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Round two: will the anti-bias order slow housing?

Ever since President Kennedy signed his executive order prohibiting race bias in housing last Nov. 20, the Administration has been extra-sensitive to charges the order would slow housing starts. So when starts nosedived 15% in January (Census blames bad weather) HHF Administrator Robert Weaver had a ready answer:

Homes with conventional financing not subject to the anti-bias order dropped 14% from December to January, he argued in a press release, while FHA and VA starts dropped only 12% and 4% respectively. On this evidence he continued to insist the order will have minimum impact on housing.

But regional figures, released later, raise questions about his interpretation.

They show conventional starts fell the farthest because cold weather struck hardest at the Northeast (down 62%) and North Central area (down 33%) where conventional financing dominates. FHA and VA financing held up because the two areas where this financing is strongest were less affected by weather (the South was down 9% and the West up 28%).

Even with this drop, conventional starts are up 8% and FHA and VA starts down 20% from January 1962 to January 1963.

Other sources are reserving judgment on such fragmentary evidence as the one month's showing. Chairman David L. Lawrence of President Kennedy's committee on equal opportunity in housing says is "too early to give a definitive exposition as to its impact." And the National Association of Home Builders—whose members predicted a 33% drop in starts last year (News, Aug.)—agrees "it is too early to make a definite statement." FORTUNE Magazine's survey of builders' intentions (see p. 8) finds little effect of the order; only one-seventh of builders plan cutbacks.

And President Dale M. Thompson of the Mortgage Bankers Asso. says only visible effect so far is to increase the number of high-ratio loans SALES are making.

Federal help for building research finds the patient unwilling

The Commerce Dept. (in the person of Dr. J. Herbert Holloman, assistant secretary for science and labor) is championing an $8.6 million economic pep pill for research in building. Holloman says building (along with machine tool and textile industries) is lagging behind other industries in technology.

So he is plugging for the new money to dole out grants to universities and trade associations for new product research. Argues Holloman: building spends only 0.3% of its total sales for research and development.

Industry men are slowly rising to arms against the plan. A private survey of 100 trade associations shows most do not want the aid. Industry men note that Holloman's percentage applied to building's $80 billion volume means $240 million is spent yearly for research, a tidy sum. Others say that one key effect of the plan would be to cut private industry and trade association research drastically. Many trade groups like NAHB operate research laboratories.

JFK's costliest tax reform dies by default

The private talk by key Congressmen, the hearings before the House ways and means committee—and indeed President Kennedy's own public words—all mean one thing: the Administration's most controversial income tax reform is dead.

The President wanted to put a 5% floor below income tax deductions—including mortgage interest and realty taxes—to raise $2.3 billion to offset a $13.6 billion tax cut (News, Mar.). But Kennedy helped kill his reform—which housing men say would hurt new house sales by removing two tax breaks new house buyers enjoy—by saying he would sign a tax cut bill without reforms.

An extra crusher was supplied by President Daniel F. Sheehan of the National Association of Real Estate Boards. He told Congress the reform would fall most heavily upon homeowners earning less than $8,000 annually. "The home owner would lose his real deductions while the non-home owner, choosing the standard deduction, is able to take deductions that may not in fact exist."

Sheehan's stance got big play in newspapers across the nation. Now, letters are flooding Congressmen with their heaviest mail sacks since S&LS drummed up a letter-writing campaign last year to kill withholding on interest paid to depositors. Result: the reform probably will never get out of committee. Still alive are plans to end accelerated depreciation for buildings and increase surtaxes on multiple corporations (which NAHB calls a "devastating blow for home building").
FHA in the frying pan again

Not since the 1954 windfall scandal hearings has Capitol Hill built so many fires under FHA

In rapid succession, three Congressmen—two of them prodded by newspaper reports—began pressing attacks on FHA on three different fronts last month.

- Sen. John J. Williams (R, Del.) charged in a Senate speech that HFIA and FHA were "shoveling taxpayers money" to Rep. Adam Clayton Powell (D, N. Y.) by approving subsidized 3 1/2% loans for well over 100% of costs to Powell-backed non-profit sponsors.

- Sen. John J. Sparkman (D, Ala.) and his Senate housing subcommittee scheduled hearings on FHA's foreclosure problems after articles in the Baltimore Sun challenged the adequacy of FHA insurance reserves.

- Rep. John E. Moss (D, Calif.) and his government information subcommittee asked FHA to review its policies on keeping many records secret after the Houston Post complained of secrecy.

The attacks came at an awkward time for FHA—after Neal Hardy had left as commissioner and before the Senate confirmed Philip N. Brownstein, chief benefits director of VA, as his successor.

Harried FHA brass fired an answering salvo of explanatory reports to probers, plus some new orders to field offices that were bitterly opposed by FHA veterans.

HFIA administrator Robert Weaver calls the attacks "politically inspired ... from those who would like to restrict or destroy FHA." He added: "The attack is subtle at times, and at times more dangerous. But either way it is vicious. For it has been carried on without regard to human or economic consequences."

At mid-March, FHA still had to face the Sparkman committee hearings—and Republican members said they would demand answers to some touchy questions. But administration spokesmen are convinced that most of the fire is out, that FHA faces no thoroughgoing roasting from legislators.

Moss probe: should FHA open its case files to the public?

The original tip to Houston Post reporters that something was amiss with FHA's handling of an elderly housing project in suburban Sharpstown was so thoroughly detailed that reporters could not dismiss it as unfounded.

The Post leaped into print with a story saying that FHA Director Neal Pickett had insisted on raising the appraisal for land for the 288-unit Clarendow House elderly project from an initial $1.35/sq. ft. to $2/sq. ft. Federal tax stamps showed that adjoining parcels, all sold by Developer Frank W. Sharp, brought only 82¢ to $1.25/sq. ft., charged the Post. (Sharp insists that the actual prices were the same and the rival Houston Chronicle has just printed data to back him up.)

Houston FHA underwriters had also urged that the $4.7 million insurance application be turned down because of a question of who would meet any operating deficits, but Pickett had overruled them, said the Post.

Behind the story was a tangled web of local politics: Pickett is a brother-in-law of Sen. Ralph Yarbrough (D, Tex.). Yarbrough is a political foe of Post Publisher Oveta Culp Hobby, secretary of Health, Education & Welfare under President Eisenhower.

The Post kept digging. It learned that Washington FHA officials had sent a supervisor to Houston to look into the dispute between Pickett and his underwriters. The 

Post demanded a copy of the report—and was turned down cold.

Almost simultaneously—on the last day of Neal Hardy's term as FHA commissioner—an order from FHA headquarters told all district directors to refer any disputes between themselves and underwriters to Washington. Agency veterans fumed: the new rule undercuts the authority of district directors who have had power to overrule underwriters since December, 1956. It means any junior clerk can stymie a director's decision, they charge. "Somebody panicked," cries one veteran FHA staffer.

In Houston, Post Managing Editor William P. Hobby Jr., 55, fired off a letter to Moss, whose committee watchdogs secrecy in government. "It would appear there has been some abuse, if not outright violation, of federal housing laws. However, our attempts to get the facts before the public have been hampered at every turn by this blanket of secrecy on FHA files. We are told by FHA officials that federal law forbids them to make loan files public, except under court subpoena. The secrecy, of course, also covers up any wrongdoing or bad judgment inside FHA."

Moss asked Acting FHA Commissioner Paul Ferrero to explain why records had not been opened to reporters and to reveal the amount of data FHA can make available.

The question strikes to the heart of FHA operations, say building men. If the most intimate details of a project are opened to the public, it would mean that developers would be telling competitor building and real estate firms exactly how they operate. Under such circumstances, say some veteran housing lawyers, they would advise clients not to do business with FHA.

FHA men likewise feel they should not have to reveal their own appraisals and market analyses. The threat that reports could later be made public might cause underwriters to veer from honest evaluations to safer and more conservative views, they fear. This could practically kill urban renewal programs where the underwriting risk is high, they contend.

So Acting Commissioner Ferrero told Rep. Moss that present law prohibits making public the confidential information FHA gathers on the private business transactions it insures.

"It seems likely that the withdrawal of the protection would have a serious impact on the entire FHA program," he wrote.

Ferrero maintained that revealing even the supervisory report on the Houston project "would not serve the public interest." Ferrero added that the report in question "included a wide variety of very frank comments on the general operation of the Houston office."

The Moss subcommittee is not likely to press the issue further, say staffers. But Sen John W. Tower (R, Tex.) is still demanding the supervisory report from FHA. FHA again has refused. Sen. Tower, a member of the Senate banking and currency committee, may insist on the report when Sen. Sparkman calls FHA brass before him.

And George Humphrevillc, the chief underwriter who disagreed with Pickett, has been brought to Washington on special assignment. FHA says it needed him to substitute for an underwriter who died.

Foreclosures: FHA rental housing in deep trouble

Foreclosures and FHA's stake in them has suddenly become a big topic in Congress. FHA itself supplied part of the push. The agency followed its voluminous report to Congress on one-family mortgage foreclosures (News, Mar.) with a similar report on multifamily foreclosures. Its surprising finding: 83% of the 11,882 apartment mortgage foreclosures suffered by FHA since 1934 has been either foreclosed or deedsed FHA in lieu of foreclosure.

And of the 1,019 projects thus acquired by FHA, the agency might cancel over half—152 projects with 48,718 units valued at $356 million—and hand last Sept. 30.

Running naked? The new report was triggered by a series of stories in the Baltimore Sun charging that FHA's insurance reserve funds were tied up in foreclosed properties. The Senate housing subcommittee staff re-
Congressman Adam Clayton Powell and his extensive dealings with FHA have exploded into a sharp dispute between Sen. John F. Williams and FHA administrator Robert Weaver.

The sober, soft-spoken Delaware Republican first took the Senate floor to complain that the Administration has been shoveling taxpayers' money to the House Congressionals. He ridiculed Powell's "European vacation with his lady friends...on a tax-paid junket," and called the Negro leader an income tax delinquent. But Williams claimed Powell's real "influence with the Administration" showed in his dealings with FHA. He accused the senator of boasting that Sec. 221d3 below-market rate loans were being negotiated for nearly $11 million--"yet unemployment in Harlem is still 30% and the rent money has come from tax-payers' pockets!"

Weaver accused the senator of "distortion," without mentioning foreclosures in his speeches. But Sparkman blamed part of the rising foreclosure rate on "trigger-happy mortgagees who hardly give the defaulted borrower a chance before taking away his home through foreclosure." He said a 1959 law letting FHA work out foreclosures for hardship cases "is not very effective" and that FHA should do something about it.

FHA's dealings with Powell: the facts and the fury

FHA's policies and programs have come under increasing attack in recent weeks. But FHA spokesmen say, "This is not a program of loans but of insurance." FHA and the House Appropriations Committee have exploded into a new dispute over FHA's insurance system to help provide decent housing for moderate income families.

"This, too, is a distortion," Weaver said. "Weaver said the Williams charge that "loans" were being negotiated for nearly $11 million on property optioned at only $8,500,000 carried "an unmistakable implication of wrong-doing here." He repeated that by law, a mortgage amount can exceed the purchase price paid by the Powell group.

A new dispute erupted with publication of the letters. Weaver, like Powell a New York Negro leader with broad support in Harlem, sent a quick reply to Williams.

"You asked me if FHA had endorsed the pending bill for Powell's Morris Park Senior Citizens. As for FHA, "this is not a program of loans but of insurance of mortgage loans," he insisted, without positing that Rep. Albert Rains (D, Ala.) commented the National Housing Conference (see p. 21) that "If something isn't done, it will be difficult to get the FHA rental housing program through Congress again.

And before the same gathering Sen. John Sparkman (D, Ala.) devoted almost his entire speech to foreclosures. His theme: "Let us not panic and reverse the policy of using the FHA insurance system to help provide decent housing for moderate income families. A turn backward would indeed be unfortunate, and I would regret to see the present unfavorable publicity given to the FHA cause the decision makers in the agency to react by ultra-conservatism."

But Sparkman blamed part of the rising foreclosure rate on "trigger-happy mortgagees who hardly give the defaulted borrower a chance before taking away his home through foreclosure." He said a 1959 law letting FHA work out foreclosures for hardship cases "is not very effective" and that FHA should do something about it. FHA has recently come to the same conclusion. One idea under study is to let lenders include in their final claims interest which has been skipped if the loan cannot be saved even through foreclosures. Senator also called on the Senate to hold a hearing on the subject under pressure from Republican subcommittee members Wallace Bennett (Utah) and John Tower (Texas). Both are disturbed by mounting FHA foreclosures. Says Bennett: "The fact that the FHA felt it necessary to make a report which is essentially defensive in nature and has some partisan overtones is in itself a persuasive reason why we need a complete and hopefully impartial survey of the serious questions being raised.

"There is nothing evident in either the statement or the news articles that a "foreclosure crisis' is about to descend on the nation as housing for the aged. The acquisition price paid by the Powell group.

"The agency, argued Weaver, "processed proposals and applications submitted to it by Mr. Powell or his associates in exactly the same manner as all others."
The question keeps returning again and again these days in talks with the nation's economists. Economist Louis Winnick of New York City suggests housing suffers from a lemming complex: because most operators are thinly capitalized and fragmented, they lack sharp market information and tend to over-react to stray data.

Hence a sudden success by one operator may trigger mass shifts in group behavior. When Jim Walter scored big with shell homes, dozens followed his lead. When some early retirement-community operators tapped hot markets, others followed.

But now some hot markets are turning out to be thin. The shell house bubble has burst (NAHB, Mar.). After a first rush, Nels Severin found the market for senior citizen homes 120 miles from downtown Los Angeles so thin he proposed letting children into his Palm City, Calif. project. Senior citizens already living there protested strenuously, but Severin still cut minimum age for buyers from 50 to 45.

For nationwide data, economists are questioning anew how reliable are housing starts compiled by the Census Bureau. Economists for months have been disturbed by the erratic ups and downs of this figure (News, Oct. '61). Now the National Association of Home Builders tells builders the housing starts figures "offer little assistance in deciding in what direction the industry is moving."

"Until the bugs are removed, permits are the best indicator of short-term trends." In line with this NAHB is undisturbed by a 15% plunge in housing starts to a 1,242,000 rate in January. The more reliable building permit rate fell only 3% in January to 1,277,000 units, NAHB points out.

Even with limited data, housing researchers are providing new insights into some new or unfamiliar markets for builders.

Economist Robinson Newcomb suggests both house builders and trailer makers could tap some of the current apartment boom by learning to tailor homes for young married couples who want suburban dwellings with small living areas. Builders have tended to concede this market to apartments, because young couples typically have been unable to make down payments on new homes. More and more young marrieds also buy or rent the small, cheap homes built just after World War II.

Builders should pay more attention to where they are building, Newcomb contends. "Some people may accept fighting through a lot of traffic to get to work, providing they can run down to the beach, to the tennis court, or the golf links evenings and weekends without difficulty," he says. (NAHB is starting to promote second homes.)

The relocation market now may be worth a second look, too. In the first years of rapid demolition for renewal, builders frequently found it disappointing. Builder W. K. Kerr & Sons sold 300 houses under Sec. 221 in Columbus, Ohio rapidly in 1958; two years later sales were much slower in the same area.

Now Advance Mortgage Co. of Detroit says demolitions are an increasing force in housing. Advance's quarterly survey of 10 midwestern cities shows one-family starts rose in only four last year. All four (Columbus, Dayton, Detroit, Cincinnati) had brisk demolition rates from renewal and expressways.

Inside the apartment boom, market research can help, too. The Oregon Apartment House Assn. says one-bedroom apartments are overbuilt now—but two, three, and even four-bedroom apartments offering amenities of new homes are likely to succeed.

More and more signs point to a big surge in residential building this year with apartments again leading the way.

FORTUNE Magazine's just-completed survey of builders' intentions indicates that private non-farm starts will hit 1,575,000 units this year—vs. a revised 1,428,200 in 1962. The magazine says apartment building enters 1963 at a 500,000 a year clip—topping 1962's 462,000 apartments and duplexes, highest since the apartment boom of the 1920s crested in 1925 at 365,000 units.

House & Home editors checking with builders in all sections of the nation last month report that the surprising mid-winter sales surge (News, Mar.) is holding up. Builder Roger Kavanaugh closed 23 sales in the last week in February in nine North Carolina towns; Builder Matt Jonet of Tampa got 24 firm contracts for his $30,000 and up homes. Perl-Mack sold 268 homes in 22 days from new models in Denver.

FORTUNE is predicting a 9% gain in one-family house building this year—based on the same type of rave reports from builders. "I've seen more action in the past two months than I've ever had," beams a Pittsburgh area builder.
Lumbermen lose plea for import curbs

The U.S. Tariff Commission has unanimously turned down an impassioned plea by the Pacific Northwest's lumber industry for a tariff wall against Canadian softwoods. As a result, lumber prices across the U.S. are likely to stay near present levels. Spruce, fir pine and hemlock lumber are affected.

A platoon of Northwestern Congressmen pleaded last summer with President Kennedy to boost tariffs to the legal 8% ceiling and to limit Canadian imports to 10% of U.S. production. (News, Oct.). They argued 250,000 forest workers were jobless because of imports. British Columbian shipments to the East Coast had soared from 7% to 57% of that market, and Canadians were selling the U.S. $250 million worth of lumber a year, or 15% of domestic production (News, Dec.).

But the Tariff Commission found that imports were not rising primarily because of past tariff cuts and that imports were not principally to blame for the recession in lumber. The 1962 Foreign Trade Act (News, May) requires both conditions exist.

Instead, the commission said, the most important cause of increased imports is a cost-price squeeze more intense in this country than in Canada. Contributing to this is the limited supply of softwood lumber in the U.S. This is believed to be the stand of the National Association of Home Builders, which warned that raising tariffs might trigger a general price rise in "all housing Since home-builders in America use the vast bulk of all softwood lumber in the construction of single-family homes, we are interested in a free competitive market so the prices of lumber will remain their natural level." New strategy. The National Lumber Manufacturers Assn., which fought for the restrictions, says it will not appeal. An appeal would take a year, and lumbermen concede privately they hold scant hope for success in the face of the commission's 5-to-0 decision.

Last year was a year of excess capacity, price cutting and fierce competition against imports. The big squeeze was on profits for much of the first three quarters. And yet—and yet—when materials producers closed books Dec. 31, 47 of 50 surveyed by House & Home had posted sales increases. Many had a record year. And 32 had better profit margins than in 1961 (see table).

Not since the 1959 housing boom have producers performed so well. Earnings went into a tailspin in 1960 (News, Apr. 61). They managed only a faltering recovery in 1961, (News, May '62) despite a record $57.4-billion investment in new construction. The industry seemed to be starting into the not so soaring sixties on a plateau of profitless prosperity stemming from premature expansion. But 1962 came through the computer machines as the year of the big rebound. The value of new construction put in place soared to $61.1 billion or 7% above record breaking 1961, and private housing was up 11%.

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The big lift: A strong fourth quarter nudged producers into an encouraging profit posture. The value of new construction put in place soared to $61.1 billion or 7% above record breaking 1961, and private housing was up 11%.

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The word: be not afraid. The consultants urge eventual merger. Prospects are that the joint talks may lead to putting activities like data gathering and traffic under one roof.

Cement shipments rose 3.7% last year to 332 million barrels, but capacity increased 4% to 457 barrels. Another 20 million barrels of capacity goes on the line this year. Since December cement output has stepped up to $3.35 a barrel f.o.b. New York.

For plumbing the outlook is better. Domestic price wars halted, and President Joseph A. Grazier of American Standard reports that Europe's brutal winter has uncovered a vast new market — the underheated Continent.

The red and the black. Profits have been squeezed by low prices and rising labor costs for several wallboard and roofing companies, among them Philip Carey, Celotex and Allied Chemical. Certain-seed's profit for the year nosedived 72.8% on losses with its Institute of Essential Housing (see, Mar. '61). Goodyear and Johns-Manville had record sales, but Goodyear's profit margin sagged and J-M increased earnings only 0.3% after a 16% decline the previous year. U. S. Gypsum upped earnings only 1% on a 5.6% sales increase. Chairman C. H. Shaver noted that the company was plagued by slightly lower prices during the year, so the increased revenue was entirely due to higher volume.

Per-share earnings of Masonite, biggest producer of hardwood panels, jumped a whopping 55.6% over fiscal 1961 after the company put more stress on high-yield specialty products like pre-coated or pre-finished hardboards. The surge has continued into the first quarter of fiscal 1963 with a 39% increase. Flintkote lifted sales and profits 9.5% and Armstrong Cork showed the best earnings trend in the industry: a 17% rise over its 1959-1961 average. Sales of $323 million were up 7% and profits up 14%, both records.

The losers. Plumbing and cement companies took it on the nose. Lehigh Portland Cement automated its way to a 30% rise in earnings, but President Joseph S. Young concedes the figure is illusory because 1961 was "an extraordinary bad year."

hence producers worry if new price lines can be held. But Georgia-Pacific and St. Regis Paper have just upped plywood quotations $2 and $4 to $62 and $64 per 1,000 square feet, exterior and interior grades. With the market firm at $60 and production easing, there is every chance the increase will stand.

Armstrong and Johns-Manville have boosted prices of most wood-fiber ceiling products 3%. Flintkote, National Gypsum, and Celotex say they are considering similar action.

In plumbing, both Crane and American Standard have just boosted prices 4% to 11%.

Another big year? With the price pickup, 211 predictions point to a prosperous year.

Lumber is an example. All three companies substantially improved earnings in 1962. Georgia-Pacific, tops in profitability, reached new peaks in sales, earnings and cash flow despite import competition that braked the forest industries for much of the year (see p. 9). Company sales have increased fivefold since 1950 as a result of integration, planned acquisitions, and expansion into 40 countries.

Chairman Owen R. Cheatham has built up 20 billion bd. ft. of forest reserves. His sparkling 28% rise in earnings stems from timber sales on which profit was taxed only 25% as against the 52% levy on corporate income. Wall Street securities analysts predict no dilution in G-P's earnings in 1963.

Weyerhaeuser, severely harassed by Canadian imports, nevertheless halved its profit decline for the first time since 1959. U. S. Plywood's earnings were up a healthy 9% for nine-months after Chairman A. W. Antoville branched into high-margin proprietary products. "Sure it was a tough year," says Tony Antoville, "but instead of tearing our hair, we've been seeing what we can do to improve."

A cement move that may lead to putting activities like data gathering and traffic under one roof.

The first and only rotary electronic dimming control available that is listed by Underwriters' Laboratories. Conservative 400 Watt incandescent rating provides smoothest control from "off" to full brightness, lowest heat rise under load. Assures stable operation and long life. Replaces standard switches. Other models available from 600-1000 Watts incandescent rating and up to 800 Watts fluorescent rating. For details, on the complete Hi-Lux series, write today.

Cement shipments rose 3.7% last year to 332 million barrels, but capacity increased 4% to 457 barrels. Another 20 million barrels of capacity goes on the line this year. Since December cement output has stepped up to $3.35 a barrel f.o.b. New York.

For plumbing the outlook is better. Domestic price wars halted, and President Joseph A. Grazier of American Standard reports that Europe's brutal winter has uncovered a vast new market — the underheated Continent.

The word: be not afraid. The consultants urge eventual merger. Prospects are that the joint talks may lead to putting activities like data gathering and traffic under one roof.

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For plumbing the outlook is better. Domestic price wars halted, and President Joseph A. Grazier of American Standard reports that Europe's brutal winter has uncovered a vast new market — the underheated Continent.
 Local businessmen and civic groups should support efforts for wider adoption of the four proprietary regional model building codes.

This is the view of an advisory council of the U.S. Chamber of Commerce, as expressed in a 20-page booklet just issued with chamber endorsement.

In support of its case, the chamber offers two curiously contradictory contentions:

1. "A great volume of outdated laws and regulations, including many buildings codes, are out of tune and out of tempo with current needs. In many areas across the country, laws and regulations drawn up for a bygone day are permitted to continue in effect—and in the process to add unnecessarily to the cost of building houses, stores, and apartments."

2. Nearly 80% of the cities and counties which have adopted building codes already base their rules on one of the four model codes—which the chamber urges as the remedy for today's chaos.

From this flimsy base, the chamber then leaps to the assertion that spreading the model codes "promotes uniformity of building regulations."

The overlooked fact, which is freely admitted by the model code groups: Each local variation of a code based on a model code produces code diversity. The drive for model codes has over the years produced only an illusion of uniformity. And code diversity is the real heart of the nation's code muddle. The expectable result: A home manufacturer sending prefabricated houses into a metropolitan area with 60 nearly alike (but different) codes must engineer his product to the highest standards for all 60—with resulting costly waste in the other 39.

Whose handiwork? The 36-member advisory council which wrote the booklet includes 20 executives of trade associations with a vested interest in a specific product, product group, or construction method. Seven come from trade groups like the NAHB, five are from the model code groups. Two are architects and only one of them, William F. Tabler, has made any mark promoting code reform. Council Chairman is William G. Kirkland, of the American Iron & Steel Institute.

Their handiwork was unveiled at a press lunch in New York's Waldorf-Astoria Hotel where Kirkland pronounced it a "great step forward in our continuing efforts" to build better for less with new materials and methods. But he also added: "I don't think we've offended any of the building officials in the nation with this report."

Federal code? The chamber is vehement in rejecting the idea that a single, federal building code could bring order to the code muddle and stop the costly waste of today's myriad local codes. Why? "It would add another layer of code provisions. . . New administrative and enforcement officials would be needed."

"These arguments have been used for years by proprietary code leaders to fight the same bogeyman. The point they miss is that proponents of code uniformity do not advocate a federal building code at all—not even for one- and two-family homes. What they urge is a national standard (not unlike FHA's minimum property standards), available for local code adoption and enforcement without change."

The federal government alone, so the argument goes, can afford the millions of dollars a year it would cost to keep these standards up to date with new technology. (None of the model codes has a gross of over $300,000 a year.) The chamber's booklet presents none of these ideas.

State codes? Rejecting them, the chamber contends they "ordinarily do not replace local codes but merely create considerable duplication and overlap in authority."

In saying so, the chamber's advisory council has wholly overlooked the best example of a state building code in the U.S. Since it was issued in 1952, the New York State Building Code has been adopted by 412 cities and towns with 5 million population (62% of the state outside New York City). The state lets municipalities adopt any code they choose, but if they pick the state code, it must be adopted without change and cannot therefore be modified. The state keeps its code technically up-to-date. Moreover, it offers an analysis of unusual plans for puzzled building officials and holds regular training seminars. Homebuilders outside New York City have persuaded 82 of 151 municipalities to adopt the state code.

Asked if the chamber's advisors had studied the New York experience, Kirkland looked flustered, then observed: "Some state laws do vary on what they will let localities do."

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**LAND**

How San Diego persuaded U.S. to sell a planned community

Harry Haelsig is a planner, and he is supposed to look ahead. So when 27,700-acre Camp Elliott was annexed to San Diego in July 1960—boosting the city's land area by 25% in one leap—Haelsig set his city planning department to master planning the government-owned property.

A year later his foresight paid off: The Navy declared half of the land surplus and told the General Services Administration to sell it. Under a 1949 law, GSA must offer the land to other government agencies first. Eventually GSA got in touch with Haelsig and Haelsig dragged out the plans for a residential community, he had carefully nurtured over a year. He asked: Why not sell the land subject to the city master plan?

GSA brass pondered the unique idea. No city had ever made such an offer before. In Washington, GSA officers looked at the steadily rising tide of surplus property offerings—a

flashy two-tone green brochure.

The first section to go on sale has 2,849 acres for private use. The planners devised a plan calling for several small neighborhoods grouped around a 48-acre regional shopping center and three smaller neighborhood shopping centers. Some 1,425 acres are zoned to hold 5,000 one-family homes, and 4,800 apartments go on 240 acres. Bids are just being taken, but building is probably two years away. GSA is extending credit to buyers, too.

As word of Puerto Vista spread—it was the largest tract of vacant land inside the city—gadgets it may have started a pattern that other cities may follow. On the eve of bid taking, over 2,000 requests for bid forms had been received, and potential buyers were flocking to see the site. Summed up Regional Director E. B. Herron of GSA: "This city within a city . . . is the nation's foremost community planned by three governments."
Michigan's Supreme Court has unanimously outlawed the state realty agency's controversial Rule 9 forbidding racial discrimination by brokers and salesmen. 

Michigan becomes the second state to void an anti-bias measure. In 1961 the Washington Supreme Court ruled a state law barring discrimination in publicly-financed housing violated equal protection clauses in both the U.S. and state constitutions (News, Jan. '62). The highest courts in Colorado, Massachusetts, and New Jersey and an intermediate court in Connecticut have upheld anti-bias statutes applying to private housing. California's highest court has let stand a law prohibiting racial bias by realty salesmen.

Unlike all these state laws, Michigan's Rule 9 has never been enacted by state lawmakers. It was written into the state real estate licensing code in 1960 in the furor following national publicity for the Grosse Pointe screening system. Potential residents in the posh Detroit suburb were rated for desirability on a point system that stressed race and ethnicity. Grosse Pointers dropped the plan when a Teamsters Union local president, William Bifulano, charged he was libeled and slandered by the point system. Rule 9 resulted, and three Lansing real estate firms immediately sought an injunction against its enforcement. The Michigan Real Estate Assn. aided them.

Now, all seven of Michigan's top justices ruling on the issue say Rule 9's powers are too broad to be delegated to an administrative agency without violating the state constitution.

Key to ruling. Rule 9 defines racial or religious bias as "unfair dealing" under state law. But the court holds that this term as used by lawmakers "seems to us to connote a more restrictive meaning than that attributed to it by the defendant [state agency] . . . Such [discriminatory] practices are not commonly understood in the term 'unfair dealing' either by our people generally or by our legislature."

Right to sell freely. Brokers are hail ing the decision. Says President Byron Tieri sc aprove St. of the Detroit Real Estate Board: the court has affirmed that "the inherent right of the property owner to choose his agent and direct his efforts cannot legally be locked by the administrative edict of a governmental bureau.

"It would be a violation of the rights of the property owner if the law directed to whom he could or could not sell his property . . . Civil rights belong to all people.

But Gov. George Romney (R) immediately sent a bill to the legislature which would 1) bar brokers and salesmen from encouraging or suggesting race bias to buyers and sellers, and 2) forbid panic selling. Brokers could act as an agent for sellers who want to discriminate.

Negro mortgage men push lenders for more money

The growing pressure of anti-bias backers came full force into the offices of 93 of New York City's biggest mortgage lenders.

Two-man teams from the Negro United Mortgage Bankers of America (News, Jan.) descended on executives of 53 savings banks, 28 life insurance companies, 10 s&l's, and two union pension funds with this story: Negro families provide much of the deposits, premiums, and income for these lenders, yet many cannot get mortgage loans when they apply to white mortgage bankers who represent the lenders across the U.S.

After three days of talking, President Dempsey Travis of UMBA reported the Negro mortgage men secured oral commitments from savings banks and one sa for $43 million in mortgage money. Lenders said they would look over the Negro market in June, held out hope for another $50 million then.

Summed up Travis: "We feel a bit disappointed about the life companies. Although they put up way stations for collecting premiums, the access to mortgages by Negroes is almost negligible. And they write 99.5% of all life insurance for Negroes."

Travis is about as unassuming a crusader for Negro rights can be. He lives in a predominantly Negro section of Chicago and says he has no desire to live in a white neighborhood. "But if I can open a door for someone else, I don't care about myself," he says. "We hope our campaign of quiet persuasion will change the situation," he says. But if it doesn't, Travis talks of meeting court suits and boycotts of mortgage lenders.

First anti-bias suit filed against Tennessee developer

The action was brought in federal court in Nashville against Holiday Inns of America Inc., whose president is former Homebuilder Wallace E. Johnson. A Memphis Negro dentist alleges that last Dec. 5 Holiday Inn—Capitol Hill motel in Nashville refused to honor his reservation. He asks that the motel be permanently enjoined from refusing rooms to Negroes.

The dentist contends that President Kennedy's executive order banning bias in federally-aided housing (News, Jan.) applies because the motel is in an urban renewal area. He says 50% of the Capitol Hill re development site was owned and operated by Negroes when it was condemned in 1952 for urban renewal, that two-thirds of $8.7 million renewal costs came from federal funds.

Although this is the first such suit against an urban renewal developer, the FHA has rejected two similar complaints under the Executive Order against private builders in Maryland outside Washington, D.C. because the houses were built before the order was issued. The anti-bias or renewal projects for which contracts for land and grant were executed on or before Nov. 20, 1962."


URBAN RENEWAL

Housing codes: new gains and revolts

Two cities that revolted against housing codes a year ago (News, Apr. '62) have reversed themselves and adopted new housing codes. Bitter squabbles are raging in two other communities on whether such ordinances—required as part of a workable program to fight slums to qualify cities for public housing and renewal subsidies—are a boon or burden.

Phoenix has just put into effect a housing code covering private homes, apartments, hotels, motel rooms and dormitory suites. The rules set minimum space, heating, lighting, and sanitary standards. Rev. Asbury L. Moore, the Southern Baptist clergyman whose forces killed a similar code two years ago, again is fighting to stop it. "This new code will be repealed," he insists. "We're going to seek 15, 000 names on a petition to ask recall." Phoenix' city manager concedes an election is almost certain, says the code will not be enforced until the vote is held.

Lima, Ohio, has just enacted its second housing code in two years, but the wivy Committee of real estate men and homeowners is forcing the issue to an April referendum. The committee fought a similar ordinance in November 1961 and won by a 2-to-1 margin.

St. Louis toughened its 1948 housing code in January despite protests from realty interests. The revision had languished seven months in committee, and Public Safety Director Robert W. Duffe—who enforces the code—doubted it would have any significant effect on slums. "Slums can be eradicated only by slum clearance," he said.

Paul E. Brune, a veteran of 42 years in St. Louis real estate, explained the objection of landlords:

"The city is whipping the wrong horse. These people kick the windows out, so the water pipes freeze. Then you've got the inspectors down your back. Where is legislation for tenant responsibility?"

"It costs $600 a unit to put in hot water and a bathtub to satisfy the code. The people who live in those places don't care enough about these things to pay $5 more a month."

New York City has a different problem: lack of enforcement. President R. Peter Straus of radio station WMCN, son of the late public houser, Nathan Straus (News, Oct. '61), came up with evidence that suggests code enforcement is so lax that it is a wonder federal officials let the city qualify for federal subsidies for public housing and renewal. Straus says many housing violations go unreported because "you have to be a P.H.D. to report a violation."

Straus' station indexed the 200 phone numbers New Yorkers need to report violations and set volunteer crews to directing tenant complaints to the right part of the city's bureaucracy.
NEWS FOR BUILDERS!

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PUBLIC HOUSING

‘Wait till next year’ strategy of HHFA irks public housers

To the National Housing Conference, the chief lobby for public housing, each session of Congress is either a vintage year (i.e., bigger subsidy funds voted) or a poor year (i.e., limited spending).

So the 500 members in Washington for NHC’s annual meeting were disappointed last month when Congressional leaders flatly told them 1963 is a year for marking time. “There’s not going to be a great deal of new housing legislation this year,” said Rep. Albert Rains (D, Ala.), chairman of the House housing subcommittee.

In their frustration NHC leaders looked for a scapegoat. They settled on President Kennedy’s housing program as planned by HHFA.

On the eve of the first business session, leaders tore apart an early draft of their legislative program (written by Warren Vinton, who as a Public Housing Administration Wall Street on the idea of buying public housing bonds) and substituted some of NHC’s strongest criticism in years of a Democratic administration. Samples:

“The Administration has failed to make any comprehensive analysis of needs or of the adequacy of present programs. This year it has not proposed new programs or authorizations to expand housing production or urban rebuilding. It plans to rely on the balance of old authorities (from the 1961 Housing Act) for such new projects as they can cover.

“The National Housing Conference is dismayed by the deficiencies of the Administration’s program... The Administration’s attitude and proposals are not enough to meet our needs and aspirations.”

Rep. Rains was equally tart: “Not everyone appreciates that in the 1961 Housing Act there are provisions that have not been fully implemented—and I do not say this unkindly to the administration. A lot of things need more steam.”

HHFA’s reply. Hours after members approved this policy stand without debate, HHFA administrator Robert Weaver and his staff appeared to repeat an open staff meeting that was a 1962 high-spot (NEWS, Apr. ’62).

Weaver and his ten top aids carefully avoided any reference to the stinging attack from NHC. Instead, they reported what they are doing to promote the new—and often controversial—programs set up in 1961. Items:

• FHA has 14,000 units costing $153 million insured or under application in its Sec. 221d3 program which provides mortgages at a subsidized 3½% interest rate. “But considering the great unmet need, this is a disappointing performance,” argued Acting FHA Commissioner Paul Ferrero. “We lack non-profit sponsors who can qualify for 100% mortgages.”

• More new public housing authorities—190—have been formed in the past 18 months than in any comparable period, said Commissioner Marie C. McGuire of FHA. Mrs. McGuire reported public housing is trying to house two new special groups: 1) Indians—1,000 units are now planned for Indian reservations, and 2) elderly persons who need special dining, nursing, or clinic care. Civic or church groups would contract for these services.

The diversionary strategy paid off, for in the question period following the staff meeting not one NHC member pressed Dr. Weaver to defend his legislative quarterbacking.

The only Administration reply to the criticism came from President Kennedy himself. He told a tax symposium of the American Bankers Assn. that “the National Housing Conference is charging the White House is lagging in its development of urban renewal, houses for the elderly, and passed resolutions, seven of which would result in an increase in government expenditures of $4 billion. So if you run into a recession, you are going to have a good many people who feel that government expenditures will be needed.”

Drum beating for ’64. While NHC did indeed call for Congress to expend more money this year—another $75 million annually for public housing, $3 billion more in authorizations for renewal—conference leaders clearly showed by their program staging that they don’t expect to get much this year.

Instead, every speaker who paraded to the NHC rostrum was carefully coached to plug for a White House Conference on Housing & Community Development.

Sen. Harrison Williams (D, N.J.) first urged such a conference three months ago, pointing out that housing has not been the subject of a formal White House conference since 1931. His idea has been backed by the American Municipal Assn. and U.S. Conference of Mayors.

But instead of concentrating on housing problems, each group wants to open such a gathering to a host of big-city problems like transit, highways, air pollution, sewers, water, and urban sprawl. NHC sees the White House meeting as the starting point for a bigger and costlier housing bill next year.

Or, as Rep. Rains put it, “I hope you use this year as a time of study and research, just as our housing subcommittee staff is doing. In that committee today studies are underway looking to the day when we bring up a bigger and better Housing Act in 1964.”

