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EDITORIALS

The mystique of easy solutions to housing problems

While the housing industry struggles with everyday roadblocks, "experts" confuse the issue with theories that sound just fine but simply won't work

FEATURES

The growing opportunity in prefab apartment packages 80 Some prefabbers now offer more than just truckloads of materials. They give the builder a package of services that virtually assures a project's success

Want to hire men with college degrees in building?

They're available, but the majority of them shy away from homebuilding. The reason: insufficient salaries, security and promise of promotion

How to minimize the risk in developing a giant project 96

Not many companies would tackle a 2,200-acre P.U.D. in the midst of a tightmoney crisis. Here's the way a 200-house-a-year builder did it successfully

33 floor-plan ideas

They are the work of three architects who specialize in both merchant-built and custom-built detached houses. A HOUSE & HOME Design File

NEWS

On Wall Street-a red-hot boom builds up in building stocks

The prices of the housing industry's 25 top issues have leaped by 95% in a year; a hard look at the nation's building companies and their executives explains why

Home mortgage rates take a turn for the better

Psychology and better economic news turn loan markets toward lower discounts; economist Oliver Jones predicts this favorable trend will continue through 1968

Builder-developer Emil Hanslin is leaving New Seabury

Recreation community on Cape Cod is shifting emphasis from houses; new manager will promote the apartments and stores Hanslin himself recommended

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Cover: Scholz Homes packaged-apartment project in Toledo, Ohio.

NEXT MONTH

Rental housing turns a fresh face to the market . . . A critical look at the recent rash of modular-box systems for low-cost multifamily housing . . . What does it take to run an effective local homebuilders' association? . . . A HOUSE & HOME Round Table report on how builders can diversify

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Moving nature indoors is easy... with trees, plants and ceramic tile.





The pleasures of an indoor garden are obvious. But, an atrium is often gained at the expense of convenience, or given a selfdefeating "fish bowl" treatment.

Architect Ray Heuholt, A.I.A., solved this dilemma by combining living things and a natural material – ceramic tile – in this Des Moines, Iowa home. A ceramic mosaic floor surrounds the atrium and covers the family room, entranceway, kitchen, bath and halls. The atrium can be maintained simply, without worrying about water, soil, spilled gravel or falling leaves.

Ceramic wall tile and decorator tile are also used in the house for which Des Moines Marble & Mantle Co. served as tile contractor.

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President's housing plan-strong new plea for more of same

Quantity.

That's the theme of the President's housing message to Congress.

The legislative package he wants Congress to approve this year is huge—the biggest ever suggested in U.S. history. Its size does not stem from new programs but from many changes in existing ones.

And once again the changes of most significance to homebuilding are aimed at improving the mortgage market's liquidity —spinning off Fanny May's secondary market operations (NEWS, Feb.), raising the 6% ceiling on government-backed mortgages, providing FHA insurance for mortgage trust certificates (see story, p. 12).

The news in the President's message is the dimension of the hope he expressed:

"I proposed to the Congress that we launch a program, in cooperation with private industry and labor, and build six million new housing units for low- and middle-income families over the next ten years."

For the first time, the White House is not regarding the housing subsidy programs as experimental in quantity—or "demonstrations" in Washington jargon since Congress has been traditionally reluctant to finance housing "experiments." Cheers for program. The President's

Cheers for program. The President's rather remarkable goal (which may come back to haunt him) drew cheers from nearly everyone, despite considerable skepticism about Uncle Sam's ability to loosen his war-strained pursestrings sufficiently to match the goal with money.

"We can begin this program in fiscal year 1969 with 300,000 housing units," the President declared. Roughly half of these would come from public housing under the turnkey and modernization programs.

Legislative strategy. The President's omnibus bill landed on Capitol Hill amid continued debate over its future journey through the legislative maze. This year, more than ever, urgency surrounds the bill.

• The whole package includes authorization for most of HUD's programs for the next four years. Without aproval this year, urban renewal, public housing and all the other goodies in HUD's cornucopia will face budgetary havoc.

• The bill will ask for continuation of the controversial Model Cities plan. Without its approval, dollar amounts cannot be set in the HUD appropriation bill—so the money debate will await signals from Congressional consideration of the omnibus housing measure.

• Rep. Wright Patman (D., Tex.) is insisting that efforts to lift the 6% ceiling on FHA mortgage rates must be packaged into the omnibus measure despite builders' pleas for a separate, quickie bill. Patman's Banking Committee could block any FHA bill, so the Administration's strategy is to try an end run. Housing leaders hope to have the Veterans Committee vote a bill lifting the 6% ceiling on vA loans. They



THE PRESIDENT signs Economic Report. Arthur Okun, James Dusenberry and Gardner Ackley of Council of Economic Advisers (l. to r.) watch.

would then amend the FHA bill into the original vA measure.

Sparkman bill. Further complicating the legislative outlook is Sen. John Sparkman's own housing bill, which his housing subcommittee approved last year but didn't bring up for Senate debate. It contains most, but not all, of the President's requests.

How HUD plans to use money it hopes to get

U

"Appropriations" or "new obligational authority," the terminology and figures used in the President's budget, give little clue to HUD's expected business. Activity levels, in dollar amounts or number of housing units, show more clearly what the agency's budget experts predict should Congress approve the President's budget requests. Here is a comparison for three fiscal years:

	FY67	FY68	FY69
	(Actual)	(Est)	(Projected)
		llars in Thou	
RBAN RENEWAL			
Projects	\$735,174	\$835,164	\$1,128,500
Code enforcement	\$ 51,578	\$ 59,500	\$ 108,000
Other	\$ 10,623	\$ 13,200	\$ 13,500
	\$797,375	\$907,864	\$1,250,000
JBLIC HOUSING			
Const. starts	29,564	55,000	75,000
Modernization, units	20,001	62,500	62,500
202 elderly starts	8,007	9,750	11,850
Open space grants	\$ 68,944	\$ 77,500	\$ 85,000
Sewer-water starts	\$ 00,044	325	\$ 85,000
oower-water starts	80	020	350
ODEL CITIES			
Planning grants		\$ 22,250	
Suppl. grants		\$ 52,500	\$ 647,500
Extra urban renew.		\$100,000	\$ 500,000
		and the second sec	
NT SUPPLEMENTS	-	- to an adda	-
Basic contract auth.	\$ 20,000	\$ 10,000	\$ 65,000
Applications-new unit		34,550	31,200
Commitments-new uni		25,015	23,120
Commitments-rehab u	nits 595	4,540	4,370
A INSURANCE PRO	GRAMS	Unit Applic	ations)
Single family		and applie	
203b New	141,464	165,000	170,000
203b Existing	490,659	620,000	712,500
220 Renewal, exist.	359	800	2,000
Total, New & exist.		870,000	980.000
i otal, new & exist	000,920	070,000	560,000
Multifamily			
207 New (basic)	2,792	6,000	8,000
213 Co-op, new uni	ts 4,164	6,000	6,400
220D3 Mkt-Rate.			
Rent-Sup., new un	nits 5,214	33,050	30,200
Existing units	501	3,000	3,000
221D3 Below-Mkt.		3,000	0,000
New	26,696	35,100	35,300
Existing	1,155	4,000	6,000
234 Condominium.		2,000	
			2,500
Total, New & Exis	t. 62,662	116,450	120,800

Sparkman is inclined to reconsider his own bill, tacking on the Administration's ideas—thereby rushing for Senate approval prior to a House vote on the huge and controversial package.

Civil rights and crime. In his State of the Union address, President Johnson barely mentioned his desire for an open housing law. A try was made in the Senate to tack the idea onto the existing civil rights bill—but open housing appeared dead for this year.

Most significant, for housing programs, was the vast applause given the President's words about crime in the streets. This feeling, according to housing liberals in Congress, may very well turn against the still controversial Model Cities idea.

Model Cities will come up for approval twice this year—once as part of the omnibus bill re-authorizing the scheme and again as part of HUD's money bill. The Senate is expected to act first on the omnibus bill. but the House will act first on the money bill.

So far, the President has remained uncommitted as to when the second round of Model City choices will be announced. Housing Secretary Robert Weaver claims he does not "intend" to wait until HUD's money bill is approved—late in the Congressional session.

The anti-crime mood in Congress could very well turn against the Rent Supplement scheme, too.

Home ownership. This anti-crime attitude forces the Southern Democrat-GOP coalition into a difficult choice, however.

The Republicans have endorsed Sen. Charles Percy's much-publicized, homeownership plan for the poor. And the Democrats' Sen. Sparkman has included home ownership in his own bill. The idea is likely to be the feature of any omnibus package.

The question: Will a firm new stand against crime turn the coalition against urban programs that both parties endorsed?

Election year. If all these Congressional complications were not enough, this is an election year: Mellifluous orations vie for hometown headlines, voting records spawn campaign fodder, and the normally slow legislative process bogs down in uncomfortable anticipation of Nov. 5.

The net result will be a continued, unsettled outlook for builders.

Hidden benefits. While the headlines will be about the Model Cities debate and Rent Supplement votes, the omnibus measure contains a lot more for builders.

The FHA insurance program for vacation homes will probably be approved, although limited to areas where money isn't tight.

Changes in the college housing program are certain: The Administration refuses to let loose its 3% loans because the pegged rate is below what states must pay—and, therefore, Uncle Sam would be undercutting the states' efforts to supply their own college needs. —JOHN NICHOLSON

McGraw-Hill World News, Washington



1967 1968 Total Share Values of January 1965=100

Top 5 stocks in each category

Jan. '67	Jan. '68	Feb. '68
98.14	224.35	230.68
126.91	288.03	279.59
108.53	229.99	240.18
71.11	132.28	186.89
81.99	112.16	127.81
	98.14 126.91 108.53 71.11	98.14 224.35 126.91 288.03 108.53 229.99 71.11 132.28

Stock prices up 95% in year

NEWS

Housing—Wall Street's new sweetheart

To Wall Street, housing was just another puny industry from the wrong side of the balance sheet—until last year.

