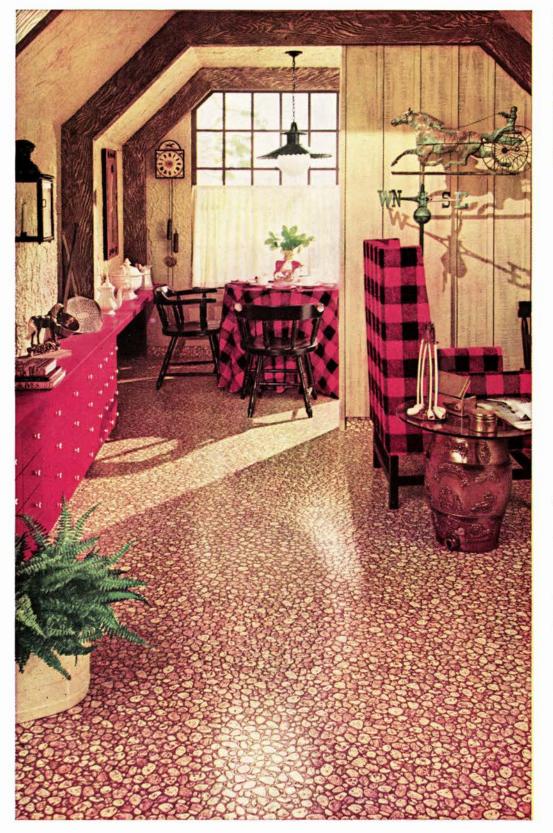




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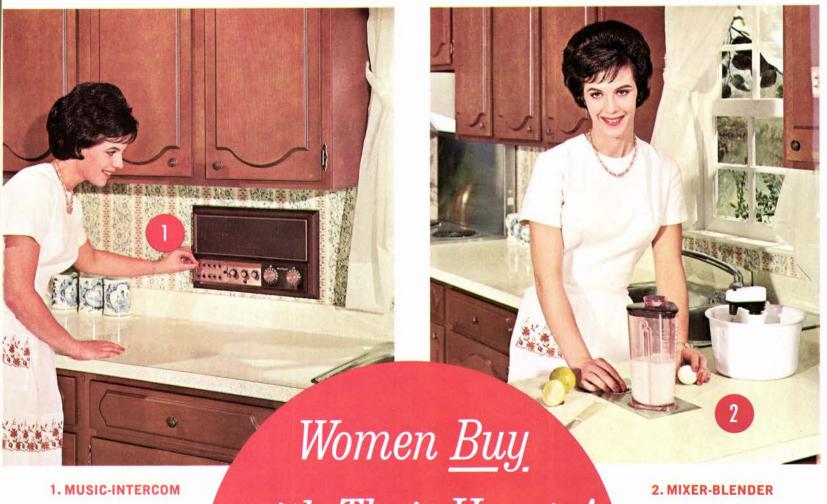
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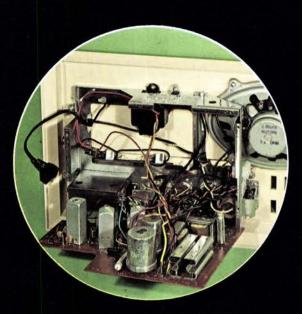


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EDITORIAL

Builders think the mobile home is one of their worst enemies. But it could be a valuable guide to some new markets

MARKETS

Stronger backing could make rehab a major part of housing within five years. A close look at three cities shows how builders can make it work

Their treacherous market can be controlled, say five veterans who have managed to stay in it an average of 15 years

DESIGN

Nine ideas for designing entrances......92 A portfolio of plans and photos suggests ways to handle problem sites, add extras-like pools-and improve on traditional treatments

MARKETING

You can always find one merchandising idea that will set your project apart. Ad Man Marvin Gerstin has done it a thousand times in 12 years

TECHNOLOGY

Concrete fabricators eye the housing market as more and more architects experiment with precast components. New systems suggest trends to come

NEWS

Johnson housing program sails through both houses..........5 Also: Congress creates a cabinet post for housing . . . Rent supplement plan triumphs . . . U.S. will help develop suburban land . . . Housing for midincome and elderly tenants wins 3% interest rate . . . FHA orders underground wiring in new subdivisions . . . Housing rides toward a big second half in sales . . . Complete NEWS index on p. 5.

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Cover: A restored house in Philadelphia's historic Society Hill section. Photo: Lawrence S. Williams. For story see p. 82.

NEXT MONTH

Eight award-winning built-for-sale houses from the Homes for Better Living program . . . 40 housing leaders take a critical look at today's design . . . short-hand technique foretells feasibility of apartment proposals



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WASHINGTON INSIDE

Plug-in rehabilitation

HHFA is putting up \$390,000 to see if prefabricated room units can be dropped inside gutted tenements in New York City.

Streamlined renewal

Congress used the housing bill to tell HHFA Administrator Robert Weaver to give "real priority" to cutting urban renewal red tape. He must also report in two years on alternate ways to spur renewal.

"Administrative procedures have possibly proliferated beyond the point of maximum return," observed the Senate banking committee in a remarkable understate-

New look at taxes, codes Congress also told Weaver to "examine the effects of zoning and land use laws and regulations on housing and development patterns and costs." The legislators want to take a new look at the effect of depreciation allowances on property owners, property taxes for vacant land and local assessments of slum properties.

Building merger kayo Internal Revenue agents have refused to approve the proposed Lusk Corp. merger into Kaufman & Broad Building Co. as a tax-free exchange of stock. As a result the two Western builders have decided they can continue to operate independently and will soon call off their merger (News, Feb.).

Builder Ike Jacobs dies

Ike P. Jacobs, 45, whose merchandising and management ideas set the pace for numerous builders across the country, died July 14 in Dallas. He had been ill for several months.

Jacobs and Dave Fox Jr. teamed in 1949 to form Fox & Jacobs Construction Co., which was selling \$10 million worth of homes a year by 1963. Fox & Jacobs copyrighted "A Flair for Living" to symbolize its product, won five national awards for distinctive and progressive building and pioneered the sound-conditioned house. Jacobs was a member of the NAHB Research Institute and headed the association's management committee in 1964.

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LBJ housing plans pass Congress as Republican opposition falters

In rapid sequence the House last month passed President Johnson's two major housing proposals, a \$6 billion housing bill and a bill elevating HHFA to a cabinetlevel Housing and Urban Development Dept. The Senate quickly passed a housing bill not much different from the House version, thus all but readying the 1965 Housing Act for the President's signature.

House Republicans aimed a volley of criticism at the housing bill's plan to pay rent supplements to families with sub-standard incomes. But after the President telephoned 30 key Congressmen for their support, the rent-aid plan, revised to meet some of the criticism, passed the House by six votes. One of the plan's basic ideas to let homebuilders compete with public agencies in sheltering the poor (p. 6)—is the first fundamental change in low-income housing policy in 28 years.

Other housing-bill proposals assured of final passage:

- FHA insurance of land development loans (News, July).
- No-down-payment loans to veterans by FHA (see p. 6).
- A low 3% interest rate for subsidized mortgages for housing for middle-income and elderly families (see p. 8).
- New federal grants to pay half the cost of water and sewer lines to open suburban land to development (see p. 8).

But the measure carrying the longest-range impact for housing is the President's proposal of a cabinet-level housing department.

Cabinet post for housing—at last

After 46 defeats over 13 years, a bill to elevate housing to cabinet status finally cleared one branch of Congress last month.

By a 33-vote margin (217 to 184), the House approved President Johnson's bill to upgrade HHFA to a Housing and Urban Development Dept., the 11th cabinet-level agency. Now the proposal is poised for passage by the Senate.

Final approval of the new department seems certain, since opposition in the House was the biggest single obstacle in Congress this year. Republicans had singled it out for a major test of Administration strength. They backed a "positive alternate" of setting up a White House Office of Community Development as a one-stop shopping center for local officials seeking federal aid. But the House tossed this aside by a 259 to 141 margin.

New line-up. The new department, already dubbed HUD by Washington's alphabeteers, will start functioning 90 days after President Johnson signs the bill. It will be headed by a Secretary of Housing and Urban Development. And HHFA Administrator Robert Weaver is expected to get the \$35,000-a-year job-and to become the first Negro in a Presidential cabinet. Southern opposition to Weaver helped kill a similar cabinet proposal in 1962, but since then Weaver has so impressed Washington with his administrative skill that this opposition has faded.

The secretary will be aided by an undersecretary and five assistant secretaries. Current Washington speculation puts Weaver's deputy, Milton Semer, in the department's No. 2 spot. Some circles are pressing for

a big-city mayor in this spot. Possible candidates: New Haven's Richard Lee, Milwaukee's Henry Maier and Philadelphia's former mayor, Richardson Dilworth.

The House bill requires that one assistant secretary oversee the private mortgage market or, in effect, head the Federal Housing Administration. Present Administration thinking is to combine suburbantype aids (water and sewer grants, openspace grants and planning grants) under a second assistant secretary and center-city aids (public housing and urban renewal) under a third. Duties of the fourth assistant are not yet firm. And the fifth-the assistant secretary for administration-will handle budgets and personnel.

FHA's role. There will still be an FHA. In fact, its leadership by an assistant department secretary will raise its status in status-conscious Washington. But powers formerly exercised by the FHA commissioner will be transferred to the housing secretary. Among them: the approval or disapproval of insurance commitments, insurance claims and hiring of personnel, including FHA's 75 district directors. Until now FHA commissioners have had the authority to ignore policy directives of the ннға administrator.

An amendment by Rep. John N. Erlenborn (R., Ill.) to keep FHA independent by transferring it intact into the new department was defeated, 153 to 101, when Administration supporters argued the bill upgraded FHA.

The first four assistants will be appointed by the President with Senate confirmation. The fifth will be named from the Civil

Why Congress turned to rent aids to house the poor

President Johnson's pioneering rent-supplement program takes private builders into the business of housing families with substandard incomes. It is the first alternative to public housing since that controversial program began in 1937.

Congress bought the new \$150-million, 375,000 rent-aid plan in the face of powerful opposition that put public housing officials in league with Realtors, bankers and some builders.

"Fantastic . . . ridiculous . . . absurd," raged Republicans of the House banking and currency committee minority. "The President has been sold a bill of goods." But the odds were too strong.

Counterattack. What Sen. Paul H. Douglas (D., Ill.) called the "failure of public housing" was too well documented.

"The early interest and dynamic drive in this [public housing] movement have more or less evaporated," said Douglas, who led the Administration's campaign. "Public housing is having less and less impact on the slum dweller in large cities, where new projects have been cut to a



"But, who will pay the rent?"

"He will pay

foiled again"

trickle." Main cause: lack of sites acceptable to neighborhoods and officials.

Douglas had data to show the slowdown: 100,000 units authorized but not built, only 40,000 now under construction.

Groundswell. The demand for somehing new was taken up by the press see cartoon). The Washington Post editoralized:

"The old guard administrators of public housing who oppose rent subsidies because they intrude upon their long-standing monopoly have scarcely displayed the compassion and disinterestedness of those dedicated to aiding low-income families."

Lease on life. But even as Congress approved rent supplements as a substitute for public housing, legislators told public housing to expand by stressing rehabilitation of older housing.

They gave public housing power to lease or buy 100,000 units of existing housing over the next four years for low-income use. In Philadelphia, public housing officials are trying to see if builders can provide these rehabilitated houses in blocks of 20 to 100 houses.

Too, Congress told public housing men to build 35,000 new units yearly—if they can. Since 1961 they have been able to start only 25,000 units a year.

How rent aids let builders compete with public housing

The housing bill's new rent-supplement construction program puts the initiative largely in the hands of the nation's home-builders. The aid to private builders is so far-reaching that Congressional critics called it "a contractor's windfali."

Builders who have become familiar with the red tape involved in processing and building Sec. 221d3 projects with submarket interest-rate loans will have a head start when undertaking rent supplement jobs with 51/4 % market-rate d3 loans.

Builders can profit in two ways from rent aids: 1) by making a profit on the construction job itself, and 2) by getting a yield on money tied up in a sponsoring limited-dividend corporation much quicker than with other projects.

Who can apply. A builder, through a sponsoring group, a co-op or his own lin ited-dividend corporation, proposes a garden apartment or townhouse to FHA under d3. Limited-dividend mortgagors can get mortgages up to 90% of replacement costs; nonprofit sponsors can get 100% loans.

High-rise buildings must be built within low-rise cost limits.

All supplemented projects will carry full FHA 51/4 % mortgages. But they must be built within the much lower mortgage

limits for subsidized d3 projects. In effect this means sponsors must charge higher rents for units with fewer amenities than other FHA apartments.

Here are loan limits in key cities for nonprofit and limited-dividend sponsors:

CITY	NONE	PROFIT	LIMIT	ED DIV.
	0-BR	3-BR	0-BR	3-BR
Atlanta	\$7,700	\$16,450	\$6,950	\$14,800
Chicago	9,700	20,850	8,750	18,750
Cleveland	8,850	19,000	7,950	17,100
Denver	7,700	16,550	6,950	14,900
Detroit	8,350	17,850	7,500	16,050
Houston	7,850	16,850	7,050	15,150
Los Angeles		20,000	8,400	18,000
Miami	7,100	15,250	6,400	13,750
Minneapolis	8,800	18,800	7,900	16,900
New York	9,250	19,850	8,350	17,850
San Francisco	9,400	20,100	8,450	18,100
Washington		20.350	8.550	18,300

Economic mixing. The sponsor must agree to set aside a certain percentage of his units for tenants who qualify for rent supplements.

FHA regulations won't require that all units be supplemented; nor will they require that some nonaided units be planned. Behind the law's vague language is the intent to achieve as much economic mixing as possible.

Management toughie. This economic mixing will make a rent-supplemented project more complicated to manage, HHFA men expect. They predict many builders will utilize church or community-action

groups to aid in selecting and working with tenants. To qualify, tenants must be 1) displaced by public activity, 2) elderly, 3) handicapped, 4) housed in substandard dwellings, or 5) victims of a natural disparent.

Also, only those with incomes below public-housing limits can qualify to receive rent supplements. These income limits vary from city to city.

The HHFA administrator (or Housing Secretary when that post becomes official) must certify persons qualified to receive rent supplements. The job will be delegated to FHA.

Project managers may reject eligible families for bad credit ratings and similar

Once certified, the family will pay onefourth of its income for rent to the manager. HHFA will pay the apartment owner whatever is needed to meet full rent.

For instance, full rent may be \$100 a month for an apartment. A family earning \$3,000 annually (or \$250 monthly) would pay \$62.50 monthly rent, and HHFA would pay the \$37.50 difference.

Townhouses can be rented initially under contracts calling for sale of the units to occupants when their incomes rise enough to support full mortgage payments.

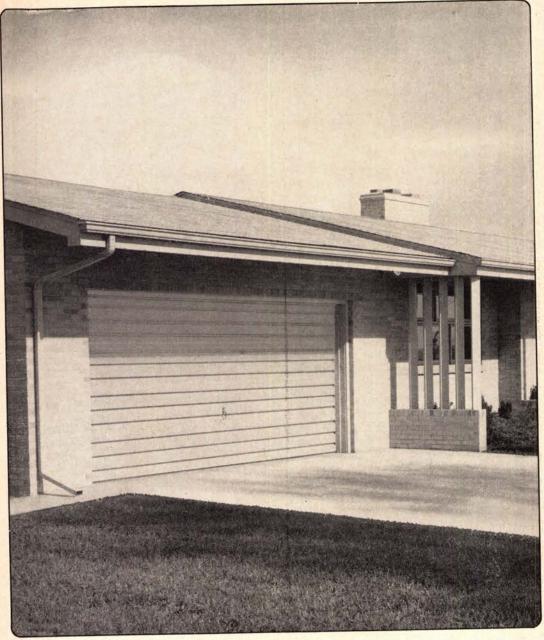
No-down-payment FHA loans for vets pass both houses

The Senate agreed to a House plan to let FHA insure no-down-payment loans for an estimated 13 million veterans. Enactment in the final Housing Act is certain after the Senate and House settle differences.

FHA Commissioner Philip Brownstein expects FHA volume to spurt under the change, which could end double processing for builders offering both FHA and VA loans.

It broadens the VA definition of eligible

veterans to let anyone who has served 90 days on active duty buy a house with nothing down. Top price of the no-down houses remains unsettled. The House wants \$20,000, the Senate \$15,000.

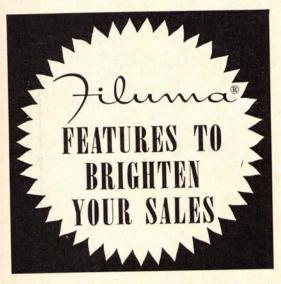




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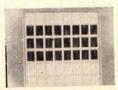


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Below-the-market housing programs win 3% loan rates

Congress decided rising cost of money was pricing two programs—middle-income housing and housing for the elderly—out of the picture. So it pegged their interest rates at 3%.

Rates in both programs, previously tied to the over-all cost of Treasury financing plus a service charge, were to rise to 4% or 4¼% July 1. The 3% peg means that monthly debt service on a typical \$12,000 dwelling for the elderly will be \$38.87 instead of \$44.57.

Congress agreed with Rep. Wright Patman's banking and currency committee in taking the 221d3 (middle-income) program in under the 3% shelter. The committee had decreed that the program "shall not be

frustrated by the erratic fluctuations of an arbitrary interest rate formula,"

Patman had also demanded an end to the mortgage bankers' practice of "discounting" FHA mortgages. A discount of 2%, for instance, means a builder gets only \$98 of a \$100 mortgage.

But FHA Commissioner Philip Brownstein said Congressional attempts to have FHA or VA regulate discounts were completely unworkable. He defended "reasonable" discounts as compensation for geographical differences in the prices of money.

Other changes. The new sub market rate was only one of several changes in existing programs.

Statutory limits on mortgages for multifamily dwellings were boosted by \$2,250 to \$2,500 per unit. The four-bedroom limit will be \$21,000, up \$2,500, to "encourage production of accommodations for larger families where needed."

Maximum loan insurance on Sec. 222 single-family dwellings for servicemen goes from \$20,000 to \$30,000.

And Congress responded to the furor over the recent military camp closings. It voted a year's moratorium on payment of interest and principal on an FHA or VA mortgage affected by a base closing, and it gave the Defense Dept. permission to purchase and transfer to FHA the homes of civilians displaced in such shutdowns.

Uncle Sam to help pay for developing suburban land

The federal government will pay 50% of the cost of water and sewer lines to open new suburban land for building development. This is the 1965 housing program's biggest bonanza for new subdivisions.

The matching money will be available to local public bodies and agencies for building or improving the water and sewer systems. In an area where all government has been traditionally hesitant about financial aid, the program opens vast new opportunities for help to builders.

Congress reasoned that the cost of such facilities often made it impossible for small communities to build water and sewer lines fast enough to serve burgeoning suburban areas.

"The sharp increase in developed land prices in recent years is one of the most serious problems facing the homebuilding industry," said the House and Senate banking and currency committees in their reports on the legislation.

An eye to the future. The new program is filled with other federal aid to suburbia because the Johnson Administration and Congress feel suburban homebuilding is still the best way to house more Americans.

"We must prepare for the obvious change in the housing market that will come in the next few years when the well-known baby boom of the late 1940s reaches the family-forming state," said the two banking committees.

The program assumes that local governments will take the initiative in asking Uncle Sam for money or that builders will spur their communities to do so. Here are two other areas of federal help:

1. Open space. Much more money has been provided for continuing and expanding the open-space program to stimulate large local parks. Federal outlays for park acquisition are being brought into line with the Interior Dept.'s conservation program, which allows 40% in assistance.

Only 120,000 acres in 35 states have been purchased under the three-year-old open-space program. Said Congress: "Increased efforts are needed."

2. Public land buying. The bill lets the new housing administrator (see p. 5) make grants to state and local public bodies to acquire sites for public works or facilities. The new program permits such purchasing of land five years in advance.





Flooded out, builder and lumber dealer make fast recovery

Lumber Dealer H. R. ('Potts') Berglund (left, above) and Builder Sam Primack (right) were back in business a day after a late June flood washed them out of their Denver headquarters. Berglund's Denver Wood Products lost \$1 million, including 6 million board feet of lumber, four forklifts and hundreds of power machines. Records at Primack's office were soaked by 7' of water. But 36 hours later Berglund and his 223-man crew, including 60 temporary men, were working from two rented trailers equipped

with eight telephones, and his records were hung out to dry on clotheslines. Primack moved from the city's flooded southwest area to a shopping center his Perl-Mack Homes Inc. had built on high ground in north Denver. Within a week, competitors were delivering from their ware-houses for Berglund, manufacturers were offering him stock below cost, and he had a \$673,000 disaster loan from the Small Business Bureau. Primack was snug in his new office—"this time we're high and dry."

Plywood industry splits over stiff quality controls

"If we do not maintain a high level of quality in the association, this industry will go down a rat hole."

With that statement the American Plywood Assn.'s new president, C. L. Morey, defended stiff quality controls in a growing dispute which is shaking the usually solid plywood industry.

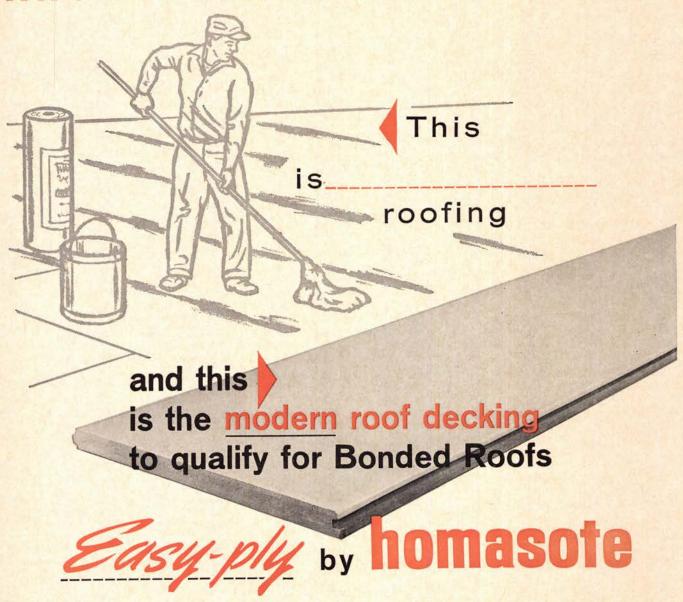
Three plywood makers have left APA because of stricter controls, and six others are threatening to resign. The three APA dropouts have stopped using the "DFPA approved" stamp, a holdover from APA'S old name of Douglas Fir Plywood Assn.

Some 400 plywood executives heard Morey defend tight controls at APA's 29th convention last month in Salem, Ore. APA has stiffened requirements because of last fall's plywood scandal, in which large amounts of substandard plywood bearing APA's marking were sold in Los Angeles—where 10% of the country's plywood is used.

The three former APA members now exhibit their own markings, but have commercial laboratories certify their products as meeting APA standards.

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5-101

Underground wiring: now it's required for all new FHA-insured subdivisions

FHA is putting muscle behind one aspect of the President's demand for natural beauty in housing.

The agency's new policy: no insurance for home mortgages in new subdivisions unless the utility wires are buried.

"The burden of proof will fall upon those who want to continue the practice of putting utility lines above the ground," said FHA Commissioner Philip N. Brownstein. just days after HHFA Administrator Robert C. Weaver had promised the reform in a speech to the American Institute of Architects in June. City officials attending the White House conference on Natural Beauty (NEWS, July) predicted that future tracts would be almost completely without poles within five years, although only 10% of today's new starts are served by underground residential distribution. Weaver and the FHA are moving to make the prediction come true.

How demand began. In the past only a few FHA offices have permitted the costs of underground wiring to be added to the mortgage. The response from both builders and utilities has been less than enthusiastic.

Seattle is one shining exception. Regional FHA Director Andrew Hess won praise for "progressive leadership" from the Puget Sound Power & Light Co., which is now providing underground service to all new homes in its nine-county service area. It covers most of western Washington state outside the big public power municipalities of Seattle and Tacoma.

Promoting a total-underground program, Puget Sound teamed with Pacific Northwest Bell Telephone to eliminate the "leafless forests." A consumer survey found that prospective homebuyers were willing to pay—up to 1% more on a home—if the wires were hidden.

"By developing some entirely new tech-

JOINT BURIAL reduces per-lot costs of underground wiring. Washington state changed code to allow phone and power cables in the same ditch.

niques and combining them with the very latest materials, we were able to meet the 1% limit," says Puget Sound's Vice President Fred Kimball.

How costs were cut. Up to that time only pad-mounted transformers had been available.

"We simply advised all transformer manufacturers that we were no longer a prospect for the pad-mount models and that we would like to see what they could offer us in transformers that would meet our specifications for total burial," explains John Wallin, another Puget Sound vice president.

With new technology, total underground is now available to builders for \$70 per house plus \$1 per front foot plus \$60 per house without an electric range and water heater. A normal house runs to about \$160. There is a 70¢ per ft. charge for service lines beyond 50′.

Helpful financing. The company also offers street lighting aid providing that a government unit will become a customer. To encourage simultaneous installation, Puget Sound pays \$15 a pole of the developer's cost for street lamp installation. Cost of the lamp and bulb cannot be included in the underground package but the pole costs can. To promote its program, Puget Sound will finance—or in effect lend the builder—\$120 per home at 5½% until the house is sold.

Weaver's decision to promote URD comes at a time when it is a hot potato with many electric utilities. Most systems still use the pad-mounted transformers that Puget Sound is phasing out, but are discovering that total underground is not much more costly. For instance, Portland (Ore.) General Electric has figured total underground costs at \$15 per lot above pad mounting. Portland GE does all trenching work.