Transit time. Both Rains and Sen. John Sparkman (D, Ala.), head of the Senate housing subcommittee, told the public housers that housing has an important stake in President Kennedy’s plan to spend $500 million for federal grants and loans to expand publicly-owned mass transit systems.

Warned Rains: “I can see the day when FHA mortgages that have already been written will be endangered unless people can get to and from their work. Transit is interwoven with our housing and renewal problems.”

New York City’s flap over quotas

“Despite the fact some Congressmen would be upset at over-$20,000 units, would you not set some policy that would give credit to authorities building larger units?”

Flared Weaver: “It would be administrative irresponsibility to approve units for $20,000, $22,000, and up. I am concerned with keeping the program going, and I don’t think we could do this with a cavalier attitude toward costs.”

There is little Weaver can do about the quota problem. The law limits each state to 15% of available Federal public housing subsidies. New York State has 86,791 units already (70,353 of them in New York City),

“The governor of New York (Nelson Rockefeller) hopes to ride into the White House on a program calling for an end to public housing—and he has said so in so many words,” charged Robbins before NHC members.

Robbins based his attack on Rockefeller on a newspaper report quoting the governor as saying he wanted to “get the government out of low-cost housing.” A transcript of the informal talk, supplied by the governor’s office, quotes him as saying his now-dead plan for letting low-income families live in privately-owned mid-income apartments (News, Dec.) is “taking the government out of financing, the taxpayer out of the financing of housing, and letting private enterprise come in.”
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Mel Wright, Huntington

IN CALIFORNIA: "No splits, no paint callbacks."
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IN MISSOURI: "Goes up faster than shakes or wood siding."
Best Built, Inc., Raytown

IN OHIO: "Reversible edges help us eliminate waste on gable ends."
Smith-Ketter Bldrs., Inc., Cincinnati

IN MARYLAND: "No shortages with Insulite. You get all the siding you pay for."
Florian & Kirschman, Baltimore

IN DELAWARE: "Little waste with Insulite Primed Siding."
Mike Toner, Wilmington

IN INDIANA: "Weather-drip edge stops paint blistering."
F & F Builders, Indianapolis

IN COLORADO: "Never a complaint in over 5 years."
H. B. Wolff Co., Denver

IN ILLINOIS: "Here's quality that I can save money on."
Shorewood Park, Inc., Joliet

IN TENNESSEE: "I can count on the price . . . no wild fluctuations with Insulite."
John R. Price, Realtor, Knoxville

IN CALIFORNIA: "Adds beauty to any style home."
Hal Porter Homes, Santa Cruz

IN GEORGIA: "Insulite takes paint beautifully."
Scott Hudgens Builders, Atlanta

IN NORTH CAROLINA: "We avoid the problems of grain, knots and splits."
Lashley-Austin, Inc., Raleigh

IN MISSISSIPPI: "I save time and money with Insulite."
Fonzo Finch, Jackson

IN OREGON: "Pre-priming means we can outlast the rainy days."
Cooley Construction, Portland

IN MASSACHUSETTS: "My customers like the way it looks."
R. P. Pidgeon, Wilbraham

IN INDIANA: "Callbacks? Not with Insulite!"
Lebrato Bros., Inc., Fort Wayne
Insulite Primed Siding is performance-proven.

IN SOUTH DAKOTA: "Doesn’t split when we nail or saw.”
Tabbert Inc., Sioux Falls

IN MICHIGAN: "A beautiful, quality product.”
Modern Builders, Lansing

IN PENNSYLVANIA: "The way Insulite takes paint is almost too good to be true.”
Arthur W. Blaker, Yardley

IN TEXAS: "No guesswork. Insulite comes in uniform lengths and thicknesses.”
Gladwin Construction Co., Arlington

IN OHIO: "Our carpenters like to work with it.”
Sims Bros. Inc., Marietta

IN IOWA: "Looks great on homes in any price range.”
Davenport Co., Sioux City

IN PENNSYLVANIA: "Saws in any direction... goes up with no splits or cracks.”
Colosimo Construction Co., New Stanton

IN INDIANA: "Absolutely no paint blistering or cracking.”
John Kleinops, Indianapolis

IN WEST VIRGINIA: "Wide widths, long lengths mean Insulite goes up fast.”
C. F. Woodroe, Charleston

IN NORTH CAROLINA: "My buyers know and want Insulite.”
Crestmont Bldg. Co., Greensboro

IN PENNSYLVANIA: "Pays off in appearance, performance and design versatility.”
C. R. Lange, Ardmore

IN TENNESSEE: "Unmatched for lasting beauty.”
McCallen Builders, Memphis

IN IOWA: "No shrinkage... joints stay butted!”
Star Homes, Sioux City

IN OHIO: "Terrific design flexibility with Insulite.”
Wargo Realty, Sagamore Hills

IN MICHIGAN: "Every piece stays true... no warping, twisting or splitting.”
James Boonstra, Grandville
Jim Pease is named HMA president; Madigan resigns as top staff aide

The Home Manufacturers Association has just reached into the ranks of its past presidents for a successor to outgoing President Albert P. Hildebrandt, president of Kingsberry Homes Corp. of Atlanta.

He is James L. (for Lewis) Pease Jr., 42, vice president of Pease Woodwork Co., which his grandfather founded.

His election — behind closed doors at the HMA's annual presidents' council meeting in Washington, D.C. — came as a surprise.

President Hamilton Crawford of Crawford Homes, Baton Rouge, who took over as HMA vice president in November when Tom Korb quit Harnischfeger in a policy dispute, had been considered in line to move up.

But Crawford withdrew his candidacy after HMA members (there are 43) gave his proposals for beefing up association activity support he considered too lukewarm. Sample: instead of expanding its quarterly magazine, Manufactured Homes, HMA now plans to fold it up.

Many of Crawford's plans — notably membership expansion — remain on HMA's agenda.

As the meeting closed, Executive Vice President Jerome J. Madigan told HMA he was resigning to become a builder-dealer of prefabricated homes in the Washington area. HMA immediately promoted Technical Director J. Alfred Reidelbach Jr. to succeed him.

Jerry Madigan, 48, has been the top staff man at HMA for three years. Before that, he was director of membership and field services for the National Association of Home Builders and, from 1948 to 1952, executive director of the Cleveland builder chapter. Virginia — born Al Reidelbach, 36, graduated as a civil engineer from George Washington University, spent 7½ years with Timber Engineering Co. before Madigan hired him for HMA in 1960.

Elected Vice President was Alfred R. (Bill) Tandy, president of Southern Mill & Manufactur- ing Co., Tulsa. Allen Dibble, advertising director of National Homes, was elected secretary-treasurer.

(Dibble, critically injured last November in a plane crash at HMA's annual convention, was released from the hospital last month, expects to be back at work this month.)

Pease, who was president of HMA in 1961-1962, began working summers for the family company in 1935. After graduating from the University of Cincinnati ('42), Harvard Business School ('43), and a World War II tour with the Navy Supply Corps (lieutenant, jg), he went to work full time in 1946. He became treasurer in 1954 and vice president last January. Pease Woodwork, founded in 1893, is the nation's largest privately owned mail-order building materials house (Sears Roebuck is bigger but it is publicly owned).

The company added prefab homes to its line in 1939, now markets some 40 models retail-priced from $11,000 to $60,000 in a 300-mile radius from its plant in Cincinnati. As a family owned business, Pease Woodwork divulges no sales or earnings figures but Pease says about half its business is building materials, half prefabricated homes. Most of the latter go up in small towns (25,000-50,000 pop.).

Tandy, 41, HMA's new vice president, was an Air Force bomber pilot in World War II, got into home manufacturing when he and his family bought Southern Mill in 1957. Last year, the company produced more than 400 homes retailing from $10,000 to $25,000 in 11 states. It also prefabricated some 300 dwelling units of low-rise apartments, some 300 dormitory rooms and a dozen schools.

FHA puts new man on new military housing

FHA is dropping James Armstrong, 46, assistant to the commissioner for military housing. In his place will be John (Jack) Carter, 45, Alabama builder and former Senate banking committee staff director.

Armstrong, with FHA since 1958, filled a post that Congress insisted FHA set up when it established Capehart housing for military installations. Now the Capehart program is dead. Its successor, FHA Sec. 810, has yielded 4,751 commitments, mainly for multi-family rentals, since Congress set it up in 1959.

It will be Carter's job to make this program work — and moves are afoot in Congress to open it for broader use this year. Sen. Clinton Anderson (D.N.M.), is pushing a bill to open Sec. 810 for use near Atomic Energy Commission and National Aeronautics & Space Administration installations. Under Sec. 810, FHA can insure loans up to 90% of value for one-family and multi-family units held for rental to personnel at military bases. Economic soundness is waived. Builders must agree to hold the units for five years for use by military families; after that they can rent or sell to anyone.

Last month Builder C. E. Mauldin Jr. of Clovis, N.M., started building 54 one-family houses under Sec. 810, first actual work to begin. They will rent for $100 monthly.

If Anderson's bill passes — and chances are good — builders see a big boost in Sec. 810. Reason: SEC and NASA families can usually pay higher rents than servicemen.

Carter, who gets the Sec. 810 assignment, was a staffer for former Sen. D. Clark Slaton (D.N.M.), before joining the Senate.

Jim Walter takes over as top man at Celotex

Celotex Corp. directors have elected James F. Walter to the new post of chairman of executive officer of the building materials producer at a 12-minute meeting in Chicago. The Florida shell-house king thus gains operational control of the embattled building materials company, in which his Jim Walter Corp. bought a major stock interest last summer after New York financier Edward M. Gilbert failed in a takeover try (News, Sept.).

Explains Walter of his own new role with Celotex: "We own over 50% of the stock now. I think it is rather obvious and a matter of common sense that we would naturally want to take an active interest." He will divide his time equally between the two.

To predictions that Walter will merge his two companies, Walter replies, "What difference would a merger make? The profits would be the same; there would only be a different accounting."

Walter points out that even if the Walter Corporation gives Celotex as much help as possible, only $5 million in sales would be added, not enough for a merger particularly beneficial.

Walter Corporation will get no pricing advantage from Celotex, he says. Instead, Walter is expanding Celotex, and just bought Crawford Door Co. of Detroit (annual sales: $9 million).

"\(^{1}\) Celotex sustained a net operating loss of $1,706,978 on sales of $58,472,003 in its 1960 fiscal year.

\(^{2}\) Walter Corporation was a wholly owned subsidiary of Celotex Corp.

\(^{3}\) National Association of Home Builders.
Two veteran public housing chiefs on West Coast feud with mayors

Director John W. Beard of San Francisco's Housing Authority and Mayor Howard L. Holtzendorff of Los Angeles' Housing Authority are embroiled in local controversy again. Together, the two men rule public housing empires housing 17,300 families.

Holtzendorff, 57, was abruptly fired, then rehired to the $21,700 post he had held since 1941. The official reason given by the five-man authority: Holtzendorff and his assistant, Miss Barbara Rosien, had sued the authority last December to keep the authority from cancelling their employment contracts which run until 1967.

Behind the surface lay rising friction between Holtzendorff and Mayor Samuel Yorty. When maverick Democrat Yorty was elected last year, he wasted no time in picking four new board members for the authority. The new commissioners hired Accountant James W. Corcoran, former head of an FBI accounting squad, to flyspeck Holtzendorff's books.

Holtzendorff—who was charged with 52 counts of misusing funds in an IRS investigation, but who was acquitted in 1960—got miffed and quit. Then he changed his mind and stayed to file the suit.

When the authority dismissed him, Holtzendorff complained to newspaper reporters that Yorty's new commissioners had brought two persons to him (including a Yorty campaign worker) and forced him to create places for them. "There are many good paying jobs here. There's no question Yorty wants them," he cried.

Retorted Yorty: Holtzendorff told the authority. Beard, 56, had done everything at the instruction of his authority. But former authority members dissented. "It became an insult to my minimum intelligence to go there and see the documents they [the staff] presented and expected me to approve without knowledge or background," said Jacob Shemano. Shemano quit to form a bank.

Harold Mattlin heads home improvers

Harold C. Mattlin, advertising manager of the Andersen Corp., Bayport, Minn., window panel concern, has been elected president and chairman of the National Home Improvement Council. With President Kennedy's endorsement and proclamations from most governors, the council is designing 1963 as Home Improvement Year. A promotion campaign has already begun in consumer magazines and will extend to 1,500 newspapers. LIFE magazine will review all 1963...
How sound-conditioning adds value and increased sales appeal to single family homes and multi-dwellings

The problem of noise is a problem of human comfort. The control of disturbing noises—called Sound-Conditioning—is a relatively new technique in the building industry. And, the effective control of noise is a problem that no builder can afford to ignore, any more than he can design and build homes or multi-dwellings without adequate wiring...or heating...or air-conditioning.

Now, the home buying public is conscious of the importance of sound-conditioning and will demand it as much as any other built-in facility.

First, let’s see in what types of dwellings sound-conditioning is most needed and then, who benefits most when an adequately sound-conditioned house or multi-dwelling is on the market...

SINGLE FAMILY HOMES

Today’s houses are noisier. Also, they’re smaller than they were, say fifty years ago, and today, they are designed with a more open plan.

A house, basically, is intended as a shelter. But more than that, it is a place to relax, away from all the hustle and bustle of our fast-paced living.

But noise invades our homes...noises from appliances, noises from bathroom fixtures, and noises from energetic children playing in another part of the house. Noises inside and out!

The main problem in sound-conditioning single-family houses is that all of these “local” noises must be confined or dampened. Privacy—for work, study or relaxation—becomes possible only in an adequately sound-conditioned home.

Next to providing shelter and living comfort, a house should provide a noise-free environment. The answer, we believe, lies in sound-conditioning...to give everyone individual comfort, privacy and greater personal relaxation.

DUPLEXES

The duplex house, with two families existing under a single roof and sharing many of the service facilities—heating and air-conditioning, for instance—presents some unique sound insulation problems. A common floor/ceiling separates families and in the case of a private entranceway, a common wall.

From the standpoint of practical acoustics, the occupants of duplexes experience the same degree of noisiness found in single-family houses, but multiplied by two families! Here, each family unit must be considered as a single dwelling when applying the principles of noise control.

Thus, sound-conditioning in the duplex includes not only reducing noise in the single-family unit, but isolating and pro-
How the new J-M Soundike* Sound Control System gives you a practical, low-cost solution to sound transmission problems

- J-M Soundike eliminates sound "leaks" by blocking principal air flow through the double construction.
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Johns-Manville offers you free counsel and guidance on all Sound-Control problems before and during construction. Find out more about the practical advantages of J-M Soundike Systems...how Soundike can help make your properties worth more at sale or as rentals.

The J-M Soundike Sound-Conditioning Systems have been proved through actual use. They have been researched and tested by Riverbank Acoustical Laboratories. We welcome your inquiries on all phases of sound control. Simply send us this coupon for complete facts on Johns-Manville Soundike Sound-Conditioning Systems...the modern, low-cost solution to sound control problems! And for complete information on the wide range of Johns-Manville Acoustical Ceilings, check the third box in the coupon below.

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YES □ Please have a J-M Sound Control Representative call on me to advise me on my present sound control problems.

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□ Please send me free full-color brochure on J-M Acoustical Ceilings.

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Perimeter baseboard units distribute warm or cooled conditioned air. Room-by-room heat control.

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Ceiling-mounts in basement or utility area; provides heating or cooling, electrostatic filtering, humidification.

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Supplies refrigerated solution to Central-Air unit for cooling and dehumidification; mounts outdoors or in basement with duct to outside.

Here is the complete central comfort conditioning system that will give your homes all the sales benefits of year-around comfort conditioning. It's the new all-electric Chromalox Season-Aire System that's as easy to install as any central heating system . . . yet gives you eight big selling points . . . features which homebuyers themselves look for in new homes. Put the Season-Aire on your sales team now. Costs are competitive with comparable systems that simply heat and cool, yet you gain so much more in the homeowner benefits that you can promote: room-by-room control of gentle, clean, flameless, draft-free heat in winter; refreshing mountain-breeze cooling in summer; seashore clean air and comfort-balanced humidity every day of the year.

WANT FULL DETAILS?
Send for Chromalox Season-Aire Bulletin. See for yourself how you can put this system to work on your selling team. Complete facts, figures, detail drawings and installation diagrams.

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modernization promotion programs offered by the building industry in its Building Merchandiser newsletter to materials producers and merchandisers.

Lincoln B. Frazier, president of the Campbell Supply Co., Marquette, Mich., has been named president of the National Concrete Masonry Assn.

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MARYLAND'S BOONE
Mail fraud or mistake?
One convicted, six indicted in S&L probe

The three-year mopping up of the Maryland savings and loan scandals has brought conviction of the San Francisco insurance broker, Stewart B. Hoppes, 58.

A federal court jury in Baltimore found Hoppes guilty of intending to commit fraud against buyers of policies of the now-defunct International Guaranty & Insurance Company, which had insured the accounts of numerous savings branches involved in the Maryland investigations (News, Aug. '60 et seq.). In February 1958, an International Guaranty financial statement was mailed into the state from Morocco, the company's headquarters. Federal officials contended the balance sheet was fraudulent and the company virtually worthless.

Hoppes, who faces a maximum of 10 years and a $2,000 fine, said merely: "Thank heaven for appeal." He immediately sought a new trial. He is also under indictment for conspiracy in a California loan company case and for income tax evasion in New York.

A week later a federal grand jury in Baltimore indicted A. Gordon Boone, 53, speaker of Maryland's House of Delegates, and five others in the savings and loan scandals. The speaker, a Democrat, was cited on mail fraud charges stemming from postal investigations of savings and loan operations. Attorney General Robert F. Kennedy says Boone and the other five fraudulently represented the insurance Security Financial Insurance Corp. provided on accounts in 15 S&Ls.

Boone has stepped down as speaker but he said he would retain his legislative seat. He calls the charges unfounded. He had acted as counsel for Security Financial, which was politically born and raised, but is now defunct. A former Democrat delegate, Charles F. Culver, was also indicted on similar charges.

Delegate Charles S. Bresler, a Republican, meanwhile pledged to introduce legislation in the General Assembly to tighten the 1961 law by which Maryland belatedly clamped controls on state-chartered S&Ls. His reforms would: limit the amount an S&L can lend on one piece of property to 80%; limit private holdings and 70% on commercial and require $100,000 bond of all S&L officers.

CANADA
Canada's top builder invades U.S.

Consolidated Building Corp. of Toronto is opening a U.S. subsidiary. The company's first project will be an $8 million, 358-suite circular apartment project on the New Jersey side of the George Washington Bridge. The company, which is completing plans for the project with Atlantic Funding Corp. of New York City, a real estate development company, has arranged the local approvals and FHA financing. The 33-story apartment tower will be the first circular apartment building in the East, says company officers.

Consolidated becomes the first Canadian construction company to move into the U.S. on a large scale (although some small Vancouver builders have moved their whole business to Seattle). The project is the first of several anticipated by the company in the New York area.

President Noel Zelden of CBC calls his move a complete reversal of one of Canada's most pressing problems—the flow of Canadian subsidiary company profits back to U.S. parent companies. "I hope we are helping to establish a trend," says Zelden.

In CBC's last fiscal year ending Feb. 28, the company estimated net earnings before taxes of $1.8 million vs. $1.4 million a year earlier. In 1962 the company built about 1,150 houses and 200 apartments in four Canadian cities: Toronto, Montreal, Vancouver, and Victoria.
Two homes and an apartment win AIA awards

A record 411 entries in the American Institute of Architects' 1963 honor awards program produced 13 citations for buildings. Winners will be honored at the annual convention in Miami, May 5-9.

This year judges chose five First Honor Awards (vs. only one last year.) Winners were two college buildings at Yale University, an office building, an air terminal, an art gallery, and a church. The jury gave eight awards of merit (one more than 1962) and three of these were residential buildings (see photos). They were custom residences by New York's George Nemeny, AIA of New York City and the late J. J. Levison, Seacliff, N. Y.; San Francisco's Marquis & Stoller, AIA; and an apartment tower in Oklahoma City, designed by Dallas' Harrell & Hamilton for Builder Tom Lively's Centex Construction Co.

Jurors were: Robert L. Durham, F.A.I.A., Seattle, Chairman; William W. Caudill, F.A.I.A., Houston; Mark Hampton, AIA, Tampa; Ernest J. Kump, F.A.I.A., Palo Alto; and Hugh Stubbins, F.A.I.A., Cambridge, Mass.

"We are encouraged to note a trend away from stereotyped cliches based on imported eclecticism," said the jurors. There are many indications that the best American design is now characterized by a sense of appropriateness and creative individuality.

"The awards recognized creative expression, simplicity and refinement in detail, without making any effort to find every building type. The absence of schools and industrial buildings among the awards, although regretted by the jury, occurred only because of the large number of superior entries in other types of architecture."

First Honor Awards were won by Eero Saarinen & Associates, Ashen & Allen, Ralph M. Parsons Co. (with design consulting by Minoru Yamasaki), Skidmore, Owings & Merrill, and Joseph Salerno.

One more major 1963 design program is being judged this month. More than 500 entries have been received in AIA's Homes For Better Living awards program, in cooperation with House & Home and LIFE. All award winners in this program for houses and garden apartments will be published later this year by H&H.

NEWS continued on p. 34

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TEDLAR might outlast the mortgage
This house is new. All of the siding is faced with TEDLAR. Barring earthquake, fire or flood, the siding could look much the same, without any refinishing, when the mortgage is paid.

How long will TEDLAR last? We don't know; we haven't been able to wear it out yet. However, we predict that when properly bonded to a stable material, a surface of TEDLAR may last as long as 25 years or more.

During this time, it won't noticeably fade or chalk. It will be hard to stain and easy to clean. Think how all this will sound to your home buyer. And you can demonstrate many of these features to him before he buys.

TEDLAR now on a variety of products
TEDLAR is being used on plywood and aluminum lap siding, boards and batten strips, prefabricated built-up roofing, gutters, downspouts and doors.

With these products, you immediately have two powerful sales points. First, you can offer your customers the long life and full protection of TEDLAR. Second, you can offer easy, low-cost maintenance.

Today's home owners want timesaving economical homes. Talk TEDLAR, and you'll have what they want plus a unique selling edge over your competition.

For more information, bonded samples and a list of manufacturers, write: The Du Pont Company, Film Department, Building Materials Sales Division, Box 44, Wilmington 98, Delaware.

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GLIDE-A-MIRROR
WARDROBE DOORS

PPG has combined all the most-wanted features of sliding mirror doors in a precision-engineered, completely finished by-pass closet door unit that can generally be installed in less than one man-hour. It's a unique new-home feature, with high style and elegant design... it adds luxury and spaciousness to any room.

GLIDE-A-MIRROR is complete and pre-assembled. You eliminate the problem of ordering tracks, doors, hardware and mirrors separately... no on-the-job assembly work.

Sizes to fit standard trimmed openings. Each GLIDE-A-MIRROR assembly includes two by-pass door units with track to fit standard 4', 5' or 6' wide by 6'8" high finished openings. In anodized gold-bronze, or anodized aluminum finish. Other finishes and custom sizes on order. Pocket Door models also available. Furnished with the finest quality PPG HIGH-FIDELITY Plate Glass Mirrors, GLIDE-A-MIRROR doors meet the new FHA MPS 711-1.3 for glass: Available from PPG Branches everywhere.

1. Delivered completely assembled by your local PPG Branch when you specify. You can finish all trim and painting before installing the GLIDE-A-MIRROR assembled closet door unit. Because no threshold is required, floors can be finished, and fully carpeted prior to installation.

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NEW specially-engineered sliding mirror doors...delivered pre-assembled...ready to install!

Installation savings can more than make up for the extra cost of this finished unit! There's no special framing or trim...no extra fascia...no threshold for normal openings...no furring...no doors to hang...no finishing costs...no extra labor or material cost. And, because they can be installed after all other trades have left the job, you avoid cleanup costs and risk of damage.

A merchandisable sales feature: PPG promotes GLIDE-A-MIRROR doors and HIGH-FIDELITY Mirrors on network TV and in full-color ads in leading magazines. Put this advertising to work for you...merchandise GLIDE-A-MIRROR units in your model home.

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3. Suspend doors from track and adjust. The strong die-cast hangers contain positive adjusting screws for quick leveling.

PPG HIGH-FIDELITY Polished Plate Glass Mirrors are cushioned in a resilient vinyl strip. Note the full-length door handle, extruded in one piece with the swank, slim-line door frame.
Another round of discount shrinkage forces lenders to scramble for loans

The torrent of savings flooding in on mortgage lenders is setting new records. Both mutual savings banks and savings and loan associations report new highs in deposit gains in January, and President John Kress of the National Association of Mutual Savings Banks predicts savings banks alone will have $6 billion to pour into home mortgages this year.

Savings banks are hunting aggressively for loans in areas like San Francisco, Newark, Denver, Honolulu, and Atlanta, say mortgage men.

As a rule of thumb in 10 cities a shrinkage up to a full 1% in some cities between mid-February and mid-March. This is the sharpest drop for mortgage yields in seven months. The Boston out-of-state market, bellwether of the FHA market, moves up ½-point to 97½-98 for FHA Sec. 203b, minimum-down, 30 year loans after clinging to the 97 level for five months.

Although Washington is officially silent now, when the Boston market reached 98 it foreshadowed a ¾% cut in the FHA interest ceilings in both February and May 1961. The Boston price change is joined by a full 1-point shrinkage in Chicago (from 98-99 to 99-par for immediate delivery loans). Eight other cities' report changes.

Most mortgage bankers say yields now hover near 5%. FHA puts yield at 5.52% before serving. San Francisco says lenders refuse to break 5.06%. But another mortgage banker reports today's mortgage market is "servicers's choice—he can make a deal at 98 with the normal ½% servicing fee or sell at 99 with ¾%.

Cut-rate servicing is becoming one of mortgage bankers biggest—but largely undisputed—problems. "It's too bad a controversial subject like this can't be discussed openly in the forums of the Mortgage Bankers Assn., but that's the price of having both buyer and seller in the same trade association," confides one.

Many lenders are looking at loans they wouldn't consider six months ago.

Mortgage men are skeptical of the generalization that mortgage lenders are lending on lower-quality loans. "Most lenders have changed their pattern requirements, not their standards," says President Lon Worth Crow of Lon Worth Crow Co. in Miami. "But this is not to say they are considering lousy loans. One company used to make only 15 year loans on apartments. Today they will go 20 or 25."

Some lenders are changing standards on commercial property. New England lenders now are lending money on garages and miscellaneous commercial property. Lenders will consider mortgages on stores with Dallas firms as lessees; formerly they would only consider national tenants.

Other lenders are reaching to new areas. One large New York City bank loaned money on a Honolulu apartment it would not have considered before. Another mortgage banker recently got a lender to buy $1 million of loans in Puerto Rico; six months ago the lender said his directors wouldn't look at island property.

Commercial banks show signs of easing up in the fight for new savings.

Bankers are being advised to make sure they have a sound plan for investing savings before they get into rate battles with S&Ls and savings banks—which generally pay higher rates.

"I wouldn't be surprised to see daily interest become just a memory," says Dr. Paul Nadler of New York University of the instant-interest plan which bankers have been discussing in the forums of the Mortgage Bankers Assn., and that's the price of having both buyer and seller in the same trade association," confides one.

For FHA Sec 203b, immediate delivery loans, Denver prices rise from 97-98 to 97½-98½; Houston from 97½-98 to 98-98½; Oklahoma City from 97½-98 to 98-98½; Philadelphia from 99 to 99½; San Francisco from 98-98½ to 98½-99; St. Louis from 96-96½ to 96-99; Washington from 98½-99 to 99-99½. Futures in Newark go from 98½ to 99.
The Dillon report: middle-of-the-road or monster?

How should federal credit programs grow? Should they grow at all?

A breach is developing between key Congressmen and the Kennedy Administration over these controversial questions—and it is underscored by a just-divulged (and widely misinterpreted) report drawn up by a Presidential committee headed by Treasury Secretary Douglas Dillon.

The breach first showed when the Administration last month proposed a new plan for farm home mortgages: the Farmers' Home Administration would make 5% loans to farmers from a $100 million revolving fund and resell the loans to private lenders. Rep. Albert Rains (D, Ala.), head of the House housing subcommittee, protested this would increase loans a full 1% over the 4% rate for direct loans now used (News, Mar.).

 Barely a week later, the White House pointedly unveiled a 67-page report outlining how four key Presidential advisers say the government should act in extending credit. The four: Dillon, Chairman Walter W. Heller of the Council of Economic Advisers, Chairman William McC. Martin Jr. of the Federal Reserve Board, and former Director David E. Bell of the Budget Bureau.

Boost for private credit? The committee lays down the general rule that "government credit programs should, in principle, supplement or stimulate private lending rather than substitute for it." At first the nation's news media hailed the report as calling for a massive shifting of public lending to private lenders. Said the Associated Press: "The committee's emphasis throughout was on placing greater reliance on private resources."

But a careful reading by economists and housing men puts a different light on the recommendations: Says the committee: "Major changes in existing programs may not be possible immediately."

Instead, the committee intends its ideas as future guidelines for new federal lending. Says the committee: "Proposals for new programs represent a more promising area for immediate action."

Read in this light, the Dillon report proposes little boost for private lending. Rather, it says new federal credit programs should follow this priority: 1) federal insurance or guaranty of private loans; 2) federal aid to new types of private lending institutions; 3) secondary markets like the Federal National Mortgage Assn.; 4) direct federal loans.

Putting direct loans last is a direct slap at free-spenders in Congress who prescribe low-interest federal loans for any and all purposes. But in the same breath the committee also says, "private participation should not be sought if the incentives required prove too costly for the benefits gained or if private lenders are unlikely in time to take more than a token role in the program."

Cries Economist Miles Cole: the report is "one of the most insidious pieces of bureaucratic writing ever. It is really a programming of future federal expansion in the field of credit. The report sets no limit on how far federal credit programs may go. The report looks for 'innovations' in federal financing. The fact that it says private credit is preferred only means that the federal government will use whatever means it must to accomplish social purposes with federal credit."

Free FHA interest rates? The Dillon committee's report was widely reported as calling for the scrapping of legally-fixed maximum interest rates on FHA insured and guaranteed home mortgages. But a closer reading shows the committee...
Wood's charm and diversity in bedrooms and dressing rooms is made obvious in this year's March NLMA advertisement in LIFE. Pegged flooring, paneled walls, framed windows, even built-ins dramatize so well wood's natural appeal for more livability.
The more WOOD in the bedrooms, the more sales appeal in the house

Wood has a natural way with bedrooms. In any shape or form, its familiar warmth always comes through for you. There's nothing in the world like the solid feel of wood underfoot, the radiant look of wood all around . . . its inborn ability to subdue sound for sleep, hold off heat and cold for comfort.

Your bedrooms and dressing rooms can be built with wood finely finished or rustically unfinished. Its grains, tones, and textures provide more restful areas . . . its diverse applications offer your prospects a wide range of price.

Only wood gives you so many wanted values, so much flexibility to work with to build the best homes . . . the best-selling homes . . . in your community. For more information on building better homes of wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1619 Massachusetts Avenue, N.W., Washington 6, D.C.

This bedroom reveals the simple beauty of wood in planked flooring, rough-sawn walls, and dual-laminated supports for the ceiling; in the basic pieces of furniture, too. Schweikher & Elting, Architects.

Multi-toned paneled walls, crisscrossing laminated beams, louvered closet doors combine to create a room for relaxation and sleep. They show, also, some of the many forms wood can take to sell your house. Shirley Ritts, Decorator.
When you need mortgage financing or seek mortgage investments—
You need a Mortgage Banker

It takes a specialist to do the job right—roofs, loans or investments. Mortgage financing, for example, is the specialty of mortgage bankers. Do you know that over 50% of all FHA-VA loans are originated by mortgage bankers?

This means that a mortgage banker has sufficient outside sources to assure the builder a continuity of funds, irrespective of local money conditions. It means that the investor is confident of quality not ordinarily obtainable in conventional loans.

Obvious, isn't it? When you need mortgage financing or seek mortgage investments, you need a mortgage banker.

Sponsored on behalf of the more than 2,000 MBA members from coast to coast.
only calls for Congress to "avoid fixed rates of interest or fixed statutory ceilings" (which apply to both FAs and VA loans). Key Congressmen have long opposed giving up their power to set rates, and Rep. Wright Patman (D. Tex.), chairman of the banking and currency committee, calls the idea "terrible." In their place, the committee urges that federal agencies insuring loans "have reasonably broad authority to set and adjust maximum rates for such loans." Dillon's group says it has reviewed and rejected the arguments by the prestigious Commission of Money and Credit that FHA interest controls should be scrapped (News, Aug. '61).

The Dillon group does lash FHA's sometimes-practice of pegging its interest ceiling too far below the market—which leads to deep discounts as mortgage men strive to keep FHA (and VA) loans saleable. It says: "The federal agencies should avoid ceilings which would be the rage of reasonable market rates. Many lenders are reluctant to acquire loans at sizeable discounts, and such discounts may result in hidden increases in costs, or reduce the availability of credit."

In future insurance programs, the committee urges that private lenders take some part of the risk (as is true now under FHA home improvement loans). The committee suggests a graduated scale of fees, with lowest rates for lenders who assume most risk.

Report on California S&Ls stirs up political storm
California sat. men are in a flap over a report charging that the state's $16 billion S&L industry is concentrated in so few hands (25 largest S&Ls control 50% of all assets) that it tends to restrain competition. State laws "protect empire builders against outside competition," says Richard A. Shaw of Stanford University. He called for controls on sat. holding companies, a virtual ban on new charters, and pressure against mergers.

Last month the friction boiled over into open warfare between sat. leaders and State Commissioner Preston N. Silbaugh, who hired Shaw to make the report. Silbaugh suggested that Shaw explain his report to 400 sat. men at the California sat. League's management conference in Palm Springs.

The League refused. Miffed, Silbaugh set up a conference of his own the day after the S&L conference. His speaker: Edward Shaw.

When word of Silbaugh's meeting spread, sat. men flew into action. League President John F. Marten, who is also president of Great Western Financial Corp. and Great Western sat., and a special three-man committee chartered a plane for a dramatic 4½-mile flight to Sacramento to talk to Silbaugh's boss, Gov. Edmund G. (Pat) Brown.

"Any such meeting as has been planned will serve no useful purpose," they told Brown. Officially the League calls the Shaw report "a rare piece of bizarre economic poetry."

Brown pledged that he would adopt no new rules or regulations without consulting with Marten's men. But he pointedly refused to halt Silbaugh's conference. After such a buildup, Shaw's speech itself was anti-climactic. His report sought to strengthen S&Ls, he contended.

Silbaugh may unveil a report by Prof. Frederick Balderson of California University. Best prediction: mild plug for tight rules.
All you hear are compliments
when you install completely silent
General Electric Mercury Switches

With lighted or non-lighted handles in single pole and 3-way; non-lighted also in double pole and 4-way. 15A-120 V AC; 10A-125 V T-rated. Specification grade. Listed by Underwriters' Laboratories, Inc. Meet Federal and REA specifications. Preferred by people everywhere!

General Electric Company, Wiring Device Department, Providence 7, Rhode Island.

Progress is Our Most Important Product

STOCK MARKET

MACKLE BROTHERS Elliot, Frank, and Robert went to Canada for a new corporate shell.

Mackles find quick route onto Amex Exchange list

Florida's industrious Elliott, Robert and Frank Mackle Jr. have sold their Mackle Brothers Inc. land development company to a Canadian farm machinery company turned Florida developer, C.K.P. Developments.

The deal ends the Mackles' search for a corporate shell under which to operate, and it takes them onto the American Stock Exchange without the time-consuming scrutiny of a registration investigation by the Securities & Exchange Commission for initial issues.

The Mackles will become executive heads of C. K. P., thus giving C. K. P. their building know-how as the latter begins improving 17,000 acres near Daytona, Orlando and Tampa. C. K. P. will have $9 million when it completes selling its farm machinery business to White Motor Co. Norman K. Winston, 63, of New York, nationally known housing project developer who had been president and chairman of C. K. P., retains the chairmanship.

For their holdings, the Mackles get a 19% stock interest in C. K. P., or 250,000 shares with a market value of $3 million. Winston owns 197,709 shares and controls a total of 400,000 in association with a business colleague, Stanton Sanson, and several friends.

The deal lets the Mackles continue to develop their 12,000-acre Deltona community in Volusia County near Deland and Sanford under C. K. P. sponsorship. New C. K. P. President Frank Mackle says the company plans no other major land developments, and adds: "We'd like to be known as a construction company." He says C. K. P. will build five or six apartment projects on its land and "we hope to get into homebuilding in a big way."

The Mackle brothers, sons of a respected Florida builder, leaped to national prominence when they founded General Development Corp. in the mid-1950s and started a new Florida land rush with $10-down, $10-monthly sales. Last year they sold their GD interest for a reported $6 million (NEWS, Mar. '62).

Charter Mortgage buys lumber and mortgage banking concern

Stockholders of Charter Mortgage & Investment Co. of Jacksonville have approved purchase of their third mortgage banking company, W. M. Mason Co. of Jacksonville. The company issued 535,714 shares of common stock (with a value of $1.5 million) in ex-
New Rangaire Development in Central Air Conditioning

means more builders than ever before can add the powerful sales appeal of Rangaire all-year air conditioning to any home or apartment... and with an added margin of profit!

Now, install the finest air conditioning system available in every home or apartment you build and make a greater profit too. The new Rangaire QUICK-CONNECT system is completely pre-charged and sealed at the factory, assuring you a faster, cleaner installation at lower cost.

Rangaire’s new QUICK-CONNECT design provides complete flexibility for even the most difficult installation... remote, rooftop or thru-wall for homes or multi-story apartments—comes with up-flow, down-flow or horizontal furnace.

Your buyer will be happier too. Nationally advertised Rangaire QUICK-CONNECT features a unique refrigerant metering device and is factory balanced to provide peak efficiency and maximum operating economy under all weather conditions.

Any way you look at it, Rangaire saves you money or increases your profit. Let us send you full details. Just fill out and return the coupon below.
"Central cleaning systems stand today where central air conditioning and built-in kitchens did a few years ago. • "They are clearly on their way to becoming a standard feature. • "Today, they are a special attraction that marks a home as being 'as modern as tomorrow.' A central cleaning system is currently one of those unique features that helps sway prospects...leads them to choose one builder's houses over another's."