Then, like the teen-age girl who matures overnight, housing came of age—and swept Wall Street right off its feet.

"It's a tremendous romance," says an experienced broker.

Riding on the Street's new affection, housing share prices went up, up and away. HOUSE & HOME's composite index of 25 issues traces the trend (*chart*, *left*).* And, as measured by H&H's tabulations from January 1967 to February 1968, every segment of the industry prospered. Items:

• The five building companies on H&H's index soared 136%. Ten building issues doubled in price, and three increased more than 200% (Jim Walter Corp., up 209% to 52¹/₄; Kaufman & Broad, up 221% to 38% and Del E. Webb Corp., up 260% to 9.)

• Prefabbers rose 163%, with Scholz Homes up fom $2\frac{1}{2}$ to $12\frac{1}{2}$ and Inland Homes up from 3 to 36. In December, Scholz sold at 7 and Inland hovered below 16.

• Mortgage-banking stock prices rose 121%, spurred by Mortgage Guaranty Insurance Corp., the private counterpart of FHA. Its common went from $17\frac{1}{8}$ to $69\frac{3}{4}$, a 307% increase.

• Prices of the five land developers on the index rose 120%. And prices of six companies more than doubled (Christiana Oil, Deltona, General Development, Horizon Land, Major Realty and McCulloch Oil).

• The volatile savings-and-loan associations registered a 56% increase.

The share-value increase of the industry's 25 leading stocks—95%—is all the more impressive alongside Standard & Poor's industrial index, which rose 22.6% in 1967, and the 30 Dow Jones industrials, which advanced 15.2%.

Such solid performance is a boon to even the smallest of builders. To investors and bankers, the publicly held companies are the face of the housing industry. So when the big companies prosper, they lend an aura of success to the whole industry.

Inevitability factor. Why the sudden stock boom? Wall Streeters who are bullish about housing note five reasons:

1. A housing boom is imminent. "I call it the inevitability factor," one analyst says. "Every day that passes, we get that much closer to the war's end and the beginning of the housing boom to follow."

2. The nation has a housing shortage. The apartment vacancy rate is 6.3%, down from 7.5% in the 1963-1965 period. And homeowner units for sale are only 1.2% of total inventory, off from 1.4% in 1963-1965.

3. Family formations are increasing.

* Stocks figured in index are indicated by dots (\bullet) in stock list at bottom of following page.

Despite Vietnam, which will keep many a soldier from the altar, there will be 1.9 million marriages this year, up from 1.5 million in 1959.

4. The housing industry has shaken itself out. Theoretically, only strong and well-managed companies are left for investors. Indeed, many companies were proving their potential late in 1966, just as their stocks hit attractive lows.

Out of the doghouse. Housing turned around so suddenly that it caught some analysts by surprise. As late as July of 1966, H&H reported that "an encouraging word about housing companies is seldom heard on Wall Street today." Even growth companies were selling at far below the 16times-earnings ratio of blue-chip industrials. Levitt was selling at about 11 times its \$1.05 earnings, K&B and Jim Walter at 8 times earnings. (Today, building companies command excellent earnings ratios. Last month, Jim Walter sold at 21 times its \$2.49 earnings per share, and K&B sold at 23 times its \$1.24 earnings.)

Back in 1966, any Wall Streeter who knew a put from a call could recite four time-honored reasons to ignore housing: 1) None of the companies was truly national; 2) earnings were inconsistent; 3) many companies were ruled by one man and 4) none of the companies had enough shares to attract huge investors.

But in the last 18 months, investors have begun to realize that those old criticisms no longer apply across the board. Much of the credit belongs to William Jaird Levitt, who once described himself as a one-man builders association.

Going national—profitably. After losing \$1.4 million in 1961, Levitt formed a national organization building in several locations. In 1965, he had six branches and a record of four years of steady earnings.

Multi-site building was taken up by others—notably young Eli Broad and Don Kaufman, founders of Kaufman & Broad. Even today, others are getting into the act (see page 34).

In October of 1965, Dominick & Dominick, a Wall Street investment house, issued a report recommending Levitt and by implication the whole housing industry.

Better management. The secret of K&B's and Levitt's multi-site successes was local autonomy with strong local managers. So late in 1966, mutual funds, which value solid management, began channeling money into multi-site builders. Levitt was first. And by last summer five exchange funds had acquired 22% of K&B's shares, and 13 other funds held shares in Jim Walter.

Then came the clincher. In August, International Telephone and Telegraph Corp. proposed to acquire Levitt for \$92 million. The giant conglomerate had been impressed by Levitt's management.



STOCK-MARKET LEADERS are shown above. From left, builder Eli Broad, prefabber Don Scholz, supplier Jim Walter and high-rise builder Janis Risbergs.

Enough stock. It is still true that builders don't have enough shares on market to satisfy major institutional investors.

Even companies as lage as Jim Walter, with ten times K&B's market value, are outstripped by the suppliers. Sheer size is one reason building suppliers gave a strong stock performance last year (table, below). The winners. The bull market con-

tinued into February.

"The general public is moving into housing in search of tomorrow's Levitt or K&B," says an analyst. "So low-priced issues are getting attention."

Here are four companies, large and small, that experts expect to prosper:

Kaufman and Broad: Now that Levitt has disappeared into ITT (merger closed Feb. 1), K&B is the largest volume homebuilder still listed on a major exchange. "That gives them scarcity value," as a Wall Streeter put it. In the last three months, 15 research reports have been written about K&B. The consensus: '68 earnings could hit \$1.50, up 26%

Jim Walter: Some experts think Jim Walter is the prototype of tomorrow's housing company-a homebuilder that also produces materials (through its Celotex Corp. and Barrett Business). Earnings in the first quarter of fiscal '68, ended Nov. 30, 1967, were \$2.5 million, or 74 cents a share—up from \$1.1 million, or 35 cents a share, in the like period of 1966.

Del E. Webb: Despite losses in the last two years, Webb reported 20-cents-a-share earnings in the third quarter of fiscal '67, up from 5 cents for the like period of 1966.

9 3¾

1 1/8 5 1/8 36 5 1/2 12 1/2 4 1/8

31

6³/₈ 11¹/₄ 16¹/₂ 11¹/₈ 20¹/₄ 30¹/₈ 20¹/₄ 30¹/₈ 4¹/₂ 3³/₄ 30¹/₄ 17⁵/₈ 8³/₄ 8³/₈ 8³/₈ 8³/₈

8 5¹/₈ 4¹/₄ 12³/₄ 11¹/₂ 17¹/₄

20 %

3/8 1/2 1/8 +

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All-State Prop. American Land. Arvida Atlantic Imp. Canaveral Int.^b. Christiana O.^b.

Cousins Props.

Crawford

Crawford. Deltona Corp.^b... Disc Inc. Fla. Palm-Aire... Forest City Ent.^b. Garden Land... -Gen. Devel.^c... -Gulf American ^b. +Holly Corp.^b. Horizon Land... Laguna Nig....

LAND DEVELOPMENT

COMPANY

BUILDING Capital Bldg. (Can. Cons. Bldg. (Can.) Dev. Corp. Amer... Edwards Inds... First Hartford Rity. First Nat Bltw b

First Nat. RIty.b

General Bldrs.b

•Kaufman & Bd.bx Kavanagh-Smith

Levitt.

Levitt, Nationwide Homes, Pres. Real. A.b. Sproul Homes, U.S. Home & Dev. Jim Walter « Del. E. Webb « Western Orbis » (Lou Lesser Ent.)

PREFABRICAT Admiral Homes Albee Homes Continental Homes Inland Homes b. Natl. Homes A.«. Scholz Homes. Swift Industries

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Hawthorne Fin. -Imperial Corp. -Lytton Fin. Midwestern Fin. Trans-Cst. Inv. Trans World Fin. Union Fin.

Union Fin. United Fin. Cal.º. Wesco Fin.

PREFABRICATION

Stock sales have also increased on rumors of Las Vegas deals between Webb and friend Howard Hughes, who hopes to make Vegas another Houston (News, Nov. '67). Webb's company has denied the rumors in a press statement that nevertheless points out that Webb has handled many of Hughes' past construction projects.

General Builders: This house and highrise building company lost \$466,000 in 1967. But its leader-the legendary Latvian Janis Risbergs-has carried out a partial liquidation and realigned his all-Latvian management team. Last month the company announced plans to proceed with two high-rise apartments in Fort Lauder--FRANK LALLI dale.

NEWS continued on p. 10

Housing-supplier stocks are up

Investors with their eyes on the housing industry's potential poured money into building supply companies last year.

All 22 companies tabulated by Robert Beaudette, an analyst for Merrill Lynch, Pierce, Fenner & Smith, posted stock price increases in 1967 (table below).

But only four of the companies, colored red, increased earnings. And one of the four, American Standard, picked up 12 of its estimated 19-cents-a-share increase by winning an old damage claim.

By year's end, the average stock price of all 22 companies was 405/8, up 91/2 or 22.6%. The bullish trend has continued into 1968. In February, 19 of the 22 suppliers posted increases over their December share values.