HIDDEN TRANSFORMER is put underground by Puget Sound Power workman (top), leaving flush grate (bottom) as only trace of electric system.



BOCA'S BACKHAUS

Government-code advocates run into critics' buzz saw

"We don't need another code beyond those already adopted," decreed President A. P. Backhaus of the Building Officials Conference of America, whose Basic Building Code is used by 615 Midwestern and Northeastern cities.*

He spoke at a U.S. Chamber of Commerce seminar called in Washington to consider a proposal for a government building code. The attendant controversy was triggered by the so-called LaQue report, written by a Commerce Department advisory panel headed by International Nickel's Vice President Francis LaQue. The group had analyzed the ways in which private groups now write the nation's construction standards and had decided:

"It is technically feasible at this time to develop a uniform national building code that would accommodate the special needs of different regions."

Thumbs down. "Improper, unwise and unfortunate," was one company spokesman's judgment, and virtually everybody at the Chamber meeting seemed to agree. Summed up the Iron and Steel Institute's A. J. Paddock:

"During the last few years building codes and standards applicable to the construction field have had a bad press in spite of the fact that more progress has been made in the last 15 years in this a in any previous period."

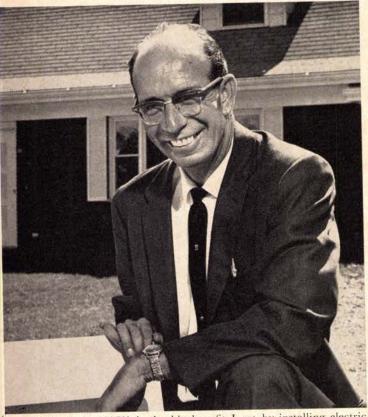
No easy way. "When it comes ards there is no magic name tha to solve our problems either on t tic or international front," Padde

Other speakers called on maducers to join in ending code

At the meeting's end the of tled for an effort to increase among the major code w Leaders began planning loc tions campaigns to explain t' of the present model buildir

NEWS co

^{*}Other major proprietary con national Conference of Buildin Uniform Building Code is use localities; Southern Building used by 400 bodies.



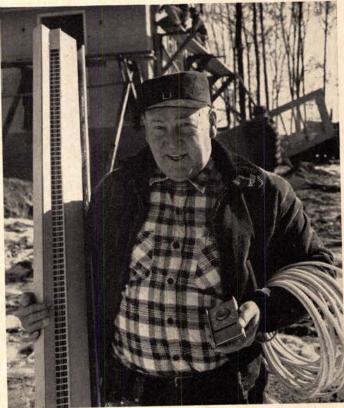
"EXTRA SALES APPEAL is the big benefit I get by installing electric heating in my new homes," says Henry Motycki of Charleroi, Pennsylvania. "My customers all want the newest, latest features—and I find that flameless electric heat is the thing that closes the deal."



"LOWER CONSTRUCTION COST switched me over to electric heat," reports Roy Segall of New Orleans. "To all intents, I can put my heating system in right along with the basic wiring. The result is that I end up with considerable savings in both time and labor."



"UNMATCHED COMFORT is one of the advantages that makes electric heat so popular with prospects for our new homes," reports Alfred Hoffman, Jr., of Chicago. "If the growing demand in our area is any indication, it seems clear that more and more homes in the future will be total electric."



"EASY INSTALLATION is what has me thoroughly sold on flameless electric home heating," reports William Schneider of Sykesville, Maryland. "Equipment like this, for example, is so easy to work with that all I need is just eight hours' worth of labor to put a complete electric heating system into one of my new houses."

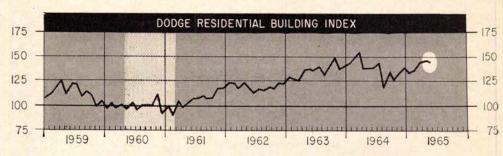
Housing rides single-family boom toward big second half

There's still good news in housing statistics.

Single-family house contracts in May soared 6% above the 1964 figure to offset a 9% decline in apartment contracts, and experts now say second-half starts for all dwelling units will top last year's performance by 4%. That would put 1965 even with the newly revised figure of 1,590,800 for 1964.

A new study by Economist John M. Wetmore of the Federal Home Loan Bank Board predicts that housing starts will continue to climb for the remainder of this year and by 1970 will attain a record 2 million units. Starts in the Northeast have been moving up since the middle of last year; activity in California has lagged, but House & Home found signs of a revival there last month (News, July), and President Bart Lytton of the \$439-million Lytton Savings & Loan in Los Angeles now declares: "There is conclusive evidence that the turn has come in the housing market, both locally and nationally."

Rise in contracts. May's \$2.07 billion in new residence contracts was 1% above the same month in 1964, according to F. W. Dodge Co., a division of McGraw-Hill. Chief Economist George Christie noted that contracts were ahead of 1964 for the second month in a row and that this reversed the trend of the first quarter, when awards trailed the strongest housing period of 1964.



Based on contract value. 1957-59=100 (seasonally adjusted). Lighter shaded area represents general business recession.

F. W. Dodge Co., a division of McGraw-Hill Inc.

KEY HOUSING INDICATORS

		OLLARS					UNITS (000)	% ch	
Dodge resid. contract	May 5 mon.	\$2.074 8,643	+	1 2	Starts, priv. nonfarm	May 5 mon.	151.4 534.5		1 6
ENR adv. resid. plans	June 6 mon.	697 4,709	++	25 9	Starts, ann. rate		1,469		2
ENR adv. apart. plans	June 6 mon.	350 2,438	-+	5	Permits, ann. rate New houses sold	Apr.	1,220		2 3
ENR adv. house plans	June 6 mon.	156 1,003		23 11	New houses for sale	4 mon. Apr.	181 241		7

Sources: F. W. Dodge Co., division of McGraw-Hill; Engineering News-Record; Census Bureau; HHFA.

The down side. Contracts for the first five months are below 1964 by only 2%, largely because apartments plummeted 13% while single-family awards were running even.

The Dodge new housing contract index slipped to 141 from April's 147 (see graph),

primarily because nonhousekeeping residential building, such as dormitories, fell. Christie predicts a prompt rebound.

Starts, not as reliable a bellwether as contracts, fell back in May after April's spurt. They were down in the Northeastern, North Central and Southern states.



UNFINISHED HOUSES on rough graded lots were put up for auction against backdrop of

completed homes in northern New Jersey subdivision. Sales had been stalled for 18 months,



AUCTIONEER tried to generate bids but found that conventional sales methods worked better.

Salvaging a sick subdivision: an auction gets results—up to a point

The auction, first such attempt to sell unfinished houses in the Northeast, was held over the three-day Memorial Day weekend at White Rock Lake, 35 miles from New York City in northern New Jersey's Morris County. Work at White Rock Lake had stalled 18 months earlier after 170 houses priced from \$15,000 to \$18,000 had been built.

Advance publicity—all metropolitan dailies and several television stations carried stories—attracted 5,000 persons over the three days. But visitors came in small groups and never stayed long enough to

hold a spirited auction. A month after promoters tried to auction 67 unfinished houses in the New Jersey subdivision, they still are not calling the sales effort a success or a failure.

Promoters, headed by Consultant Bill Becker of Bill Elliott & Assoc. of Teaneck, N.J., first tried to hold formal auctions, then switched to bussing prospects to individual houses and holding auctions on the lawns. Neither method worked well.

Finally the promoters fell back on traditional sales methods. They had salesmen show customers through the houses. Interested persons were asked to enter bids. This plan helped sell several of the more nearly finished houses.

But as the holiday ended, only 15 of 67 houses had been sold. Another 15 were under contract pending credit approval.

Then came a surprise. Prospects from that hectic weekend began returning in the following weeks. Six more houses were sold the first weekend, four more the next.

Says Becker: "A lot of people could not or would not make up their minds at the sale. But they are going home, talking it over—and they are coming back."



The unseen beauty of Weyerhaeuser's new plank and beam roof system is the money it saves

Weyerhaeuser Laminated Decking and Vertically Laminated Beams produce interior effects usually associated with the finest custom-built homes and at the same time keep building costs to a minimum.

Laminated Decking takes less time to install because end-matched joints don't have to fall over beams. There's less waste because you trim only at the end of each course. Laminated Decking gives you ceiling, insulation and structural roofing in one application.

Weyerhaeuser Vertically Laminated Beams are both handsome in appearance and structurally dependable. Their smooth surfaces look fine painted, stained or just left natural. They come in lengths up to 60 feet, no lost time in making costly construction splices.

The lumber used in both beams and decking is kiln-



dried to a low uniform average 12% (15% maximum) moisture content, before bonding. This means uniform dryness all the way through each piece. Twisting, warping and checking are virtually eliminated.

With the combined advantages of beauty, quality and fast installation, Weyerhaeuser Laminated Decking and Vertically Laminated Beams will add real extra value to your homes.

Plan your next job with this new plank and beam roof system. You'll be impressed with the savings you can make—and your buyers will be impressed with the looks of the house.

Write us at Box B-98, Tacoma, Washington, for two new booklets on Vertically Laminated Wood Beams and Laminated Wood Decking.



Weyerhaeuser

Laminated Decking and Vertically Laminated Beams

Mortgage discounts poised to rise as lenders up yields

Yields on the FHA Sec. 203 loans have risen 0.06% in the nation's major money centers. The new range goes to 5.06-5.12 after months of warning signals (News, June).

Rises in yield in New York often take several months to show up as a higher mortgage discount to be charged to the builder at the other end of the mortgage transmission belt.

"Builders are still trying to act as if they haven't heard of this," says Vice President Charles Haynsworth of New York City's Greenwich Savings Bank, but the executive vice president of the world's largest mortgage banking house says such blissful ignorance cannot last:

"Nobody can pretend any longer," observes Vice President Everett Mattson of T. J. Bettes Co. in Houston. "There is less demand for our FHA mortgages and greater demand for more yield. Mortgage bankers are in a squeeze."

Mattson reports the discount charged to builders is up all over the Houston areato 2% from 11/2%. Dallas raised a half point to a range of 1-2%.

St. Louis says discounts may have to go higher in the Plains States, and Vice President Christian M. Gebhardt of the Colwell Co. in Los Angeles discloses that he is under pressure to raise but is holding to 1%:

"Investors are buying more slowly loans they have agreed to buy," he says. "I haven't changed my price (or discount) but I haven't sold many mortgages either.



HAYNSWORTH



The trend is to a higher yield on the investor side, so we might call it a 'summer

No change yet. Such solidly prosperous housing markets as Detroit, Philadelphia and Newark, N.J., still feel no such trend.

"Tighter money talk has not hit me by a long shot," Vice President Harry N. Gottlieb of Draper & Kramer says in Chicago, and Washington argues that the yield increase is temporary at best.

Reasons Senior Vice President James C. Latta of Frederic W. Berens Inc. in the capital:

"For a short time we will have to give the New York bankers yields of 5.12%, but the banks are trying to base their loan buying on the high interest rates they now pay savers, and that is doing it backward.

"Another thing. They are all sitting there ready to go on vacation. They are bought up, and they always talk to us this way when they are satisfied and heading for the mountains and the seashore.

"And yet a shortage of FHA-VA loans does persist. We will see lower yields again when we get to the fourth quarter." Lower yields (and discounts) may in-

deed turn out to be the builder's Christmas present, but a survey of House & Home's mortgage experts in 18 cities today indicates that rates will probably go up before they go down.

Bond competition. Mortgage lenders are demanding higher yields for two

1. Quickening retail interest, particularly among big institutional investors, has driven bond yields up into new rivalry with FHA paper. A red hot market absorbed \$2 billion in new bond offerings in June alone, and returns on public utility top rated long terms jumped from 4.47% to 4.61% before falling back. The 4.61% was only 39 basis points less than the 5% that many FHA mortgages were yielding to investors buying them in the secondary market.

2. New York's savings banks now have 80% to 85% of portfolio in mortgages. "We are pretty well bought up," says Vice President Haynsworth of Greenwich Savings, who also serves as president of the Mortgage Bankers Assn. of New York. "We are looking at very little paper that won't give us 5.18% on yield."

The daily net free reserve position of New York City's commercial banks fell to its lowest level in five years in July. Free reserves are a rough measure of the amount banks can lend. But bank loans have been rising sharply this year, and economists do not view this as a certain sign as tighter money.

SECONDARY MARKET FHA & VA 51/4 %

Money center	VA houses Yield to Investor	Trend	Sec. 207 Apts. Yield to Investor	Trend
Boston	5.03-5.17	Steady	a	a
Chicago	5.06-5.12	Up .06	5.12-5.15	Static
New York	5.06-5.12	Up .06	5.12	Weaker
San Fran.	5.06-5.12b	Up .06	5.146	Weak

CONVENTIONAL LOANS RESALE MARKET

Packages of conventional loans, privately insured by MGIC, available for purchase by S&Ls. Loans are in metropolitan areas, originated by mortgage bankers and commercial bankers and listed with Mortgage Guaranty Insurance Co., 600 Marine Plaza, Milwaukee. Address inquiries c/o Jack Dittmann. Typical offerings reported the week ending July 16:

Loans available (millions)	Location *	Net % Yield to investors
\$10.0	California	5.75
2.5	Georgia	5.50
10.0	Hawaii	5.75
5.0	Michigan	5.50
a_Net after insur-	once fees and servicing	

NEW YORK WHOLESALE MARKET

FHA, VA 51/45

Immediates: 97-971/2 Futures: 97-971/2

IA, VA 51/4 spot loans (On homes of varying age and ndition)

Immediates: 961/2-971/2

Note: Prices are net based on a servicing fee of 1/2%. Majority of loans being sold today include concessions made by servicing agencies which would be reflected in higher prices. Prices cover out-of-state loans, reported the week ending July 16 by Thomas P. Coogan, president, Housing Securities Inc., New York City.

HOMEBUILDER'S MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending July 9.

City	FNMA Scdry. Mkt.×y	Min. Down's 30-year Immed.w	lder	FHA 207 Apts. Firm Commitment	Comm. banks, Ins. Cos. 75%	Convention Loan Rais Savings banks, S&Ls 80%		Construction Loan Rates Interest + fees All lenders
Atlanta	23/4	1-2	Steady	a	51/2-53/4	53/4-6	6-61/4	6+1
Boston	13/4	par+1-par	Steady	par+1-parb	51/4-51/2	51/4-51/2	51/2b	51/4-6
Chicago	21/4	1/2-11/2	Steady	par-1/2b	51/4-51/2	51/2	53/4-6	51/2-6+1-11/2
Cleveland	21/4	1-11/2	Steady	a	51/2-53/4	51/2-53/4	6-61/2	51/2-53/4+1
Dallas	23/4	1-2	Up 1/2	pare	51/4-51/2	53/4	6-61/4	6+1
Denver	23/4	1/2-2	Steady	a	51/4-51/21	53/4	6-61/2	6+1-2
Detroit	23/4	par-1	Steady	1-11/2	51/4-51/2	51/2-6	53/4-6	6+1/2
Honolulu	23/4	11/2-21/2	Steady	a	53/4-61/2	61/4-7	63/4-71/4	61/2-7+1-3
Houston	23/4	2	Up 1/2	a	51/2-6	6	6-61/4	-
Los Angeles	23/4	1	Steady	par+1-par+1/2	51/2-6	53/4-6.6	61/4	6+1
Miami	23/4	13/4-2	Steady	1/2-1	51/2-6	53/4	6	6-6.6+1-2
Newark	13/4	1	Steady	par-1/2	51/2	53/4	53/4-6	6+1
New York	13/4	par	Steady	par+1-par	51/2	53/4	6	53/4-6+1/2-1
Okla. City	23/4	1-2	Steady	a	51/2-53/4	51/2-53/4	6-61/4	6-61/2+1-11/2
Philadelphia	13/4	par	Steady	par-1	51/2-53/4	53/4-6	6	
San Fran.	23/4	1-11/2	Steady	par-1	51/2-53/4	53/4-6	6-61/4	5-6+1
St. Louis	23/4	1-21/2	Steady	par-1	51/2-6	53/4-6	100000000000000000000000000000000000000	61/4-61/2
Wash., D.C.	21/4	1	Steady	par	51/2	53/4	5 ³ / ₄ -6 ¹ / ₄ 6 ^b	51/2-61/2+1-2 51/2-53/4+1/2-1

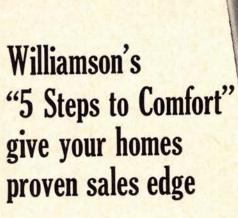
• Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.
• Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
• Quotations refer to houses of typical average local quality with respect to design, location and construction.

down on first \$15,000; 10% of next \$5,000; 25%

Footnotes: a—no activity. b—limited activity. w—for comparable VA loans also. x—FNMA pays ½ point more for loans with 10%. y—discounts quoted are net after seller pays ½% marketing fee and ¼% adjustment for stock purchase. Seller must pay 1% of mortgage for stock calculated in \$120 units, of which \$20 is contribution to FNMA capital and \$100 is for a share trading at about \$84. z—applies to 66% loans.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank;

Chicago, Harry N. Gottlieb, vice pres., Draper & Kramer Inc.; Cleveland, David F. O'Nelll, vice pres., Jay F. Zook Inc.; Dallas, M. J. Greene, pres., Southern Trust & Mortagge Co.; Denver, Clair A. Bacon, exec. vice pres., Mortgage Investments Co.; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, William J. Huckins, asst. vice pres., Bank of Hawaii; Houston, Everett Mattson, vice pres., T. J. Bettes Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Newark, William B. Curran, vice pres., Franklin Capital Corp.; New York, John Halperin, J. Halperin & Co.; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Robert S. Irving, vice pres., First Pennsylvania Banking & Trust Co., St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, Frank W. Cortright, sr. vice pres., Bankers Mortgage Co. of California and Charles E. McCarthy, vice pres., Bank of America; Washington, D.C., James C. Latta, sr. vice pres., Frederick W. Berens Inc.



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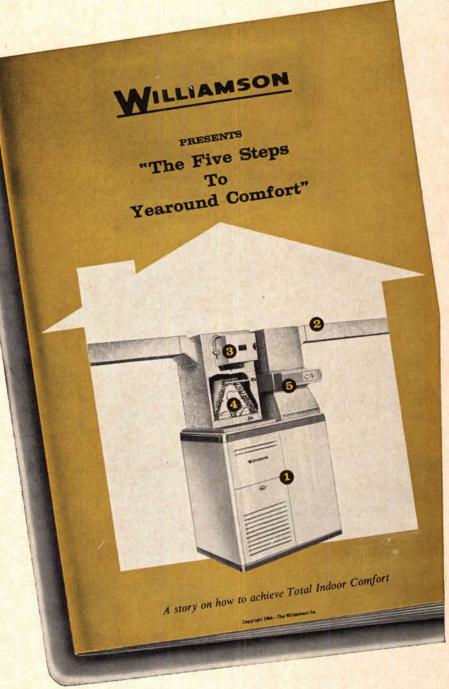
Heating . . . WILLIAMSON offers you a complete choice of warm air furnaces in three price ranges; Gas, Oil, and Electric fuels; Hi-Boys, Lo-Boys, Counter-Flows and Horizontals.

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3

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4

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California S&Ls: a \$24-billion baby grows to maturity

All seven California savings and loan associations that were paying 5% on savings have now backed off to the state's going rate of 4.85%. The other two dozen that were paying slightly more than 4.85% have also come down.

This rate retreat should dispel for all time the Wall Street myth that haunts the \$24-billion industry: i.e., California's 277 associations have so much money they don't know what to do with it. The fable dies hard, chiefly because the New York financial community has repeated it so often.

Not so. Case in point is Gibraltar s&L of Beverly Hills, one of California's healthiest with \$345 million in assets and net earnings of \$4.5 million in 1964—up 22%. Gibraltar was one of the first to raise rates to 5%. Then the Federal Home Loan Bank Board promptly told its regional banks to halt lending to all s&Ls paying more than the prevailing rate, which is 4.85% in most of California (News, May).

Had Gibraltar actually had excess funds in hand, it need never have given the regulatory agency's ruling a second thought, but, says President Herbert J. Young of Gibraltar:

"We were all borrowed out. We needed more money to make loans." So they dropped their rates.

The reasons usually given for the rate backdown are government pressure and declining savings flow. But President Robert T. Souter of the California s&L League explains, and Gibraltar's case shows, that the immediate concern is simply to reestablish a right to borrow cash to lend.

California, with only 10% of the nation's population and 20% of its s&L assets, does 29% of its s&L realty lending and 40% of all borrowing from the Home Loan Bank System. The California s&Ls have not enjoyed an excess of funds over loan demand since 1960. They have constantly had to borrow from their regional Home Loan Bank to meet loan demand, as this table shows:

Millions			'62				
Loans made	3,046	4,284	5,695	7,895	7,297	6,600	
Repayments	1,321	1,811	2,374	3,260	3,645	3,600	
Net. sav. incr.			2,555				
Funds avbl.	2,935	3,696	4,929	6,449	6,399	5,600	
	-111	-588	-766 -	-1,446	-898 -	-1,000	
Loans sold	179	336	546	897	796	800	
	+69	-252	-220	-549	-102	-200	

Balance and stability. The table's last line reveals that loans and funds for lending will probably still be in deficit through 1965. Loans for the first five months were only \$2.5 billion compared with \$3 billion last year. Yet funds available for lending, first five months, were only \$2.125 billion.

"The flow of new savings and loan repayments has never equaled the volume of post-war loans made," says Executive Director Franklin Hardinge Jr. of the California League. "Loans had to be sold and money borrowed from the Federal Home

Irv An





SOUTER

SADLER

Loan Bank to make up this deficit. Pressures on lending thus are nonexistent."

There are other signs of maturity in the industry whose growth from a \$3.3-billion infant in 1954 has at times frightened even its admirers. State S&L Commissioner Gareth Sadler now has 37 full-time appraisers spot checking for the carefree appraisals that gave the industry a black eye last year (NEWS, Apr. '64). And he has begun serious policing of the 200 s&L holding companies under a strict new disclosure law that Hardinge and the league helped to enact (NEWS, July '64).

We're probably the most regulated industry in the country," observes Souter, "and this is all to the good."

California's s&L foreclosures still run at the nation's third highest rate, but the figure turned down from 3.09 to 2.56 per 1,000 loans in the first quarter. Nevada's rate is 12.64 and Arizona's 9.29. New confidence. Scheduled items are, generally speaking, slow loans plus real estate on hand, and the s&L men insist that the federal government's formula for computing them is overly severe. Their ratio to specified assets is up again in the first quarter, from 4.92% to 5.19%.

But Souter is sure this is the plateau and that the trend will now be downward.

"We have had to adjust to a slower rate of growth, reduced housing starts, federal and state taxation and greater regulation," he concludes. "California associations have come through this period in good shape."

-EDWIN W. ROCHON

Building company stocks nose dive 9% in shakeout

The stock market uneasiness of last month carried building stocks down sharply.

Other housing categories dropped by smaller margins and House & Home's index of 82 housing stocks fell 5%. The averages:

May 11	June 7	July 12
Building 5.14	5.02	4.55
Mortgage banking .12.42	12.15	11.81
Prefabrication 6.11	5.60	5.44
S&Ls12.53	11.51	10.96
Land development. 6.13	5.86	5.54
Average 8.42	7.93	7.54

HOUSING'S STOCK PRICES

American Fin. ..

