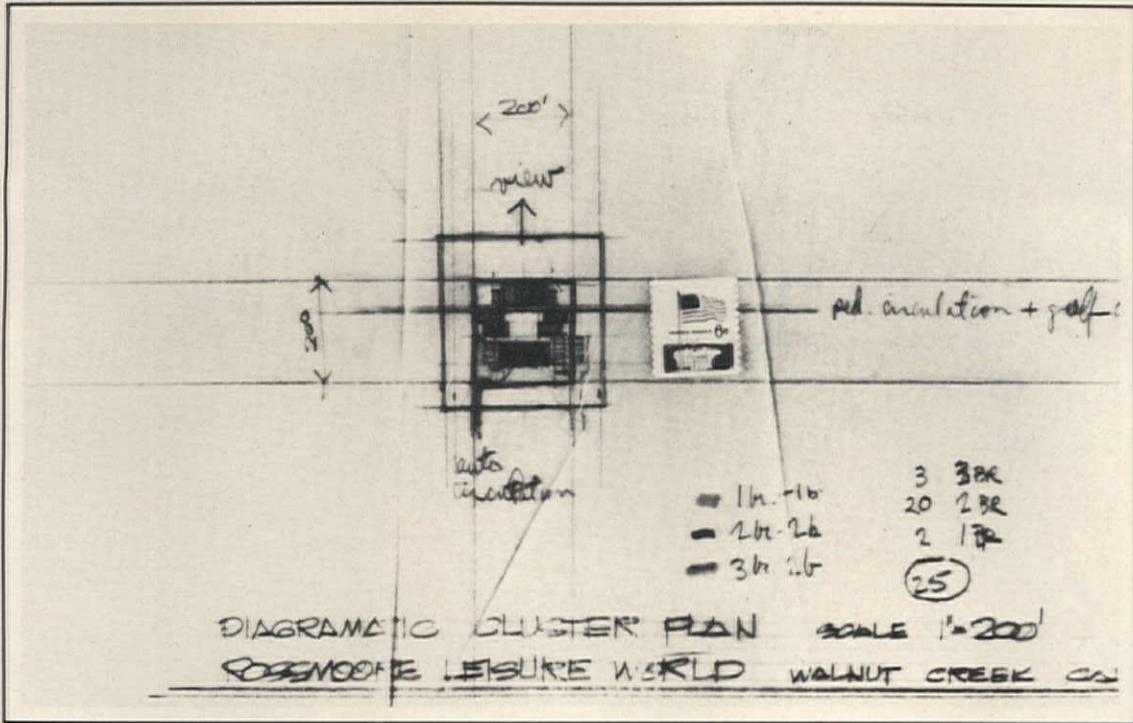
There were other changes that Bill Irish, original president and founder of Terra California, wanted. Irish had been project manager for the original developers, and was well aware of Rossmoor's shortcomings.

The new owner wanted a greater feeling of neighborhoods to eliminate the boxcar effect. And, he also wanted a change in the way parking was handled in relation to individual units.

In essence, then, it was necessary for Compla to work as if planning a brand new project, and at the same time maintaining the overall character of Rossmoor, which had received several awards for land planning and architectural design.

It seemed clear from the beginning that the best way to accomplish many of the desired changes was to cluster units into distinct neighborhoods. But the idea had to be tested.

As described by Bob Hayes and architect Donald S. Blair, current president of Compla, here's how the planning firm did it:



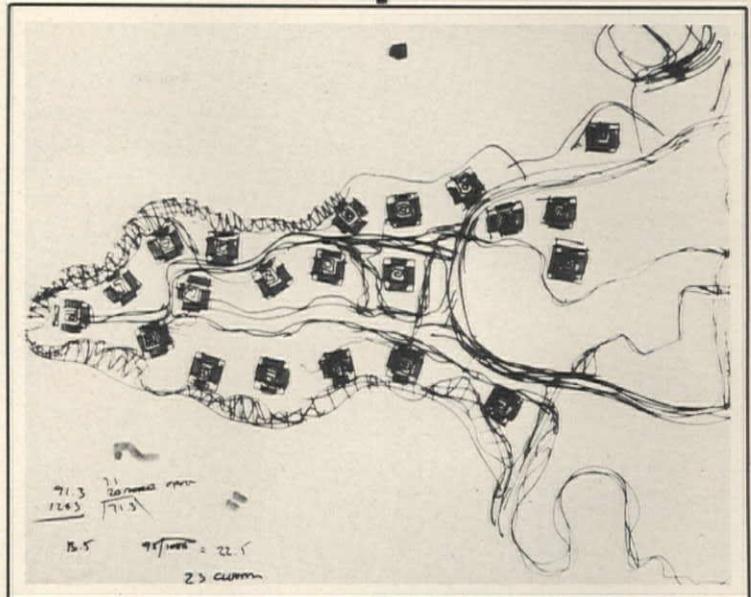
The schematic also included a cross-section showing how buildings could fit into existing terrain with a minimum amount of grading.

At this stage Compla actually was testing whether its initial assumptions as to plans, grading and density really would work.

1

First, a basic cluster plan (1) was devised—a cluster that could be varied to fit into existing knolls and topography as easily as possible. Compla had concluded that a three-story elevator building would be necessary to obtain the desired density. So this structure was designated as a fixed element that formed the core of each cluster. To allow for minor differences in terrain, the number of smaller units on the boundaries of the cluster was to be variable.

This basic cluster also provided for a variety of floor plans and unit sizes and a minimum of grading.

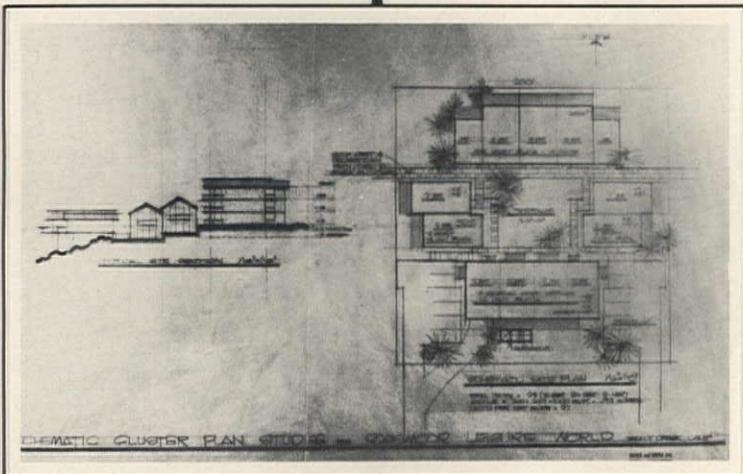


3

Next it was necessary to determine whether the basic cluster was flexible enough to be utilized over the majority of the site. So clusters were tested at various areas in the project (3). This overall planning study determined six important criteria: conformance plan forms, grading feasibility, open space requirements, utility and street feasibility, view potential and overall density.

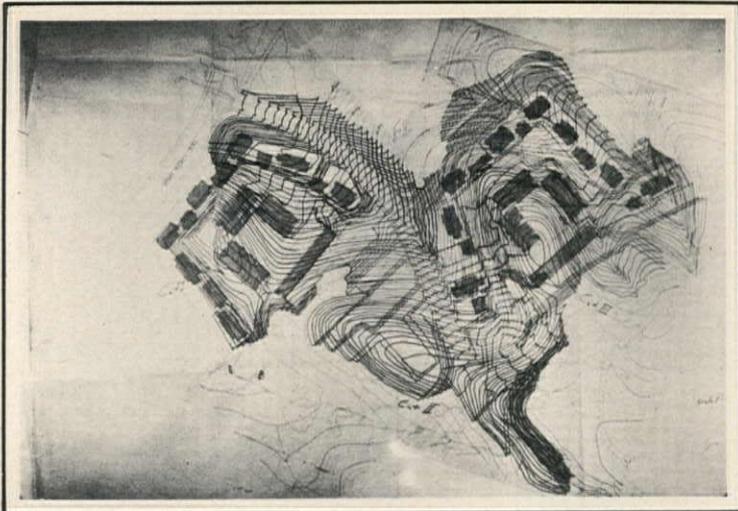
Since some 6,000 units were to be master-planned, it was obvious that the cluster concept could not solve all problems in the community. But the study did find that the cluster would contribute significantly to the new approach Rossmore was seeking.

TO NEXT PAGE



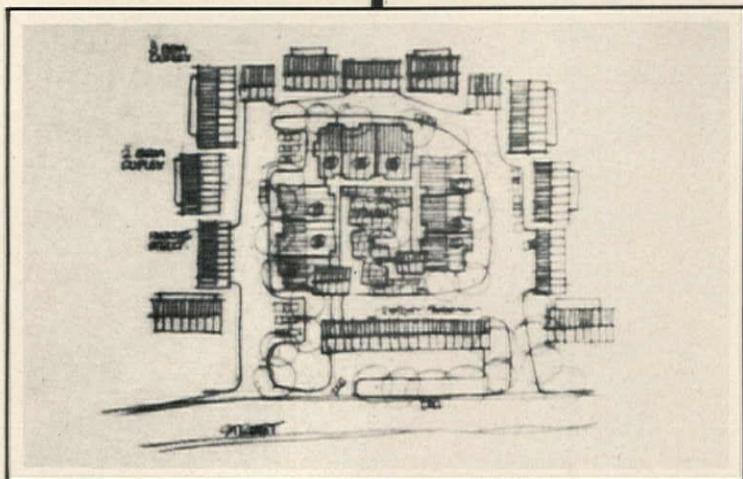
2

Expanding on the basic concept, Compla prepared a schematic plan (2) to illustrate how the cluster could be used. This more-detailed plan also incorporated landscaping suggestions (it had been determined that interior courts of the elevator buildings must be extensively landscaped).



4

Almost simultaneously with the expansion of the basic cluster into more detailed shape, engineering studies were made to determine the extent and nature of required grading. Would it have to be harsh and mechanical like the grading which had been done for existing buildings, or could it be soft and natural? Completed studies, which had been conducted by Compla's director of engineering planning, Bob Trockey, showed that a soft, natural grading was the best solution (4). Trockey had been in charge of engineering for Rossmoor from its inception and was thus able to provide a continuity of service and experience for this highly important phase of the replanning program.

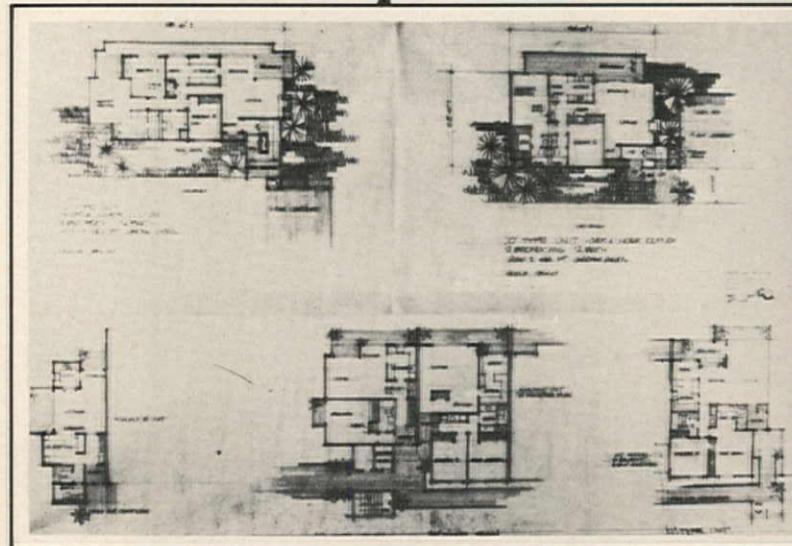


5

Finalized cluster studies (5) came in about the same time as final engineering plans. Showing up for the first time here were the U-shape of the basic three-story building and an entirely new concept for handling Rossmoor's parking facilities. Original facilities had been cited as less-than-satisfactory by established Rossmoor residents who were surveyed by Terra California shortly after it purchased the development.

Some residents had had a 250' walk along uncovered paths from assigned carport spaces to their units. So Compla engineered a two-fold plan for car storage in the new clusters.

Parking for two-story buildings was placed within a few steps of those units, while a two-level, shed-like carport was designed to serve units in the three-story buildings. This carport was connected by covered walkways to the first and second levels of the three-story building. Thus, there is much less use of the elevator than there would have been with underground parking.



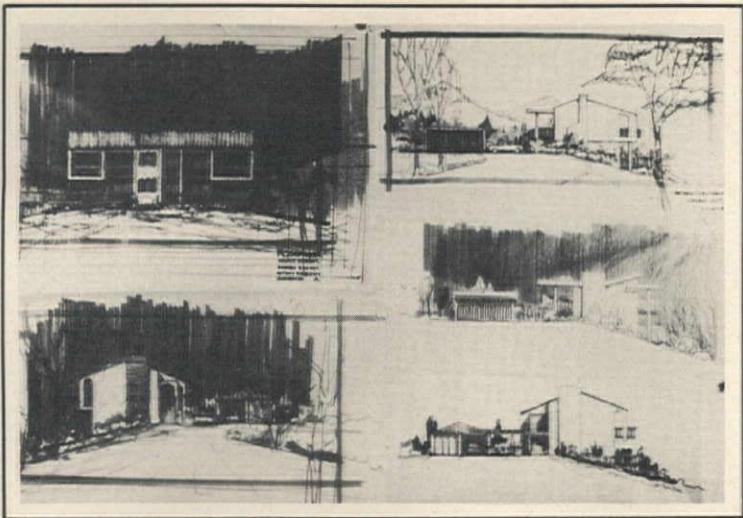
6

Preliminary apartment layout planning was the next step (6). And since the new owners of Rossmoor hoped to appeal to a wider market than had been reached earlier, a greater variety of floor plans was devised by Compla. One- and two-bedroom apartments were allocated to the three-story structure and larger two- and three-bedroom units to the two-story buildings.

Because the study of established residents had indicated a need for smaller units that could be purchased by widows, widowers and other single people, two versions of a one-bedroom unit were designed. And because the same study showed a desire for more two-bathroom apartments, some 85% of the new plans included this feature.

Another request was that kitchens be oriented to the outdoors. Hence each unit is planned so that kitchens are either on outside walls or have an outside view.

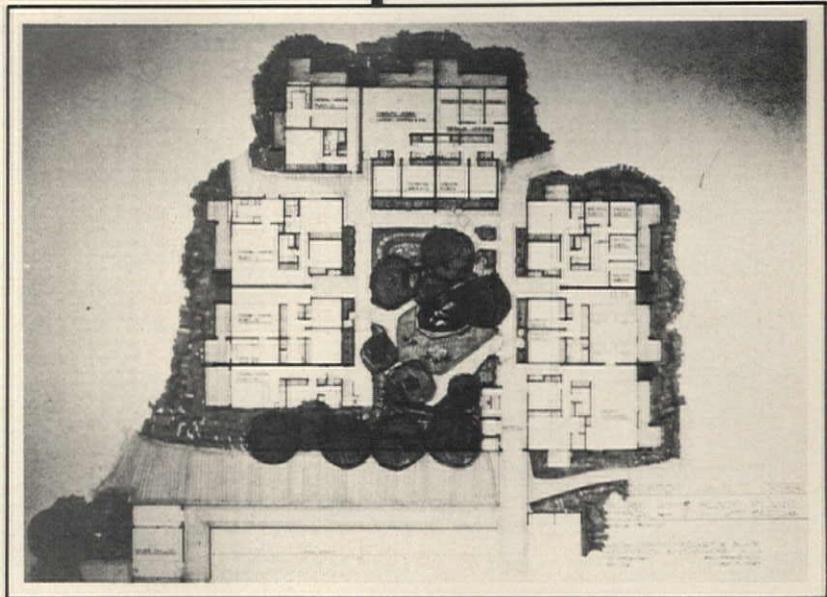
These floor plans and a preliminary architectural concept were developed by Don Blair, who was then Compla's director of architecture.



7

Working from landscaping concepts prepared by consultants Royston, Hanamoto, Beck & Abey, Compla's director of landscape architecture, Mel Lee, developed interior court plans for the main building, individual entries and other details such as access to parking and entries (7). Once again, requests from established residents were reflected by the inclusion of more areas for sitting, more winding paths leading to the golf course, as well as a more natural and indigenous type of planting.

One of Compla's initial design conclusions had been that architecture for the new section of Rossmoor must be at least somewhat different from that already built—especially since the housing was to be in a different location and a different terrain. This conclusion jibed with a strong statement from older residents that there should be a shift away from predominantly wooden structures.

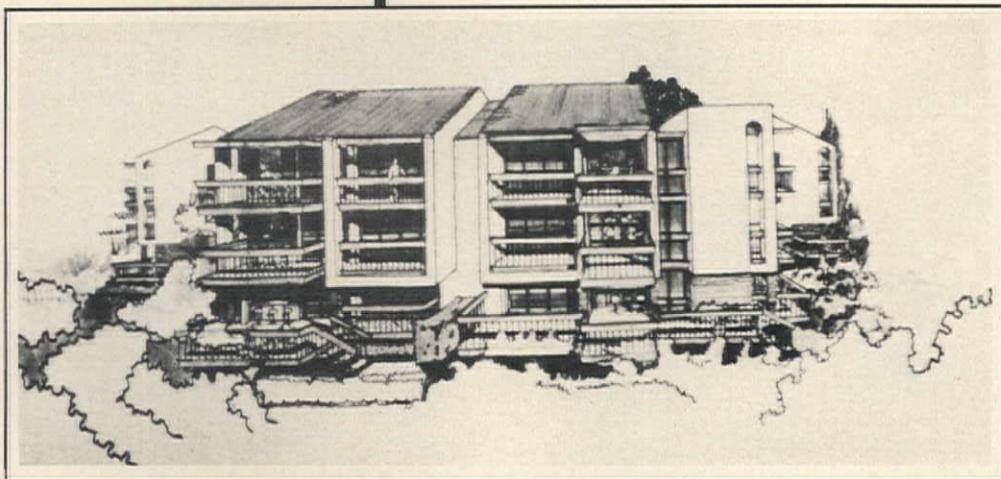


9

With all major details approved, it was time to prepare a sales model layout for the basic three-story building (9).

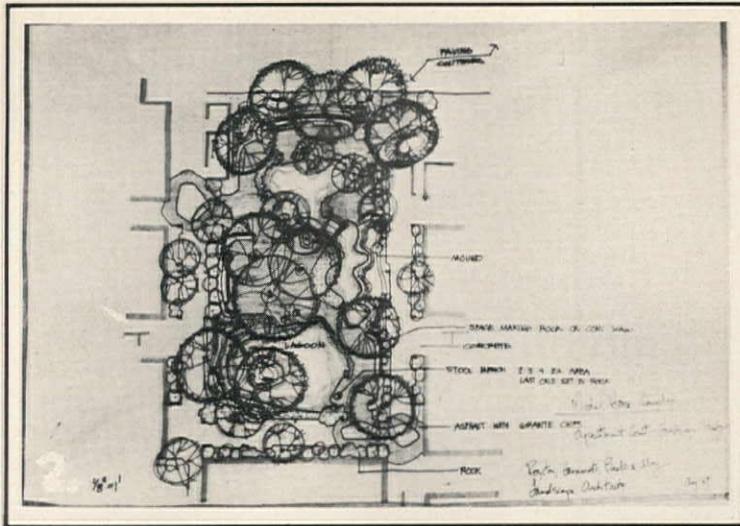
As seen from this ground-level plan, the effect is one of three separate buildings surrounding the court. But the three segments are connected on all three levels by walkways and are served by one elevator.

TO NEXT PAGE



8

So a Spanish-style architectural treatment was developed (8) using heavily textured stucco, ornamental railings, concrete tile roofs, concrete decking and graceful arches. Stained wood was designated to be used solely as a trim material.



10

Because landscaping was of such vital importance to the overall project plan, a great amount of time was devoted to studying planting details. Six studies resulted in three final prototype plans for the central courtyard of the U-shaped building. One of these was designated for the cluster in which model units were to be located (10). Every detail was spelled out, e.g., placement for such items as stool benches, rocks, areas for asphalt with granite chips, mounds and paved areas.

The reason for such care was that this area was considered to be one of the most important features in the design scheme for the three-story building. Since it serves as the front door for 27 units, it had to create just as strong an impression as a front yard does for a single-family home or townhouse.

It was necessary to spell out precise planting instructions for two reasons: because the landscaping was designed to complement existing vegetation and because it was to serve as a buffer between buildings.

With the finalization of the landscaping program, all of the preliminary disciplines were completed. There now existed a finished plan around which the initial cluster of Terra Granada's condominium apartments (page 60) would be built.

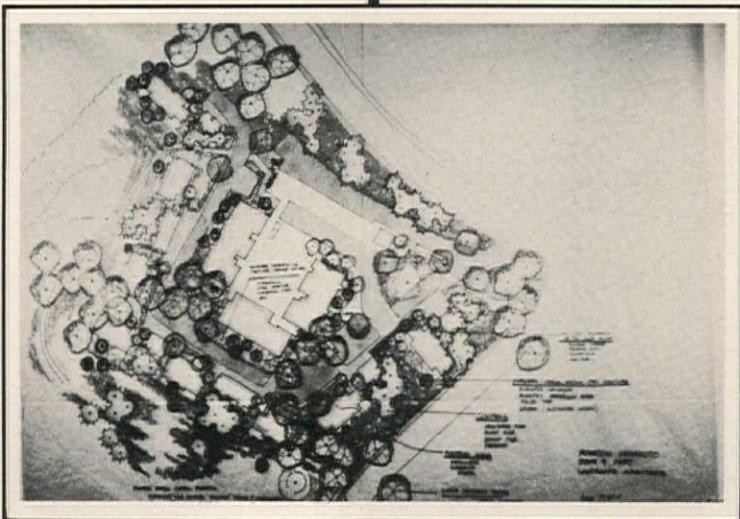


12

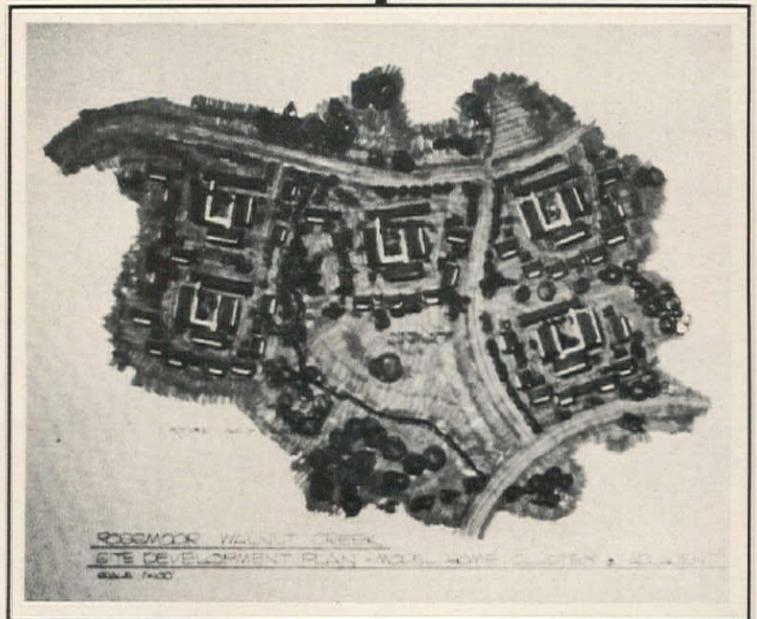
Clearly evident in a perspective drawing (12) is the Mediterranean village effect created by the cluster plan combined with the Spanish architectural style.