Company	1966 earnings per share 1966	1967 earnings per share 1967	stock price at end of 1967	net '67 price in- crease
American Standard	\$1.01	\$1.20E	30%	+12
Armstrong Cork	2.93	2,45E	55	+ 714
Carrier	2.83	2.85	385% A	+ 17 %
Crane	4.45	4.05E	47 1/8	+ 13
Flintkote	1.86	1.30*E	24%	+ 7%
Georgia Pacific	2.54	2.68	58%	+ 17 %
Johns-Manville	4.50	3.91	541/2	+ 61/8
National Lead	5.03	4.40E	661/4	+ 111/8
Otis Elevator	3.03	2.65E	42 %	+ 434
Pittsburgh Plateglass	4.87	4.28	65	+10%
Wickes	1.78F	1.70FE	28%	$+10\frac{1}{4}$
Sherwin-Williams	3.96	3.35	47 34	+ 1%
Trane	2.46	2.11	56	+10%
U.S. Gypsum	3.62	3.40E	65-1%	+ 914
U.S. Plywood-Champ	. 3.74	2.83*	42%	+ 1%
General Portland Cen	1. 0.90	0.85E	13%	+ 41%
Ideal Cement	1.34	1.09E	17 %	+ 31/4
Lonestar Cement	1.65	1.45*E	17%	$+$ 1 $\frac{17}{8}$ + 4 $\frac{17}{8}$ + 3 $\frac{14}{4}$ + 3
lim Walter	2.42	2,49	54	+ 35%
Masonite	3,33	1.41	42	+ 434
Certain-Teed	0.90	0.50*E	15%	+ 3
Kaiser Cement	1.02	0.85*E	16%	+ 41/4
				1 A.M.

A-adjusted for a 25% stock split *-potential dilution of 10% or more. F-the following fiscal year. E-estimated

-and 68 of HOUSE & HOME's 92 housing stocks rose in January

	Feb. 5 Bid/ Close	Chng. Prev. Month	COMPANY	Feb. 5 Bid/ Close	Chng. Prev. Month	COMPANY	Feb. 5 Bid/ Close	Chng. Prev. Month
			MORTGAGE BANK			Major Rity.	33/8	- 1/4
1.)		+35¢	-Advance	101/2	+ 3/4	-McCulloch Oil b	251/2	- 41/2
)	1.10	+25¢	 Associated Mtg. 	8	+ 1/4	So. RIty. & Util.b.	71/2	+ 21/8
	31/8	+ 1/8	Charter	5	+ 13/4	Sunasco e	83/8	- 63/4
	21/2		•Colwell	151/2	+ 1			
1	9	$+ 1\frac{3}{4}$	·Cont. Mtg. Inv. c	50	+ 31/2	DIVERSIFIED COM	IPANI	ES
	25/8	+ 3/4	Cont. Mtg. Ins.	10 1/8	+ 1/4	City Invest.		-17
	4	+ 1/2	FNMA	81	+161/4	Rouse Co.	12	
	41/8	+ 1/8	First Mtg. Inv.	16¾	+ 1	Tishman RIty.	413/4	$+ 1\frac{3}{4}$
×		+ 33/4	Kissell Mtg.b	81/4				1
	51/4	k	Lomas & Net. Fin.	43/4	+ 3/8 - 1/8	MOBILE HOMES		
	291/8 d	+ 1/8	·MGIC d	693/4	+ 5	Con Chem Co.b.	18	1 2
e		+ 3/8	Morta Assos		- u	DMH (Detroiter) b	91/4	T 4
\$	12 d	77 78	Mortg. Assoc.	71/2	1 114	Cuerden h	18%	+ 41/2
(ixia))++i+i	23/4	+ 1/4	Palomar Mtg.	5	+ 11/8	Guerdon b.	1078	
***********		T 124	Southeast Mtg. Inv.	43/4	- 1/8	Redman Indus.b.	20	+ 4 1/8
	41/2	Contract of the second se	United Imp. & Inv.b	113/8	+1	Skyline b	551/4	- 3/4
	521/4	- 3/8						
	3	+ 1/2	LAND DEVELOPME	ENT				

75¢ 11/4 10 % 19 81/8 6% 20 22% 20/2 22% 21% 43% 33% 115% 33% 111/8 6/4

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Tishman Rity.	413/4	+ 134
MOBILE HOMES	18	+ 2
DMH (Detroiter) b Guerdon b	9¼ 18%	+ 41/2
Redman Indus. ^b Skyline ^b	20 551/4	+ 4 1/8

a-stock newly added to table. b-closing price ASE. c-closing price NYSE. d-not traded on date quoted. g-closing price MSE. h-closing price PCSE. k-not avail-able. --Computed in HOUSE & HOME's 25-stock value index. x-adjusted for 2-for-1 split. y-tender offer. (NA) not applicable.

Sources: New York Hanseatic Corp., Gairdner & Co., National Assn. of Securities Dealers, Philip Beer of Russell & Saxe, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange. Listings include only companies which derive a major part of their income from housing activity and are actively traded.

SHORT-TERM BUSINESS LOAN RATES Average per

cent per year		-				
LOAN SIZE	N.Y. City	7 other North- east	8 North Central cities	7 South- eastern cities	8 South- western cities	4 West Coast cities
\$1-9	6.37	6.59	6.67	6.46	6.61	7.08
10-99	6.22	6.69	6.46	6.25	6.36	6.79
100-499	5.95	6.42	6.18	5.96	6.09	6.34
500-999	5.70	6.19	5.87	5.75	5.95	5.89
1,000 up	5.63	5.95	5.74	5.68	5.82	5.76
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November rates in Fed. Reserve Bulletin, Jan. 1968.



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9

S&L holding companies curbed; savings bank bill in dispute

Congress has voted—at long last—to place savings-and-loan holding companies under the authority of the Federal Home Loan Bank Board.

The s&L regulatory agency does not get all the control it sought, but it gets a great deal.

A first-class brawl is shaping up meanwhile on the thrift industry's other major legislation—a bill to let s&Ls and mutual savings banks convert into a new type of financial institution to be known as a federal savings association.

Holding company bill. The holdingcompany legislation, passed after years of bitter wrangling, involves 98 s&L companies controlling 134 individual s&Ls, mostly in California, Colorado and Nevada. These associations have \$16 billion in assets, more than 10% of the \$143 billion in assets held by all 6,200 s&Ls.

The law is the less stringent House bill as opposed to the tougher version passed by the Senate in mid-1967. Every s&L holding will be subject to HLBB supervision and examination. All will have two years in which to get rid of any activities not related to the s&L business. Nor can a holding company acquire additional S&Ls without approval by the HLBB.

The HLBB can veto purchases of an S&L, but only when there is a question of the buyer's honesty, managerial ability or financial condition. The tougher Senate version gave the HLBB far broader authority.

In the end the Senate went along with the milder House version, and the measure went to the White House without going



RIVALS in savings-bank dispute are (1. to r.) Grover Ensley, Charles Walker and Norman Strunk, leaders of National Assn. of Mutual Savings Banks, American Bankers Assn. and U. S. S&L League.

into House-Senate conference. The HLBB, faced with losing the legislation completely, had agreed to the changes made by the House. Even the milder version is considered a signal victory for the HLBB's Chairman John Horne.

Savings bank bill. The bill to charter federal savings banks aims to satisfy both the demands of the S&L industry for broader lending and investing powers and the plea of the mutual savings banks for the right to expand into all 50 states. State laws now confine them to 18.

The bill would let any mutual thrift institution, either s&L or savings bank, become a federal savings association. The association would have the broad lending and investing powers savings banks now have. The legislation introduced late last year

The legislation, introduced late last year,

has cleared the House Banking & Currency Committee with strong support from the U.S. S&L League and the National Association of Home Builders.

Roadblocks. But the bill has been stalled in the House Rules Committee. On the Senate side, the measure has yet to win approval from Chairman John Sparkman (D., Ala.) of the Banking Committee.

The thrift institutions and the homebuilders all have friends on Capitol Hill. But few organizations can match the sway of the American Bankers Assn., and the ABA is dead set against the savings bill.

The guessing in Washington is that few legislators will risk offending hometown bankers in an election year. So, while the President has asked Congress to pass the bill, the outlook this year appears dim.

Canada pays 85% for mortgages and keeps fingers crossed

The Dominion has raised the mortgage interest ceiling to 8.625% to attract the money to maintain the housing industry's new momentum.

Canada's homebuilders succeeded in making 1967 one of their three greatest years in spite of a return bout with tight credit. They started 164,123 units, up 22% from the depressed level of 134,500 in 1966.

But the revival's continued success now depends on the country's eight commercial banks. A raise in their mortgage rate ceiling brought them racing back into home finance last spring, and they lent more than \$300 million on new and used housing in 1967. If they write mortgages with such welcome enthusiasm this year, builders may record 165,000 starts.

Demand is no problem. By absolute standards Canada is well housed, with one dwelling for each four members of a population of 20,441,000. But marriage and immigration rates are rising at a remarkable pace, and builders would have to supply 190,000 units a year until 1970 to fill the demand implied by new-family formations.

Interest peaks. The new 85% % ceiling covers government-insured loans, which are

made under the National Housing Act and account for 44% of Canada's starts. A government formula accords these mortgages a $2^{1/4}$ % advantage over the yield on Canada's long-term government bonds. The remaining starts are financed conventionally, with 75% first mortgages currently going at 8^{3/4}% and seconds at 12-15%.

Experts predict cautiously that the new NHA rate will keep bank money flowing. A strong element of hope is apparent in their forecasts.

For it was the banks and other private lenders that rose to fill the gap when the government shifted most of its direct-loan money out of NHA mortgaging late in 1967. Of the 72,882 applications for new-house loans under the NHA program, private lenders took 29,240. That was 101% more than in 1966. The government's Central Housing & Mortgage Corp. wound up the year with only 43,642 applications for its direct loans, up a mere 5.7%.