COMPANY BUILDING	July 12 Bid/ Close	Chng. From Prev. Mo.	COMPANY	July 12 Bid/ Close	Chng. From Prev. Mo.	COMPANY	July 12 Bid/ Close	Chng. From Prev. Mo.
· Adler-Built Inc	200	-10¢	First Fin. West	71/4	*	Atlantic Imp	171/4d	-144
· Capital Bld. Ind	820	-16¢	First Lincoln Fin	165/8	-17/a	Canaveral Intl.b	15/8d	_ 1/8
Cons Bldg. (Can.)	41/4	-11/2	First Surety	41/2	— 3/a	Christiana O.b	45/B	- 1/4
· Dev. Corp. Amer	41/2	+ 1/2	First West Fin.c	77/8	- 5/8	Coral Ridge Prop		+ 7/8
Dover Const	31/8		Gibraltar Fin.c	191/8	- 11/8	Cousins Props		-1
Edwards Eng	53/4	-1	Great West, Fin.c	95/8	- 1/2	Crawford	27/8	- 3/8
Edwards Inds	1	- 3/g	Hawthorne Fin	73/a	+ 1/8	Deltona Corp.b		-15/8
Eichler Homesh	31/8	- 1/8	Lytton Fin.c	111/2	- 5/8	· Disc Inc.	33/4	+11/8
First Nat. Rity.b	13/4d	- 1/4	Midwestern Fin.b	31/2	- 1/4	Fla. Palm-Aire		- 1/8
• Frouge	43/8	- 3/4	San Diego Imp.c	7	- 1/4	Forest City Ent.b	47/8	- 1/8
General Bldrs,b	17/8d	- 3/8	Trans-Cst. Inv		- 1/4	Garden Land		- 1/2
		- 1/4		6		Gen. Develb		- 1/8
Hawaiian Pac	73/4		Trans Wrld. Fin.c	95/8	- 3/4			- 1/8
Kavanagh-Smith	27/8	- 7/8	Union Fin	61/4	- 3/8	Gulf Americanb		100
Kaufman & Bd.b	123/8	-21/a	United Fin. Cal.c	93/8	- 3/8	Holly Corp.b		_ 1/8
Lou Lesser Ent.b	43/4	- 1/2	Wesco Fin.c	163/8	+ 3/8	Horizon Land		_ 5/8
Levittb	7.7/8	- 1/8	HODECAGE DANIES			Laguna Nig. A.h	9	- 3/8
Lusk	1	- 1/4	MORTGAGE BANKIN	lG.		· Laguna Nig. B.h	4	
Pres. Real. A.b	91/4	0.00				Lake Arrowhead	73/4	-1
· Sproul Homes	41/4	- 3/4	Advance	73/4	- 1/2	Macco Rity	9	+ 7/8
U.S. Home & Dev	3/4	+ 1/a	· Amer. Mort. Ins	19	- 1/2	· Major Rity		- 3¢
Del. E. Webbc	53/8	2010	Associated Mtg	81/8d	- 1/2	 McCulloch Oilb 	83/8	-11/2
			Charter	11/2	- 3/8	Sp. Rity. & Util. 5	11/4	- 1/4
PREFABRICATION			Colwell	131/4	$-1^{1/4}$	Sunset Int. Pet.b	63/8	- 5/8
THE ABRICATION			Cont. Mtg. Inv	253/4	+ 1/2			
Admiral Homes	21/4	+ 1/4	· Cont. Mtg. Ins	83/4	+ 1/4	a-stock newly add	ed to t	able. b-
Albee Homes	23/8d	- 1/4	• FNMA	85	- 7/8	closing price ASE.	c-clos	ing price.
	11/2		First Mtg. Inv	161/4	+ 1/4	NYSE. d-not trade	d on da	te quoted.
Continental Homes	21/B	_ 3/a	· Kissell Mtg.b	53/8	- 3/g	g-closing price MSI	. h-clo	sing price
Gt. Lakes Homes	1	+ 1/4	MGIC	251/4	- 1/2	PSCE not include		
Hilco Homes	71/2d	+ 3/8	· Mortg. Assoc	65/8	— 3/a	Sources: New Yor		
Inland Homesb	1000		· Southeast Mtg. Inv.	105/8	- 5/8	Gairdner & Co., Natio		
Madway Mainline	10	- 1/2		41/2	- 1/4	ities Dealers, America		
Modern Homes	3	- 1/a	United Imp. & Inv.b			New York Stock Excha		
Natl. Homes A.9	31/4	- 1/2	Wallace Invests	4	- 3/a	Exchange, Pacific Coa		
Richmond Homes	31/4	— 3/a	LAND DEVELOPMENT	-		Listings include only		
Scholz Homes	17/8	+ 1/4	LAND DEVELOPMEN			derive a major part o		
 Seaboard Homes 	1/8	-13/8	All Circle Brook	1.1		housing activity and		
Steel Crest Homes	71/2	- 1/4	All-State Prop.b	11	$- i \pi$	neusing activity and	are meety	ury tradedi
Swift Homes	23/8	- 5/a	American Land	11/2	+ 1/8			
Western Shell	30€	-71/2¢	Am. Rity. & Pet.b	3	- 1/4			
Jim Walters	205/8	- 1/4	Arvida	51/2	- 1/s			
· Wright Homes	1/2	-35¢	-					

Percent Interest and (ne	t change) in year	- Walter Walter Walter	and an order
LOAN SIZE (000)	New York City	7 other Northern & Eastern cities	11 Southern & Western cities
\$1-10	5.62 (04) 5.36 (03) 5.10 (+.04) 4.62 (04)	5.85 (+.04) 5.55 (+.01) 5.26 (+.02) 4.85 (03)	6.02 (+.11) 5.68 (+.06) 5.36 (+.05) 4.99 (09)



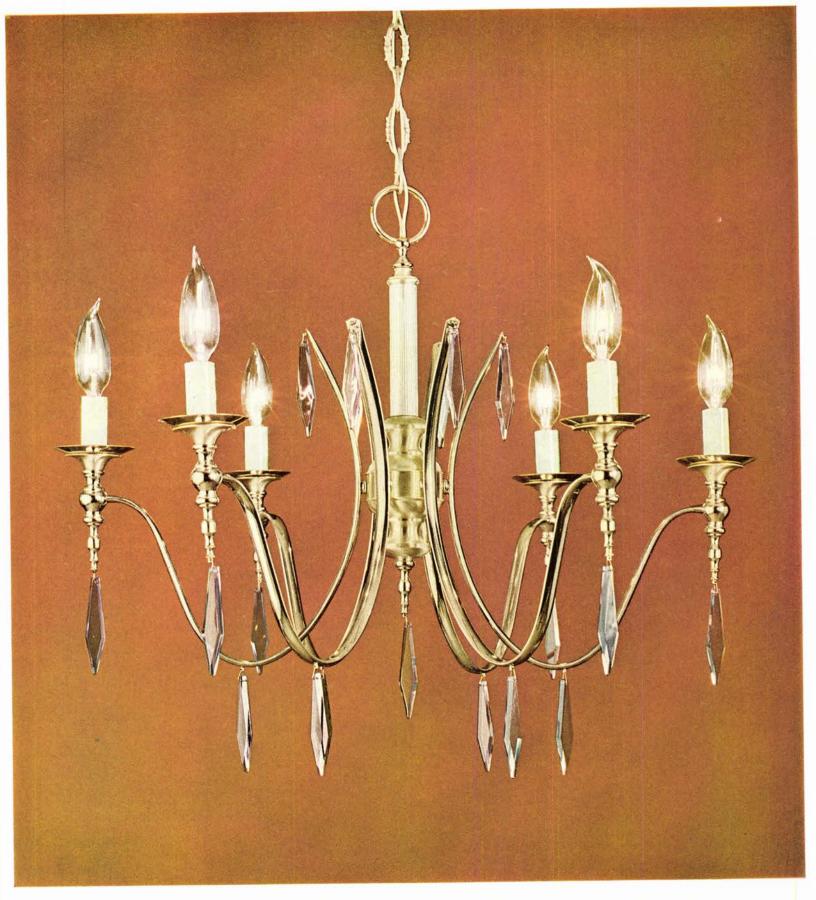
The luxury look of authentic flagstone in asphalt tile-Kentile's® new Colonial Flagstone. Four natural quarry colors.



Now "flagstone" comes indoors—at Group D asphalt tile price! Kentile's new Colonial Flagstone Asphalt Tile has bold texture. Authentic color and veining go all the way through the full '%" thickness. No special underfloor required. For modern or traditional settings, residential or commercial use. Ask your floor man about Colonial Flagstone.



If Marie Antoinette were here today...



She'd want Moe Light in her foyer

A Moe Light chandelier adds a touch of royalty to living rooms and dining rooms too... gives modern day queens something special to remember about your homes. For more ways to add extra appeal with lighting, write to Moe Light, Thomas Industries Inc., 207 E. Broadway, Louisville, Ky.



nobody but nobody puts a salesman in your sink—like In-Sink-Erator

Give the Lady a disposer she can trust! In-Sink-Erator performs better, has more quality features, needs less servicing than any other disposer!

A woman wants a home with a disposer. Surveys prove it again and again. No disposer is more desired or more appreciated than In-Sink-Erator Model 77.

This disposer grinds in both directions, doubles shredder life, thanks to patented automatic reversing switch. Its exclusive Self-Service Wrench frees accidental jams quickly to help prevent customer complaints and costly call-backs.

Exclusive Detergent Shield guards against corrosion damage from caustic agents. And there's a full 5-year protective warranty—proof of superior engineering and design! Models for homes and apartments in all price ranges.

Call your Plumbing Contractor, or write for information and FREE sales aids.



IN-SINK-ERATOR MANUFACTURING COMPANY - RACINE, WISCONSIN



"Put the future of the community ahead of the fast buck"

President's beautification program 'only a good start,' the AIA warns

Without drastic reform of city planning and building, the Johnson program "could deteriorate into mere architectural cosmetics."

So said President-elect Morris Ketchum Jr. speaking at the American Institute of Architects convention in Washington.

"Beautifying the community with trees and plants, while desirable, is a small part of community design," said Ketchum. "We will have livable cities only if we take the same hard-nosed attitude toward the use of land that our forefathers did in many of our early towns.

"We've got to put the future of the community ahead of the fast buck."

The convention backed Ketchum with a resolution urging "meaningful reforms of federal, state and local tax laws to encourage and reward beauty and quality." Architects have long felt that federal income tax laws reward speculators for building badly, and state and local assessment policies favor slum properties and punish owners who improve areas.

The reform resolution specifically attacked the accelerated federal depreciation allowance for builders and a New York State court ruling upholding New York City's right to raise the Seagram Building's assessment on the basis of architectural prestige.

President Ketchum took over from Arthur Gould Odell to lead the most successful architects' congress ever held from the point of view of attendance—1,500 from the U.S. and another 500 from the Pan American Conference of Architects. Yet the conventioneers came in for severe criticism, in part because of their private and public success,

Challenged HHFA Administrator Robert C. Weaver: "We are faced with 120 million more persons in cities by century's end. Are you ready to move with us to build a finer nation?"

Demanded Interior Secretary Stewart L. Udall: "Cast off the blinders that keep you from planning the community as a whole.

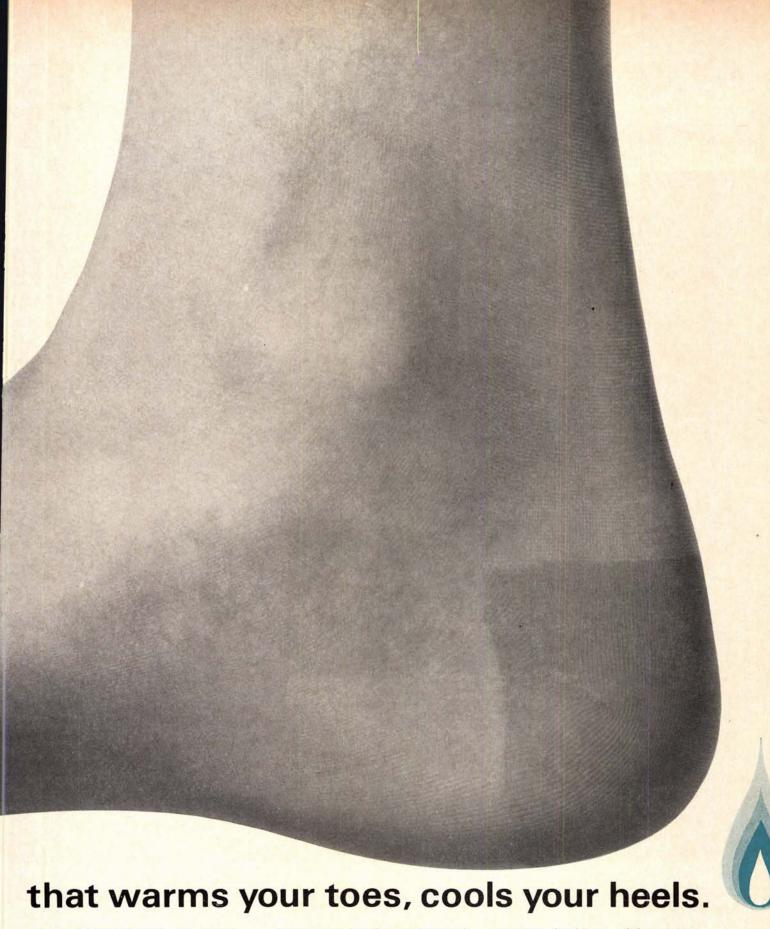
Were the architects responding? Emphatically not, said the *New York Times'* Ada Louise Huxtable, long an observer of the architectural scene.

"They seemed unwilling to face, or unable to grasp, their crucial responsibility in the design control of an expanding, urbanized world," she said. "In time honored convention fashion, he [the architect] seemed readier for the next martini than for the challenges of the new world."

Field Service Director Dennis L. Garrehy leaves NAHB to direct the processing of all federal programs submitted to federal agencies by Builder Ray Watt of Gardena, Calif.

Prof. Lawrence B. Anderson, head of the Massachusetts Institute of Technology's department of architecture since 1947, succeeds Dr. Pietro Belluschi as dean of the school of architecture and planning. Belluschi resigned.

John D. Bloodgood has resigned as building and architectural editor of Better Homes and Gardens to become a general design consultant helping builders sell better architecture and design for less money. Bloodgood's colored-slide lecture on the newhome designs that attract or repel prospective buyers is familiar to virtually every builder.



Something rather interesting is happening in Toledo, Ohio.

A new development of 180 homes is going up. Inverness Village.

And the builder has decreed that only the best will go into his homes in the \$38,500 to \$54,500 range.

For instance, buyers will have their choice of over 1,000 options. Such as swimming pools. Or slate roofs. Or custom-designed kitchens. Even putting greens in their backyard.

What they won't be able to choose is their heating and air conditioning.

Bryant gas heating and gas air conditioning will be standard in every home.

Because the builder, Joseph H. Schulte, knows all about Bryant's reputation for quality.

Bryant gas air conditioning has fewer moving parts. It simply doesn't get tired with age. So you can be sure of a long lifetime of peak efficiency. It's quiet. Because it cools with a simple gas flame.

Best of all, Bryant gas air conditioning is backed by your gas company. Could you ask for a better recommendation?

Your local Bryant distributor, dealer, factory branch, or gas company will give you complete information. And get you off on the right foot. Bryant Manufacturing Company, Indianapolis, Indiana.

bryant

GAS HEATING
GAS AIR CONDITIONING



Over the years, "Record Houses" architects have selected G-E kitchen appliances more than 2 to 1 over the next leading brand.



Since "Record Houses" was first issued in 1956, hundreds of spectacular new home designs have been featured in this annual edition of Architectural Record Magazine.

Over the same period, 501 kitchen appliances have been specified by architects. General Electric appliances have been specified 201 times. The next leading brand 88 times. They chose G-E refrigerators, food freezers, dishwashers,

ranges, food waste Disposall® units, thru-the-wall air conditioners, laundry equipment including both washers and dryers, and home intercom systems.

Certainly the advanced design of G-E products justifies this preference. So, too, does the continuous addition of new work-saver features to these appliances and G.E.'s great reputation for quality and dependability.

Also of great importance to a builder

or an architect is G.E.'s readiness to work with them in all areas of kitchen construction and design, from planning a general layout to selecting exactly the right appliance for a particular kitchen.

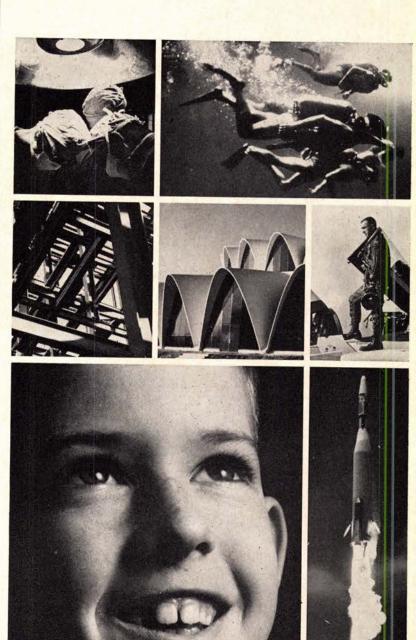
If you haven't yet taken advantage of this extraordinary G-E service, don't hesitate to do so. There is no charge for it. Your local General Electric distributor is not only waiting but anxious to help you anyway he can.



No bent nails in the 2nd half!

Bugged by unprofitable problems in these areas? (Plus a few more.)





The future belongs to the fit

In space or surgery, farming or finance, nursing or news reporting, teaching or television, the future belongs to the fit. The future belongs to those vigorous enough to live it, and shape it!

Medical authorities put it this way: "It is a tragic waste to highly educate the minds of our children and neglect the physical conditioning that can help them participate in the future to the full extent of their abilities."

How about **your** schools? Are they providing for physical fitness as part of the sound education your children need to carve out their share of the future? You parents can help see that they do. Write: The President's Council on Physical Fitness, Washington, D. C., for information.

PRESIDENT'S COUNCIL ON PHYSICAL FITNESS



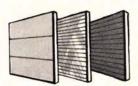


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WE DETECT A CERTAIN AMOUNT OF JEALOUSY AMONG OUR COMPETITORS

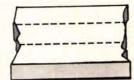
They get a little frustrated because we have much better products to sell. For instance, expanded polystyrene is just expanded polystyrene, except for Zonolite® Dyfoam®.



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We score it to the size you specify to fit the cut to the job. Much less waste.

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As our Texas man says about job conditions, "If we ain't got the insulation for it, it ain't in existence."

Which is why you should come to us in the first place.



GRACE Zonolite Division of W. R. Grace & Co., 135 So. La Salle St., Chicago, Illinois 60603

BUSINESS IN THE MAKING

House & Home presents locations, sponsors, architects and estimated costs of representative new projects costing over \$500,000 as gathered by Engineering News-Record and F. W. Dodge Co., division of McGraw-Hill Inc. to alert builders, lenders and contractors to new business.

ALABAMA—HUNTSVILLE: 200 houses, \$3.4 million. Builder: Merit Corp., Gadsden. Mobile: Apartment, \$1 million. Sponsor: E. H. Bixler, Plans: Belz & McFarland, Memphis, Tenn. Montgomery: 52 houses, \$1 million. Builder: Copeland Inc. Pell City: 375 houses, \$3.75 million. Builder: PMC Development, Atlanta, Ga.

CALIFORNIA—CANOGA PARK: Apartments, \$10 million. Sponsor: Hoffman-Pinto Corp., Encino. Plans: Stiles & Robert Clements, Los Angeles. La Habra: Apartments, \$1 million. Sponsor: Key Management, Downey. Los Alamitos: Garden apartments, \$1.5 million. Sponsor: Rossmoor Manor, Reseda. San Diego: Apartments, \$1.5 million. Sponsor: Marvin L. Krichman, Howard E. Koosed, Charles R. Cono & Vincent R. Provenzano. San Rafael: Apartments, \$10 million. Sponsor: The Draper Co., San Francisco.

CONNECTICUT—FARMINGTON: Five garden apartments, \$500,000. Sponsor: Albert Feldman, West Hartford. Plans: Andrew C. Rosetti, Bristol. HAMDEN: 24 houses, \$500,000. Builder: Raab Inc. Rocky Hill: Garden apartments, \$1.2 million. Sponsor: Harvey A. Coleman Assoc., Park Ridge. STAMFORD: 32 houses, \$800,000. Builder: Milton Fowler. Plans: Bertram Lee Whinston.

FLORIDA—LYNN HAVEN: 60 houses, \$750,000. Builder: Greenbrier Estates, Panama City; 23 houses, \$500,000. Builder: Point Havenwood. MIAMI BEACH: Three condominium apartments, \$2 million. Architect: W. B. Cohan & Assocs., Chicago, Ill.

ILLINOIS—ARLINGTON HEIGHTS: 35 houses, \$1.5 million. Builder: Dabs Construction, Skokie. Chicago: 300 houses, \$9 million. Builder: Miller Builders. Plans: William Ballard; 75 houses, \$6.5 million. Builder: Northside Valley Development. Plans: Norman Werner. Hanover Park: 500 houses, \$10 million. Builder: Three-H Houses. LEMONT: 89 houses, \$890,000. Builder: Woodview Construction. Woodale: Condominium apartment, recreation building and shopping center, \$10 million. Sponsor: Grizaffi & Falcone, Chicago. Plans: Shayman & Salk, Chicago.

INDIANA—BEECH GROVE: 300 houses, 350 cluster houses, townhouses and apartments, shopping center, office building, church and school, \$20 million. Sponsor: c/o Union Federal Building, Indianapolis. Hammond: Apartments, \$2 million. Sponsor: McLaughlin Corp. Plans: Nathan A. Carras. Indianapolis: Apartments, recreation building and swimming pool, \$500,000. Sponsor: Brendon Park Inc.; Garden apartments, \$4 million. Sponsor: Louis Darko & Assocs.

KANSAS—MERRIAM: Apartments, \$1.5 million. Sponsor: Frank Molle, Kansas City. Plans: Linscott, Kiene & Haylett, Kansas City, Mo. Overland Park: Garden apartments, 21 houses, clubhouses and swimming pools, \$5 million. Sponsor: Alex Bascom Co. Plans: Robert Riley, Kansas City, Mo. Wichita: Apartment, \$1 million. Sponsor: Normandy Village. Architect: Roc Calvin.

MARYLAND—BALTIMORE: 250 townhouses, \$3.75 million. Sponsor: Gorn Bros. Plans: David H. Wilson & Assocs. Bethesda: Apartment, \$12 mil-

lion. Sponsor: Prospect Properties, Chevy Chase. Plans: Vlastimil Koubek, Washington, D.C. CHEVY CHASE: Apartment, \$2.5 million. Sponsor: c/o Steven A. Winkleman, Washington, D.C. Plans: John S. Samertpon, Bethesda. WHEATON: Apartments, \$776,000. Sponsor: Nevors & Melvin, Silver Spring. Plans: H. Byron Gates, Kensington.

MASSACHUSETTS—AMESBURY: 117 houses, \$1,-755,000. Builder: Bixby Hanson, Topsfield. Barnstable: 100 houses, recreation facilities, \$2 million. Builder: Cape Wide Properties, Santuit. Plans: Goody & Clancy, Boston. Boston: Apartment, \$10 million. Sponsor: Prudential Insurance Co., Newark, N.J. Plans: Charles Luckman Assocs., New York City. Northampton: Apartments, \$500,000. Sponsor: Abner Rosenberg, New Haven, Conn.

MICHIGAN—ANN ARBOR: Garden apartment, \$1.5 million. Sponsor: R. Gordon Matthews, Pittsburgh, Pa. Plans: Collins & Kronstadt, Silver Spring, Md. Flint: Apartment, \$2 million. Sponsor: Alco Construction, Lansing. Plans: Mumson, Mattern & Barber, Lansing. Grosse Pointe Woods: Cooperative apartment, \$1 million. Sponsor: The Berkshire c/o Merrill Homes Inc., St. Clair Shores. Plans: P-F Assocs., Oak Park. Kalamazoo: Apartment, \$2 million. Sponsor: Alco Construction, Lansing. Southfield: 406 houses, \$9 million. Builder: Kaufman & Broad. Plans: P-F Assocs., Oak Park.

MISSOURI—CREVE COEUR: 200 houses, \$5 million. Builder: Edward Satz & Joseph J. Miceli, Clayton. St. Louis County: 288 houses, \$5 million. Builder: Kodner Construction, Creve Coeur; 120 houses, \$1.8 million. Builder: Wylwood Construction, University City. Troy: 50 houses, \$500,000. Builder: McBride & Sons, Ferguson.

NEW JERSEY-CHATHAM: Garden apartments, \$1 million. Architect: Stephen J. Potter, Union. JER-SEY CITY: 34 townhouses, \$900,000. Builder: Mardon Bldg. Plans: Leo Rutenberg, Kearny, Lakewood: Garden apartments, \$3,162,000. Sponsor: Joseph Lentini, Jackson. Plans: Joseph DiPalma, Cherry Hill. LITTLE FALLS: Garden apartments, \$1.48 million. Sponsor: Churchill Realty, New York City; Garden apartments, \$520,000. Sponsor: Main Union Corp. Plans: Pancard & Gerber, Newark. Morristown: Garden apartments, \$1,-980,000. Sponsor: John Cali Assocs., Kenilworth. NEW MILFORD: Garden apartments, \$1.6 million. Architect: Peter H. Butler, Teaneck. ORANGE: Garden apartment, \$600,000. Sponsor: 434 Lincoln Assoc. Plans: Benoist-Goldberg, Union. Sussex: Garden apartments, \$3 million. Sponsor: Anderson Construction. Plans: Peter Grygotis, Roselle. Woodcliff Lake: 30 houses, \$1,260,000. Builder: Deer Trail Inc., Hillsdale. Plans: Peter H. Butler, Teaneck.

NEW YORK-AMHERST: 30 houses, \$1 million. Builder: C. Galante Builders, Williamsville. CHAPPAQUA: 100 houses, \$4 million. Builder: Elcon Assoc., Great Neck. Plans: Bruce P. Helmes, Katonah. Huntington: 55 houses, \$825,000. Builder: Palomino Farms, Hyde Park: 180 houses, garden apartments and shopping center, \$10 million. Sponsor: Green Fields Land and Mark Wyle, New City. Nesconser: Garden apartments, \$890,000. Sponsor: FTCP Corp. Architect: Anthony J. Lorio, Port Jefferson Station. NEWBURGH: Garden apartments, \$1.2 million. Sponsor: Thornwood Gardens, Paterson, N.J. Plans: Martin Gebhardt & DiPaola, Fairview, N.J. POINT LOOKOUT: 145 houses, \$2.2 million. Builder: Lookout-Valley Stream Terrace Corp., Valley Stream

OHIO—BRECKSVILLE: 46 houses, \$1.31 million. Builder: William J. Bailey, Middleburg Heights. CLEVELAND: 12 townhouses, apartments, swimming pool, \$1.2 million. Builder: c/o Chester Gunderson, Oakland, N.J. Plans: Peter H. Butler, Teaneck, N.J. COLUMBUS: 350 houses, \$7,350,000. Builder: Homewood Building Co. NEWARK: 126 houses, \$1.5 million. Builder: Don Oxley & Assoc. Youngstown: 50 houses, \$570,000. Builder: Bartelli & Bero, Poland. Xenia: 42 houses, \$840,000. Builder: Indian Hills Construction, Bellbrok.

OKLAHOMA—OKLAHOMA CITY: 96 houses, \$1,-920,000. Builder: John Monroe Construction. Tulsa: 167 houses, \$5 million. Builder: William K. Warren Foundation and Royal Homes Inc.