Also evident is the large degree of privacy that has been achieved for the buildings by the detailed landscaping program.

11



Once the central core landscaping had been determined, periphery planting plans were finalized (11). Here again, nothing was left to chance. The plan detailed where conifers like monterey and black pines were to be located, where evergreens should be placed, where flowering shrubs were needed.



13

Completed plans for the initial cluster were then superimposed on adjoining areas of the project (13) to determine interrelationships of the clusters and to assure the accurate placement of buildings.

Rossmoor's owners evaluate the new planning concept

HOUSE & HOME asked David B. Wood, current president of Terra California, how the new master plan was working out. Wood had been a member of the board of directors from the time the company was formed, and so is familiar with the entire operation. Here's what he had to say:

There can be no doubt that the new Spanish cluster architectural styling effectively resolves many of the weaknesses perceived in the earlier units.

The most significant areas of improvement are the exterior appearance of the buildings and the cluster plan with the greater amount of open space it provides.

The Spanish design does, in fact, provide a much-needed contrast to the long, uniform, contemporary-style buildings which comprised the majority of the original project. The

clusters stand out markedly and create the distinct appearance of sub-communities within the total project. The earlier buildings were attractive individually. But in a group, the long horizontal roof lines and vertical columns resulted in an undesirable visual uniformity.

The clusters overcame this to a great extent. Open space within the clusters provided an opportunity for additional landscaping, as compared with the earlier site plans, thus reinforcing and complementing the rural design of the project.

Compla's theory that a cluster arrangement would provide greater opportunity for some interaction among residents of the individual clusters appears to have been substantiated. Centrally located swimming pools, recreation centers and patios are now well established

as meeting places for residents.

The completed units have experienced varying degrees of success in the marketplace. The highest priced (\$45,000-\$52,500) units in the peripheral two-story buildings sold out almost immediately, while the three-level's units have sold at a slower rate.

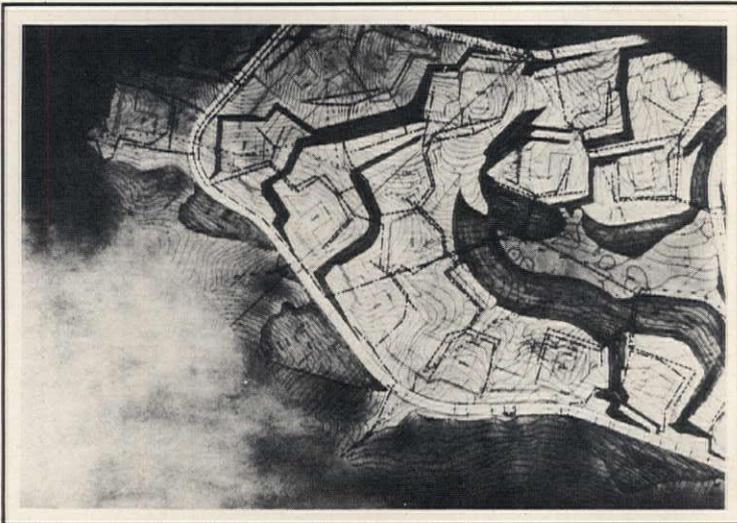
The three-story buildings represent apartment house to some potential buyers who prefer a one- or two-story, more house-like building. Transition from a large single-family home to a three-story apartment-type unit is too great for some retirees. Similar buyer resistance to three-level buildings has been experienced in other California retirement communities.

The higher quality inherent in the new buildings and additional landscaping necessitated an increase in average selling

price over the earlier designs. While this enhanced the appeal to the upper-income buyer, the appeal to middle-income buyers was considerably reduced.

It is axiomatic that the market for retirement housing is price-sensitive, considering that most buyers must subsist on fairly moderate fixed incomes. in the future we hope to build more of our product in the \$28,000-\$35,000 price range. Smaller floor plans and less elaborate exteriors should enable us to attain this objective within the Spanish cluster concept, and we will almost certainly continue with this in some of our future construction.

However, we will probably reduce the number of three-level buildings included in the new master plan, perhaps sacrificing some density in exchange for greater market appeal.

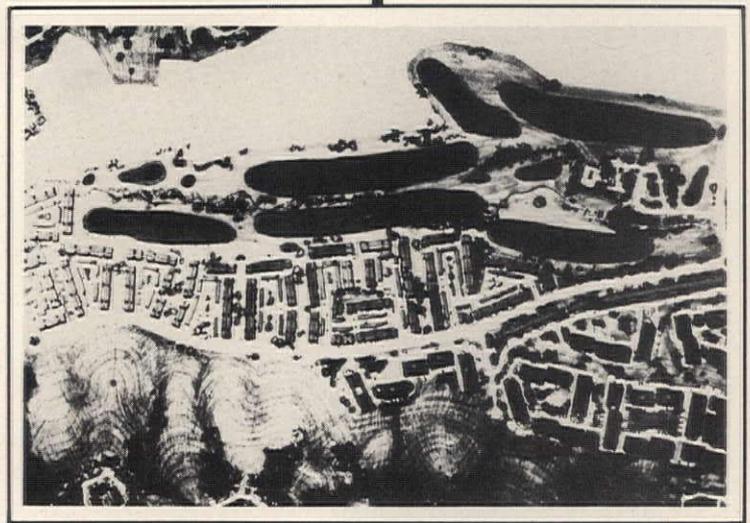


14

Although similar in basic design, the five clusters shown in this plan varied as to number of two-story units. This variation was determined by the topography of each cluster site.

Similar plans were then prepared for different areas within the 1,200-acre site.

More intensive studies followed to establish street circulation and utility placement. And large-scale grading and on-site shifting and hauling procedures were mapped out (14). Other studies were then started for a second golf course and additional common areas. These studies were needed to estimate long-term utility costs as part of the total financial analysis required by Terra California.



15

As a final step, Compla began detailed studies of new prototype designs (15) that could be used for areas of Rossmoor where topography varied from that found in the initial study area. ■

How to build volume in the big— but difficult— rural market

The difficulties are a result of the sheer geographic size of the market. While the big suburban builder can concentrate his operations in one or two subdivisions, the big rural builder must operate over hundreds or even thousands of sparsely populated square miles. The suburban builder advertises to a known market, then culls his buyers from the resulting traffic; the rural builder has to drive all over the countryside to find and talk to prospects. And where the suburban builder has relatively few logistical problems, the rural builder must get construction crews and materials to scattered, one-house sites that may be hundreds of miles apart.

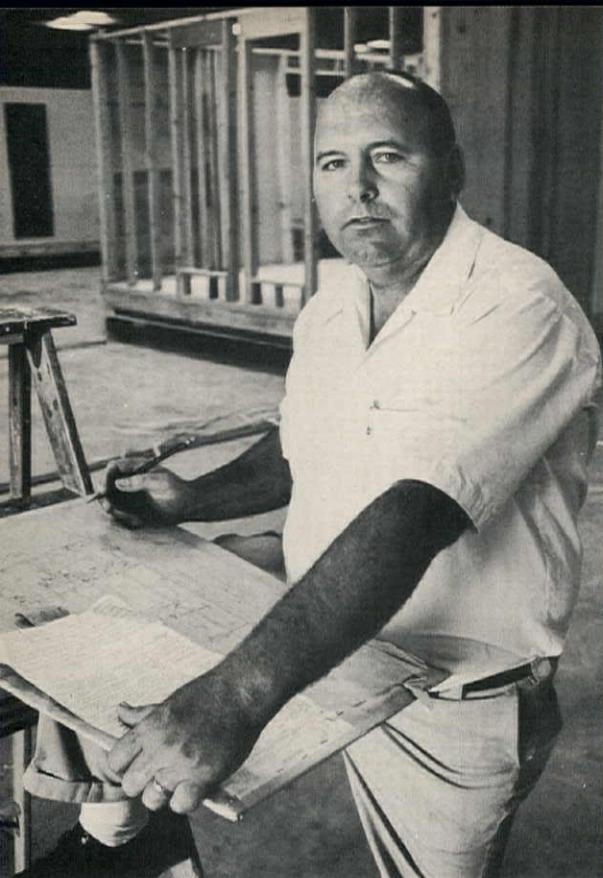
So it's not surprising that most rural housing today is done by small builders who operate in their own backyards.

But there's a lot of housing waiting to be built out in the country—



TO PAGE 76





ROBERT E. FIELDS JR.

Cecil Perdue, a college graduate who majored in business management at Oklahoma State, devoted the first four years following his graduation in 1953 to managing a retail auto accessories store. In 1957 he resigned to open his own auto accessory and appliance store. In 1958 he suddenly launched a building career on the side.

Perdue had no experience whatever in housing. But, he says, he knew a poorly constructed house when he saw one, and he saw plenty when he installed his appliances into the newly built homes.

He convinced himself that even a neophyte could do no worse, and without dropping his retail business, Perdue started a home-building sideline.

Two years later in 1960 Perdue sold his store and went full-time into homebuilding.

In 1966 Perdue started a prefab plant in the back of a lumber yard. Two years were devoted chiefly to working out manufacturing bugs, and in 1968 production of prefabricated homes began seriously.

Perdue's company went public in November 1970. And exactly one year later, the company started producing its sectional houses.

FROM PAGE 74

plenty to support volume operations. And for the builder who's willing to learn how to work this far-flung market efficiently, the rewards can be very gratifying indeed.

Case in point is Perdue Housing Industries of Chickasha, Okla. Perdue started out four years ago building in the rural areas of southern Oklahoma. Last month the company completed its fiscal year with sales of 960 houses worth \$10 million. And company president Cecil Perdue says sales in the current year are expected to top 1,500 units.

So it can be done. And the Perdue operations provide a fairly detailed blueprint of just how.

But before studying the details, a general picture of the company is important.

Perdue Housing Industries is a publicly owned company with 225 employees. It manufactures and sells prefabricated houses, sectional houses and combinations of the two. Its territory is roughly the southern two-thirds of Oklahoma.

The company owns three manufacturing plants with a total of 220,000 square feet. Two, in Chickasha, turn out sectionals; the third, in Stigler, produces prefabricated components.

Prices of Perdue houses range from \$7,000 to \$50,000, excluding land. But the bulk of sales fall between \$12,000 and \$22,000.

Most Perdue houses (81%) are sold direct to homebuyers by company salesmen and

erected by company crews. The other 19% is sold to dealers, who finish them after Perdue crews have set them up on foundations. Dealers buy chiefly prefabricated houses, in contrast to Perdue's own sales which are chiefly sectionals and sectional-prefab combinations.

Surprisingly, the majority of Perdue houses are not built on scattered lots. Some 55% of the company-sold houses are erected in one of the company's nine subdivisions in various small communities around the state. And two-thirds of the dealer-sold houses go into subdivisions.

Perdue doesn't warehouse any lots, but the company will search out and buy lots for scattered-site prospects who need them.

A dealer-network expansion is underway at Perdue, from 29 dealers to a hoped-for 45. By the end of this year the company anticipates this ratio of sales: dealers, 50%; Perdue subdivisions, 30%; and scattered-site housing, 20%.

To control its present wide-spread operation, Perdue has established three home-service centers 100 miles apart in the southern part of Oklahoma. These centers serve as home bases for crews, helping to keep traveling time to a minimum, and as model-home locations. Center personnel also hire subcontractors, supervise construction and handle customer complaints.

Here now are details of how the company handles its four major functions: marketing, selling, financing and construction.

The market: It's a complete spectrum of rural America

Herein lies one of the biggest differences between the typical suburban builder and the rural builder like Perdue: The former concentrates on a small segment of the market, while the latter, to build real volume, must reach for just about every segment.

The bottom 15% on the income scale of Perdue's buyers are unskilled laborers; the top 20% are professionals and executives. In between is a varied group that includes chiefly semi-skilled workers, farmers, schoolteachers and office personnel (40%), and skilled workers, managers, owners of Mom and Pop stores (30%).

The ages of these buyers reflect the ages of the nation's working population: Forty-five percent of them are under 35, another 45% are 35 to 55. Only 10% are older than 55.

Their incomes are clustered in the \$5,000 to \$15,000 range: Forty-four percent earn between \$5,000 and \$10,000, 31% earn between \$10,000 and \$15,000. At the extremes 5% earn less than \$5,000 and 20% earn more than \$15,000 each year.

By and large, families earning less than \$5,000 buy houses costing less than \$14,500, while on the average, the over-\$15,000 family buys a \$25,000 home. The group between buys largely in the \$16,500 to \$19,000 range.

About 45% of Perdue's market wants houses on their own lots. Of this group about two-thirds live in towns whose population ranges from 1,000 to 10,000; only 10% live in more densely populated regions. The remaining 25% is split between farms (15%) and towns with fewer than 1,000 people (10%).

Subdivision buyers, who make up 55% of Perdue's market, live mostly in smaller communities. Their occupations vary widely—schoolteachers, men who work in oil fields and owners of small businesses. But generally when a factory or a plant is located close by a subdivision, that subdivision is dominated by the men who work in the plant. Perdue itself is a good example; many of the company's sectional-plant employees live in a Perdue subdivision in Chickasha.

Prices in small-community subdivisions are at the lower end of the scale—usually \$10,500 to \$16,000, including land. But in subdivisions in towns larger than 10,000, prices tend to start at \$22,000 and go up from there. Doctors, college professors, managers of chain stores and owners of

large business firms generally live in such subdivisions.

Going beyond the statistical picture, Perdue's rural market is ultra-individualistic. Buyers refuse to live in a house that's a duplicate of a neighbor's, hence would never buy in a cookie-cutter subdivision.

And they greatly fear anything that smacks of urbanization and the ghettos of the far-off cities they've read about.

On the other hand, these buyers do want the conveniences a subdivision offers—sewers, roads, municipal water and a wide variety of homes—in style and price.

Financing: Mortgages must be different down on the farm

The conventional and FHA mortgages which are the bread and butter of the suburban builder just aren't adequate for the rural market. The primary reason is that too many rural buyers can't qualify. FHA section 235 subsidy loans used to be important in the Perdue operation, and at one time accounted for 25% of all the company's loans. But recent funding cutbacks have reduced that to 3%. And in some of the Oklahoma backwaters where Perdue operates, banks and FHA simply won't make loans of any kind.

Salvation for the rural builder exists in the form of the Farmers Home Administration, a Federal agency that presently provides mortgages for half of all the houses Perdue sells. Farmers Home does not guarantee loans, as FHA does, but actually lends the money. Its loans are available only in communities of less than 10,000 in population and come in two types: traditional and subsidy, both comparable to FHA-insured mortgages in rate and terms. To apply for either, a rural homebuyer must first be turned down by all other lending sources. Here are the salient points of these two mortgage types:

Traditional Farmers Home: Thirty-seven percent of Perdue's sales depend on this type of mortgage.

The top price a family can pay for a house is tied directly to the family's income and size. The formula works this way:

Subtract 5% from the family's income, and then deduct an additional \$300 for each minor child. That resulting figure is the family's adjusted income.

According to the Farmers Home Schedule, an adjusted income of \$2,000 permits

the purchase of a \$4,500 house with land. And for every \$500 more of adjusted income beyond that \$2,000, the family may buy a house priced \$1,000 higher. Thus a \$2,500 adjusted income permits a \$5,500 house, a \$3,000 adjusted income a \$6,500 house, and so on. The maximum adjusted income is \$8,000—allowing a \$15,500 house.

Subsidy: Thirteen percent of the company's sales come from the Farmers Home 502 Interest Subsidy program, designed not only to provide mortgages for low-income families but also to pay a major portion of the interest.

The formula for determining the price of the house is the same as for the traditional Farmers Home mortgage, except that the ratio of house price to income is much higher. A family earning an adjusted income of \$2,000 may buy a \$7,500 house and, as in the non-subsidy program, every \$500 increase in adjusted income adds \$1,000 to the allowed purchase price. The maximum adjusted income is \$7,000, allowing the family to buy a \$16,000 house.

The higher prices are possible because Farmers Home subsidizes a portion of the family's 7¼% interest payments. How much depends on an individual's financial picture; the maximum is 6¼%, giving the family a 1% mortgage.

The remaining 50% of Perdue's buyers use the more familiar types of mortgage in roughly these proportions:

Conventional mortgages are used by 30% of the buyers—typically, the higher-income professional and business families.

Standard FHA mortgages are used by 11% of the buyers—typically government employees and white collar workers living in

larger towns.

FHA (235) mortgages are used by 3% of the buyers, who usually live in larger towns—mainly families living in non-rural spots.

VA mortgages are used by 1% of the buyers, mainly young semi-skilled and skilled workers.

The remainder of Perdue's buyers—5%—pay cash for their houses. Usually they are retired farmers who have sold their farms.

Some families can't afford to build a house with any kind of mortgage. To them Perdue can offer a house under the Farmers Home Administration rural rental program, which has been available for roughly six years but hardly ever utilized. Under this program the builder puts up duplexes and single-family houses in the \$10,000-to-\$14,000 price range and sells them to the local housing authority which in turn rents them to qualifying families.

In smaller communities the local authority is allowed to spend \$150,000 for the initial units; once these have been rented, the authority may apply for more funds. In the larger towns the initial limit is \$750,000.

To date Perdue has built and sold 25 such units, most of them in small projects with an average of six to eight units each. In an effort to drum up more such business, the company has assigned a full-time man to alert local housing authorities, many of whom don't even know that the program exists, that government funds are available. The company will go so far as to offer to process all of the necessary papers for the local housing authorities.

Selling: The rural salesman needs to know more

"Consider what one of our salesmen is up against every day," says Perdue, "and you'll see why the average suburban salesman would be in over his head in our field."

First, Perdue's rural salesman must be able to discuss prefabs, sectionals and combinations of the two in an almost endless variety of plans.

Second, he is selling to everyone from elderly couples who have decided to live

in a subdivision to farmers who need a house on their land in the boondocks, to skilled and semi-skilled workers who don't want to live in a subdivision and want the company to find a lot for them at the right price.

Finally, he must understand thoroughly many different types of mortgages and be able to explain them to a variety of people ranging from executives to young people

who have never formally borrowed a dollar in their lives.

Perdue paints this picture of one of his salesmen on a typical day:

The salesman is Jerry Wingfield, 22, college educated, married and a native of a small town in western Oklahoma. Wingfield spends one day each week in one of five counties which make up his 600-square-

TO NEXT PAGE

mile territory. Four of these counties are exclusively his; he shares the fifth, Perdue's home-office county, with company-based salesmen.

Wingfield usually sees four to six prospective customers each day, and the interviews are usually held in the customer's home. When he sits down with a prospective buyer, he is armed with price sheets, charts for determining payments via the various mortgage programs, large color photographs of model homes, a selection of floor plans and renderings of the various elevations available for the plans. Chances are he has already talked on the phone with the prospect, so he has at least some idea of the family's needs.

First, of course, Wingfield checks the customer's financial situation to see what sort of loan—if any—the family qualifies for. If its income or debt level won't make it under any program, Wingfield will say so. But he won't refuse to submit the application if the family insists; that's company policy, designed to keep it free of charges of discrimination.

If a prospect qualifies and decides to buy, Wingfield can work with the plans and price sheets and price out almost any house in under 30 minutes.

If a prospect wants to see one of Perdue's standard model houses, Wingfield will drive him to the company's nearest subdivision or home service center. And if the prospect is interested in a highly customized home, Wingfield will try to find a similar house built by the company, set up an appointment with the family living in it and bring the prospect in for a visit.

Once a family says yes, Wingfield fills out a detailed factory order form which lists the house, floor layout, elevations and every item, material and color in the interior. He then sends the order to the home office's design center where plans for the house are drawn up.

Wingfield then bird-dogs the loan application until a commitment has been made. (FHA, Farmers Home and VA mortgages take from 45 to 90 days; conventional loans—when available—are much quicker). Most builders in Oklahoma send the buyer to the lending institution to work out his own deal. But Perdue feels that's dangerous because loans are foreign to most rural families.

Once the loan has been approved, Wingfield takes the family to the home service center for a pre-construction conference with a production manager who goes over the order item by item so there are no surprises when the buyer gets his house.

Wingfield sells to half the people he visits—a percentage that would turn most suburban subdivision salesmen green with envy. He gets a straight \$175 commission per house sold regardless of size. But he can boost that commission up to about \$300 if he can make deals which reduce the company's responsibility and increase its profit. For example, he gets \$25 each time a customer installs his own sewerage system, puts in his own well or buys a standard floor plan and makes no changes.

And he can increase his earnings still more by boosting the price of a house whenever he discovers that it will be located in a prime neighborhood and conse-

quently be appraised at a higher value. The cost is hiked by increasing the prices of some of the extras the family buys—garage, patio or second bath. Wingfield's commission is 10% of the difference between the house's base price and its ultimate sales price.

Perdue justifies this price-jacking on the basis of balance. The company's net profit in poorer neighborhoods is 7%; by boosting it to 12% in good neighborhoods, the firm reaches a reasonable average of about 10%.

Perdue says that lending institutions are fully aware that one house may have several prices. "They've made the loans on the same identical house in two different areas, and the price spread has been as much as 15%."

Perdue hires his salesmen straight out of college (he prefers Oklahoma State because it has a construction management school and a business school). The salesman-trainee is put through an intensive training course, starting with a week-long, 12-hour-per-day class which concentrates on the several loan programs the company offers. He then works in the sectional or prefab plant for about a month, earning \$150 to \$200 a week, and afterwards works with erection, concrete and electrical crews.

His training completed, the new salesman works for about six weeks with an experienced salesman making calls and dealing with the paper work. Next he is given his own territory, but working under a supervisor who must approve his work. Finally, some six months after joining the company, the fledgling salesman is on his own to cope with a ten-house-per-month quota.

Construction: Modularity and prefabs solve a double-barreled problem

In most ways stick building would be best for a rural company like Perdue. It's less expensive than prefabs or sectionals and completely flexible in terms of size and style of house.

But stick building to the quality standards Perdue demands requires good field supervision, and herein lies the first barrel of the problem: There just aren't enough good supervisors to handle all the crews that would have to be strewn out over southern Oklahoma.