Problems. Bank lending is of paramount importance to builders of singlefamily houses, for the federal government has indicated that most of its direct loans will continue to go to social-welfare projects: land assembly, low-cost public housing, student shelter and homes for the aged. And support for private building is eroding elsewhere. Life insurance companies have been easing away since 1961.

Several American investors are willing to make Canadian industrial and commercial loans, for which demand is slack, but they shy away from the apartment and housing project mortgages for which demand is intense.

Out of reach. Costs have taken singlefamily housing beyond the reach of the average Canadian. In Toronto, North America's largest real estate market with \$771 million in 1967 sales, house prices have risen 50% since 1963. The average new house now goes for \$30,000. Prices of serviced land have risen 40% since 1964, and lots commonly retail at \$12,000.

The new 85% % rate eliminates anyone earning less than \$7,500 from consideration for the NHA's maximum loan of \$18,000. The agency forbids a borrower to pay more than 27% of his salary for amortization, interest and taxes.

Add this dismaying statistic: The average income of the 612,680 wage and salary employees in Toronto is \$5,612.

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Mortgage rates dip—and it looks like a downhill run

A dramatic change in psychology has turned the mortgage market toward lower discounts and higher prices for builders.

A strong new current of confidence sweeping the s&L industry has wide market impact. The housing and mortgage industries have weathered their first credit crisis of the new year, and their leaders now report no evidence that the lending debacle of 1966 will repeat.

The optimism is reflected in the buoyant performance of building company stocks (see p. 6).

Prices for FHA mortgages on new houses have advanced from 12-month lows of 921/2-931/2 and are reaching toward 94, according to Senior Partner Philip C. O'Connell of the big New York brokerage of Huntoon-Paige.

That means discounts of 6 points instead · of 61/2 to 71/2 for builders. And economist Oliver H. Jones, a consultant to the Federal National Mortgage Assn., predicts a rate decline that will take the discount down to about 3 points by year's end.

O'Connell told the U.S. S&L League's secondary mortgage conference in Hollywood, Fla., that commercial banks are beginning to consider construction loans. "Money conditions are much more en-

couraging," he said. "It's a real reversal." Participations market. The Florida

conference of 450 s&L executives saw a shift-toward lower yields-in its own market in conventional-loan participations.

The market is a sensitive barometer of Eastern investors' willingness to lend nationwide, and it provides a significant rate index now that S&Ls are making half of the nation's loans on one- to four-family houses. The market traded \$714 million worth of participations throughout 1967, up 40% from 1966, and had nearly 2,000 of the 6,200 s&Ls involved.

For the first time the national conference listed its for-sale participations in printed bulletins, a service the league will begin for s&Ls on a national scale next month. Some 75 s&Ls offered \$155 million worth of participations in one- to four-family loans at yields of 6.25% to 6.50%, a decline from the 6.50% to 7.75% widely quoted on the eve of the meeting.

But buyers held somewhat aloof. In the open-pit session where s&Ls try to sell their loans on the floor, salesmen generally promised a return of 6.50%. That still represented a vield drop (and a price rise), although it was not as sharp as the meeting's 168 sellers had tried to impose. (Buyers numbered 134. The 55-45% ratio was indicative of excellent buyer interest.)

Reasons for gains. Several experts attribute the market's turn to a better psychology, but economist Jones and others at the Florida meeting detailed sound economic reasons behind the change. Factors:

· Corporate bond borrowing will drop 20% to 30% in the first quarter. "Business has no motive to continue to borrow at the 1967 rate [of a record \$14.5 billion]," Jones said. "It has overcorrected for its liquidity scare of 1966."



· Bond yields and short-term paper rates are down. These instruments no longer offer a clear investment advantage over mortgages. Yields on the government's key long-terms of 1978-92 had plummeted 40 basis points-from their all-time peak of 5.75% on Nov. 13 to 5.35%-when the conference convened in late January.

· The money market has recovered from fears created by devaluation of the pound. "One of the unexpected developments in recent weeks has been the emergence of great strength in the money market," said the New York bond brokerage of Salomon Brothers & Hutzler just before the Florida meeting.

Mortgage loans are scarce.

· Disintermediation did not drain the savings of thrift institutions in January.

Savings buildup. The abundance of savings explains much of the new mortgage optimism. Net inflows of \$10.7 billion made 1967 the second best year in history for the s&Ls. And Jones pointed out that consumers saved an astonishing 7.1% of

after-tax income in 1967, up from the 5.9% of the previous eight years.

At one of the Florida meeting's most dramatic moments Jones warned:

"The nation's savers are loaded. We may be heading into an economy that will have oversaving, where we will find ourselves without the outlet to accommodate the savings at hand. Should the war end unexpectedly, we could find that government programs for the slums are a needed outlet rather than a competitor for the dollar."

Mortgage reform. Jones pleaded for basic reforms in the nation's mortgage market. He conceded that one such reform proposed by FNMA, a secondary-market trading desk for both FHA and conventional mortgages, was dead for lack of interest.

So he urged the S&L leaders to come to the aid of a secondary market for their conventionals. He proposed that they undertake to devise criteria to standardize the widely varying types of such loans to pave the way for such a market.

He then disclosed that the Johnson administration is studying plans to let FHA insure bonds issued against pooled mortgages by FNMA. Such insurance could be extended to bonds issued by S&Ls or mortgage bankers, Jones said, in a new campaign to attract investments.

With a secondary market in conventionals and a mortgage bond, Jones stressed, "there could be a true marriage of the mortgage market to investment bankinga marriage so long a dream, so long sought." NEWS continued on p. 18

HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

1	Discou	A Sec. 203b- int paid by buil wn* 30-year im Private	der med. *	FHA 207 Apts., Discount	Conver Comm. banks, Ins. Cos.	savings banks, S&Ls	Savings banks, S&Ls	Construction Loan Rates Interest+fees
City	6%	6%	Trend	51/4 %	75%	80%	Over 80%	All lenders
Atlanta	6½	6-8	Down 1/2	a	71/4-71/2	71/4-71/2	71/2	71/2+2
Boston	51/2	4	Steady	а	7-71/4	7-71/4	7-71/4	63/4-7+1-11/2
Chicago	6	5-6	Down 11/2	7a	61/2	63/4+1	7	7-71/2
Cleveland	6	6-7	Steady	a	61/2-63/4	61/2-63/4	6¾-7+1-2	7
Dallas	61/2	6-61/2	Down 1/2	а	7	6¾	7-71/4	7+1
Denver	61/2	5	Down 1-2	а	63/4	63/4-7	7-71/4	7+1-11/2
Detroit	6	51/2-6	Steady	а	61/2-63/4	63/4-7	63/4-7+1-2	6¾-7+1-2
Honolulu	61/2	7-81/2	Steady	а	7-71/4	7-71/2	4	71/4-73/4+1-3
Houston	61/2	6-61/2	Down 1/2	а	63/4-7	63/4-7	7-71/4	7+11/2
Los Angeles	61/2	61/2	Down 1/4	а	61/2-7	61/2-7	63/5-71/2+1-2	61/2+7-1-2
Miami	61/2	7	Steady	a	63/4-7	7	7-71/4	7-71/4
MinnSt. Paul	6	5-6	Down 1/2	а	63/4-7	63/4	7	7+1
Newark	51/2	4-6	Steady	a	6+1	6+2	6+1-2	7-71/2+2
New York	51/2	3-4	Up 1/2	a	6+3-4	6+2	6+2b	63/4-7+11/2
Okla, City	61/2	51/2-7	Steady	а	63/4-7+1	61/2+1	63/4+1	7+1-2
Philadelphia	51/2	5	Down 1	a	6	6-7	7b	7+11/2-3
San Fran.	61/2	61/2-71/2	Up 1/2	12-15b	63/4	61/2-63/4	63/4-7	63/4+11/2
St. Louis	61/2	68	Steady	a	61/2-7	63/4-7+1	7+1-2	7-71/2+1-2
Seattle	61/2	61/2	Steady	а	7-71/4	63/4-71/4	71/2	71/4+11/2-2
Wash., D. C.	6	6-7	Down 1/4	76	71/4	71/4		7+2

* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.

Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.
 Quotations refer to houses of typical average local quality.

3% down on first \$15,000; 10% of next \$5,000; 20% of balance.

Footnotes: a—no activity. b—limited activity. c—Net yield to investor of 6% mortgage plus extra fees. w—for comparable VA loans also. x—FNMA pays ½ point more for loans with 10%. y—discounts quoted are net after seller pays ½% marketing fee and ½% adjustment for stock calculated in \$130 units, of which \$30 is contribution to FNMA capital and \$100 is for a share trading at about \$70.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, pres., Boston 5¢ Savings Bank; Chicago, Robert H. Pease, pres., Draper & Kramer Inc., and Robert H. Wilson,

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 174
 174
 174

 pres., Percy Wilson Mortgage & Finance Corp.; Cleveland, David E.
 0'Neill, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene, pres.,

 Southern Trust & Mortgage Co.; Derver, Clair A. Bacon, pres.,
 Southern Trust & Mortgage Co.; Derver, Clair A. Bacon, pres.,

 Citizens Mortgage Co.; Detroit, Sherwin Vine, vice pres.,
 Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres.,

 Bank of Hawaii; Houston, Everett Mattson, pres., T. J. Bettes
 Co.; Los Angeles, Christian M. Gebhardt, vice pres., Colwell Co.;

 Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minne-apolis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newark,
 William W. Curran, vice pres., Franklin Capital Corp.; New York,

 John Halperin, J. Halperin & Co.; Oklahoma City, B. B. Bass, pres.,
 American Mortgage & Investment Co.; Philadelphia, Robert S.

 Irving, vice pres., First Pennsylvania Banking & Trust Co., and
 Robert Kardon, pres., Kardon Investment Co., St. Louis, Charles A.