PENNSYLVANIA—CONSHOHOCKEN: Apartments, \$3 million. Architect: Howard O. Krasnoff, Philadephia. Falls Township: Apartments, \$2.9 million. Sponsor: Harold Epstein, Philadelphia. Plans: Richard Erlichman, Philadelphia. Fullerton: Apartments, \$1 million. Sponsor: George Lindenmuth. Penn Hills Township: 80 houses, \$2.4 million. Builder: Jack Sable, Monroeville. Ross Township: Apartments, \$5.6 million. Sponsor: William F. McCaltchy, Pittsburgh. Plans: William L. Wurmb, Pittsburgh.

SOUTH CAROLINA—HILTON HEAD: 70 town-houses, \$1.4 million. Sponsor: Frank Schaeffer, Winchester. Plans: Collins & Kronstadt, Silver Spring, Md.

TENNESSEE—KINGSPORT: Apartment, \$1 million. Sponsor: Worsham Bros., Knoxville. Plans: Good & Goodstein, Knoxville. Memphis: Apartments, \$2,327,000. Sponsor: Skylane Inc. Plans: Greif & Lawrence.

TEXAS—FORT WORTH: Apartments and shopping center, \$5 million. Sponsor: A. C. Luther Properties. Plans: Preston M. Green. Houston: Townhouses, \$5 million. Sponsor: Marvin W. Henry. Plans: Langwith, Wilson & King; Apartment and swimming pool, \$1.2 million. Sponsor: Presidential Homes. Plans: A. Carol Brodnax; 162 townhouses, \$3 million. Sponsor: Starkey Lumber. Plans: Arthur Steinberg.

VIRGINIA—FAIRFAX: Townhouses, apartments, \$1.5 million. Sponsor: Ben Mar Construction, Arlington. Plans: Collins & Kronstadt, Silver Spring, Md. HAMPTON: Apartments, \$2.5 million. Sponsor: Riverdale Plaza, Washington, D.C. Plans: Cohn Haft & Assocs., Silver Spring, Md. Reston: Townhouses, \$2 million. Sponsor: Robert E. Smith, Washington, D.C. Plans: Hugh Jacobsen, Washington, D.C. RICHMOND: Apartments and shopping center, \$4 million. Sponsor: Earl H. Wicker. Plans: Shiflett & Gresham.

WASHINGTON—BELLINGHAM: Apartment, \$1.5 million. Sponsor: Omega Development, Seattle. Plans: B. McCool, Seattle. Seattle: Apartment, \$2.5 million. Sponsor: Executive House Corp., c/o H. R. Dodd & Assocs. Plans: T. T. Matsumoto, Tokyo, Japan.

WISCONSIN—MIDDLETON: Apartment, \$2 million. Sponsor: J & S Corp., Milwaukee. Plans: Py & Vavra, Milwaukee. Oconomowoc: Apartment, \$600,000. Sponsor: Harry E. Fryatt & Charles Williams, Waukesha. Platteville: 100 row houses, \$2.5 million. Architect: Fritz-Rosenthal & Assoc. Wauwatosa: Garden apartments, \$3.5 million. Sponsor: Danford Realty Corp., Milwaukee. Plans: Shepherd Associates. Milwaukee.

Leaders start on p. 50

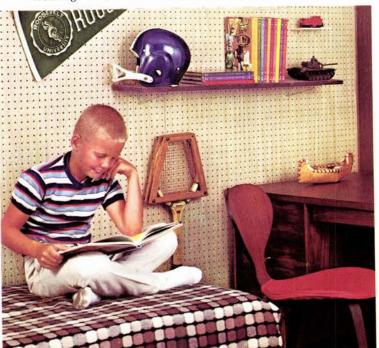
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Inside, Masonite Prefinished Panels. Famous Marbletone and Royalcote wood-grained panels. Your homebuyer customers have seen Marbletone and Royalcote advertised on television and in shelter magazines. So they know these Masonite products are dent-resistant, scuff-resistant, and beautiful to live with. Quick, trouble-free installation with the new nailless adhesive system. Deep-fissured Marbletone, and your choice of ten Royalcote high-fidelity wood-grained finishes.



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Marbletone by Masonite. Why not use this dramatic paneling as an accent wall? Adds sales appeal at low cost.

Outside or inside, Masonite makes hardboard products that can take it and stay new-looking longer. You save money, cut replacements to a minimum, and sell homes that insure buyer satisfaction. For more product information, see your lumber and building material dealer or write to Masonite Corporation, Dept. HSH, Box 777, Chicago, Illinois 60690.



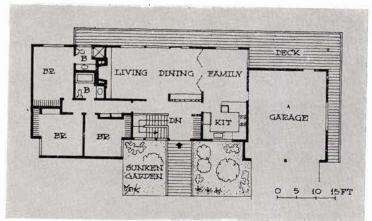
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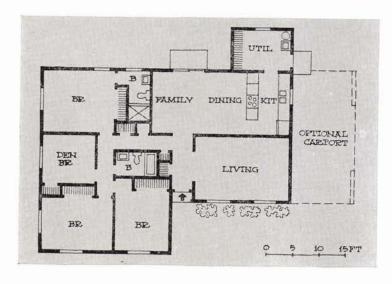


Custom builder's prototype: a hillside model with a flexible floor plan

This three-bedroom model was the starting point for seven other custom-built houses last year. Buyers particularly liked the family room with ceiling-height folding doors that extend the living-dining area to 39', the unfinished lower level for future expansion, and easy access to the rear yard from both levels. Builder Jim Martin of Olympia, Wash., sold this model (with 1,590 sq. ft. of finished area) for \$28,450 on a sloping 1/3-acre lot. Architect Steve Johnson provided daylight for the basement from two directions through windows along the sunken entrance garden as well as sliding glass doors in the rear.



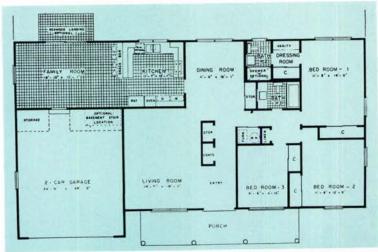




A \$14,950 model with a plan that sells well in houses up to \$40,000

This compact 1.501-sq.-ft. model has proved so popular (about 50 were sold last year out of 250 total sales), that LaMonte-Shimberg Builders now enlarge the plan and use it, with only minor variations, for models up to the top of their line. Features of the plan that buyers like: the deadend living room, the combined family room and kitchen which can be closed to the rest of the house and the separate sleeping wing with four bedrooms and two baths. This model, which has been built on owners' lots around the Tampa, Fla., area, is shown here on a 70'x110' lot in the builders' development (which now has 1,200 houses, eventually will have 3,000, in all price classes). Also offered: choice of several elevations by Architect Gordon Johnson, carport for \$650 or garage for \$900 extra.

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THE INSIDE



AND THE OUTSIDE.

Inside and out, Kingsberry has the *individuality* that sells.

Inside...choose from over forty floor plans...for a starter. Then which of the three distinctive kitchen styles will your buyers prefer? The compact and economical or the woman-appeal of built-in desk, bar and maple cutting boards, etc., found in the "Royal Deluxe"? Find equally exciting variety in bath appointments. Now, what type floors...trim...windows?

Outside . . . after choosing from over a hundred elevations, individualize further through your choice

of seven exterior finish combinations. Often it takes but the slightest touch to give a home a totally different personality. A touch like the simple brown trim on the "Natchez" above.

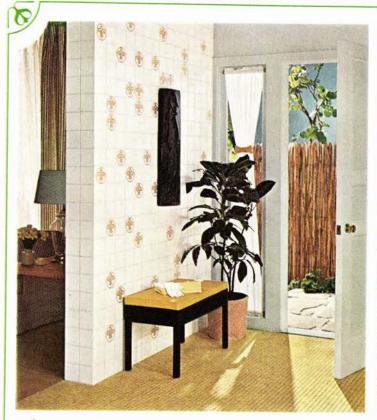
Individualized designs — backed by unchallenged quality and a powerhouse of a marketing program. No wonder Kingsberry is the fastest growing manufacturer of homes in America! Let us show you the inside and the outside of the over 100 models that helped more than 700 builders put us there.

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Cash in on the trend to quarry tile. The fashionable Fawn Gray color, used here, is especially effective with contemporary architecture. This remarkably durable tile graces the most expensive homes, yet is one of the least expensive of all tile floors. And it is wonderfully practical—impervious to spots and, like all American Olean tile, it requires practically no maintenance. Plate 157.





Ceramic mosaic colors blend beautifully with wood tones. Impervious to spots, and ever new-looking, a ceramic mosaic floor such as this gives a feeling of class at a glance . . . makes your selling job so much easier. American Olean has dozens of new patterns and a wide selection of colors from which to choose. Floor is pattern P23-2115. Plate 126.

3 Ideas for entrance halls that will help sell homes

With the tremendous competition today in home building, distinctiveness often makes the difference between sale and no sale. Entrance halls give the buyer his first impression. Make it a good one with American Olean ceramic tile. For many more sales-building ideas, write for our new booklet 470, "New Decorating Ideas."



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House & Home

August 1965

EDITORIAL

Mobile-home lesson:

There's a big difference between sticking your head in the sand and keeping your ear to the ground

For years most of us in the housing industry have closed our eyes and hoped that mobile homes would simply go away—or be zoned and regulated out of existence. In doing this we ignored an opportunity in *our* market-place that mobile-home manufacturers seized, almost by default. As a result, they and their dealers have become a significant part of housing. For example:

- Over 200,000 homes, or one of every six new single-family dwellings, will be mobile this year. Today mobile homes constitute one-third of all under-\$10,000 housing produced in the U.S. At their present growth rate mobile homes could dominate the low-cost market before 1970. And 85% of these homes are permanent dwellings—only about 10% of them are second homes.
- Today mobile-home prices range from \$3,000 to \$12,000 with an average price of \$5,600. Buyers can get close to 750 sq. ft. in a mobile home for as little as \$8,000—fully furnished. A good many of them include wall-to-wall carpeting and air conditioning as well as all the standard amenities of a single-family house.
- Competition among mobile-home manufacturers and increased factory efficiency have held mobile-home prices, per sq. ft., almost constant for over a decade. This explains the paradox of purchasing a house on wheels when mobility is no object: only in mobile homes has factory production of *completely assembled housing* really made an economic case for itself. The easy maintenance and low cost of most mobile homes have appealed most strongly to the 20- to 29-year-olds (our fastest growing segment of the population) and retirees—the 65- to 74-year-old age group, also a rapidly growing group. Fixed incomes of many retirees and the lower incomes of young marrieds disqualify them for much of the new conventional dwellings.
- Mobile-home manufacturers avoid the problem of income qualification by using consumer financing with all the advantages that shell-home manufacturers found in it and none of the disadvantages that ruined shell housing. If a mobile-home owner doesn't keep up his payments, the dealer simply hauls away the home or immediately sells it to another buyer. True, the prevailing rate for mobile-home loans runs up to 14% and

buyers usually put 20% down on a seven-year note. But this is not too burdensome when the average price is only \$5,600. Some manufacturers have tried to get longer terms, but typical customers only keep their mobile homes for three years before turning them in for newer models.

• Today's new mobile-home parks with good land plans, swimming pools and community centers can furnish a feeling of almost-country-club-living for lower income buyers. And the park owner can get eight to nine sites, or pads, per gross acre including streets, sidewalks and recreation areas. Usual cost: from \$1,500 to \$2,000 per improved pad, not including land. However, mobile-home parks are high-risk investments, and most banks will only extend about 50% loans on them because it takes a typical park three or four years to show a profit.

In their efforts to inhibit growth of mobile-home parks, most communities—says a recent New York State survey—have restricted mobile homes with stiffer, more arbitrary, more obsolete regulations (probably unconstitutional) than those governing houses without wheels. Yet mobile homes generally are built to a national standard—asa's A119.9 (1963). And mobile-home manufacturers have been the first element in our industry to begin work on standardized performance criteria: the Mobile Home Manufacturers Assn. has retained the Battelle Memorial Institute to do this job.

The housing industry should no longer consider mobile homes the enemy but rather should learn from the "wheel estate" industry how to tap markets that we haven't touched. Some homebuilders and some home manufacturers have already joined the 170 firms that manufacture mobile homes today. More builders could become park owners and use FHA to do it. (Mobile-home park owners virtually ignore FHA which has insured only 18 parks in the past decade.) And to improve business in this market, new legislation should be written for mobile homes to solve legal problems in taxation, attachment of liens, code enforcement and zoning regulations.

—RICHARD W. O'NEILL

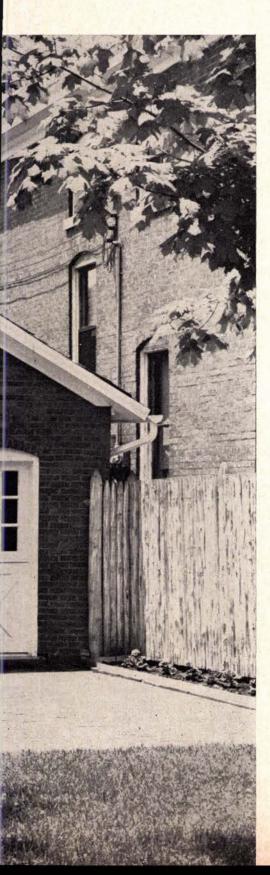


OLD HOUSE in Columbus, Ohio, vacant since 1918, was appraised as worthless before it was restored (*below*) for \$6,000. Its current value: \$13,000.

Urban fix-up: A



neglected market beckons the builder



A small but growing group of builders and investors is finding lucrative opportunities in renovating old dwellings like the one at left. They are profiting from a fundamental change in both government and privately sponsored urban renewal—a change that now stresses renovation of the nation's 25 million pre-1939 dwellings instead of new building. With that limitless market, rehabilitation could be a major part of housing within five years.

The opportunities are open to all builders, large or small. Any professional can buy an old building or two, or even a block, bring units up to 1965 standards and then sell or rent them.

The greatest promise of success lies in neighborhoods with these characteristics:

- 1. Houses have deteriorated in price and rent.
- 2. Natural boundaries such as a river or an expressway give the neighborhood identity. Landmarks such as a church or park are important, and a historic tradition is a big plus.
- 3. Residents are so determined to upgrade their neighborhood that they will demand city improvements in street maintenance, trash pick-up and other services. In two of the most striking restorations (pp. 80 and 84), the city set up official public commissions to control architectural standards in neighborhoods. Private builders support these controls because they assure protection of their own authentic restorations.

When these conditions prevail, private builders find conventional mortgage lenders willing to underwrite rehabilitation.

But government financing has been hobbled by turtle-paced FHA and urban-renewal processing; only 44,000 houses in official renewal areas have been rehabilitated. However both officials and civic groups like Action Inc. are pushing changes.

- You should not overlook these three financing aids:
- 1. FHA Sec. 221d3. It permits rehabilitation with submarket loans, due to become 3%. Chicago Mortgage Banker Salk, Ward & Salk has used d3 to renovate 15 apartment buildings.
- 2. Sale or lease of rehabilitated units to public housing agencies. Congress is letting local agencies buy or lease 25,000 units yearly for four years. A plan being tested in Philadelphia will give builders mass production economies by letting them take blocks of 20 to 100 houses for repair under lump-sum contracts.
- 3. Urban renewal loans and grants. In renewal areas homeowners may qualify for 3% rehabilitation loans up to \$10,000 or outright grants up to \$1,500 to meet housing code standards.

More than any other housing industry field, rehabilitation requires close partnership between builder and government official.

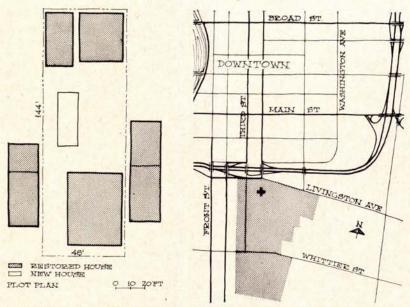
To see this partnership at work in three cities, turn the page.





RESTORED ENCLAVE, by builder-investors, includes two old frame buildings, shown in their original condition in top photo, and a new brick building.

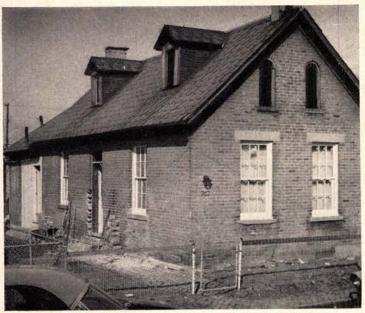
Opportunities for builders and investors can grow out of



ENCLAVE'S PLAN shows location of six buildings, including three in photo above. Downtown-Columbus map shows this project (cross) and German Village (shaded area).

Rehabilitation of the old German Village section of Coumbus, Ohio, started in 1959 when a few century-old houses like the two on the facing page were restored by their owners. These random efforts soon led to more ambitious projects by professionals, who bought up rundown German Village houses and fixed them up as profitable rental property. Now some 300 of the 1,700 houses in the 321-acre area have been renovated.

One leading example is an eight-unit complex—shown in the plan at left and the photo above—that cost \$85,000 and will gross more than \$10,000 in annual rentals. The investors are three partners—Robert and Samuel Shamansky and Thomas Maimone. And construction—renovating five houses and building one new one—is being done by a Shamansky-owned company, Ohio Home Builders & Supply Corp.



BEFORE: Dilapidated cottage cost \$1,500, took \$6,000 to renovate.



AFTER: With modernized basic structure house would bring \$12,500.

William Blackstone



BEFORE: Front lot-line location proves authenticity. House cost \$10,500.



AFTER: Sandblasting to remove paint was part of \$5,000 fix-up cost.

historic restorations by individual homeowners

As a rule, restoration of a German Village house costs twice its initial price, according to Robert Shamansky. Originally, small houses in almost hopelessly dilapidated condition could be bought as cheaply as \$1,500, and the restoration started at about \$6,000. But now upgrading of the area has more than doubled property prices, and investors must estimate their fix-up costs carefully to be sure a project will be profitable.

To renovate old houses, Robert Shamansky and his partners restore the original design and add plumbing. Other common improvements: new floors, gutters, ornamental iron fencing and repairs of slate roofs.

The largest project in German Village is a new 12-unit complex that is expected to yield a 16.7% gross return. It will cost \$93,000, will command monthly rentals of \$130. Nine apartments will be in three

old buildings, three in a new one in the center of the site.

The investor-developer, Douglas Goodsell, already has 25 units—all rented—in German Village. He says his return used to run as high as 19%, but steadily rising property prices have cut his return.

Goodsell normally buys property outright, then finances the restoration with a construction loan (100% of total cost) from the local Franklin Federal s&L—a powerful supporter of the German Village program. He converts this to a 67%, 20-year 534% permanent mortgage upon completion of the renovating job.

Although builders have had no government subsidy or writedowns, their profitable operations owe much to a program supported by a neighborhood historical society and the city.

The German Village Society, a 325member group of leading citizens is dedicated to restoring "the tree-lined streets, brick walks, wrought iron fences, neat and clean-scrubbed houses" of the mid-1800s.

In 1959 the city—influenced by the society—established the German Village Commission and gave it authority to rule on any proposed construction or alteration in the area. Anything affecting the exterior of a building—even a change in color—must be approved.

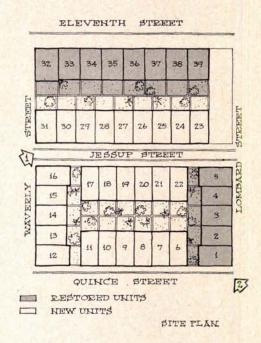
Commission members, who serve without pay, helped get rezoning to prevent undesirable property uses. They also got the area exempted from the off-street parking requirements that would have forced the demolition of some old houses to provide parking space for new ones.

So far no German Village houses have been rehabilitated for speculative resale. All renovations have been for owner occupants or rental. There is always a waiting list for rentals.

continued



NEW UNITS, faithful reproductions of 19th-century row houses, blend into existing neighborhood.



SITE PLAN shows nine new houses squeezed in behind eight original houses in Eleventh St.

A mixture of new construction with renovation work can take



SHABBY OLD BUILDINGS will be made into townhouses and apartments by Builder Gross, in foreground. They adjoin an earlier Gross project.

"Rehabilitation is a risky business if it's a builder's only business."

So says Builder Jay Gross, the man in the photo at left. Gross and his partner, Martin Arost, have profitably renovated some 200 houses in downtown Philadelphia, but they claim they couldn't have done it without their volume (\$3 million annually) of new houses and apartments not only in the suburbs but also in rehabilitation projects like the one pictured above.

Gross explains: "If we had to charge all our overhead to rehabilitation, hire sub-contractors just for this work and buy materials in limited volume, our costs would be 20% higher."

To would-be remodelers of old centercity buildings, Gross and Arost also offer these obesrvations:

1. Land assembly is the toughest job. It took Gross three years to buy the land



RESTORED UNITS retain distinctive brickwork, shutters and mansard roofs of last century but are now shallower to accommodate new houses on side street.

some of the risk out of urban rehabilitation

for the 39-unit Waverly Row project (above), and today no more parcels of this size are available. Gross and Arost must often compete for old property with a redevelopment agency that will pay up to three times more because its bid can include federal, state or city writedowns.

- 2. Restoration costs must be geared to the market. In his urban market Gross figures a rehabilitated (or new) house must be priced under \$30,000, and mortgage payments must not top \$200. Reason: prime prospects are young families with incomes ranging from about \$10,000 to \$12,000.
- 3. Financing is difficult at first. But once an area starts upgrading, money comes easier. At first local s&L's would make only low-ratio loans in Philadelphia's rehabilitation projects. Now they regard restored houses as prime risks.

Gross could get no FHA commitments

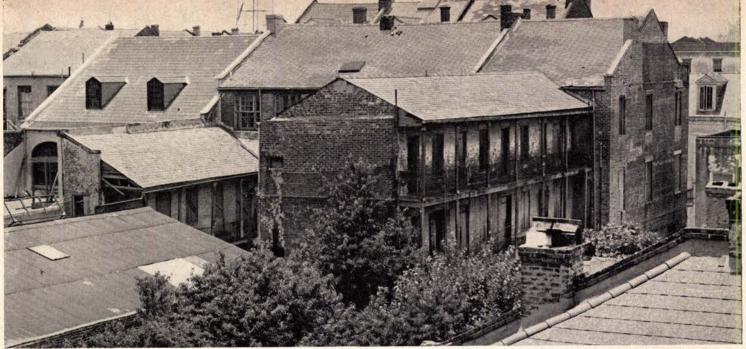
on Waverly Row until the project was open a year and almost sold out. Now FHA, impressed by Waverly Row's success, has given him a commitment on 15 nearby new houses.

- 4. Skilled union labor may cost more per hour, but it's worth it. Mechanics doing renovation work never know what they will run into, so they must have the skill and experience to solve new problems. Brickmasons must be able to duplicate old brickwork, and carpenters must be familiar with century-old details. Says Gross: "On a large job, costs are about the same with union labor, and you get a better job."
- 5. Most old houses must be gutted and rebuilt inside. Reasons: to provide modern floor plans and all-new plumbing, heating and wiring. Gross usually saves only exterior masonry walls and floor joists.
 - 6. It rarely pays to salvage original

materials. Labor required to dismantle, repair and reassemble most components probably will not be reflected in additional value.

7. The only way to renovate houses for sale at low prices (under \$15,000) is to go into the heart of the slums where buildings are dirt cheap. But in such areas even a renovated house probably won't sell unless it's part of a project that's large enough to start the upgrading process in an entire neighborhood. Most successful Philadelphia rehabilitations are extensions of already acceptable areas.

Waverly Row is a combination of 26 new houses and 13 old ones. Its two-block site, originally occupied by rooming houses and a parking lot, was bought by Gross for just under \$10 a sq. ft. After demolition and land clearance, each finished lot cost \$6,500. House prices: \$23,900 to \$28,000.

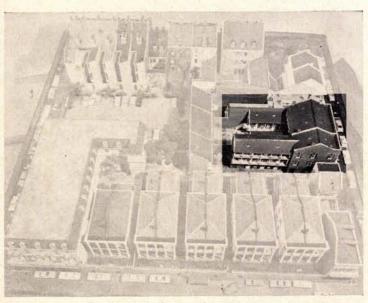


NEGLECTED OLD BUILDINGS, formerly slaves' quarters and servants' housing, are in center of block (see scale model, bottom left) now being restored.



STREET FRONT of mid-1800s elevations will be identical to this architect's model when restoration is completed. City commission controls all designs.

If a big enough site can be assembled, it can become



SCALE MODEL of entire block shows variety of buildings—including group in photo at top of page—to be restored by New Orleans Investor Sam Recile.

That is what Investor Sam J. Recile is doing with an entire block (scale model, left) of century-old buildings in the historic Vieux Carré section of New Orleans. To assemble the site, he had to deal with more than 20 property owners, many of whom held cloudy titles.

When completed this fall, the rehabilitated block—to be called Le Richelieu Square—will have 200 apartments and hotel rooms at monthly rentals ranging from \$150 to \$500 and will represent a total investment of \$5.5 million.

Much of the block's old charm will be restored. Street façades, for example, will appear as they did 100 years ago. And new amenities, like swimming pools in rear courtyards and off-street parking, will be added.

Le Richelieu Square is the latest effort of Recile's Southern Land Title Co., largest landlord (more than 50 buildings and



BEFORE RESTORATION low garage, left, had replaced burned-out half of double house.



AFTER RESTORATION new construction replaces garage and matches existing half of double house,

a high-rent oasis in a rundown but convenient area

1,000 rental units) in the 13-square-block Vieux Carré. Like German Village in Columbus, Ohio (see p. 80), the Vieux Carré is protected from unauthentic restoration by tight design control. All plans for construction, restoration or demolition in the area must be approved by the Vieux Carré Commission, a nine-man citizen's

Although the Vieux Carré is older and more famous than comparable areas in many U.S. cities, its advantages for builders and developers are not unique. For example:

- 1. It is next to the central business district.
 - 2. It has recognizable boundaries.
- 3. It is large enough to promise continuing rehabilitation opportunities.
- 4. It had run down over the years to the point where the return on rental property is low.