The obvious answer is sectional houses. In a sectional plant just a few good supervisors can watch over the production of several hundred houses a year, and there is a minimum of on-site work to be supervised.

But here's the second barrel of the problem: Sectional construction imposes definite limitations on the size and shape of houses—a serious situation in a market that

demands as much variety as the rural market does.

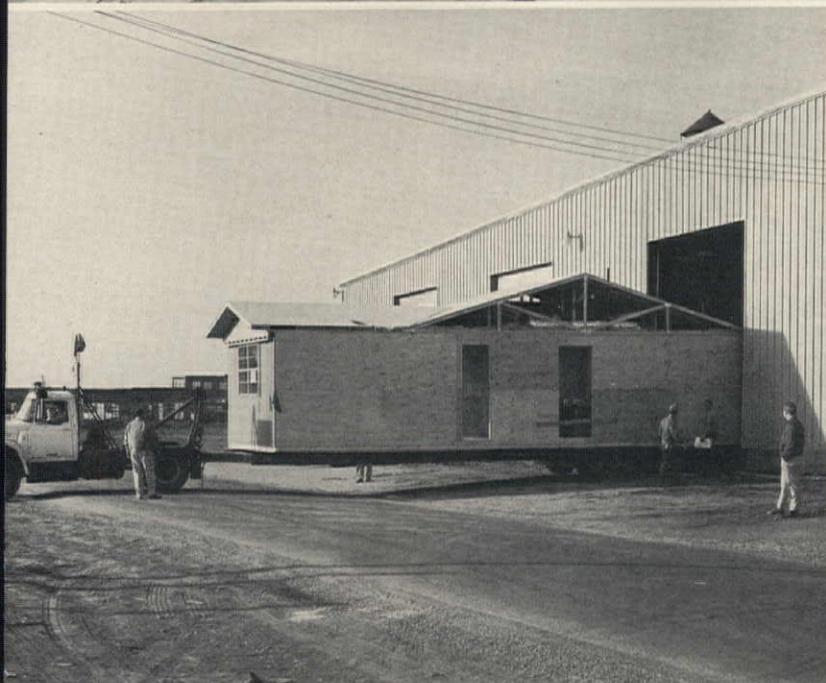
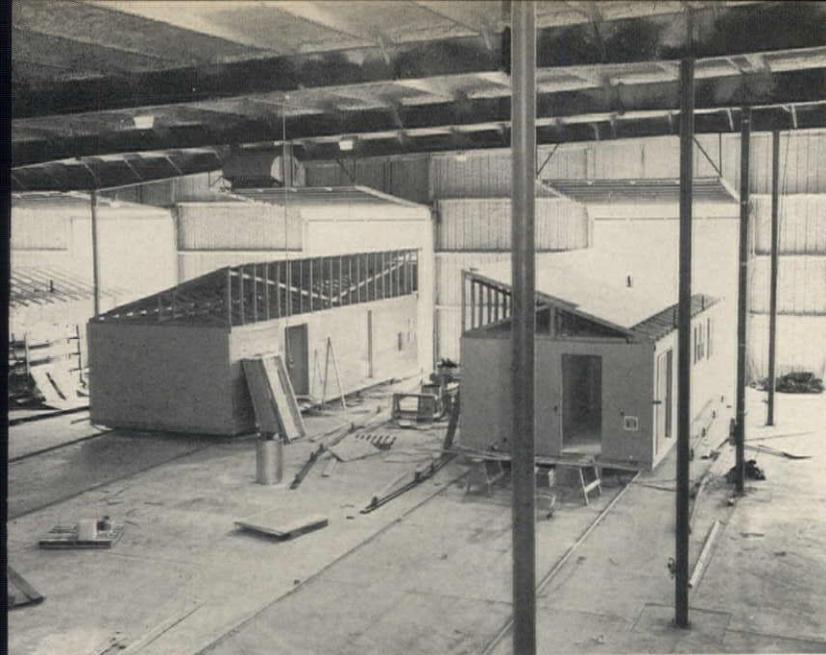
So in addition to its sectional plants, Perdue operates a prefab plant that produces panel components which can be combined with modular sections to produce nearly as much flexibility as a stick-building system could. (It also produces entire prefab packages, the majority of which are built in subdivisions where supervision is less of a problem than on scattered sites.)

The combined sectional-prefab system, which now represents about 60% of the Perdue output, works out well. For some designs Perdue may use three or four sections to build the house; others may have just one section—usually containing all the mechanical elements of the house—with panelized components making up the rest of the structure. As long as basic parameters were observed and as long as all elements are kept on even-foot dimensions

so that jig patterns need not be changed, almost any degree of customizing is possible.

Take, for example, a 40'x56' house. Typically, the Perdue drafting department will lay it out as two 14'x40' modular sections with a 28'-wide area built of prefab components in between. This area will contain no plumbing and little electric wiring beyond the necessary lights and switches. Wall outlets will be installed mainly on the outside of the modular sections, and all of the mechanical elements will be in the sections.

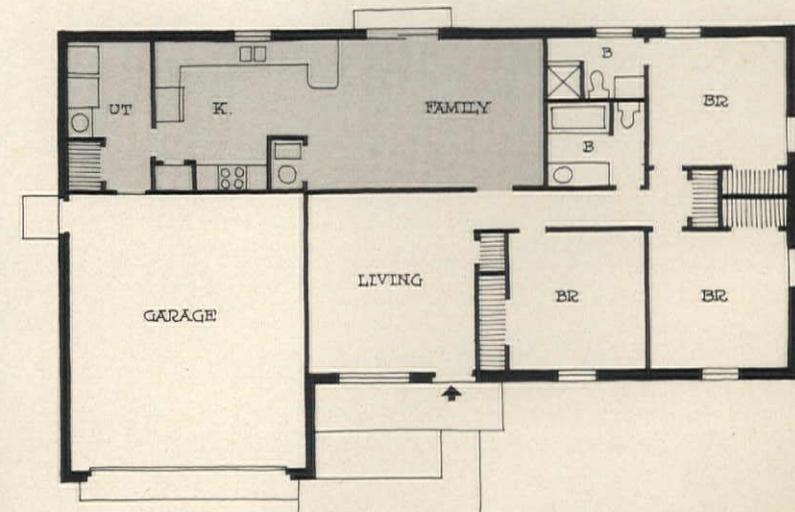
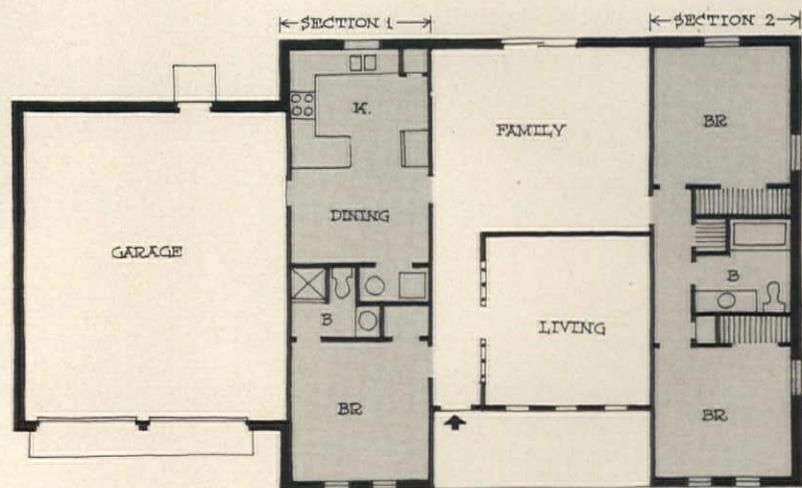
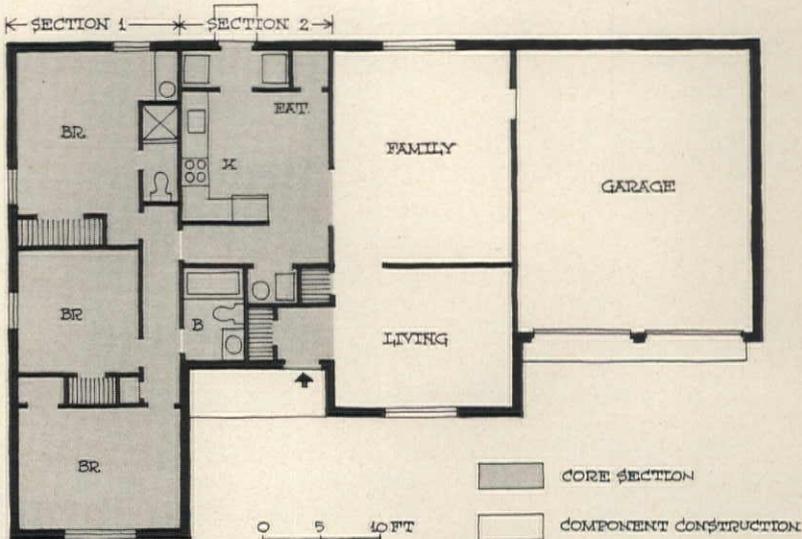
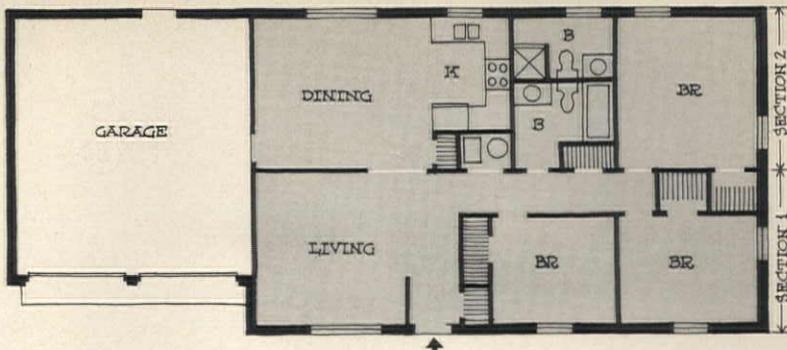
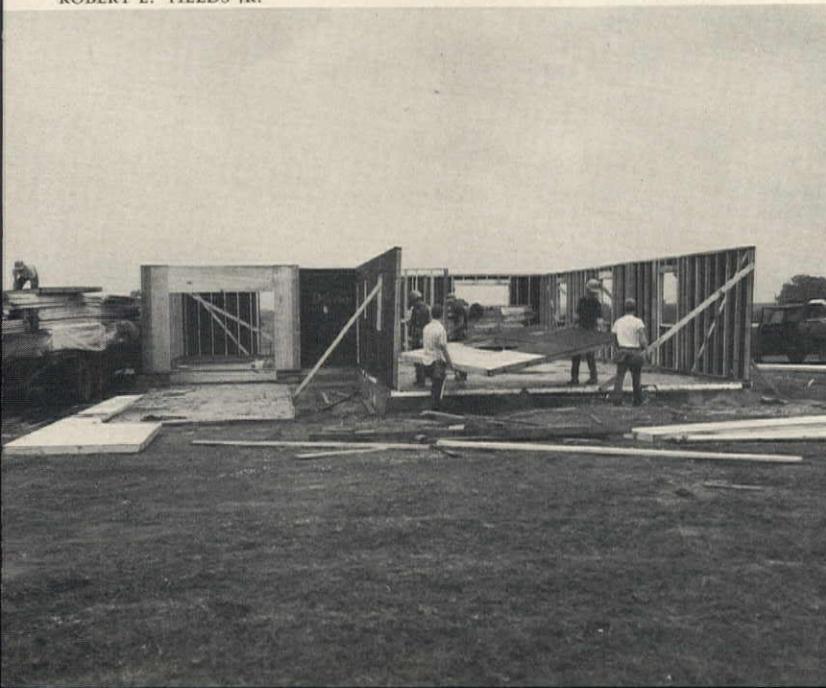
Perdue houses are built in three categories: bottom, middle and top of the line, depending chiefly on the quality of finish and appointments. Taking a 1,500-sq.-ft., combination sectional-prefab house as an example, costs average \$9.25 a square foot as bottom-of-the-line, \$11 as middle-of-the-line and \$13 for top-of-the-line.

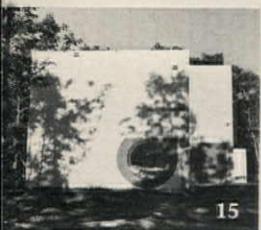
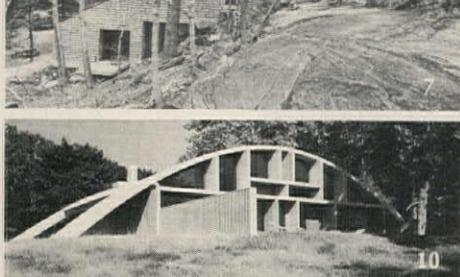
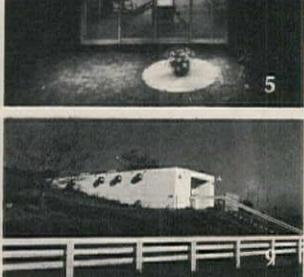
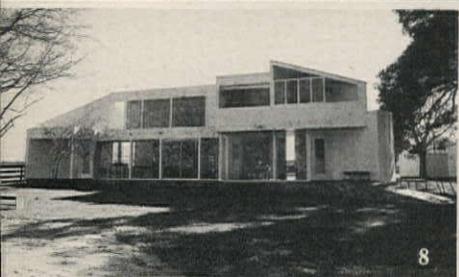


PHOTOS: RAY'S STUDIO

Combination of modular sections and prefab panels is illustrated by plans at right. Top three houses use two sections each, with prefab components for the garages and, in middle two plans, for the living areas. House at bottom includes one section which contains all mechanical areas—kitchen, baths and utilities, remaining rooms are panelized. Photos above show (top) modules under construction and (bottom) modules leaving the plant for the construction site. Photo below shows a panelized house under construction in rural Oklahoma.

ROBERT E. FIELDS JR.





CUSTOM HOUSES

First Honor Award (7)
ARCHITECT/OWNER/BUILDER: Allan Anderson
LOCATION: Rye, N.Y.

First Honor Award (10)
ARCHITECTS: Marcel Breuer & Herbert Beckhard
BUILDER: Barnes Building Co.
LOCATION: Lawrence, N.Y.

First Honor Award (12)
ARCHITECT/OWNER: J. Robert Hillier
BUILDER: Donald N. Armstrong
LOCATION: Princeton, N.J.

First Honor Award (1)
ARCHITECT: Hugh Newell Jacobsen
BUILDER: Baldwin Construction
LOCATION: St. Croix, Virgin Is.

First Honor Award (18)
ARCHITECT: McCue Boone Tomsick
BUILDER: Henry Knutzen Sons
LOCATION: San Mateo County, Calif.

Award of Merit (11)
ARCHITECT/OWNER: Bruce Porter Arneill
BUILDER: Haynes Bros. Inc.
LOCATION: Wilmington, Vt.

Award of Merit (19)
ARCHITECT: Duncombe/Roland/Miller
BUILDER: Harold Halvorsen
LOCATION: Sonoma County, Calif.

Award of Merit (14)
ARCHITECT: Fisher-Friedman Assoc.
BUILDER: Environmental Structures Inc.
LOCATION: Belvedere, Calif.

Award of Merit (21)
ARCHITECT: Gassner/Nathan/Browne
BUILDER: Kenneth Larkey Jr.
LOCATION: Memphis, Tenn.

Award of Merit (15)
ARCHITECT/OWNER: Henri Charles Gueron
BUILDER: Pete Reichart
LOCATION: East Hampton, N.Y.

Award of Merit (16)
ARCHITECT: Stephen Lepp, partner in charge,
Gueron, Lepp & Assoc.
BUILDER: J.L. Mayers & Co.
LOCATION: New York, N.Y.

Award of Merit (2)
ARCHITECT: Eugene E. Hougham
BUILDER: Hawkins Co.
LOCATION: Colville, Calif.

Award of Merit (13)
ARCHITECT: Hugh Newell Jacobsen
BUILDER: Graham James Jr.
LOCATION: McLean, Va.

Award of Merit (6)
ARCHITECT: Clarence Krusinski & Assoc.
BUILDER: T.F. Barrett Construction Co.
LOCATION: Lake Forest, Ill.

Award of Merit (20)
ARCHITECT: Richard Levin Assoc.
BUILDER: Jahn Construction Co.
LOCATION: Kettering, Ohio

Award of Merit (17)
ARCHITECT: William Morgan
BUILDER/OWNER: Robert Stanley
LOCATION: Central Florida

Award of Merit (4)
ARCHITECTS: Barbara and Julian Neski
BUILDER: Peter Wazlo
LOCATION: East Hampton, N.Y.

Award of Merit (9)
ARCHITECT: Daniel Solomon
BUILDER: Duffal Financial & Construction
LOCATION: Alamo, Calif.

Award of Merit (3)
ARCHITECT: James A.S. Walker
BUILDER: Henry E. Bumpus & Sons
LOCATION: Pocasset, Mass.

custom remodelings

First Honor Award (8)
ARCHITECT: Firm of W. Irving Phillips Jr.
& Robert W. Peterson
BUILDER: Walter Thielemann
LOCATION: Brenham, Tex.

First Honor Award (5)
ARCHITECT/OWNER: Peter Samton
LOCATION: New York, N.Y.

Custom jury

Preston Bolton, FAIA, chairman
Houston, Tex.

Jeh Johnson, AIA
Poughkeepsie, N.Y.

E.A. Jyring, FAIA
Hibbing, Minn.

Richard Meier, AIA
New York, N.Y.

Barbara Plumb, Architecture and
Environment Editor
American Home

Built-for-sale/multifamily jury

Robert Elkington, FAIA, chairman
St. Louis, Mo.

Neil K. Bortz, builder
Cincinnati, Ohio

Henrik H. Bull, FAIA
San Francisco, Calif.

John F. Goldsmith, Editor
HOUSE & HOME

Mark Hampton, FAIA
Tampa, Fla.

David Look, student
University of Illinois
Champaign, Ill.

David Rosenthal, AIA
Alexandria, Va.

MULTIFAMILY HOUSING

First Honor Award (2)
 ARCHITECT: Charles Harrison Pawley
 BUILDER/OWNER: Polizzi Construction Co.
 LOCATION: Coconut Grove, Fla.

First Honor Award (1)
 ARCHITECTS: Donald Sandy Jr., James A. Babcock
 OWNER: Phillips-Bidwell Corp.
 BUILDER: Barnhart Construction
 LOCATION: Monterey, Calif.

Award of Merit (9)
 ARCHITECT: Drummey Rosane Anderson
 OWNER: George Whitten
 BUILDER: Assembled Homes
 LOCATION: Boothbay Harbor, Maine

Award of Merit (3)
 ARCHITECT: Fisher-Friedman Assoc.
 OWNER: Pan Pacific Development
 BUILDER: Williams & Burrows
 LOCATION: Alameda, Calif.

Award of Merit (6)
 ARCHITECT: E.C. Grabow Assoc.
 OWNER: Galewood Partnership
 BUILDER: Fage Construction
 LOCATION: Boulder, Colo.

Award of Merit (7)
 ARCHITECT: Walter Richardson Assoc.
 BUILDER/OWNER: J.R. Davies
 LOCATION: Fullerton, Calif.

Award of Merit (4)
 ARCHITECT: Walter Richardson Assoc.
 BUILDER/OWNER: A.J. Hall Corp.
 LOCATION: San Diego County, Calif.

Award of Merit (5)
 ARCHITECT: Neil Morrison Wright
 OWNER: Le Car Corp.
 BUILDER: Butler Bros. Construction
 LOCATION: Ketchum, Idaho

renovations

Award of Merit (8)
 ARCHITECT/OWNER/BUILDER: Fred. R. Klein
 LOCATION: Washington, D.C.

1972 Award Winners...

... in the largest and oldest design competition devoted solely to housing. The 30 new houses, new apartments and remodelings pictured here topped a field of 337 entries in the 17th annual Homes for Better Living program, sponsored by the American Institute of Architects in cooperation with HOUSE & HOME and American Home magazine. They were selected in two days of judging by two juries—one for custom houses, the other for multifamily and merchant-built, single-family housing.

Nine winners—seven in the custom category and two in the multifamily group—took First Honor Awards. Awards of Merit went to 14 custom houses and seven multifamily designs. The winners represent a wide range of geographical areas (14 states, the District of Columbia and the Virgin Islands) and housing types (from a 975-sq. ft. vacation house to a renovated townhouse to a 128-unit apartment project).

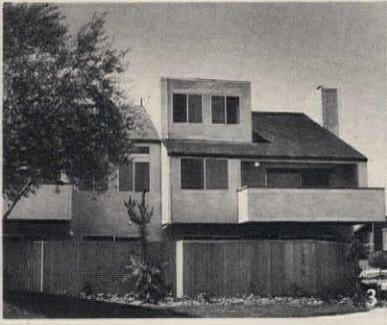
For a closer look at nine custom-house winners (those under 2,500 sq. ft.), see the next 11 pages. For more about the other winners, watch the upcoming issues of HOUSE & HOME.