 Keller, vice pres., Bankers Mortgage Co.; San Francisco, John Jensen, vice pres., Bankers Mortgage Co.; California; Seattle,
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Lin Crawford

JANE JACOBS, a seasoned activist, opposes Zeckendorf.

Zeckendorf is back—with old dreams and a dowager's money

Neither bankruptcy nor a \$50-million lawsuit could deter William Zeckendorf Sr. from proposing yet another prodigious development.

This time Zeckendorf is tub-thumping for a \$300-million complex of futuristic high-rises, townhouses and commercial buildings to replace seven blocks west of New York City's Greenwich Village.*

Zeckendorf claims to have bought 51% of the site already—with money provided by Mrs. Anita O'Keefe Young of Palm Beach. The project would be named for her late husband, Robert R. Young, railroad tycoon and firm Zeckendorf friend.

Zeckendorf says Mrs. Young, his only backer, has "all the cash we need." In earlier dealings with Zeckendorf, she bought properties for \$2.6 million and \$1 million each.

But Big Bill needs more than cash. He must win endorsement from the neighborhood and city administration to condemn the land needed to round out his site.

The neighborhood is opposed-emphatically. And the city is at best lukewarm.

Surprise plan. The last thing most observers had expected from this builder extraordinary was another realty develop-

*The plan includes a 104-story apartment, 10 helical high-rises, rowhouses, an underwater garage, and mammoth movie and television facilities. ment. For three years a drumbeat of headlines had chronicled the decline of the man who had created such magnificent cityscapes as the Mile High Center in Denver and Century City in Los Angeles.

In May 1965 Zeckendorf's Webb & Knapp Corp. sank into bankruptcy. And in April 1967 the court-appointed trustee, former Internal Revenue Commissioner Mortimer M. Caplin, hit him and associates with the \$50-million suit for alleged mismanagement. Just about the only bad news that hadn't appeared was Zeckendorf's own obituary.

Today Zeckendorf says that even hints of his demise were greatly exaggerated.

Up and over? It's an uphill fight for Zeckendorf and his plan. He concedes: "I can't put the plan over right now."

Village residents have a little plan of their own, and it calls for virtually no bulldozing. A Village leader, Mrs. Jane Jacobs, who has written books on neighborhood planning, says Zeckendorf's plan would "cut the heart out of a residential neighborhood" (photos, below).

And urban critic Mrs. Jacobs, no stranger at protests, reportedly told Zeckendorf: "If you tried to evict us there would be bloodshed in the streets."

Zeckendorf says he replied: "By whom?" The Zeckendorf scheme itself, says Mrs. Jacobs, is "the same old pig with wings only bigger. He has taken all his grandiose dreams, put them into one package, and is trying to dump them on us."

Zeckendorf counters by calling the Villagers' plan for 51 five-story buildings "a triumph for eggheadedness that is economically impossible to build."

From officialdom. So far Mayor John V. Lindsay and his administrators are sticking with the eggheads, cracked or not. Says Planning Commissioner Donald Elliot: "We are moving ahead with the Villagers' plan." Woody Klein of the Housing and Development Administration says: "We haven't seen Mr. Zeckendorf's plan. You might say it isn't alive yet."

"Of course it isn't alive," says Zeckendorf. "I haven't formally proposed it yet. I'm just relaxing and waiting for the Villagers to fall flat on their faces. Then I'll put my plan over." The six-foot bear of a man vows: "I'm going to do that deal."

A mellowing. In the Depression, when Bill Zeckendorf was shaping his career, his boss used to say: "Bill never knows when to quit." But at 63, the real-estate baron seems to be mellowing. "I won't shovel sand against the tide," he says. "After all, I won't live long enough to see that project completed anyway."

NEWS continued on p. 22



ZECKENDORF SAYS: "The West Village is an industrial slum. Only 60 families live down there."



ROBERT YOUNG VILLAGE would house 30,000 persons minutes from midtown Manhattan jobs.



VILLAGERS SAY: "This is a residential area. Zeckendorf would displace hundreds of families."



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MODEL CITY PLAN in Newark included 150acre medical-college site (light and dark areas).

Lawyers charged Negro removal, and Gov. Hughes of N.J. settled for 57 acres (dark area).

Urban renewal or Negro removal: Rights lawyers seek to bar a Model City and highway projects

And if past successes are any key, the NAACP Legal Defense and Educational Fund may well win its point.

In 1954, LDF set the nation's schools on the road to integration by winning Brown vs. Board of Education of Topeka, Kan.* It has since opened countless public accommodations—buses, restaurants and public parks—to Negroes.

For the first time LDF is concentrating on housing projects. It is aiming specifically at the massive urban renewal and model city plans that would uproot Negroes.

First efforts. Lawyers at LDF claim to be making headway, although 1967 was the first year the organization had sufficient budget (\$2.5 million) and staff (25 lawyers and a city planner) to tackle urban renewal complexities. Items:

• The fund is the first group to challenge seriously a Model Cities plan. The case involves a proposed medical college site in Newark (*photo*, *top*). At issue: Negro removal and the citizen's role in Model City planning.

• The fund has sued Housing Secretary Robert C. Weaver to halt a San Francisco renewal project (NEWS, Feb.) At issue: Negro removal and political power for minorities.

• And LDF won from Supreme Court Justice Potter Stewart a temporary injunction against construction of a federal highway in Nashville, Tenn. The writ was dissolved, however, when the court refused to review a lower tribunal's dismissal of LDF's original suit. The fund will take its plea to halt the road to the Department of Transportation. At issue: Negro removal.

Legal aims. Michael Davidson, the fund's land-use attorney, says: "We aren't in business to stop renewal. We just want to assure that projects aid people."

Davidson thinks all Model City and renewal projects should build more low- and moderate-income units than they tear down. "Unless the project itself supplies the units," says Davidson, "there is nearly always a lack of housing that displaced families can afford."

The reputed lack of relocation facilities

is at the root of LDF's suits. For example, LDF claims that three miles of highway would knock out 80% of the Nashville area's Negro businesses, and that the San Francisco project would shatter a politically active neighborhood.

In Newark, Gov. Richard J. Hughes agreed to reduce New Jersey's 150-acre medical-college site to 57 acres after reviewing LDF's complaint to Secretary Weaver. Here's what the complaint charged:

"... Most of the 3,500 persons living in the [150-acre] project area, and ultimately over 10,000 [persons] will be forced into substandard, costly and segregated housing ... in Newark, or be forced out of the City entirely. The only way Newark can assure relocation housing is to build it."

Bending cities. The rights lawyers are starting from scratch. Citizens now lack even a clear legal right to sue local officials over federally supported programs. But LDF thinks its first few court victories will go a long way.

"After local goverments and federal agencies lose some cases," says Davidson, "they will make sure their new plans have citizen approval."

And Director-Counsel Jack Greenberg of LDF adds that there are many law groups —including 220 federally supported legal aid offices—ready to jump into the fight. NEWS continued on p. 26



Housing unit joins Negro think tank

Jack Wood, left, and Edward Rutledge, right, of the National Committee Against Discrimination in Housing join Kenneth Clark of the first all-Negro think tank, Metropolitan Applied Research Center, in pact to promote integration. Ford Foundation sponsors center.

Focal point

All eyes are on the exciting new handle locks by Weiser. Quality you can see at the entrance.

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be first to offer another first from Frigidaire



NEW High Fashion RXE-39N Range • NEW High Fashion WXP Washer • NEW High Fashion DXP Dryer

the years-ahead look of new High Fashion free-standing appliances

more help in building model home traffic

You may not put these top-of-the-line appliances in every home or apartment, but put them in a model, promote them as options—and watch the women come in to look them over. This is Frigidaire innovation at work to help you—innovation backed up by a complete line of built-in and free-standing models in most every price range, for most every application.

more help for you to capture the "total blend-in look"...easily!

Frigidaire High Fashion appliances do what appliances are supposed to do in the smartest kitchens today—fit in, blend in with the environment, the floors and walls and cabinetry, to create a total look.

The high-styled high console of the new RXE-39N Electric Range, for instance, fits neatly beneath most standard-height cabinets. Puts controls at eye level where the homemaker can see and use them easily. There's more help for her—more saleability for you—in this new range's advanced array of features, including an integral triple-filter exhaust system that requires no outside vent —two Infrared Warming Lamps—and an Electri-clean Oven that goes from dirty to clean automatically.



more help to create the "light-flooded look" dramatic new kitchen trend



Dramatic lighting and lots of it is *in*, and new Frigidaire High Fashion appliances were designed for the trend. The new WXP Washer and DXP Dryer have back-lit control panels plus full-width fluorescent lights in the high console, so that light floods the work area below.

Frigidaire builds in more help for your prospects with wanted work-saving features, too. The WXP is a solid-state control washer with infinite speed settings that'll wash anything a lady can safely put in water. The DXP has 3-speed tumble, plus Electronic Dryness Control that automatically senses the degree of dampness in clothes.

more help from the easiest installation you've ever heard about

Just move a High Fashion appliance into place, hook up the power (plus water for the washer), and the job's done. A built-in look without built-in installation.



Frigidaire bothers to build in more help



New Power Zoom System lets you ...

Vary the power of a Berger transit or level to suit your need of the moment

Skies hazy? Light poor? The Berger Power Zoom System will increase a target's visibility.

About to take a long shot? The Berger Power Zoom System provides extra magnification and mirror-like clarity.

This Berger development-engineered into various Berger builders' transits and levels-permits instant telescope power adjustment to compensate for different light and atmospheric conditions.

It's easy to operate: just focus the cross hairs... bring in the image... vary the power to accommodate your eye – and go to work. The instrument can't be thrown out of focus when you reset the image or adjust the power. The image won't ever "walk off." And the Power Zoom ring won't wear out even with extensive use.