That's the philosophy of the men who are responsible for Cox Homes' newest 1,000 home development, Cyprus East in Tempe, Arizona. Left to right above, they are Art Adolph, purchasing, Fred Godwin, general manager, K. W. Butler, sales. Since the product trend is clear, the key decision for these veteran builders was brand. Their selection of MagiVac was undoubtedly based, not only on product excellence, but the stability and background of the manufacturer: John E. Mitchell Company is rated AAA-1, holds the #1 competitive position in both of its other principal manufacturing-marketing operations (Mitchell cotton gin machinery, Mark IV auto air conditioners). For details on how Cox Home Builders are using MagiVac installations to help move Cyprus East homes, write us today.

MagiVac
BUILT-IN CLEANING SYSTEMS

A Product of
JOHN E. MITCHELL CO.
3800 Commerce  •  Dallas, Texas
Manufacturers of Fine Machinery Since 1905
Go together... Wolmanized pressure-treated lumber and masonry. When used in contact with poured slab foundations or exterior brick or block walls, untreated wood is an easy mark for rot (and termites). Wolmanized pressure-treated lumber prevents such costly wood destruction. Here's proof: case histories kept over a period of 30 years on 55-million board feet verify that Wolmanized lumber lasts up to ten times longer than untreated wood! News like this makes sense to money-in-hand home-seekers. For the clincher, mention the vast resources of Koppers research facilities... technical resources that insure the finest quality product science can create. Wolmanized lumber costs only pennies more per board foot than untreated wood. Always specify Wolmanized pressure-treated lumber wherever wood members contact masonry or are near the ground. Write for brochure “Safeguard Building Dollars.” Wolman Preservative Dept., Koppers Company, Inc., 795 Koppers Building, Pittsburgh 19, Pa.
The exclusive
Brickstone process means
good profits for you!

The exclusive Brickstone process, which makes use of patented Brickstone templates to achieve the exact appearance of hand-laid brick and stone, is yours alone as a Brickstone dealer! You are the only dealer who can economically give any building—regardless of its type or condition—the beauty of real Brickstone masonry.

Besides this exclusive selling advantage, there are a great many other reasons why Brickstone dealers find sales so easy and profitable:

FINANCING HELPS MAKE SALES! Brickstone qualifies for FHA-approved financing—as a Brickstone Dealer, you can sell jobs with no down payments!

NO ACCOUNTS RECEIVABLE! You run no bad-debt risks, and you have no money tied up in accounts receivable, because you are paid in full as soon as the Brickstone job is completed satisfactorily!

VIRTUALLY NO INVENTORY! You can offer customers a wide choice of patterns, textures, and colors—but you don’t have to have a large inventory because you can order the materials for each job!

BRICKSTONE ADDS INSULATION! Brickstone gives better insulation for lower fuel bills in winter, lower air conditioning bills in summer. A powerful sales point.

BRICKSTONE OUTLASTS OTHER SIDING MATERIALS! Unlike other siding materials, Brickstone is permanent—won’t dent, break, rot, peel, or corrode. It isn’t damaged by hail, scraping branches, pets, or stray baseballs. Brickstone is compounded and packaged to Brickstone’s specifications by the United States Gypsum Company.

BRICKSTONE ELIMINATES PAINTING! Every home and commercial building is a prospect for Brickstone. Because Brickstone eliminates the cost and bother of repainting and the “run-down” appearance between paint jobs.

SUPERIOR TO ORDINARY BRICK! Although Economical Brickstone looks exactly like brick or stone, it is superior because it is a reinforced monolithic structure with no seams to leak! It is architect-approved, and has been field-tested for 17 years.

NO STRUCTURAL CHANGES NEEDED! Brickstone can be applied as part of new construction, or it can be easily, quickly applied over any type of existing building without additional foundations or structural changes. Every homeowner and businessman is a prospect for Brickstone!

YEAR ’ROUND SALES! Brickstone turns basements into recreation rooms, makes lovely planters, fireplaces, room dividers, built-in oven walls and other interior highlights. You can sell and install Brickstone the year around.

BRICKSTONE INTERNATIONAL, INC.
A division of Sun-X International, Inc.

Send coupon for more facts about a profitable Brickstone franchise!

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P. O. Box 6565 • Houston, Texas
Dept. HH-S-463

Mail me more details on how I can make big profits with a Brickstone Franchise! I understand this places me under no obligation.

Name
Address
City Zone State
Present Business
HoUSING stocks drop down with the market

Investors are growing choosier about housing stocks, and as a result a fourth of HOUSE & HOME’S 100 stock categories advanced last month while the other four declined. Building companies, paced by a 4% point climb by Kaufman & Broad to 21 1/4, were up 5.8%. Shell homes gained 3.3%. But mortgage banking and real estate investment stocks fell 5.1%.

Overall, HOUSE & HOME’S average of 100 housing stocks declined 1.1% to 9.97. The Dow-Jones Industrial average for the same time was down 2% to 965 1/2.

In this mixed market, first-time offerings are still largely confined to real estate investment trusts. But market analysts expect some publicly-owned housing companies to come back into the market with second offerings of stock.

HoUSING’S STOCK PRICES

<table>
<thead>
<tr>
<th>Company</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
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<tbody>
<tr>
<td>Bid</td>
<td>Ask</td>
<td>Ask</td>
<td>Bid</td>
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First evidence of this trend came when Madison Main Line Homes of Wayne, Pa., pre-cut house manufacturer which doubled its net to $485,000 last year, filed for an offering of 100,000 additional shares of stock (262,567 are outstanding). The offering is expected to be set later (maximum of $14 per share). Mortgage Guaranty Insurance Co. also plans a second offering (see above).

Here are HOME’s averages of selected stocks in each housing group:

<table>
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<th>Jan</th>
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<tr>
<td>Bid</td>
<td>Ask</td>
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SEC blocks Realiste’s planned secondary offer

The Securities & Exchange Commission says Realiste Inc., of Lauderdale Lakes, Fla., failed to disclose material facts in filing to offer 14,034 shares of stock for sale at $3 a share last October. Five stockholders would have sold the stock.

While adding the lumber business, Charter is now liquidating its subsidiary, American Shell Homes, after only two years of operation. Botts says American Shell sold over 1,000 homes, but was hit hard by the rise of foreclosures which have plagued all shell makers (see April, Mar.). The subsidiary has “less than 50” reposessed homes left to sell before winding up business, says Botts.

Botts admits that the shell troubles mean Charter will show a loss between $800,000 and $1 million in its fiscal year ended Mar. 31.

MGIC skips cash payout to keep California business

The Mortgage Guaranty Insurance Corp. says it will skip its dividend this year and instead issue 200,000 additional shares of common stock. The company, organized in 1957, insured conventional 15%-year loans against loss on resident-first mortgage loans.

President Max H. Karl told stockholders at the annual meeting in Milwaukee that California law forbids stock or cash dividends unless they are paid from earned surplus. MGIC last summer became the first private mortgage insurer to enter booming California, where 20% of all U.S. homes are built (News, Sept.). Karl said it was better to stay in California without paying a dividend than to halt operations there. MGIC paid an initial 5% stock dividend in April, 1962, but is not in position to show earned surplus “yet,” says Karl.

PROFITS AND LOSSES

<table>
<thead>
<tr>
<th>Company</th>
<th>1962 %</th>
<th>1962 %</th>
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<tbody>
<tr>
<td>Sales (in 000)</td>
<td>Revenue (in 000)</td>
<td>Net Income (in 000)</td>
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<tr>
<td>Brentwood</td>
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<td>Fin. Corp</td>
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<td>First Western</td>
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Also look at the great news from the MORTGAGE BANKING BULLETIN.

Newsworthy developments:

- Stock newly added to table, X—closing price (ASE).
- Closing price (NYSE). —no bids, X—ex-dividends.

Listings include only companies which derive a major part of their income from housing activity and whose stocks are either listed or actively traded.

REGISTRATIONS WITHDRAWN

<table>
<thead>
<tr>
<th>Date</th>
<th>Company</th>
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<tbody>
<tr>
<td>Feb. 6</td>
<td>Abbott Realty Trust</td>
</tr>
<tr>
<td>Feb. 7</td>
<td>Akin Savings Trust</td>
</tr>
<tr>
<td>Feb. 7</td>
<td>Basic Properties Trust</td>
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NEW ISSUES

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<th>Date</th>
<th>Company</th>
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<tbody>
<tr>
<td>Feb. 14</td>
<td>Amer. S&amp;L Assoc.</td>
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</table>

—after underwriting commissions and expenses.
The warm, friendly touch of Masonite Royalcote paneling can quickly beautify living room, family room or den... in fact any room, at a cost so small it will surprise you.

Now Masonite adds Royalcote Teak... Royalcote Elm, bringing the Royalcote family to a total of seven decorator color tones—a wide, wonderful selection to customize your homes.

Beauty's not all! Royalcote panels come prefinished for quick installation, easy cleaning. (They wipe clean with a damp cloth.) No splits, no checking... no call-backs.

Best of all—you catch the eye of the discerning woman—a big influence when it comes to buying, building or remodeling a home.

Find out how little it costs to dress-up your homes with Royalcote paneling by Masonite.

Just send the coupon.
Sable Walnut

Natura Cherry

Glacier Walnut

Honeytone Cherry

Tawny Walnut

MASONITE shows the way

Always look for this trademark on the paneling you buy: it says this is genuine Masonite hardboard.

It's wood-made-better...made through the exclusive explosion process for unequaled strength, smoothness and uniformity.

Masonite and Royalcote are registered trademarks of Masonite Corporation.

Masonite Corporation, Box 777, Chicago 90, Illinois

Please send latest literature on Masonite interior products.

Please have representative call to tell us about Masonite’s "Builder Rooster Merchandising Plan."

Name:

Firm:

Street:

City: Zone State:

First look at three 1964 New York World's Fair houses:

**80 million people will see and study these showcase models**

The three homes, to be located on a landscaped plot just inside the Fair entrance, will serve not only as examples of good contemporary design—but as a trial balloon and marketing springboard for scores of building, furnishing, and decorating products—some experimental, some familiar. A display building near the houses will exhibit products—like plumbing, wiring, and insulation—not visible in the houses themselves. The over-all aim: to stimulate more interest in better-quality housing and new ideas for home improvement.

The houses will be built by The House of Good Taste Inc., a private company organized by a group of people outside the housing industry who saw an opportunity for profitable showmanship at the Fair. Biggest name behind HGT is its board chairman, Robert Smallwood, former president and board chairman of Thomas J. Lipton Inc., the tea-maker expanded into a bigger, more diversified food company. President of HGT is Robert Weisman, partner in a New York law firm. Directors and officers include engineers, a banker, and several men with backgrounds in advertising, promotion, and selling.

HGT estimates that $25 million will be spent in corollary advertising for products shown in the three houses. Each visitor at the houses will see identifying plaques on all of the products and materials shown and will be given free brochures. In the works: plans to franchise the houses for construction by different builders across the nation.

Two of the three architectural firms picked to design the houses are well known in the housing industry. The house above was designed by Edward Durell Stone, architect of the U.S. Pavilion at the Brussels World's Fair and many other major public buildings and custom houses. The house opposite, top, was designed by Royal Barry Wills Associates, a group of young architects carrying on the tradition of the master of the New England style. The house at right was designed by Architect Jack Pickens Coble of New York, who has a broad background in both residential and public building. Morris Ketchum Jr. & Associates are designers of the display building.

The houses are all designed somewhat oversize to accommodate the millions of viewers who will pass through them in two years. For example, all hallways are 7' wide and all houses are on one level since no stairs are permitted in fair buildings open to the general public. Estimates of reproduction costs of the completed houses range from $40,000 to $50,000. Smaller, basic versions of the houses are designed to be built in the $20,000 price range.

At least another half dozen houses will also be shown at the Fair: one each sponsored by the Formica Corp., Westinghouse Corp., and the Ladies Home Journal, and three houses by the State of Florida.
RAMBLING HOUSE by Royal Barry Wills Associates is in familiar New England house-plus-additions style. Plan isolates the bedrooms and opens the entire living area to a big rear terrace.

H-SHAPED HOUSE, below, by Architect Jack Pickens Coble, creates a series of patios off the living room, family room, and dining room (see plan right). Most partitions are formed by storage walls.
Corrosive propellants and combustion gases, blistering sun, humidity and salt spray. These are a few of the many tough conditions Martin Marietta paints have to face while protecting the missiles and gantries at the Cape.

Martin Marietta paints were chosen to keep this equipment in "Go" condition only after intense competitive testing. They received this honor because they meet the stringent specifications better than any other paint.

The same research that produced Space-Rated Paints is working for you in the Martin Marietta products you use every day. Whether you're working in residential, commercial, institutional
IN THE BLAST OF LIFT-OFF!

In office building construction, you'll find a Martin Marietta paint designed to do a beautiful job of protection.

Ask your local Martin Marietta paint dealer or write Martin Marietta Corporation, 101 East St. tario Street, Chicago 11, Illinois.

DEVELOPERS OF SPACE-RATED PAINTS
Now a vinyl floor wall-to-wall with seams welded water-tight, dirt-tight, spill-tight!

Now, thanks to Sandura research, LURAN® Vinyl can be welded! That's right. Now you can have a clear, unbroken expanse of vinyl, wall-to-wall, even room-to-room. That means no more water-collecting, dirt-collecting, open seams down the middle of your floor. There's no place for water to seep, no place for dirt to creep! And new Luran's luxurious colors and patterns are sealed deep under a new formula vinyl that's as stain-free, as scrub-free, as care-free as a floor can be—makes this the fastest-cleaning vinyl floor you can own! Another surprise! New Luran costs less than many other luxury vinyl floors!

Seal it! With the amazing new LURAN VINYLWELD PROCESS your Sandura retailer can smooth-weld 6-foot widths of any Luran permanently-installed vinyl floor wall-to-wall, room-to-room, with no open seams!

Heel it! ...or hammer it! Go ahead! The beautiful new embossing of Luran Imperial and Luran Regency masks most accidental indentation—gives a new deep dimensional look to vinyl! Your foot never touches the patterns!

Feel it! You won't believe a luxury vinyl could have a "hand" like this one until you touch it. Luran Imperial and Luran Regency feel like fine leather—and they're wonderfully warm underfoot! There's a Luran Vinyl Floor for every room in the house—even basements!

NEW LURAN VINYL
By Sandura Vinyl Floors
of a busy builder ... who's sold on Hunter Electric Heat

8:30 A.M. TUESDAY

**Recommends Hunter HEAT-MASTER CONVECTION BASE-BOARDS** for den addition to Hurley house: three 48" lengths, two 32", optional wall thermostat. Deluxe units can be painted to match panelling.

12:00 NOON TUESDAY

**Lunches with Consolidated V.P.** to discuss new addition to warehouse. Plans to use Hunter UNIT BLOWER HEATERS. Three should do it. They're powerful. V.P. can choose from 12 models.

5:30 P.M. WEDNESDAY

**Takes home Hunter PORTABLE CONVECTION BASEBOARD.** Reminds wife it's only portable big enough to do the job (52" long), yet light enough (16 lbs.) for her or children to move from room to room.

11:00 A.M. THURSDAY

**Queries partner on low-cost housing development in Clairview.** Suggests new Hunter FAN-FORCED WALL HEATERS. Only economical units with open wire coils and protective grille for heating efficiency plus safety.

4:00 P.M. SATURDAY

**Decides on 18th green** to order more Hunter ELECTRIC HEAT CATALOGS. Resolves to compliment Hunter distributor on variety—every size, shape, type and style of electric heater a modern builder could need.

MAIL FOR NEW CATALOG

HUNTER DIVISION, ROBBINS & MYERS, INC.
2666 Frisco Ave., Memphis 14, Tenn.

Please send your new electric heat catalog to:

Name

Company

Address

HUNTER ALSO MAKES A COMPLETE LINE OF PORTABLE AND VENTILATING FANS FOR RESIDENTIAL, COMMERCIAL AND INDUSTRIAL USE.
Beautiful and workable are the words for the Western Pines and Engelmann Spruce produced by Western Pine Region mills. These appearance woods are without equal in their working qualities... ideal for finish and paneling uses. Their soft, even texture cuts smoothly, accepts nails and screws easily, takes any paint or finish readily and beautifully. Western Pine member mills pre-season these woods for stability, and carefully grade them. Your search for satisfaction is rewarded when you see the WPA grade and species marks.

PRE-SEASONED IDAHO WHITE PINE
PONDEROSA PINE • LODGEPOLE PINE
SUGAR PINE • ENGELMANN SPRUCE
Here's a different kind of drop-in range — the new 24" Hotpoint Town & Country with a built-in rear control panel that is actually the backsplash, too! You save buying 4 extra square feet of countertop (at $3.75 a foot) and eliminate any cutting-out costs.

This drop-in (Model RF19-D) slides in place between two base cabinets. The full-width control panel adjusts to match countertops from 22" to 25¼" deep. Spring-loaded oven side filler strips and control panel end-caps assure a fast, perfect fit all around.

Plenty of features to impress your prospects, too, in this Town & Country range: 4 surface units, full-size oven, removable oven door for easy cleaning, and lustrous brushed chrome top and control panel. 7 door colors and finishes are available.

Give your kitchens the custom look without paying a custom price.
Get full specifications and prices from your Hotpoint distributor today.

Hotpoint
A Division of General Electric Company • Chicago 44, Illinois

ELECTRIC RANGES • REFRIGERATORS • AUTOMATIC WASHERS • CLOTHES DRYERS
CUSTOMLINE® BUILT-INS • DISHWASHERS • DISPOSALLS® • WATER HEATERS
FOOD FREEZERS • AIR CONDITIONERS • ELECTRIC BASEBOARD HEATING

4 other drop-in range models, in 24" and 30" widths, deluxe or economy units. Hotpoint quality is identical in all.

APRIL 1963
Goodyear floors add more sales appeal at less cost than any others you can buy. • Just look at what they offer—at the lowest price of any solid vinyl on the market: Handsome patterns and colors. Easy care—no waxing or heavy scrubbing required. Long wear—backed by Goodyear’s Lifetime Guarantee. • Goodyear solid vinyl floors come in two constructions: DELUXE TRUE VINYL, a solid vinyl floor, in 9” x 9” tiles and multicolor marble patterns that go all the way through; or DELUXE, the all-vinyl compounds floor, in tiles or sheet and in a variety of decorator designs. Both tile lines are easily installed on or above grade. • Get the full story on these sales-building floors from your Goodyear Flooring Dealer or Distributor. Or write Goodyear, Flooring Dept. D-8127, Akron 16, Ohio.
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He can help you SELL MORE MEDALLION HOMES

The '63 Hotpoint Builder Program offers technical services to put more salability into your Medallion Homes and Apartments—advertising and merchandising support to get buying interest and action! It's a comprehensive program tailored to your needs. Your Hotpoint Distributor has the details—hear him out!

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• Quality-selling Interior Displays
• Individualized Take-home Brochure
• Effective Salesmen Training Aids
• America's finest line of quality appliances, backed by a written 90-day Replacement Guarantee of Satisfaction

Hotpoint
A Division of General Electric Company, Chicago 44, Illinois

ELECTRIC RANGES • REFRIGERATORS • AUTOMATIC WASHERS • CLOTHES DRYERS • CUSTOMLINE® BUILT-INS
DISHWASHERS • DISPOSALLS® • WATER HEATERS • FOOD FREEZERS • AIR CONDITIONERS • ELECTRIC BASEBOARD HEATING
THESE GRADE STAMPS ARE USED ONLY ON COAST REGION WEST COAST LUMBER

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"UTILITY GRADE West Coast Lumber Properly Used Is a Money Maker,"
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"I have used Utility grade West Coast Lumber for years. Properly used, it meets the requirements for all types of framing. I make money with Utility grade and maintain my reputation as a quality builder at the same time."

Utility grade is available in all the West Coast Lumber species. Framing lumber of this grade of West Coast Douglas Fir and West Coast Hemlock is particularly useful for light construction when properly used.

Ask your lumber dealer about Utility grade coast region West Coast Lumber . . . he will explain its proper use and money making possibilities.

For WCLB lumber grading information write: West Coast Lumber Inspection Bureau 1410 S. W. Morrison Street, Portland 5, Oregon

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WEST COAST HEMLOCK
WESTERN RED CEDAR
SITKA SPRUCE
WHITE FIR
FREE TECHNICAL BUILDING FACTS
Utility Grade applications are illustrated...contains easy to understand span tables.

For your FREE copy, write:
WEST COAST LUMBERMEN'S ASSOCIATION
1410 S. W. Morrison Street, Portland 5, Oregon

APRIL 1963
"Our selection of RCA WHIRLPOOL appliances meets every requirement of our builder-customers"

...says Fox Bilt Homes, Inc., Plymouth Meeting, Penna.

"The customer appeal, utility and reputation of RCA WHIRLPOOL appliances—with a choice of gas or electric models—give us the big sales plus we need to successfully promote our Guild Homes in today's buyers' market", say Messrs. Robert and Richard Fox, partner-owners of Fox Bilt Homes, Inc., in suburban Philadelphia. They added, "We're convinced that one-source purchasing of appliances permits us to offer greater value with a minimum overhead factor". Fox Bilt Homes have been cited by McCall's, House and Home and Practical Builder magazines, and in 1959 they were named Brand Name Retailer of the year.

Model RKG0958
The new RCA WHIRLPOOL Connoisseur ranges will give your homes that extra touch of value. Available in 39" or 30" gas models or 30" electric models. There's also a complete selection of gas or electric set-in or free-standing models.

Models RKE155 and RKE867
Or you may offer your prospects a choice of 24" or 30" gas or electric RCA WHIRLPOOL built-in ovens and companion drop-in tops, because both have identical cutouts and are designed for fast, easy installation. Choice of decorator colors.
Model EKT-12F
Offer single-door refrigerators, double-door refrigerator-freezers, automatic defrosting models, No-Frost models. Models with famous IceMagic® automatic ice maker. There is a size and price for every prospect.

Model SKU-70
Exclusive Select-A-Door® panels on built-in dishwashers permit you to finish door and service panel with any material up to 1/2” thick. Or they also are available in choice of lovely decorator colors or brushed chrome.

Model SHD-31
RCA WHIRLPOOL food waste disposers install quickly and easily. Model shown has automatic reversing system to help clear food jams fast.

*Trade mark.

Your greatest asset is our quality performance!

Whirlpool CORPORATION
Contract and Builder Sales Division, Administrative Center, Benton Harbor, Michigan

Manufacturer of RCA WHIRLPOOL Automatic Washers • Wringer Washers • Dryers • Washer-Dryers • Refrigerators
• Freezers • Ice Cube Makers • Ranges • Air Conditioners • Dishwashers • Food Waste Disposers • Dehumidifiers

Use of trademark is by trademark owner Radio Corporation of America

APRIL 1963
These features of cast iron soil pipe

Your choice of drain-waste-vent and sewer piping becomes a real selling point when you choose cast iron soil pipe.

You have many more strong selling arguments—as shown here. For your customers, these features mean generations of maintenance-free, trouble-free service. For you, the profit and the peace of mind that come with delivering a quality structure right down to the drainage plumbing.

National Advertising PreSells Cast Iron Soil Pipe

To help you capitalize on the current, big promotion of cast iron soil pipe through national magazine advertising—aimed at more than 2¼ million prime new-home prospects—let us send you FREE, our Cast Iron Soil Pipe Promotion Kit for Builders.

Identifies You as Quality Builder

This special kit brings you Model Home signs, tie-in tags, stickers for your promotion mailings, newspaper ad mats for local advertising, radio and TV commercials, publicity stories for local release, envelope stuffers and booklets such as the famous "Case for Cast Iron Soil Pipe and Fittings." All this material helps you sell the quality of your homes. Use the coupon.

No embarrassing bathroom noises! Thick-walled cast iron soil pipe muffles gurgling water sounds, quiets vibration noise—the sign of a quality plumbing installation.

Modern 10-foot lengths of cast iron soil pipe save installation time and cost. Fewer joints are needed in any drainage system in the house and to the sewer.

—symbol of top quality. This insignia on cast iron soil pipe and fittings guarantees these products are American-made and meet the specifications adopted by the Cast Iron Soil Pipe Institute.

See...Feel...Hear the difference! Specify G—the way to buy modern... Cast Iron Soil Pipe

Alabama Pipe Company
The American Brass & Iron Foundry
Anniston Foundry Company
The Buckeye Steel Castings Company

Buffalo Pipe & Foundry Corp.
Charlotte Pipe and Foundry Company
Glamorgan Pipe & Foundry Co.
Rich Manufacturing Company
Russell Pipe and Foundry Co., Inc.

Tyler Pipe and Foundry Company
United States Pipe
and Foundry Company
Western Foundry
Williamstown Foundry Corporation

See...Feel...Hear the difference! Specify G—the way to buy modern...
can help certify you as a quality builder

Cast iron soil pipe is nailproof! Accidental puncture of drain lines or stack can't happen with cast iron soil pipe. Plumber's "snake" does no damage from inside.

Cast iron soil pipe resists corrosive bathroom wastes! Wastes from plumbing fixtures affect cast iron soil pipe least—as records of years of public service show.

Cast iron soil pipe takes household chemicals in stride! Detergents and drain cleaners have little corrosive effect on cast iron soil pipe—even after many years of use.

Cast iron soil pipe is the only piping approved by all plumbing codes in United States—an action designed to protect the health and pocketbooks of citizens in all communities.

It is significant that hospitals, schools, apartment buildings and other public buildings demand cast iron soil pipe for drain-waste-vent and sewer connection service.

Cast iron soil pipe under the floor and to the street sewer gives maximum protection against infiltration, root penetration, crushing, pipe-joint failure. Substitutes can't match it.

START THE BALL ROLLING TODAY!
Mail coupon now to cash in fully on our national advertising campaign during the prime home-building and buying season!

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Gentlemen: Send your kit! We recommend cast iron soil pipe for all our buildings!

Firm name ____________________________
Your name, title ____________________
Address _____________________________
City ______ , Zone ______ , State ______

APRIL 1963
UP-CLOSE COOKING, EASY CLEANING
FRIGIDAIRE WALL OVEN. The jewel in any kitchen setting. And homemakers will visualize new facility in cooking and oven cleaning with the unique Glide-up glass door. Cook-Master Automatic Oven Control, of course.

COOKING WITHOUT WATCHING
FRIGIDAIRE COOKING TOPS. Four models in every price range. Some with Heat-Minder that does the pot-watching. Speed-Heat unit gets red hot in seconds. In matching colors.

NOW OFFER NO DEFROSTING EVER
FRIGIDAIRE REFRIGERATOR-FREEZERS. Why spoil a beautiful kitchen with an old refrigerator? Easiest time for customers to buy a new Frigidaire Frost-Proof. She’ll love the many other conveniences all models offer, vent and trim makes ’em look built-in easily, too. Colors.

Appliances, alone, do not sell homes. Any more than nails and boards and bricks sell homes. What customers do want in a home is convenience, beauty, dependability, long life. Appliances are the means of giving them what they want, and if the appliances are Frigidaire, they join your best new home salesmen! These pages can reveal only a glimpse of the wonderful world of Frigidaire kitchen convenience and beauty. Your Frigidaire dealer or representative can open it wide for you.
Frigidaire kitchen convenience!

LUXURY COOKING IN A SMALL SPACE. COMPACT 30" RANGE.
Looks—and cooks—as though it costs much more. Spacious 23" oven holds up to 6 pies at once. Easy (and inexpensive) to install in a cabinet, or between cabinets. No close tolerances required. Colors, brushed chrome or white.

SANITIZING THE WORLD'S EASIEST OVEN CLEANING FRIGIDAIRE WALL OVENS. Beautiful, too, in Kitchen Rainbow colors. Drop-leaf Door lowers all the way down, lets her step up close for easy cleaning. Pull ‘N Clean lower oven. French Door model saves aisle space. Single and double oven models for every budget.

BUILD-IN SATISFACTION BUILD-IN

THE TIMESAVING, EASY TO INSTALL FRIGIDAIRE DISHWASHER.
It’s exposure to hot water that sanitizes dishes. The Frigidaire Dishwasher lets you wash them in germ-killing temperatures many times longer than hands can stand. Swirling Water Action reaches every soiled surface. Holds full day’s dishes for average family of 5. Chrome or colors.* Mobiles, too.

APRIL 1963
KAY VEE SAYS:

"Here's an open and shut case of superiority!"

K-V DRAWER SLIDES ALWAYS WORK SMOOTHLY, LAST FOR YEARS, ARE INEXPENSIVE, AND ARE EASILY INSTALLED!

- Drawers are to open and shut. With K-V drawer slides they'll open at the touch of a finger and shut firmly without any bounce. In addition to the slides shown here, K-V makes nine more to meet the demands of heavy or light loads, full extension, under-drawer location, single or double-track construction and self-closing convenience. Regardless of the job to be done, there's a K-V drawer slide you can specify with confidence. Why not start tomorrow?

KNAPE & VOGT MANUFACTURING COMPANY
Grand Rapids, Michigan

K-V 1300 Drawer Slide. For loads to 50 pounds. Only 1/4" clearance required each side. Nylon ball-bearing wheels give smooth, noiseless, lifetime operation. Economical, easy to install. Bright zinc-plated finish. Sizes from 12" to 28".

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Manufacturers of adjustable shelf hardware, sliding and folding door hardware, closet and kitchen fixtures, Tite-Joint Fasteners and Handy Hooks for perforated board.
NEW SALES AID FOR BUILDERS

$5000 termite damage protection

Bruce-Terminix pre-treating system includes $5000 guarantee against termite damage

Regardless of type of construction, no house containing wood or other cellulosic material is “termite proof.” Actually, many slab-on-grade houses are termite traps because it’s an easy matter for termites to gain entry through tiny cracks in concrete, expansion joints or around plumbing.

Bruce-Terminix has had vast experience in the protection of slab, basement and crawl-space houses. Let this nation-wide organization relieve you of the labor and responsibility of termite protection for your homes. Then you can offer home buyers maximum protection, including periodic reinspections, treating when found necessary, and a $5000 guarantee against damage to the structure and its contents. Performance is guaranteed by the Bruce Company and insured by Sun Insurance Office, Ltd.

Look in the phone book under Bruce-Terminix or Terminix and call your local company. You’ll find their advice helpful on any problem involving termite protection for new homes, old homes, and homes under construction.

TERMINIX DIVISION, E. L. BRUCE CO. Incorporated
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Chemical treatment during construction
Protection without treatment for qualified termite-free structures
Treatment as required for infested structures

THE NATION-WIDE TERMITE PROTECTION SERVICE

APRIL 1963
READY TO ROLL . . . for the finest asphalt shingles. Only fresh wood fibers are used by Certain-teed to produce a superior felt base. This means greater strength, uniformity, and makes possible Certain-teed’s “Millerizing” process of saturation. In this process, hot asphalt is sprayed on the sheet from one side only, driving out damaging air and moisture through the uncoated side of the sheet. For maximum roof life insist on roofing from Certain-teed Products Corporation, Ardmore/PA.

Plants and offices throughout the United States.

SUPERIOR PRODUCTS
through CREATIVE RESEARCH
**LETTERS**

**Code chaos ... apartment vacancies ... FHA vs. quality**

**How to end code chaos**


My suggestion for the adoption of a voluntary statewide model code was not in lieu of efforts at the local level. A statewide model code would speed the adoption of uniform codes among the smaller towns and cities. Any state can adopt a model code by reference to any of the model codes produced by building officials’ organizations. I do not recommend a separate new code for each state.

My suggestion the homebuilders stay behind the scenes in the effort to obtain uniform codes is based on substantial experience in the Philadelphia area and in discussing this matter with homebuilders’ groups across the country. I have been and still am a member of NAHB, the Pennsylvania and Philadelphia Association of Home Builders. I was director of the Philadelphia association for several years, resigning after I became commissioner of licenses and inspections for Philadelphia. I also headed a committee of the Philadelphia association in an effort to have more than 200 communities surrounding Philadelphia adopt uniform zoning, building, and plumbing laws. So my remarks are based on honest to goodness homebuilders associations. Slowly but surely, homebuilding associations are broadening their perspectives and this body of professionals is becoming aware of the need for uniform codes.

**FHA: brake on quality?**

H&H: All FHA evaluations here are based on a market index of comparable homes. In other words, a house valued at $20,000 would be required to have an FHA commitment on its next evaluation. What incentive does the builder have to spend money on architect and decorator? We have just had a special meeting with our FHA representative, and he promised to start a new market index. We can’t proceed with the present methods as the builder building the cheapest, most poorly designed and decorated home is the one getting the fairest commitment. The builder paying for an architect and decorator doesn’t have the slightest chance of getting reimbursed.

**Paint in tomorrow’s house**

H&H: This excellent article [Jan.] is understood by everyone connected with the building industry except the painters’ union and the Painting & Decorating Contractors of America. Here in Los Angeles County they have placed every restriction possible on the use of aerosol and conventional spray. It’s no wonder that a builder uses as much unfinished material as possible. He can buy many items cheaper than the painting contractor can finish them. Why? Because of the painters’ union and PDCA restrictions on finishing. It’s upsetting to brush-paint eaves, for instance, when a pole gun and a good airless unit could do the job in one-tenth the time. Restrictions lose work, lose surfaces and therefore lose jobs for the painter.

**Pitch for designers**

H&H: House & Home does not emphasize an important aspect of the builder-architect-lender-buyer relationship: namely, that the

cancellation on p. 75

**WHY A SYSTEMS ENGINEER?**

Today’s rapidly changing construction trends indicate that architects and builders must pay even closer attention to newer designs and materials to assure quality construction at minimum cost. That’s why Bestwall Certain-Teed has created a unique service: Systems Engineering. Technical assistance is supplied without charge. Systems Engineers are specialists in most phases of design and construction involving Drywall Systems, Ceiling Tile, Roofing Products, Roof Insulation, Lath & Plaster, Roofing. They recommend products like Certain-Teed Asphalt Shingles, with superior feel base made only from wood fibers to insure FRENSHNESS.

Systems Engineers are available through your Bestwall Certain-Teed Sales Corporation office.

**MORE SYSTEMS ENGINEER?**

Today’s rapidly changing construction trends indicate that architects and builders must pay even closer attention to newer designs and materials to assure quality construction at minimum cost. That’s why Bestwall Certain-Teed has created a unique service: Systems Engineering. Technical assistance is supplied without charge. Systems Engineers are specialists in most phases of design and construction involving Drywall Systems, Ceiling Tile, Roofing Products, Roof Insulation, Lath & Plaster, Roofing. They recommend products like Certain-Teed Asphalt Shingles, with superior feel base made only from wood fibers to insure FRENSHNESS.

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**FRESHNESS**
THEY CALLED THE MAN WITH THE FASTENING FACTS...
AND CUT TRUSS ASSEMBLY TIME 50%

A pre-fab manufacturer cut truss assembly time 50% by equipping his operators with Bostitch® Calwire brand pneumatic nailers. Profits are greater and the operators are delighted because as one of them says, "The nailer does the work instead of me."

At the same plant even more spectacular savings have been made on sheathing operations. Bostitch nailers do the work in one-fifth the time formerly required and have succeeded in turning what had been a borderline operation into a real profit maker.

The Bostitch fillet head nailer shown below operates on 70 to 90 lbs. p.s.i.; will drive 1½" nails as fast as the operator can pull the trigger; weighs only 6 pounds; is completely pneumatic—has no springs in either drive or return mechanism. It all adds up to the fastest, most trouble-free nailer on the market. Portable, for use in shop or field.

To see how you can save time, money and manpower with Bostitch® Calwire brand tools, call THE MAN WITH THE FASTENING FACTS. He's listed under "Bostitch" in most phone books—or write direct.

Fasten it better and faster with BOSTITCH®

524 Briggs Drive, East Greenwich, R.I.
architect is very likely not an architect but a residential designer whose abilities range from those of a stock plan hack to those of a vast flexible talent who provides new plans or improved old ones for the speculative builder. If 80% of America's new homes are built by merchant builders who instinctively avoid the high-fee, over-detailed menagerie put out by most architects, the fact they go to some type of plan service, who may or may not employ imaginative, competent people, is at least worthy of your attention and recognition. House & Home has pleaded for closer builder-architect liaison, which is sensible and good, but to exclude a whole professional group is unrealistic and bad reporting.

Abilene, Tex. (pop. 97,000) has doubled its population since 1950. Most houses have been executed by some combination of the designer-builder-customer team. The result has been hundreds of better-than-tract-stereotype, homes that are mostly eclectic, traditional in style, many worthy of close scrutiny by magazines, all worth the money.

JAMES STANLEY WALKER, designer
Abilene, Tex.

NAHB's new president

H&H: Your profile on Buck Buchanan [Jan.] was excellent—the best I have seen in a long, long time. It had a depth and perspective rarely found in pieces of this kind. Oliver W. DeWolfe, director of administration National Association of Home Builders Washington, D. C.

H&H: To say I am pleased about the article on my organization, family, and me is putting it mildly. I greatly appreciate the time, energy, and research that went into it.

W. EVANS BUCHANAN, president
National Association of Home Builders

The new housing industry

H&H: It was stimulating to read your article analyzing the emergence of new giants in the housing industry [Jan.] because I see in it so much future growth in real estate developing and mortgage financing. . . . Approximately 68% of our asset dollar is invested in mortgage loans, so you can see how interested we are in new trends.

JOHN W. KRESS, president
Howard Savings Institution
Newark, N. J.

H&H: The entire article was of real interest. The housing industry is certainly taking on interesting changes and while it is, of course, still uncertain in what form housing will evolve, it looks like things are going to be quite different from what they were in the late '40s and throughout the '50s. Overall planning of well-rounded communities instead of eraswhile hazard small tract suburban patchwork is the need for the future.

BROWN L. WHATLEY, president
Avida Corp.
Boca Raton, Fla.

H&H: We certainly need all the penetrating analysis we can get of the basic trends in the housing industry. There can be no question but that changes are proceeding at a pretty steady rate, but many of us are concerned as to whether these changes will simplify or com-

continued on p. 76

43
VALVES AND FITTINGS SO DEPENDABLE YOU CAN NOW GIVE EVERY HOMEOWNER THIS $500 GUARANTEE!

Install NIBCO valves and fittings in any home according to accepted methods. NIBCO will make this guarantee on YOUR certified installation:

Any installed valve or fitting proved defective will be replaced and $5.00 labor cost paid for each replacement, up to a total of $500.00 for each Certified NIBCO System (all NIBCO valves and fittings). This guarantee is made to the original home purchaser for 20 years. (See guarantee for full particulars.)