1



2



3



5



5



6



7



8



9

FIRST HONOR AWARD

ARCHITECT: *Hugh Newell Jacobsen*
 BUILDER: *Baldwin Construction Co.*
 LOCATION: *St. Croix, Virgin Islands*
 SIZE: *2,358 sq. ft.*

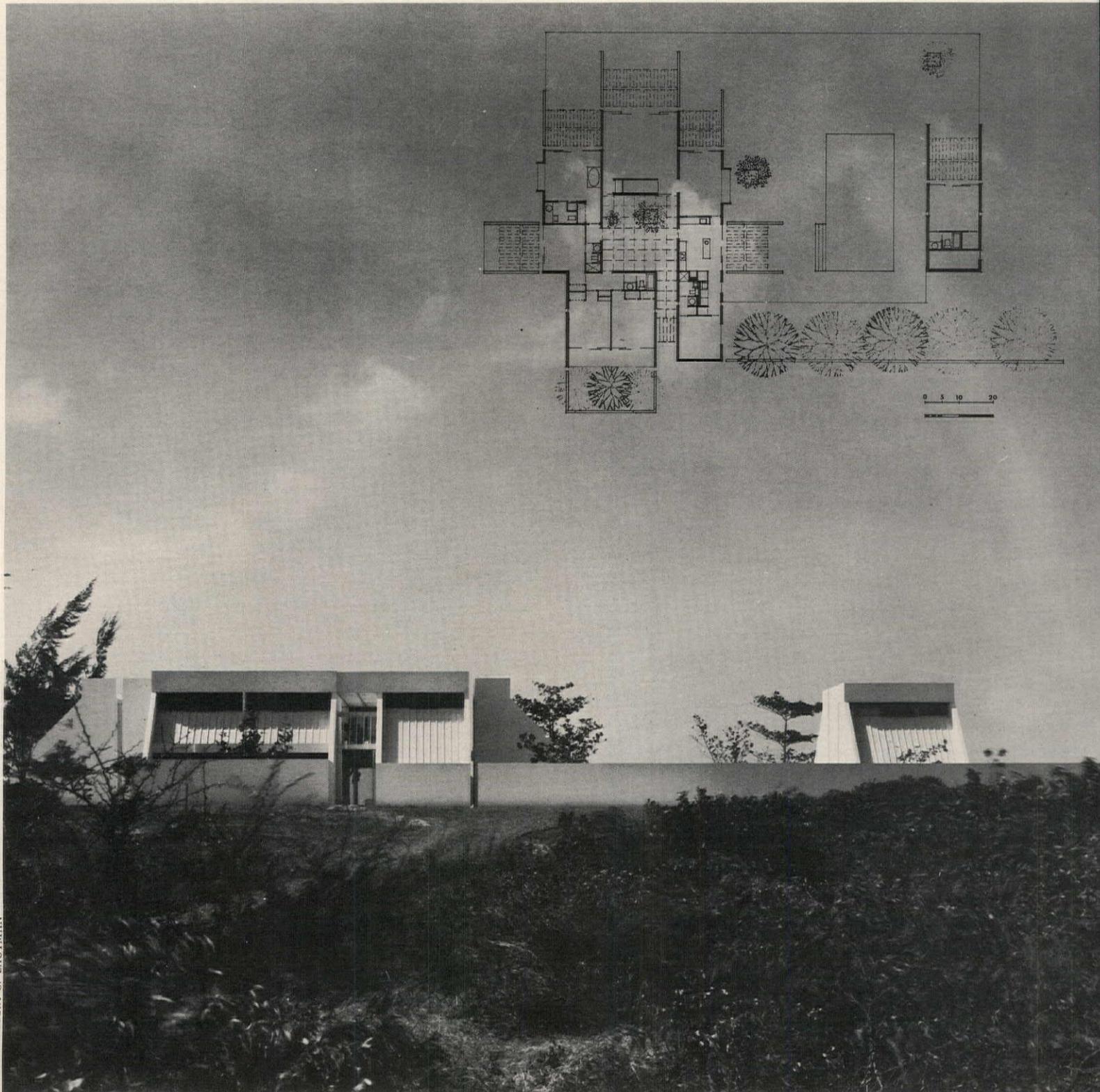
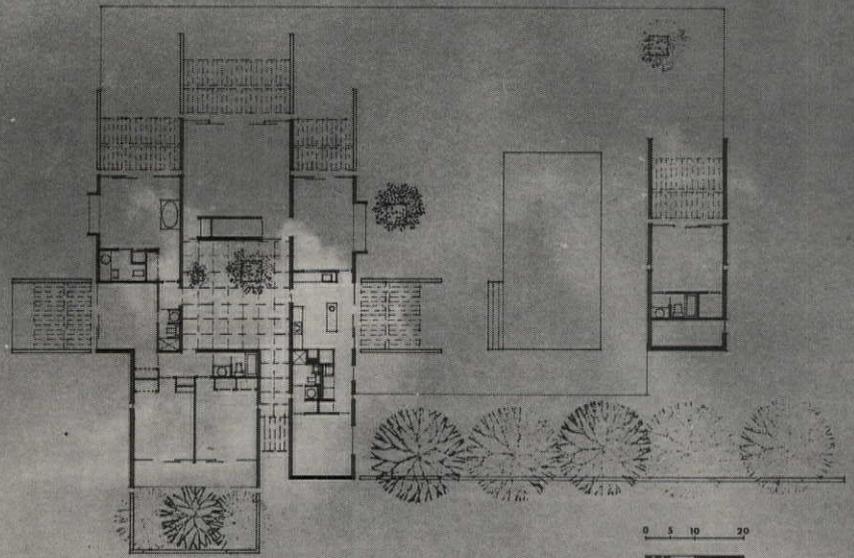
A contemporary version of the Danish colonial architecture predominant on the island, this house sits atop an 18' coral cliff at the end of a peninsula. Extra-high, 17' ceilings and an elaborate sun and wind screen system overcome problems of a hot climate where the wind blows at 15-20 knots half the year, not at all the rest. There is a center atrium with an egg-

crate screen; when the air is calm, heated air rises and passes through the screen, creating a breeze throughout the building. Screens are carefully oriented to sun and wind direction for maximum effect.

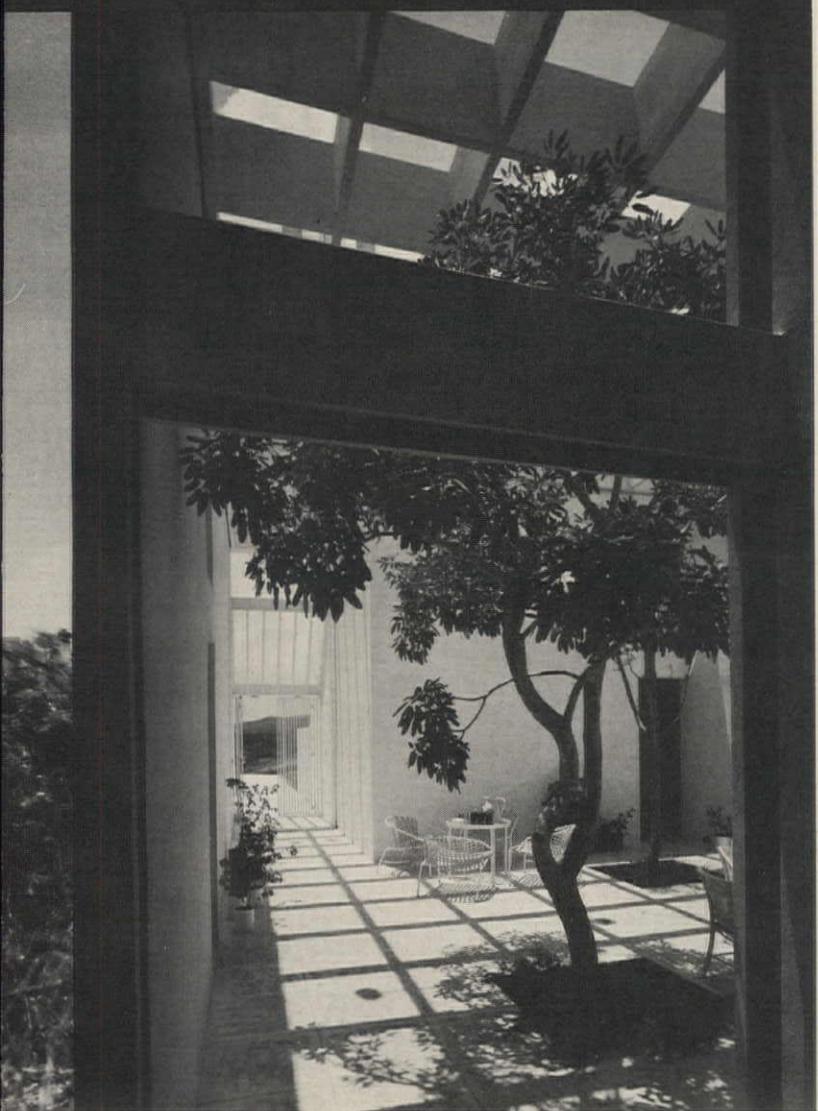
The photo below shows the house, at left, and poolhouse; both are of concrete frame and cinderblock construction finished in white gypsum blast

stucco. Roofs, interior partitions and sun screens are wood; cement tile is used for flooring and terracing.

Lights ablaze at dusk (*right*) highlight wind and sunscreens. The picture at bottom right (*facing page*) shows part of the master bedroom; note bathtub. The tree in the atrium (*bottom, left*) gives extra shade and a touch of greenery.



PHOTOS: ROBERT C. LAUTMAN



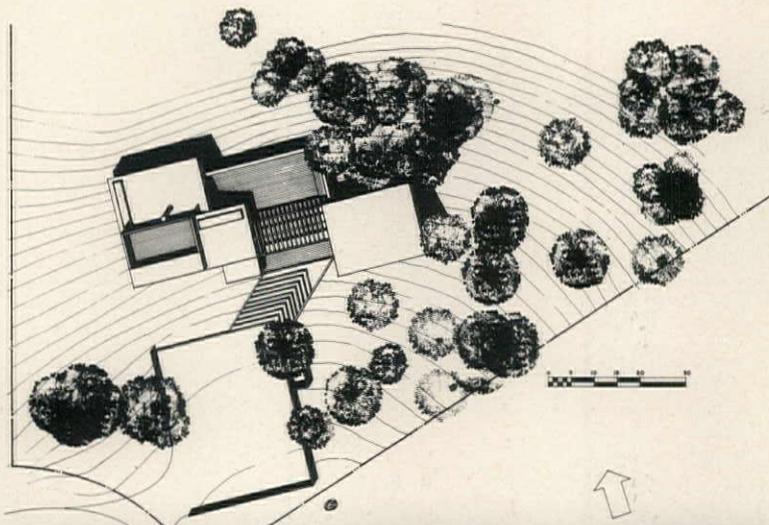
AWARD OF MERIT

ARCHITECT: *Duncombe/Roland/Miller*

BUILDER: *Harold Halvorsen*

LOCATION: *Sonoma County, Calif.*

SIZE: *1,000 sq. ft.*



Two buildings with deck between serve as a vacation home and encounter-group center for a psychotherapist couple. The design maximizes both separation and flexibility of the various rooms, which may be used at different times for sleeping, study, counseling, etc. The main building consists of main living and dining level, sleeping mezzanine and a sundeck reached by a ladder. The one-story secondary building consists of a sleeping area and studio.

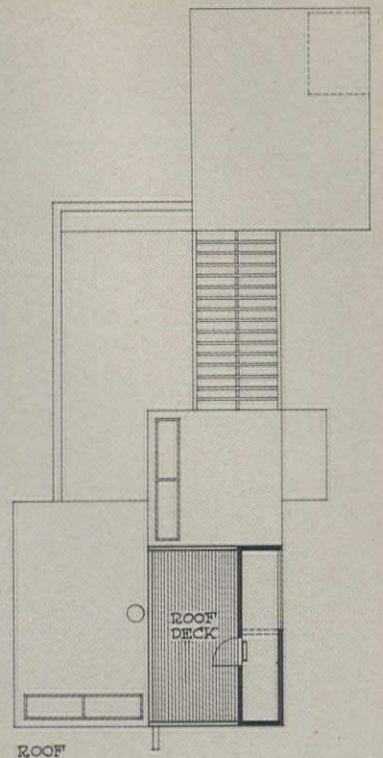
Photo (below) shows the main building at the left and ocean

view. Note cedar shingles on all exterior walls and roofs. The sloped roof with skylight forms the upper part of the living room; the sleeping balcony is located directly under the flat roof deck.

An exposed bathtub (bottom right) is behind the fireplace in the living room to permit bathing and drying while eyeing the view. The remainder of the bathroom is behind the tub. The interior consists of stained roof rafters, gypsum-board walls of white or primary colors and hardwood floors.

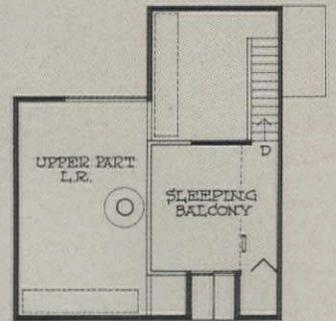


PHOTOS: JEREMIAH BRAGSTAD

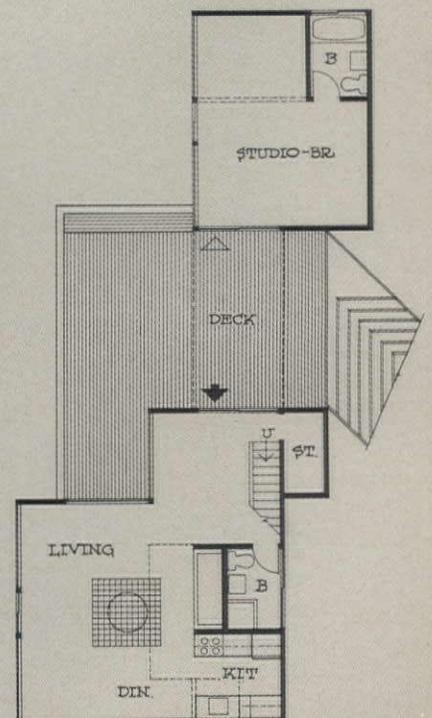
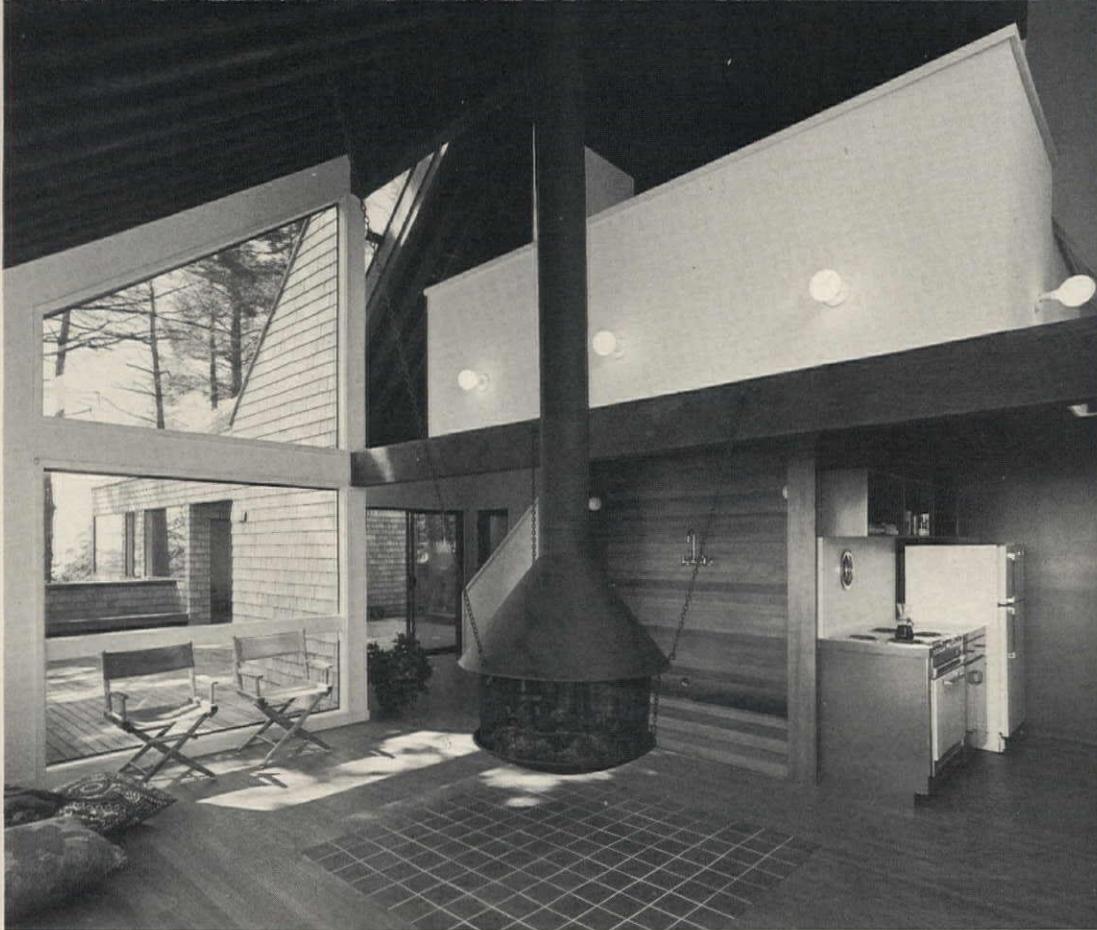


ROOF

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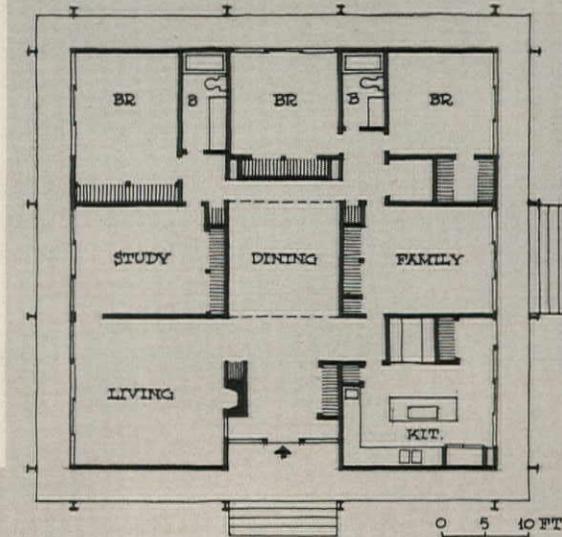


UPPER LEVEL



MAIN LEVEL

PHOTOS: JOHN BREFACH

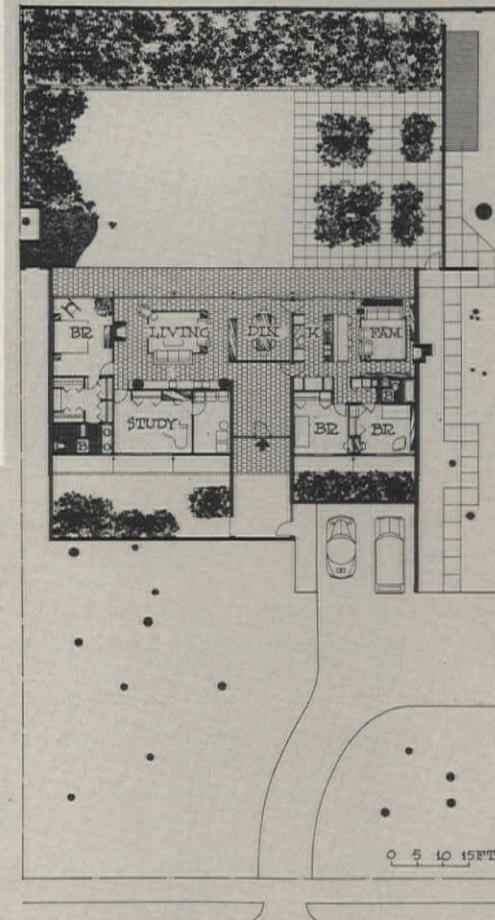
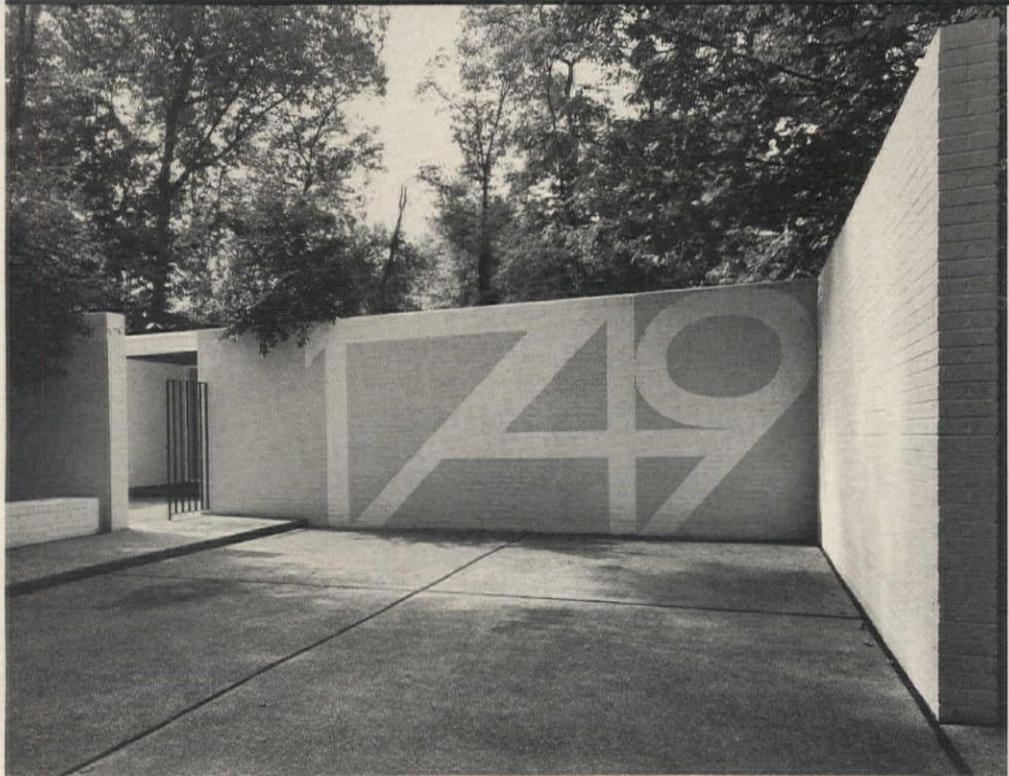


FIRST HONOR AWARD

ARCHITECT/OWNER: J. Robert Hillier
 BUILDER: Donald N. Armstrong
 LOCATION: Princeton, N.J.
 SIZE: 2,300 sq. ft.

This square layout provides very flexible working (the owner's office) and family living patterns. The center atrium (above) with a skylight serves as a center hall and dining room; each room is isolated from its neighbor by a closet wall or bathroom.

The exterior has bronzetinted mirrors and semi-reflective glass as a sort of camouflage. The house is slightly elevated above the site, which is marshy ground.



AWARD OF MERIT

ARCHITECT: *Gassner/Nathan/Browne*
 BUILDER: *Kenneth Larkey Jr.*
 LOCATION: *Memphis, Tenn.*
 SIZE: *2,500 sq. ft.*

High brick walls (*above*) do double duty, maximizing privacy as they bridge the gap between a contemporary house and a traditional neighborhood. The garden was designed as an extension of the house—note on the site plan that the edge of the patio serves as a continuation of the interior walls. The interior is zoned to separate children's and adults' areas. Construction is steel frame with brick end walls.