In his Vieux Carré ventures, Sam Recile estimates the finished cost of an apartment unit at roughly \$14,000 to \$18,000. Here is how figures worked out on one recent 12-unit project of one-bedroom apartments.

> \$40,000 Acquisition cost: Restoration cost: 150,000

> \$190,000 Total:

Financing: \$133,000 mortgage, amortized at 53/4 % for 23 years.

Annual rent roll: \$27,600 based on monthly rentals of \$165 to \$195.

Recile usually won't touch property if the price is so high that the final cost of the apartments may boost their rentals out of the market. But sometimes he revamps his plans to work in more apartments, and thus lower the unit cost, or to provide larger apartments commanding higher rentals.

Here is how Recile's company manages three other basic phases of its operation:

- 1. Construction is by an outside contractor (H&H Construction Corp.) with years of experience in the Vieux Carré and a warehoused supply of authentic millwork, hardware and components.
- 2. Rentals and building management are handled by the G. Brian Corp., a company subsidiary. Besides getting tenants as fast as new units are released for rent, GBC advises on current market demand, popular amenities and decorating.
- 3. Long-term financing is through conventional lenders (terms: 20 to 25 years). Recile prefers lenders with experience in the Vieux Carré. Reason: newcomers don't know the special factors affecting the area and thus take 60 to 90 days to process a loan application.

For a close look at some of Recile's restored buildings, turn the page.

continued

Restoration formula: keep the authentic flavor, but add modern efficiency

The rules of New Orleans' Vieux Carré Commission, as well as Investor Sam Recile's philosophy ("we're dealing with history, not just real estate"), demand close duplication of all exteriors and much interior detail. But when it comes to mechanical equipment and the amenities of easy living, Recile's restorations are 1965. Tenants are attracted by authentic elegance, he says, but sold by carpeting, air conditioning, complete kitchens and artful decorating.

Although the sturdy 3'-to-4'-thick brick walls and heart cypress timbers are usually sound, most interior partitions and all wiring and plumbing must be ripped out. Floors are leveled; window and door frames are removed, trued up and replaced; and layers of paint are removed from millwork. Plaster moldings and ceiling medallions are duplicated by taking impressions of whatever is left of the original pattern; millwork is scavenged from odds and ends in warehouses or made to order; and concrete is removed from patios to expose the original flagstones, which are then reset.

Says Recile: "Much of this costs a lot of money, but we are restoring for long-term ownership and can spend more than a developer looking for a speculative resale."



BALCONY BEDROOM (in house on p. 85) was gained by dropping main floor 2' below grade. Extra height allowed one-bedroom units instead of efficiencies, made rehabilitation profitable.



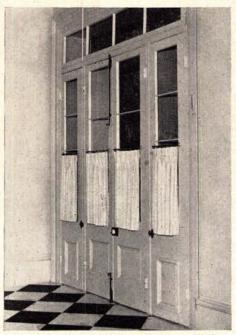
OLD ATTIC (*left*), an uninsulated heat trap and useless except as a catch-all for junk, was turned into a large bedroom with attached bath (*right*).



Walls and ceiling were insulated and plastered, and the original cypress beams were left exposed for effect.



IRON GATE at former carriage entrance to building is an attracive security measure.



FRENCH DOORS (at \$35 to \$150 a pair) have original hardware, were trued and refinished.



NEW MEDALLION, cast from mold of original, cost about \$300, chandeliers from \$250 to \$500.

Frank Lotz Miller

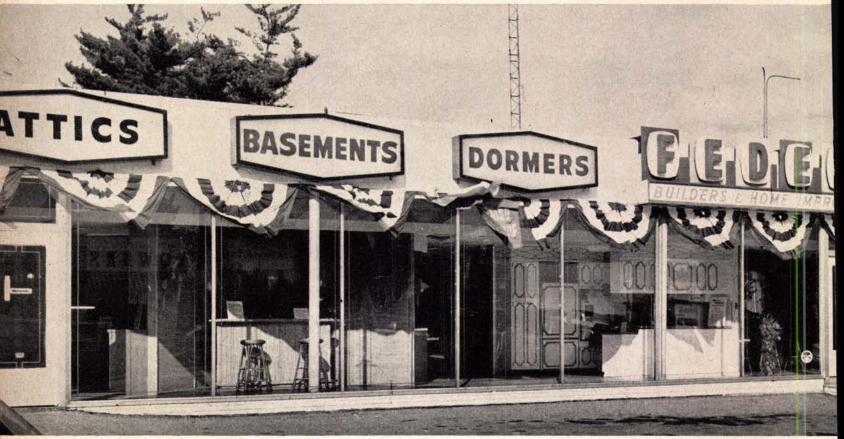




courtyards, with their early-19th century charm, are important elements in Vieux Carré restorations. Original flagstones are salvaged wherever



possible, and plantings and fountains add greenery and coolness. Swimming pools, usable almost year round, are popular in New Orleans.



THE PERMANENT LOOK: Many of today's successful one-stop remodelers stress stability by operating showrooms like this one on Long Island.

One-stop remodeling: six rules for survival in a

No phase of the housing business has claimed more failures than one-stop remodeling. It has a bad image fostered by suede-shoe operators. And it suffers from competition with small, no-overhead specialists.

But despite these problems, some companies that offer a full range of remodeling services keep growing year after year. To find out how they do it, House & Home studied five remodelers (briefly profiled in the box at right) averaging 15 years in business. These basic rules emerge from their operations:

Rule No. 1: Watch your business reputation at every step

Even the decision to set up a showroom can be prompted by this concern over the company's image. Reason: a showroom demonstrates not only remodeling ideas and products but also the remodeler's staying power.

"It lets people know we are not going out of business tomorrow," says Harold Hammerman of Allied Builders in Los Angeles.

With an eye to their public image, successful remodelers also devote some of their time to community activities. Cleveland's Robert Becht is past president of a local Rotary Club and board chairman of the Cleveland Home Improvement Council. Becht and Arthur Oxenberg of Long Island's Federal Builders and Home Improvement Corp. are directors of their local Better Business Bureaus. Hammerman writes a local newspaper column on home improvements. And Sol Raikow of San Diego's American Housing Guild is a frequent speaker on remodeling at local women's clubs.

But the key to a good reputation, remodelers say, is making good on promises to customers.

Rule No. 2: Guarantee all your work, and chase down every complaint

Four of the five remodelers studied by H&H guarantee their jobs for one year. The fifth—Federal—gives customers a two-year warranty on all materials and labor and has two men who speed complaint handling.

Behind these guarantees are rigid inspection systems. Allied and American Housing Guild subcontract most of their work but employ supervisors whose primary duty is to inspect every job every day. Federal authorizes its inspectors to have tradesmen rip out and replace substandard work.

Many customer complaints can result from skimping on materials. So some companies tend to specify longer-lasting materials than are actually needed—1/4" plywood instead of 3/16", for example.

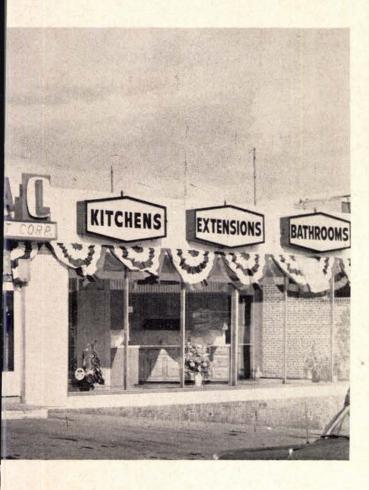
Rule No. 3: Don't indulge in price cutting to outbid competitors

"If you begin to figure jobs against what you think competitors will bid, you may build a booming volume, but you'll end up with no profit," says Becht.

Adds Raikow: "Don't bid the job; sell it. You're better off not taking on a job unless you can make a profit."

Sounds reasonable, but what's the basis for realistic bidding? Develop itemized price lists so that salesmen can cost out jobs themselves, say the successful remodelers.

Their lists are among their most closely guarded business secrets, but all agree with Becht that "anyone can make up a price book for himself." The method: analyze and compare the itemized costs of all your previous jobs. If you haven't done it already, you can start by putting all materials invoices, subcontractors' bills and



treacherous market

labor charges for each job into a large envelope or file folder.

To guard against misunderstandings or improper estimates by salesmen, Federal requires a second estimate by its production department. Production people make detailed drawings of a job, then go over each cost item with the customer.

Rule No. 4: Figure on earning a gross profit of about 40%

Give or take 5%, that's what successful remodelers are shooting for. And it is borne out by the only audited figures available from a remodeling company—those from publicly held Allied Building. Here is Allied's recent cost breakdown:

		%
Total sales	\$979,626	100.0
Cost of sales	577,802	59.0
Gross profit	401,824	41.0
Sales & admin	233,904	23.9
Taxes	33,098	3.4
Net profit	\$134,822	13.8

A gross profit of about 40% means the remodeler is marking up his labor and materials costs by roughly 70%. But American Housing Guild's Raikow says you can't generalize about mark-up: "You have to decide how much profit you want,

Five who survived: how they began and how their growth developed

Here, in order of years of remodeling experience, are business profiles of the five one-stop remodelers studied by House & Home:

Becht & Co.—Cleveland, headed by Robert Becht, opened its doors 30 years ago as a maintenance and repair service for banks, insurance companies and other property owners during the Depression. When FHA Title One financing became popular, Becht shifted to home improvement. About half of his estimated \$300,000 annual volume still comes from commercial remodeling.

Allied Builders—Los Angeles, is the remodeling and principal subsidiary of Construction Design Inc., a publicly owned company headed by Harold Hammerman. Hammerman opened remodeling offices in five Midwestern cities from Cleveland to Louisville in 1939—and was bankrupt in six months. Emigrating to Los Angeles in 1942, he started his own remodeling business, adopting the Allied Builders name in 1947. In 1961 Construction Design Inc. succeeded to the business, and in April 1962 sold 60,000 shares of stock at \$5 a share. Net sales have increased from \$962,000 in fiscal 1962 (ending June 30) to \$1,220,000 in fiscal 1964. Net income fell from \$135,000 in 1962 to \$22,000 in 1964.

East Coast Attic & Basement Co.—Mineola, N.Y., was started by Doris Schweitzer in 1954 when she modernized her own home on Long Island. Through a leased department agreement, East Coast n 1962 began operating as the home remodeling center of nine Macy's stores in New York City, Long Island and New Haven, Conn. East Coast continues to sell home improvements under its own name from a showroom in Mineola and a combined showroom-warehouse in Lindenhurst.

Federal Builders & Home Improvement Corp.

—West Hempstead, N.Y., began as a two-man operation when Arthur Oxenberg left as manager of a Vim Appliance store to go in business with a former salesman. After several changes, Federal emerged with Oxenberg as president and Julius Kasover, one of four owners of Vim Appliances, as his full partner. Federal's trademark is large showrooms. The company operates four and is building a fifth, none smaller than 2,400 sq. ft.

American Housing Guild—San Diego, long the largest merchant builder in San Diego, set up a home modernizing department in June 1961 and picked Sol Raikow, a former New York City remodeler, to run the department. Raikow has a staff of four or five full-time salesmen, two draftsmen, two field superintendents and two office clerks. AHG operates a showroom and office totaling 2,000 sq. ft. in a surburb five miles from downtown San Diego and recently opened an office in Orange County south of Los Angeles. It averages one new job daily.

then study your actual costs and overhead. But once you set a price based on these items, don't vary from it."

Rule No. 5: Set up a system to schedule and control production

Their methods vary, but the five remodelers studied by H&H agree that you need centralized visual control—a schedule board, for example—when you're handling 10 to 100 jobs at once. And one company, Allied, uses the critical path method (H&H, Apr. '63) to schedule every job. Here, says Allied's Hammerman, is how CPM pays off:

- 1. It's a fast job-status reference for the general manager, superintendents, salesmen and subcontractors.
- 2. It keeps funds flowing on time because the billing clerk can issue invoices based on the CPM diagram.
- 3. It forces long-range planning like ordering materials far enough ahead.
 - 4. It helps spot bottlenecks.
- It makes it easier to analyze jobs after they're done.
- 6. It speeds up customer's decisions by showing them how everything dovetails—how indecision on a little matter like picking tile colors can halt all work.

One tip: several remodelers schedule kitchen jobs separately because of the special trades involved.

Rule No. 6: Develop a versatile, management-minded sales force

Remodelers interviewed by H&H want salesmen who can figure costs, rough-sketch designs and, if need be, follow through on every phase of a remodeling job. Here's their composite formula for finding and developing salesmen who meet those standards:

Hire them with care. Federal's Oxenberg, for example, hires only one of every 20 applicants. He looks for "reliable, men who know home modernization thoroughly." Allied's Hammerman wants candidates who are "high strung, aggressive and hungry—but not unstable."

Train them thoroughly. Allied puts each new man through an eight-week training course costing \$2,000. Other training programs are less ambitious, but, like Allied's, they are heavy on instruction in estimating and drawing floor plans.

Pay them well. A top-flight salesman can make up to \$30,000 a year, says Hammerman. He expects his salesmen to run up \$200,000 to \$300,000 in annual sales.

Make them responsible. Some companies tally up the costs at the end of each job and, if the salesmen estimated too low, deduct the difference from his commission. Allied has refined this approach. It makes the salesman responsible for estimating, laying out and scheduling the job, then

bases his pay on the job's profit. One measure of the plan's success: not a salesman has left the company in 18 months.

To dig up leads for salesmen, the successful remodelers advertise regularly. American Housing Guild runs weekly ads aimed at taking business away from newhouse builders—including its parent company. Typical copy: "Don't move—improve. It costs less to enlarge your home than to buy a larger house."

Allied ads in two Sunday papers urge readers they can "live better for less at the same address" and invite around-the-clock calls for estimates at any of nine offices. This service nets about 70 calls a week. Cost: \$15 to \$30 a month for an answering service at each number.

But the successful remodelers don't agree on these four basic questions:

- 1. To sub or not to sub? Allied turns over amost all its work to several hundred contractors. American Housing Guild subs everything but carpentry. And Becht subs all licensed trades (i.e., plumbers, electricians) but carries three carpenters, six painters and one paperhanger on its payroll. Federal subs virtually nothing.
- 2. Where and how to buy? East Coast Attic & Basement Co. of Long Island has a subsidiary that buys lumber, doors, millwork and tile in carload lots. But American Housing Guild's Raikow calls this practice a "money loser" and says he buys from local suppliers: "We depend on our volume of business to get the right prices."
- 3. Showroom or department-store tie-in? East Coast leases remodeling centers in nine Macy's stores because "it's too difficult to get people into showrooms today." The Macy's-East Coast agreement covering all nine stores at a lump cost lets East Coast put shadow-box displays in some stores and furnished rooms in others.

Other remodelers are skeptical of such tie-ins. Says Allied's Hammerman: "The stores want too much off the top to give the contractor much chance of success."

Says Federal's Oxenberg: "They want 10% to 15% of the gross. By not paying that percentage, we can give more value. And we'd rather have the customer know exactly whom he's dealing with."

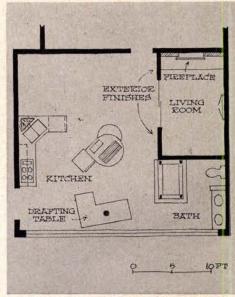
4. Big showroom or small? Keep it small, advises Hammerman, whose 600-sq.-ft. display is shown at right; "The bigger it is, the more manpower it requires. Just to keep it clean becomes a problem, and it should be spotless."

Make it big, advises Oxenberg, whose five showrooms are all over 2,400 sq. ft. The largest, also shown at right, covers 4,000 sq. ft.

"Here we really *show*," he says. "Where else can a person see ten full kitchens?"

-KENNETH D. CAMPBELL

Here are two showrooms---



600-SQ.-FT. SHOWROOM of Allied Builders displays kitchen, bath and room addition.

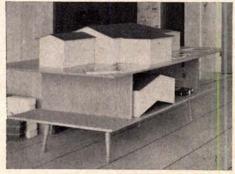
Here are 11 displays used



REMODELING AWARDS testify to work quality. Customers see jobs on drafting table. (Allied)

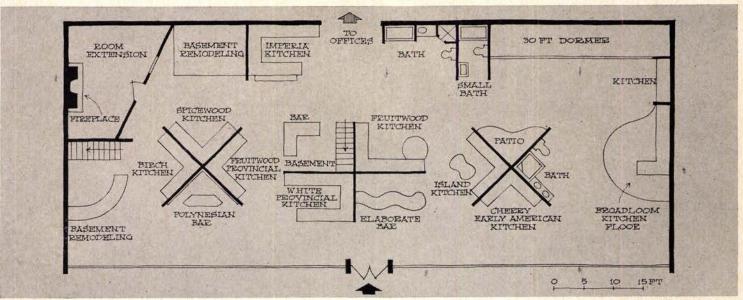


LUXURY KITCHEN shows housewife built-in range, freezer and dishwasher. (Federal)



BUILDING BLOCKS simulate room or second floor additions. (American Housing Guild)

one small to cut overhead, the other large to create desire with a variety of ideas



4,000-SQ.-FT. SHOWROOM of Federal Builders is calculated to stimulate customers' imaginations with 22 different one-stop items in-

cluding ten kitchens, five basement rec rooms and full-sized dormer. A manager mans the showroom to make appointments with salesmen.

by one-stop remodelers to sell home-improvement packages from their showrooms



EXTERIOR TREATMENTS for room additions are displayed by full-height models. (Federal)



FIREPLACE, paneling and pegged oak floor let customer visualize recreation room. (Federal)



POLYNESIAN BAR uses off-beat ideas to prod customers' imagination. (Federal)



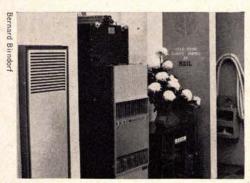
LARGE BATH combines stall shower with normal fixtures in paneled bath. (Federal)



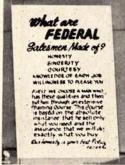
ACCESSORY CENTER gives convenient look at fixtures. (Whirlpool-Wonderlife Center)



SHADOW BOX of before-after photos asks customers to fill out card for estimate. (East Coast)



CLIMATE CONTROL CENTER plugs central air conditioning as an improvement. (Wonderlife)



SILENT SALESMEN make a sales pitch without tying up sales personnel. Two versions: posters



Car you Burating at the Source of a the Source of a sent to beat to be source of your black?

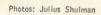
Our FROERAL bring your mose privile with any style extension to the your needs.

Stan Downly,
RUSTIE ADDITION And DUTTICON AND PUT COOK, SPANSE DUTTICON, SPANSE DUTTICON, PRIVAL OF THE SOURCE PRIVAL SOU

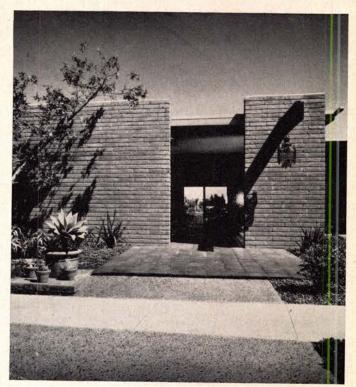
sprinkled through showrooms (Federal) and product literature racks (Wonderlife).

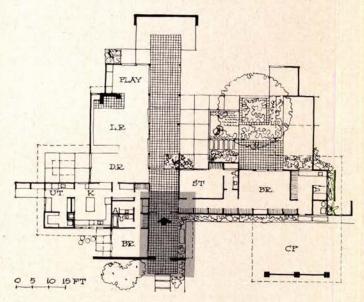
DESIGN FILE / ENTRANCES

Second in a series on planning and design ideas



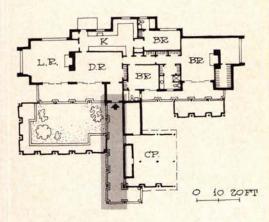






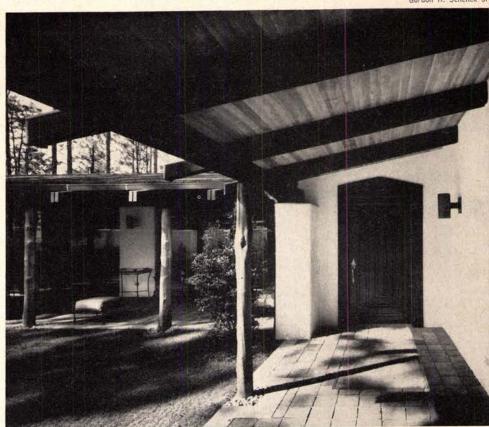
A CONTEMPORARY ENTRANCE WITH INSIDE AND OUTSIDE FOYERS

The inside foyer (photo, left) extends 17' back from the double front doors. The outside foyer, also 17' long, runs from the doors to a 6' opening in the adobe brick front wall (photo, right), and it is also open on the side adjacent to the driveway and carport (plan). Both areas are the same width—12'—and both are floored with terra cotta tile. Architects: Buff, Straub & Hensman.



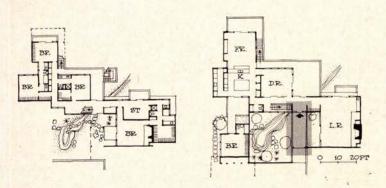
A SIMPLE TRADITIONAL ENTRANCE WITH A LONG, SHELTERED WALK

The walk begins at the far end of the carport, passes a walled garden and reaches the front door some 50' from its beginning. The plank and beam roof is a continuation of the main roof of the house, and the 8' wide walk is built of paving blocks set with depressed mortar joints. Architects: Austin & Faulk.



Photos: Leland Y. Lee





A WOOD BRIDGE ENTRANCE FOR A HILLSIDE HOUSE

At the street end of the bridge is a wooden gate (top photo), and at the house end is a solid front door flanked by narrow glass windows (right). The bridge crosses a waterway between the house and a filled-in parking area. Architects: Wuesthoff & Gallion.

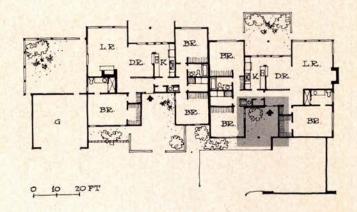


continued

DESIGN FILE / ENTRANCES

Leland Y. Lee

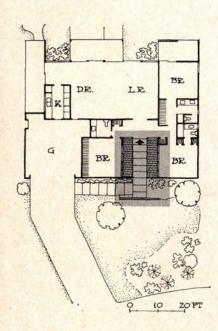




PRIVATE ENTRY COURT FOR A TOWNHOUSE

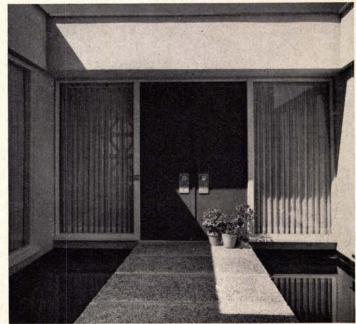
Enclosed by walls on three sides, the court has a wrought-iron fence halfway across the open end. Roof beams are carried over the top, but part of the roof is left open for sunlight. Terra cotta tile is used for both the front walk and the inside foyer. Architect: Richard Leitch.

eorge Lyons



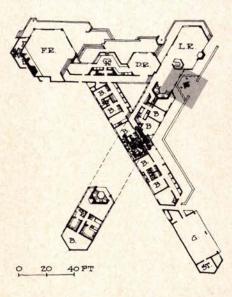
AN ENTRANCE WALK FLANKED BY POOLS

A 13'x15'x6" concrete basin is built into the entrance court, and concrete slabs with an exposed aggregate finish are laid on masonry blocks down the center. The basin is waterproofed and filled with about 3" of water. Escutcheons on the double doors have a pebbled finish match the front walk. Architect: Henry H. Hester.





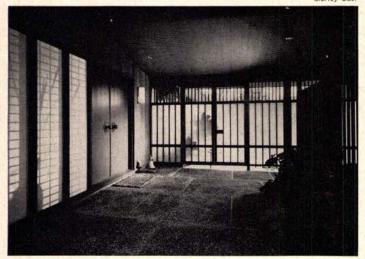


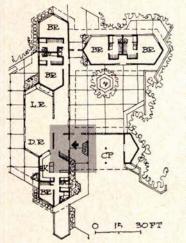


A TWO-STORY ENTRANCE WITH IMPOSING SCALE

Double doors, made of stained carved oak, are set into a matching panel 8' wide and almost 16' high. The panel is flanked by glass, which is interrupted at the secondfloor level by wood spandrels. The entrance is set back 4' from the front wall and sheltered by a 10' roof overhang. Architect: James H. Langenheim.

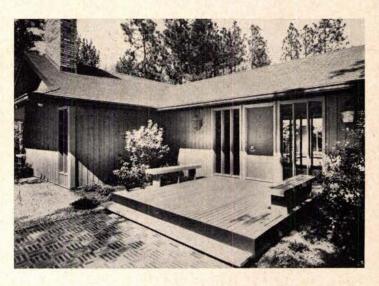
Morley Baer

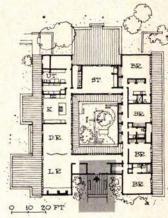




A ROOFED ENTRY COURT IN JAPANESE STYLE

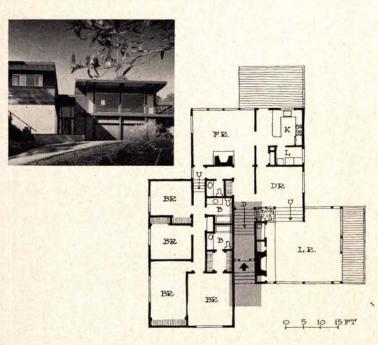
Translucent screens at left of the double doors light the entry hall, and the screens at rear open directly to a patio. Carport is beyond wood paling at right. Architects: Rockrise & Watson.