Here's proof of "hidden quality" in your expert home installations. And, it doesn't cost a cent extra! Put this guarantee to work for you. See your NIBCO wholesaler or write NIBCO INC., Elkhart, Indiana, for free "CAP" sales promotion kit.

plicate the industry and help it successfully weather some potential storms in the next few years.

WALTER E. HOSBURY, vice president Armstrong Cork Co., Lancaster, Pa.

H&H: . . . a wonderful job of reporting completely and accurately on the trends and changes in the housing industry.

I have not had an opportunity to discuss your story with some medium-sized builders, and I am wondering if the giants are creating a scare for their future.


H&H: The outline of the eight-part series indicates a major constructive effort. If the rest are as ably done as the first, the series will add a great deal to the understanding of the underlying facts and basic problems and potentials of the industry. As such, it will be important not only to the industry and interested government officials, but to the whole nation.

WILLIAM B. WINDMILL, (R. N. J.)
House banking & currency committee.

H&H: Your analysis is a preview of the future. The small builder will always be a factor because of the individuality that many people seek in a home. I look forward with great interest to the series. It should be a masterpiece of research.

ERNEST P. CONSER, executive vice president National Association of Real Estate Boards Chicago.

H&H: . . . extremely interesting as a look into the future. But it appears to miss one point: Since foreclosures on residences and small businesses probably reached an all-time high in 1962, and since FHA has nearly two-thirds of its authorized guarantee reserve fund tied up in property on which owners are unable or unwilling to keep up mortgage payments, what happens to new projects with this backlog going into public auctions?

PAUL B. MOORE, engineer Staunton, Va.

- FHA can stall its creditors up to 20 years by issuing debentures in exchange for loans on foreclosed homes it takes back. So the agency tries not to dump such property so quickly as to further disrupt the market. For latest developments in this problem area, see NEWS.

—ED.

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HERE'S WHY 8 out of 18 builders of Houses of LIVING LIGHT in Chicagoland feature

The AIR CONDITIONED Range and Oven by JENN-AIR

"The Air Conditioned Range was made to order for my Swiss Chalet 'Living Light' Model—Perfect for island installation. Raves galore came from more than 1300 people visiting every Sunday. The 'flip-top' lid got a big response..." —Butch Beard, Target Constr., Co., Lombard, Illinois.

"Peak of perfection... that describes the Air Conditioned Range and Oven by Jenn-Air. More than 2000 people visited this 'House of Living Light,' and every one was attracted by the Jenn-Air. A real center of attraction..." —Wayne L. Peak, Peak Construction Co., Worth, Illinois.

"I needed a dramatic and new appliance for my kitchen... and the Jenn-Air Range Top and Oven were the answer. During 'Living Light' Open House, the Jenn-Air brought tremendous response..." —John Simi, Jr., Randall Builders, Inc., Waukegan, Illinois.

"For island installations like the one in my 'Living Light' model home, the only range is Jenn-Air with its terrific built-in ventilating system..." —Ernest Hoskan, Oakmeadows Subdivision, Zion, Illinois.

"The Air Conditioned Range and Oven by Jenn-Air gave my 'Living Light' model home the final, perfect touch. Its trim, modern design was especially suited to my modern kitchen..." —Richard W. Semyck, Countryside Builders, Lake Bluff, Illinois.

SATISFACTION WARRANTY

The Air Conditioned Range is of the finest in cooking equipment and provides the best cooking fume and odor control that you have ever experienced. If you are not entirely satisfied, range may be returned within 90 days after purchase for full refund.

Design Beauty, Ventilation, Performance, and Customer Appeal into Your High-Quality Homes... Simple installation with 5" round duct between floor joists to the outside. Call or Write Today for Specifications and the Name and Address of Your Distributor.

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JENN-AIR PRODUCTS COMPANY, INC.
1102 Stadium Drive, Indianapolis 7, Ind.

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Company
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City
Zone
State

APRIL 1963
Cedar Roofs Stay On

Last October winds of 100 miles per hour lashed the Pacific Northwest and did millions of dollars in damage. Much of the damage came from the acres of imitation roofing which blew off. Red Cedar Shingles weathered the storm beautifully with practically no damage reported. This kind of wind-resistance has been proved in major storms throughout the U.S.A. If you would like more information about all the advantages of Red Cedar Shingles, send this coupon.

Cedar Roofs Stay On

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APRIL 1963
"Janitrol delivers the quality comfort and dependable local service we require for our Northmoor families"

Leonard J. Schear, Developer and Builder Northmoor Club Estates Dayton, Ohio

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This is Wall Street, source and symbol of equity money for U.S. business, where more and more housing companies are turning for...

Fresh pools of capital

Not since the gin and jazz days of the Twenties has real estate taken such a ride in public financing as it has in the last three years. A generation ago, mortgage bonds, free-wheeling unamortized loans, and junior financing of all types produced a surfeit of over-financed property that went through the wringer in the Depression.

Can it happen again—despite the myriad stabilizers built into today's government-managed economy, despite the underpinnings of amortized mortgages, despite official scrutiny of stock offerings? The recent troubles of real estate syndicators (News, Feb.) have given housing and realty securities an odor that is reflected in depressed prices and skeptical investors. Even so, a real collapse is not too likely. For most of the new infusion of capital going into housing—once a notoriously thinly-financed handicraft business—is serving as a springboard to lift it toward operations on a more industrial scale. Housing's new pools of capital, indeed, may be the lever the industry has so long needed to undergo a managerial revolution and so gain power to cope with its myriad internal problems.

Methods, costs, and the competitive significance of this still developing trend →
The stock market: The cost is high but the payoff can be higher

Of the seven ways builders and other housing companies can tap sources of equity money, the stock market is not only the most glamorous, but also probably the most controversial. Since housing's rush to Wall Street started in 1959, more than 50 builders, shell houses, land developers, real estate investment companies, and real estate investment trusts have floated public issues aggregating more than $250 million. Five years ago, except for prefabricated home manufacturers, you had to hunt hard to find a publicly-owned homebuilder. Today, 19 building companies, 7 shell-house companies, and 26 land-development companies are publicly held and actively traded enough to be listed in House & Home's monthly table of housing stock prices (see p. 41).

In some ways, public ownership has been a mixed blessing. The stock of almost every building company and most land development companies is selling today below its issue price—some like Levitt & Sons, as much as 60% below. The blame cannot be laid to Wall Street's celebrated Black Monday of last May 28, when stock prices took a $21 billion drop. Wall Street's disenchantment with realty and housing issues set in eight months earlier.

The troubles of shell-house builders—a blend of cut-throat competition, unsound financing, and suede-shoe sales methods (H&H, Mar.)—rubbed some tarnish-by-association onto all housing and real estate stocks, at least in the eyes of an investing fraternity which is, by and large, not yet really sophisticated about the difference between sound and unsound real estate operations. And lately the financial woes of some publicly-held real estate syndicators (NEWS, Feb.) have blackened the image still more.

Says President Harold Gootrad of Dover Construction Co., which builds low-priced ($10,000 to $16,000) homes in five mid-continent metropolitan areas: "Big publicly-owned builders need the public image. If you tell a real estate analyst you're a builder, he equates you with everyone else in the real estate business. Time was when you gained respectability as a builder by building a plant like the prefabbers. That is ridiculous because the plants aren't worth that much. Our great problem is to convince the investing public that we can replace the land we use when we build homes. We can replace steel or wood or any other material we use in a house."

Why builders go public

The No. 1 reason, of course, is to raise equity capital to finance continued growth. For instance, when Forest City Enterprises, the Ratner Brothers' Cleveland lumber and materials company that controls so much of the developable land in that area, floated a $4.5 million issue of common in June 1960, it used $1.2 million of the proceeds to repay a bank loan but set aside $2.8 million as working capital for expansion. Next year, the company finished up four apartment houses and three shopping centers whose depreciation now gives Forest City a tax sheltered cash flow of 80¢ a share while earnings are only 49¢.

But many builders see a stock issue chiefly as a springboard to subsequent fiscal maneuvers which can be much more important than the stock issue itself. A building company may have to pay a 15% underwriting fee to float its first offering, but later, given continued profitable operations, it can come back into the market with a medium-term issue of debentures much cheaper.

Indeed, most Wall Street underwriters won't touch a debenture issue until a company is already publicly-owned. Builder Joseph Eichler of Palo Alto came out in 1959 with a $300,000 issue of convertible preferred stock. Lask Corp., the Arizona builder, floated a package deal of subordinated debentures, common stock, and warrants in November 1961. "The street wouldn't have handled either one of them," says one of its handful of analysts who are knowledgeable in realty and housing. Who will? Local underwriters, as a rule. "Today," says the analyst, "downtown won't take anything but a common stock issue. Why? Mixed deals confuse investors and make issues harder to sell."

Thus, as one partner in a big Wall Street underwriting firm put it recently: "Many companies go public to create, in effect, their own currency—a marketable security with which they can buy people and things just as readily as with dollar bills. Small to medium-sized companies usually can't compete with the nation's industrial giants for able executives on a straight salary basis, but they can compete on a capital-gains basis by using restricted stock options—which let an executive buy company stock, usually at 95% of the market price on the day the option was granted, any time during the next five years." At this writing, profits realized on restricted stock options are subject only to capital-gains tax, although the Kennedy Administration is asking Congress to tighten up the tax laws on this point.

Marketable securities are often better than cash for buying another company because an exchange of shares is a tax-free swap. Few owner-managers these days will consider selling their company to become minority stockholders in a closely held concern, but many will go for the same kind of deal if the company is publicly owned. Estate problems and management succession figure in moulding this attitude. If the owner-manager of a closely held company dies, a long hassle with the tax collector can ensue over how much his company is worth and hence how much inheritance tax is due. Meanwhile, the company, without the boss
at the helm, may go down the drain. But the tax collector can’t argue about the value of stock in a publicly held company because market trading sets the price of it daily. Moreover, it is much easier to sell stock in a publicly held company in a hurry when death makes such a move necessary.

Many businessmen feel uncomfortable with all their eggs in one basket. Both their income and their capital (represented by their ownership of a company) depend on the fortunes of a single concern. By going public and selling, say, 25% of their company to the public they can reinvest the proceeds in a broad selection of securities.

A collateral advantage of going public includes numbering suppliers, consumers, and employees among the company’s stockholders. As one Wall Street underwriter says: “It is difficult to put a figure on the value of stockholder loyalty. I have a maiden aunt who has run out of gas half a dozen times just because she owns ten shares of Gulf Oil and wouldn’t think of stopping at any other service station.”

There are psychological motives for builders to go public, too. “It is perfectly understandable to want to be the president of a publicly-held corporation,” comments one analyst. “Going public enhances his image. It has very real publicity value and it builds ego.”

**Does going public cost too much?**

Management Research Division of the Armour Research Foundation at Illinois Institute of Technology recently divulged the results of a survey of 831 initial public stock offerings during the heyday of the hot new issue—July 1959 to March 1962. With the wisdom of hindsight, says M.R.D., almost one-half of the companies in the study now doubt whether they should have sold stock publicly; 25% consider it a “necessary evil”; 14% say outright that they never should have done it. “It is an expensive way to get money,” says Taylor G. Soper, manager of the research project. He puts average total fees at 14% to 25% on issues under $1 million, 12% or less on those over $1 million. Costs shrink as the size of an issue rises because attorneys’ and accountants’ fees, printing bills, and SEC filing charges tend to stay about the same for any issue and underwriters’ fees get smaller proportionately as issues get bigger. Money is not the only cost, Soper notes. “Management’s time and energies are channeled into relatively unproductive activity (like stockholder relations) and there may be an undesirable fishbowl effect.”

Wall Street analysts tend to disagree. The consensus of a dozen surveyed by **House & Home** puts the underwriter’s average fee at 9% to 15%, fixed fees at another $75,000. That is an average total of 19% on a $1 million issue or 13% on a $5 million issue—about the same as Soper’s figures. But where else, analysts ask, can a builder or developer get long-term money with so few strings on its use and without giving up a big share of his management control or paying even more for the money? Certainly a builder can’t do any better from a factor, and resorting to a small business investment company (see p. 90) probably means losing both management authority and some equity.

If the underwriting bite for housing issues seems high by comparison with that for some other businesses (General Motors would probably pay about 3%), remember that Wall Street regards real estate and housing stocks as risky. As one analyst notes, “The New York market regards realty stocks with a jaundiced eye. I see nothing in sight that will take them out of a low price-earnings bracket (e.g., 10-to-1) in the next year or so.”

**Who can—and who can’t—get into the act**

A lot of builders, say Wall Street analysts, want to tap the public for more equity capital as soon as their sales reach the magic level of about $5 million a year. It isn’t always a wise move. Some experts feel Kaufman & Broad had earnings on the low side when it went public after an $8 million sales year while projecting $11 million sales for the year of the issue. Major underwriters generally won’t handle an issue of less than $1 1/2 or $2 million (no profit in it). And it’s important to any little company with big ideas to deal with the biggest underwriter it can. For one thing, this is much more likely to produce a wide geographical spread among stockholders—which is important to stabilize its price by 1) substantial trading and 2) insulating it from local conditions. So many analysts regard $500,000-a-year profit—and at least five years of sales growth—as the minimum for going public. Arithmetic and psychology explain why. Few builders will want to sell 50% of the company they have struggled to create; they will sell perhaps 25% or 30% of it. On that basis, a company would have to be worth $8 or $10 million and would have to be earning about $500,000 a year to attract investors.

“To go public earlier,” say securities’ analysts, “go to a local dealer.” But smaller issues are more costly. Not only are expenses like attorneys and accountants about the same, but often the salesmen who retail such offerings get a higher percentage than the normal 65% of the total underwriting fee. Contends John S. R. Shad, former general partner in Shearson, Hammill & Co.: “In general, neither the issuer nor the public get what they pay for in these smaller offerings.” Why? “Both are seeking a real market in the security. The public wants to be able to buy or sell..."
a reasonable quantity of shares without affecting the price much. But with a very small issue, you have a thin market . . . where very little buying or selling can send a stock to a ridiculous premium or a drastic discount. In either case, it's a fictitious market. When a company's securities sell in a thin market at extremely high prices on nominal demand, it tends to inhibit sound business judgment on the part of management. There's a tendency to want to deal in such Chinese currency—to use the stock to buy other companies or induce people to come into the company. Such deals cannot generally be consummated at anything like the price at which the stock is selling, nor will banks lend against the stock, based on its spurious market value. Investment bankers will not do subsequent underwriting, based upon such a market—and if the company later does a big secondary offering at a discount from what the stock has been selling for, those who paid the higher price will feel they were taken . . . ”

Despite these hurdles, some builders have made small issues work. California's Joseph L. Eichler, as noted earlier, floated an issue of $300,000 worth of convertible cumulative preferred in April 1959 (underwriting commission: 10%). Next year, Eichler decided to cap his geographical diversification (since 1954 he has been building in both northern and southern California) by spreading out into apartments, co-ops, and urban renewal. In July 1961, he was back in the money market with a $2 million issue of 6½% convertible subordinated debentures. Purpose: money to buy and develop land. Each $100 debenture is convertible to common at $12 per share until May 1965, or at higher prices later.

If all the debentures are converted into stock, Eichler and his two sons could lose their majority control (unless they buy more.) But if the price of Eichler stock stays where it is, this isn't likely to happen. Last month it was selling for 7½ bid, 8¼ asked.

What they do with the money

There is a suspicion among many a Wall Street underwriter that too many realty and housing companies don't really know how to put the proceeds of public issues to best use. "In many cases it was just a bail-out," says a securities analyst for one of the Street's larger firms. "Others lacked the management depth to take full advantage of the new financing." He was speaking primarily of land-development companies (see p. 89). The consensus among analysts seems to be that building companies generally have used their fresh equity money a bit better. It is also true that company after company has used at least a substantial slice of stock-issue proceeds merely to liquidate debt. And studies among analysts note, that going public has exposed the weaknesses of some companies, to themselves, to other builders, and to the public. So the whole idea has its detractors. Why? For one thing, if a deal is risky, it may cost the company 20% or even 25% off the top instead of the more normal 13% to 15% depicted in the sketches atop page 86. This can hurt, as the sponsor's dividends are often subordinated to the public's return.

Says Economist Robinson Newcomb: "I see as many disadvantages as advantages so far. A small company gains little from going public unless the stockholders are very able men—and pay close attention. Small companies cannot attract able management except by pure chance. So going public can become a device to protect incumbent officers. It takes skill and a lot of effort to turn incumbents out of a publicly-held company."

Many a builder would agree with Economist Newcomb that it is hard for small companies to land top-flight middle-level management (Chairman Eli Broad of Kaufman & Broad calls it his toughest job). But almost to a man, builders who have taken the plunge say they aren't sorry—even though the market price of their stock may have taken a pasting since last May.

Says Janis Risbergs of General Builders (recent ASE price $3 vs. book value Risbergs figures at between $7 and $8) "Marketing in housing is bad but management is worse. Public ownership is definitely the coming thing. It is really a management issue. Builders must acquire more capital. Either you do it privately or publicly. It is easy to get money as long as you have management."

Does it pay to go public? On balance, the appraisal of Ramon a low of 8.30 in November and has since rebounded only to 9.97. Most experts predict that prices of realty and housing stocks will continue soft throughout 1963 and probably well into 1964. They point to Kavanagh-Smith as an example. It was selling last month around $5 despite earnings of 90¢ a share. And these were earnings representing cash collected, not installment payments due at a date.

What can be floated these days is a secondary issue such as Midway Main Line Home's 100,000 shares of common, now in SEC registration. (The company is already about 23% publicly owned; the new issue would make it about 44% publicly-owned.) The big reason, of course, is that a secondary issue can be priced in relation to an already existing market price of a stock. The underwriter doesn't have to guess what the investor will pay. "About the only way left to go public," says President Janis Risbergs of General Builders Corp., "is to buy control of an unprofitable company that is already publicly owned." Florida's ebullient Mackle brothers have just done approximately that, via a tax-free stock swap. In exchange for shares representing their new holdings of acreage in central Florida, they wind up with 19% of a former Canadian farm machinery company, C.K.P Developments, owned by Developer Norman K. Winston (see p. 40). The Mackles will run it. As an added plus, C.K.P. is already listed on the American Stock Exchange (a distinction enjoyed by only 17 housing and realty companies—none are on the New York Stock Exchange).

Weighing the results: benefits vs. costs

"My best education lately," says General Builders' Risbergs, "has been to own five or ten shares of about 100 publicly-held building companies—and study their reports and figures closely."

This is surely one of the subtle benefits—to the whole housing industry—of a trend that is no more than four years old. Study of what other publicly-held companies are doing can give the whole housing industry—once so secretive about its costs, sales, and profits that nobody even bothered to dig into the subject—a new yardstick by which to measure its performance. It is also true, as analysts note, that going public has exposed the weaknesses of some companies, to themselves, to other builders, and to the public. So the whole idea has its detractors. Why? For one thing, if a deal is risky, it may cost the company 20% or even 25% off the top instead of the more normal 13% to 15% depicted in the sketches atop page 86. This can hurt, as the sponsor's dividends are often subordinated to the public's return.

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Brinkman of Bache & Co. probably comes as close to the middle of the road as any. Says he: "Sure, it's a good idea. It's the way the industry is going. Housing needs to increase its capitalization. Wall Street can help. But it's no cure-all."

Land development: gold mine or gold brick?

If analysts hold most building companies in skeptical regard these days, they look on most of the land development companies with pure scorn. "Their grandiose ideas didn't materialize," complains one. "They haven't generated continuing earnings," notes another. "Some just haven't reported much; others are reporting earnings that are part cash and part hope," says a third.

Accounting systems make this possible. Many land development companies figure the profit from the entire installment sale of a lot (at $10 down and $10 a month for years) into gross earnings at the time the down payment is made. It is all perfectly legal. The company sets up a paper reserve for future income taxes on that set of books. But it actually pays its taxes out of another set of books, reflecting the true cash position. Whether this fools some unsophisticated investors is another question.

The cost of public financing can often inflate the price the public pays for land, too (see graph below).

Six ways to tap new capital without going public

Today's pile-up of money means that builders big and little can find short-term front money, long-term (i.e., 15-year) loans, or something in-between under a dizzying list of new and old formulae. Here are the principal approaches:

1. Commercial bank lines of credit. This is the cheapest money a housing company can borrow, but sometimes is hard to obtain. After a builder establishes himself in the financial community by floating a public stock issue, it usually gets easier to arrange a commercial line.

2. Term loans from other institutions. Insurance companies and pension funds are major sources of these. To get one, the borrower must generally be able to demonstrate at least two-times coverage of the total pro-forma fixed charges in his latest fiscal year. "If you can do that, and show a reasonably sound balance sheet, you can usually come up with a 10- or 15-year loan for about 6%," says one top underwriter. How does it work? Assume a company has $300,000 of pretax earnings, pays $10,000 a year interest and $10,000 a year in rent, charges $10,000 to depreciation. So $280,000 is the company's pretax cash flow available for fixed charges. If the company wants to borrow $1 million at 6½%, payable over 20 years in equal installments of $50,000. This $50,000-a-year sinking fund is not tax deductible. So the company must be earning about $100,000 before taxes to meet the sinking fund bite. Interest on the new loan will total $60,000. So the company's total pro-forma pretax fixed charges will come to $180,000. Divide this into the $430,000 of pretax cash flow. Result: 2.4.

3. Loans from major suppliers. It is becoming common—much to the uneasiness of some of the affected materials' pro-
For about 18 months now, housing's truly giant pool of capital—mortgage money—has been swelling at an unprecedented rate. Dollar volume of nonfarm mortgage recordings (of $20,000 or less) set a new record of $34.2 billion last year—a 10% gain from 1961 and a 6% gain from the old peak in 1959. But savings are flowing into mortgage lenders' coffers even faster than that. Liquid savings, time deposits, and S&L share accounts have exceeded the total increase in mortgage debt for two years in a row. So it's no wonder that MBA President Dale M. Thompson is telling banquet audiences this winter: "Seldom have we seen mortgage money so plentiful and investors so eager to increase their mortgage holdings."

The problem, of course, isn't the size of the money pile. It is the fact that mortgage lenders, as Economist James C. Downs has pointed out lately, are more governed by competition than careful judgment in such a money market. Dr. Saul B. Klaman, director of research for the National Association of Mutual Savings Banks, has spelled out the worries in specific terms. "A basic result of the mortgage scramble," he says, "has been a reduction in the quality of credit. By this I mean the willingness of lenders to qualify marginal borrowers not earlier acceptable, wink at overly liberal property appraisals, extend contract maturities, and reduce down-payment requirements. In addition, supplementary fees and charges to borrowers have been lowered. These types of adjustments are typical in a borrowers' market. The interest rate is the last element in the mortgage contract to give, which accounts for its relative stickiness. But there is a limit to how far the other mortgage terms may be reasonably adjusted. And the time may now have arrived—if not long passed—for all prudent mortgage men to come to the aid of sound mortgage credit."

Both the Federal Reserve and the Home Loan Bank Board are fretting over unsound loans, too. Chairman William McChesney Martin of the Fed has told Congress the problem may be concentrated in income property like office buildings and apartments. Chairman Joseph P. McMurray of the HLBB has been doing three things: 1) requiring new S&Ls to pledge that they will not start any rate wars for five years, 2) making speeches urging S&Ls to be careful, and 3) refining the rules under which the bank board could stop an S&L from "unsound practices."

If today's pile-up of savings affects the soundness of mortgage debt, it will also undermine the soundness of capital values in reality. It is 1963's most crucial—but so far unanswerable—housing finance question. What is an unsound loan, anyway? It usually takes three or four years to find out. Some of the most unsound housing loans of three or four years ago, it now appears, were the very loans that private lenders shied from at the time (e.g. FHA Sec. 220 and Sec. 221 urban renewal and relocation housing loans). FHA loan delinquencies are still on the rise, according to the Mortgage Bankers' Assn.'s fourth-quarter survey (while delinquencies on VA and conventional mortgages are again decreasing). So some analysts figure if lenders hadn't dragged their feet on some FHA programs, FHA might show an even worse posture today than it does.

The most flagrant postwar example so far of too much money undermining reality capital structures is, of course, syndication of income property. Now, new sources of mortgage money like commercial banks and pension funds are hungry to make up for lost time in buying mortgages. As Klaman points out: "This makes money available for fringe programs which are otherwise hard to finance."

(One item that isn't difficult to finance—publicly—is a big mortgage banking company. Of the 22 in the U.S. with servicing portfolios of more than $200 million, 15 are publicly owned.)

Capital's significance in housing's future

A decade ago, most homebuilding and real estate companies were under-capitalized. This left them at the mercy of financial institutions. Thanks to their chronic money woes builders couldn't control costs, plan ahead properly, level operations out over the year, or even buy enough office equipment. And they suffered constant losses of experienced men who went into business for themselves—precisely because little capital was required.

Now, the buying public has supplanted the money lender as the foot on housing's brakes. But housing's dramatically sudden access to big money for equity means that builders with big aspirations suddenly have a new problem: financial and management education. For only those that have it get the money. And in their hands lies one of housing's best hopes for leaving its horse and buggy days behind faster.

—GURNEY BRECKENFELD

The mortgage money glut: Is it leading to unsound financing?

written by Paul Harmon at the University of Utah.

The government lets S&Ls charge up to 15% interest (including fees and discounts). But an S&L may lend only to corporations, and may not lend to a company with more than $3 million of assets or gross. S&Ls are a source of front money for hard-to-finance items like land development and underground utility installation—or even working capital. For instance, Allied Small Business Investment Corp. of Washington, D.C. put up $40,000 for a 50% interest in a new, 40-unit apartment building, held it a year and sold it at a profit, says Director (and former president) George DeFrancieux.

6. Loans from venture capital groups. Many investment bankers and other sources are interested in considering loans to companies too small or too speculative to warrant a public stock issue. Sometimes factors (e.g. Mastan Co., Ben Cohn, or Sam Seever of New York City) will issue a bankable commitment—for a fee of perhaps 10%—against which the builder can borrow at his bank.

6. Loans from local businessmen. Hometown business associates often gain confidence in a company's management that outsiders could never attain. Many builders tap such friends for one- to five-year loans—often backed by convertible debentures or warrants. From the borrower's viewpoint, a convertible loan can stop an account in case of defaults.
The meteoric rise of Kaufman & Broad

Donald Kaufman and Eli Broad started their building company in 1957. Last year—just six years after this standing start—they grossed $22.5 million. This is almost certainly the fastest growth record of any publicly held building company in the country.

"And they didn’t do it with mirrors, either," says big Builder Roger Kavanagh of Greensboro, N.C. "They have one of the best controlled operations producing one of the best house values in the country." K&B’s sound business practices and quarterly financial reporting (see p. 94) make it a respected company on Wall Street, too. Says Analyst Cal Dooman of Dominick & Dominick: "If we had more firms like this, the Street wouldn’t be so leery of new housing issues."

The story of K&B’s rise to this enviable position is really the story of Eli Broad, 29-yr.-old chairman of the board. Broad is
a slight man with a quick smile, a quick mind loaded with figures and details of the business, and—behind jumbo-sized, dark-horn-rimmed glasses—a quiet seriousness that befits a man thoroughly taken up with the responsibility for the fortunes of his company. KA&B has been a profitable responsibility for him. When he went to work in June 1954, fresh out of Michigan State, his pay was $67.40 per week. It is now $35,000 per year, and his personal fortune is in excess of $4 million.

Eli Broad (rhymes with road) came to his responsibilities early. Born in depression-troubled New York in 1933, he was brought to Detroit in 1940 by his parents. His father was a house painter, his mother a dressmaker. They found work there and by 1943 were able to set up a small variety store.

Broad graduated from Detroit Central High School in June 1951, went on to Michigan State that same summer. He worked part time at college, but his parents helped him financially until the last half of his junior year. Broad was majoring in pre-law, but when his aging parents could no longer help, he switched to accounting so he could get his degree by June 1954.

In May of that year, he took the Michigan CPA examination and, at the age of 20, became the youngest man to pass it in the state's history. In June he got his B.A. in business administration, cum laude, went to work with the accounting firm of Goldman & Golman as a junior accountant. (That early association has lasted: LeRoy Golman, former partner in G&G, is KA&B's treasurer.)

With the money he had saved from summer and part-time work while still in school, Broad began speculating in vacant lots in Detroit. Starting with an investment of $3,000, he quadrupled his money in two years in small real estate holdings. By that time he had also received his Michigan CPA certificate (it required two years of actual experience) and left G&G to go on his own.

The pickings were predictably small, but he saved money by using an office owned by Builder Donald Kaufman (who built about 25 houses a year in Detroit at that time) and doing all of Kaufman's accounting in lieu of rent. Broad soon had a good grasp of homebuilding.

One thing about homebuilding in Detroit puzzled Broad. Why didn't anyone build slab houses as builders did in Ohio and Indiana? Could building costs in Detroit be cut by using slabs? Broad thought so. He convinced Kaufman, and in January of 1957 the two of them pooled all their capital—$25,000—and started Kaufman & Broad.

The newly formed company got a fast start in a tough market

In early 1957, the Detroit housing market was hot for big builders; they were fierce competition for small newcomers. KA&B opened its first model house in March. It had no landscaping, no furniture on its slab floor, and no promotion. But it did have a good price: 1,200 sq. ft. for $13,500. In that first weekend, the young partners sold $250,000 worth of houses for an immediate paper profit of $25,000.

By the end of 1957 their sales—a good part of them made from an unused automobile show room—totalled $1.7 million. Net after taxes: $33,000.

Right from the start, Kaufman & Broad bought hard, whether they were looking for vacant lots, shopping for financing, or letting contracts. Some of their operating policies began to jell, and those policies—born in the lean years—are now KA&B cardinal rules (outlined on p. 94). Their burgeoning business soon made the original partnership of Kaufman & Broad an unwise legal entity. Personal property should not stand behind a big business; corporate property should.

In April 1958 they incorporated and shortly had the proliferation of subsidiaries that most big builders use to minimize their taxes.

In 1958 KA&B set up a contract housing division

It won its first military contract in June 1959 for 308 Title VIII units at Selfridge Air Force Base. The job was a $6.2 million joint venture, and KA&B had a 55% interest. In the next three years, KA&B's contract division bid on seven more jobs, won three. Of the four bids it lost, three were within 1% of the low bid. Says Broad: “We came this close often because we wanted each job. General contractors often bid a half dozen jobs like this at a time, expecting to get a few. So their pencils are not sharpened as ours are for the jobs we really want. Although our costs are a bit higher in contract work than in sales-type housing, we do well. But subs have to be bonded and the specifications are very stiff. In fact, government specs are gold-plated. I think the U.S. gets only 75¢ of housing for each dollar it spends when it builds this type of military housing.” KA&B's gross profit in contract work is 9% to 10% as opposed to 14% to 16% in sales-type housing.

In late 1960 K&B took two steps on the road to big growth

First, in September, the partners laid the groundwork for going public by exchanging common stock of the parent corporation for the outstanding stock of their 42 land acquisition and holding corporations.

Second, they decided to tackle another market in addition to Detroit. At first they thought of going to Florida, but a few trips there convinced them that there were more out-of-state builders in Florida than in any other market in the U.S. Ultimately, they chose Phoenix because it is a market "big enough to have plenty..."
of room for somebody new." They knew from experience in Detroit that in big markets builders often grow complacent—so newcomers can pick them off competitively by careful attention to details.

To get the initial management they needed, K&B hooked up with two Detroit builders to whom it had once sold improved lots—Yale Simons and Marvin Mony. The two welcomed the opportunity to go in with Kaufman and Broad in a Phoenix operation. K&B started building there in January 1961 under the name Pappy Homes. Broad explains this improbable name: "In Phoenix then names like Long, Staggs, and Hall were virtually trade names; we had to have a switch on this to get any attention at all. When we got well established, we changed the name to Kaufman & Broad Homes." About the same time, K&B bought out Simon and Mony with stock from the parent corporation.

In 1961 business boomed so K&B planned for more

Even in Detroit, where the housing market was beginning to slump badly, it increased its sales 39% over 1960. In 1961 its total sales volume for Detroit, Phoenix, and the contract division reached $11.7 million. This growth followed a fairly steady pattern: Every year roughly $3 million more business was added to the previous year's total.

Then, to lay groundwork for doubling its volume in 1962, Kaufman & Broad did four important things:

1. It diversified more by going into the urban renewal market in Wayne, Mich. It bought 208 home sites from Wayne to build $2.3 million worth of single-family detached housing. Actually opened in January 1962, the project was sold out in less than a month. K&B immediately got 198 more sites from the city. The company's biggest leverage in Wayne was its reputation. K&B was the biggest builder in Detroit where its 1961 volume was $6.6 million, all in houses priced from $12,000 to $14,000.

2. It completed its first big military housing job and won another $4.8 million contract to build 300 houses at Fort Huachuca, 90 miles from Tucson.

3. It pushed the Phoenix market hard to get a solid base there. Sales for the last quarter of 1961 in Phoenix were $1.3 million compared with $1.9 million for the first nine months.

4. And, most important, Kaufman & Broad went public. To prepare for this move, K&B had bought up from the handful of investors and family the interests these people had in various K&B ventures. In August the partners reorganized their various affairs into one Maryland-based corporation. At the same time New York Underwriters Bache & Co. were preparing to handle the public issue. This was to be a firm underwriting deal spread out among other underwriters across the country (for the advantages of spreading an issue, see page 94). The deal cost K&B a 10% underwriting fee plus warrants for another 2½% of the stock. The $1.8 million issue thus netted K&B $1.17 million, which it used to repay loans and as working capital, plus $470,000 for Kaufman and Broad personally.

1962—the year after it went public—was K&B's biggest

The contract division won nearly $10 million more in military and public housing contracts, wound up the year with an increase of 501% in contract housing over 1961 (from just under $1.2 million in 1961 to over $7 million in 1962). Most builders shun bidding on public housing because they consider the whole program a socialist anathema. Eli Broad knows the arguments, but he puts building ahead of political or social philosophy. So when FHA's controversial Sec. 221(d)3 program came along with its Treasury-subsidized below market 3¼% loans, many builders exploded in anger at the very idea, but K&B became one of the first builders in the country to use the program. It opened two townhouse communities in May and June, and 80% of the total 500 units were sold out within 30 days of the model openings. By July 31, K&B had taken 700 ($7 million in sales) deposits on the houses and had expanded its plans to 1,000 units. The subsidized interest rate of 3½% made buyers' payments on a $10,000 loan about $22 less per month than would be required with a normal 5½% FHA loan. This equals a reduction in sales price of 4,000. K&B's business increased 55% in 1962. And it went up 40% (to $10.3 million) in Detroit where building in general increased only 15% on the year.

In the Phoenix market, K&B showed an even more impressive 1962 gain. Sales hit $5 million, a gain of 53% over 1961. (Housing starts in Phoenix declined 5% during the same period.) The success in Phoenix prompted K&B to try a one-story, 156-unit condominium. And for the first time it used conventional 9% financing from Phoenix's First Federal Savings & Loan.

By the end of 1962, K&B had a backlog—houses sold or contracted but not delivered—totaling over $14 million, and it opened up a Los Angeles division and started building townhouses in Huntington Beach.

On Jan. 27, 1963 K&B opened its townhouse development in highly competitive Orange County. Prices range from $9,900 for one bedroom to $14,990 for four bedrooms. On opening day 12,000 people saw the models. In 2½ weeks, K&B sold 350 townhouses. Financing is VA no-down and FHA 203b with $334 minimum-down and 35-year terms. The project has room for a total of 750 townhouses and is expected to be sold out by May.

Later this year K&B will open up a second Los Angeles division.

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continued
Here are Kaufman & Broad's three cardinal rules of housing

1. Don't inventory land

K&B's land policy differs from that of most other big builders. It rarely buys land more than a year ahead of need. "This does three things for us," says Broad. "First, we don't tie up working capital in land we can't put into house sales pretty soon. Second, we buy only land we know we can use quickly, because the demand for homes at a given location may change at any time. We don't make a market survey as such on land. The officers of the company make land-buying decisions based on what we know of the market, the neighborhood, and the financing that will be available to us: 221d3 takes one type of neighborhood, 203b another.

"And third, by not buying land far ahead, we save money. The big land inflation of some years back has pretty well stopped, so land buying either to speculate or to save money has no appeal for us. In fact, in 1962 our Detroit division was buying land for considerably less than it would have been able to buy the same land in 1959."

"And even in markets where we expect land prices will go up, we feel that the appreciation over the next several years will not exceed the carrying costs. To justify buying land considerably ahead, we believe that we would have to be pretty sure of an appreciation of 20% per year to cover interest costs, taxes, and the risk of a drop in value due to changing population and neighborhood patterns."

Kaufman and Broad regard their land as just one more raw material they have to put into the house package. In most cases they try to buy land that is already improved—vacant lots on paved streets and close-in subdivisions that were never built. Property like this, if you can find it, is already filed and platted, and usually the sewer and water lines need only a little extension to bring them into the job. "And this," says Broad, "saves us not only red tape but also the capital investment needed to put in a lot of utilities."

2. When you buy anything, buy hard

"This includes money as much as anything else," says Broad. "For instance, in our new towns house project in Los Angeles I shopped around quite a while before I got my FHA 203 money at close to par. When we first started looking into that market, everyone told us that 97½ was the best we could get. But we started shopping at 97¾ and after talking to about a dozen mortgage men we got it up to 98½. Then when we started really selling houses in Huntington, we finally got 99½ from a correspondent for a big insurance company in the East."

The second thing to buy hard, says Broad, is materials. "We can buy almost everything except the mechanical lines and foundations cheaper than our subs because of our guaranteed high volume. We buy lumber, cabinets, and appliances directly. We could buy more. But we subcontract almost everything, and in areas where the roofer and the drywall contractors have their own wholesale suppliers, we don't try to change the distribution pattern. If we did, we wouldn't get the same low bids we can get by letting the subs do it their way."

"Buying subcontracts is a two-way street," says Broad. "You can't get tough with a subcontractor on work unless he knows it's worth his while letting you get tough." K&B subcontracts everything to keep management headaches down and to eliminate worry about payrolls, fringe benefits, and most especially supervision. Contracts are worked out carefully and call for specific and timely performance. In K&B's major markets—Detroit, Phoenix, and Los Angeles—the stiff competition produces good prices from subs. And prices are often better than competing builders can get from the same subs because K&B has a reputation for prompt payments.