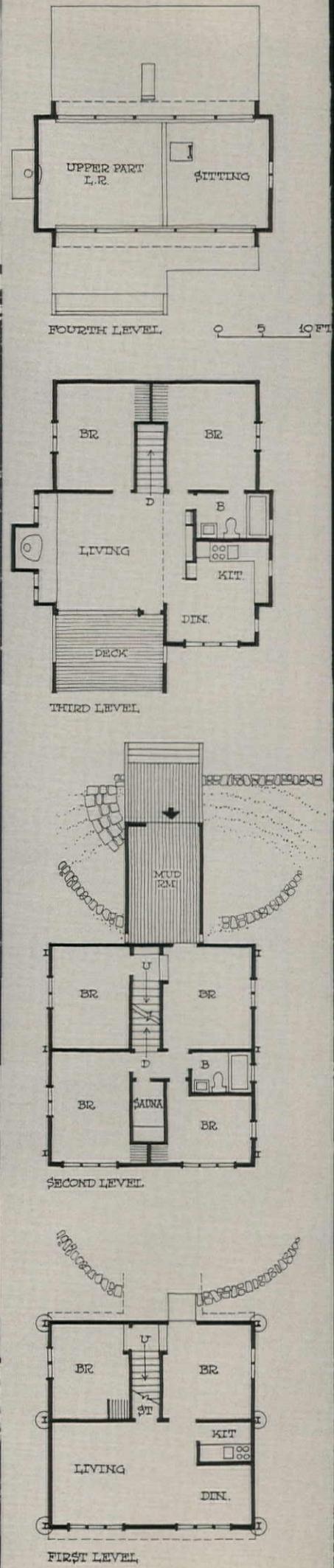
PHOTOS: BILL MARIS



AWARD OF MERIT

ARCHITECT/OWNER: Bruce Porter Arneill
 BUILDER: Haynes Bros. Inc.
 LOCATION: Wilmington, Vt.
 SIZE: 2,000 sq. ft.

This prototype for a condominium project was designed for steep sites. Rising 70' from grade bottom, it consists of a four-story tower on steel columns with a covered bridge to the driveway. Flexibility is the interior key: A duplex is easily made from the six bedrooms, two living rooms, two kitchen-dining areas. The lower entrance is under the bridge.

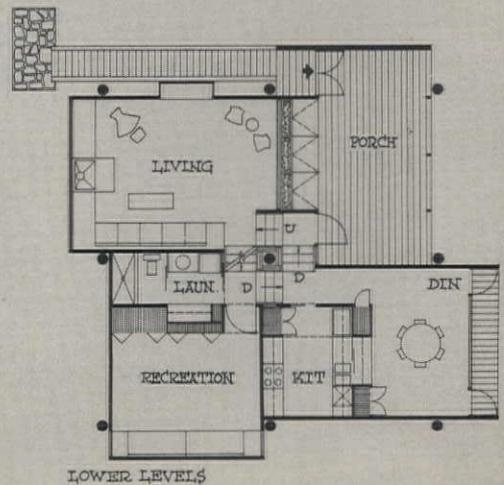
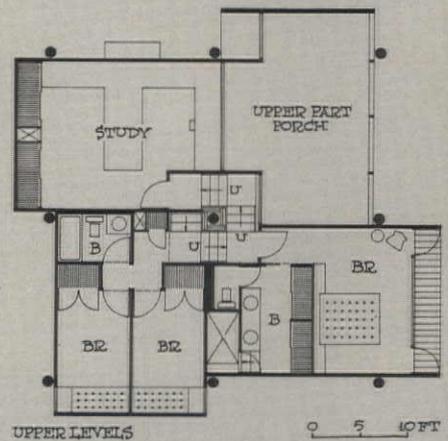




AWARD OF MERIT

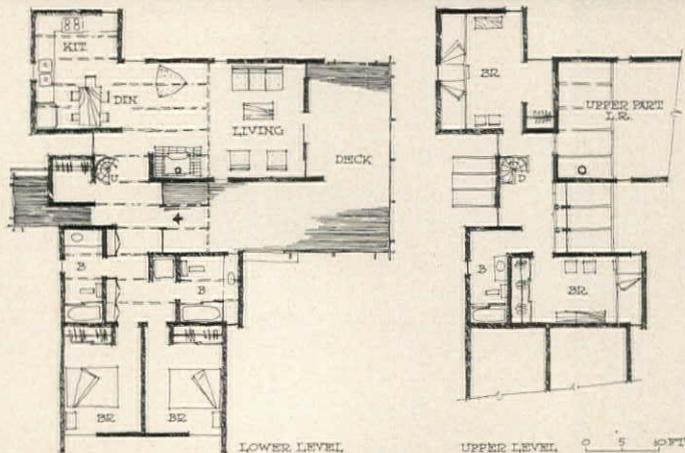
ARCHITECT: *William Morgan*
 BUILDER/OWNER: *Robert Stanley*
 LOCATION: *Central Florida*
 SIZE: *2,000 sq. ft.*

Having only one good view—that of the lake—this house has three blank walls for displaying rare maps, paintings, etc. The sloping site necessitated pile foundations and suggested a multi-level design. Entrance ramps lead down to the kitchen, guest suite and carport and up to the two-story porch, thence to the living room, bedrooms and studio.





PHOTOS: LEE REDMOND

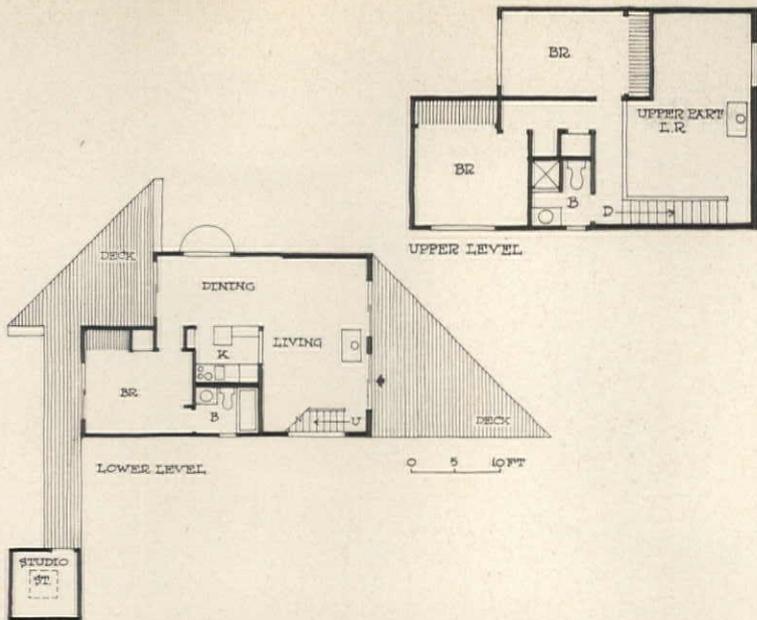


AWARD OF MERIT

ARCHITECT: Eugene E. Hougham
 BUILDER: Hawkins Co.
 LOCATION: Coleville, Calif.
 SIZE: 1,620 sq. ft.

A rough-sawn cedar exterior helps this house blend with its near-desert surrounding. Designed as a vacation house for two families—including eight children—it provides both separation and proximity of adults' and children's areas. Located in

cattle country, the site is surrounded with sagebrush and pinon trees; it has spectacular views of mountain ranges on two sides. The interior (right), designed for easy maintenance, has cedar boards finished with linseed oil.



AWARD OF MERIT

ARCHITECT/OWNER: *Henri Charles Gueron*

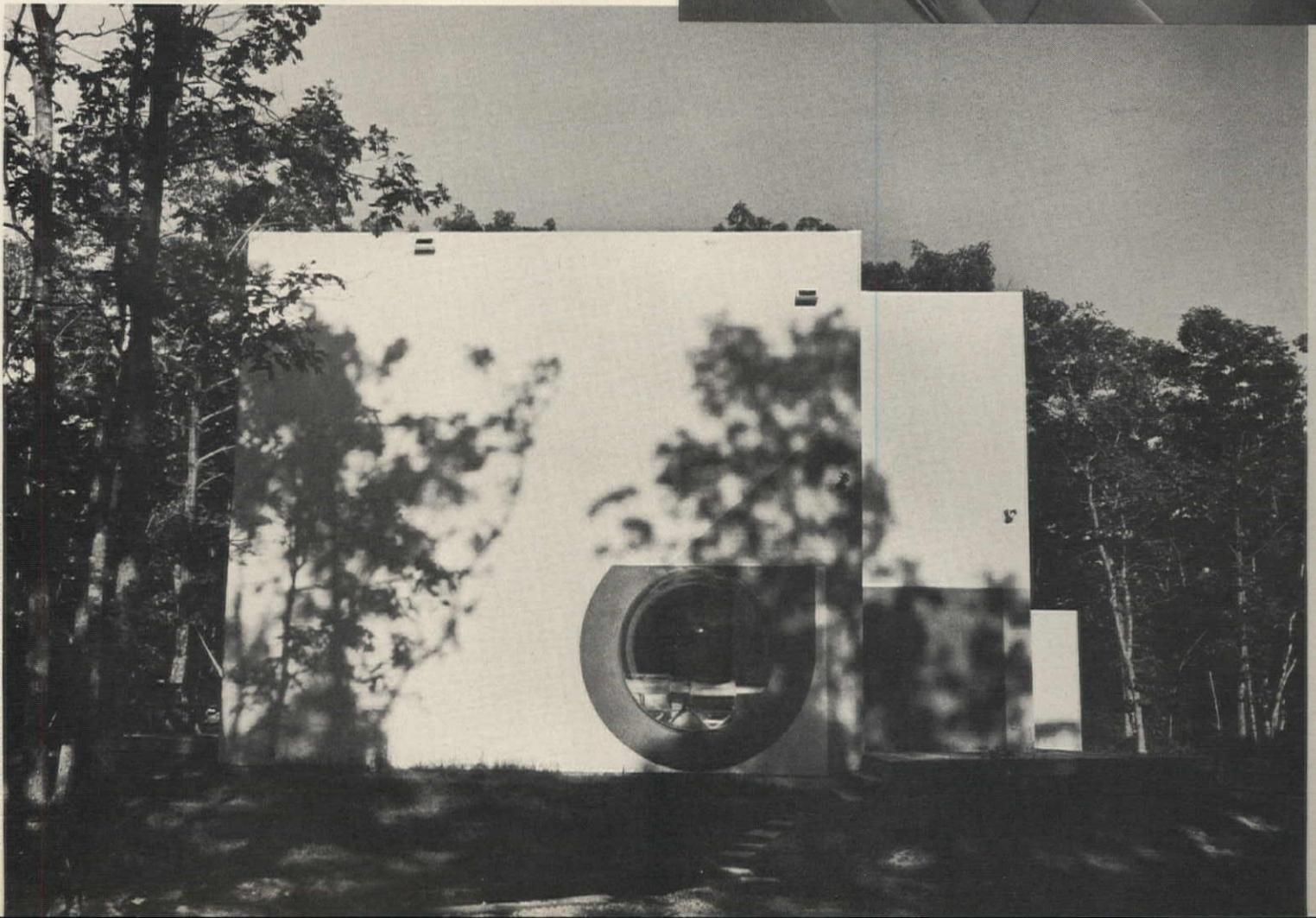
BUILDER: *Pete Reichart*

LOCATION: *East Hampton, N.Y.*

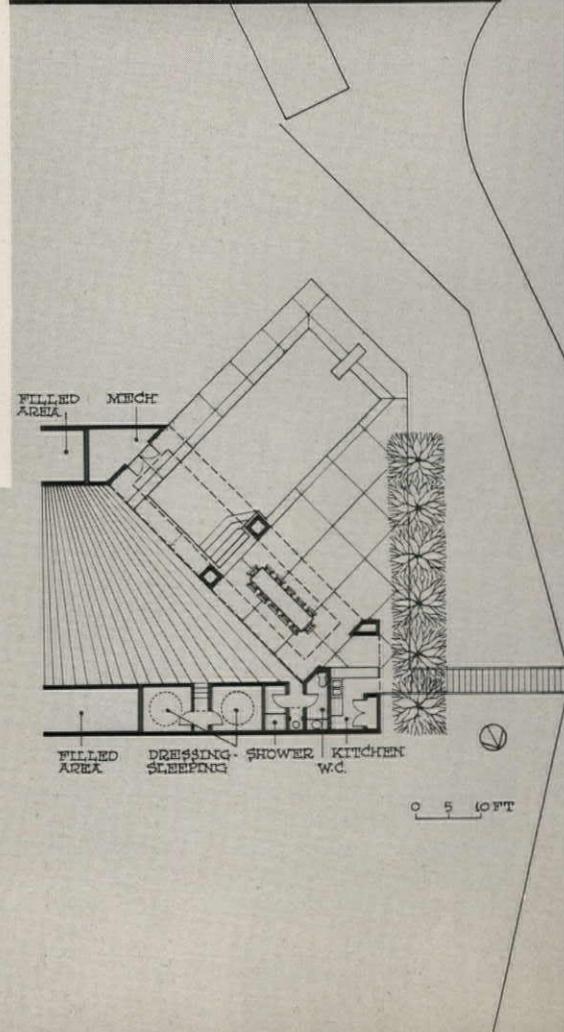
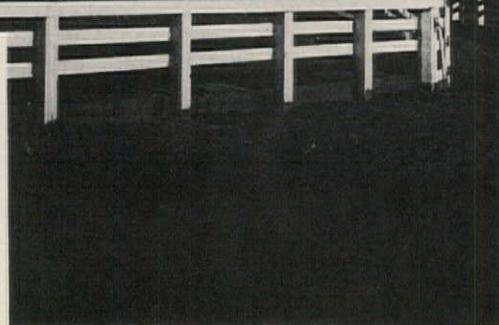
SIZE: *975 sq. ft.*

This whimsical \$15,000 vacation house packs three bedrooms, two baths, kitchen-dining and living areas, outdoor deck, roof terrace, studio-storage unit and laundry into less than 1,000 sq. ft. Construction is of $\frac{3}{8}$ " plywood, caulked and paint-

ed white; interior walls are of $\frac{1}{2}$ " sheetrock, floors of gray-painted plywood. A clear plastic dome, 6' in diameter, is the focus of the exterior design. A spacious feeling is given the interior by the 19'-high living area (*right*), with its prefab fireplace.



PHOTOS: LUCILLE DANDELET

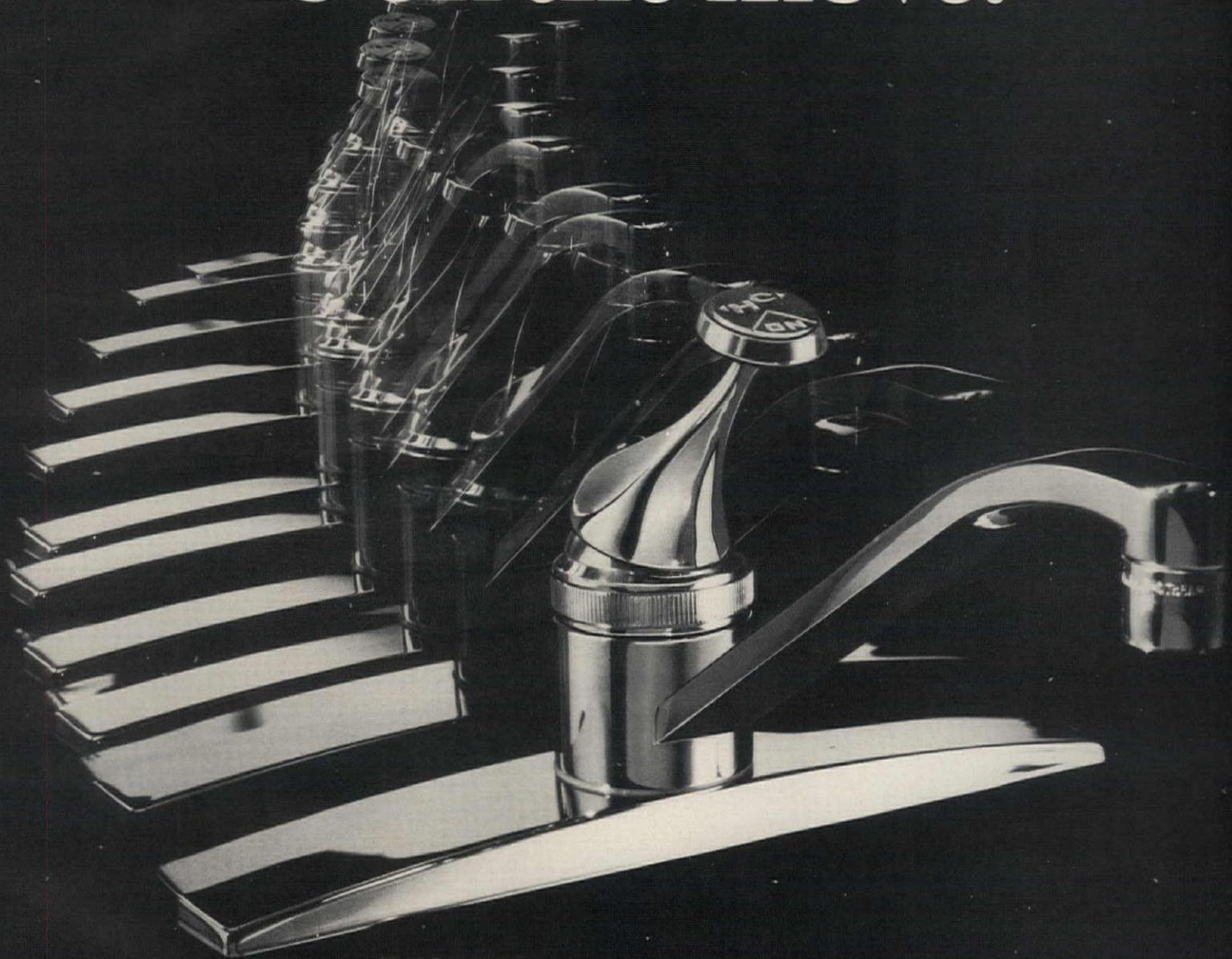


AWARD OF MERIT

ARCHITECT: *Daniel Solomon*
 BUILDER: *Duffel Financial & Construction Co.*
 LOCATION: *Alamo, Calif.*
 SIZE: *815 sq. ft.*

This guesthouse and pool were designed as adjuncts to an existing California ranch. Partially buried so as not to obstruct the view from the other buildings, it has fans and skylights to provide ventilation and light. In addition to providing overnight accommodations for guests, it serves as a place for formal entertaining that is set well apart from the main house.

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It would be enough to give you a complete line of appliances that more women rate as "best made" than the next five brands combined. But in addition to great products, we give you great people.

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signer for crowned heads of Europe, the White House, and too many movie stars and assorted celebrities to even mention. George and his Builder-Dealer Design Service group will do the same for you, from the floor to the counter tops to the last decorative detail. Free.

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also has people to carefully schedule appliance deliveries so you get them when you're ready for them. And

people to service every GE appliance on those rare occasions when service is needed.

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GENERAL  ELECTRIC

Promises to keep

**“But I have promises to keep,
And miles to go before I sleep.”— Robert Frost**

In 1976, a few short years from now, America will celebrate the 200th anniversary of a unique promise. The promise, and the enduring dream, of “Life, liberty and the pursuit of happiness.”

It is good to pause and look back. To reflect on and renew that historic promise.

But it is also necessary to look ahead.

Because America has new promises to keep. And a long, long way to go.

We have promised not merely to maintain, but to enhance the American way of life. To improve the standard of living *and* to improve the quality of life in tomorrow's America.

We have promised to produce the things—the goods and services—that

make life possible and pleasant. And we have also promised to pay more heed to the intangibles that make life meaningful.

We have promised to conserve and protect our natural resources. To restore the vitality and preserve the beauty of our environment. To clean up our air and cleanse and refreshen our rivers, lakes and streams. To rebuild and reshape our cities, and to rationalize and reorder the chaos of a transportation system gone awry.

We have promised to care for the sick and safeguard the public health. To give new dignity and new hope to the poor, and to assist the disadvantaged. To do a better job of educating the young, and a much better job of cherishing and enriching the lives of the old.

All of these things, and more, we have promised to ourselves. And there is little argument about our promises. Most Americans agree that these are, and should be, our national goals.

But how do we deliver on our pledges? How do we match promise with per-



McGRAW-HILL MAGAZINES
Business/Professional/Technical

formance? How do we reach our goals? These are the hard, practical questions that perplex and divide us.

There are no simple answers to complex questions. But as we stand hesitant at a crossroads, debating which path to take, a few things do seem obvious. And perhaps it is time for a little plain talk.

Time to say flatly that there is no easy, primrose path that will take us where we want to go. The easy paths lead backward, or nowhere. The road that leads ahead is a hard road.

Because there is no way to produce less and have more.

No way to do less and accomplish more.

No way to give less and get more.

No way to sit on our aspirations and expect things to take care of themselves. Somebody, somehow, has got to *do* the conserving, protecting, restoring, preserving, cleaning, rebuilding, reshaping, rationalizing, reordering, caring for, safeguarding, helping, educating and cherishing.

And the only way to do a better job in all of these areas is to work at the job. Work harder or smarter, or both.

And, most importantly, work together. The job is too big for any of us working alone. And too big for all of us, working at cross purposes.

There is no easy way, and there is no one, patented, exclusive way.

No Liberal way and no Conservative way. No Democrat way and no Republican way. No business way and no labor way. No strictly government or wholly private way.

There is only a productive way or a nonproductive way.

And the productive way calls for all of us to join together. Not in perfect harmony. Not in ultimate brotherhood. And not in some high-flown crusade.

But in the simple recognition that we

all—business, labor, government and private citizens—have a job to do.

That we all have contributions to make.

And that each is vital, necessary, indispensable. Not to be done without.

The original promise of America was set forth in the Declaration of Independence.

The new promises of America call for a new Declaration of *Interdependence*.

For a new awareness and acknowledgment of our mutual dependence. Each upon each. All upon all.

This awareness, this new Spirit of '76, will not spring full-blown from this, or any other, proclamation. It cannot be legislated. It cannot be imposed. It cannot be synthetically drummed up.

It will begin, if at all, when the American people begin to tire of the politics, the policy, the endless futility of "confrontation." It will begin when they look at our goals on the one hand, and our petty squabbles on the other, and conclude quite simply, "You can't hardly get there from here." And that's a fact.

There are, at this crossroads in time, many paths to take. But there is only one useful way to go. Forward. Together.

It is time to face facts.

For we have promises to keep, and miles to go before we sleep.

We at McGraw-Hill believe in the interdependence of American society. We believe that, particularly among the major groups—business, labor and government—there is too little recognition of our mutual dependence, and of our respective contributions. And we believe that it is the responsibility of the media to improve this recognition.

This is the first of a series of editorial messages on a variety of significant subjects that we hope will contribute to a broader understanding.

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John R. Emery
John R. Emery, President
McGraw-Hill Publications Co.

Sliding Door



Swinging Door



Sales leader
for 11 straight years.

Same Price

Only Ford vans have so many better ideas that make vans easier to drive, to service, to use.

Now you have a choice of conventional swinging doors or, at the same price, a new



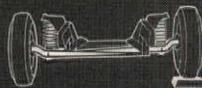
gliding side door for cargo handling in cramped alleys and beside loading docks. Three separate tracks, at top, bottom and center, give bridge-like support for solid, smooth one-hand operation, tight seal.

Shorter outside, easier to park. Compared to other makes with similar loadspace, Econolines have significantly less overall length for better maneuverability in city-delivery operations.

Easy, out-front servicing. Routine service points are right at hand under convenient outside hood: water, oil, battery, wiper motor, voltage regulator, and many others.