A WOOD ENTRANCE DECK FOR A COUNTRY HOUSE

The 12'x12' deck is made of 2x6 planks laid flat and spaced for drainage. The entrance itself is a 3' door flanked by 4', threelight glass panels. Architects: Hayes-Howell & Assoc.



AN OPEN ENTRANCE FOR A LONG, NARROW HALL

A difficult site required that the front door be 20' from the entry hall. To keep the entrance from becoming a tunnel, a 12' glass wall was built around the door. Exterior materials are repeated inside to create a feeling of continuity. Architect: Van Norden Logan.



The sales theme that sells

You can always find one merchandising idea that will set your project apart from the competition

So says a Washington, D.C., advertising man, who has helped launch a thousand projects in the last 12 years.

Marvin J. Gerstin, 42, cool and unhurried, often works with dozens of anxious builders at once, sometimes juggles four or five projects for opening on a single weekend. Yet he serves up a merchandising program that gives each project a unique stamp.

Gerstin has no cornucopia of ideas. But he does have an approach, picked up during his early years in department store advertising, that avoids the most common pitfall in home merchandising—a shot-gun promotion that misses the mark because it sells too many features at once. Summed up in three steps, this is Gerstin's approach:

Step 1: find one feature that will distinguish the project from competitors. Says Gerstin: "There is always something fresh in a new tract. Maybe its the location. Or maybe its the way the builder has treated

PARKSIDE PLAN

AD MAN GERSTIN uses brochures and advertisements to echo themes introduced at model sites,

a single room. Whatever it is, I capitalize on it and make it the heart of the merchandising."

Occasionally, Gerstin finds an attribute of the builder himself—his reputation for design, for example—that can be converted into a key merchandising feature.

Step 2: pick a theme that will dramatize the key feature. If the feature is a choice location, for instance, Gerstin may develop a theme around privacy or around an area's historic tradition or its parks. A rustic location may suggest a farm theme. An urban apartment location may inspire a theme based on a view of the Washington skyline.

"The important thing," says Gerstin, "is that the theme must be anchored to a legitimate feature in the project. Unless the theme is selling something, its message is lost."

Step 3: find a symbol that captures the spirit of the theme and also works well in promotion media. When searching for a symbol, Gerstin always begins with the entrance to the project because he has to work in three dimensions there. Once he comes up with a symbol that works well at the entrance—and a type style and color scheme to go with it—he repeats all three in road signs, house signs, interior displays and brochures. Understandably, newspaper advertisements—the most flexible medium—are left for last.

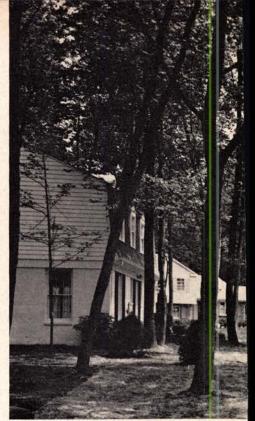
Gerstin also tries to imbue all his merchandising with a sense of affluence and good taste. Items:

He selects symbols with an eye to changing fashions. Coats-of-arms, as symbols of prestige, are out he says ("They've been overdone"). Now more effective: antique furniture and old wood cuts, which have an additional connotation of popular colonial design.

He designs signs with subtlety and understatement. "Lettering doesn't have to be huge," he says, "if its background is uncluttered."

He uses color with restraint. Color is wasted, he contends, if it is used to attract, especially in ads. It should be used to set a mood, to reinforce a point or to surprise ("Color a lawn anything but green").

For three examples of Gerstin's theme merchandising, start at right.



'A CATHEDRAL OF TREES' is the way

Case study No. 1:



STAINED-GLASS WINDOWS are sug-



CURVED ARCHWAYS of pre-Renaissance



Ad Man Gerstin's brochure describes this model-house cul-de-sac. Models are set back from highway. Visitors park cars in lot and enter on foot.

This stand of tall trees evokes a unique theme of church-like serenity

To Ad Man Gerstin, the shafts of sunlight and the pillar-like trees of this project in Silver Spring, Md., suggested an English cathedral. And his whole merchandising effort capitalizes on this impression. He got the builder—Silkor Development Corp.—to place its models in a secluded cul-de-sac almost out of sight of the highway. Then

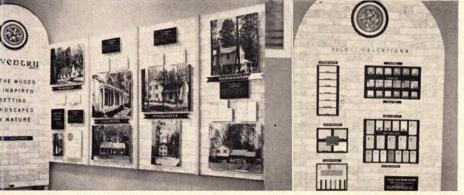
he named the project Coventry, to introduce the cathedral theme, reinforced it with a symbol that looks like a stained-glass window and used model names—Canterbury, Westminster, Dumbarton and Buckingham—to echo the theme.

Merchandising costs were low for the project of 140 \$29,000-to-\$32,000 houses.

Signs cost \$2,300, brochures \$2,160, displays \$1,700. After two full-page ads (total cost \$5,000), advertising was shut off. And with good reason: 3,000 shoppers showed up on opening weekend, and 30 houses were sold in the first month despite competition from five nearby tracts, two of which Gerstin handled (see p. 98).



gested by transparent signs of colored plastic. Directional signs carry painted symbol.



churches are recalled in sales office displays, which also repeat stained-window symbol.



GOTHIC PILLARS echo cathedral theme in advertisements.

continued



DUTCH COLONIAL MODEL, one of the first by a tract builder in the Washington market, suggested the windmill symbol, which is carried in all signs and to

Case study No. 2: The style of one model inspires merchandising with a

The Dutch Colonial design, relatively new to the area, of the model shown above suggested a traditional Dutch theme for this subdivision of \$26,000-to-\$29,000 houses. But Gerstin had to be careful in

selecting a symbol. Pennsylvania Dutch motifs or symbols of Dutch gardens and villages had, he felt, become hackneyed. So he chose an almost abstract windmill.

The merchandising budget for the 39-lot

Photos: H & H staff



TROPHY DISPLAY in sales office, a name derived from a nearby country club, a classic formal garden and ads that stress quality, create an impression of

Case study No. 3: A builder's design awards lead to this project's accent

Here is a project where Gerstin built his merchandising around an attribute of the builder. Lloyd Construction Co. had won three "family living" awards from its local NAHB chapter. But to convert this feature into a theme of prestige, when prices were a comparatively low \$24,000 to \$26,000, Gerstin needed a dramatic touch. He replaced the association's small trophies with three larger trophies (cost: \$35 each) and



newspaper advertisements.

traditional Dutch motif

project was low: \$750 for brochures, \$1,500 for exterior signs and \$1,000 for interior displays. Only two full-page ads (at \$2,000 each) were needed to start pulling crowds to the site.



prestige in a relatively low-priced tract.

on prestige

set them in a velvet-lined case. He surrounded the models with formal fencing, specified Baltimore gas lamps in front and dotted all signs and displays with a lion's head (made of plastic).

Theme merchandising starts at a project's entrance: these seven entrances symbolize seven themes

Schonbrunn



COLONIAL DESIGN of models is introduced by this allusion to a Williamsburg well.



PRIVACY is promised by this wall, which becomes a symbol for signs and ads.



RUSTIC DESIGN is the message of this wall of rough stone and untreated wood.



FRENCH-QUARTER STYLE of a rental project commences with this entryway.



EXCLUSIVE STATUS is accented by a new tract in a prestigious neighborhood.

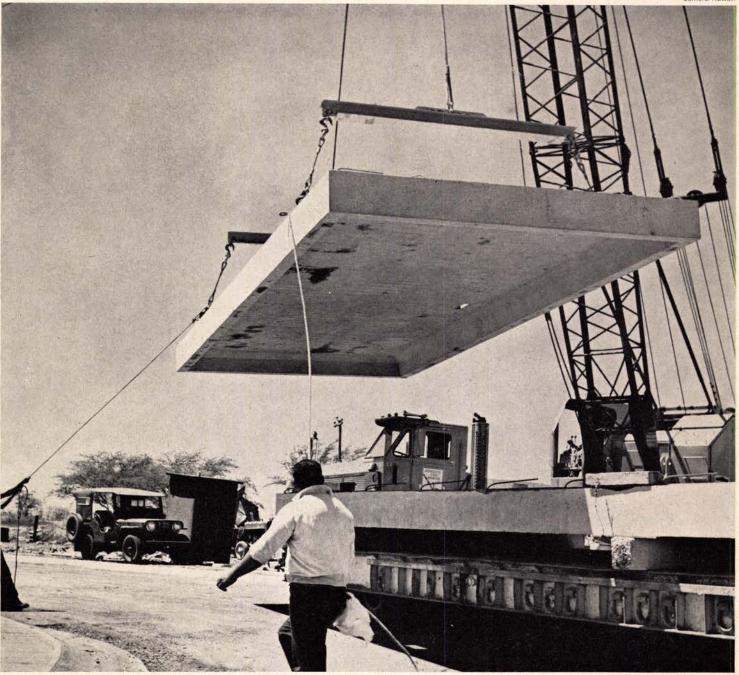


RURAL LIVING is suggested by barn motif. Name is taken from nearby farm.



PARKS are associated with a tract near Washington's Rock Creek Park.





PRESTRESSED FLOORS AND ROOFS spanning 24' cut concrete construction costs 15% for Hawaiian Builder Ed Fitzsimmons. Longer span meant less material.

Precast concrete—new promise for housing

Despite two problems—the weight and limited choice of its components—the factory-poured concrete house is making progress. Its symbol, the massive slab swinging from the crane boom, is beginning to mean something more than look-alike design. And its components are becoming economically feasible.

The strongest force behind these changes is prestressed concrete. Prestressing, developed for bridge construction 15 years ago (80% of prestressed concrete is still used in bridges), lets precast concrete span up to 100′. Applied to apartments a few years ago, and now to single-family houses, long-span concrete slabs and beams have still-unthought-of possibilities for residential design (p. 104). More important to the budget, prestressed concrete cuts material and construction costs (p. 101).

But precast concrete—regardless of more efficient engineering—is heavy. Distribution is normally limited to less than 100 miles, and big cranes are needed at the job site. Until lighter concrete is perfected, the half-precast, half-cast-in-place house may be the best answer (p. 102).

And the limited choice of standard precast components is a challenge to architects' ingenuity. That is why apartments, where cost savings are more important than design innovations, are now precast's best residential market.

Gradually, however, the precast house is being pioneered (in the upper-income custom market) by a few architects intrigued with its potentials. Their trend-setting ideas—and a look at the industry behind them—are presented on the next six pages.

Standard components offer today's best answer to lower-cost precast building

And they are the only way the average homebuilder can economically use long-span, prestressed slabs like those shown at the right. Along with some two-dozen other precast items, they are available at mass-production prices in stock widths and thicknesses designed for pre-engineered fastening methods and bearing systems.

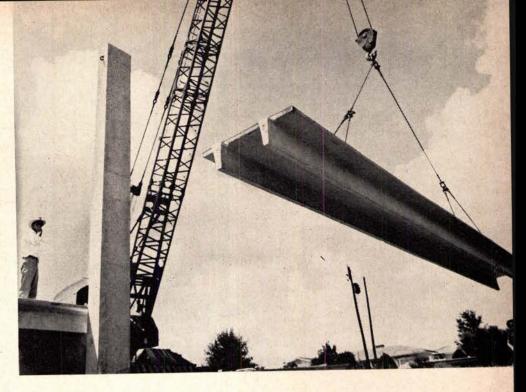
The prestressed deck slab—and particularly the T-shaped variety with single, double (photo at upper right) and quadruple ribs, is the one precast component that is beginning to make noticeable inroads in residential building because it offers these advantages:

- 1. Clear spans of up to 60'. Prestressed floors and roofs can bridge the longest dimension of the average house, so they eliminate the need for interior bearing walls.
- 2. Lighter weight, less material. The high-strength steel strands tensioned in the concrete during casting result in load-bearing slabs that weigh only 28 lbs. per sq. ft.
- 3. Larger components, faster installation. A Virginia supplier, Concrete Structures of Richmond, claims it can place up to 12,000 sq. ft. of precast-prestressed floor in a day.
- 4. Low-cost alternative to compacted fill. On irregular or unstable terrain, a precast floor slab on footings is often less expensive than a slab on grade because it eliminates costly soil preparation.
- 5. Built-in roof drainage. Prestressed deck slabs have an upward camber induced by their steel tendons (the slabs actually don't carry their own weight). When used as roofs, they need not be sloped for water runoff.

Joining techniques are simple. A deck of tee slabs, for example, is bonded by a 2" poured topping which overlaps the ends to form a tie-beam.

Fastening and lifting devices — straps, dowels, ledges, holes, nailer strips—are built in at the plant. A precast joist can be formed with an integral dovetail slot for receiving clips to hold flooring or roofing. The ribs of tees, though often left exposed as finished ceilings, may have wood nailer strips (or metal ones, when fire codes require them) cast in their edges for attaching conventional ceilings.

And the pre-engineering can go further: the ribs of tees may be used as channels for concealing air ducts, piping, wiring and recessed lighting.





Double tee spans house dimensions with ease

Bearing on a frame of prestressed columns and beams, this 40' double tee—4' wide with 14"-deep ribs—spans a 24'-deep house and cantilevers 8' at the front and rear to form balconies and overhangs (photo, left). Designed for spans of up to 100' in heavy construction, the double tee can span houses in depth or width.





Flat deck and wall slabs close in a precast frame

This four-component system—10" x 10" columns and beams, 8"-thick, hollow-core deck slabs, 6"-thick wall panels—was designed for large nonresidential buildings but is now being adapted to houses. Since the wall panels are non-load-bearing, they can be removed in the future for add-on remodeling.

continued

This small-component system avoids one of precast concrete's biggest costs—heavy equipment

Each of the four basic components can be carried by two men and lifted into place by the \$200 homemade hoist-tower (shown at right) that rotates from a hole in the floor slab.

An exiled Cuban engineer, José Novoa, designed the system, and FHA okayed it for a 186-house Puerto Rico project (Villa Nueva, near San Juan) started a few months ago by San Antonio Corp. (FHA mortgages on the houses are the first to be granted under the agency's Section 233 experimental housing program.)

The system has three basic advantages:

1. Component size is sharply limited because only the walls are precast—floor and roof are poured in place. Walls and room partitions are built with small slabs (18" x 36" x 3" and 170 lbs.) stacked five-high between grooved columns and grouted at the joints. A short beam is dropped between the columns as a sill, and another rests on top of the columns as a tie-beam.

Protruding steel rods at the bases of the columns are cemented into preformed holes in the floor, and rods at the top tie the columns to the roof.

- 2. All precast components can be placed by a half-ton-capacity air hoist. The hoist, which slides along the beam of the homemade tower, can be swung in a 360° arc to any part of the house. It is operated until the walls are complete; then the tower is removed from its socket at the center of the floor (before the roof forms are placed) and carried to the next job. Two hoists are operated simultaneously by one compressor.
- 3. Inexperienced workmen can learn the system quickly. Aligning the columns—the most critical step in the system—is done with the aid of steel templates (photos, opposite) at both the base and top of the columns, and the columns are numbered to match the correct holes in the floor.

After columns are set, they serve as guides for the other components. They also contain the vent pipe, wiring channels, holes for switch and outlet boxes and wood plugs for fastening door frames.

Steel-faced wood forms, which—like the hoist-towers—are made in a local metal-working shop, are used for the precasting and for the roof. After construction the resulting smooth-faced structural members are buffed and left exposed, providing the finish surface inside and out.



SHORT BEAMS cap small-component wall, tying together columns and providing bearing plate for poured roof. All precast parts are handled by small air hoist.

Photos: Francisco Vando



FINISHED HOUSE, with 1,000 sq. ft. of space, costs \$15,000 in Puerto Rico's sellers' market. Builder uses defective wall slabs as driveway paving.

HOUSE INTERIOR is smooth-faced structural concrete on ceiling and walls except where wood storage units form partitions (in bedrooms, right, and kitchen).

Francisco Vando



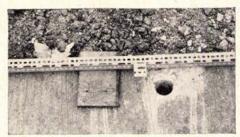
How precast wall fits between poured floor and roof



1. POURED FOUNDATION, containing plumbing hookup, ties reinforced slab to column footings.



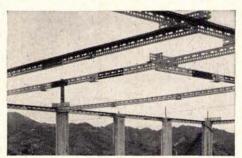
2. COLUMN CONNECTIONS are prepared for by holes left in slab (about 3' apart) during pour.



3. STEEL TEMPLATE (butt plates screwed to shelving) determines placing of precast columns.



4. PRECAST COLUMN is tied to floor by reinforcing rods that protrude into grouted hole.



5. OVERHEAD FRAME helps position columns and holds them level as grout hardens at base.



6. SHOE PLATES, also precast, are placed between columns and cement-grouted at each end.



7. PRECAST PANEL, stacked between column grooves, measures 18"x36"x3" and weighs 170 lbs.



8. PORTABLE TOWER, rear, for placing pre-cast parts stands in pivot hole in floor slab.



POURED ROOF takes major formwork but eliminates big slab and heavy lifting equipment.



10. FINISH SURFACE is structural concrete buffed up by sander (after defects are patched).

continued

Houses like these show how precast construction creates its own design vocabulary

It is a vocabulary—unlike that of cast-inplace concrete—based on the repetitive use of standard components. But despite this lack of freedom, it is turning out to be a less limited vocabulary than builders and architects once thought.

Probably the biggest challenge to precast design is the need to deliberately limit the choice of components. Mass-production economy demands that the design for a precast structure call for as few different components as possible so that maximum use can be made of each type—the more times it is used, the less expensive a component becomes.

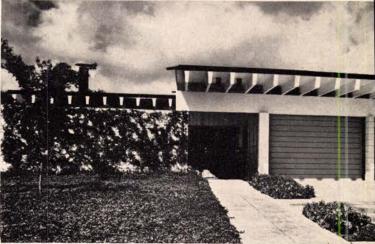
For example, the single-story house shown at the right is constructed of three components - column, beam and double tee. The architect (see caption), a specialist in precast houses, has reduced square footage costs in some of them to less than \$10 through sparing use of parts.

Some of the advantages of precast houses tend to inhibit design. Concrete's lowmaintenance feature is used to best advantage when the structure is exposed and no finish applied. But the precast manufacturers' standard finish is a glassy concrete surface (using steel forms) which can only be altered by painting.

Precast architects add variety by adding other materials-brick and block. But precast manufacturers have an easier solution -aggregate cast in the components. The house shown at the top of the opposite page is an example of using aggregate to create two-tone texture - one shade for columns and beams, another for the walls.

Precast's biggest structural advantage strength - may be its greatest source of design freedom. Prestressing permits not only long spans but also unusually deep overhangs. With no added construction problems, a prestressed floor slab can be cantilevered to make a balcony (see example at lower right), carport or porch. Used in volume, the long-span components produce large areas of partitionless living space at low cost.

These limitations and advantages have so far given precast-prestressed concrete its biggest market in low- and middle-income apartments, where design can be highly standardized. In single-family houses, where more design variety is required, precast still tends to be a luxury limited to upper-income buyers who can afford to finance pioneering architects.



Prestressed roof allows deep overhangs'

Only three structural components—a prestressed column, beam and double tee-were used in the one-level, two-bedroom house shown above and at right. Because it is surrounded by outdoor living areas and glass walls, Architect Gene Leedy (of Winter Haven, Fla.) let the tees overhang 8' on all sides to give maximum protection from the Florida sun. John Wood & Assocs. was the builder; Prestressed Concrete Inc. made the components.





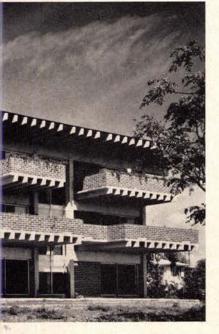
Cantilevered tees extend living area

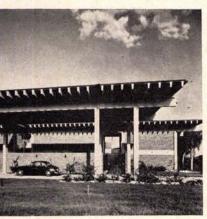
Every room in this three-level house-four bedrooms, kitchen and living-dining room-has its own balcony created by extending the double-tee floor sections. They project 8' and have sufficient strength to carry a brick privacy wall on three sides. Architect Gene Leedy (see caption above) claims square footage costs of \$12 to \$14 for a house of this type, and he has designed less complex ones that could be built for \$7.50 a sq. ft.

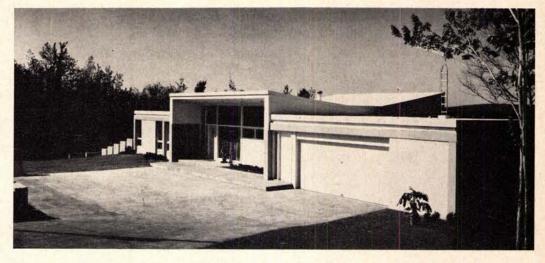










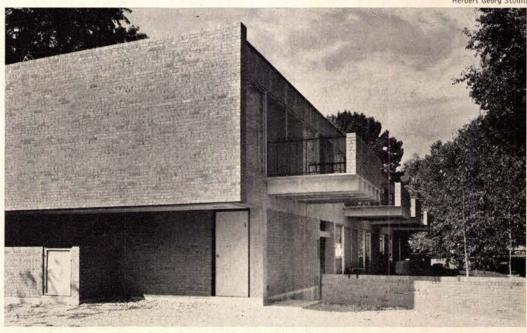


Aggregate varies precast wall texture

Quartz gravel embedded in the walls is the exterior finish of this manufacturer's showcase. The all-concrete house—designed by Lord & Den Hartog & Assocs. of Boston-was built by Structural Concrete Corp. in Laconia, N.H., to demonstrate a system that uses non-load-bearing precast wall panels (see photos p. 101). All components are standard except the triangular-shaped beams forming the butterfly roof at the center.



Herbert Georg Studio



Structural patterns double as decor

Ribs in the floor and roof slabs are painted and left exposed as low-maintenance ceilings in the seven-unit apartment house shown above and at right. Each apartment is separately heated and air conditioned, so the channels between the ribs were not needed for duct or pipe runs. Precast components were used economically by designing an identical layout for each apartment. Fabricator: Midwest Prestressed Co., Springfield, Ohio.



continued

Just around the corner: systems to make concrete still cheaper for builders

Some involve more preparation of materials in the factory; others involve more work at the site. But all are aimed at making concrete easier to work with. Here is a sampling of what's in store:

New precast interiors that slip inside old building shells—to speed up urban rehabilitation. Old tenements would be gutted and the new precast interiors dropped into them, stacked one on top of the other. Object: complete rehabilitation of slum buildings in three days without displacing the tenants. The low cost achieved by mass-producing the units would eliminate the sharp rise in rents that usually forces out the original tenants of remodeled slum blocks.

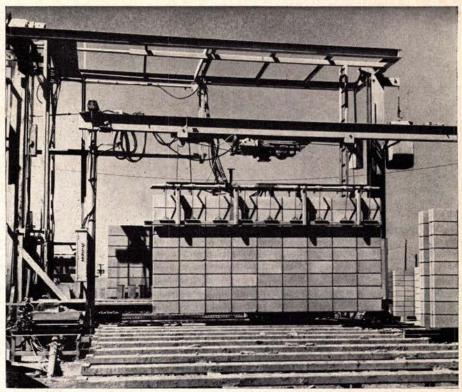
Automated block-laying—to give block suppliers a prefab system of their own. A machine is now available (photos at right) that lays a standard-size block in six seconds and keeps a storage yard stocked with 12'-wide wall sections up to 12' high. From picking up the block to setting the completed panel on a conveyor, the machine handles every step of block-laying. Three attendants simply adjust settings and replenish stock piles. The new machine's manufacturer, Builders Equipment Co. of Phoenix, is about to make it available on a franchise basis.

Like precast components in general, block panels offer the advantages of faster installation and freedom from seasonal construction delays. They can be sawed in the factory—a specially developed mortar makes the bond between blocks virtually unbreakable—and aggregate surfaces can be applied less expensively because the work can be done with walls laid flat.

Direct fastening—to speed the application of finishing materials to precast concrete. With a rotary impact hammer to drill the holes, one-piece expansion bolts can be driven into concrete like nails. Concrete Structures (of Richmond, Va.), which has been experimenting with this fastening method, thinks it may prove less costly than casting nailer strips into its precast components (p. 101).

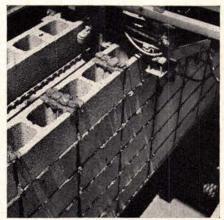
Chemically prestressed concrete—to eliminate the steel strands and thus simplify the prestressing process. This method will soon be tried out in a housing test in the Southwest, but the construction details are still a closely guarded secret.

-H. CLARKE WELLS

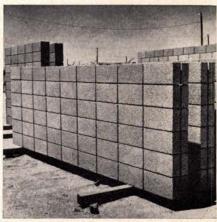


BLOCK-LAYING MACHINE run by three attendants produces as much work—3,000

blocks a day—as seven masons and four helpers. Machine is produced in Phoenix.



HIGH-STRENGTH MORTAR makes unbreakable bond for safe handling of block panel.



PANEL STOCKPILING gives block supplier same advantage as precast component supplier.



48-HOUR DELIVERY of block panels—ten per truck—is made possible by fast-set mortar.