There are two side benefits of subcontracting this way. First, it lets K&B estimate within 1% to 2% of costs, so prices and sales promotion can be set with the assurance that the company is not going to lose any money. Second, it lets the company keep its building cycles tight (in a warm climate like Phoenix, the cycle is five to seven weeks; in Detroit, seven to ten weeks). And these tight schedules let K&B turn over its capital more often. Broad says K&B's working capital ($3.6 million at the end of 1962) is turned over as many as eight times a year (on sales of $22.6 million) compared to twice a year for a typical builder. This rapid turnover is one of the major reasons for K&B's profitability. (K&B turns over its inventory three to four times a year.)

3. Go public to get working capital

"If you have enough working capital to eliminate construction financing, you can save from 4% to 7% of selling price in California. The margin is less in Phoenix and Detroit," says Broad. "Even before we went public we used as much of our capital as we could to finance our own construction."

When you go public, do it nationally, says Broad. The reason: If your underwriter gets good geographical distribution of the stock, its subsequent price is more likely to be stable.

When you go public, keep on the good side of the security analysts by careful accounting practice and quarterly reporting, Broad advises. In accounting, K&B does not recognize a sale as income until the unit is completed and the title passed to the customer. In contract housing, sales are reflected on a percentage of completion basis. General and administrative expenses are charged off when they occur and are not added to inventories.

Quarterly reporting is the practice for most manufacturing companies, and Wall Street has come to expect it. The problem with most public building company reporting is that the recorded sales and net income from one quarter to another produce a distorted picture because of the long lead and production times. The comparison of similar quarters for different years may give a completely erroneous impression, and Wall Street is aware of this.

Broad's answer: Explain unusually high or low sales or net income in your reports.

—RICHARD O'NEILL
A look at profits of publicly-held companies

Now that homebuilding and land development companies are becoming publicly held in significant numbers, the industry is getting its first peek at the inner financial workings of some of its leading concerns. A House & Home survey of 40 publicly-held companies, based on their latest annual and interim reports, shows:

1. They are expanding much faster than the industry as a whole. They averaged a 38% gain in gross revenues in fiscal 1962 (27 showed gains, only nine showed losses).

2. Their profits are generally rising—at a time when profit margins in building and real estate, as in other businesses, are in a squeeze. Of the companies for which figures are available, 80% posted a higher net in their latest fiscal year (generally 1962) than in the year earlier. Building companies were steadier: Only 1 out of 15 reported a loss while the other 14 had an average net profit of 20% of sales. Land companies were more variable: 17 showed net profits, ranging from 15% to 24% and averaging 10%. Five reported losses.

3. The range of profitability—47% to minus 9%—sheds light on why Wall Street regards real estate companies as risky. In typical years, the company with the highest net in 1961 showed a 38% gain in gross revenues in fiscal 1962 (27 showed gains, only nine showed losses).
Here's why ten publicly-owned companies made—or lost—money

Cousins Properties, Atlanta, went public with a stock issue last November which, it says, interfered with its homebuilding for 1962. Says Tom Cousins: "We were down to 232 closings, chiefly because we couldn't pay enough attention to building and selling." Sales and profits were up from 1961, largely because Cousins sold 608 developed lots to small builders. He predicts a much bigger 1963, expects to build houses and apartments at five locations in Atlanta—where he owns land for more than 2,000 units. He also will open a 900-unit tract for Negroes in Nashville.

Eichler Homes, Palo Alto, Calif., showed only a 4% net profit increase in 1962 despite a 17% rise in gross profit. Gross was up, according to President Joseph Eicher, thanks to increased land sales ($207,454 vs. $62,477 in 1961) and to mark-ups on Eichler's higher-priced homes. ("We decided we just weren't making enough profit on them," says Eichler.)

Expenses rose 24% above 1961. "We put out a lot of money during last year that won't start coming back until this year," says Eichler. Included are a 15-story apartment building, a supermarket, and six garden apartment buildings, all in San Francisco, which should be sold or producing income in 1963 but which were entirely expense items in 1962. And preliminary plans for a 29-story, 350-unit apartment were expensed in 1962.

Eichler built and sold just over 700 single-family homes in the Bay area and in Los Angeles last year, and anticipates about the same volume in 1963. The only change, says Eichler, is that the price ranges will be slightly higher.

Levitt & Sons Inc. moved out of the red in its fiscal year that ended February 1962. The year before saw the company lose $763,155 on sales of more than $15 million, and only a $644,000 tax refund kept the loss low. The 1962 report shows a profit of more than $1 million on sales of $31 million; and while this represents only a modest 3%, President William J. Levitt estimates that it will be appreciably higher in the fiscal year just ended (for which final figures are not yet available). One reason: houses in the 19,000-house Matawan, N. J. project went on sale in mid-October; by the end of the fiscal year, 550 had been closed, and profits from these will show in the report for fiscal 1962. Another reason: in June 1962, the company had a $36 million backlog of orders vs. $20 million the previous June.

Prospects for 1963 include a project scheduled to open this fall in San Juan, Puerto Rico (initial plans include 3,500 units) and increased activity in Europe. Levitt is the first U.S. builder to invade the Common Market.

Kaufman & Broad, Phoenix, ended its fiscal year Nov. 30, 1962, with a 92% increase in sales to $22.5 million—vs. an 11% rise in starts for all U.S. private nonfarm housing. Chairman Eli Broad, 29-year-old boy wonder of housing, reports that three items kept profit margins somewhat lower than a year earlier: Contract housing increased by almost $5 million, and it carries a profit margin of 9% to 10% vs. 14% to 16% for built-for-sale housing; the company wrote off start-up expenses for townhouse and condominium projects in Detroit; and management was expanded in anticipation of the company's entry into the big Los Angeles market. These last two items, says Broad, should result in both higher sales and higher profits in 1963. For a close-up look at Kaufman & Broad, see page 91.

Kavanagh-Smith & Co., which went public in February 1960 with an issuance of 115,000 shares at $5, showed a drop in net sales of 3% for its fiscal year ended last Oct. 31. Gross sales were up slightly despite a decrease in house volume (from 694 to 638 units) because the average unit price rose from $13,722 to $14,947. President Roger P. Kavanagh Jr. says a small drop in the cost of sales was more than offset by rising administrative and general expenses.

During the year, Kavanagh-Smith sold off two utility companies to Mid-Atlantic Utilities Co., in return for 25% of Mid-Atlantic's outstanding stock. The sale netted $52,760 and enabled Kavanagh-Smith to show a gain of 11% in consolidated net income.

Taking advantage of the further access to long-term money that publicly-held builders enjoy, the company sold $1 million in 5 1/4% subordinated notes to a major life insurance company.

Like most publicly-owned building companies, Kavanagh-Smith is diversified geographically. It currently builds in 17 subdivisions in nine North Carolina cities.

Lusk Corp., Tucson, whose current liabilities exceeded current assets on June 30, 1961, reversed that position in the year ended June 30, 1962—which saw record earnings and sales of homes. First half figures indicate the current fiscal year will be better for the Arizona and Indiana homebuilding concern. President Robert F. Lusk Jr. reports sales for the six months ended last Dec. 31 were nearly double those of July-December 1961 ($8,200,000 vs. $4,300,000). And he adds that earnings also appear "markedly improved."

Before Lusk went public in November 1961, it had been in a cash bind. It sold its components plant at Vail, Ariz., for $350,000 (and leased it back), sold a shopping center it was operating in Tucson (for $1.1 million), and borrowed $750,000 from executives of its underwriter, Burnham & Co.

But public financing—a unique package offering—gave Lusk $1,958,000 to pay short-term debts, boost working capital, and finance land acquisition for garden apartments. The package financing consisted of $1,250,000 of 6 1/2% convertible subordinated debentures (due in 1971), 200,000 shares of common, and warrants to buy 50,000 more shares of common. Each $45 unit consisted of $25 in debentures, four shares of common plus one warrant. Currently, Lusk is seeking sec approval to offer another 115,000 shares of common to warrant holders. The price: $5 per share, although Lusk common is now selling for less than half that (1 1/2 bid, 1% asked).

Apartments are the big item in Lusk's rising sales. Last fiscal year, 275 of the 825 units Lusk built were apartments. This fiscal year, while one-family house sales in three of the company's divisions (Tucson, and Indianapolis and Kokomo, Ind.) are
about unchanged, and are slightly lower in Phoenix, apartment sales are growing. Lusk expects to sell 400 units in Tucson and Phoenix; it has had feasibility approval on 500 more units in Tucson and Indianapolis. And a new, 810-acre subdivision in Tucson, planned for 2,000 multifamily units and 1,600 one-family units, has just opened with "heartening" sales response.

Also contributing to rising profits is the performance of Construction Components, Lusk's Vail component plant. Says Lusk: "Tight control of overhead expenses has been maintained, and direct costs are beginning to reflect fully the economies of bulk purchase and mass production."

Consolidated Build­ing Corp. Ltd., Canada's largest homebuilder, closed its first year as a publicly owned company on Feb. 28, 1962, with earnings of $1,438,326 —19.6% above the previous year. Consolidated's pretax earnings are the same as its net income because, the company points out, it figures that it owed no income taxes for the year thanks to depreciation on its diversified realty holdings (e.g. a 60-room hotel in Toronto and a ten-story medical building; the latter still gets a 5% a year capital cost allowance although Consolidated sold it in 1960 and leased it back for 99 years).

Figures for the 1963 fiscal year just ended are not yet available, but President Noel Zeldin estimates net profits will be up another 30% to about $1.8 million and Zeldin says the Toronto-based company is pondering its first stock dividend since going public. Sales of one-family houses account for most of the company's revenue. Consolidated sold 1,150 homes in fiscal 1962 in Toronto, Montreal, and Victoria—a 50% increase over 1961. The company did not add to its investment real estate holdings—about $5 million at present—during 1962, but it did set up a home modernizing service with help from Consultant Herbert Richheimer. Plans for this year include its first invasion of U.S. markets (see News, p. 27) with a 355-unit apartment in New Jersey, across the Hudson River from New York City. Also planned is a 15-acre garden apartment project with 160 two- and three-bedroom suites just outside of Victoria, B.C.

Dover Construction Co., which builds low-priced ($10,000 to $16,000) homes in Chicago, Minneapolis, New Orleans, Akron, and Cleveland, makes most of its profit on second mortgages.

The Chicago-based company (it moved its headquarters from Cleveland in January), netted $491,000 on revenues of $6.3 million in its fiscal year ended Mar. 31, 1962 (with some $200,000 of income from junior paper). And President Harold Gootrad reports sales for the first half of the 1962 fiscal year (ended Sept. 30) rose 10% to $4,069,504 and produced a 43% jump in after-tax income to $346,709.

In fiscal 1961 Dover sold 665 homes in Cleveland and Chicago. In calendar 1962 it sold 750. But this year it expects a 25% jump in sales to 1,000. One reason: After it went public in March 1962 (with an issue of 100,000 shares of common plus $750,000 of convertible subordinated debentures for a total of $1,275,000), Dover branched out into more cities. "We have to build in many different areas... to avoid cyclical swings in local markets," says Gootrad. Currently, it is building a 1,200 to 1,500-house project and a 750-house project in the Chicago area, a 550-house project near Minneapolis, a 1,000-house project near New Orleans, and completing small projects in Akron and Cleveland. Dover started calendar 1963 with a $6 million backlog of orders, plans to start two more big communities this spring and three more in the fall.

Dover sells FHA, VA, and conventional—usually for a $395 down payment and monthly payments of $100 or less. Conventional loans from sales (20 to 30 years) are set up to include a second mortgage held by Dover but serviced by the seller, with the same interest rate and maturity as the first. Says a company statement: "The second mortgage, plus the down payment, usually represents Dover's gross profit. The company records 80% of the second mortgage as income, puts 20% in a reserve for defaults. This now amounts to $450,000 but has never been used... The company has sold as much as $350,000 of second mortgages at 85% of face value."

Development Corporation of America, Hollywood, Fla., land developer and builder in seven scattered Florida tracts, says it expects to show a sales gain of about 25% when its 1962 books are closed —about $5 million compared with just under $4 million in 1961. But its profits will be down from more than $175,000 to around $80,000. President Alvin Sher-
Three prototype designs test a rich market

Developers of big projects rarely gamble on anything but the trite and true. But right in the middle of Marin Bay—2,200 acres north of San Francisco where Hawaii's Chinn Ho and Boston's Lou Perini have already invested $11 million—are three very unusual houses: 1) the dramatically cantilevered plywood house below; 2) a fresh townhouse concept, shown on page 102; and 3) a steel-framed hillside house shown on page 104. The three experiments serve a double role. First, they explore new uses of materials, with special emphasis on solving the problems of building on the steeply sloping land common in the development. And second, because of their unconventional design, they have drawn large crowds of prospects to Marin Bay. In less than two years, 140 lots have been sold (out of the first 208 developed), and 110 expensive houses have been built. Five independent builders are now putting up contract and speculative houses, and the developers have formed a subsidiary to build on the more difficult, by-passed lots.

Space-platform look of house is softened by its curving roofline and the natural way it is positioned on the hillside. Total grading cost was less than $100.
1. Wood-and-glass house floats cantilevered from a single anchoring wall

The key engineering and design idea is the series of plywood box beams—44' long, 8' deep at the center, and 26" deep at the ends—which support the house and transmit the load to the single, reinforced-concrete foundation wall. This design device not only floats the house above the hill, but also virtually eliminated site preparation—which came to only $37.50 for two hours of backhoe work.

Architect R. R. Zahm echoed the shape of the foundation beams with the unusual roof, which sweeps up to create a space for utilities, and sweeps out to cover the broad deck surrounding the house. This deck and the almost all-glass walls open the house to a 360° view.

The box beams were designed by Architect Zahm and built by Weldwood Structures, a division of U.S. Plywood (as details on page 101 show, they are designed for on-site fabrication). The seven beams cost $3,000 or $430 each. Structurally, they need to be only 26" deep: the added depth at the center fits the house to the slope.

The house, which has been sold for $65,000, was sponsored by Douglas Fir Plywood Assn. and the West Coast Lumbermen's Assn., and built by Twentieth Century Homes. For construction details, turn the page.
The technology of this exciting house looks complicated, but is based on simple components.

Crane placed seven foundation beams in less than two hours, at a cost of $67.50. Glue-nailed in the factory, beams were trucked to the site.

Triangular lateral braces, over wall, and pipe columns, foreground, carry no load. They resist horizontal forces, unequal loading, and rotation.

Plywood soffits are sprung between 2x6 blocking to produce a vault effect, and create a space for utility lines and insulation.

Flooring is 2x4-1 plywood, nailed to create a monolithic diaphragm floor that acts as a rigid brace for the entire support system.

After walls were up, trusses were erected in three sections: outriggers (shown stacked), W-trusses, and vertical trusses (see section drawing, right).

Skeleton view from side shows all structural elements from concrete foundation wall to the vertical trusses that form the rooftop plenum.
Details show (left) box beam foundation connection, pipe support foundation, lateral bracing; and (above) framing and roof truss elements. 

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continued
On view side, each unit has a patio screened from its neighbor. The 18’x40’ swimming pool is shared by the 16 owners, who will set up their own association to manage and maintain the property.

2. Townhouses test new roof panels, a new plan . . . and a new market

Buyer reaction to these luxury condominium units—built on 1.7 acres at the edge of the Marin Bay golf course—was immediate and favorable. All 16 two-bedroom units were sold (at $27,900) in six months, and 30 more have been started at the opposite end of the course. Buyers were mostly older, upper-income families.

The architects (Sherrill Broudy & Associates and Glenn Peterson) gave each unit an enclosed atrium for private outdoor living. Construction is conventional except for the roof, which was assembled of stressed-skin plywood panels.

U.S. Plywood, project sponsor, saved the 12% or 15% true interest cost of a construction loan for the $446,400 project by using corporate funds (which it can borrow at close to the prime rate). Experts calculate this yielded a 5% cut in construction cost. Builder: Kaehler-Ferrar.
Mix of one- and two-story units—curved around one of the golf greens—creates an exciting, yet well knit, front elevation.

Two-story units (B above) are slightly narrower than one-story plans (A), but both have approximately the same floor area. Each has its own enclosed garage opening on the street side. Four of the 16 apartments are two-story units with the bedrooms on the upper level.

On view side, living room has sliding doors opening to a patio. Peaked roof adds spaciousness and allows clerestory lighting.

Glass wall at other end of living room opens to 222-sq. ft. atrium. These interior courts are open to the sky—for sunning or gardening.

Roof panels on both flat and peaked areas are stressed-skin plywood, with decorative wood inner faces. Wall framing is conventional post-and-beam.

Sections through two-story house (right) show balcony opening off bedroom, protected by 8' roof overhang of cantilevered roof panel.

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Uphill view shows simplicity of steel framing and foundation piers and deep (10') cantilevering of the 80' deck. Lower level can be converted to living space or finished as a sheltered patio.

Downhill view shows how supported carport deck is natural extension of graded driveway. Across valley at the base of the hills are the townhouses (p. 102).
Steel beams throughout the house are painted gold to emphasize the structure. Public reaction to unconventional framing has been favorable.

3. Steel framework permits all-glass walls, a flexible plan, and minimum site work

Built next door to the plywood experimental house, this steel-framed model offers a second solution to the hillside problem, with equal success in leaving the slope undisturbed and retaining the sweeping views of the valley and hills beyond.

One of the main design elements of Architect David Thorne's first venture into a speculative design (the house is for sale for $69,000) is a 64' sweep of raised roof which extends from the view-side deck all the way back over the rear carport—and permits a dramatic clerestory over the living-dining area (photo, above).

None of the walls is load bearing, and all partitions may be changed to fit a future owner's needs. The house was designed for a one-level plan, but the lower level framing will permit 1,300 sq. ft. more living area to be added at moderate cost.

The only disturbance of the site: the auger-drilled holes for foundation piers that support the steel columns. The house was sponsored by Bethlehem Steel Co., built by Claxton-Weiss Inc.

Deck and all-glass walls on view side are shaded by deep overhangs. Raised roof section is visible at upper right of photo.

Steel bent, fabricated in factory, is positioned with crane. Entire framework weighs 16 tons, cost $8,300, and took eight hours to erect.

Skeleton view shows four sloping bents that form carport roof, then sweep down house to add ceiling height in the living area.

In-line plan opens all rooms except kitchen, breakfast room, and baths to the deck and view. Stairway leads down from carport to entry.
A new planning technique—developed just six years ago by Remington Rand and DuPont engineers and practiced in heavy construction—is now beginning to trickle down to the housing industry.

No harder to set up than a bar chart, but much more useful as a management tool, it can boost profits by showing builders how to get the job done at the lowest possible cost. Here is a primer on . . .

Critical Path Method
—the new way to take guesswork out of scheduling

Heavy construction companies—which have adopted CPM with startling speed—credit it with cutting job time 20% or more. And some government agencies (including the Defense Department and NASA) consider it such an important time- and money-saving tool that they require bidders on any construction job to use it.

One of the first homebuilders to use CPM is Charles Cheezem of St. Petersburg, who builds 300 houses a year plus apartments, townhouses, and light commercial buildings. Says Cheezem’s vice president, Jack Lewis: “With CPM, we get jobs done when we expect to get them done—and this saves a lot of money. On a $150,000 apartment (see p. 108) we saved $7,500 (or 5%)—$3,000 on overhead; $750 on supervision, $750 in interest on the construction loan, $1,000 on direct labor, and $2,000 because we were able to start selling the condominium units one month earlier.”

CPM is no more mysterious than the bar chart used almost universally by builders to schedule their work. The bar chart has a bar for every job in the operation. CPM uses an arrow on a diagram for every job. But where a bar chart calls for a lot of reading between the bars to figure where each job stands in relation to the others and where it should stand at any given date, a CPM diagram shows visually the exact interrelationship of every job that has to be done to complete the operation—whether there are 10 or 10,000.

The name, critical path method, grows out of a unique advantage of the new system. It shows graphically exactly which jobs—and they seldom total more than 10% of the total jobs in an operation—are critical; that is, will delay the whole operation if they are delayed. These are the jobs that must be tightly scheduled and controlled, that must be completed on time, that must be speeded up if the schedule must be speeded up. You’ll see why on the following pages.

With CPM, it is harder to overlook a small but critical operation in planning. Making the inevitable scheduling changes after the job is underway is easier. The CPM diagram gives subs a better picture of how their jobs relate to others. It gives them an incentive to schedule their work better and, says Cheezem’s Lewis, yields lower prices from subs.

CPM saves money and avoids delays in delivery. It assures that materials are ordered and delivered on schedule, but not too far in advance.

And perhaps most important of all, CPM diagrams give management information-at-a-glance on the whole job.

Heavy contractors often use computers to build a critical path diagram and set up the best schedule. So CPM has developed an aura of higher mathematics and complexity. But on the scale that builders might use it—for houses, apartments and light commercial work—CPM is a pencil-and-paper process as you’ll see beginning opposite.
Drawing a critical path
diagram is a careful
but logical job

A word of warning is in order. Drawing a critical path diagram—like solving an algebra problem or tying your shoes—is easier to do than to explain. But the only way to learn is to begin: Grasp one end of the shoelace in each hand. . .

The first step is to list all the jobs that have to be done to complete the operation. Let’s say there are ten—A, B, C, D, E, F, G, H, I, and J.

In listing the jobs for a house, the breakdown must be most detailed. For example, the list might begin: clear site, lay out site, prepare footings, order footing inspection, order footing concrete, pour footing, order block, build foundation wall, and so on. Major jobs—like framing a two-story house—might well be broken down into two jobs: first-floor framing and second-floor framing (yet all framing might be listed as one job if the work does not have to be interrupted for another trade to do a job). All deliveries of materials and projects must be listed as jobs. The list must be made by someone completely familiar with the building process.

When the job list is ready, the arrow diagram can be drawn. The first step: determine which comes first. An arrow is drawn representing this job. The tail of the arrow represents the start of the job; the head, the end of the job. The length of the arrow has no significance. The arrow is labeled with the name of the job:

The next step is to see what jobs, if any, can be started concurrently with A. Let’s say that none can.

The next step is to see what jobs can be started when A is completed. Say there are two—B and C. An arrow representing each of these jobs (shown in blue) is drawn—starting with the head of arrow A.

The next step is draw arrows for any jobs that can be started as soon as job B is completed. Say there are three—D, F, and H:

What jobs can be started as soon as job C is complete? Only one—job 1:

The same process, then, is continued for every task in the operation. And the questions are the same for each arrow added to the diagram: 1) What jobs must be started when this job can begin; 2) what jobs can be accomplished concurrently with this job; and 3) what jobs cannot begin until this job is finished?

At some point in the drawing of the diagram, there will be jobs that cannot be accomplished until two or more other jobs are completed. For example, say that Job J cannot be started until both H and I are finished. The arrows for H and I are extended to a single point, and the arrow for job J is drawn from there:

Finally, let’s say that the diagram is complete except for job G. Job G cannot be started until all other jobs are complete. Again, the heads of all arrows are extended to a single point, and the arrow for job G drawn:

The final step: Redraw the diagram for clarity. (In drawing an actual diagram, it may be necessary to redraw several times along the way to avoid criss-crossing lines.) Note that arrows (here, arrow F) can be “bent”—this has no significance:

The arrow diagram used by Builder Cheezem for an 18-unit apartment house has well over 50 arrows (see photo and diagram in box, p. 108). An arrow diagram for a major construction job often has thousands of arrows and must be printed on a sheet of paper stretching around two sides of a room.

Usually, simply to eliminate the need for printing the name of each job along the arrow representing it (which is easy enough to do if the name of job is A, but much harder if the name of the job is “install perimeter footing”), the arrow diagram is numbered. The tail of the first arrow—the start of the job—is labeled 0, and the head of the first arrow is labeled 1, and so on. These numbers are usually circled to avoid confusion with other numbers placed on the diagram later. In the example below, job A becomes 0-1; job B, 1-2; job F, 2-6; and so on:

The next step is to allot a time (usually in days) to each job arrow. This time (and here again is where an experienced man comes in) is the best possible estimate of the time the job will take, based on crew size, delivery schedules, possible bad weather, and so on. This time is noted at the mid-point of each arrow on the diagram. Below, for example, job A (or job 0-1) has been estimated at 3 days; job B (or job 1-2) has been estimated at 2 days; and so on.

At this point (at last, did someone say?) the critical path can be drawn. The process—not unlike those puzzles on the comic page where you find your way out of the maze—is to trace the longest path in time through the diagram. This is a trial-and-error process. For example: Tracing along the dotted line below and adding up the time estimates (the numbers at the middle of each arrow), it is 17 days from start to...
finish; tracing along the dashed line, it is 13 days from start to finish.

But tracing along the blue line below, the time estimates add up to 20 days—the longest possible path in time. And this is the critical path.

The jobs along the critical path are the critical jobs—the jobs that determine how long the operation will take from start to finish.

This is the area where a critical path diagram is much more useful than a bar chart. At upper right, for example, is the bar chart for the same ten-job project, to be completed in the same 20 days. It is not possible to find from this chart which jobs are critical and which are not.

The next step is to trace along the critical path and note at the head of each arrow the day on which each of these critical jobs can be completed. These days are usually put in a square. On the drawing at right, job A can be completed on day 3, job B on day 5 (3 days for job A, 2 days for job B, and so on). The final figure—20—at the head of the last arrow on the critical path is the number of days it will take to complete the operation according to estimates.

There is only one more thing to be determined: so-called float time for jobs that are not on the critical path. The simplest example in the diagram is job F. Job F takes 7 days. It can be started as soon as job B is finished—on day 5. But it need not be finished until day 15 (see the head of arrow F). There is a 10-day period in which this 7-day job can be done. So its float time is 3 days. Similarly, jobs D and E together have a float time of 7 days; they can be done any time during a 10-day period and together they take 3 days to do. This float time can be assigned all to one or the other, or divided, or assigned to both as a pair of related jobs.

Float time can be used to adjust the schedule to fit crews and equipment available and to deploy men and equipment around a project most efficiently. It may shrink if the over-all time schedule is shortened (see below).

Critical jobs, by definition, have no float time.

This is the CPM diagram for a $150,000, 18-unit apartment

Look complicated? It isn’t. It’s just longer (63 jobs) than the ten-job hypothetical example above. The line in blue is the critical path. The operation will be complete on the 74th working day (see boxed number at end.) Notice the second job on the critical path (job 37-13, delivery structural steel) is given 25 days, must be finished by day 27. Could the job be shortened by asking for faster delivery? Not much, because the next longest path (1-2-3-4-5-30-6-7-8-9-10-11-12-13) through the diagram totals 26 days; these 14 jobs together have a total of only 1 day float time. Cost of the apartment (below) was $7.50 a sq. ft. including air conditioning, other equipment, and landscaping.
Critical path diagrams can be used to tighten up a schedule—and save money

The usual practice in building is to establish a predetermined finish date for a project. The critical path method is, of course, a sound way to establish a realistic finish date. And it is a most valuable management tool when—for whatever reason (bad weather, delivery delays, etc.)—the total project time must be shortened.

With normal scheduling methods, the traditional approach is to put all jobs on a crash program. Extra money, men, equipment, and materials are poured into every job in the project. But...

Under CPM scheduling, since you know which jobs are critical, only these jobs need be speeded up—and this can mean a big cost saving. This speed-up can be started at any time during the course of the project. When the critical path is shortened, some of the non-critical jobs may not have enough float time, so they too must be speeded up.

The critical path method can also be used to figure the most economical schedule—balancing the cost of speeding up against the savings. When a project goes on a crash basis, direct costs—men, materials, equipment—go up. But the time saved reduces indirect costs—overhead, insurance, interest on construction money, and the like. And sometimes—as in building an apartment project—speeding up a project can save money by making the building produce revenue sooner.

Companies which use CPM figure—almost as a rule-of-thumb—that the project time calculated on the first critical path diagram is a maximum time. Compressing the project time—by speeding up some of the critical jobs—almost always saves money. The question: Which jobs should be on a crash basis—and which should not?

With CPM, deciding what jobs to speed up is not a seat-of-the-pants decision, but a logical, arithmetical process. To do it, you estimate—for each critical job—the crash cost and the normal cost, and the crash time (the normal time is already estimated, and on the arrow diagram). Let's assume these figures for four critical jobs:

<table>
<thead>
<tr>
<th>JOB</th>
<th>CRASH TIME</th>
<th>NORMAL TIME</th>
<th>CRASH COST</th>
<th>NORMAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-12</td>
<td>4 days</td>
<td>8 days</td>
<td>$4,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>15-16</td>
<td>10 days</td>
<td>15 days</td>
<td>$15,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>17-18</td>
<td>5 days</td>
<td>15 days</td>
<td>$9,000</td>
<td>$5,800</td>
</tr>
<tr>
<td>23-24</td>
<td>6 days</td>
<td>15 days</td>
<td>$22,000</td>
<td>$17,500</td>
</tr>
</tbody>
</table>

The next step is to figure the cost slope—the cost per day of speeding up each job. The formula:

\[
\text{Cost Slope} = \frac{\text{Crash Cost} - \text{Normal Cost}}{\text{Crash Time} - \text{Normal Time}}
\]

Cost slope for the four jobs listed is 250 for job 11-12 ($1,000 ÷ 4 days), 600 for job 15-16 ($3,000 ÷ 5 days), 400 for job 17-18, and 500 for job 23-24.

Thus, if you wanted to save 14 days at the least possible cost, you would put jobs 11-12 and 17-18 (which have the lowest cost slopes and between them can be shortened 14 days) on a crash basis.

With CPM, the builder thinks constantly in terms of normal and crash times, normal and crash dollars. If he expedites a job, what will it save? What will the final profits be? With CPM, it is much easier to tell.
Few homebuyers seem as pleased with their new housing today as buyers like those above in their retirement years. But to find such happy oldsters in quantity, go South or Southwest or Far West. There is where giant builders—although not too many of them—are concentrating on this important market.

The few giants catering to the retirement market are winning by default. You have to search hard in most cities to find even one builder or developer specializing in sales or rentals of new houses or apartments to older people. In February 1961, HOUSE & HOME took an exhaustive look at this market and described it as mainly neglected. The word still applies.

There is no more crazy-mixed-up market than this one—and the only thing you can be sure of is that it is full of paradoxes.

**Paradox No. 1:** The "retirement" market is rife with semi-retireds, would-be-retireds and ex-retireds. It consists not only of people age 60 and over—about 24 million of them—but many of the 18½ million in their 50s and some of the 23 million in their 40s (particularly military people).

**Paradox No. 2:** Despite all the multiplying activities of the federal government in housing, including its three programs to promote better housing for the elderly, not one of HUD's programs seems to have helped the nation's private housers build for people 62 and over. Only half a dozen or so projects have been built for profit under FHA Sec. 231 (housing for the elderly), which has been on the books since 1956. One reason: 231 offers
no better loan-to-value ratio—and a smaller per-room mortgage ceiling—than FHA's normal rental Sec. 207. On the other hand, the government has vastly encouraged welfare and non-profit groups. Protesters building say public housing accounts for 58% of the 107,609 units being processed under federal programs. HHPA direct loans account for 13%. FHA accounts for 29%—but non-profit groups are getting three-quarters of the FHA slice. And well they might: Mortgage terms are rigged to favor them with 100% loans—based on replacement cost—while for-profit builders can get only 90%.

Paradox No. 3: Although few builders believe they know how to serve the retirement market, there are probably far more opportunities—in different designs of houses and apartments, in different financing methods—in building for older people than for the far more homogeneous younger group to whom the industry has mainly addressed itself since World War II. Retirees range wider in income, assets, interests, health, and housing needs.

The retirement market has changed fast since 1961

Florida's Mackle brothers (see p. 113) ten years ago first made the housing industry wake up to the possibilities of the retirement market, but the awakening has been a slow process. As 1965 pointed out two years ago, many builders like Carl Mitrick in New Jersey, Herb Rosenthal in Chicago, and Mitchell Berenson in New York stumbled into the field by chance. And today others are doing the same, particularly in multiple-family housing.

But in the past two years, big new developments have taken place, with careful planning by those moving into the retirement market. And right off the bat you find that nearly all the big news is coming from California, Arizona, and Florida—from well-known big developers like Ross Cortese, Nels Severin, Del Webb, and the Mackles.

Here is a rundown on what's new, starting with the man who has made the biggest splash in housing news in the past year:

1. Ross Cortese has sold about 4,500 co-op units in 18 months at his Rossmoor Leisure World close to downtown Long Beach, Calif. By the end of this year all 6,476 units there will probably have been sold to buyers 52 or older. For about $1,000 down and $93 to $127 a month (FHA Sec. 213 financing), buyers get one- or two-bedroom units which include electric ceiling heat, oven, range, garbage disposer, and refrigerator (H&H, Sept. '61). They also get free maintenance and the use of three big clubhouses, a 2,500-seat amphitheater, a nine-hole golf course, and other facilities. And to many the major appeal is free medical care just short of hospitalization. This last accounts for an average age of 61 for buyers, higher than in most retirement communities. But by no means are all residents retirees: One-third of buyers are still working full time.

All this is merely a start for 45-year-old Cortese in this special market. By late 1963 he expects to commence two more such projects—only larger. One will be a 3,500-acre community in Santa Ana for 22,000 units; another in Walnut Creek will have 10,000 units on 2,000 acres. More than that, each will have a large hospital—and payments will include free hospital care. Says Cortese: "We plan to build Leisure Worlds in most major metropolitan areas in the country. We're looking for land in New York, Chicago, Florida, Texas, and Washington D.C."

2. Pacific Coast Properties, whose Signature Construction Co. has built $100 million worth of low-priced houses in southern California in ten years, this month will open a 3,000-unit retirement community on a 500-acre tract in the San Fernando Valley. About $2½ million will have been spent on community facilities by the time first buyers move in. These include a nine-hole golf course, amphitheatre, community hall, shopping center, and many others. Most buyers are expected to make large or full cash payments for their $10,995 to $12,995 one- and two-bedroom townhouses. And most are expected to be people in their 50s, still working. At least 900 sales are expected this year, and a sellout is expected within two full years. One reason for confidence: Extensive motivational and other market research shows a need in the area, and Signature says no one else is selling equivalent housing priced that low in the built-up San Fernando Valley.

3. Del Webb's Sun City, Ariz., an instant success when opened three years ago, has spawned several more Sun Cities. Sales so far total 6,050—3,543 in Sun City, Ariz.; 1,626 in Sun City, Calif.; 463 in Kern City, Calif.; and 418 in Sun City, Fla. Unlike Cortese and Pacific Coast projects, Webb's tracts are low-density (mostly houses and some co-op apartments) built on relatively cheap land on the fringe of cities. He plans more Sun Cities, but not until his huge Houston (non-retirement) project with Humble Oil is closer to operating.

4. Nels Severin, past president (1954) of NAHB, opened his Palm City project for people 50 and over two years ago 16 miles from Palm Springs, Calif. Sales of the $13,500-and-up houses have been slower than hoped—about 500 of 1,400 planned—and virtually no co-op apartments have been bought. Recently, Palm City's age restriction was lifted to increase the market—but howls of protest from residents forced the developer to compromise. From now on the minimum age will be 45. Palm City's slow sales are read by some analysts as a warning not to locate big retirement communities far out in the country.

5. Alcan Pacific Co., which has built $62 million worth of houses since 1951, has set up a retirement homes division. It has opened its own initial community of 300 garden apartments near Carmel, Calif. The $11,700-to-$21,000 units are sold as conventional condominiums. Buyers pay about 40% down, and their monthly $87.50-to-$155 payments cover nursing care and hospitalization. Buyers must be 55 or over (average so far is 69).

Big lot-selling companies are becoming big homebuilders

General Development Co., granddaddy of them all, has sold no less than 130,000 lots in 93,000-acre Port Charlotte and six other Florida communities, all big and all located on water. Last year gd sold 1,600 houses. Port Charlotte now has a population of 10,000 (including 2,000 youngsters).

Gulf American Land Corp. claims it has captured the lead in lot sales from gd. It has sold 55,000 lots in four years at its canal-laced Cape Coral community where 2,350 people now occupy about 1,000 houses and apartments. Home sales in 1963 are expected to hit 1,000, in the $12,000-$22,000 range (plus lot).

American Realty & Petroleum Corp. has about sold out its 10,000-lot Rainbow Lakes Estates near Ocala, Fla. Nearly 200 houses have been built, and sales in 1963 will probably total 200. Amrep is opening another big tract near Ocala and already has sold 10,000 lots at its Rio Rancho Estates at Albuquerque, N.M.

Horizon Land Co. has sold 85,000 lots so far on three giant tracts in Arizona, New Mexico, and Texas. Thus far only 80 houses have been built in these communities. (But Horizon has built 600 at its non-retirement Paradise Hills in Albuquerque.) All this adds up to nearly 300,000 lots sold by these four companies alone. Eventually, most of them may indeed be used for retirement homes. And since most of the buyers are Northerners or Midwesterners, the big warm-climate lot sellers are competing with the housing industry all over the nation.

continued
Most warm-climate builders sell the benefits of carefree retirement . . .

The photos above are publicity shots designed to lure buyers with leisure-living facilities. Chances are, you've seen countless others in magazines and newspaper ads; on car-cards, billboards, counter displays; and especially in mailing pieces. Ad budgets of $1 to $4 million a year are picturing the natural advantages of ocean-front property or the multi-million-dollar community facilities which builders like Del Webb complete before they even start sales campaigns.

Some marketing techniques used by the giant retirement builders make the head swim. Gulf American sells through 400 real estate brokers and has a fleet of ten planes to fly prospects over the Cape Coral area in Florida. General Development's agents are stationed almost everywhere in the free world, and 20% of its sales are to people overseas—mostly about-to-retire servicemen and government workers. Several Florida developers subsidize bus and train trips for groups of good prospects from as far as Denver and Boston; last month GD went this one better by flying a plane-load of prospects roundtrip from Germany. And many big developers budget 18% to 25% for selling lots.

To most housing professionals, this kind of marketing seems to call for much higher stakes than they can afford. Even a giant builder like Eli Board (see p. 91) told H&H: “No, we've never tried to sell to retirees. This is a specialized field that calls for huge investments before you start getting your money back.” But expensive selling is paying off for the giants. And builders who make no attempt to compete with them for the retirement market may be making a mistake. There is room in this field for considerably more big and small builders—particularly in areas outside hotly competitive Florida, Arizona, and California. And the market is growing—today there are nearly one million more people 65 and over than there were two years ago. Moreover, the market is everywhere. Surveys show that most about-to-retire people want to continue living in the same neighborhoods and cities where they live now.