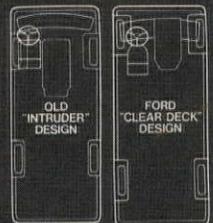
Strong, Twin-I-Beam Independent Front Suspension—Ford's exclusive design smooths the going for both load and driver. Two forged steel I-beam axles provide strength and durability; wide wheel stance means stability in cross winds.



Wider at top for built-ins. Body sides are more vertical, wider apart at top than other vans. Built-in units fit better.

Biggest payload. E-300 series offers 4,285-lb. payload capacity—biggest of any van.

Engine clear forward. In Ford's clear-deck design, engine is forward—all the way out of cargo area. Over 8½ ft. clear floor behind driver's seat...over 10 ft. in the SuperVan.



FORD ECONOLINE VANS



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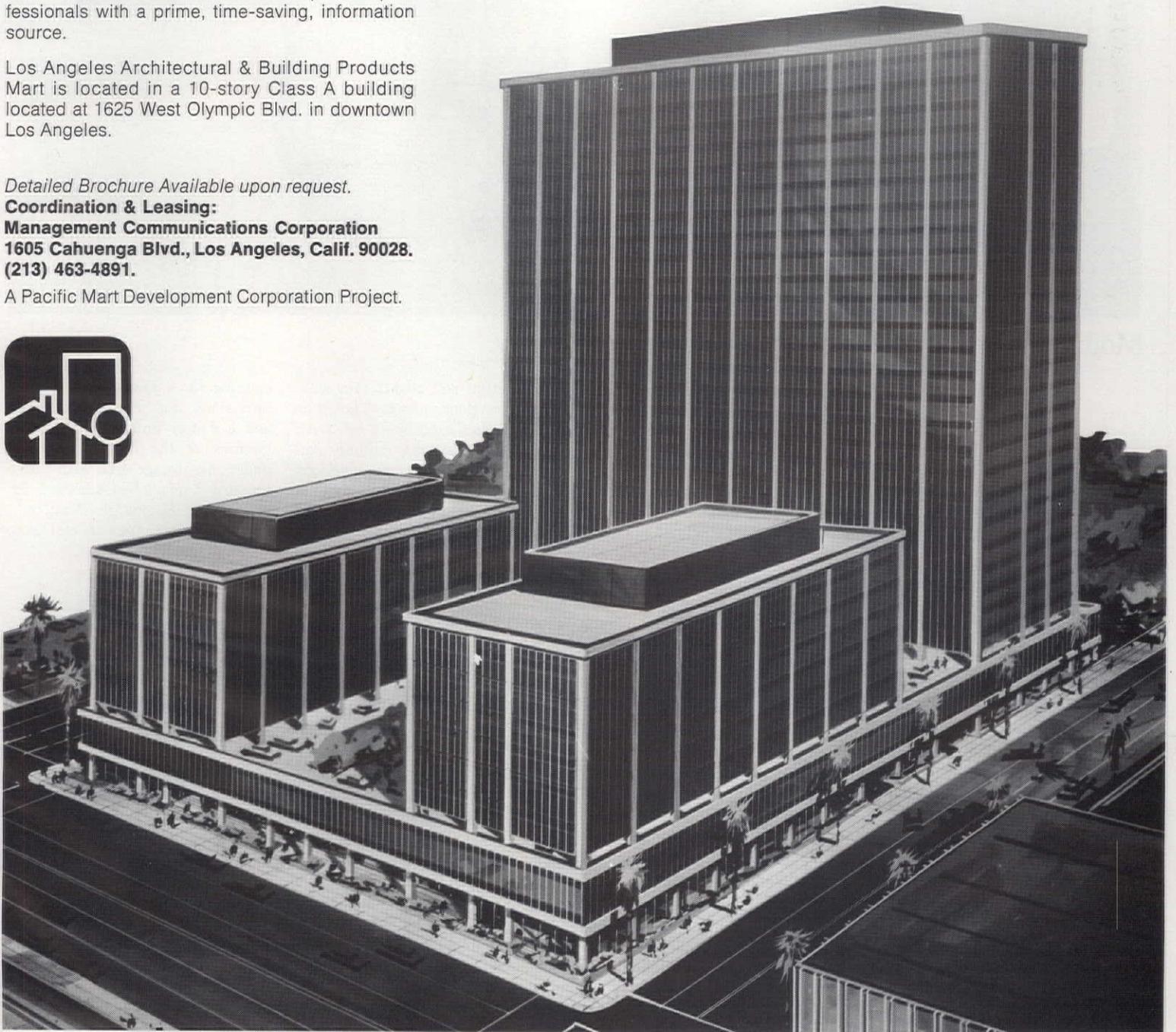
The Mart provides a continuously manned catalog information and research service to provide professionals with a prime, time-saving, information source.

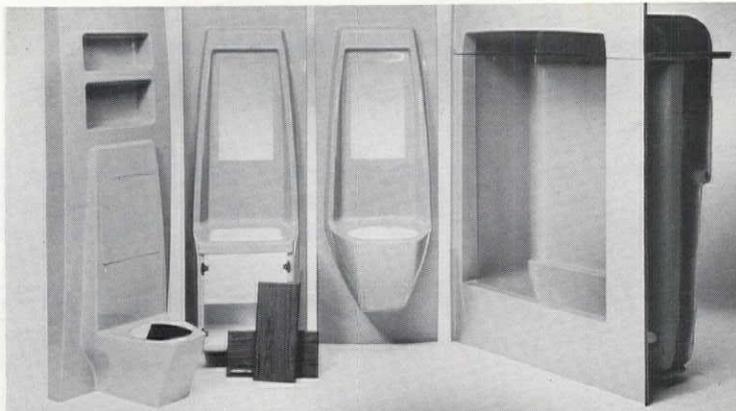
Los Angeles Architectural & Building Products Mart is located in a 10-story Class A building located at 1625 West Olympic Blvd. in downtown Los Angeles.

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Modular bath system is designed for flexibility.

Consisting of four fiber glass reinforced modules, "Concept III" components of a standard 5'x8' bathroom while providing all the necessary facilities. The system, which uses surface-mounted plumbing, can be installed easily in standard

construction and adapts to a wide range of floor plans. The four modules are: a 60"-wide tub with a built-in plumbing column and an optional cap; a toilet component with two integral shelves and a snap-out access panel for tank and pipes; a lavatory module with an

opening for a medicine chest and provisions for light installation and a vanity unit with the same features as the lavatory plus an undersink storage area with vinyl-finished doors. Uses standard fixtures. Eljer, Pittsburgh, Penn.

CIRCLE 275 ON READER SERVICE CARD



A fire-resistant roll of plaster in a scotch weave is used in the same way as conventional wallcoverings. Offered in 48"-wide rolls, the surfacing material can be directly applied with an adhesive to any rigid surface including concrete block. The covering remains flexible until it is applied at which time water in the adhesive sets the plaster. Flexi-Wall Systems, Liberty, S.C.

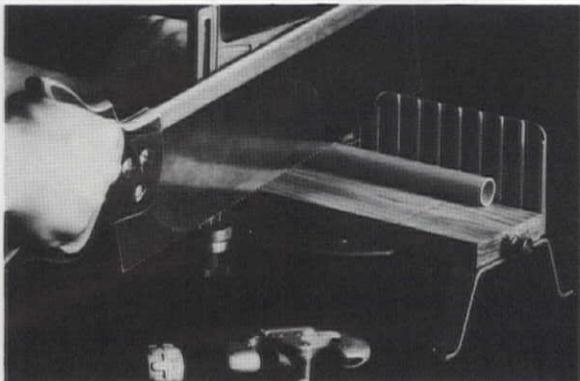
CIRCLE 276 ON READER SERVICE CARD

Three-in-one kitchen appliance combines cooking and clean-up in a 30"-wide compact unit. It features a vent hood, an eye-level oven and a four-burner cooktop over a dishwasher. Suitable for use either freestanding or built-in, the unit is available with gas or electric cooking and broiling elements. Modern Maid, Chattanooga, Tenn.

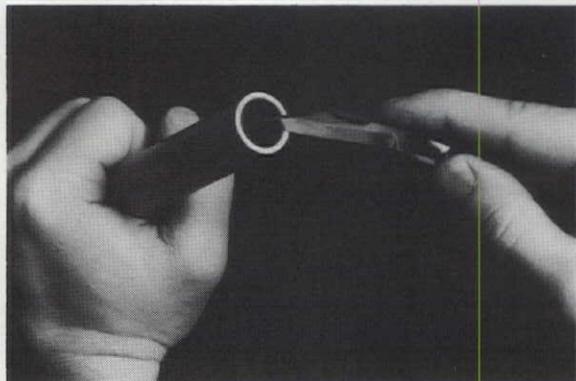
CIRCLE 277 ON READER SERVICE CARD



How to install CPVC pipe for hot and cold water and be sure you are right.



Be sure you cut it square! It's easy in a mitre box. Or use a cutting tool. Pipe made of hi-temp Geon® vinyl (CPVC) is for hot and cold water lines, Geon vinyl (PVC) for DWV, etc.



Remove the burrs or ridge from the outside and inside with a knife or tubing reamer. Before you apply any cement, be sure the tubing will enter the socket but not be so loose the fitting falls off.



Remove surface gloss from the tubing end and fitting socket with CPVC cleaner or fine sandpaper and wipe clean with a dry cloth. Brush CPVC cement to the inside of the socket.



Then brush cement on the outside of the tubing. Notice how easy it is to handle. Tubing made of hi-temp Geon resists moisture, oil, corrosion, acids, alkalies and other chemicals.



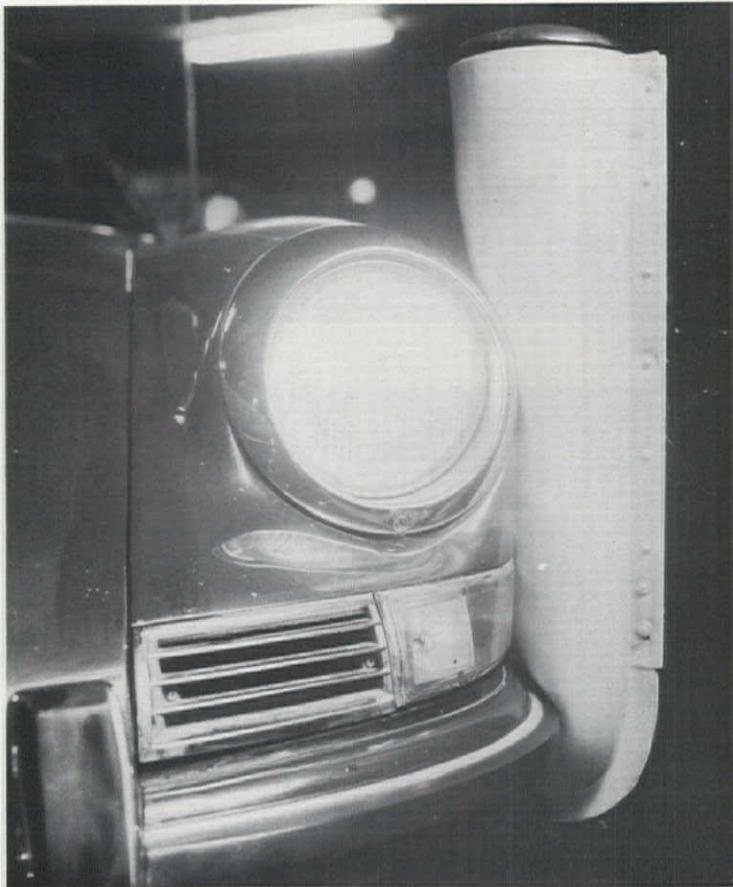
Push the tubing into the fitting. Then give either the tubing or the fitting a quarter turn to insure proper distribution of cement. Immediately adjust for direction. Wipe excess cement from the fitting lip; hold both together for a few seconds.



It's easy to connect hi-temp Geon vinyl tubing to metal lines or valves. A transition fitting like this does the job. Get all the facts about CPVC piping. Write to us for free booklet.

For free illustrated booklet, write **B.F. Goodrich Chemical Company**, a division of The B.F. Goodrich Company, Dept. H-25, 3135 Euclid Avenue, Cleveland, Ohio 44115.

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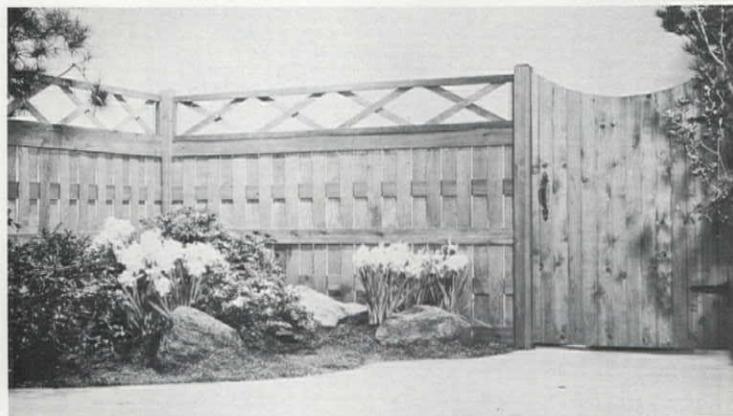
Parking buffers, water-filled polyvinyl chloride cylinders, protect cars against scrapes and dents by cushioning and absorbing the force of impact. Buffers, available in four

types, can be mounted on square corners, round columns and flat walls, indoors or out. Energy Absorption Systems, Chicago. CIRCLE 220 ON READER SERVICE CARD



Gas-fired swimming pool heater is equipped with a water control that eliminates condensation as it maintains selected water temperature. Only the correct amount of filtered

water is permitted through the heater. The excess is diverted through a bypass to an outlet for later return to pool. Ruud, Chicago. CIRCLE 222 ON READER SERVICE CARD



Woven fencing is available in both vertical and horizontal weaves in nominal heights of 4', 5' and 6'. Factory-finished with a water repellent, semi-transparent redwood-

colored stain-preservative, fencing comes in 8'-wide panels with matching 1'x8' lattice topper available. Potlatch Forests, San Francisco. CIRCLE 224 ON READER SERVICE CARD



Easy-to-assemble fence system is guaranteed rot- and weather-proof. Available in 2- and 3-rail designs, the post and rail system is extruded from specially formulated vinyl

chloride. It is strong yet flexible, will not shatter or splinter at normal temperatures and never needs painting. Harvel Plastics, Easton, Pa. CIRCLE 226 ON READER SERVICE CARD

Underground sprinkler system uses fixed "Pop-up" heads, able to accommodate a wide range of nozzles, to alter the arc of the spray and supply proper water flow to lawn and garden. Constructed entirely of bronze and brass, the sprinkler heads are installed below the lawn surface to maintain a smooth uncluttered appearance. Precision-engineered parts and extra-heavy-weight nozzles and risers provide for absolute closing action and uninterrupted fine water distribution. Melnor, Moonachie, N.J.

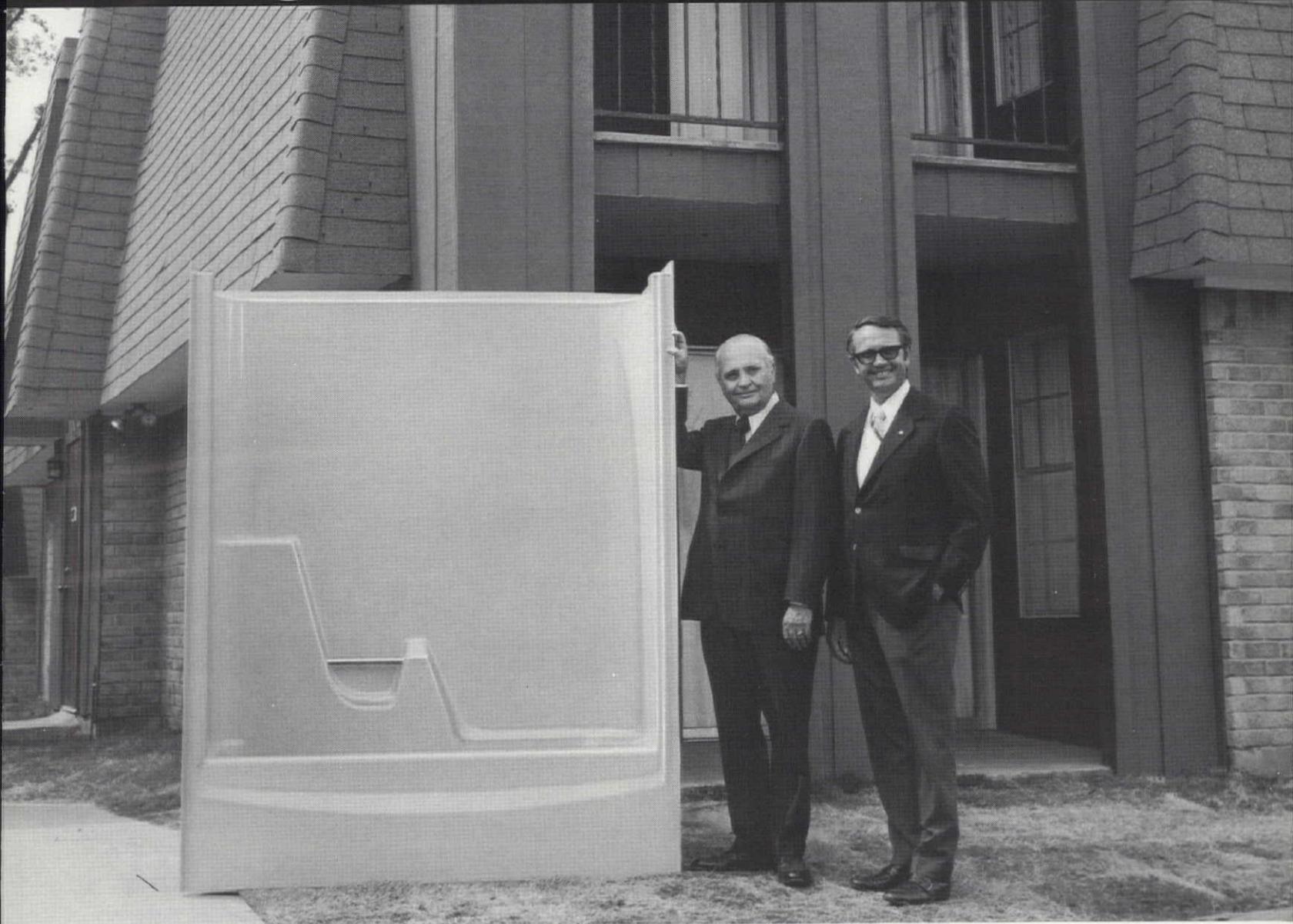
CIRCLE 227 ON READER SERVICE CARD



Automatic lawn sprinkler control system is wireless and has its own internal power source, an electronic impulse. The system, consisting of one command control unit and several relay controllers, can be set at 3 hr., 6 hr., 12 hr., 24 hr. and 48 hr. sequences for 1 to 60 min. watering cycles. Once main interval timer is set for desired sequence, system will continue, each relay activating the next, until watering is completed. System automatically reactivates itself according to prescribed program. Familion, Van Nuys, Calif.

CIRCLE 228 ON READER SERVICE CARD

The big boys go with the leader!



Leonhardts rate U/R fiberglass bath tops for looks, QC, track record.

Chester N. Leonhardt, Sr.—named “1971 Builder of the Year” by Greater Oklahoma City’s HBA—and son Chet are joint owners of Leonhardt Enterprises and big builders of apartments, as well as homes up to the \$250,000 class.

And in the 1,500 dwellings committed for 1972, father and son are installing the Universal-Rundle fiberglass bath exclusively. Reason: “Because of the unit’s excellent finish and U/R’s strict quality control, prompt service and splendid cooperation.”

The Leonhardts also note that the fast, easy installation of these one-piece U/R fiberglass tub/shower units saves time and greatly reduces costs—as compared to former installations of tub with ceramic tile surround. Both Senior and Junior

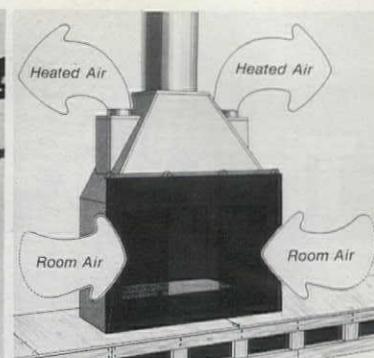
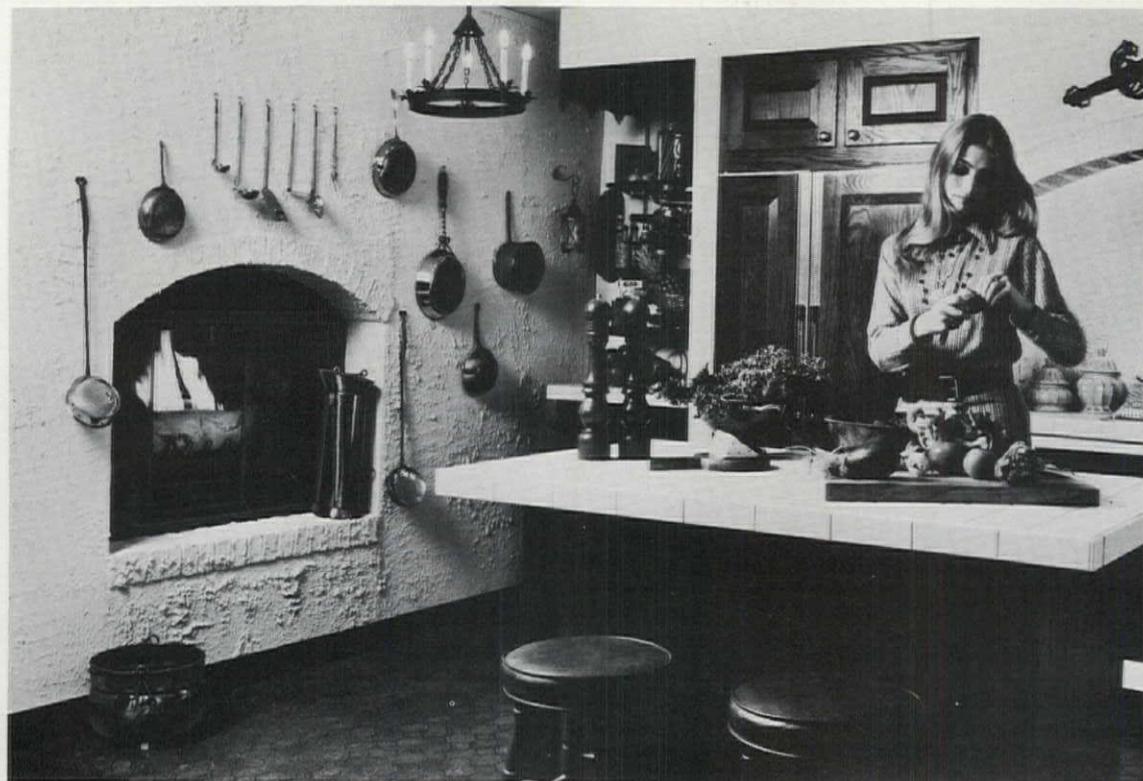
“prefer to do business with a financially sound company with a proven record of quality production.”