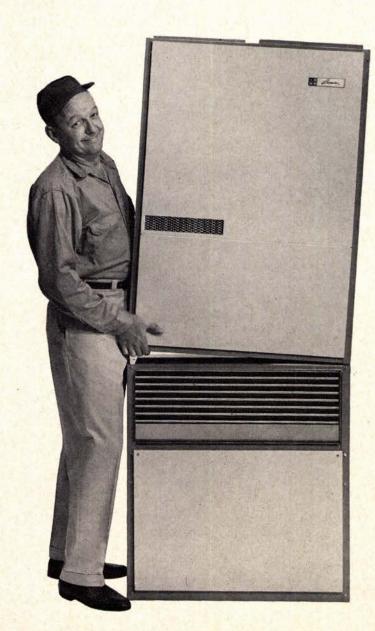


AGGREGATE FACINGS are easily applied to block panels because work can be laid flat.

Here's a suite deal.

A brand new heating/cooling package that saves you 9 sq. ft. of apartment space.

(Like we said, it's a sweet deal.)



A measly one square foot of floor space.

That's all our new Slim-pac™ asks for.

You've been writing off at least 10 square feet to comfort equipment? Congratulations.
You just won 9 feet back, worth around \$12 each.

Slim-pac does it by snuggling into an exterior wall, and blowing the hot air out.

Even if you don't recess it, you can free-stand Slim-pac. That way, it only takes 2½ square feet. You're still way ahead.

Any combination of 40,000 or 60,000 Btuh heating and 1½ or 2 tons of cooling comes in the same size. And you hook it all up in about 7 minutes flat.

Everything's in that cabinet. You have no refrigeration lines to worry about, no internal wiring to fool with.

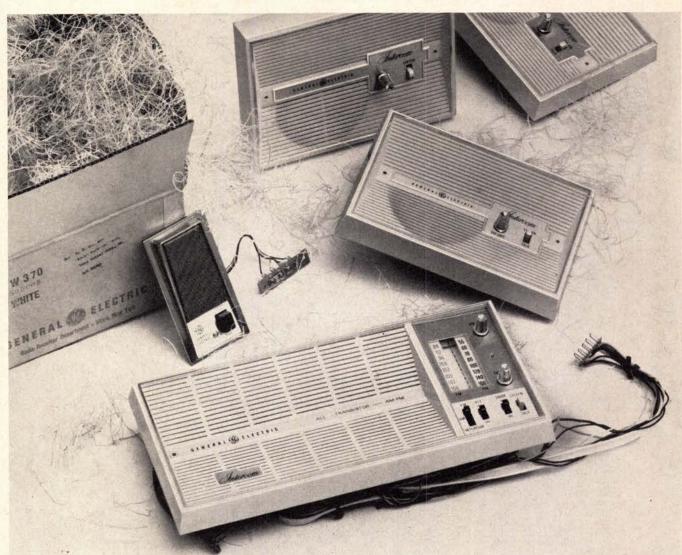
How can Slim-pac best fit into your scheme of things? Write us for a free application data sheet and see.

Then talk to your Luxaire wholesaler about those 9 square feet of floor space you're going to save.

A suite deal like this isn't hard to take.

LUXAIRE

The C. A. Olsen Mfg. Co., Elyria, Ohio



The General Electric FM/AM Radio Intercom is a feature they won't expect to find.

It costs only \$85 complete.

Ask yourself. What do your houses have that other houses don't?

A modern kitchen? Family room? Finished basement? A lot of builders offer these and they aren't quite as exciting to customers as they used to be.

Why not be different and invest in atmosphere. For a modest \$85.00* you can buy a fully transistorized General Electric FM/AM Radio Intercom system that sets the mood for pleasant living (or buying a house) with blissful music all through the home. To say nothing of the fact that it lets family members talk to each other from different rooms.

The fine sound, the smart styling and the outstanding value are just plain impressive. And worth a lot more in house selling power and prestige than the \$85.00 it costs.

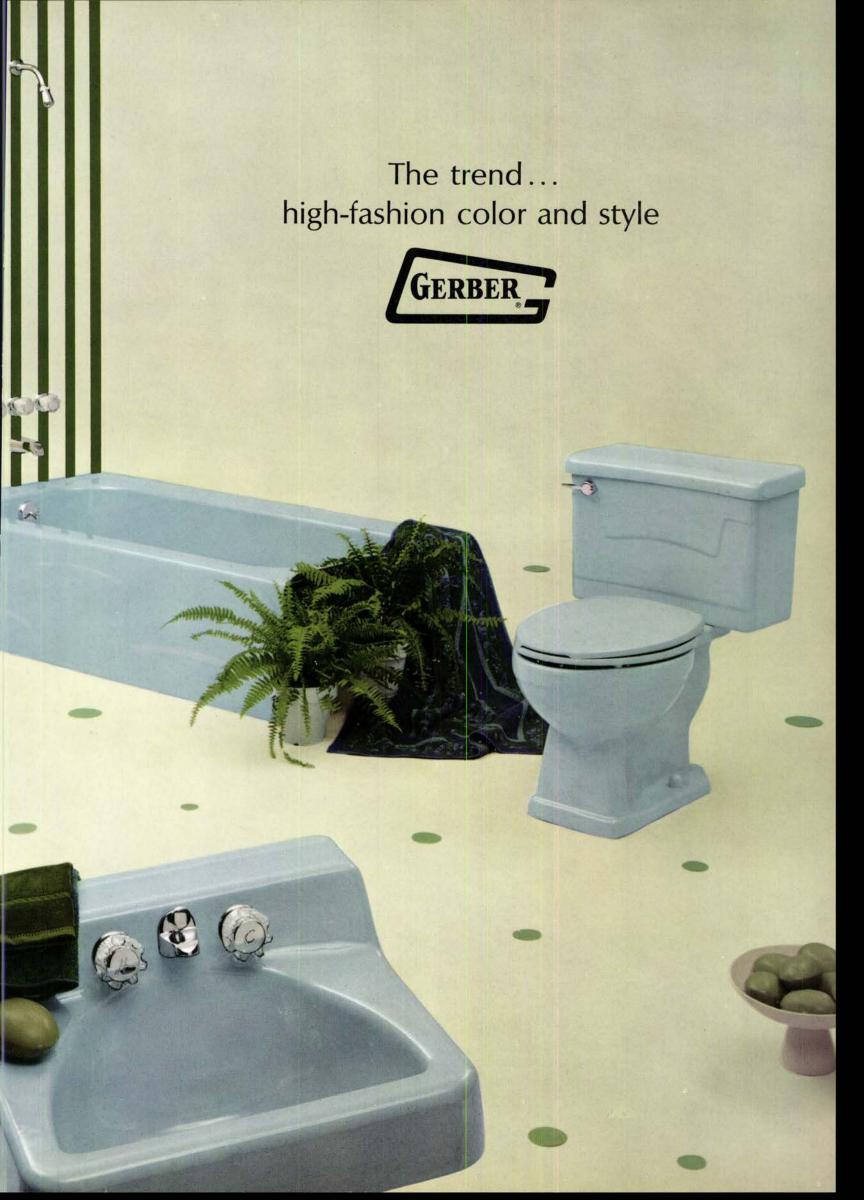
Choose from a wide range of models and accessories, all made by General Electric. That's impres-

sive, too. Call your General Electric Major Appliance Distributor, or fill out the coupon for complete information

*Approximate price includes complete FM/AM master station, 3 indoor stations and 1 outdoor remote station.

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Electric's co	inplete line of Kac	no intercoms.	
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GENERAL & ELECTRIC Radio Receiver Dept., Utica, NewYork



Gerber fixtures provide high-fashion color and style at a down-to-earth price

The trend in bathrooms is to high fashion in color combinations . . . in choice of accessories and furnishings . . . and in plumbing fixtures.

The fashion-coordinated bathroom shown on the opposite side illustrates how Gerber fixtures can transform even the simplest surroundings into a strikingly beautiful setting. No expensive architectural arrangement or elaborate furnishings are needed. The background is simple. The Gerber fixtures, highlighted with well chosen accessories, create a contemporary setting that could be duplicated in any bathroom.

Home buyers are attracted by Gerber's high-fashion colors and styling. They are also impressed by Gerber's quality features. The Concord bathtub, for instance, has low sides for safety and easy cleaning, a wide, flat safety bottom, and comfortably sloped back for reclining. Yet all Gerber plumbing fixtures are priced so sensibly you can build in extra value and still stay within your budget. For full information, write for a catalog showing Gerber's complete line, or call your Gerber representative.

Gerber No. 07-C Concord porcelain enameled cast iron bathtub, Wedgewood Blue, 5' x 30" x 14". No. 4802 bath and shower diverter in gleaming chrome, with Crystalite handles.

Gerber No. 1100E-C Elongated Washington Siphon Jet unit closet combination, Wedgewood Blue.

Gerber No. 2300-C porcelain enameled cast iron shelf back lavatory, 19" x 17", Wedgewood Blue, with No. 4301 shelf back lavatory faucet with pop-up drain. Gleaming chrome finish with Crystalite handles.





Gerber Plumbing Fixtures Corp., 232 N. Clark St., Chicago, Ill. 60601 Factories: Kokomo, Ind., Woodbridge, N. J., Delphi, Ind., Gadsden, Ala., West Delphi, Ind. Export Division: Gerber International Corp., 500 Green St., Woodbridge, N. J.

Kitchens

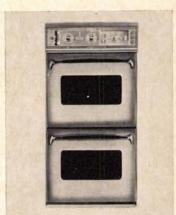


Ventilator hood is designed for wall-mount, passthrough, peninsula or island installation. Push-button controls are on the front of the unit. Available in pewter or antique-copper finish. Trade-Wind, Los Angeles. (Circle 201 on Reader Service card)



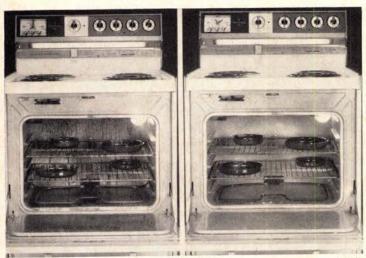
Disposer, designed for apartment installation, has factory-installed electrical cord. A self-service wrench with instructions is attached to the unit. Disposer has a three-year parts and a one-year labor warranty. In-Sink-Erator, Racine, Wis.

Circle 202 on Reader Service card

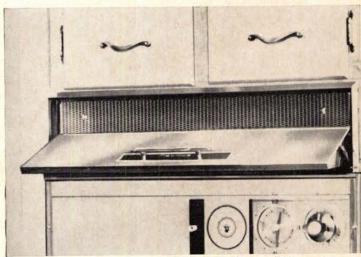


24" ovens for gas or electric power have automatic controls to defrost, cook and keep food warm. All models have removable door panels for simplified cleaning, color changeability and for faster installation. Waste King Universal, Los Angeles.

Circle 203 on Reader Service card



Self-cleaning oven uses controlled high heat to clean oven and drip bowls. The process takes three hours, according to the manufacturer. Electri-clean ovens come in three colors and white in medium- and toppriced models. Frigidaire, Dayton. (Circle 204 on Reader Service card)



No-duct range hood fits over built-in wall ovens. When not in use, closed unit is flush against the oven wall. When open (above) canopy extends over oven door. Hood is available in 24", 27" and 32" widths. Nautilus, Freeland, Pa. (Circle 205 on Reader Service card)



Fruit and vegetable bins are made of high-impact polystyrene. According to the manufacturer, the plastic does not absorb odors. Slides are of steel. One-, two- and three-drawer models are available, all with built-in handles. Ekco Building Prods., Canton, Ohio. Circle 206 on Reader Service card



Range hood has a twin squirrelcage exhaust unit. Model 400 includes an aluminum filter and a glass-covered recessed light. Knobs control the two-speed motor. Available in major appliance colors and stainless steel. Rangaire, Cleburne, Tex.

Circle 207 on Reader Service card



Electric refrigerator-range and sink is 20¾" wide, 22¼" deep and 36" high. Refrigerator with 3-cu.-ft, capacity has a magnetic door and hinges that allow flush installation. Range has two burners. Fridgette/National, Chicago.

Circle 208 on Reader Service card



Pegboard has standard-hook holes with four-starred punchings. Called Twinklebord, panels are 4'x8' and 1/8" thick. Available in both natural light-wood finish and pre-primed for on-site finishing. Edward Hines Lumber Co., Hood River, Ore.

Circle 209 on Reader Service card

New products continued on p. 114

Tools and equipment



Heavy-duty drill, designed for use between joists and in other close areas, also can be used for all drilling. Two models available; both are 7" from front to back without detachable rear handle. Speed: 450 rpm. Skil Corp., Chicago. (Circle 210 on Reader Service card)



Forklift has solid-state electronic controls that increase power efficiency, says the manufacturer. Line includes 3,000-, 4,000- and 5,000-lb. capacity trucks. The 5,00-lb. model can turn in a 9'9" aisle. Yale & Towne, Philadelphia.

Circle 211 on Reader Service card



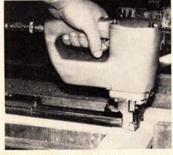
Power-drill jigs are designed for heavy-duty, volume installation of locksets. Smaller unit has 2 3/8" or 2 3/4" bits, larger one also has a position for 5" backsets. Both have resharpenable bits and a strike locator. Kwikset, Anaheim, Calif.

Circle 212 on Reader Service card



Air-operated caulking unit can dispense sealants, adhesives and caulking compounds from both cartridges and bulk containers. A portable electrically operated combination compressorvacuum pump is included. Pyles Inds., Southfield, Mich.

Circle 213 on Reader Service card



Pneumatic gun fastens wooden joints with saw edge divergent corrugated fasteners. Portable tool requires 60 to 80 psi. Unit holds 200 fasteners and has a safety device to prevent accidental firing. Container Stapling Corp., Herrin, Ill.

Circle 214 on Reader Service card



Backhoe for utility trenching and loading is available in 10' and 12' models. A choice of 12 buckets is offered in widths from 12" to 38" and capacities from 1.6 to 7 cu. ft. Unit has a swing of 180°. John Deere, Moline, Ill. (Circle 215 on Reader Service card)



Sod cutter with Mole attachment installs flexible or semi-flexible tube, pipe or cable as deep as 7". Attachment has a vertical cutter blade with a bullet-like terminal to which tubing is chain-attached. Ryan, St. Paul, Minn. (Circle 216 on Reader Service card)



Clamdigger attachment for manufacturer's crane with boom length of 16' to 46' allows use as a digger-loader or a grapple. Two buckets available, both with hydraulic cylinders and a rotation through a 240° arc. National Crane, Waverly, Neb.

Circle 217 on Reader Service card

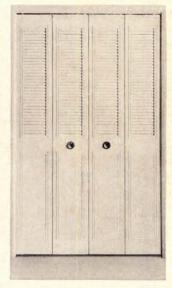


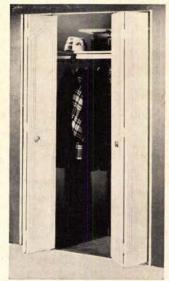
Scaffold hoist combines sectional-rail and trolley mounted power. Up to 1,000 lbs. can be raised to the working level and then moved along rail for unloading at point of use. Sections can be added to the rail, Aeroil, South Hackensack, N.J.

Circle 218 on Reader Service card

New products continued on p. 1,6









: Which of these bi-fold closet doors are made of steel?

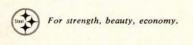
All of them are steel. But it's pretty hard to tell, especially with decorator enamel coatings.

: What's the best way to tell steel from wood doors?

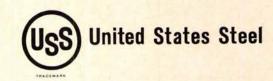
Lower installed cost is a good way to tell it's steel. With steel doors there's no sanding, priming, finishing, fitting, refitting or callbacks. You can usually install steel closet doors in about ten minutes per opening.

: How can you get more information about steel closet doors?

Write U.S. Steel, Room 8135, 525 William Penn Place, Pittsburgh, Pa. 15230. (U.S. Steel does not produce closet doors but will be glad to see that you receive more information from reliable manufacturers.)



AUGUST 1965

















Radio Intercoms

FREE ... SEND TODAY! Complete catalogs, including product specifications, to help you design better, more beautiful kitchens.

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Circle 59 on Reader Service Card



Yes, if you will fill in the coupon below and mail for full information about HARRIS BONDWOOD PARQUET. BONDWOOD is the original BW type flooring in universal use. Mail the coupon NOW—you'll get your 5¢ worth . . . and this ad may be worth \$600 to both of us!

HARRIS MANUFACTURING COMPANY
Dept. HH-85, JOHNSON CITY, TENNESSEE
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COMPANY

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HARRIS FLOORING Hardwood Flooring Since 1898

NEW PRODUCTS

start on p. 113

Office Equipment



Dry copier trims copies to same length as originals. Model 650 needs no warm-up, copies all colors, illustrations and markings in black and white. The machine uses a roll paper magazine; two widths available.

A. B. Dick, Chicago. (Circle 219 on Reader Service card)



Two-way radio, called Courier 50 FM, operates in 25 to 50 mc range. Unit has 50-watt power coverage over several thousand square miles. Radio is available with either AC or 12 volt DC power supplies. E.C.I. Electronics, White Plains, N.Y

Circle 220 on Reader Service card



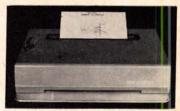
Pocket page receiver weighs 2 ounces. System operates on very low power and is not affected by other radio signals, says the manufacturer. Receiver has a quiet signal and can be coded for special uses. Executone Inc., Long Island City, N.Y

Circle 221 on Reader Service card



Citizens' band transceiver uses AM radio signals for communications up to 20 miles over land, 30 over water. Unit has a crystal-controlled variable tuner to reduce slight frequency differences. Amphenol-Borg, Broad-

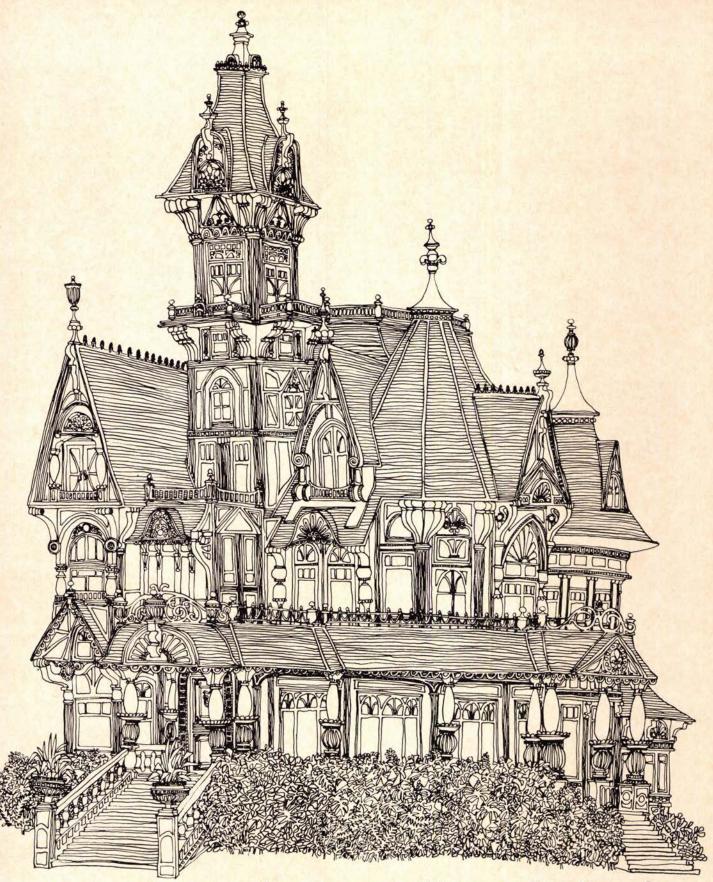
Circle 222 on Reader Service card



Thermocopy machine produces offset and spirit-masters, overhead projection transparencies or bone-dry copies on one or both sides of ordinary paper. Machine is portable and a carrying case is available. ABM Aridfax, New York City.

Circle 223 on Reader Service card

New products continued on p. 118



Is the maintenance-free home a wild, impossible dream?

This emblem says, "No!"

Almost every day a new product made of Geon vinyl enters the home building picture, and each of them brings us closer to the true maintenance-free home.

Solid vinyl siding is one. It keeps that just-painted look without painting because its color goes clear through.

Leaning ladders won't dent or chip it, weather rolls right off. Siding made of Geon vinyl can't rust, won't pit resists impact will ing made of Geon vinyl can't rust, won't pit, resists impact, will

not conduct electricity.

When you see the new vinyl emblem on a building product, it is your guarantee that the manufacturer is willing to assure its quality. He believes Geon vinyl is "The Material Difference in Building." B.F.Gooodrich Chemical Company, Department GN-8, 3135 Euclid Avenue, Cleveland, Ohio 44115. In Canada: Kitchener, Ontario.

B.F.Goodrich / **B.F.Goodrich Chemical Company** a division of The B.F.Goodrich Company

Geon

NEW PRODUCTS

start on p. 113

Not all patio doors can display this selling shield.



Only safe ones.

And home buyers recognize the shield. Millions of people will see it in PPG's national advertising campaign, appearing May through October in Reader's Digest, House & Garden and Sunset.

They'll be looking for the shield as a symbol of quality and value in the home you show them.

Specify HERCULITE® K Tempered Safety Glass in your sliding glass doors. Then you can display this nationally advertised safety shield, too. Get the shield—and safe doors—from your patio door supplier.

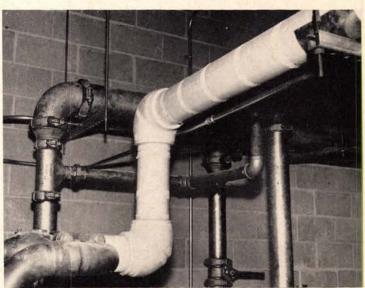
Pittsburgh Plate Glass Company Pittsburgh, Pennsylvania 15222

PPG makes the glass that makes the difference





Concrete repair mix blends epoxy with vinyl concrete patching compounds to form dry mix. Aqua-Dri Plus is said to provide moisture resistance, harder repair surfaces and stronger adhesion, Silcoa, New York City. (Circle 224 on Reader Service card)



Pipe insulation is made of molded polystyrene. Plastic pipe covering is available for all IPS pipe sizes from ½" to 12" and for tubing sizes from ¾" to 6". Insulation is effective from -400° to 180°F. MMM Inc., Houston. (Circle 225 on Reader Service card)



Roof jack for bathroom and kitchen fan ducts is plastic. The manufacturer says that Plas.T.-Jack's off-white color will not chip or peel. Jack has no seams and a low silhouette to reduce visibility. Unit has a hinged bird screen. Leslie Welding, Franklin Park, Ill. Circle 226 on Reader Service card



Rubber tread comes with a 2"-deep square nose for pan-filled steps or a 1½" curved nose. Called the Brigadier tread is molded of resilient rubber. Available in red, gray, green, tan and plain black. AFCO Rubber, North Canton, Ohio

Circle 227 on Reader Service card

Liquid coating system for interior surfaces is said to provide an impregnable tile-like finish. Coating may be used on wood, plaster, concrete and cinder block. Pittsburgh Plate Glass, Pittsburgh. Circle 231 on Reader Service card

Wood preservative is available in glazed, pellet form. Recommended for fencing materials and construction timbers, preservative makes wood noncorrosive to metals and resistant to insects. Dow Chemical, Midland, Mich.

Circle 232 on Reader Service card

Gypsum-board adhesive applied to study or concrete walls grips quickly and forms a strong bond when dry, according to the manufacturer. Adhesive can also bond 2x4 study or flooring strips to concrete. Adhesive Prods., Bronx, N.Y.

Circle 233 on Reader Service card

Acrylic resin can be extruded into sheets and shapes with an integral matte surface, a high light transmittance and a low order of reflectivity. Du Pont, Wilmington,

Circle 234 on Reader Service card

Vinyl latex coating for all types of masonry surfaces is said to be weather resistant. Available in 11 colors, Cementkote has a ready-to-use consistency. Tropical Paint Co., Cleveland, Ohio

Circle 235 on Reader Service card

Exterior paints are available in 250 individual colors and several types. Paints allow true color matching across exterior with any building material, according to the manufacturer. Martin-Senour Paint Co. Chicago.

Circle 236 on Reader Service card

Wall surface of marble, stone or other types of chips embedded in a durable matrix can be applied over any sound masonry backing. Surface creates a textured dimensional effect. Desco International Assn., Buffalo, N.Y.

Circle 237 on Reader Service card

Plastic coating for exterior and interior use produces a hard, chip-proof, corrosion resistant film that will adhere to any surface, says the manufacturer. Technicote, Philadelphia.

Circle 238 on Reader Service card

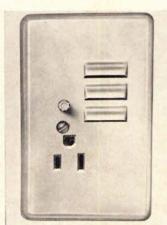
Wood finish allows natural grain to show through. Naturaltone is available in cedar, birch and redwood shades that give the appearance of a clear finish. Olympic Stained Prods., Seattle.

Circle 245 on Reader Service card



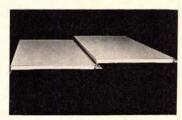
Blacktop dressing applied 90 days after installation of blacktop will protect surface from all weathering and double its wear, according to the maker. Silicones are used in the coating material. Revere Chemical, Cleveland, Ohio.

Circle 228 on Reader Service card



Grounded night light combines a flush-mounted night light with a U ground receptacle. The faceplate measures 234"x4½". The exterior finish of Model 991 V is ivory bakelite. Mounting screws are furnished. Rodale Mfg., Emmaus, Pa.

Circle 229 on Reader Service card

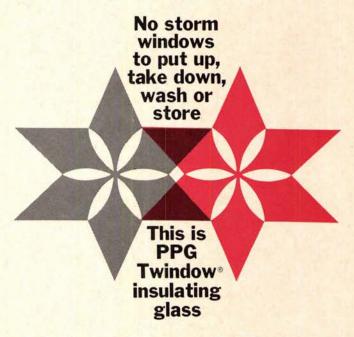


Backer board for aluminum and steel siding is made of polystyrene. Dyfoam Backer Board is moisture repellent and eliminates fiber dusting, says the manufacturer. Material provides yearround insulation. W. R. Grace, Chicago.