Already there are signs that builders other than the warm-climate giants are becoming more aware of the potential in retirement housing. Among the newest: General Builders (see p. 95) has opened a community with special units for the elderly at Beacon, N.Y. 50 miles north of New York City; New Jersey Builder Robert Schmertz of Lakewood is planning 5,000 houses, townhouses, and apartments for older buyers and renters. And, reports HHFA's Sidney Spector, applications for insurance of profit-motivated retirement housing under FHA Sec. 231 are finally beginning to flow in from all over the country.
... But one stresses planning and prices few northern builders can beat

"We're selling price," says Frank Mackle of Mackle Bros., which pioneered retirement housing in Florida. "The warm weather is just the frosting on the cake."

Addrs Mackle: "A man and his wife can live in our smallest house ($6,960) on his $185-a-month social security because his monthly payments for principal, interest, taxes, and insurance are only $46.15. Few northern builders build houses anywhere near that price. And, with their high land and construction costs, few can come near our cost of $7.90 a sq. ft."

Builders and developers everywhere can learn from the "controlled growth plan" now in use at the Mackles' 15,000-acre, 41,000-lot Deltona project in central Florida. Purpose of the plan (illustrated by the map above): to permit the sale of lots at different monthly payments so that buyers will complete their $995 purchases about the time the Mackle's homebuilding and public water mains reach out to the paid-up lot areas. (Public water service, worth about $250 per homestead, is a rarity in the lot-selling business.)

As the map shows, four bands of lots surround each of two cores where the Mackles will only sell lots with houses on them. The first band is for cash sales of lots, which buyers get for a 5% discount. Next is a band of lots selling for $30 a month for 30 months, then a band selling for $22.50 over 54 months, and finally the largest (80%) area where lots sell for $15 a month over 78 months. (Acre-size and lakefront lots sell for $35 to $100 a month on varying terms.) Sales started late last November. In the first two months, $1.5 million of lots and $500,000 of houses were sold through only a small fraction of the brokers the Mackles expect to franchise in the North. The ebullient Mackles are forecasting $15 million in lot sales and $5 million in house sales in their first year at Deltona.

Although the Mackles stress low prices to sell the low-to-moderate income market, they also make the most of their warm-climate location. Deltona will have an 18-hole golf course, boating, and other recreation facilities. And, for buyers who want to do more than just play, arrangements have been worked out with nearby Stetson University for residents to take accredited liberal-arts courses. Plans are being laid to attract industries offering part-time employment.

Deltona's 15,000 acres are by no means all the three Mackle brothers expect to develop. A just completed merger (see News, p. 40) makes them top officers of C.K.P. Developments and gives them part ownership of 17,000 more acres in Florida to be developed for residential use.
SITTING BAY with angled windows provides cheerful outdoor view from both beds in semi-private room at Sunnyside Farms nursing home (see p. 118).

Nursing homes: What housing professionals should know about a new and fast-growing housing market

Two statistics tell why the economic possibilities of nursing homes are attracting more and more homebuilders: 1) There are 16 million people in the U.S. over the age of 65, and this figure will rise to 20 million by 1970; 2) half of these people have one or more chronic, but not necessarily disabling, ailments.

Every state makes an annual survey of hospital facilities, and currently these estimates show a need for 466,200 nursing-home beds. Yet only 238,000 beds are available today (in some 8,500 homes), and 35% of these are unacceptable under existing standards (which are deplorably low in many states). So there is a social need (not market demand, which is less but still substantial) now for about 325,000 beds—a construction market of $1.3 billion (equivalent of a hundred thousand $13,000 houses).

The need—and opportunity—is so apparent that, by the end of January, FHA had approved, or was processing, 248 nursing-home projects totaling 22,510 beds, with insured mortgages amounting to more than $141 million. Of these totals, 23 projects (10%), 2,374 beds (10.5%), and $15.8 million in construction (11.2%) were added in the 60 days from Dec. 1 through Jan. 31. As in other housing markets, FHA's share is only the most visible part of the iceberg. The trade magazine, Professional Nursing Home, estimates 1962 new construction at almost $750 million—about five times FHA's share. Most builders interviewed by H&H were using conventional mortgages mainly for speed. Lack of knowledge is still holding back many builders, but answers to key questions are beginning to sink through.
Here are answers to ten common questions about nursing homes:

Housing professionals planning to enter the nursing-home field will be wise to consult others who have been there before. But the summary below should help avoid mistakes that can turn a potential success into a failure.

1. What will it cost to build? How much should land cost?

Most authorities agree building and land costs should run between $6,000 and $7,000 per bed. The American Nursing Home Assn. says land costs should not exceed 20% of the total. But Builder Warren Wittman, of Columbus, Ohio, (see p. 117) says he can pay more if a top-drawer location demands it. Furnishings will average $500 per bed, but this includes items like furniture and TV for public areas. Builders Sander Field and Edwin Ducat, who have built four nursing homes (321 beds) and two general hospitals (226 beds) in the Philadelphia area, contend the safe limit for mortgage debt is $3,000 per bed.

2. How important are design and planning?

Absolutely vital. Unless mid-city land costs make them prohibitive, one-story homes are the best idea (fireproofing and other construction standards skyrocket if you add a second story). Since personnel costs will be at least 50% of operating costs, all facilities (particularly nursing stations) must be located to serve a maximum of patients. The advice of an experienced nursing-home operator and a commercial kitchen planning expert will be invaluable to the architect. Even the proportion of wards, semi-private rooms, and private rooms will affect the other facilities.

3. What determines good location?

First, it should be easy for patients' families and doctors to reach. Often, that means a site in a residential suburb, for that's where most families who can afford nursing-home care live. Getting close to a general hospital is a big plus, and public transportation for both employees and visitors is vital. If private patients are the primary market, enough land should be available for good landscaping and at least one parking space for every four beds (although liberal visiting hours, by spreading the visitor load, can cut this requirement materially). Industrial and gray areas are likely to mean red ink, and the home should never be adjacent to a funeral home or cemetery. Make sure in advance that the site is acceptable to FHA and a lender. Says past NAHB President Alan Brockbank: "Don't think you can take just any corner and build a nursing home on it."

4. How do you qualify for an FHA mortgage?

Most procedures for FHA Sec. 232, which covers nursing homes, are the same as for Sec. 207 multi-family rental housing. But FHA demands state-agency certification that the beds are needed, that the state has reasonable minimum standards for nursing homes, and that these standards will be applied to any FHA-insured project. The home must be privately owned and operated and must meet the special MPS's for nursing homes. Before applying formally for a mortgage, sponsors should consult the local FHA office and present full information about the property, their plan for care and service, and their qualifications. Attorney Bernard G. King, who built one of the nation's first FHA-insured homes in Buffalo, N.Y., emphasizes the importance of an experienced staff to process the paperwork and a responsible mortgage banker to work with. Finally, a mortgage-credit analysis must satisfy FHA that the anticipated net income will meet the debt service and any other obligations.

5. What are Sec. 232's statutory limits?

The maximum insurable mortgage amount is 90% of estimated completed value, with a limit of $12.5 million for a single project, and not over five times the cost of the new improvements on rehabilitation projects. Cost certification is required. The maximum loan term is 20 years, and the interest rate is FHA's usual 5½% plus a ½% insurance premium. Application and commitment fees are $3 per $1,000, and inspection fees may not exceed $5 per $1,000. Built-ins and equipment which become part of the building may be included in the mortgage—wardrobes, built-in kitchen equipment, snack bars, pantries, serving counters, and nursing stations. But medical and therapy equipment cannot be included.

6. Are FHA's nursing-home standards too tough?

Most builders say "no" and point out that even though they use conventional financing, they always exceed the MPS. States are tightening their nursing home requirements (Ohio has given nursing homes a four-year deadline to meet higher standards or close down). Blue Cross and private insurance plans are sure to establish high standards for any nursing-home care that they might reimburse. Builders familiar with the residential MPS should have no trouble complying. One dissenter is Philadelphia's Sandy Field, who feels that FHA standards unnecessarily boost building costs and screen nothing but the real estate itself.

7. What does it cost to operate a modern nursing home?

A recent Public Health Service survey shows costs vary from $3.38 to $13.85 per day per bed. Acceptable nursing service would require a minimum of $7 per day, according to the American Nursing Home Assn. This is more than most states will pay for welfare-aided patients (in 14 states, payments range from $65 to $225 per month), so unless state laws let relatives make up the difference, few new nursing homes can take public-aided cases.

8. Will a nursing home need provision for start-up losses?

Almost surely. Nursing-Home Consultant John G. Steinle of Garden City, N.Y. says first-year income should be budgeted with a 50% occupancy rate and full operating expenses. Builder Warren Wittman says he anticipates a loss of $1,000 per bed before a project turns the profit corner. And few experienced nursing-home managers think it will take less than a year to reach full, or almost full, occupancy.

9. What are the key lures to attract private patients?

First, of course, is location (see question 3). A home-like atmosphere—avoiding an institutional look—is probably next. Generous lounge and recreation areas help convince families their relatives will be encouraged to lead full lives. Facilities like beauty and barber shops, religious services, and even nearby shopping areas add appeal.

10. Are special construction techniques required?

No. The one-story height lends itself to the same methods, materials, and subcontractors used in single-family houses. Except for areas like kitchens, laundries, and treatment rooms, nursing homes do not require special knowledge. Because operating costs are important, quality products and low-maintenance materials are even more necessary than in houses. Close attention to fireproofing can pay for itself via lower insurance premiums.

continued
NURSING HOMES continued

House-like facade fits this nursing home to its residential site

Nursing homes must blend with their neighborhoods. This 64-bed, X-shaped building is on a former estate overlooking a long-established residential area in Louisville. Architects Edward Augustus and John Doumas used a low-pitched roof and typical house fenestration to achieve the look of a sprawling one-story home. Patios, gardens, and a fireplace in the lounge add to the residential feeling of the building. Builder Harold Bomar Sr., who has built apartments and motels in the Louisville area, picked the site for its location: It is between two major east-west traffic arteries that lead from many doctors' downtown offices to their suburban homes. This makes it convenient for them to see patients before or after office hours.

The plan puts the nursing station at the juncture of the four wings, permitting visibility down the three patients' corridors and back into the social and dining rooms and service area. A call-light system, operable from bed or lavatory, lets the nurses on duty supervise all 64 beds from this central location.

Patients are encouraged to leave their rooms (when physically able) and to take part in group activities. Each wing has its own dayroom, equipped for hobbies and TV, and the dining area and lounge are also used for social occasions. A winding walk connects the three dayrooms, so residents can stroll (or be wheeled) through the landscaped plot in good weather. In keeping with the residential theme, there are no walls or fences around the property.

Construction cost was $300,000 ($4,687 per bed), and $30,000 ($469 per bed) was spent for furnishings. A local S&L granted a 6%, 20-year mortgage for $200,000.

X-SHAPED PLAN puts bedrooms in three wings (one not shown) and public areas in fourth. Conference room, in wing at right, doubles as chapel.
ONE-Story building is slab-on-grade construction, perfectly familiar to builder's regular subcontractors. Windows are stock aluminum units.

Entry is bright and cheerful, makes important first impression on residents' visitors. Dining area doubles as social hall between meals. Patients are encouraged to move about. Chapel, open to services by all faiths, is comfort to aged and ailing residents.

Homebuilding methods produce a 100-bed nursing home for $420,000

"The worst mistake you can make is to follow standard hospital construction techniques. The home builder's approach is the only way to produce a building economically enough to be profitable."

Those words sum up the attitude of big Builder Warren E. Wittman (500 houses and 213 apartments in 1962) who, in January, opened Murray Hill Manor, the nursing home shown above, in Columbus, Ohio. Wittman, recently named chairman of NAHB's Task Force on Nursing Homes, will soon start another 100-bed unit in Columbus and a 50-bed home in nearby Marion. Although Murray Hill Manor, financed by a 20-year, 6% S&L conventional loan, exceeds FHA's nursing-home MPS (which, in turn, are far above state standards), it was built with the same materials and methods that Wittman uses for housing: brick and block cavity exterior walls, drywall partitions, resilient floors, residential-type heating and air conditioning (the building required seven units), beamed ceilings, and roof decking of cement and wood fiber. Wittman exceeded present nursing-home standards because he thinks higher requirements may be demanded by Blue Cross, insurance companies, and any medicare program that the federal government may adopt. His low construction cost (furnishings were $79,000 more) includes a kitchen designed to handle a 60-bed addition if expansion becomes necessary.

Murray Hill Manor also has a working arrangement with a local general hospital: Hospital patients needing only general nursing care and recuperative treatment will be transferred to the nursing home where the $9 average room rate is about half what the hospital charges for full care. And critically ill nursing-home patients will be moved to the hospital.

Continued
Fresh exterior design grows out of a cost-saving plan

This 40-bed addition to Sunnyside Farms Nursing Home in Manasquan, N.J. cost $4,525 per bed with furnishings. Comparable facilities normally cost from $5,000 to $6,500, according to Institutions magazine.

Architect Gordon Powers planned the building not only to cut costs but also to avoid the sense of confinement often characteristic of nursing homes. The key to his success is the triangular window bay in every room (opposite). The angled windows—stock units set in conventional framing—provide an outdoor view from both beds, even when the privacy curtain between them is drawn. And they are one reason why Powers saved 27.5 sq. ft. per room without sacrificing any facilities required by the U. S. Public Health Service. The other reasons: a triangular lavatory, a built-in dresser and mirror, and recessed sliding doors, which are safer than swinging doors and easier for wheelchair patients to open. In addition, two entrances to every room permit direct access to each bed without disturbing the occupant of the other.

The addition was built for $170,129 by Richard E. Sharpe, a Manasquan general contractor. Its cost included a nursing station, administrative areas, a heating plant, electrical service, and a driveway and parking lot. Not included were kitchen, dining, and recreation areas which already existed in the original building and would have boosted the per-bed cost by an estimated $1,000.

Architect Powers' design won an Award of Special Distinction from Institutions magazine—the fourth building in ten years to be singled out for such honor (the other three were plush restaurant buildings).

—JAMES GALLAGHER
SEMI-PRIVATE ROOM with space-saving plan has triangular window bay and lavatory. Storage units are built in.

WALKWAY FROM PARKING AREA leads visitors past new wing, right, instead of channeling them through old building at left.

NURSING STATION is in reception area where colored, glazed-brick wall extends past glass entry wall to give feeling of indoor-outdoor continuity.
That clear (and unhappy) fact is emerging from the mass of data collected in the celebrated TAMAP study. Here is . . .

Fresh insight from TAMAP: on-site study of products shows new ways to cut costs

TAMAP has already turned up literally hundreds of ways that builders can cut housing costs—by improving their methods and their management (see box opposite and H&H, Jan. and Sept. '62).

But continuing analysis of TAMAP data is beginning to show that manufacturers and producers can do at least as much (if not more) to cut the cost of homebuilding. Specifically, the TAMAP study shows that the in-place cost of most products and materials could be reduced significantly if manufacturers would:

1. Study how builders build, then redesign their products to suit on-site conditions and methods.
2. Devise simpler installation procedures and instructions.
3. Gear their packaging, distribution systems, and service policies more closely to builders’ needs.

Further, the TAMAP study has uncovered the need for a host of entirely new and as yet undeveloped new products.

Says Ralph Johnson, NAHB’s director of research and engineering: “Most manufacturers have an industrial engineering department which effectively squeezes the last cent and the last second out of the products they are producing—from the receiving dock to the shipping dock. But few have extended the cost-cutting benefits of industrial engineering beyond the shipping dock to the building site. And taking this vital extra step can mean new market opportunity and extra profit for the manufacturers.” The reasoning:

Manufacturers who key their products directly to builders’ needs—who substantially cut the in-place cost of the products and can prove it—will have a real competitive advantage.

Some 64 top executives of major manufacturers, plus builders and lenders, have just heard TAMAP sponsors and engineers outline manufacturers’ opportunities at a meeting moderated by Time Inc. Vice President Perry Prentice, editorial adviser to HOUSE & HOME. The following five pages describe the major areas where TAMAP can show manufacturers how to improve their products—and their sales.
TAMAP shows nine ways manufacturers can cut building costs

Each depends on careful and detailed industrial engineering study of products after they leave the plant—how they are shipped, distributed, packaged, handled at the site, installed, and serviced. Only by knowing precisely what happens to a product (and when and why it happens) can problems be uncovered, and better solutions developed. And, clearly, a lot of better solutions are needed.

The TAMAP study shows, for example, that manufacturers can:

1. Develop simpler installation methods (and instructions)

"There is always one best way to install any product or material," says NAHB’s Ralph Johnson. But the TAMAP study, which recorded every step of the installation of every product and material in Builder Robert Schmidt’s houses, showed few manufacturers have found that “one best way.” Probable reason: Most installation methods are worked out (and most instructions written) by men in the manufacturer’s plant—men not fully aware of problems that arise on the construction site. By making detailed on-site studies, breaking down the installation process into all its component elements—second by second and movement by movement—ways can be found to simplify procedures, eliminate waste motion, save time, and improve efficiency.

Item: In Schmitt’s first study house, siding was installed by 1) putting a steel hook on top of the last piece of siding that had been nailed in place, 2) picking up the next piece, 3) hanging one end on the hook (photo above), 4) nailing the other end in place, 5) nailing the hook end in place, 6) nailing from the hook nail to the first nail. With this traditional system, the carpenter had to walk a distance equal to four lengths of siding to nail one length in place.

TAMAP engineers suggested that two men work together as a team. Now each picks up one end of a length of siding, positions it, and nails toward the center. So each man works only a half length while nailing, and a half length back to pick up the next piece. This cuts in half the total distance walked. At the same time, a third man is now assigned to cutting and fitting short lengths of siding around doors and windows and at the ends of runs.

Result: The new method saves $15.55 in labor and $45.51 in siding—a total of $61.06—per house. At Schmitt’s 100-house-a-year rate of production, this could save him more than $6,100 annually.

Item: Most flooring instructions also state that tiles should be laid from the center of the room outward—which usually requires cutting to fit on all four edges. As a result of the study, Schmitt’s men now start laying full tiles along one end and one side of the room—which cuts trimming and fitting time almost in half.

Further, most installers pile the tiles around them and reach farther and farther as they work. TAMAP engineers suggested a dolly (above) which the installer rolls along with him as he works.

Item: In the first house, Schmitt’s roofing crew laid the asphalt roofing in a diagonal pattern. Simply by switching to a straight pattern (above)—from eaves to gable—Schmitt saves 71¢ a square in labor cost. This is a 27% reduction that amounts to $14.85 a house (or $1,485 a year).

Item: Almost all resilient flooring manufacturers specify that floor tile should not be installed until 30 days after the slab has been poured. But production builders like Schmitt, who saves money

NEED A REFRESHER ON TAMAP? HERE’S THE BACKGROUND:

TAMAP (short for Time and Methods Analysis Program) was begun early last year. Its purpose: to find out whether homebuilding costs can be cut by applying the principles of industrial engineering to on-site work. “There’s no longer any question of that,” says James Shequine of The Stanley Works. “Our problem now is conveying how important this approach is.”

TAMAP is sponsored by the National Association of Home Builders, The Stanley Works (which manufactures a wide variety of building products) of New Britain, Conn., and Builder Robert Schmidt of Berea, Ohio. Literally thousands of engineering man-hours have been spent so far in studying Schmidt’s operation, analyzing the data, and developing improved methods. Estimated cost to date: $360,000.

In the first stage of the study, during the summer of 1961, an eight-man team of engineers studied and recorded every step in the construction of a regular production house (called the “first study house”) built by Schmitt. The TAMAP team made more than 250,000 separate visual observations, took more than 1,200 still photographs, and shot thousands of feet of motion picture film. They used standard industrial engineering techniques: operation descriptions, multiple activity charts, time-lapse photography, stop-watch work study, work sampling, materials records, and a design record. To spot problems and help point out solutions, they used flow-process analysis, process analysis and methods analysis, economic analysis of materials, design analysis, and value analysis.

The analyses identified 219 separate problem areas where cost reduction seemed possible, and over 100 of these solutions were then tried out in a basically similar “second study house” in the summer of 1962. The construction of this second house was also studied, recorded, and analyzed with the same detailed industrial methods. The data on the two houses were (and still are being) compared to show exact savings produced by the changes which the TAMAP team recommended.

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by laying his floors before he puts in his partitions, cannot afford to wait—and often must re-lay more than a few tiles. The TAMAP study suggests that manufacturers either need to find out how long the builder must wait for a reasonably reliable installation—or should change the product or the adhesives so that the flooring can be installed sooner.

2. Package the product for builders’ convenience

“A package might be called the total organization of the product for the user’s benefit,” says James Shequine of Stanley, chief industrial engineer on the project. A good package should 1) contain a convenient number of items, 2) contain all the parts needed for the total assembly (in one package or in several related packages), 3) make each item available in order of its use, 4) be a convenient size for handling at the point of installation, and 5) be easy to open with equipment commonly available at the site.

Most packaging now seems to be geared to the retail dealer’s storage needs and to the handling problems of the do-it-yourselfer or small builder. Few packages are geared to the needs of the mass builder.

Item: Most electrical service-entrance equipment requires some internal wiring at the site (above). Asked the TAMAP engineers: Wouldn’t it be cheaper for the manufacturer or distributor to prewire the unit (a repetitive job for a string of similar production houses)? Or wouldn’t it be possible for the manufacturer to package with the box precut lengths of wire with the ends stripped—so electricians would not have to cut a length of wire off a reel (which they must bring to the job)? And couldn’t the manufacturer or distributor install all the required hubs and connectors in the knockouts—or at least package those which electricians need for the job with the box? Lighting manufacturers do this: A fixture package almost always includes all the parts, stems, shades, covers, and even the wire nuts needed to complete the job.

Item: Floor tiles—when they are removed from the box—are often stuck together. And since the color of tiles in different boxes (even boxes from the same production run) often varies enough to be noticeable on the floor, most installers mix tiles from various boxes (above). Asked the TAMAP engineers: Couldn’t some way be developed to prevent sticking? And couldn’t tiles of the same color from various production runs be mixed in the plant?

Item: In Schmitt’s first study house, it took almost as long to remove the furnace from its package as it did to hook it up. In the second house (at the suggestion of the engineers) the furnace arrived bolted to a pallet for handling by fork truck. But the threads on the bolts were so damaged in transit that the nuts had to be cut off with a cold chisel.

3. Tell the installed cost of the product

“Too many manufacturers sell and too many builders buy on a price basis only,” says NAHB’s Ralph Johnson. “Yet, what the builder needs to know to buy effectively is not the price, but the installed, in-place cost. Only then can he compare one product realistically with another.” For example:

Item: In the first study house, Schmitt used a conventional asphalt-shingle ridge cap and gable louvers for attic ventilation. In the second study house he used a continuous ridge vent. Although the ridge vent cost more to buy than the gable louvers, engineers expected it to reduce total costs by avoiding complex framing in the gable ends and the slow ridge-cap shingling process. Result: Total in-place costs (below) were $1.73 more for the ridge vent, but Schmitt plans to continue to use it because “it provides better ventilation and adds a new selling feature.”

Item: Schmitt used clay sewer tile in his first house, plastic pipe in the second. The installed cost of the plastic was $11.75 higher—mostly because of the high material cost of the plastic fittings and the high labor cost of making the joints. (The clay pipe has a self-sealing gasket which is activated simply by brushing it with kerosene.) So although the clay pipe cost 49¢ a foot and the plastic cost only 38¢ a foot, clay pipe proved cheaper in place (above).

4. Identify the unique sales advantages of the product

“Industrial engineering studies of a product (and competitive products) can reveal advantages and disadvantages the manufacturer never knew existed,” says Stanley’s Shequine. The product may be better packaged, or easier to handle in the field, or offer better quality at only a slight extra cost, or reduce waste of other products, or simplify inventory, or require a smaller crew for installation. And manufacturers who know these advantages can sell them effectively.

Item: The drop-in countertop range that Schmitt used in the first study house required a cut-out (below) in the counter-

top that left only 2" of material at one side, only 1" along the back. This wasted 4 sq. ft. of counter material and required skillful labor. Schmitt now uses a range that includes its own backsplash. Its manufacturer can promote savings in counter-top material, in labor, and in total installation time.
Schmitt uses a common awning-type window. But he uses it throughout the house by installing it both vertically and horizontally, and in single and multiple units (above). Savings have not been calculated—but obviously this window system produces savings in inventory and handling, and in bulk purchasing of a single size.

Item: TAMAP engineers suggested that Schmitt use one of Stanley's heavy-duty impact drills to cut holes for the round registers they were testing (above). In the course of the study, two new uses were found for the tool: 1) Schmitt often adds a post lantern after the house is built (at the buyer's option). The post used to be installed by breaking out a section of sidewalk—now the electrician simply drills a post-sized hole in the sidewalk for the post. 2) When laterals were added inside man holes, Schmitt's crew used to have to hand-chip a hole in the side of the man hole. Now they drill a clean hole of the correct size.

Item: Several years ago, Stanley introduced a multi-tooth file-plane. One large model was made for professional use, a second smaller one for do-it-yourselfers. But during the study, engineers found the gypsum-board crew liked the small one (for trimming board) because it is pocket sized—and they found that the larger one is better for home use (because it is really a bench tool).

Item: Stanley makes an all-purpose, heavy-duty reciprocating saw (above). TAMAP engineers found it could be used to make window cutouts from the inside (through the sheathing) using the framing as a guide. This proved cheaper than using a portable builder's saw, which must be used from the outside and requires careful measuring to locate the openings under the sheathing correctly. During the study, the plumbing crew spotted the saw and now use it as a portable hack saw (above), a use Stanley had not thought of, and for which there is little competition.

5. Redesign products for less waste, easier installation

"Detailed field study," says Shequine, "can provide designers with a mass of helpful information never before available. No designer can eliminate a problem that he doesn't know exists."

Item: TAMAP engineers studied the instructions for truss assembly (below) supplied with the jig and the truss plates. Simply by developing flow diagrams from the manufacturer's recommendations, and then revising them on paper, the engineers greatly simplified the materials handling and cutting operations. They developed two new jigs for cutting chord and web members, and modified the jig table slightly. The profit for the manufacturer remains the same because the same number of truss plates are used—but the builder's cost was greatly reduced. No comparative data are available because the manufacturer's original production system was never used. But Schmitt's truss costs with the new system are impressive: $10.05 for a 24' truss and $9.52 for a 22' truss in place.

Item: No kitchen countertop is 4' wide. Few bathrooms have tub areas that are 8' long—but most builders want to cover the walls in the tub area to at least a 5' height. A few manufacturers have met this challenge—there are countertops made in countertop width or tub-enclosure kits that fit builders' width, length, and height requirements. But many manufacturers of suitable materials still produce the traditional 4'x8' sheet.

Item: Registers for warm-air furnaces are traditionally rectangular—and require rectangular holes in slabs. In Schmitt's operation, rectangular registers required that 1) extra-cost scored clay ducts be used at duct locations, 2) steel forms be used at the register locations during the slab pouring and finishing (above), 3) the slab be hand finished around the register forms (instead of being power-troweled like the rest of the slab), 4) the forms be removed after the slab has set, 5) the scored tiles be broken out below the form to provide an air passage, 6) the slab be ground down level at the rectangular opening, and 7) the floor tile be fitted around the opening before the register is dropped in place. TAMAP engineers saw an opportunity to eliminate most of these steps by redesigning the register (above) making it round (this also gave Stanley an opportunity to sell a... continued
new use for its large impact drill. In the new system, the impact drill is used to cut a clean round hole through the flooring and the slab into the duct, and the register is then simply dropped in place. The advantages: 1) All ducts under the slab are the same—no scored duct is used; 2) the entire slab can be power troweled because register forms are not needed; and 3) the floor tile can be laid from wall to wall without regard to register location. The cost savings: $21.35 per house or $2,135 per year at Schmitt’s rate of production.

**Item:** Building paper (above) used on side walls is 3’ wide, but the wall is 8’ high. Why not make the paper 4’ or 8’ wide?

**Item:** Roof shingles come in strips 3’ long. Why can’t they be made in longer lengths to reduce handling?

**Item:** When gypsum board was installed in the test house, over 19% was scrapped or wasted ($46.50 on one house). This suggests changes in sizes.

### 6. Find what new products the builder really needs

Says Shequine: “You can’t design products to solve problems that you don’t know exist. Industrial engineering can assure continuing new-product opportunities by pointing out customer problems.” Adds Stanley’s Executive Vice President Donald Davis: “We must make what our customer actually needs—whether he is aware of the need or not—rather than make what we have always made.”

And NAHB’s Johnson figures: “There must be a thousand new-product ideas waiting to be discovered by detailed TAMAP studies of homebuilding. We identified more than 60 in the Schmitt study—and that study was about only one house design and with only one set of materials.”

**Item:** Most painters quote material-labor ratios ranging from 1-to-6 to 1-to-

10. In Schmitt’s case the ratio is almost 1-to-1—which is astonishingly efficient. But TAMAP showed that out of Schmitt’s labor time for painting, almost 75% was spent to prepare the work, only 25% in actual spraying. As a direct result of this finding, Stanley’s chemical division developed a masking agent that can be sprayed, brushed, or rolled on. It peels off glass (above) or metal, taking slop-over spray with it, but it sinks into wood or gypsum and acts as a sealer. Another big builder now dabs all his hardware in the material before mounting it, paints right over the hardware, and then peels off the coating.

**Item:** In Schmitt’s plumbing system, fittings account for 43% of the material cost ($60.35 vs. $78.45 for copper tubing). To cut the high cost of fittings, Schmitt already uses a tee-turner to eliminate several drainage fittings, and, in some places, uses some soft copper tubing which can be bent (instead of requiring elbows). But, say TAMAP engineers, there is still a tremendous opportunity for cost reduction—with new designs, with lower-cost fittings, or with substitute materials. Despite this need for cost-cutting design, most builders have their plumbers design systems like the one above.

**Item:** Wiring design is usually in the hands of electricians, and prices are still too often quoted at so many dollars an outlet. When TAMAP engineers redesigned Schmitt’s wiring layout, they cut out 497’ of wire and five junction boxes (for a total cost saving of $34.05). And, say the engineers, manufacturers could help even more with an engineered approach to wiring and special attention to the complexities of wiring in outlet boxes. There is much room for improvement in the complex wire-to-outlet box-to-clamp-to-outlet and add-a-cover system now used.

**Item:** The service entrance is mounted between studs, but it is not the same width as the space between studs, nor is it the same depth as studs. Suggestion: Design the box to fit normal spacing, and add a nailing flange so it can be face-nailed to the studs.

### 7. Learn why builders buy one product—or another

Often, builders say it’s the price. But the real reason may be durability, or easy installation, or just the preference of the men on the job.

**Item:** Schmitt uses pressed fiber-board siding because 1) the workmen can’t split it on the job and 2) it is pre-primed.

**Item:** Schmitt uses one brand of garage door because—unlike some others—it doesn’t require an engineer to assemble a million little pieces.” The sections have all the hardware attached at the factory and simply slip together.

**Item:** Schmitt had long used one brand of countertop material, but the distributor did not carry a wide enough variety of patterns to meet buyers’ requirements. So he switched to a more expensive material—even though quality was about the same—to get the variety he needed.

**Item:** Schmitt buys Japanese roofing nails instead of American nails. His reason: not price—which is the same for both. The Japanese nails are completely uniform in length and the galvanized coating is smoother. Roofer hold the nail between two fingers (above) and complain that the rougher American nails scratch their skin painfully in the course of a day, and are harder to drive (because of uneven length) without occasionally banging a finger.
Item: Schmitt buys his water heaters from a mail-order house "simply because they offer the best guarantee and the best local service if anything goes wrong."

Item: Schmitt uses insulating glass windows, even in his lowest price houses, because they require no storm windows and cost him less in installation, painting, and finishing than separate windows and storm windows. They also provide an added selling feature.

Item: Schmitt buys his sliding glass doors at an installed price because 1) installation is tricky and requires special skills, 2) the installer guarantees the job.

9. Tailor advertising copy to builders' real needs

Effective advertising is much simpler to write when a manufacturer knows why and how and from whom a builder buys a given product. And any advertising for builders is more effective if it can show exact, in-place costs and, perhaps, challenge the in-place costs of competing products. If an ad were to read, for example, that "field studies using TAMAP industrial engineering methods prove that it only takes 47 man-minutes to install 100 sq. ft. of XYZ with ordinary labor," any builder could compare his own labor costs and his own material costs and get an accurate estimate of possible saving. Most big builders know what an industrial engineering field study is, and will be far more interested in TAMAP-type data than in testimonials or projected costs worked out in the laboratory.

Item: In the 1961 study house Builder Schmitt used ordinary ready-hung interior doors with wood trim. The installed cost of all the doors in the house was $159.43. Of that, $37 was for labor, including $21.85 for removing, sanding, sealing (below left), and replacing the doors, and filling up to total cost is now $110.20—of which only $8.05 is in labor. The saving: $49.23 (31%) per house, or $4,923 a year. Obviously, a strong advertising story could be built around this cost reduction.

Item: As a result of tests made in the second house, Stanley is now promoting the use of steel strapping to tie trusses to the top plate (above). A brochure lists material costs of strapping (and labor time) and provides a column for builders to compare these costs to their own (chart).

Item: Moving materials to the site (by truck, by foreman's car, and by hand) cost $69.95 for the first study house. But in the second house, use of a fork truck and big materials boxes (above) cut costs to $32.10. Savings: $37.85 or $3,785 on a hundred houses—more than enough to justify buying the fork truck. And this saving does not account for other savings attributable to the fork truck: better inventory control and less loss and pilferage (because materials can be strapped or palleted) and less wasted supervisory time (because foremen no longer act as delivery boys).

— Jonathan Aley
NEW MODEL, set off by professionally designed landscaping, has four bedrooms and 2,352 sq. ft. of living space. Price: $38,500.

OLD MODEL, landscaped without professional plan, has four bedrooms and 2,100 sq. ft. of living area. It sells for $37,900.
Nobody today questions the need for model-house landscaping. It's a basic ingredient of curb appeal. But does it pay to get professional help from a landscape architect? One builder who claims it does—New Jersey's William Purich—says . . .

‘Landscape design pulled me out of the sales doldrums’

Purich, who heads Deer Trail Builders in Oradell, N.J., follows that forthright statement with an equally forthright description of his sales problem: "We were just about dead," he says. "Our model-house traffic was down to 15 families a day on weekends. And in five months—July through November—we had sold only three houses."

What to do? Purich had seen the model-house landscaping of a fellow New Jersey builder—Beir-Higgins of Allendale. He liked what he saw and decided to get help from Beir-Higgins' landscape architect—Walter Bruning of Jamesville, N.Y.—in landscaping his new model (top left).

Results? 1) Model-house traffic jumped to 100 families a day on weekends. 2) In two months when sales are slack for most northern builders—December and January—Purich took 10% deposits on 11 houses priced from $38,400 to $47,900. 3) Purich, who has never sold more than 16 houses a year, now expects to sell 40 in 1963.

Purich credits the interest generated by the landscaping—not the model itself—with much of his sales success: "The house is similar to our previous model (bottom left) which was drawing so badly. And of our 11 buyers, six chose other models or asked for major changes in this one."

Purich's landscaping cost (see table, p. 129) was $4,145—roughly $3,000 more than he used to spend to landscape a model. The total covers not only plantings—actually a relatively small cost item—but also retaining walls, terraces, steps, walks, the driveway, and extensive regrading.

"A few months ago if someone had advised me to spend $4,000 for landscaping, I don't think I would have done it," says Purich. "But now I feel differently." He points out that model-house landscaping is a merchandising expense that can be spread over the cost of every future house he sells. And he figures on recouping $1,500 of his cost because the landscaping will boost the model's price when it is finally sold.

"But," says Purich, "the important point is that for only $380 of the $4,145 total—Walt Bruning's fee—I got a professional landscaping plan (see p. 128) instead of a hit-or-miss job that wouldn't have been as attractive and might have cost more."

Why do many builders miss the boat in landscaping their product?

Landscape Architect Bruning, who has been a builder himself (custom houses and remodeling), contends most builders don't understand what a landscape architect can do for them. "They don't realize that the landscape architect's big value is in overall planning—not simply in deciding what to plant and where to plant it. Ideally, the time to call in a landscape architect is before you buy your land."

Bruning points out that the landscape architect can help the builder with:

1. Subdividing the land. Says Builder Purich: "One of our three projects was originally platted for thirty-two $8,500 lots. Bruning showed me how a simple change would give us a thirty-third lot."

2. Siting the houses—to take advantage of views and sunlight and to give home-buyers maximum outdoor privacy.

3. Grading each site—to permit proper drainage and prevent erosion. Says Purich: "We had to move 1,200 yards of fill at our model-house site. The cost came to $621. But if we'd had a grading plan before we built the house, we could have done the job for about $200."

4. Locating and designing outdoor features—retaining walls, driveways, walks, terraces, and outdoor lighting. "In short," says Bruning, "practical land planning and landscaping, like practical architecture, can foresee and solve many problems before they arise."

continued
LANDSCAPING continued

TYPICAL WORKING DRAWINGS provided for Builder Purich by Landscape Architect Bruning include topographical map, general plan, and construction details.
How this successful landscaping plan solves four tough problems of a hilly site

The general plan at left is just one of the drawings that guided Builder William Purich when he landscaped the sales-boosting model house shown on page 126.

Landscape Architect Walter Bruning also provided Purich with a topographic map of the site (far left), a grading and dimension plan, a planting plan, a tree and shrub specification list, and sectional drawings and details (some are shown at near left) for such items as retaining walls, stone steps, walks and terraces, and the lamp at the front steps.

Bruning’s explanation of the site problems and how his plan solves them:

Problem 1: How to bring the two-story house down to its site. The uphill lot has an average grade of 10%. Before it was landscaped, Bruning says, the house “appeared ready to roll off the hill.”

Solution: A front retaining wall (photo, p. 126) forms a “substantial visual base” for the house and provides a transition from the raised front door (4’ above grade) to the front lawn. The area between the wall and the house is paved with brick and flagstone to create a “welcoming” terrace and bordered with ground cover (pachysandra) to keep people from stepping on the wall.

Problem 2: Where to run the driveway.

Solution: The obvious route was straight in from the road. But, Bruning points out, this would also have been straight up the hill: “The grade would have been too steep, and the asphalt drive would have looked like a black tongue sliding down the hill.”

Solution: The driveway comes in across the front of the house from the opposite corner of the lot and curves through a stand of pine trees. Four trees were taken out, but this was actually an improvement, Bruning says, because their removal broke up the unattractive geometric pattern in which they had been planted and gave the existing trees more room to grow. The drive was edged with 1x4 redwood strips to avoid the ragged look of unedged blacktop.