As an example of its versatility, the Model 320 with Power Zoom System offers a range of approximately 18-34 power. Without the system, the same instrument provides a fixed 22 power. Berger models 480, 500 and 150, and all engineers' instruments, are now also available with Power Zoom System at very slight additional cost. Look into Power Zoom at your Berger dealer – or write for more information. C. L. Berger & Sons, Inc., 53 Williams St., Boston, Mass. 02119.

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C. L. Be

26

NEWS continued from p. 22

Suburban job and housing boom is beyond the reach of Negroes

The nation's good jobs, better housing and white families are moving to the suburbs faster than ever. The exodus, which effectively excludes Negroes, helps keep the minority underemployed and often povertybound.

That's the conclusion to be drawn from a report by the New York-based National Committee - Against Discrimination in Housing.*

The report traces the flight of jobs from the mid-1950s. Besides seeking low taxes, many employers wanted to locate near the white labor force that had moved to the suburbs under FHA auspices.

This job and housing shift has accelerated in recent years, but Negroes have not joined in for two reasons: 1) a "severe shortage" of suburban housing that Negro families can afford and 2) discrimination that has generally barred Negroes from the units they can afford.

If the trend continues, says the report, each city of more than 500,000 population will be 40% Negro in 30 years.

The NCDH offers no blanket solutions, but it does contend that "patchwork" government and business efforts aren't enough; a regionwide plan is needed. Hence the NCDH seems ready to oppose the fledgling Model Cities program unless it develops into something more than a program oriented toward segregated city cores.

* "The Impact of Housing Patterns on Job Opportunities;" \$1.50.

Its secrets exposed, the FHA rallies with miniskirts flying

The FHA's Commissioner Philip Brownstein, often in the news but seldom on the woman's page, was suddenly hot copy for the girls: An FHA memo had been issued, advising miniskirt wearers how to keep cool about chubby legs.

Officially it was all a hoax, but it was just too good to keep off the news pages. The memo described, in appropriate federalese, how the doting housing agency was not trying to dictate what its secretaries should wear—but then added the fearsome thought that long shapely legs get chubby when left out in the cold. And it promised to give official advice later to those FHA fillies who might want exercises for their tubby thighs should they persist in wearing minis.

When the story broke, FHA's phone began to jingle and letters came from afar. The women of America wanted to know FHA's prescription to trim a calf or two.

And so officially, for the record, FHA now has a standard-form reply that says:

"Without trying to skirt the issue, we can only say that FHA is prepared to provide information about the effects of cold weather on many types of building and construction materials, but the miniskirt is one item of material that our engineers are not familiar with, at least from a professional standpoint."

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Carpet of HERCULON* olefin fiber is designed to take abuse. Tons of it. Put these tough, broadshouldered fibers anywhere, under any kind of traffic. Even in an auto showroom they come up clean and fresh. That's because dirt, grime and stains are held near the surface where quick-and-easy maintenance carts them away. To find out why tired, worn-out carpet is as obsolete as last year's model contact: Fibers Merchandising, Hercules Incorporated, Wilmington, Delaware 19899. (302) 656-9811. Since when? Since Herculon. Hercules registered trademark



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STAIRWA

FHA and tight money team up to sell repossessed houses

Neither the Federal Housing Administration nor tight money could have done the job alone.

And it was quite a job. In 1967 FHA's backlog of repossessed single-family houses dropped 22%-from 38,829 to 30,273. In all, FHA sold 52,944 houses and repossessed 44,388.

"That's the best inventory year FHA has ever had," says William Cameron, assistant commissioner for property disposition.

Cameron gives high interest rates a lot of the credit. Low-income families found it difficult to get financing to buy new houses in late 1966 and 1967, so buyers often turned to the FHA repos...

"They knew they could get the financing with us," says Cameron. "We offer a good package, often for \$50 or \$100 down."

Sales campaign. "We did our part," Cameron adds, "by pushing the resale program harder and by becoming more efficient at renovating the inventory houses."

The FHA encouraged its district officers to advertise their repos. The agency also cut renovation time from nine months per house in 1966 to eight months in 1967.

The cost of renovation increased again last year despite the sales program's success. For the first 11 months of 1967, the maintenance cost for an average unit was \$1,582, up from \$1,401 in 1966 and \$1,044 in 1965.

Fixup charges account for most of the maintenance cost but the classification includes some small, fairly constant charges such as debenture fees. Sales commissions and miscellaneous costs are excluded.

Revolving door. Repeaters are a big problem. Many repos are models that have been taken back and resold at least once.

The top ten inventory districts in early 1966 had a total of 21,317 repossessed houses. The top ten 1967 districts had only 17.246.

Of the seven districts that appear on both the 1966 and 1967 lists, only one shows an increased inventory-Lubbock, Tex., up 1,195 to 4,328. The district, in the Texas panhandle, has a depressed economy. Explains FHA's Cameron: "Some military bases have been closed down, and area oil workers have been losing jobs as that industry has mechanized."

Districts showing the best recoveries in 1967 include Detroit, whose inventory shrank by 1,069; Tampa, down 997; and Houston, down 991.

The	1967	invent	tory	lead	lers:
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The 1967 inventory leaders:	
Lubbock, Tex.	.4,263
Tampa	3,331
Fort Worth	2,029
Albuquerque	
Topeka	
Jacksonville	
Oklahoma City	1,043
Detroit	. 809
Atlanta	. 757
Philadelphia	
Houston	. 659

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Which will it be?

Sooner ... when every person you see is a good prospect, every home or home-tobe a potential installation?

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NEWS

At New Seabury—exit Emil Hanslin; Enter new developer—of apartments

The nation's most highly publicized recreation community is at a crossroad.

A management changeover at Cape Cod's New Seabury-which goes into effect in four monthssignals a shift in emphasis from single-family houses to commercial development.

Promoter Emil Hanslin, who planned and developed the 3,000acre site for its owner, built only single-family houses (more than 300 since 1962). And in the process, he popularized the concept of building communities based almost entirely on recreation.

The developers of today's best recreation communities are indebted to Hanslin. Most of them studied his New Seabury firsthand.

Hanslin's team will give way to Lawrence Management Inc., an \$8-million realty investment company that owns a large chunk of Bronxville, one of New York's William upper-crust suburbs. Lawrence is a friend of New Seabury's landowners, the Chase family of Providence, R.I. Years ago at Yale, Lawrence roomed with Malcolm Chase, one of the two Chase brothers. (Asked what the Chases do for a living, a New England newspaperman replied with Yankee reticence: "The with Yankee reticence: Chases don't do; they have.")

Says Lawrence: "Hanslin's job is finished. In the beginning, the project needed a developer and some expensive promotion to get things moving. Now the Chases are more interested in commercial property, such as apartments, shopping centers and movie theaters. We are experienced in those areas."

John Wilson, the Chase business manager, concedes that "we have been talking about building apartments" near New Seabury's golf course (as Hanslin himself had proposed). But Wilson says the community's basic character will remain much the same.

Lawrence says he will replace the five-man Hanslin sales force by July 1. Then he will invite builders, including Hanslin's own March Co., to buy lots. In 1967 March Co. put up 87 New Seabury houses-about 95% of those built during the year.



BUILDER-PROMOTER HANSLIN More publicity for New Seabury

Sources close to New Seabury insist that Hanslin and the Chase family are parting on good terms. And everyone agrees that "Emil did a damn good job"-as Wilson put it.

In the early 1960s the New Seabury site was little more than a popular summer-camp. Hanslin and a team of consultants divided the land into 11 villages, each geared to a different recreation (boating, horseback riding, golf, etc.). Then Hanslin brought in top architects and began building inventive houses. (The Chase family supplied half the development money and kept half the profit.)

Above all, Hanslin showed a genius for getting publicity. It seemed that shelter magazinesand many others-were willing to write stories every time he built a house (H&H, Apr. '62 and Sept. '63).

But now that Hanslin is leaving New Seabury, he seems to have lost some of his appetite for publicity. He says only that he wants to keep his planning team intact "to coach other builders." The team would do some early building and then move on, leaving "plowhorses" to carry out Hanslin's master plans.

In the last five months Hanslin has drawn schematic plans for a 250-acre site owned by a private Connecticut college, Wesleyan, in Middletown. But the trustees, who would build the plannedunit development for a profit, have not officially decided to accept Hanslin's blueprint.

New chief for Western Mortgage

Ott Thompson 2d moves from First Mortgage Co. in Houston to become the president of Western Mortgage Co., Metropolitan Life's West Coast loan servicer.

Thompson was a member of Connecticut General Life's realty and mortgage department for 12 years before joining First Mortgage as a vice president in 1959. He was an executive vice president and vice chairman of the board when he left.

Western services \$1.3 billion and is the nation's second largest mortgage banking house behind the T. J. Bettes Co. of Houston. It operates as an independent entity but is a subsidiary of Union Bancorporation of Los Angeles (NEWS, Sept. '67). NEWS continued on p. 34

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NEWS continued from p. 30

Ray Watt goes coast to coast invades New Jersey and Seattle

The tiger in the California builder's tank is Boise Cascade, his parent company.

With Boise's financial support, Ray A. Watt will expand from Southern California to at least four states. His R. A. Watt Co. will open a central New Jersey subdivision this spring and a project in Seattle this summer. Next year the company moves into Chicago, the nation's top-volume market, and Washington, D.C.

By adding two subdivisions a year in each new location, Watt plans to sell 6,000 units ranging from \$12,000 townhouses to \$100,000 manors by 1970. Last year he sold about 1,500 houses in a dozen California projects.