What can we add to that? Not much. Except that 72 other big builders agree!

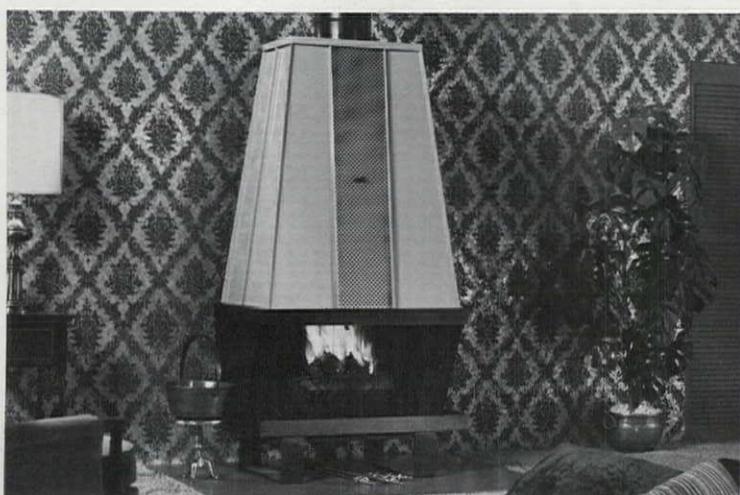
Go with the leader. Go U/R! Look us up in Sweet’s File 15.20/UN; check the Yellow Pages for your nearest U/R dealer; or write Universal-Rundle Corporation, New Castle, Pennsylvania 16103.



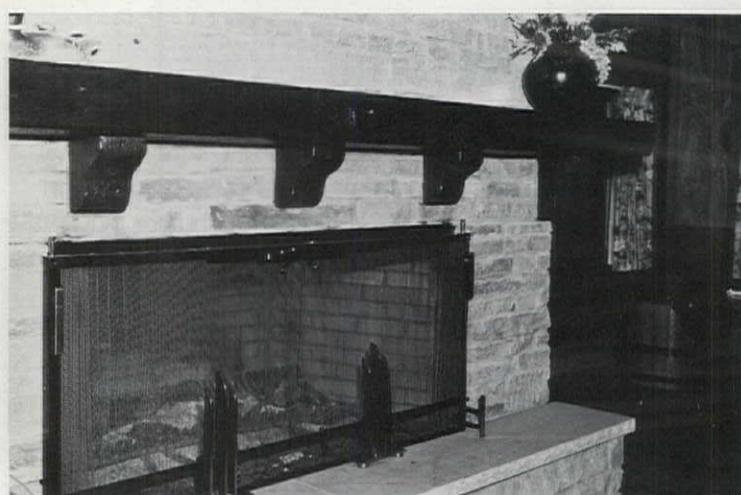
Universal-Rundle



Factory-built fireplace (above) is a controlled heat-circulating unit that requires no masonry foundation. It has zero-clearance and can be placed on a wood floor or against combustible materials. The unit draws air through intake vents, warms it and returns it to the room through warm air outlets. When heat isn't needed, the hot air can be sent up the flue. Unit, shown installed at left, comes in styles to match any decor. Heatilator div. Vega, Mt. Pleasant, Iowa.
CIRCLE 215 ON READER SERVICE CARD



A freestanding fireplace with insulated baffles, "Caribe" requires no clearance margin from the wall behind it. Warm air that usually escapes up the chimney is circulated throughout nearby rooms by small heat exchangers. Available in colors or black. Washington Stove Works, Everett, Wash.
CIRCLE 216 ON READER SERVICE CARD



Hand-carved wood mantels are cut from authentic antique beams no less than 50 years old. When carved, the juices of these woods rise to the surface forming a natural patina, making finishing or staining unnecessary. Mantels and knee braces are custom-made to specification. Decor Materials, Hortonville, Wis.
CIRCLE 217 ON READER SERVICE CARD

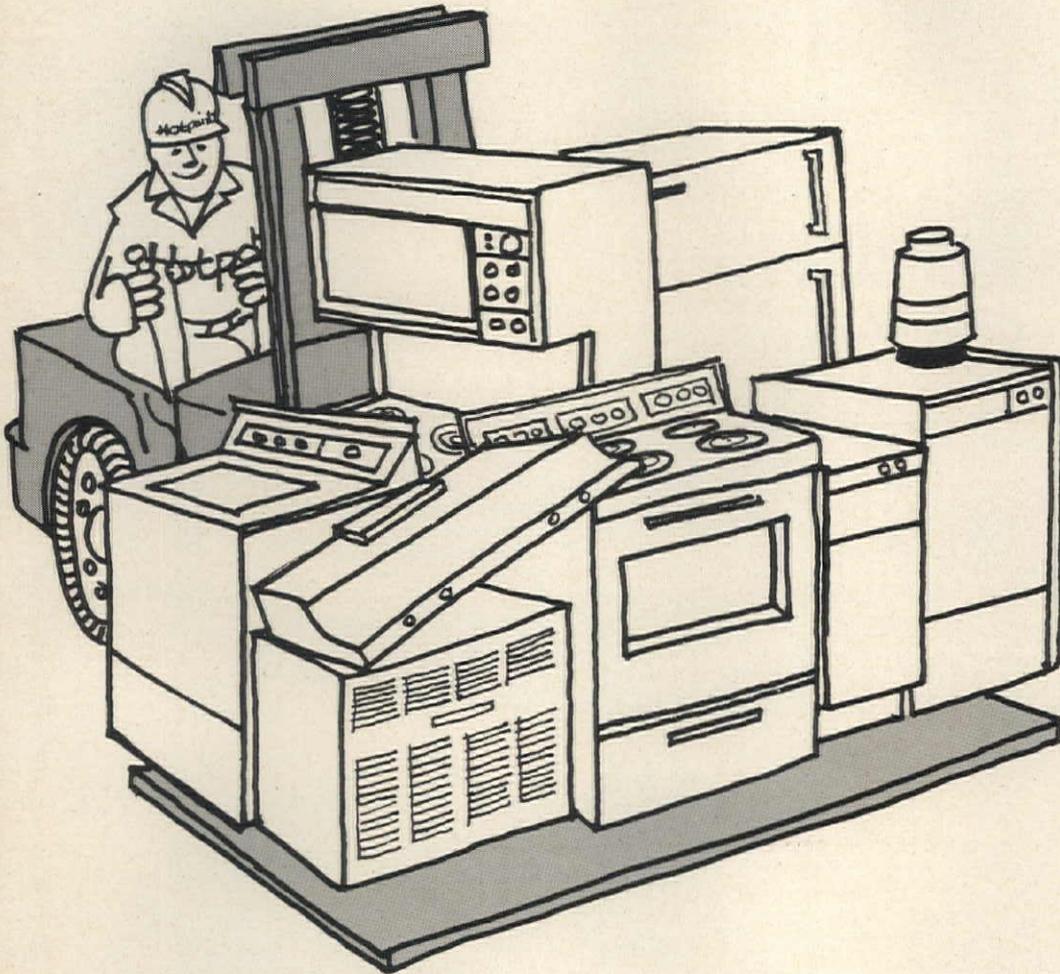


Pre-fab wood-burning fireplace system with zero clearance to combustibles has a companion masonry face and hearth set. Fireboxes have one-piece steel-reinforced cast refractories that will not break. Ashes and sparks are contained within the firebox by a special lip and an overlapping screen. Superior Fireplace, Fullerton, Calif.
CIRCLE 218 ON READER SERVICE CARD

Wood-burning "Franklin" fireplace adds an antique look to any room. The cast-iron unit is equipped with boot and damper and slide draft doors. Accessories available are a swing-away cooking pot and grill, a grate, a spark guard screen and decorative knobs and rails. Preway, Wisconsin Rapids, Wis.
CIRCLE 219 ON READER SERVICE CARD



Hotpoint Hustle: It's making your life easier by having every appliance you need.



You name it; Hotpoint makes it: refrigerators, ovens, dishwashers, air conditioners, ranges, hoods, disposers, compactors, washers and dryers.

We make them in every size and style your plans can call for. And here's what it all means for you:

You save time and trouble.

You don't have to shop from manufacturer to manufacturer to get the appliances you want. Hotpoint can bring you every appliance you need. And with our regional warehousing nationwide and factory-owned distribution, you'll find it a lot easier.

You uncomplicate delivery.

Because you buy all your appliances from a single source,

you've got just one delivery schedule to deal with. And with critical work schedules and construction deadlines, we know that's essential to you.

You can get a better deal.

From delivery to the smallest detail, we've got a very good reason to do more for you: we want all

your business. And that's why with Hotpoint supplying all your appliances you'll find a commitment to your project you won't get when several manufacturers each bring you part of your appliance order.

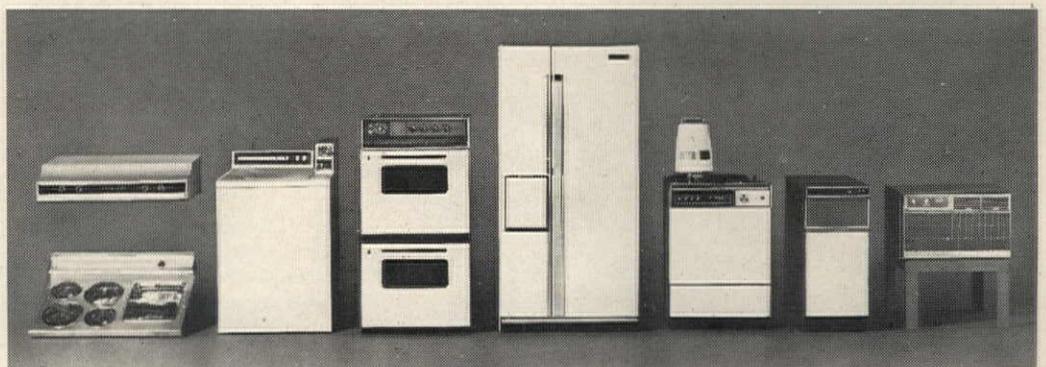
Your Hotpoint builder representative wants to tell you more about the full line of appliances he can provide you with. And besides appliances, there are a lot of extras he can offer you. Like merchandising assistance and kitchen design service.

He'll also tell you about the largest company-owned, company-trained service organization of any manufacturer in the business.

It all adds up to even better appliances and services for you and your customers.

Call your Hotpoint builder representative. And watch him come running.

Hotpoint. The difference is hustle.



Hotpoint
A QUALITY PRODUCT OF GENERAL ELECTRIC COMPANY



Modular bath cabinetry is designed for total space utilization. Units for base and wall installation can be combined in a number of arrangements to accommodate large or small rooms. The line, including

dressing tables and linen cabinets and a tilt-out hamper of anodized aluminum, has antique white panels framed in off-white. Nutone div. Scovill, Cincinnati, Ohio.

CIRCLE 200 ON READER SERVICE CARD



One-piece molded shower module seats two comfortably. The large 36"x60" unit has two integral sculptured seats and soap ledges. Offered in five colors—white, bone, bayberry, gold and avocado—the shower

is made of a fire retardent compound, "Corlglass". Easy to install units are available in smaller 36"x48" versions and also in 60" bath tubs. Corl, Bremen, Ind.

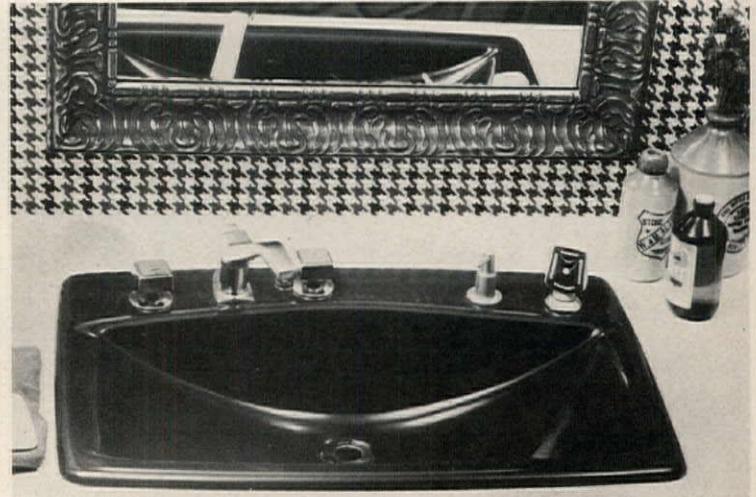
CIRCLE 201 ON READER SERVICE CARD



Marble-like acrylic vanity top with integral bowl is vacuum formed from a single acrylic sheet nearly 1/10" thick and rigidized on the underside with fiber glass reinforced

resin. Offered in six color combinations, the oval bowl features a single-handle faucet. Bradley Wash-fountain, Menomonee Falls, Wis.

CIRCLE 202 ON READER SERVICE CARD



A cast-iron lavatory, designed specifically for the man, has a deep 28"x19" basin for more splashing room. Fittings have interchangeable faucet inserts of teak, ebony or

white. The unit features a swing-away spout, a man-sized shampoo spray and a built-in soap or lotion dispenser. Kohler, Kohler, Wis.

CIRCLE 203 ON READER SERVICE CARD

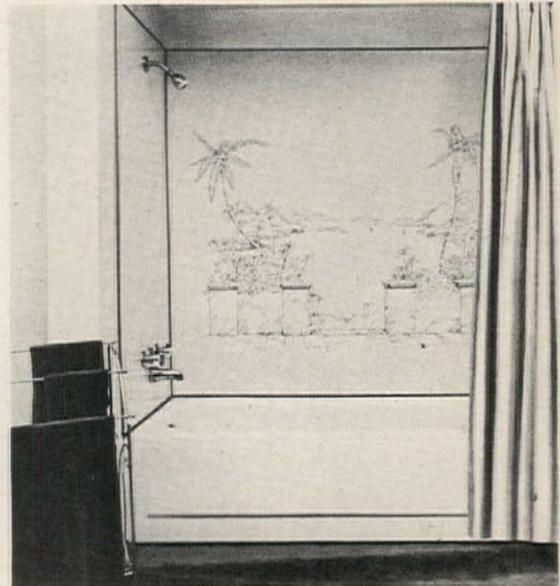


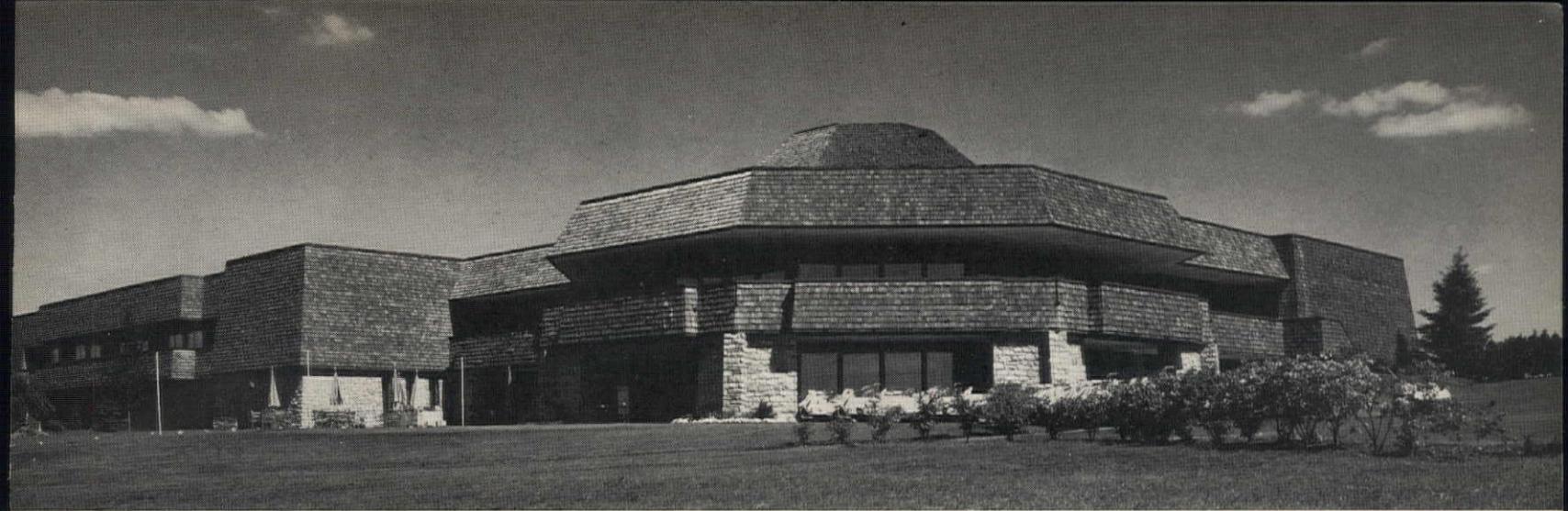
Porcelain enamel mosaic tiles, "Dresden", provide an elegant background for bathing. Tiles in 1"x1", 2"x1" and 2"x2" sizes are available in 28 colors ranging from muted to bright. The mosaics can be used throughout the bathroom or as a complement to other wallcoverings. U.S. Ceramic Tile, Canton, Ohio.

CIRCLE 204 ON READER SERVICE CARD

Mural tub decoration package, "Tropical Lagoon" is designed for a standard 5' tub area. Included are a 5'x5' back panel, two 2 1/2'x5' side panels—all precut with a moisture-proof baked-on melamine finish—and matching moldings. The mural, a gold rendering, is silk-screened onto the back panel. AFCO, Houston, Tex.

CIRCLE 205 ON READER SERVICE CARD





Red cedar shakes fit a country club into the countryside.



*Hershey Country Club, Hershey, Pennsylvania. Certi-Split No. 1 Handsplit / Resawn Shakes; 18" x 3/4" to 1 1/4".
Architects: Richard E. Martin AIA and Associates. Builder: M. L. Haldman & Son, Inc.*

An appealing display of texture helps this Pennsylvania country club complement the natural beauty of its rustic site. Rich-looking mansards of red cedar handsplit shakes blend with stone surfaces for an overall effect of strength and warmth.

Still, the selection of red cedar

was based on more than aesthetics. An essential design requirement was for low maintenance. Cedar meets it. These handsplit shakes will remain maintenance-free for decades, even when left to weather naturally. And they'll withstand hurricane winds.

Put the beauty and durability of

red cedar to work for you. But insist on the real thing: Certi-Split handsplit shakes or Certigrade shingles. They're worth it.

For details and money-saving application tips, write: 5510 White Building, Seattle, Washington 98101. (In Canada: 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.



Jumbo saunas with 80 sq. ft. of floor space can accommodate 15 people sitting down. Interior walls, ceilings, floors, benches and heater fence are constructed of kiln-dried redwood. Exterior is laminated fir plywood. A polyurethane foam bond between the exterior and interior

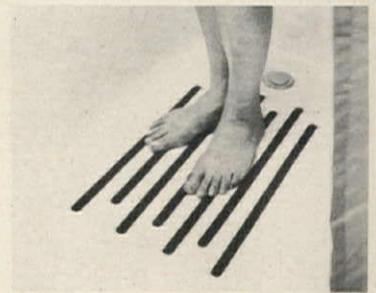
shells insulates as well as strengthens. An exterior control panel with an automatic timing device and thermostat operates the 9KW, 240V, 36-amp heater. Unit is equipped with vapor-proof interior light. Amfinn Sauna, Camden, N.J.
CIRCLE 206 ON READER SERVICE CARD



Two-way whirlpool bath with three massage heads can be used while facing either direction in the contour tub. Two fully adjustable inlets are recessed at the sides of the tub,

and the third is centered at one end. All piping is contained within the 3'x6' tub module for easy installation. Jacuzzi, Berkeley, Calif.
CIRCLE 209 ON READER SERVICE CARD

Colorful non-slip treads are excellent safety features in bathrooms, tubs, locker rooms, showers and around pools. The self-adhesive non-slip surfacing material is offered in pre-cut 3/4"x17" strips, 6"x24" cleats and in 60' rolls in widths ranging from 1" to 36". Any shape can be die- or scissor-cut from roll material. 3M, St. Paul, Minn.
CIRCLE 211 ON READER SERVICE CARD

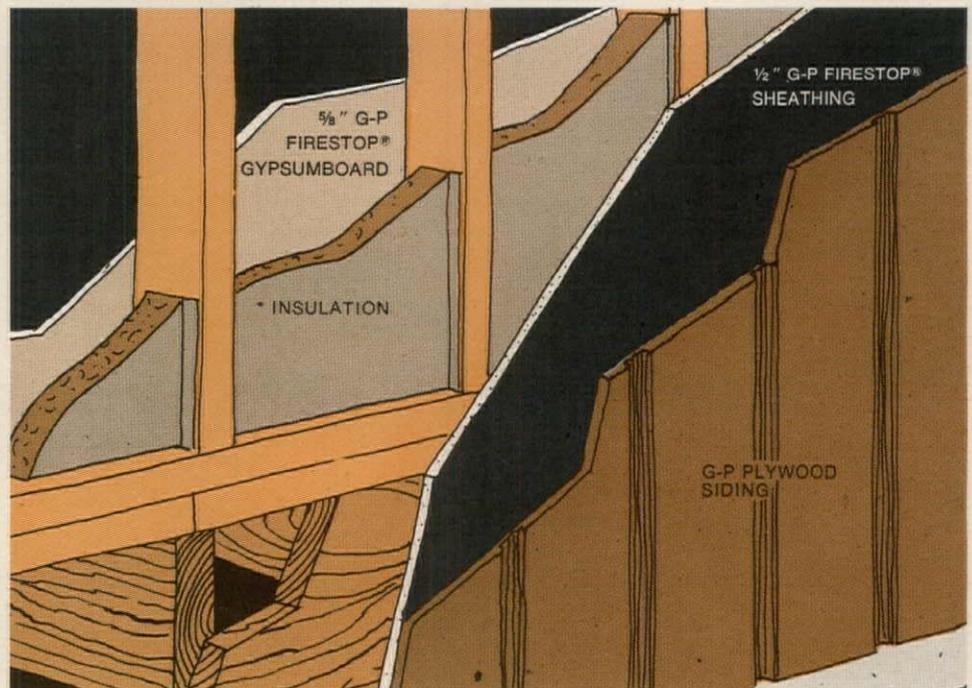


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Fire control doesn't have to be expensive. Not when you use G-P's FIRESTOP®. It gives you a one-hour fire rating in exterior walls. 5/8" FIRESTOP® gypsumboard is applied over wood studs with insulation. And then on the outside wall, 1/2" FIRESTOP® sheathing is attached and covered with 3/8" (or 5/8") G-P plywood siding.