Problem 3: How to create a level outdoor-living area in the sloping rear yard.

Solution: The slope was pushed back away from the house to provide room for a circular flagstone terrace 30’ in diameter.

Problem 4: How to keep regrading from killing existing apple and dogwood trees.

Solution: Two curving retaining walls—one on either side of the backyard and ranging from 2’ to 3’ high—support the soil around the bases of the trees. They also eliminate a slope which would otherwise reduce the level area.

Here is a breakdown of the builder’s landscaping costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape architect</td>
<td>$380.00</td>
</tr>
<tr>
<td>Engineer</td>
<td>60.00</td>
</tr>
<tr>
<td>Grading and placing topsoil</td>
<td>621.00</td>
</tr>
<tr>
<td>Stone retaining walls (221’ averaging 40” high)</td>
<td>504.60</td>
</tr>
<tr>
<td>192 sq. ft. of 3” bluestone</td>
<td>411.80</td>
</tr>
<tr>
<td>1,100 bricks</td>
<td>82.50</td>
</tr>
<tr>
<td>Sand</td>
<td>36.00</td>
</tr>
<tr>
<td>Miscellaneous labor</td>
<td>98.60</td>
</tr>
<tr>
<td>Labor</td>
<td>132.00</td>
</tr>
<tr>
<td>Lawn</td>
<td>575.00</td>
</tr>
<tr>
<td>8,300 sq. ft. of sod</td>
<td>415.00</td>
</tr>
<tr>
<td>Trees, shrubs, ground cover</td>
<td>536.65</td>
</tr>
<tr>
<td>Blacktop driveway (1,715 sq. ft.)</td>
<td>342.00</td>
</tr>
<tr>
<td>Steps from driveway to front terrace</td>
<td>65.00</td>
</tr>
<tr>
<td>Miscellaneous labor</td>
<td>98.60</td>
</tr>
<tr>
<td>Supervision</td>
<td>308.00</td>
</tr>
<tr>
<td>Total</td>
<td>$4,145.15</td>
</tr>
</tbody>
</table>

continued
BEFORE-AND-AFTER SKETCHES show how Landscape Architect Bruning would re-landscape four typical models to heighten their curb appeal.
Case studies show how a landscape architect adds curb appeal to typical model houses

Consider the four models sketched here. As the drawings at far left show, the houses, picked at random from the pages of HOUSE & HOME, are, if anything, more attractive than average. But, as the sketches at near left make clear, Landscape Architect Walter Bruning was not at a loss for ideas when H&H asked him to suggest better ways to landscape each house. Here are Bruning's comments:

House No. 1: "The low wall jutting out from the front door serves no purpose. But if carried across the front of the house and then back to the left corner, it would form a planting box for high shrubs, which would soften the poor relationship between the brick facade and the small windows. The steep steps leading up from the driveway look hazardous. A safer and better looking solution: Switch some of the steps to the front platform."

House No. 2: "The builder had the right idea when he used the fence and shrubs to draw attention to his entry. But the welcoming effect would have been heightened by enlarging the entry area, paving it, and fencing it on three sides. The horizontal lines of the fence would make the house seem longer, lower, and larger. The paved entry court would be easier to maintain than grass. Planting pits could be set into the paving, which should be level with the surrounding lawn or edged with bricks for easy mowing (see p. 132). And a couple of trees, admittedly not cheap, would frame the house and add visual space to the yard."

House No. 3: "The first problem here is to take the curse off the harsh cantilever line and play down the break between the windowless masonry wall (right of entry) and the siding above it. More mature and higher foundation planting than the builder used would probably do the trick. As with House No. 2, an enclosed entry court would enhance the approach to the house. And a low hedge around the court would help tie the house to the site."

House No. 4: "This split level seems to be sliding off the left slope, which exposes too much bare concrete wall and is also a maintenance problem. The answer: Build up the slope, and put in a retaining wall. This would stabilize the house, reduce the exposed-concrete area, and form a box for foundation plantings."

Some practical advice from Bruning on common landscaping problems:

Where to buy plantings. "You'll save 50% to 70% by buying from a wholesale (instead of a retail) nursery. Here are typical prices quoted by a Long Island wholesaler: 12' Norway maple, $12.50; 2' Korean azalea, $3; 12' white flowering dogwood, $12.50; 2' spreading yew, $2.75. You'll have to do your own planting, but how-to information is available from gardening magazines and the American Association of Nurserymen in Washington."

Shrubs vs. non-plant materials. "Non-plant materials are often a better bet. For a privacy screen, stockade fencing may well be more practical than trees and shrubs. Its cost (about $3 a running foot) is apt to be lower, and you'll save on maintenance."

Sod vs. seed. "Sod is weed free and not so easily chopped up by women's heels. And its in-place cost is actually lower if there's no topsoil on your site because seed requires three times as much topsoil as sod (6" vs. 2"). In the Northeast, a square yard of lawn (half Kentucky blue and half Merion blue) sodding costs about 76¢—45¢ for the sod itself, 21¢ for topsoil, and 10¢ for labor; seeding costs about 88¢—63¢ for topsoil and 25¢ for the seed, fertilizer, and labor."

Shrubs vs. trees. "One good tree is more effective than a lot of shrubs, which, incidentally, need much more maintenance. Keep shrubs to a minimum. You don't even need them for foundation planting except to hide a bare and ugly expanse of wall."

continued
**Landscaping can also boost house sales when it is planned for low maintenance**

Most builders landscape their models for curb appeal only. Not so New Jersey Builders Beir-Higgins and William Purich. Their model-house landscaping was designed to convince prospects gardening need not be a chore.

Beir-Higgins' landscaped model—a joint minimum-maintenance promotion with Jacobsen Mfg. Co. of Racine, Wis.—sold for $3,000 more than its base price of $28,900. Says Partner Richard Higgins: "The buyers were so excited about the landscaping that they didn't seem to care about the house except that the colors were alright." Purich's model generated so much interest that he credits it with lifting him out of a sales slump (see p. 127).

Higgins points out that more and more homebuyers are appreciating the value of good landscaping—particularly when upkeep is easy: "Low-maintenance lawns and gardens appeal to them as much as low-maintenance materials and equipment in the house itself."

Purich notes that builders can't afford to landscape production houses as lavishly as their models. But, he says, they can supply their buyers with landscaping advice (in sales brochures, for example) and simple plans (showing walks, patios, and planting beds) "as we are doing with some houses."

**How do you landscape for minimum maintenance?**

Here are 13 tips from Landscape Architect Bruning, who designed the landscaping of the Beir-Higgins and Purich models:

2. Make paved areas flush with the lawn. This lets mowers and other equipment roll freely from one surface to another, also eliminates grass trimming.
3. Put brick mowing strips around planting beds and paved areas, and pave around lawn obstructions (e.g., gas and water vent pipes) to simplify mowing and eliminate edging and trimming. Bricks should be laid flat with the 4" face up.
4. Use ground cover, bounded by a mowing strip, in all hard-to-mow areas—around trees, for example, or on steep slopes. Grass won't thrive in deep shade, and grass seed is apt to wash out on sharp grades. Low-maintenance ground covers like pachysandra or myrtle are healthy, grow fast, choke out weeds, and eliminate the need for constant cleanup under trees that drop fruit, nuts, and seed pods.
5. Use paved or grass ramps to permit free movement of wheeled equipment from one garden level to another.
6. Pave where foot traffic is heavy.
7. Edge the driveway with steel curbing to keep grass and weeds out of the drive and stones out of the lawn. Curbing should be strong (⅛" gauge) and deep (5").
8. Use plentiful mulches to stifle weeds and give beds a rich look. Peat humus is best, but peat moss, cocoa bean husks, and sawdust also do a good job.
9. Put a gravel strip under the drip line of gutterless roofs where it is difficult to grow plants or grass.
10. Plant low-maintenance hedges. For example, yews need trimming only two or three times during the growing season, but a privet hedge should be trimmed twice a month.
11. Group high-maintenance plants, and elevate their beds for easy tending.
12. Provide the best possible soil for planting. Plants will be healthier—and need less care—if they are placed in oversized holes that are filled with rich humus.
13. Use no-maintenance fencing for privacy borders. A northern white cedar fence, for example, needs no painting or staining and forms a good background for shrubs and other plantings.

Sums up Bruning: "Keep your landscaping simple. It looks better and is a lot easier to maintain."

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For information about landscape architects (including methods of compensation), builders can write to the American Society of Landscape Architects, 2000 K St., N.W., Washington 6, D.C.
How Float-Away Closet Systems Can Help You Attract and Hold Apartment Tenants


THE DANGER POINT: Near when vacancy rate reaches 5%. Any feature in apartment design which would reduce vacancy rates by 1% could solve 20% of this problem.

WHY TENANTS MOVE: Lack of adequate storage and closet space is one of the top reasons. The more closets, and the bigger, the easier it is to attract and keep tenants.

ADDED SPACE: Float-Away doors permit full-depth shelves and addition of an extra top shelf, thereby increasing usable space by as much as 1/2.

LOWER COSTS: No door frames necessary. Float-Away doors, used wall-to-wall and floor-to-ceiling, are installed at about 75¢ a square foot as compared to $1 or more for the average wall partition.

FLEXIBILITY: Float-Away steel closet door systems are available in any modular or non-modular width or height.

BEAUTY AND QUALITY: Float-Away steel closet doors are soundproofed. Prime coated, complete with side trim and hardware. Guaranteed five years.

THE FLOAT-AWAY closet door concept is an ideal solution to the apartment closet problem.

Write for our new 12-page color brochure showing our new development, typical applications of Float-Away systems and decorating possibilities; also 4-page folder of tracing details and architectural specifications.

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APRIL 1963
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Again and again they are being pre-sold on the quality and value of Carrier equipment and Carrier service.

This year the powerful Carrier story is being delivered to home buyers in Reader's Digest, Better Homes & Gardens, American Home, Good Housekeeping, New Homes Guide and Home Modernization Guide.

The continuous promotional support behind Carrier central residential air conditioning works hard for builders who include Carrier systems in their homes. It helps sell houses—rent apartments. It is just one reason why it pays to use Carrier. For many other reasons, see your local Carrier representative—soon. Carrier Air Conditioning Company, Syracuse 1, New York.
A tiled entrance hall like this starts to sell for you as soon as your prospect steps in. The easy-cleaning, dent-proof ceramic tile floor gives your home an immediate look of "status" and quality. And see the dramatic custom effect you get, at surprisingly low cost, when a few American Olean decorated tile inserts are added to an entrance wall. Ask your tile contractor for details or write for new color booklet 1040 "Decorated Tile". It's filled with ideas for adding individuality — and sales appeal — to homes.
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Flagstone Solid Vinyl Tile also available in 9" x 9", 12" x 12", 37" x 37" untrimmed slabs.
New honeycomb-panel system aims at 750 sq. ft. finished houses to sell for $5,500 (plus land)

So says J. D. Lincoln, president of Honeycomb Products, Mt. Vernon, Ohio, which developed the panels and used them to build a demonstration house (above) in Miami. The Miami model is a forerunner of several hundred similar houses that Honeycomb Products plans to build for Canaveral International, publicly held (ASE) shipping and land-development company which has started three tracts totaling 23,000 acres in the Cape Canaveral area. Canaveral International loaned Honeycomb $750,000 and, for another $25,000, bought enough convertible preferred stock to get 51% voting rights in Honeycomb. With this capital, Lincoln says he will build a continuous 8'-wide laminating press in Florida to produce 100,000 to 200,000 sq. ft. of honeycomb-panel every 24 hours.

Lincoln and others have been using paper-honeycomb panels for radomes, airplanes, protective packaging, and some light commercial work since the start of World War II. But honeycomb construction has yet to prove competitive in cost for housing. Now, Lincoln says, the combination of his new production techniques and his building system has made honeycomb panels (with a U factor of .156) economically competitive with any other insulated wall.

In Lincoln’s laminating process the phenolic impregnated honeycomb is set with heat and ground down to tolerances within .01”. Epoxy adhesives are rolled on and aluminum skins bonded to the honeycomb in a continuous process so that there are no joints on outside walls. At the site, outside walls are sprayed with a permanent finish—a mixture of sand, cement, and a latex. Lincoln is using baseboard wiring and conventional plumbing.

**PLAN** of two-bedroom house covers 760 sq. ft. Partitions, honeycomb panels with 1/4” gypsum skins, fit into floor and ceiling brackets.

**DETAILS** show how aluminum extrusions, epoxy-glued to panel joints, hold the house together. Screws hold extrusions while the glue sets.

Technology continued on p. 145
Take advantage of the growing demand for

Quiet Conditioned Living

top sales idea of the year

sponsored by Celotex

Hurry because this ad may change your plans! Scores of builders are already planning to show Quiet-Conditioned Homes this season, because quiet-conditioning is the big new attraction at model homesites, the big new feature people want.

Meet this urgent need for quiet—in homes and garden apartments—and make sales faster with QUIET-CONDITIONED CONSTRUCTION

“The increased noise level of active family living presents builders of homes and apartments with problems that cannot be ignored.

“Public demand for Quiet Conditioned Living is growing rapidly. Through magazine and newspaper articles, as well as personal experiences, prospective buyers and renters have become aware of the added comfort they will enjoy wherever the builder has taken steps to reduce noise. In some cases, tenants have left apartments because of irritating noise that could have been eliminated by sound quieting construction.”

—from “New Building Techniques for Quiet Conditioned Living”—free brochure offered on opposite page.

The Celotex Corporation—for nearly 40 years a pioneer in sound-control—leads the building industry in promoting this great new idea in home comfort. Quiet Conditioned Living is not only a benefit for the home-buying public—it’s a selling idea that speeds up home sales and apartment rentals because the public wants and needs it now. To help you cash in on this need, send coupon for the free brochure, “New Building Techniques for Quiet Conditioned Living” (see at right), especially prepared for builders! It could be your springboard to the biggest year you’ve ever had!

5,000 people braved below-freezing weather to see these Dallas Quiet Conditioned Homes!

Fox & Jacobs, of Dallas, were the first U. S. builders to make quiet in homes a major promotion. Their $19,000 quiet-conditioned model homes drew record crowds, even in bad weather. Prospects feel the small added cost of quiet-conditioned construction is more than worth the money!
Describes and lists noise problems, defines quiet-conditioning terms, gives plans for quiet-conditioned construction.

Nationally advertised on Network Radio, TV, and in the top Shelter Magazines

The Celotex Corporation is using a continuous consumer advertising campaign in three major media to promote Quiet Conditioned Living nationally.

Model Home Plaque, Customized Folder, Demonstrator—the Celotex Sound Trap

FREE Merchandising Package to help you sell Quiet Conditioned Homes and Apartments to your prospects. Includes attractive Model Home Plaque, customized folder for prospects, and a remarkable new demonstrator, the Celotex Sound Trap. Ask your Celotex salesman or your building materials dealer.

FREE! 8-page brochure tells how to quiet condition

CEILINGS
Quiet Conditioning begins with a Celotex acoustical ceiling. Celotex Acoustical Tile has been tested and rated by the Acoustical Materials Association.

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APRIL 1963
THIS IS THE NEW ELJER "ONE-PIECE" STEEL VENTURA—latest in recess bath design. Available in six colors and white. Features two legs and apron for extra support and easy, level installation. In addition, there are wall clips to anchor bath to studding.

It’s another in a long line of "designed new" quality fixtures from The Murray Corporation of America, Eljer Plumbingware Division, Three Gateway Center, Pittsburgh 22, Pa.
FHA imposes new standards to make glass safer...

A new Minimum Property Standard, effective this month and spelled out in FHA Letter No. 1915, stiffens glass-quality requirements in FHA houses. Its purpose: to prevent glass breakage—and resultant injuries—caused by high winds and people walking or falling through glass doors.

The new rules, imposed despite NAHH protests, may add $5 to $15 to the price of a sliding glass door, industry sources have told FHA. But these costs should drop in time.

To cope with high winds, the new standard specifies maximum pane areas for different thicknesses of glass in each of three wind zones (map and table at right). When insulating glass is used, the standard permits a 50% increase in the pane area.

To cut down accidents, the standard calls for some form of safety glass—tempered, laminated, or wire-reinforced—in exterior doors with large glass areas and ineffectual visual barriers. Among the door requirements:

1. If the pane size exceeds 6 sq. ft., glass reaches to within 18" of the floor, and the door has no horizontal rails or push bars (visual barriers), safety glass at least 3/16" thick must be used.

2. If the pane size exceeds 6 sq. ft. but the door has horizontal rails, annealed glass at least 7/16" thick may be used.

3. In fixed panels of sliding-door assemblies, annealed glass at least 3/16" thick is required. But the pane area must not exceed limits set in the table at right.

4. The area of safety glass in doors may not exceed 50% of window pane sizes shown in the table.

5. Jalousie glass must be 7/32" thick and not longer than 3' with exposed edges polished.

Other requirements call for safety glass in shower and tub enclosures and plate glass at least 3/16" thick in all mirrors.

...and to upgrade insulation in air-conditioned houses

FHA's first MPS for insulating air-conditioned houses stems from this fact: If insulation is inadequate, summer heat can put a more crippling load on central air conditioning in a southern house than winter winds put on a furnace in a northern house.

The new standard, effective this month, and detailed in Interim MPS Revision No. 14, is aimed at cutting heat gain—BTUH per square foot of floor area as shown in the chart at right. (This automatically accounts for such variables as window sizes and types, house orientation to sun, wall and roof materials, and family habits.)

The standard requires roughly twice as much ceiling insulation in an air-conditioned house as in one that is not air conditioned. The ceiling of an air-conditioned house must now have a U factor of 0.08 (produced with batt insulation marked "R13") vs. 0.15 (insulation marked "R6") for a house that is heated only.

MAXIMUM ALLOWABLE HEAT GAIN—the basis for how much insulation is needed in an air-conditioned house—can be roughly calculated from this chart. For example: If a house has 1,040 sq. ft. of floor space and the summer dry-bulb temperature (temperature registered by a thermometer in the open air) is 95°F, maximum heat gain per square foot must be 22.6 BTUH.

MAXIMUM WINDOWPANE SIZES hinge on 1) glass thickness and 2) the wind zone (see map) where the house lies. The higher the winds and the thinner the glass, the lower the limit on pane sizes. These limits apply only to plate or sheet glass (not to safety glass) and only when glass is no more than 30' above grade. From 200' above grade, limits are halved to resist higher winds. Tall, narrow panes or long, shallow panes may exceed the maximum areas shown here (by up to 100% for a window pane that is five times as long as it is wide).
Last year saw the big breakthrough in central air conditioning. More than 200,000 American families—north, south, east, and west—joined the 1,700,000 U.S. households already enjoying central air conditioning. The trend is up again this year.

Now you can sell the year-round benefits of controlled temperature, humidity, and air filtration at low cost and with the knowledge that the air-conditioning equipment you buy will perform as rated.

How? By insisting that it bear the ARI Seal of Certification. By doing so, you benefit from an industry-wide program whose participants make more than 90% of all central air conditioning. Cooling capacity is measured only in British Thermal Units per hour. ARI engineers check manufacturers’ specifications. Equipment is selected at random for testing by the Electrical Testing Laboratories, Inc., of New York City. Any manufacturer’s claims are subject to challenge by another participant in the ARI Unitary Certification Program.

Want to know how to offer the additional prestige of central air conditioning at the lowest possible installation price in all your new homes? (1) Write ARI for the new, free homebuilder’s manual, “The Big Breakthrough in Central Air Conditioning.” (2) Ask for the free ARI Directory of Certified Air-Conditioners. (3) Specify units bearing the ARI Seal of Certification.

Trade-ins: their problems . . . and future

HOW TO OPERATE A REAL ESTATE TRADE-IN PROGRAM. By David Stone, 189 pp. Prentice Hall, Englewood Cliffs, N. J. $12.50

This text belongs on the desk of every builder or realty man who has even considered setting up a residential trade-in operation. Author Stone is one of the comparatively few men who have made trade-ins work. As general manager of Stone & Schulte, a $30-million-a-year reality and development firm in San Francisco, he has handled trade-ins for ten years. He knows the problems and pitfalls involved, and he writes clearly. His book covers every facet of trading, from the training of sales personnel to typical forms and contracts.

Trade-ins at last are beginning to grow in volume, says Stone. But problems remain. Interim financing is the biggest despite the 1959 Housing Act which lets FHA give builders the same loan-to-value-ratio an owner gets (a provision recommended by a House & Home Round Table on trade-ins in November 1955), and despite a 1961 authorization letting sat’s made 80% unamortized loans up to 18 months on trade-ins. What’s needed, Stone believes, is legislation to permit still easier warehouse financing of trade-in inventories and simplified escrow transfer systems to avoid the bite of double closing costs.

Stone urges real estate brokers to invest more of their own capital in trade-ins. They have the most to gain from active trading. If they don’t meet the challenge, warns Stone, others outside the industry will.

Are today’s tracts tomorrow’s slums?

THE SLUM MAKERS. By Robert Tebbel, 190 pp. Dial Press, New York City. $4

One reason why the housing industry ought to take this angry mixture of fact and fancy seriously is that a lot of its customers—past and potential—may do just that. A bigger reason is that Author Tebbel has put his finger on some of the forces that still make housing cost more than it should, and has suggested, in his final chapter, what ought to be done about them.

Tebbel, whose credentials include a stint as a carpenter and a sales manager for an unnamed Midwest prefabber, accuses the housing industry of laying waste the suburbs by building developments of "low cost houses" (he never defines the term) which will turn into tomorrow’s slums.

The charge has been aired before (e.g. in John Keats’ celebrated diatribe, The Crack in the Picture Window, News, Mar. ’57. The shortcomings of this new addition to hate-the-developers literature are about the same: Most of the ugly, corner-cutting dodges cited have actually happened somewhere, sometime—but they aren’t as widespread as the author implies. And conditions are getting better. But many of the remedies he proposes for “the housing mess” are sound—if beyond the power of today’s fractionated industry.

Problems. Tebbel sums up his point of view this way: “Let us leave him [the potential buyer] with a final thought:

He can be positive of owning a good home at the right price only if the loan officer is his grandfather and the builder is his uncle. All others beware.”

Tebbel takes his hypothetical buyers through a “typical” model house that they wind up buying (with a $10 deposit) in a tent-sales office. Interestingly enough, his “low cost house” includes all these amenities:

Three bedrooms and two baths, FHA financing, a 20’ living room with an 8’ picture window, an oven and range, garbage disposer, hardwood floors, floor-to-ceiling closets with metal folding doors, a mechanically-vented interior bath, full basement, copper plumbing, a washer and a dryer, and central air conditioning.

In a remarkable display of editorial slight-of-hand, each of the above is presented to the reader as though they are drawbacks in a house rather than assets. (The extensive list of built-backs in a house rather than as sets. The extensive list of built-in appliances is dismissed on the ground that they are “builders’ morals.”)

Tebbel cites with approval the New Jersey township ordinance that required every house to be “substantially different” from its neighbors, and an Iowa town which, defeated in enforcing a no-prefabricated-house ordinance, rezoned a builder’s land to make development uneconomic.

Remedies. Tebbel offers five, and the first two make sense, even though, as the author concedes, carrying them out is “possible but difficult.”
1. **Remove ancient methodology.**

It is certainly remarkable, in the Space Age, that housing is the only major commodity still produced for the most part by hand labor," cries Tebbel. He de­plores the use of carpenters to pound nails one at a time with a hammer, masons to lay bricks one at a time by hand, but cor­rectly adds: "The building trades unions want to maintain the status quo [because] handmade houses mean more jobs."

He plugs for the wider use of prefabricated plumbing, but notes that code chaos makes it almost impossible to prefab these ex­pensive parts of the house in big enough volume to achieve sig­nificant savings.

2. **Write and enforce federal standards for housing technology.**

"In no area is this unwieldy, utterly outdated diversity [i.e. code chaos] as deadly as it is in the housing industry," says Tebbel. "We must turn to the federal government for help... Since Washington is the only place where states can be brought to­gether in any kind of agreement, it is the place where needed standardization of the industry must begin. Simple standardiza­tion must be instituted before we can even begin to mass-produce exterior wall components at a reasonable price. A modular standard of, say 48" for wall components would end the house exter­ior... with these politicians... They would close their ears to the fact that a national building code would mean unprecedented ex­pansion in the industry, with work plentiful not only in the factories but on job sites."

"Labor unions would line up with these politicians... They would close their ears to the fact that a national building code would mean unprecedented ex­pansion in the industry, with work plentiful not only in the factories but on job sites." And he might have added, but does not, that HHF Administrator Wea­ver also opposes federal technical standards.

Tebbel also calls for cheaper mortgage financing, without suggest­ing any practical way it can be done. He correctly points out that the Congressional approach would mean unprecedented ex­pansion in the industry, with work plentiful not only in the fac­tories but on job sites."

The unified code would make [a utility core] acceptable on a national basis and producing costs would begin to pay off... If all the benefits to be derived from a national building code were added up, they would reduce the price of low-cost housing by as much as 40%.

Why isn't it done? Explains Tebbel: "There are thousands of petty politicians holding down jobs in local building commis­sions. Many of these jobs would be eliminated or brought under federal scrutiny. Once the local petty czars were eliminated or controlled, it would no longer be necessary for builders and manu­facturers to pay millions of dol­lars in graft to pass inspections. Unfortunately, nearly all these little politicians have some polit­i­cal influence, and they will fight federal influence to the last man.

Labor unions would line up with these politicians... They would close their ears to the fact that a national building code would mean unprecedented ex­pansion in the industry, with work plentiful not only in the factories but on job sites." And he might have added, but does not, that HHF Administrator Weaver also opposes federal technical standards.

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**The struggle for better subdivision design**


With this useful volume, the University of Pennsylvania has embarked on a new city plan­ning series. Essentially a text (angled by a Ford Foundation grant), the book is a reworking of a thesis prepared by Reiner at MIT. The tone and language are scholarly—intended for city planning professionals, architects, and others concerned with the theory of urban areas.

Readers will be surprised by the selection of schemes—the absence of Soviet planners, of Hilbertseimer, Stein, Le Corbu­siere's Ville Radieuse come to mind—but Reiner was seeking representatives of "the several hundred existing Ideal Communities."

The book's most important message is that any physical plan­ning proposal carries with it—implicitly—value judgments or other assumptions about the organization of society. For instance, says the author, Frank Lloyd Wright's 1932 plan for Broadacre City (never built)— with one acre of land as each family's "minimum heritage"— "leans heavily on an agrarian basis for democracy and on Henry George's attack on un­earned increment as the curse of modern society."

That article of faith enunciated by Howard and echoed

continued on p. 148
by Clarence Perry—the garden neighborhood concept—is repeatedly subjected to the harsh light of critical analysis. From this comes the message that beliefs may exceed proof. Experts who ascribe social ills to "poor arrangement of land use, circulation, and facilities" do so in the belief that physical environment motivates individual and group behavior. Upon this unverified cant—prevalent among British and American planners—the garden city and other "neighborhood" innovations such as urban renewal have been erected. Reiner questions whether it is really so that "reconstruction of society can only proceed on the basis of rebuilt homes, neighborhoods, and cities." The results of public housing projects for instance, raise "serious doubts," he notes.

Another pet in the planner's lexicon—organic*—gets the sur­prised. Reiner's careful analysisally, some visual principles for improving the esthetics of develop­ment around our cities. In 100 pages on "The Esthetic of Low-Density Housing" (the section of greatest interest to housing professionals) the authors explain why some of our older villages are so pleasing. (Limited choice of materials... resulted in an overall visual order, within which there was room enough for subtle individ­ual variety... Capricious self-expression by the individual outside the visual discipline of his time and place was unthinkable.) They argue against today's scattered development ("It does pro­vide open space, but this open space is chaotic in its location, socially unsuitable, and legally unprotected against future encroachment") and outline possible controls—for example:

- Confine development via mun­i­ciple utility extensions.
- Zone areas contiguous to exist­ing developments for moderate lot size, but zone outlying areas for very large lots to create a cost incentive for full develop­ment of the close-in land.
- Adapt the information and persuasion method of the Indian­apolis Metropolitan Planning Commission, which has mapped

Whether it's new construction or remodeling, residential or commercial, low budget or high—DeVAC Windows give you quality where it's needed most. Self-supporting DeVAC Glass­Walls will help your buyers discover bright, new, year-round living space with a panoramic view. New DeVAC Ther­mo-Barrier Windows have been proved through research to effectively eliminate condensation except under extreme hu­midity conditions. DeVAC replacement windows—designed specifically for replacement—give commercial buildings and homes a pleasing new appearance and no modification of window or opening necessary. DeVAC wood-and-aluminum windows and doors give you the chance to sell the unique advantages of both wood and aluminum. This year put "see" in your sell with DeVAC windows and doors. Write for more information on any one or all of these DeVAC PRODUCTS TODAY!

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One proposal: instead of letting roads develop haphazardly around main arteries (top drawing), planners would develop a supergrid of section-line roads within which developers would be free to lay out their subdi­visions (lower drawing).
**Plumbing**

**Push-button water system** provides water hot, cold, and blended to any temperature preset at the fixture. With Ultraflow, the pressure and flow can also be preselected. Different combinations of buttons are available for kitchen sink, lavatory, shower, and tub. Each fixture control operates on a 12-volt solenoid valve (right, below) located at the water source. There is no likelihood of leaks or dripping because the lines are never under pressure. Only one line leads from the valve to each fixture. The saving in pipe, fittings, and valves makes installed costs competitive with conventional systems. Tappan, Mansfield, Ohio. For details, check No. 1 on p. 182

**Heating & cooling**

**Valance cooling system** has hermetically sealed and charged refrigerant circuit, requires only simple water piping and plug-in electrical connections on-site. Available in eight capacities: 3 to 24 tons. Edwards Engineering, Pompton Plains, N.J. For details, check No. 2 on p. 182

**Hydronic zone valve** has power supply, switching relay to cycle the circulator and heating plant, terminal block to join the wiring system, and two to four valves on a compact manifolding. Valves have only one moving part. Hydrotherm, Northvale, N.J. For details, check No. 3 on p. 182

**Electric control center** for motel units operates lights and TV, adjusts room temperature, and checks outdoor temperature. It can be mounted on a bedside table or in a headboard. Minneapolis-Honeywell, Minneapolis. For details, check No. 4 on p. 182

**Radiant heating panel** is 10" high and only ¾" thick. Camboard has a steel facing over two ½" copper tubes. Supply and return lines are coated with black mastic for heat retention. Cameron Thermodyne, Richmond, Va. For details, check No. 5 on p. 182

**Undercounter boiler** provides domestic hot water and whole-house heat, yet is only 24"x24"x35". Micro-Therm comes with 30, 60, or 100-amp energy cells (comparable to 40,000, 75,000, and 115,000 BTUH boilers), supplies as much hot water as a 40-gal. rapid-recovery water heater. Installation involves only two connections to convectors, two connections to domestic water, and wiring to a power source and a thermostat. Lists for under $600. Thermotronics, Westbury, N.Y. For details, check No. 6 on p. 182

*New products continued on p. 153*
For outdoor living with a timeless flair

CREATE WITH BLOCK

Perforated porch partitions, lavishly textured. A fence, fraught with fashion. A comely walkway. Smart planters, stylish pools. Create them all with the versatility of concrete block’s countless shapes and sizes—in solid and screen units. Concrete masonry is economical, firesafe, durable, won’t pit, warp, corrode or decay. Contact your local NCMA member.

NATIONAL CONCRETE MASONRY ASSOCIATION 1015 WISCONSIN AVENUE, N.W. - WASHINGTON 7, D.C.
Hardware

Revolving corner shelves are 32" in diameter, occupy 36" x36" corner area. Super Susan shelves revolve independently on bearing races, are supported by a steel frame (left) and can be used with any cabinet fronts. Murray Equipment, York, Pa.
For details, check No. 7 on p. 182

Floor framing connectors are designed to transmit shear loads from one member to another when joining floor joists in an in-line assembly. Line-A-Joists come in sizes to fit 2x6, 2x8, 2x10, and 2x12 members. Timber Engineering, Washington.
For details, check No. 8 on p. 182

Component hook for joining panels with skins on both sides has a concealed action lock operated by a special wrench. It is available for panels with t&g or butt joints. Hook can withstand a 2,000-lb. pull. National Lock Co., Rockford, Ill.
For details, check No. 9 on p. 182

Tools

Motor speed control regulates speed of any electric tool. By turning a knob, Speedial provides high speed (for cutting or drilling plastic), medium speed (wood), low speed (masonry), or very low speed (steel). Latron Electronics, Emanus, Pa.
For details, check No. 10 on p. 182

Router template comes with four sets of routing guides. Instead of using a separate template for each design, the operator simply changes the guides in the corners. Template fits panels from 3/4"x 3/4" to 24"x36". Wing Cabinet, Tempe, Ariz.
For details, check No. 11 on p. 182

Two-piece cutter (right) provides invisible mitre-lock glue joints in cabinet work. The cutter can be set to cut lock-corner glue joints for 3/8" to 1/4" thicknesses, is high-speed steel with optional carbide tips. Boice-Crane, Toledo.
For details, check No. 12 on p. 182

Power nibbler makes straight, curved, pattern, and pocket (inside) cuts from a 1/2" diameter starting hole in sheet and corrugated metals. It cuts 40" of 18-gauge steel per minute, weighs 51/2 lb., and lists for $64.95. Skil Corp., Chicago.
For details, check No. 13 on p. 182

Heavy-duty nailer drives staples (up to 1/2" leg length) with any type points. Maker claims Model L is half the weight, half the size, 40% cheaper than most other heavy-duty nailers. It needs no oil in the air line. Senco, Cincinnati.
For details, check No. 14 on p. 182

Component hook for joining panels with skins on both sides has a concealed action lock operated by a special wrench. It is available for panels with t&g or butt joints. Hook can withstand a 2,000-lb. pull. National Lock Co., Rockford, Ill.
For details, check No. 9 on p. 182

Nail set centers automatically and sinks nail into wood without marcing its surface. 1. Nail is driven in so it protrudes 1/8". 2. Nail set is placed over nail head. 3. Hammer blow sets nail below wood surface. Stanley, New Britain, Conn.
For details, check No. 15 on p. 182

Electric drill has insulated motor and fully insulated fiber glass outer housing which eliminates the need for a grounding wire. A heavy-duty model lists for $72.50, a regular-duty model is $36.50. Black & Decker, Towson, Md.
For details, check No. 16 on p. 182

New products continued on p. 156
Total-Electric Homes
Averaging 10 Sales Per Week
Sprout Homes, Las Vegas, Nevada, The early sales on 400 of these General Electric equipped Medallion Homes, ranging in price from $14,500 to $19,950, have been moving so fast that a construction boost of 800 additional homes is planned.

Busy Builder Has One Word For Rentals: "Great!"
Mayfair Apartments, Memphis, Tenn., One look at the eye-catching exterior brings the prospects in. The General Electric appliances and individual apartment Weathertron® heat pumps keep them there. The rental rate on builder Kemmons Wilson's 72-unit Gold Medallion winner is running well ahead of schedule.

Medallion Home Project 85% Sold Out In Only Four Months
Edgemont Estates, Camarilla, Calif., These roomy Medallion Homes offer the finest in comfortable California living. A kitchen-full of General Electric appliances has proved to be the leading sales feature for builder Walter Scholtz.

BETTER HOMES & GARDENS
All-Electric Idea Home for 1962
Brede Homes, Minneapolis, Minn., These Medallion Homes on famed Lake Minnetonka have all the most modern ideas in total electric living. They are completely equipped with General Electric appliances and electric heating equipment.
Sales Success of 330-unit total-electric co-op leads to two new co-ops


Total-Electric Retreat
For 191 Busy Executives

Eden Roc, Tucson, Ariz., Builder/Owner Bert Olden used General Electric appliances and equipment to make Eden Roc an all-electric refuge for harried executives. Complete business and recreational facilities are combined in these unique Medallion Apartments.

Easier to build, easier to sell—total electric Medallion Homes and apartments equipped by General Electric

General Electric’s program for Medallion Home and Apartment builders has speeded construction and sales for these builders, and can do the same for you.

General Electric has a complete line of appliances, heating, cooling, lighting, and wiring equipment. You can call on design and application engineers to aid with any of these. In fact, the talents of an experienced General Electric team join to help you prepare a coordinated electrical system—specifically tailored to your construction needs.

Not only can General Electric provide you with invaluable technical aid, but with all the benefits of one source of supply and coordinated delivery and service as well.

General Electric products are advertised and promoted to homeseekers as the cornerstone of any Medallion Home or apartment. General Electric also provides customized merchandising programs for builders meeting Medallion standards and using General Electric products. With the support you receive from this promotional assistance, your Medallion Homes and apartments equipped by General Electric will sell faster...rent faster!

Finally, you benefit from General Electric’s reputation for product quality and dependable performance.

Residential Market Development Operation
General Electric Co., Appliance Park, AP-6, 230 Louisville 1, Kentucky

I’m interested in General Electric’s program for Medallion Homes. Please send me more information.

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APRIL 1963
**NEW PRODUCTS**

**Interior materials**

Hardwood flooring comes in 12 different mosaic-parquet patterns. Each panel is 18"x18"x 5/16" and contains 16 squares. It is factory-finished and costs less than $6.50 per sq. yd. installed in mastic. Cromosaic is available in oak, walnut, cherry, maple, and teak. Cromar Co., Williamsport, Pa.

For details, check No. 17 on p. 182

Flooring inserts in a new line of seven die-cut squares and ten feature strips are designed to complement Armstrong's Excelon and asphalt tile patterns. Available in both ⅜" and 1/16" gauges, each of the seven inserts comes in two or more color combinations. Armstrong Cork Co., Lancaster, Pa.

For details, check No. 18 on p. 182

Vinyl seam treatment welds the edges of Luran vinyl sheets together, completely eliminating the seam. Vinylweld is applied to adjacent edges of sheets. The edges liquefy for a moment and then fuse into a solid sheet. Dealer cost is less than 1¢ a lineal foot. Sandura Co., Jenkintown, Pa.

For details, check No. 19 on p. 182

Textured vinyl flooring, in 12"x12" tiles and in 6'-wide sheets, has gold metallic pattern in green, beige, ivory, and white background. Terra Gold also comes in wall covering and countertopping. $3.50 to $4 a sq. yd. retail. Goodyear, Akron.

For details, check No. 20 on p. 182

Prefinished hardboard, in random-groove 4'x8'x⅛" wall panels and 4'x4'x⅛" ceiling panels, comes with gold tracing on an off-white background. The factory supplies nails to match the Golden Web background color. Evans Products, Portland.