Watt is the latest big builder to go nationwide since Levitt & Sons popularized the multi-site concept five years ago. And more are waiting in the wings, including California's **Ben C. Deane**, whose company is an Occidental Petroleum subsidiary. Watt was strictly a Southern

Watt was strictly a Southern California builder for 19 years, until 1966, when Boise Cascade, an Idaho-based wood products maker, purchased 50% of his company. Watt immediately began recruiting executives. By December of 1967, when Watt's company became a wholly owned subsidiary, he had doubled his executive team from 8 to 16 men.

He then sent Jack Palmer, a former employee of California's Kaufman & Broad Building Co., to search for Seattle sites. And he assigned a former Levitt em-

Planner Logue tackles President's model town

The eyes of an important Texan are on **Edward J. Logue** and the other urban experts who have begun planning Washington's "model town" on 335 acres of surplus federal land in the Capital.

President Johnson himself announced the \$19-million urban renewal project last fall by hailing it as the first of hundreds of such micro-cities (NEWS, Oct. '67).

To help fill such a tall order, the District's Redevelopment Land Agency awarded a \$295,000 contract to Logue, who has spearheaded redevelopment in New Haven and Boston.

Logue will work with three superagencies staffed with representatives of all the District and federal agencies involved and with nationally known urbanologists. *The Washington Post* says Logue's main job will be to "keep the interested officials pulling in the same direction."

For the eight-month pull, Logue and his two-man staff will receive \$60,000 of the \$295,000.



CALIFORNIA'S WATT New Jersey, here he comes

ployee, Earnest Hurwitz, to New Jersey.

Hurwitz proposed the purchase of defunct Electric City, which had been eyed by General Electric as a total-electric project before the original developer went bankrupt four years ago. The 1,100-lot project, partly developed, is northeast of Trenton.

Watt's executive vice president, Alan Borstein, another Levitt alumnus, hopes to close the purchase this month. "We will shoot for the below-\$25,000 market," says Borstein, who did not reveal the land price. Area builders said nearby lots cost \$3,000 each.

The purchase of a partly developed tract follows a national trend (NEWS, Aug. '67). Several giant companies are seeking such sites for two reasons: 1) building can begin immediately and 2) there is no need to tie up capital in land inventories.

HUD appoints director of equal rights unit

As head of the new Office of Equal Opportunity, **Walter B.** Lewis will enforce the housing department's frequently abused policy of non-discrimination.

Among other things, the 49year-old Mississippi Negro will administer President Kennedy's 1962 executive order banning racial bias in federally insured housing.

The former member of the U.S. Commission on Civil Rights has a big job ahead. Four days after Lewis was appointed, Urban League President Whitney Young noted that since 1962 only 3% of the new houses in federally insured subdivisions were sold to Negroes. His source: a 1967 survey by FHA.

At a public meeting Lewis heard a Washington, D.C., rights leader, **Charles Jones**, attack HUD for past failure to enforce non-discrimination. Lewis has promised enforcement, but he adds, "How this is going to be done we can't say yet."

This shower control protects your comfort two ways. Beautifully by Speakman.

Dual-Safe Colortemp's red and blue dial regulator lets you pre-set the precise water temperature you enjoy most. Dual-Safe Colortemp shower valves hold temperature constantautomatically balances hot and cold water pressures.

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It's what's inside that counts. Once the water is turned on under normal operating conditions, a new Speakman twin piston system instantly adjusts to hot and cold input variations-to maintain the safe comfortable temperature you

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Weldwood's newest. A fashionable textured 4'x8' paneling, deeply embossed with bold Sliced Oak grain pattern. Exceptionally tough finish makes it suitable for game rooms as well as more formal areas. Six colors available. Reduced 10% until April 15. Through Weldwood Headquarters Dealers and other participating building supply dealers.



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cooling hills by up to \$58° a year, as an added return on your investment. We tested homes all over the country to prove that 6° and 3° insulation works. It simply keeps confort in, drafts out, savings up. The result? A more comfortable home.

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World's Leading Manufacturer of Insulation World's Leading manufacture of the New Home Today

See your builder and say Corning Fiberglas Insulation.⁴ de 10 your building material de He'll estimate how much 683 et conditioning and heating costs.


in add up. Multiply it by

Or air

t in your mortgage. Some-pod of \$1800 in 20 years. n will cost you a

little more-but in two or three years the savings will balance things out. We tested homes all over the country to

prove that 6&3 insulation works. It simply keeps heat in, drafts out, savings up. The result? A

more comfortable home

See your builder and say "Owens-Corning 64.3 Fiberglas Insulation." He'lk know. Or go to your building material dealer tomorrow. He can estimate how much 64.3 can trim your fuel bill.



World's Leading Manufacturer of Insulati no in Lin Some Torim

The more people want **Owens-Corning 6&3 Fiberglas** Insulation, the more you'll profit.

More people than ever before will soon learn how important Owens-Corning 6&3 Fiberglas Insulation can be.

Fifty million people all over the country will be exposed to the industry's largest insulation advertising campaign. Fifty million people will see the largest building insulation advertising campaign in history and learn about Owens-Corning 6&3 Fiberglas Insulation.

Think about it for a minute.

Of those fifty million people, how many will be your customers? How many will be buying new homes or remodeling old ones? How many will be willing to spend a few extra dollars on comfort, knowing that they'll make up what they spent in savings?

If you're a builder or a building material dealer, Owens-Corning 6&3 Fiberglas Insulation can give you a distinct edge over your competition. Plus, it will give you a meaningful merchandising tool toward more sales and profits. For more information. please write:

Owens-Corning Fiberglas P.O. Box 901, Toledo, Ohio.



Brand new approach

to closet door design. The Leigh wardrobe door has a perforated board back. It provides convenient storage space for hanging belts, gloves, ties, garments. For mops and brooms, too. Uses standard ½" perf-board fixtures or special Leigh tie-rack and shoe-rack fixtures.



Use mirror-magic to make rooms,

foyers, hallways appear larger, brighter, more exciting —functionally and economically, by specifying Leigh mirrored doors. The mirrored, wardrobe door at left features a first-quality, double-strength 70"-long mirror with attractive pencilled edges—bonded to a prime-coated steel door. Use this wardrobe door in combination with other famous Leigh full-vu doors mirrored or plain. Or you can install it anywhere there is an 18" wide or 24" wide suitable space — to pivot from right, left or center. Quick, easy to install—giving you good advantage of scarce labor. Ask your supplier. Or for full information on the complete line of Leigh doors, write for Bulletins 482-L and 468-L. Circle 12 on Reader Service card

New mirrored wardrobe door has storage area in back ...another great door from



Leigh makes more than 160 products for the building industry



8 LEE STREET, COOPERSVILLE, MICHIGAN 49404 Coast Warehouse: Leigh Corp., Edison, New Jersey, West Coast Warehouse:

Leigh Industries, Inc., City of Commerce (Los Angeles), Vest Coast Watenouse: Leigh Industries, Inc., City of Commerce (Los Angeles), Calif. Made in Canada by Leigh Metai Products Ltd., London, Ontario. Western Canada Sales Agency: E, H. Price Ltd., Winnipeg, Edmonton, New Westminster, Calgary.

EIGH PRODUCTS.INC.

Fight products help you cut costs all through the house ... then help you sell it!



The new wood-grain grid

and the new beveledge panel are especially appealing in residential applications. The all-steel,wood-grain grid adds a warmth and richness to rooms. Harmonizes beautifully with wood paneling. Actually coordinates ceiling with furniture. The new beveledge panel is made of Leighfoam and is one of the lowest priced ceiling panels you can install. It drops four beveled edges below the surface of the grid adding depth, dimension and accent to ceilings. The grid, you should remember, is of the famous Leigh Klip-Lock design field-proved in cutting installation time. No splice plates or connectors needed. Main tees and cross tees simply push-and-lock together. Ask your supplier for these two new materials. Or for full information on the complete line of Leigh suspended ceiling materials —to help you plan more attractive, low cost, and labor-saving ceilings—write for our new color Bulletin 519-L.

Circle 13 on Reader Service card



You can decorate as you ventilate

with the new Leigh Decorator fan. It features a sculptured white grille, highlighted with antique gold. In a motif repeated in today's most modern bathrooms, powder rooms, kitchens. Thin-wall, ceiling, wall models for every ventilation need. U-L approved. Ask your supplier. Circle 15 on Reader Service card

MARCH 1968



Patented Leigh roof ventilator

in aluminum or galvanized steel. Roof proved, weather proved on thousands upon thousands of homes. One piece base, ''Rol-Lock'' collar, special baffle, 8-mesh screen. Ask for this ventilator by name—the Leigh 405. Or write for Catalog 800-L.

Circle 16 on Reader Service card



Leigh pre-finished white

ventilators save time and end paint problems. Raw aluminum ventilators are difficult to paint on the job. What's worse, the paint often peels off in a short time. Leigh white ventilators have a baked-on white enamel prime coat. No chipping, no peeling. Ideal with wood siding or aluminum siding. Ask your supplier for white attic vents, under eaves vents, miniature vents or Trimvents—all by Leigh.

Circle 14 on Reader Service card





Door knockers with built-in viewers

give homeowners the vital safety feature of a Leigh thru-the-door, wide-angle, optical viewer set in an attractive door knocker. Protection against unwelcome callers! Inexpensive. A house selling plus! Call your supplier today—or look them over in our Bulletin 408-L.

Circle 17 on Reader Service card

Circle 19 on Reader Service card

The face lights up, Glo-vent range hood

Here's a top performing range hood with dramatic rectangular lines and a front that lights up. Translucent,unbreakable plastic face panels send a soft glow of light throughout the surrounding area. No problem of coordinating range hood color—the translucent face blends with and enhances any decor. The Leigh Glo-vent range hood is available in ducted or duct-free models. In the four popular sizes. Low priced. Call your supplier today.