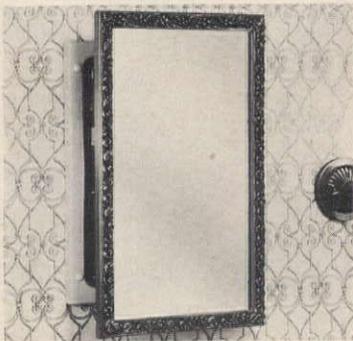


* INSULATION NOT REQUIRED TO MEET FIRE RATINGS

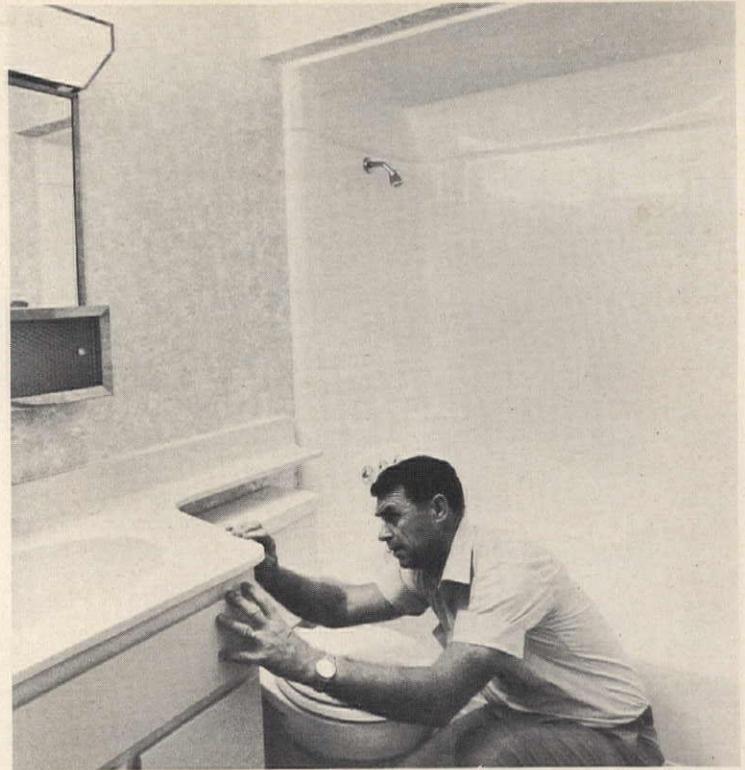


Rigid tub enclosure of tempered safety-guard glass in a translucent ripple pattern has a frame and towel rack of anodized aluminum. The top track interlocks with wall jambs

to prevent dislodgement. Door, with two inside handles, slides easily on nylon ball bearings. Kinkead div. U.S. Gypsum, Chicago. CIRCLE 208 ON READER SERVICE CARD



Mirrored medicine cabinet for the bath has a swing open door with a burnished gold-looking frame. One-piece all-steel 15 $\frac{7}{8}$ "-wide 23 $\frac{7}{8}$ "-high, 5 $\frac{3}{4}$ "-deep cabinet has a baked enamel finish, two adjustable glass shelves and a blade drop. Mirrors are plate/float glass, guaranteed against silver deterioration for five years. Matching wall lights are also available. Miami-Carey div. Panacron, Monroe, Ohio. CIRCLE 210 ON READER SERVICE CARD



Pre-fab bathroom-kitchen modules are equipped with domed unitized tub-showers of PPG's "Selectron" polyester resin reinforced with fiber glass. Lavatory tops and molded sinks are cast of the same material. Modules, which are constructed by

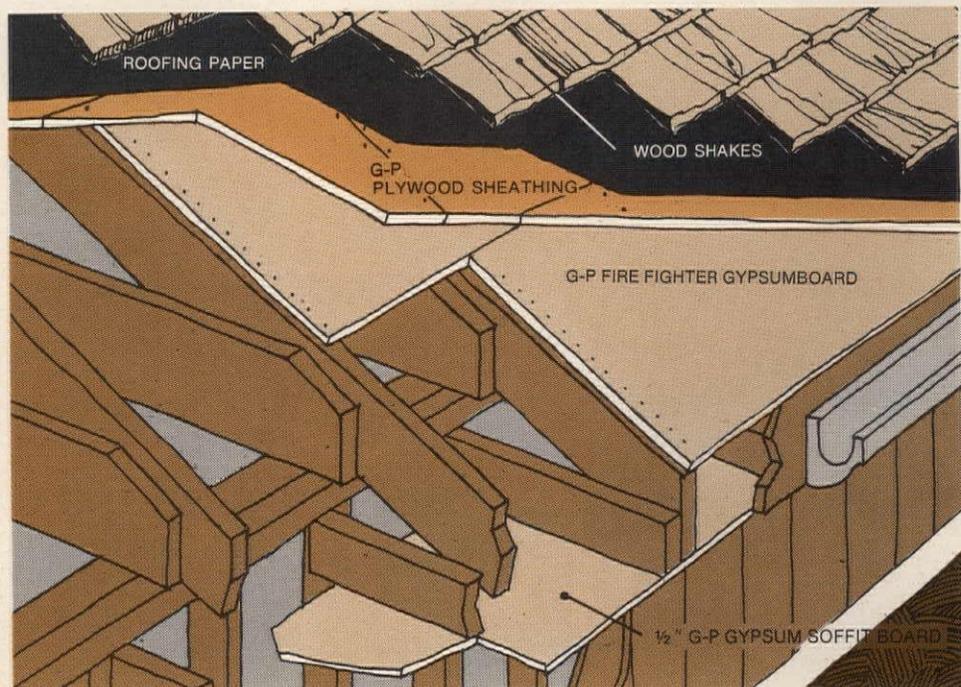
assembly-line techniques, are factory inspected (*above*) before they are shipped to the building site. Only on-the-job utility hook-up is needed to make units usable. American Superior, Temecula, Calif. CIRCLE 207 ON READER SERVICE CARD

to economical fire and low-rise construction.

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



Yes! G-P's new Fire Fighter gypsumboard gives you excellent fire protection for roof construction. It's $\frac{1}{2}$ " thick gypsumboard with a fire resistant core and special paper that is easily placed over the rafters. Solid plywood or strip sheathing is laid over it. Then put up a wood shake or any other kind of roof you want. And Fire Fighter gypsumboard will prevent flames from burning through the roof structure.



Georgia-Pacific

GYPSUM DIVISION, Portland, Ore. 97204

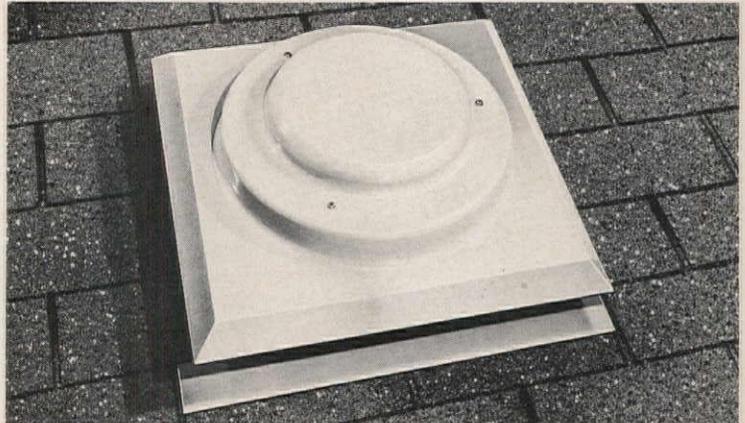
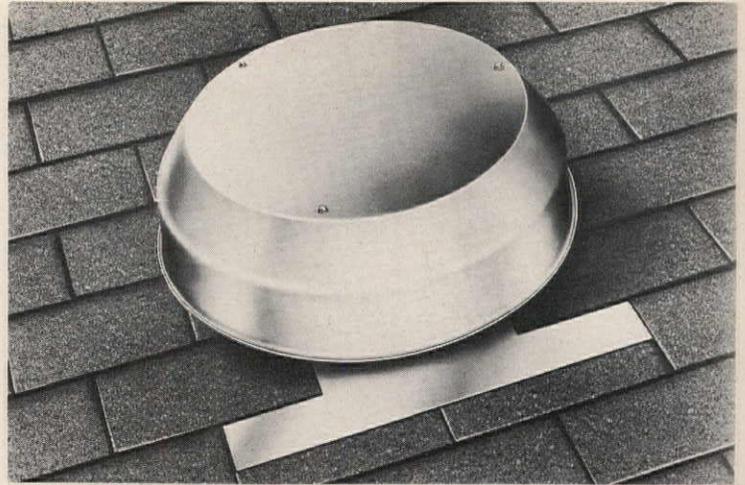




Compact cooling and heating unit provides a room with individually controlled temperature and comfort conditions. Requiring no ductwork or other special equipment,

the unit can be mounted flush with the outside wall, extending inside only 8". Friedrich Refrigerators, San Antonio, Tex.

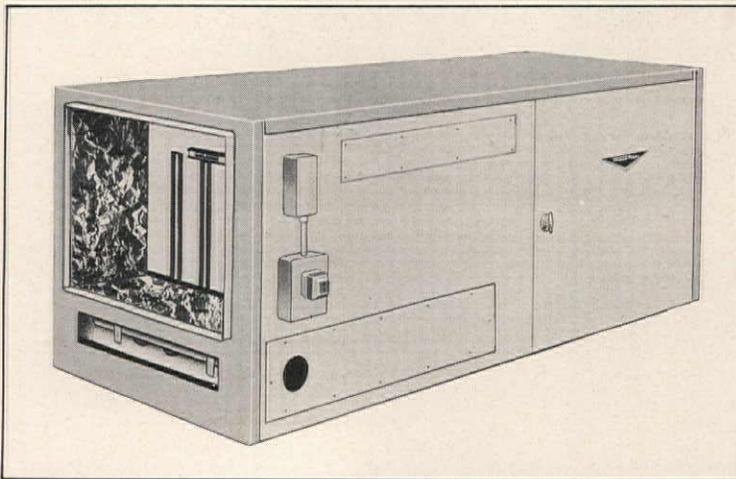
CIRCLE 237 ON READER SERVICE CARD



Attic cooling fans can be mounted on either pitched or flat roofs. The 9"-high economy model is capable of ventilating a 7,500-cu.-ft. area while the 11 $\frac{7}{8}$ "-high deluxe unit

cools up to 10,000 cu. ft. Both fans have automatically controlled thermostats preset to go on at 110°.

Nutone, Cincinnati, Ohio.
CIRCLE 249 ON READER SERVICE CARD



Horizontal gas furnace has reversible (right or left) draft hood and gas piping so that the duct system need not be changed to accommodate the unit. The fully as-

sembled furnace features a steel heat exchanger with a lifetime guaranty and a safety shut-off. Thermo-Products, North Judson, Ind.

CIRCLE 236 ON READER SERVICE CARD



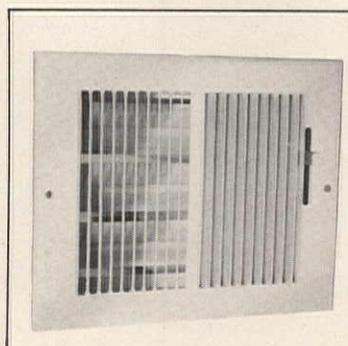
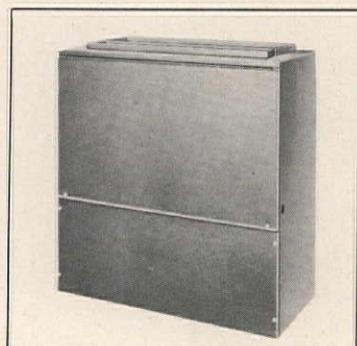
Power ventilator, installed with soft-fit vents, reduces attic temperature 50° or more to keep the home cooler, reduce air conditioner load and eliminate condensation problems.

The automatic, low-silhouette unit is thermostatically controlled so that fan runs only when needed.

Leslie-Locke, Lodi, Ohio.
CIRCLE 238 ON READER SERVICE CARD

Electric heating/cooling system can be installed in upflow, downflow or horizontal positions. The compact unit is available two ways: with an empty cooling coil module for air conditioning to be added later or with a factory-installed coil and condensing unit. A total of 20 heating/cooling combinations are offered, many in low capacities for small apartments. McGraw-Edison, Albion, Mich.

CIRCLE 248 ON READER SERVICE CARD



Diffusers for side-walls, baseboards and ceilings are coated with a stain-resistant double-reinforced baked-on polyester. Offered only in a neutral "chameleon white", the unit blends with any decor and helps to solve inventory problems. Additional painting is not necessary. But the semigloss surface readily accepts paint when a specific color match is desired. Standard Stamping and Perforating, Chicago, Ill.

CIRCLE 247 ON READER SERVICE CARD

"Building Scholz Homes doesn't save us money. But it sure does make us money."



Harold J. Moyer and his SALEM "A" at Riverbay Estates, Chathamport Cape Cod.

That's Harold Moyer talking.

Harold is President of Cape Investors, Inc. in Harwich, Massachusetts. He's been in the business for twenty years, and during that time he's been responsible for building over 750 custom houses in ten different developments.

Five years ago, he became aware of Scholz Homes. And now that's all he builds. Because "with Scholz, we can build 15 homes with less labor and less headaches than building 10 conventional homes. So our return on investment is much greater, and our cash flow position is much better."

Harold has a 4-part formula for being a successful builder:

- 1) Build a Scholz model at the entrance of the development,
- 2) Staff the model with good sales people,
- 3) Run ads on the development,
- 4) Most importantly, furnish and landscape the model.

Stella Dery, Sales Manager of Cape Investors, Inc. Mrs. Dery has been amazed by public acceptance of the Scholz name.



A simple formula. But it works! Harold plans to build thirty Scholz custom homes this year as part of our Builder Program. And he's also going to start building Scholz luxury townhouses.

He's completely sold on our design and engineering, our quality of materials, our service.

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In return, he'll send you information on our Builder Program. It won't show you how to save more.

Just how to make more.

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Tell me how to make more. Send free information on the Scholz Homes Builder Program.

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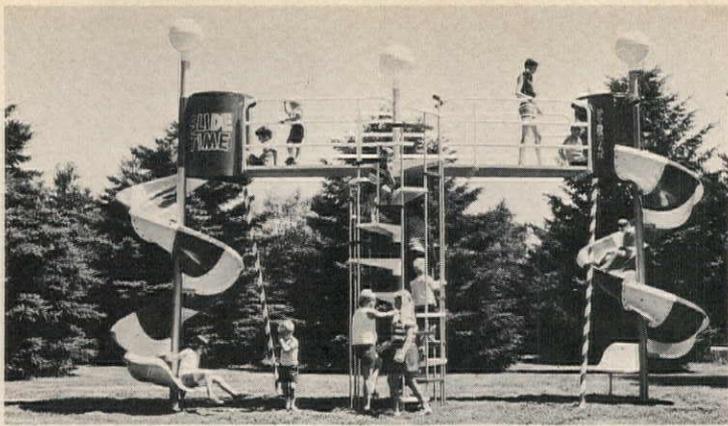
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CIRCLE 70 ON READER SERVICE CARD

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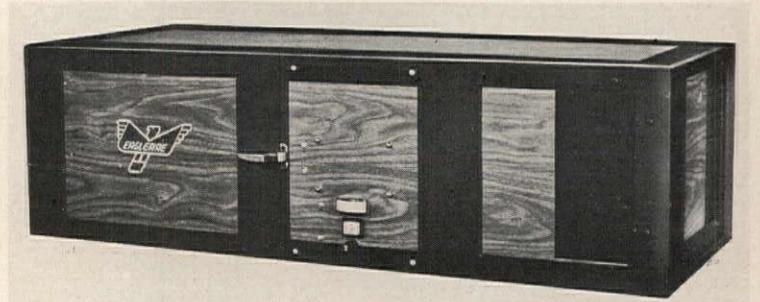
PRODUCTS/ENVIRONMENTAL



Trash compactor that reduces waste to less than 1/4 its normal volume can be installed as a freestanding or a built-in unit. When freestanding, it includes a vinyl top and acrylic enamel side panels for a

finished appearance. Safety features include a key lock to prevent accidental starting by children. The unit cannot be operated when door is open. Tappan, Mansfield, Ohio.

CIRCLE 259 ON READER SERVICE CARD



Electronic air cleaner removes dust, pollen, mold, grease and odors such as cooking smells and tobacco fumes. The unit, mounted on the wall in an out-of-the-way location, attains 96.5% effectiveness accord-

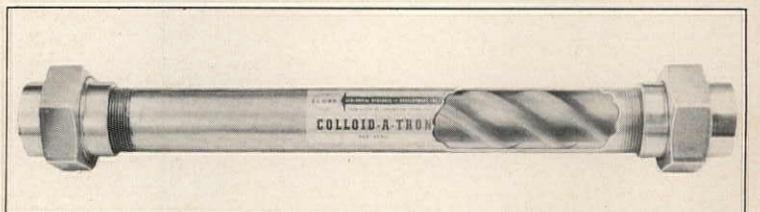
ing to the National Bureau of Standards tests. Air remains clean without the need for continuous replenishment from the outside. Eagleaire, St. Louis Park, Minn.

CIRCLE 268 ON READER SERVICE CARD



Water-powered compactor crushes trash to 1/5 its original size. Designed for use in homes, garden apartments, etc., it operates on existing water pressure taken from any standard cold water supply. The compactor is quiet in operation, offers more force at a higher speed and has fewer moving parts than its electric counterpart. The 15"-wide, 34"-high, 23"-deep unit can be used freestanding or under counter. International Pollution Controls Corp., East Paterson, N.J.

CIRCLE 269 ON READER SERVICE CARD



Anti-corrosion device rids water and fluid systems of corrosion, rust and pollution. Installed in the water make-up line, the device contains a reactive element which provides a synthetic nucleus to which non-

organic materials are attracted and kept in suspension. This solves basic pollution problems without altering chemistry of the fluid. Ecord, Los Angeles.

CIRCLE 270 ON READER SERVICE CARD



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ABOVE-FLOOR DWV FITTINGS



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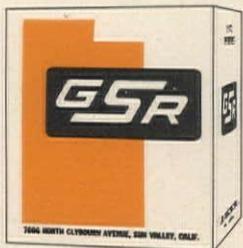
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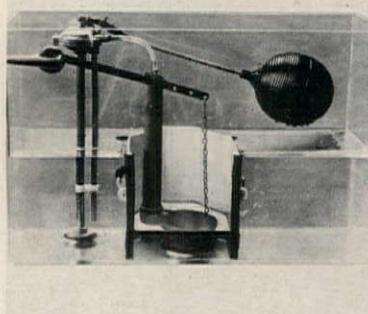
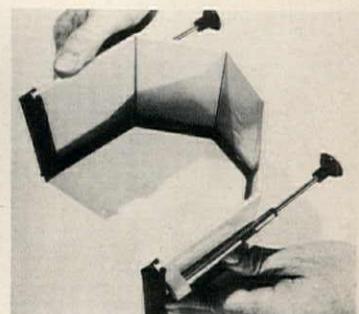
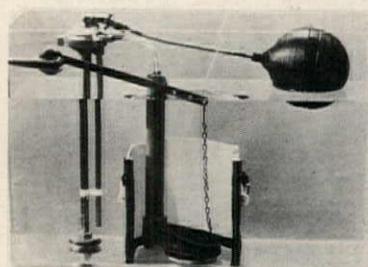
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CIRCLE 71 ON READER SERVICE CARD



Trash compactor, which is available freestanding or built-in, has a basket design to allow for easy removal of compacted waste. When the refuse builds up, a scissor-type ram mechanism goes through its com-

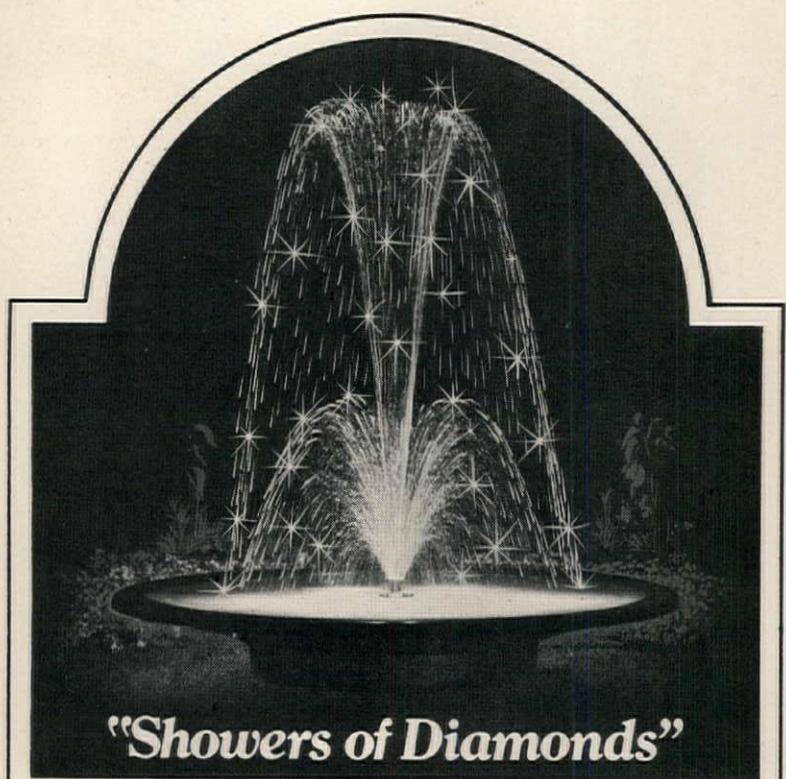
paction cycle reducing waste to 22% of its original bulk and stopping automatically. The basket of trash can then be carried outside for disposal. In-Sink-Erator, Racine, Wis. CIRCLE 271 ON READER SERVICE CARD



Water saver reduces up to 50% of the fresh water used in flushing standard vertical tank toilets. This saving also means a reduction of the load going into septic tanks and sewage disposal plants. The plastic device is placed in the tank and held in position by two suction darts. It channels the flow to provide the standard flushing force using only the top three or four inches of water. MVM, New York City. CIRCLE 272 ON READER SERVICE CARD



Trash compactor, into which bottles, cans and all the usual kitchen refuse may be discarded, is activated by turning a key when a full load of trash is accumulated. The compactor holds a week's worth of garbage from a family of four and includes an automatic deodorizer and disinfectant spray which works when the drawer is closed. Waste is reduced to ¼ its bulk. General Electric, Louisville, Ky. CIRCLE 273 ON READER SERVICE CARD



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CIRCLE 134 ON READER SERVICE CARD