For details, check No. 21 on p. 182

Decorative hardboard looks like leather, can be shellaced or painted for use in kitchens, family rooms, and dens. Morocco Hookboard is available ¼" and ⅛" thick and in standard sheet sizes. Bestwood Decorative Hardboards, Newark, N. J.

For details, check No. 22 on p. 182

Acoustical tile has a textured surface that conceals joints, absorbs up to 90% of noise reaching it and reflects more than 70% of light striking it. Acoustestone Glacier comes in 12"x12" and 12"x 24" tile with plain or foil backing. U.S. Gypsum, Chicago.

For details, check No. 23 on p. 182

Exterior materials

Brick veneer weighs one-tenth as much as brick, can be nailed or stapled to sheathing. Tal-Brick panels are 16"x52"x⅛", have insulation board backing. Corners interlock and are self-spacing. Crown Aluminum Industries, Pittsburgh.

For details, check No. 24 on p. 182

Prefinished lap siding has a Videne plastic surface and a hardboard base. A slanted lockstrip runs along the bottom edge of each course, fits into the beveled top edge of the course below. Color-lock is 12"x12"x7/16". Masonite, Chicago.

For details, check No. 25 on p. 182

Translucent panels have Fiberglas-reinforced, acrylic-polyester plastic surfaces laminated to an extruded aluminum web. Seaportlucent panels weigh 1½ lb. per sq. ft., are 3" thick; can be used in load-bearing exterior walls. Caloric, Topton, Pa.

For details, check No. 26 on p. 182

Redwood plywood has a wire-brushed texture with vertical grooves every 4" and 12", Rusticwood 4-12 siding panels are 4'x8'x⅛". Multiples of 4" spaced grooves and 9" and 10" lengths are available on special order. Simpson Timber, Seattle.

For details, check No. 27 on p. 182

New products continued on p. 158
INTRODUCTION

1962 was a good year for HOUSE & HOME—not the best on record, but substantially better than for many publications and better than we had a right to expect in the light of 1962’s less-than-booming economy. This was true of all phases of our publishing operation: editorial, production, circulation, market research, and advertising.

Several important changes were made in the format of the magazine and in the editorial content. Apparently these were well received by our readers, for they renewed their subscriptions at a higher rate, and new subscribers boosted our circulation to an all-time high, despite a much higher subscription price than for any other magazine in the field. Similarly, product manufacturers continued to invest the bulk of their industry advertising in HOUSE & HOME, the only magazine which serves the entire housing industry. In 1962 HOUSE & HOME led the field in both advertising pages and advertising revenue, thus extending the 3,500 page, $10 million lead HOUSE & HOME had built up during the preceding eight years over the magazines serving home builders alone.

Details of these and other accomplishments of 1962 are presented below.

EDITORIAL

Measured by reader response, the editors’ analysis in the November issue of the subtle effect of the President’s open occupancy housing order was perhaps the most significant single article of 1962. Also outstanding was the entire March issue marking HOUSE & HOME’S 10th anniversary and reviewing industry progress during the past decade. It won an award for the “Best Single Issue” in the Editorial Achievement Competition sponsored by Industrial Marketing Magazine, the 13th I.M. award won by the editors since 1953, bringing their total collection of editorial trophies to 23. Other notable editorial features of the year included the three Round Table reports (on paint, steel, and sound conditioning) and the editors’ 15-point proposal to the President on ways to make the homebuilding industry more effective.

As you may have noticed, the editors in 1962 made several important changes in the content and format of the magazine—all designed to serve the industry better and to encourage easier reading. Examples: the body type was made larger; the contents page was moved to page 1; the 12-page News department, an exclusive feature of HOUSE & HOME, was moved forward to a more convenient position; the growth and volume of letters-to-the-editors during 1962 suggested the addition of a new letters department; and the main editorial section was reoriented to include each month at least one article on each of these important subjects: land, design, marketing, management, and technology. Meanwhile, research was begun for a series of eight major articles on “The New Housing Industry”, the first of which “The Emerging Giants” appeared in the January 1963 issue and the second, “Upheaval in the Market Place”, in the February issue.

PRODUCTION & DISTRIBUTION

Editorial production schedules were tightened during 1962, and distribution methods were improved, thus getting copies of the magazine into the hands of subscribers at an earlier date. For example, subscribers on the west coast are receiving the magazine a week earlier than they did in 1961. And, of course, the production department continued its efforts to improve the already high quality of the magazine’s black-and-white and four-color printing. (Incidentally, a total of 50 editorial pages were printed in color during the year.) Further improvement in production and distribution is planned for 1963.
CIRCULATION To help offset higher publishing costs, HOUSE & HOME’s 3 year subscription price was raised $2 to $12—this is 50 per cent greater than the price of other magazines in the field. Subscription income in 1962 contributed importantly—along with advertising, of course—to the cost of producing the magazine and made it unnecessary to raise advertising rates from 1963—the recent rise in postal rates notwithstanding.

Despite the higher subscription price, readers continued to renew their subscriptions at the highest rate in recent years (58 per cent), and new subscribers boosted average circulation to the highest level on record: the peak of 139,858 was reached in March. As shown in the accompanying chart, HOUSE & HOME’s circulation has grown steadily in each of the past five years, while the circulation of the builder magazines has faltered.

Circulation growth during 1962 continued to be soundly based on individual paid subscriptions—less than 10 per cent of HOUSE & HOME’s circulation is bulk, compared with more than 31 and 34 per cent for the builder magazines. Moreover, the circulation increase was distributed fairly evenly among all segments of the industry (builders, subcontractors, realty companies, dealers and distributors, architects, and mortgage lenders), thus strengthening the broad industry coverage which sets HOUSE & HOME apart from other magazines.

Circulation growth is expected to continue during 1963.

MARKET RESEARCH Seven major research studies were made available to the industry during the latter half of 1962. Five were detailed profile studies of the business characteristics of each of the major groups of housing professionals in HOUSE & HOME’s circulation: architects, builders, dealers and distributors, realty men, lenders. A sixth profile study covered a broad sample of all of HOUSE & HOME’s subscribers to determine not only their business characteristics but certain of their personal characteristics and readership habits as well. The seventh research study provided the housing industry with a comprehensive analysis of the booming apartment house market and the participation of HOUSE & HOME’s subscribers in this market.

ADVERTISING HOUSE & HOME continued well ahead of the field in advertising pages and advertising revenue. The page count for the national edition was 1,475 and a fraction, 274 to 319 pages more than were placed in the two builder magazines. In addition, the regional editions carried a total of 48½ pages. Advertising revenue totalled $2,683,500 (national and regional), reinforcing HOUSE & HOME’s position as America’s largest paid-circulation industrial magazine. A total of 284 advertisers used its pages in 1962, including 95 exclusive advertisers and 78 new advertisers.

For the 8th consecutive year HOUSE & HOME also demonstrated strong leadership in the individual classifications of advertising. In 13 major classifications of building materials and equipment, HOUSE & HOME attracted over 47 per cent of the dollar revenues and 42 per cent of the page volume and led the field in pages or dollars in 12 of these 13 classifications. Manufacturers employing the strategy of advertising dominance and concentration—those using multiple (3 or more) page units—placed a total of 277 pages in HOUSE & HOME during 1962, about 20 per cent of the total advertising pages. This page volume was one-third greater than in any other magazine in the field—an indication of the acceptance of HOUSE & HOME as an advertising medium for the “big and special” assignments. These multiple page advertisers also placed nearly three times as many pages of exclusive advertising in HOUSE & HOME as in the two builder magazines combined.

January 1963 saw a further widening of the advertising page and revenue gaps between HOUSE & HOME and the two builder magazines, and business already on the books for the balance of 1963 gives promise to still further improvement of HOUSE & HOME’s competitive position.
PEOPLE Though he continues his close association with HOUSE & HOME as Editorial Adviser, Editor-Publisher Perry Prentice at mid-year was given the responsibility of representing all of Time Inc.’s magazines to the building industry. Several other important changes were made in the management of the magazine. Ralph D. Paine, Jr., Publisher of Fortune and Architectural Forum, assumed publishing responsibility of HOUSE & HOME, thus consolidating all of Time Inc.’s monthly magazines under one corporate officer. Joseph C. Hazen, Jr., formerly Managing Editor of both HOUSE & HOME and Architectural Forum, became Associate Publisher, and Gurney Breckenfeld, News Editor for 10 years, was made Managing Editor. At the same time Edward Birkner, another key member of the staff, was appointed Executive Editor, succeeding Carl Norcross who was reluctantly released to become Vice President of one of the nation’s largest home building corporations.

Several staff realignments were also made by Advertising Director Anthony Ernst. John Cogan was promoted to Advertising Manager, operating out of the Cleveland office of which he had been manager for eight years. Jack Austin was named Associate Advertising Director, based in Chicago with responsibility for the midwest and west coast; Richard Fuller of the New York office was made Chicago manager; and John Moffly of the Cleveland office was appointed New York Sales Manager.

Building on the very substantial editorial, production, circulation, research, and advertising accomplishments of 1962, the staff of HOUSE & HOME is dedicated to making it an even more effective, useful, and exciting magazine in 1963—for readers and for advertisers.

Joseph C. Hazen, Jr.
Associate Publisher
February 1, 1963
Earth moving equipment

Elevating scraper with 8½-yd. capacity is self-loading. As the cutting edge slices off earth, it is picked up and carried to the scraper bowl by a slat-type elevator-conveyor driven by the tractor's power takeoff, eliminating the need for a pusher tractor. International Harvester, Chicago. For details, check No. 33 on the coupon, p. 182

Hydraulic backhoe with ½-yd. capacity is mounted on an Iasley crawler. The C-10 weighs 23,890 lb., has a forward reach of 24'7" from kingpin, can dig 15'8" deep, undercut a slab by 7'5", dump a full load at 14'5". Hein-Werner Corp., Waukesha, Wis. For details, check No. 34 on p. 182

24" backhoe bucket is designed for use in sticky soils. A U-shaped blade scrapes the inside of the bucket to assure complete dumping. Unit can be supplied with new equipment or for existing machines. Deere & Co., Moline. For details, check No. 35 on p. 182

Loader is a heavy-duty unit with 4-wheel drive and power shift. The W-7 has a clam-type bucket and a fast load-carry-dump cycle. A quick-detach 14' backhoe is available as optional equipment. J. I. Case Co., Racine, Wis. For details, check No. 36 on p. 182

Trencher can be fitted with blades to dig from 4" wide and 66" deep to 16" wide and 24" deep. Attachments for the T66 let it dig close to walls and bore under streets. A hydraulically-operated angle dozer is optional. Davis Mfg., Wichita. For details, check No. 37 on p. 182

How fast? Here's an example. One painter with DeVilbiss airless spray can paint the entire inside of a 6½-room house in less than 4 hours. Full-covering coats go on in just one pass... and that's fast.

What kind of equipment do you need? Depends on the job. One thing is sure. When you go to DeVilbiss you get the size and type that will do the job best because DeVilbiss offers all components of conventional, airless, and hot spray methods—all sizes, all capacities.

New DeVilbiss color films bring you up-to-date. These 16-mm sound films demonstrate the advantages of the newest DeVilbiss equipment... show you new techniques and new possibilities of spray on your jobs. To borrow the DeVilbiss training films—or to find out more about how DeVilbiss can cut your costs—call your nearest DeVilbiss representative. Or write: The DeVilbiss Company, Toledo 1, Ohio.

Use DeVilbiss spray. It's at least 4 to 5 times faster than hand application methods.
The MF 220 Backhoe digs anywhere—even flush against walls, fences and trees. Or at right angles to the tractor. Digs bell holes, too. Down to 12 feet depth. Digs in hard top, frozen ground—most any soil condition. And it digs side walls straighter and trenches deeper, because you sit right in line with the work—swinging with the boom and the bucket. Other exclusive features: "Hydra-Slide" for 5-position digging . . . 8,900-lb. breakout force . . . quick 5-minute detachment. Plus the industry's most advanced design. For more complete information, call your Massey-Ferguson Industrial Dealer today, or write for a detailed brochure. Specifications measured to IEMC definitions.

Call WESTERN UNION, OPERATOR 25, for the name of your nearest MF dealer.
Give your customers these benefits of a “care-free” double-hung window... at no premium in price!

- No more struggling with storm windows!
  For the first time in a double-hung design, you can offer your customers the extra convenience of welded insulating glass. Eliminates the bother of storm windows forever. No washing, handling or storing. It’s so weathertight, there’s no compromise in fuel-saving economy. Yet the Andersen Narroline with insulating glass costs no more than an ordinary window with a combination storm window.

- Removable grilles for easier cleaning!
  Another exciting Andersen extra with built-in customer appeal. Custom-made snap-on grilles of Implex “pop out” for easy window cleaning. They simply “plug-in” to small grommets located in the sash. When installed without grilles, a touch of paint or stain covers any trace of the grommet. Grilles take paint readily (but never have to have it), won’t warp, and can be wiped clean with a damp cloth. Available as a horizontal bar or in a variety of divided-light patterns.
FOR THE FIRST TIME . . .
A DOUBLE-HUNG WINDOW SO WEATHERTIGHT
THAT WELDED INSULATING GLASS IS PRACTICAL

(Andersen welded glass is Thermopane® or Twindow®)

AVAILABLE WITH WELDED INSULATING GLASS

☐ Two fewer glass surfaces to clean!

Window washing heads the list as the household chore that housewives like least! With Andersen Narrolines and insulating glass in your homes, there aren't any storm windows to clean or handle ... and you have a selling point that's bound to be a hit!

A size for every job—With the new Andersen Narroline, you can offer the design options of a custom-made unit! They come in 44 standard sizes . . . can be used as singles, multiples, or in combination with one of nine matched picture windows.

The new Andersen Narroline . . . today's greatest window value for you and your customers . . . offering smooth operation, weathertightness, and convenience never before found in a double-hung design.

See it today at your Andersen lumber or millwork dealer. Or send coupon for complete descriptive information.
you can stop light... or let some through

Here, in rigid Geon vinyl, are combinations of properties that un latch a vast range of totally new building components and products. The panels shown above, for example, are either translucent or opaque. They not only resist weather but are also self-extinguishing; previously, builders could not count on both characteristics in the same panel. More and more you’ll be hearing about building products made of rigid Geon vinyl. Manufacturers are turning to this remarkably versatile material to break the stalemate in product improvement. Conventional materials, they had found, were developed and designed to the limits of their abilities. Start looking for rigid Geon vinyl in more and more things that go into new or remodelled homes. You will see in Geon vinyl a material difference in building. For complete information, write B.F.Goodrich Chemical Company, Department CJ-2 3135 Euclid Avenue, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.
Why this sign will help you sell more homes!

When your homes are Blue Star Homes, things happen.

American Gas Association’s million dollar-plus Blue Star promotion works for you. Powerful advertising, national and local, is beamed at home buyers. A complete kit of selling tools is placed at your disposal.

House hunters are told and sold on the extras found in Blue Star Homes . . . made familiar with the Blue Star Home sign . . . reminded in ad after ad to “look for this sign of a quality home.” They’re pre-sold on the advantages of the modern Gas appliances found in a Blue Star Home.

Your local Gas company representative will give you full details about how the Blue Star Home promotion will help you sell more homes. Ask him.

Only homes offering buyers the advantages of modern gas appliances can be called Blue Star Homes.

Blue Star Sign means home buyers can live modern for less . . . with Gas.

Home buyers’ favorite... Gas Heat!

8 out of 10 new home buyers across the U.S. choose economical, quiet, efficient, clean, modern Gas heat . . . enjoy lower fuel bills, proved performance. More than 26½ million satisfied home-owners use Gas heat. Gas units can be planned to use the same ducts for both heating and cooling, so that Gas cooling easily can be added at any time.

Home buyers’ favorite... Gas Cooking!

Gas ranges . . . built-in, wall hung, free standing, or slide-in . . . are far and away the most popular. Cost you less to install, too. And they feature modern advances like the Burner-with-a-Brain* that turns itself up and down automatically to hold the correct temperature. No finer ranges are made than those built to Gold Star standards.

* A.G.A. Mark © Am. Gas Asso., Inc.

Home buyers’ favorite... Gas Water Heating!

With economical, dependable Gas, homeowners are sure of all the hot water they need, when they need it. No wonder a Gas water heater is preferred. And a Gas dryer is faster, more economical, leaves clothes soft and fluffy, white and bright.

PLUS these modern features that make your homes more appealing to prospects: Smokeless, odorless Gas incinerator eliminate daily garbage and trash carrying, place your home in a cleaner, quieter, more modern setting. Gas Refrigerator cost less to run, have less moving parts to break down, give new convenience in ice making with no trays. Outdoor Gas Lights add beauty, warmth, distinction to driveway, patios, yard, doorway.
This is Styrofoam® FR insulation. We color it blue.
This is a builder who mistook something else for Styrofoam FR. Color his face red.

If it isn’t blue, it isn’t Styrofoam FR insulation board. The distinctive color means it’s flame-retardant; the brand name means it’s the one-and-only. Styrofoam FR insulation can’t soak up water or moisture; won’t ever lose its low “k” factor. And talk about versatile!

Wallboard Base—You bond Styrofoam FR directly to masonry with Styrotac® bonding adhesive; wallboard to Styrofoam FR the same way a day later. You build in double-laminate quality with only a single thickness of wallboard. No furring, no nails, no “pops.” No more insulation hollows or wallboard warping.

Form Liner—You attach Styrofoam FR to the form, pour your concrete and remove the form. Then go ahead and plaster—no furring or lathing needed. Result is a better insulated wall at no extra cost. Styrofoam FR stays dry; buildings, comfortable. Heating, cooling costs stay down.

Cavity Wall—You simply fill the cavity between interior masonry and brick walls with Styrofoam FR insulation board. Boards are supported by metal wall ties or simply spot-bonded to the inner wythe. Result: permanent insulation at low cost.

For more data and specifications on our products consult Sweet’s Light Construction File, or write us: The Dow Chemical Company, Plastics Sales Dept. 1012BP4, Midland, Michigan.

Styrofoam is Dow’s registered trademark for expanded polystyrene produced by an exclusive manufacturing process. Accept no substitute... look for this trademark on all Styrofoam brand insulation board.
The Granada, one of two extra-large, luxurious models, is semi-detached and contains two enormous six-room apartments.

Neptune Developers feature 4 Kelvinator Appliances in superb new 600-home community

Rosedale Village in Queens, New York City, Spurs Sales with Kelvinator Refrigerators, Dishwashers, Washers and Dryers... at no extra cost!

Beautifully planned for modern living, Rosedale Village is conveniently located on the South Shore of Long Island. Its popularity is proved by the fact that the first section of 102 homes is already sold out!

One key to Neptune Developers' spectacular sales success, according to Marvin Traub, president of the home-building firm, is the offer of four Kelvinator appliances at no extra cost. Color-coordinated kitchens captivate homemakers with all the major appliances every woman wants to make housework easier.

Two models, the Granada and the Harbour, are featured at Rosedale Village.

All homes include such luxury equipment as central air conditioning, thermostatically-controlled heat, complete insulation, brass plumbing, ceramic bath tile, custom-finished kitchen cabinets, inlaid linoleum, hardwood oak flooring and landscaping. The Neptune project, when completed in 1965, will have involved almost $20,000,000. Furnished models are located at 149th Avenue and 257th Street in Rosedale, Queens, New York City. For information call 212-LA 5-9225.

Kelvinator
Division of AMERICAN MOTORS CORPORATION, Detroit 32, Michigan
Dedicated to Excellence in Rambler Automobiles and Kelvinator Appliances

REFRIGERATORS • RANGES • AUTOMATIC WASHERS • CLOTHES DRYERS • FOOD FREEZERS • ROOM AIR CONDITIONERS • DISHWASHERS • DISPOSERS • WATER HEATERS • DEHUMIDIFIERS

KELVINATOR 12.13-CU.-FT. REFRIGERATOR with full-width frozen food chest, modern reach-easy features!
MULTI-CYCLE KELVINATOR WASHER has exclusive automatic pre-scrub, 3 water selections.
KELVINATOR GAS DRYER gives wives triple-safe, wrinkle-free drying that saves hours of ironing.
KELVINATOR "DOUBLE-POWER" DISHWASHER cleans up to 12 full table settings in one easy load!
**Redwood siding and paneling** is shown in a 6-page folder. It includes data on sizes, texture, finishes, patterns, and grades; and illustrates many ideas for using redwood in the garden and patio. Simpson Timber, Seattle.

For copy, check No. P1 on the coupon, p. 182

**Doors** in 137 panel and light combinations for interiors and entrances are shown in this 4-page bulletin. Also shown are 16 entrance sidelights and nine bifold doors. Prices vary from $15 to $108. Sun-Dor-Co, Wichita.

For copy, check No. P2 on the coupon, p. 182

**Sewer tap** (for tying into existing line) is described in a 4-page folder. Shewer Tap is made in three types to fit different kinds of pipe, is epoxy-bonded into the main sewer line. Smith & Loveless, Lenexa, Kan.

For copy, check No. P3 on the coupon, p. 182

**Masonry reinforcement** of walls is covered in a 34-page book of research studies and basic technical data. Statistical tables and drawings (Dur-o-wal applications above) are included. Dur-o-wal, Cedar Rapids, Iowa.

For copy, check No. P4 on the coupon, p. 182

**Glass block** is made in a new color, Royal Gray, and a new size, 12"x6". Catalog shows light-controlling, standard, and decorative blocks, brightness and heat-control tables, and installation details. Owens-Illinois, Toledo.

For details, check No. 5 on p. 182

**Workable program kit** offers seven booklets—one on each phase of the anti-slum program—localities must have to qualify for federal urban renewal, public housing, or FHA Sec. 220 and 221d3 loans. HHFA, Washington.

For details, check No. 6 on p. 182

**Tennis courts** for all-weather use are described in a 4-page brochure which includes cross-section drawings of the composition of the four types of Wesco courts. William C. Westervelt & Sons, East Rutherford, N.J.

For details, check No. 7 on p. 182

**Lumber products**—shingles, poles, molding, plywood, decking, and doors—are catalogued in 52 pages. Where to buy (1963) covers 40 products available from 121 companies. West Coast Lumbermen’s Assn., Portland, Ore.

For details, check No. 8 on p. 182

Publications continued on p. 175
60 firm sales from two promotions prove the power of Kingsberry Value for Columbia builder James T. Swindler

The selling power of KINGSBERRY VALUE has just been doubly proved by builder James T. Swindler of Columbia, S. C. Mr. Swindler opened his "Whittaker Heights" subdivision in Orangeburg, S. C., and "Farrow Hills" subdivision in Columbia, S. C., within a two week period last September. To date, the promotions have resulted in $720,000 in sales from 60 credit approved contracts, including 42 on opening week-ends!

Typical of the KINGSBERRY VALUES offered by Mr. Swindler is the DeVille pictured above. This 3-bedroom, brick-veneer beauty with 956 square feet of comfortable livability is priced right to sell fast at $10,500 (excluding lot).

Builder Swindler credits Kingsberry for much of his sales success and healthy profit picture. He says, "By using the Kingsberry program, including their flexible construction financing and complete merchandising package, I've been able to make better profits than I planned with a smaller organization and less overhead."

This is just one more example of KINGSBERRY VALUE. Over 440 Southern builders have discovered it. Have you?

Kingsberry means VALUE... and value means BUSINESS!

FREE
1963 DENTON HOUSING FORECAST
For copies of free literature, check the indicated number on the coupon, page 182

Technical literature

METAL LATH. 4 pages. Types and typical uses are shown. Chart shows maximum spacing of supports. Metal Lath Assn., Cleveland. (Check No. P9)

LEAD-GLAZED BRICK. 4 pages. Text and tables explain lead's role in the glaze, types of glaze, and colors. Lead Industries Assn., New York City. (Check No. P10)


RIGID VINYL PANELS. 8 pages. Data on load performance, light transmission, chemical resistance, and flammability. Installation recommendations on spans and laps, caulking, fasteners, filler strips, and flashing details. Monsanto Chemical, St. Louis and Mastic fasteners, filler strips, and flashing details. Monsanto Chemical, St. Louis and Mastic.

AGGREGATE. Zono-Coustic, acoustical plaster, and specs, and application data on plaster aggregate. Zono-Coustic, acoustical plaster, and Mono-Kote. Zonolite Co., Chicago. (Check No. P12)

Catalogs

STRUCTURAL WOOD FASTENERS. 12 pages. Material specs, sizes, safe working values, and package and shipping weights on framing anchors, joist hangers, split rings, shear plates, truss and clamping plates, floor bridging, plywood supports, post cups, angles, toothed rings, spike grids, and grooving tools. Timber Engineering Co., Washington. (Check No. P13)

RADIAL SAW. 16-page catalog of blades and accessories for sawing, shaping, sanding, sabre-sawing, boring, grinding, and polishing. Operation and all saw cuts explained. Black & Decker, Towson, Md. (Check No. P14)

SEWAGE LIFT STATIONS and treatment plants. 16 pages. Pump stations with 100 to 4,500 gpm per pump, two to four pumps per station, and various controls. Smith & Loveless, Lenexa, Kan. (Check No. P15)

INCANDESCENT LIGHTING. More than 130 fixtures. 40 pages include shortcut footcandle tables with readings at many heights and diameters, coefficient tables, candle power distribution charts, dimension drawings, and specs. Moe Light Div., Thomas Industries, Louisville. (Check No. P16)

BUILT-IN REFRIGERATOR FREEZERS. Full set of product data sheets, installation instructions, and a news letter of sales features and tips. Sub-Zero Freezer Co., Madison, Wis. (Check No. P17)

OUTDOOR LIGHTING. 12 pages. Wall bracket fixtures, bullets, area floods, garden, vapor-tight, and underwater fixtures. Stonco Electric, Kenilworth, N.J. (Check No. P18)

VINYL FLOOR TILES. 8 pages. Patterns, colors, gauges, and sizes. Vinyl Plastics Inc., Shебogian, Wis. (Check No. P19)

GAS VENT PIPE AND FITTINGS. 12 pages. Specs and sizes. Venting kits and special services to heating contractors. Metalbestos, Belmont, Calif. (Check No. P20)

RIVETS AND RIVETERS. 12 pages. Tools are described. Special rivet features and tables for selection of material, size, type, and strength. Fastener Div., United Shoe Machinery, Shelton, Conn. (Check No. P21)

Merchandising aids

FUEL SAVINGS SLIDE GUIDE gives a quick calculation of yearly fuel savings by using varying thicknesses of fiberboard roof insulation for five typical roof types. Insulation Board Institute, Chicago. (Check No. P22)

LP-GAS PROGRAM for builders includes gas heat survey, selection of gas appliances, installation instructions, selling aids, guarantees, and servicing. Suburban Propane, Whipany, N.J. (Check No. P23)

continued on p. 178
LOOK WHAT'S NEW IN '63 FORD TRUCKS!

NEW 89" BBC LINE FOR LONGER BODIES, BETTER MANEUVERABILITY!

Only 89 inches from bumper to back of cab, Ford's new N-Series short-BBC conventionals with wide-track front axles and narrow fender width provide superior maneuverability, and accommodate longer bodies within the short overall length needed for city delivery work. Three-point cab mounts and independent mounting of cab, sheet metal, and fenders give longer life, easy service accessibility.
For the cost of four west windows, you can give her Lennox Air Conditioning!

Which will sell your home faster?

Four extra windows to maintain, or year 'round comfort? A few windows (which she won't need in a Lennox "Spring Clime" home) in most cases would cover the complete cost of included-in-the-price central air conditioning.

How is such low price possible with quality equipment? Mainly through savings on installation costs. With the Lennox QC BUILDER-Pac™, the cooling coil is an integral part of the heating unit; the flexible refrigerant lines can be run through joist and stud spaces quickly and easily. These quick coupling lines are precharged to attach to coil and compressor in minutes.

Learn how all these benefits can be applied to your own home models and projects. Write LENNOX, 15 S. 12th Ave., Marshalltown, Iowa.
PRIZE-WINNING INDIANA HOME IS ROOFED BY PRIZE-WINNING BIRD WIND SEAL® SHINGLES

“When we say ‘Bird roof,’ there are no other questions asked,” states John E. Bauer, president of the Acme Building Materials, Inc., Precision Homes Division, and ABC Construction Corporation, in Indianapolis, Indiana. Mr. Bauer, whose company recently received the American Home award for the “Best Home for The Money in Indiana,” continues, “Today we feel that home owners are more conscious of the type of roof that is used than they have been in the past, particularly the ‘Wind Seal’ feature. We have been users of Bird Shingles for many years and have never had a complaint from a purchaser. The integrity of Bird & Son has created a definite image to the home-buying public.” Bird Wind Seal Shingles are also citation winners in their own right. They proudly carry the American Builder's Quality Builders' Product Award for 1962 for excellence of construction. Here are six reasons why:

- Powerful seals spaced for drainage
- Proved to hold fast in hurricanes
- Bear the Underwriters' Laboratory Wind Resistant label
- Install in the usual way... no pulling apart or turning
- Long lasting double-surfaced construction
- Guarantee bonded, with bonds backed by the Travelers Indemnity Co.
- Advertised to your customers in consumer magazines
Use this free booklet from Du Pont to help sell more homes, faster

End in today for this brand-new, 36-page, illustrated booklet. For the first time under one cover, you get the complete story on central residential air conditioning in all its aspects. The booklet, specially written for home builders, thoroughly discusses such important questions as installation, cost, FHA financing, consumer benefits and selling methods. Central residential air conditioning is now the fastest-growing feature in new-house construction (126,000 units installed in 1957 to well over 300,000 units in 1962). And special promotions such as the “Crowning Touch” have proven that central air conditioning, promoted on a non-option basis, sells more houses, faster. This new booklet will give you all the information for putting the sales feature of central air conditioning to work in your own houses! For your free copy, send the coupon to Du Pont Co., “Freon” Products Div. N-2420HH4, Wilm. 98, Del.

MAIL COUPON FOR YOUR FREE COPY

Du Pont Company
“Freon” Products Division, N-2420HH4
Wilmington 98, Delaware

Name___________________________________________Title____________________

Company________________________________________

Address________________________________________

Du Pont manufactures FREON® refrigerants, not air-conditioning equipment.
The biggest question any builder has to answer is "Am I building the kind of houses that people really want?" Here is where nationally advertised brand name building products help you. Manufacturers of such products spend millions in research to determine market trends—pretest products and ascertain consumer reactions. Then they back their findings up with national advertising and promotion.

No wonder successful builders use nationally advertised brand name building products!

HOUSE & HOME reveals your unseen research staff

The biggest question any builder has to answer is "Am I building the kind of houses that people really want?"

For more information check the numbers below (they are keyed to the items described on the New Products and Publications pages) and send the coupon to:

HOUSE & HOME, Rm. 1960, Time & Life Building, Rockefeller Center, New York 20.

NOTE: HOUSE & HOME's service of this coupon expires June 30, 1963. If you contact manufacturers directly, it is important that you mention the issue of HOUSE & HOME in which you saw the item.
New models! New engines! New reliability features throughout the most complete line ever offered by FORD

NEW! Ford conventionals with V-6 Diesel power!
For the first time you can get rugged Ford conventional trucks with low-cost Diesel power! Ford *F* and *T* Series trucks with up to 65,000-lb. GVW’s now offer a new compact Cummins V-6 Diesel. This 200-hp Cummins is over 700 pounds lighter than other Diesels, can add 35,000 ton-miles a year to a highway tractor’s earning ability. Ford gas engines up to 534 cubic inches are also available!

NEW! Transistorized ignition—ends 3 out of 4 ignition tune-ups!
New electronic breakthrough. Perma-Tuned ignition! Transistors relieve points of heavy current, keep plug voltage high at all speeds. Points and plugs last longer; high speed performance is better; no distributor condenser to fail. Available on all Super Duty V-8’s.

NEW! Over 30 major reliability advances!
Extra protection from “small” troubles that can tie up a truck: New double-sheathed speedometer cables! New long-life electric bulbs! New weather-sealed wiring connections! Extra durability in big components: New rust-resistant cabs! New stronger axles, frames, brakes. All designed to give you longer lasting, more trouble-free trucks—at your Ford Dealer’s now!

NEW! FRESH-STYLE PICKUPS—BUILT LIKE THE BIG TRUCKS!
In axles, springs, frame, ’63 Ford pickups give you the same kind of durable design as big trucks. And you’ll find new styling inside and out, and a new feel at the wheel—new easier steering, new lighter pedal action, new smoother shifting, new comfort!

NEW! City-size Ford Diesel for tilts and new 89-in. line!
Ford’s 330-cu. in. six-cylinder Diesel gives improved economy in city delivery work. You can expect about twice the miles per gallon in a typical city peddle operation—even more in high-idle and part-throttle service. Available in Ford 87” BBC tilts and 89” BBC conventionals.

NEW! Low gear synchronized for easier downshifting!
Available only from Ford! Standard 3-speed transmissions in ’63 Ford Econo-lines, F-100 and F-250 trucks are now synchronized in low gear as well as second and high. Because first gear is synchronized, you can downshift to low while the truck is in motion without gear clash. Helps maintain momentum, cuts chance of stalling in heavy going. Reduced stress on gears means longer life, too.

NEW! Broad choice of tandem models!
For 1963, Ford offers you tandems in every type of truck: conventional, lo-tilt, hi-tilt, new “N” line with Diesel or gas power! You have a choice of three different types of weight-saving suspensions, plus severe-service units for GVW’s up to 75,000-lb.!
Give Your Bathrooms the LOOK of LUXURY with...

New 7/32" Spraylite Misco Teams Decoration with Visible Protection

Tub enclosures and shower stalls glazed with handsome FHA approved Spraylite glass transforms bathrooms into sheer elegance and luxury with assurance of proven impact resistance. Fortified with Misco, diamond-shaped, welded wire netting, the bright wire mesh in Spraylite glass is clearly visible as a sturdy web of steel...serves as a constant reminder of its safety features. Home buyers will appreciate the hard, impervious surface of the glass that makes it carefree and wearfree...easy to keep spotlessly clean and sanitary. And glass does so much to add exciting beauty that brightens and enlivens the entire bathroom. For safer, more glamorous bathrooms, specify 7/32" Spraylite Misco. At most leading distributors of quality glass. Send for free literature. Address Dept. 9.

MISSISSIPPI GLASS COMPANY
NEW YORK • CHICAGO • FULLERTON, CALIFORNIA
WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

MORE MERCHANDISING AIDS:

Electric signs for interior and exterior use, many mountings, shapes, and sizes. Fluor-O-Signs, Brooklyn. (Check No. P24)

Personalized portfolio for presenting guarantees, maintenance instructions, and legal papers to a new homeowner. Gold design embossed on white cardboard. Kwiset, Anaheim, Calif. (Check No. P25)

DESIGN AIDS:

Color-selection advice for choosing the right translucent glass fiber panels. Filon Corp., Hawthorne, Calif. (Check No. P26)

Color charts for asphalt tile and vinyl asbestos tile compare available tile patterns and colors. Asphalt & Vinyl Asbestos Tile Institute, New York City. (Check No. P27)

Daylighting. 46 pages. Recommendations for using daylight in various types of buildings. Illuminating Engineering Society, New York City. (Check No. P28)

Fireplaces. 6-page folder contains eight sets of plans for fireplace foundations. Bennett-Ireland Inc., Norwich, N.Y. (Check No. P29)

INSTALLATION BROCHURES:

Partitions—matching doors and panels. 4 pages. Schematic drawings of erection details and instructions on how to work with Glass- Finishes and features. Simpson Timber Co., Seattle. (Check No. P30)

Balconies. 4 pages. Construction drawings and instructions on how to work with Glass- wend panels. U. S. Plywood, New York City. (Check No. P31)

PRODUCT BULLETINS:

Molded stone shower floors. 4 pages. Installation drawings, features, sizes. Fiat Metal Mfg., Plainview, N.Y. (Check No. P32)


Electric hot-water heat. 8 pages. Hydronic converter explained with notes and drawings on installation and operation. Thermo-Dyne, Pittsburgh. (Check No. P34)

Track-type loaders. 4 pages. Bucket type, hydraulics, operator comfort, automatic controls, and machine balance are covered. Caterpillar Tractor Co., Peoria, Ill. (Check No. P35)

Staplers, tackers, and nailers. 4 pages. Illustrates and describes gun and hammer Duo- Fast models and nails and staples. Fastener Corp., Franklin Park, Ill. (Check No. P36)

Window sills of lightweight synthetic marble. Data sheet shows colors, typical installation, and specs. Chemtronics Inc., Columbus, Ohio. (Check No. P37)

Sliding translucent tub enclosure. Data sheet shows six Pantel designs in up to seven color combinations. Kemlite Corp., Joliet, Ill. (Check No. P38)

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Here's a sheet vinyl floor with a luxury look,
designed and priced for tract homes. Tracino Corlon comes in two distinctive designs:
Tracino Mosaic, a handsome hand-crafted pebble effect; and Tracino Marble, the rich natural design shown across the page (style 88021). It costs about 65¢ per square foot installed, just a little more than many types of linoleum and much less than other textured sheet vinyl floors.

1. Fewest possible seams. Because Tracino comes in long rolls 6' wide, the home buyer gets an almost seamless floor. Housewives know that the fewer seams a floor has, the easier it is to keep clean. Tracino can be coved up the wall, too, eliminating dust-catching baseboard crevices.

2. Textured surface. Tracino's gently textured surface is practical as well as beautiful. It helps hide scuffs, indentation marks, and minor subfloor irregularities.

3. Above, on, and below grade installation. Tracino Corlon has the patented moisture- and alkali-resistant Armstrong Hydrocord Back, so it can be used at any grade level—even in a basement family room, except in unusual cases where alkali and hydrostatic pressure are abnormally high.

4. Natural colors and designs. With its gently grained background and veining of translucent vinyl, Tracino is delightfully natural looking. It comes in neutral, very fashionable stone colorings—to harmonize with your prospects' furnishings.

5. The best known brand. When you offer an Armstrong floor, you're taking advantage of Armstrong's unique quality reputation. Years of advertising in magazines and on TV have made Armstrong not only the best known name in floors—but one of the best known brands you can offer anywhere in your home.

SALES HELP. For more information on sheet vinyl floors and how they will help you sell homes, see your flooring contractor. Or call the Architect-Builder Consultant at your Armstrong District Office. He can provide you with a variety of valuable merchandising services. If you wish, write direct to Armstrong, 304 Sixth St., Lancaster, Pa.

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