Circle 230 on Reader Service card

New products continued on p. 120

Make your windows a selling point with these stars



The PPG Twindow® stars make your windows visible—remind home-buying prospects of the advantages of wood windows glazed with PPG Twindow® Insulating Glass.

The stars tell your prospects they'll never need storm windows. They'll have less fogging and frosting. Rooms will stay cooler in summer. And warmer in winter—for lower heating bills.

PPG is telling your prospects to look for the stars in your windows in a major advertising campaign from April through October in *Life* and *House Beautiful*.

That's why it will pay you to feature
Twindow® Glass Edge Insulating Glass in
wood windows in your homes. Contact your
wood window supplier today.

Pittsburgh Plate Glass Company Pittsburgh, Pennsylvania 15222

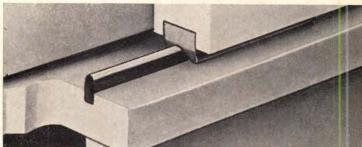
PPG makes the glass that makes the difference



NEW PRODUCTS



Intercom system is available in desk top or wall mount models. Six speaker stations can be connected to each master with model 1906, 12 with model 1912. Webster Electric, Racine, Wis. (Circle 239 on Reader Service card)

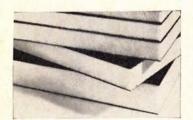


Fiber tracks and runners for sliding doors, mirrors and panels have low friction. The maker says vulcanized fiber is wear and dent resistant. Available in single or double square-cut groove. National Vulcanized Fibre, Wilmington, Del. (Circle 240 on Reader Service card)



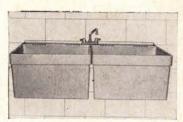
Splice clips for roof trusses are self-nailing. Angle leg of the clip can go over the bottom of the member. Clips are made of 18 gauge steel. Sizes available: $2\frac{3}{4}$ " x $\frac{3}{4}$ " by either $6\frac{3}{4}$ " or 9" in length. Panel-Clip Co., Farmington, Mich.

Circle 241 on Reader Service card



Roof insulation is rigid urethene foam bonded to asphalt felt skins. According to the manufacturer, material is water and rot resistant and will not shred or crumble. Application is by conventional roofing methods. Lexsuco, Solon, Ohio.

Circle 242 on Reader Service card



Laundry tub is wall hung using two stock single sinks and an accessory kit fastened together with binding head screws. Made of Molded-Stone, tub is said to be 80% lighter than concrete. Each tub has 20-gal. capacity. Fiat Prods., Plainview, L.I., N.Y. Circle 243 on Reader Service card



Transistorized intercom permits person being called to respond without touching controls. Loop wiring allows station-to-station wiring. Twelve stations may be connected on one six-conductor, color-coded cable. Broan, Hartford, Wis.

Circle 244 on Reader Service card

New Literature starts on p. 126

Is a Fire-Chex® roof as good as it looks?



You be the judge. First off, note that Fire-Chex Shingles contain more asbestos than any shingle of equivalent weight. Probably why Fire-Chex was first to earn the U/L Class "A" Fire-Safety Rating. And to protect against high winds, Fire-Chex gives you exclusive Sta-Seal® Tabs that bond one shingle course to the next on light pressure contact. Also, Fire-Chex has been proved in 15 years of field use with millions of

squares applied. That's why they're bonded for 25 years! And the good looks are just as much engineered as the quality. The extra thickness and the plain or 2-tone color blending will always produce a roof of distinctive beauty. And, incidentally, Fire-Chex offers the widest choice of colors available in Class "A" shingles. For more information, write Dept. HH-865, The Philip Carey Mfg. Co., Cincinnati, Ohio 45215.





Beautiful ideas come in Color Packages from Mosaic

When you have a beautiful idea like rugged natural clay Carlyle Quarry Tile for patio and foyer, how can you resist the temptation to carry Mosaic Tile throughout the home?

The designer on this job couldn't.

And to prove he had his practical side, too, he turned to our Mosaic Service Center for a complete tile Color Package.

With 11 colors in our quarry tile alone (considerably more than anybody else offers), you can imagine the kind of versatility we have when it comes to the rest of our floor, wall or countertop tile.

But the real beauty of the whole story is the way all Mosaic tile harmonizes. You see, totally color-compatible tile is

the only kind we make.

For Color Packages that will stay fresh and compatible even with tomorrow's materials and accessories, talk to your Mosaic Representative, Service Center or Tile Contractor — best sources for price ranges, samples, alternate colors and availability.

Or write The Carlyle Tile Company, Ironton, Ohio. For availability of Carlyle Quarry
Tile on the Pacific Coast,
write to The Mosaic Tile Com-

pany, 909 Railroad Street, Corona, California.



Here's how G-E Central Air Conditioners solved the problem of even cooling in the multi-room apartments of Robert Schmertz



"Our apartments, which range up to 1,000 sq. ft. and have as many as four rooms, are laid out so that we prefer $1\frac{1}{2}$ - and 2-ton G-E Central Systems to give us even distribution of cooling through ductwork at a low operating cost," says Bob Schmertz of Leisure Village, Lakewood, N.J.



"Because some folks feel the heat more than others, they appreciate the fact that with individual central systems, each apartment has its own separate climate control.

"Of course," Mr. Schmertz says, "we chose G.E. in the first place because we know G.E. makes the most reliable products. And with G.E.'s top engineering design, we can count on the most dependable equipment. We're selling well, thanks in great part to G.E."

Quiet, low-cost G-E Zoneline Air Conditioners solved Ben Cogen's Sherwood Park Apartments cooling problems



"G-E Zoneline through-the-wall air conditioners are amazingly quiet, and their low-installation costs fit our needs perfectly," says Ben Cogen, owner of handsome, new low-rise apartments in Lima, Ohio. "Zonelines are attractive, too, both on the exterior and the interior."



"Our apartments are laid out so that a single G-E Zoneline can air condition our three-room suites, and two G-E through-the-wall units take care of our larger four-room apartments. Each tenant can control the temperature in his own apartment. If repairs are needed, it requires shutting down just one unit, and it slides out of its through-the-wall case in seconds. Actually, we're so satisfied with G-E Zonelines, we're putting 40 more in our new apartments."

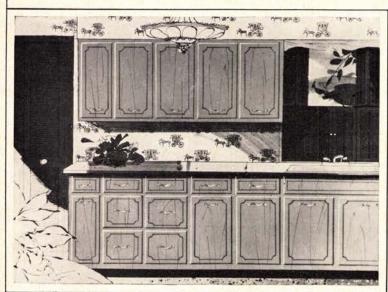
There's a General Electric air conditioning system that's right for your installation. Get full details from your G-E representative or write Air Conditioning Department, General Electric, Appliance Park, Louisville, Kentucky.



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able in three popular styles and wood finishes, EPIC cabinets feature quality copper plated hardware, balanced construction doors, solid hardwood faceplates, adjustable shelving — everything you'd expect in a far more expensive line. Yet EPIC is priced far below most comparable cabinets.



Random plank doors, with colonial copper hardware, are customer appeals of EPIC Colonial. Like all cabinets in the line,

these are full-framed, top and bottom, and feature dust-proof tops, fully covered. The Traditional cabinets have finely etched provincial doors, while the Modern line features sleek, contemporary cabinets and hardware. All are available in three, true wood grain finishes — fruitwood, honeywood and cherrywood.



Two modern plants produce EPIC to bring you highest quality construction and quick delivery to meet your requirements. Let

EPIC help you put profits into your kitchen cabinet installations. Check with us now — and you'll know why Youngstown Kitchens mean business.

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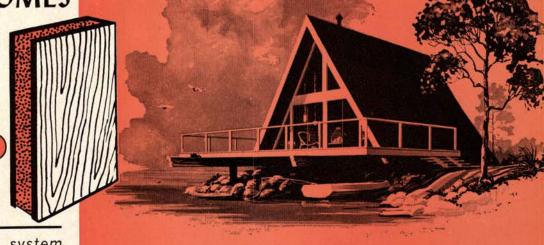
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INSULATED FLOOR, WALL AND ROOF PANELS

The only structural panel system that meets all **FHA** and major Building Code Requirements!



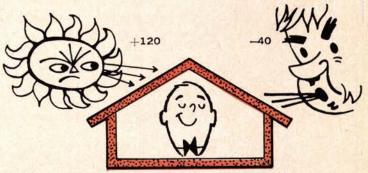
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WESTERN RED CEDAR . . . handsome, everlasting exterior cedar . . . needs no paint . . . needs no sealer . . . elegant knotty cedar interior paneling — trouble-free performance for the life of your CEDAR LODGE VACATION HOME.

Since 1960 . . . AMPCO panels have been used extensively as a load-bearing and non-load bearing panel system in commercial and residential construction. American Panel Corporation has now uniquely incorporated this same quality panel system for use in Cedar Lodge Vacation Homes.



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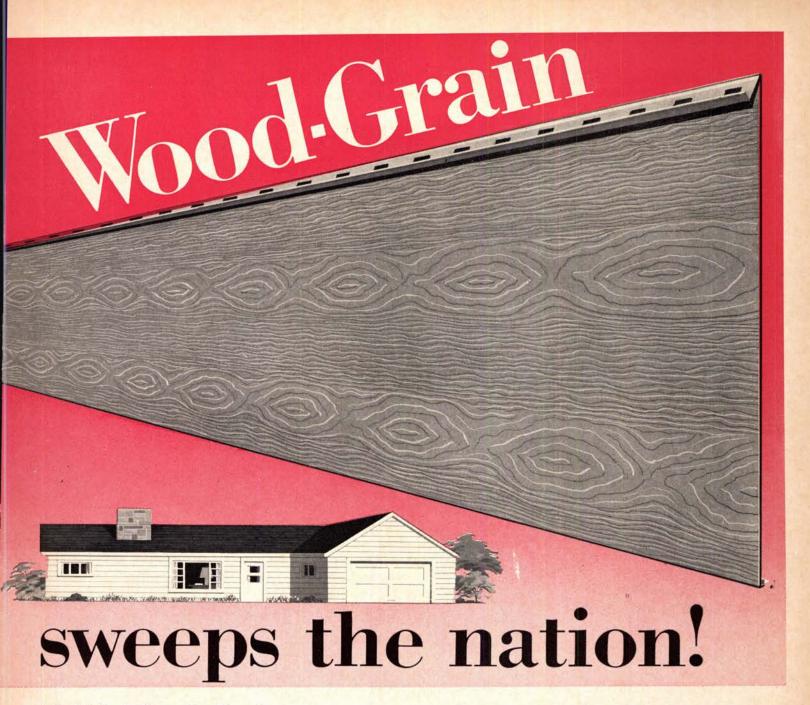
The unsurpassed insulation and quality features of CEDAR LODGE offers a superior vacation home priced below other homes of comparable size as well as being ideal for the "do-it-yourself" builder. The practical construction characteristics of AMPCO panels also enables you to economically design custom sizes to fit your specific requirements.

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NEW LITERATURE

For copies of free literature, circle the indicated number of the Reader Service card, page 123.

KITCHEN HOODS. 12-page catalog includes photographs and diagrams of hoods available. Drawings of possible kitchen designs are also shown. Vent-A-Hood, Richardson, Tex. (Circle 301 on Reader Service card)

TRIPLE-SINK. 4-page bulletin shows and lists advantages of sink with three bowls. Fixtures and colors available pictured. Borg-Warner, Mansfield, Ohio. (Circle 302 on Reader Service card)

PLUMBING FITTINGS. 4-page brochure shows fittings included in Contessa line. Price Pfister, Pacoima, Calif. (Circle 303 on Reader Service card)

WIRING DEVICE CONFIGURATONS. Chart illustrates 75 different configurations covering 38 voltage and current ratings. Configurations shown include existing designs and suggestions for future forms. For copy: send 25¢ to National Electrical Manufacturers Assn., 155 E. 44 St., New York, N.Y. 10017.

ALUMINUM WINDOWS. 50-page booklet includes specifications for complete windows, including glass. Architectural Aluminum Manufacturers' Assn., Chicago. (Circle 304 on Reader Service card)

ADHESIVES. 4-page catalog describes adhesives for hardware, paint and wallpaper and floor covering. Recommended applications are included. Commercial Paste, Columbus. (Circle 305 on Reader Service card)

FORKLIFT. 2-page specification sheet includes load-capacity chart, dimension diagram and information about attachments. Allis-Chalmers, Milwaukee. (Circle 306 on Reader Service card)

PARTITIONS. 16-page technical bulletin on par-

titions in reinforced concrete structures has detailed drawings showing control-joint application in a range of partition systems. National Gypsum, Buffalo, N.Y. (Circle 307 on Reader Service card)

MASONRY WATERPROOFING. 4-page brochure discusses waterproofing agent for new construction and masonry repairs. Preparation of surfaces, application techniques and coverage are included. Permagile Corp., Plainview, L.I., N.Y. (Circle 308 on Reader Service card)

ABS PLASTIC PIPE. The advantages of using plastic pipe in sanitary drain, waste and vent applications are discussed. Included is an evaluation of DWV system properties. Borg-Warner, Washington, W. Va. (Circle 309 on Reader Service card)

LAMINATED PLASTICS. 4-page brochure shows and describes 20 new patterns and colors in Textolite. General Electric, Coshocton, Ohio. (Circle 310 on Reader Service card)

ELECTRIC-HYDRONIC HEATING SYSTEM. 4-page publication shows and describes system including discussion of operation, models available and specifications. Heat-Timer Corp., New York City. (Circle 311 on Reader Service card)

TRACTOR-LOADER-BACKHOE. 20- page booklet covers speed, capacity and other features of Construction King. J.I. Case, Racine, Wis. (Circle 312 on Reader Service card)

WIRING DEVICES AND WALL PLATES. 16-page condensed catalog contains sections on switches, remote control wiring systems, receptacles, plastic and metal wall plates, custom products and special services. Sierra Electric, Gardena, Calif. (Circle 313 on Reader Service card)

KITCHEN APPLIANCES. 16-page catalog illus-

trates ranges, disposers, hoods, sinks and dishwashers. Installation specifications and discriptions of appliances included. George D. Roper, Kankakee, Ill. (Circle 314 on Reader Service card)

stone mural. 4-page brochure has photographs of three-dimensional blocks for interior and exterior walls. Technical and installation information, weights and sizes also given. Arts for Architecture, Garden City Park, N.Y. (Circle 327 on Reader Service card)

construction cost data. 146-page book gives prices of over 2,000 items. Cost indexes of 26 major U.S. cities are included in the 1965 edition of "Building Construction Data." Information is arranged alphabetically, with tab cuts, indexes and cross references for simplified location of contents. For copy: send \$3.50 to R. S. Means Co., Duxbury, Mass. 02332.

CHAIN LINK FENCING STANDARDS. Standards cover design, construction and minimum chemical and mechanical requirements for component parts and accessories of aluminum alloy chain link fencing. For copy: send 10¢ to Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

ORNAMENTAL FOUNTAINS. 6-page catalog describes seven Rain Jet fountain heads and illustrates patterns, Glass fiber fountain bowls, fountain lighting and submersible pump assemblies included. Rain Jet, Burbank, Calif. (Circle 333 on Reader Service card)

BOILER-FURNACE. 4-page brochure has illustrations, diagrams and specifications for total-comfort boiler. Tankless hot water, warm air and hot water heating features are discussed. Thermo-Dynamics, Schuylkill Haven, Pa. (Circle 334 on Reader Service card)

New literature continued on p. 129

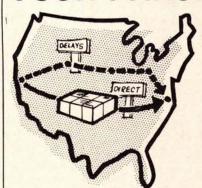


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Give prospects something special to think about—Chromalox electric snow-melting step mats that make steps safe at the flip of a switch. This ready-to-install assembly is specially designed for embedding in concrete steps. Basic 2-step and 3-step mats can be combined for four or more steps. Other Chromalox snow melting equipment available for driveways and sidewalks. Write today for Bulletin M60100.



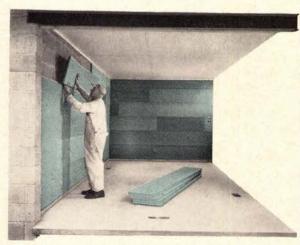
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(You've probably used it as a cold storage insulation and liked it. So why not use it for roofs and walls. It's every bit as good.)

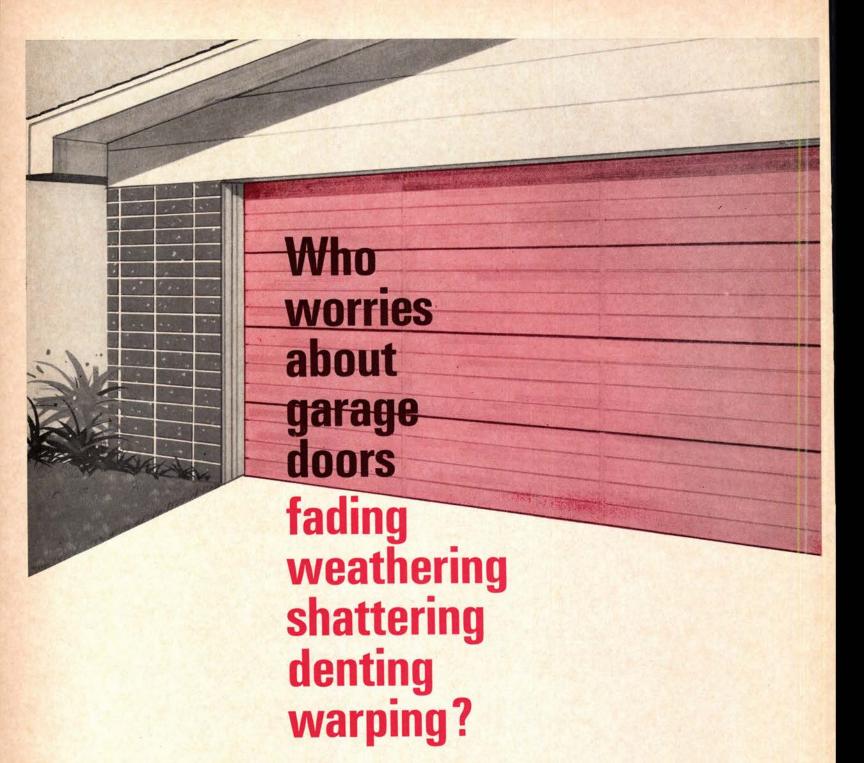
Moisture resistance. Permanent effectiveness. Lightness. Remember? These are some of the things that make Styrofoam® FR brand insulation board so popular in the cold storage field today. And they're good reasons, too, for using it for walls, as well as Styrofoam RM for built-up roof insulation. Whatever the application, you can rely on Styrofoam. Water can't penetrate its closed cell construction. No vapor barrier is needed. Its light weight means easier handling and installation. There's no chance of rot or mold. Or of deterioration, either. Remember its versatility when you remember Styrofoam. And to fortify your memory there's Sweet's Light Construction File 4a/Do. Or write and we'll send more data and specifications. The Dow Chemical Company, Plastics Sales Department 1323PB8, Midland, Michigan. Styrofoam is Dow's registered trademark for expanded polystyrene produced by an exclusive manufacturing process. Accept no substitutes . . . look for this trademark on all Styrofoam brand insulation board.



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Weather-Tite Aristocrat Doors Weather-Tite Division of the Pacific Coast Co.

Phenix Magic-Lite Doors Phenix Manufacturing Company



NEW LITERATURE

starts on p. 126

FLAKEBOARD. 4-page bulletin describes Presdflake and shows features and advantages. Masonite, Chicago. (Circle 315 on Reader Service card)

PVC PIPING. 16-page brochure illustrates and discusses uses of pipe for drain, waste and vent systems. B. F. Goodrich, Cleveland, Ohio. (Circle 316 on Reader Service card)

SUBMERSIBLE WATER PUMP, 2-page sheet illustrates and gives specifications for pump. Goulds Pumps, Seneca Falls, N.Y. (Circle 317 on Reader Service card)

STEAM BATH GENERATORS. 4-page product bulletin shows generators and discusses installation. Specifications are given. Edwin L. Wiegand Co., Pittsburgh. (Circle 318 on Reader Service card)

SEWAGE TREATMENT PLANTS. 6-page folder describes extended aeration sewage treatment plants. Installation and features discussed. Smith & Loveless, Lenexa, Kan. (Circle 319 on Reader Service card)

LIFT TRUCK. 6-page brochure has text and photographs presenting engineering and operating advantages of pneumatic-tired trucks. Clark Equipment, Battle Creek, Mich. (Circle 328 on Reader Service card)

LOADER ATTACHMENT. 6-page bulletin describes advantages of loader that can be attached to trucks. Models available shown. HIAB Hydraulics, Wilmington. (Circle 329 on Reader Service card)

GAS OVEN. 2-page brochure describes built-in double oven with Infra-Ray broiling. Tennessee Stove Works, Chattanooga. (Circle 330 on Reader Service card)

LEVER HANDLES. 8-page catalog gives specifications, designs and finishes available in handles for mortise locks. Sargent & Co., New Haven, Conn. (Circle 320 on Reader Service card)

TILE DECORATION. 6-page brochure has photographs of actual installations. Colors of tiles offered are shown. Wenczel Tile, Trenton, N.J. (Circle 321 on Reader Service card)

STEEL EDGING PLATE. 4-page bulletin describes product and shows typical installations. Available types and dimensions listed. Ryerson, Chicago. (Circle 322 on Reader Service card)

shows Dialoc. Advantages and guarantee discussed. Dialoc, St. Petersburg. (Circle 323 on Reader Service card)

CEILING GRILLEWORK. Specification sheet depicts two ceiling grillework patterns and shows installation methods possible. Panelboard, Newark, N.J. (Circle 324 on Reader Service card)

chandeliers, wall brackets, pendants and other fixtures in the Chandeline line. Prescolite, San Leandro, Calif. (Circle 325 on Reader Service card)

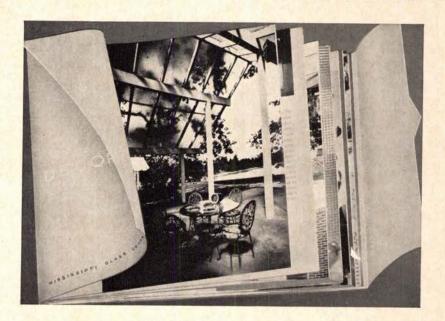
BI-FOLD DOORS. Brochure describes flush, louver and louver-panel doors available prefinished or unfinished. Woods and finishes discussed. General Plywood, Louisville. (Circle 226 on Reader Service card)

WALL SYSTEMS. A file on sound-rated gypsumsteel stud wall systems contains specifications and cutaway drawings for various assemblies. Pabco Technical Services, San Francisco. (Circle 331 on Reader Service card)

SEPTIC DRAINAGE. Pamphlet discusses maximum efficiency for systems and quality performance for perforated pitch-fiber pipe. Bituminous Pipe Institute, South Milwaukee. (Circle 332 on Reader Service card)



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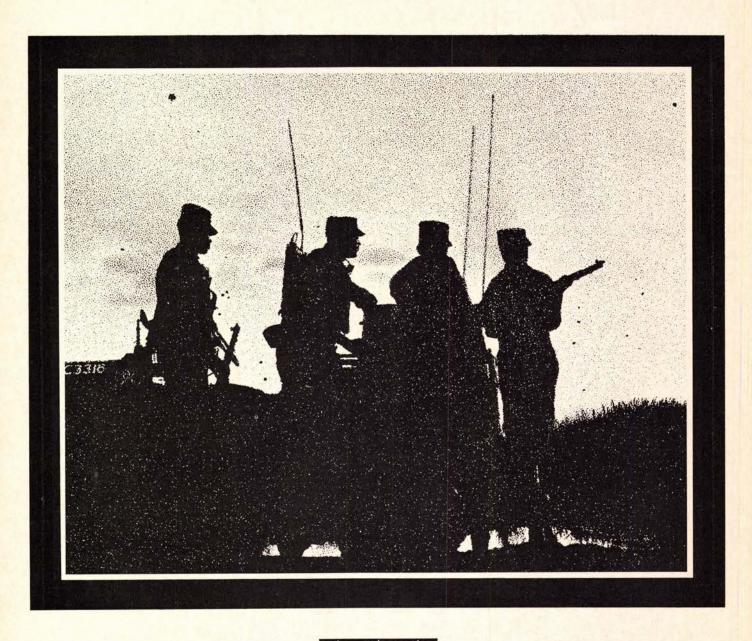


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Use Anywhere Presidio Corlon has Armstrong's exclusive Hydrocord Back. This means you can safely install Presidio over any concrete subfloor above, on, or below grade - except where excessive alkali or hydrostatic pressure makes using any resilient floor un-

Show This Emblem When you use Presidio Vinyl Corlon, or any Arm-

strong floor, display this emblem in your model homes. It calls at-tention to quality and puts the bestknown name in building materials to work for you.



Advertising Support Armstrong flooring is promoted by the heaviest advertising campaign of any building materials manufacturer. This year an estimated 35 million viewers will see color commercials for Armstrong floors every Wednesday evening on two new color shows on ABC-TV . . . Gidget and The Big Valley. And full-color pages showing Armstrong floors will appear in 26 top consumer magazines, month after month throughout the year.



Armstrong floors on color TV Watch Gidget and The Big Valley on ABC-TV beginning September 15

To Help Sell Your Homes Your Armstrong Architect-Builder-Contractor Representative can help you get the most sales value out of Armstrong floors — and the Armstrong name. For information, write
Armstrong, 308 Sixth
St., Lancaster, Penna.

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