Circle 18 on Reader Service card

WHAT THE LEADERS ARE BUILDING



HALF-TIMBERED HOUSE, with 2,740 sq. ft. of living area, has four bedrooms, 21/2 baths. Formal and informal living spaces are well separated.

Two traditional models for the high-priced market

The Kennedy Co. of Chicago has found that buyers of homes over \$50,000 prefer distinctive traditional design. Besides English country house style (*above*) and French country estate style (*below*), Kennedy's range of designs includes Mediterranean villas, French chateaux, New England saltboxes, Southern mansions, New Orleans townhouses and Georgian estate houses.

Kennedy currently builds in two 400house projects, and sales over the past two years have totaled about 200. The model above, priced at \$45,300 plus lot, has accounted for 40 sales. The one below, at \$55,800 plus lot, has produced six sales in the six months it has been on the market and promises to become a top seller in the higher price range.

Lots are one-third to three-quarters of an acre and are priced from \$7,000 to \$14,500.



BRICK ESTATE HOUSE has six bedrooms (one on the first floor) and 31/2 baths in 3,690 sq. ft. Cathedral-ceilinged living room fills entire wing.







will help you sell more homes faster... at 1/5 the installed cost of conventional hand-hewn wood

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Prospects will snap up homes, clients will approve plans faster when you include the look of authentic hand-hewn beams at minimal extra cost. In a word. Lite-Beams are HOUSE MOVERS.

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1. Wall assemblies are fast with a CN-137 Nailer driving coated 16d sinkers.



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8158





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117

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your plans perfectly-including a very big boost on final sale.

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Scheirich Royal. Birch and Bronzeglow, Birch Cabinets in MEDALLION, TRIM

with matching border

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mortar removed. **B.** Dampen first, then force WATERPLUG into defective areas holding in place for 3 minutes. Prime coat patched areas immediately with THOROSEAL. **C.** Apply THOROSEAL to lower part of walls. **D.** Then brush-on a base and a finish coat of THOROSEAL to entire wall surfaces and the basement is attractively finished, completely waterproofed and protected for the lifetime of the building.

"BUILD A BETTER MOUSE TRAP..."

with STANDARD DRY WALL PRODUCTS and customers will beat a path to your sales office door



A RICHLY TEXTURED, FIRM, FINISHED CEILING

STANDARD

Now, a cement-base, aggregate-type, spray coating to highlight and decorate masonry and concrete ceilings. THORO-TEX is lightweight, contains a built-in bonding agent, antibounce ingredient and eliminates stain-throughs, quick dry outs; produces a hard, wear and water resistant finish that can be readily painted.



WATERPROOF, EVENLY TEXTURED MASONRY

Here, THOROSEAL PLASTER MIX, applied by trowel and float method, provides a desirable wall finish that's waterproof, easy to maintain, wearproof, economical to apply-no rubbing needed! Can be used on interior or exterior, above or below grade. Use Acryl 60 (1 part to 3 parts mixing water) for a super strong bond.

• Write for full specifications guide Cat. #17.

D R Y W A L L P R O D U C T S , I N C . DEPT. 68-HH-1, NEW EAGLE, PA.



Easy touch.

Because of their lightweight construction, these aluminum doors require less labor, less time and less cost for installation. And maintenance is minimal. A foamed-in-place polyurethane core provides strength and superior insulation. There's no warping, no cracking, no splintering. And no red rusting from the inside out. Nicest part? No costly call-backs. Aluminum doors are prime-coated at the factory and can be finished in any color at the job site. Specify doors made of Alcoa® Aluminum.



Easy touch.

This good-looking aluminum door is so lightweight that it will swing open at the slightest touch. Its polyurethane core and aluminum skin combination gives it rigid strength and superior thermal insulation as compared to other metal or wood exterior doors.

And it stands up to anything wind, weather and the kids can do. Won't warp, won't red rust, is dent-resistant.



Durable aluminum for better homes

Change for the better with Alcoa Aluminum



cer. And of course, Suran and contaminated air are also responsible for clean-ing bills, and decay. of buildings and tubber if metal and tubber if mobiles. tribule to the to the surface of the mobiles.

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From the Insider's Newsletter optimistic headlines issuing Stational Conference on Air Vashington, the air

Don't Hold Breath for Clean Air clude that federal clean-air standards must eventually be set. But the Department of Health, Edition and Welfare has barely begut exercise its authority under the Cleater of the cleater of the cleater of the cleater of the data has been though much of the data has been though much of the data has been though much more the cleater of the cleate must eventually be set.

Pollution

Growing

Threat

DEATH IN OUR AIR

Once a problem, now a crisis, air pollution is sickening and killing thousands of Americans and poisoning both city and suburb. Unless we act, things will get worse.



Air Pollution

Called U.S.

Delegates said the govern-Delegates said the govern-ment also must appropriate illions of dollars to state ' local governments to nationwide standards

Johnson administra-iais, who also ad-

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THE MINNEAPOI Thursday, Aug.

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Builders gain competitive buyers a sensible solution

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MR. DICK SMITH of Falls Church, Virginia

Mr. Dick Smith, President of Richard Air Conditioning, Falls Church, Virginia reports how he has used the tremendous recent publicity on air pollution to really sell air cleaners.

'People are well aware of smog and air pollution problems. It's a fact that more and more people are experiencing respiratory

problems. Without proper air filtration, the air inside the home is the same as the air outside. I figure if I can help my customer protect himself, I am doing him a great service.

"That's why on every air conditioning lead, I first send a brochure that talks Total Home Comfort with an air cleaner.

'Then I make a personal call. First I sell air conditioning, then I talk air pollution and the fact that for just four or five hundred dollars, he can have Total Home Comfort.

"I sell the Honeywell Electronic Air Cleaner at full markup and make good profits. I'll sell over 100 units this year.

'The secret is talk air cleaners. With all the air pollution publicity, prospects are very receptive. Most of them have already heard about the Honeywell Electronic Air Cleaner, and a simple presentation is all that's needed to close the sale.'

MR. ART ROEHNER of Fairborn, Ohio

Hupp and Roehner, Inc., of Fairborn, Ohio is developing a housing area with about 700 homes, with prices ranging from \$18,500 to \$40,000. The blank frame for Honeywell Electronic Air Cleaners is installed in every house they build.





Cleaner as an optional feature in all homes. Also air conditioning. Over one-third of the buyers request the air cleaner-just a little less than those who install air conditioning.

"We have a display of the Electronic Air Cleaner in our sales office. Most people are very interested in it because of the growing air pollution problem, and also because of children who may have allergies . . . the Electronic Air Cleaner is a great help on both

counts. Many people wait awhile and have it installed at a later date; that's why we always put in the Honeywell blank frame." Mr. Roehner concludes, "The homeowners are very happy with

the Electronic Air Cleaner. They say their houses are cleaner and more comfortable in many ways.

MR. MIKE ZAZOULINSKY of Aurora, Ohio

"We're really happy with the Honeywell Electronic Air Cleaner," says Mike Zazou-linsky of Aurora, Ohio. "We have two developments under way right now-one in Rootstown, the other in Kent, Ohio. In the Kent development, we offer Total Home Comfort as standard equipment. That is, central heating and air conditioning, humidity control, and the Honeywell Electronic Air Cleaner."





edge by offering home to air pollution.

"We feel that when a man spends over \$20,000 for a new home, he is entitled to the most comfortable home we can make for him. The Electronic Air Cleaner is definitely part of that comfort."

Mr. Zazoulinsky continues, "In our Rootstown Estates developments, we started offering this Honeywell Electronic Air Cleaner about eight months ago. And the last 4 out of 5 buyers had it installed immediately. *They* know its benefits, and the word spreads pretty fast.

"One family has a little girl with an allergy problem. They installed the Honeywell Electronic Air Cleaner, and it relieved her problems.

"I'm entirely sold on the Electronic Air Cleaner. It's obviously the coming item in home comfort."



MR. WILLIAM H. HIGHSMITH of Anderson, Indiana

"We install the Honeywell blank frame for the Electronic Air Cleaner in every home we build," says Mr. William H. Highsmith of Anderson, Indiana. "People who have had the Honeywell Electronic Air Cleaner before buy it readily again because they know of its advantages as far as dust, air pollution, allergies and cleanliness are concerned.

"About 30 or 35% of the new homeowners add the Honeywell Electronic Air Cleaner after they have lived in the house awhile. They not only realize that they will be living in a more comfortable home, but also that the resale value of their house will increase because of this feature."



Honeywell Electronic Air Cleaner mounts easily in return air duct of forced air heating-cooling systems. Catches up to 95% of airborne dust and dirt, 99% of pollen passing through it.



"Some codes require direct outside basement access as a safety measure. The Bilco Door makes sense for other good reasons, too."

BUILDER: David Rosen DEVELOPMENT: Country View Estates LOCATION: Riverdale, New Jersey

> Professional builder, Dave Rosen, used his first Bilco Basement Door because a local building code required direct outside access as a route to safety. But he recognized the additional value of this feature, and now provides it in all of his building locations, whether required by code or not. The outside entrance with a Bilco Door and Stair Stringers, opens the basement for family activities, makes it convenient for storage and eliminates tracking and damage to the upstairs. Home owners appreciate the value of this feature—and builders like Mr. Rosen know it helps them sell homes. Let the modern all-steel Bilco Door help sell your homes too!



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NACLEO means National Association of Coin Laundry Equipment Operators, Inc. We are the largest service organization of this kind anywhere. No one owns and services more coin laundry equipment than we do. No one else requires each member to pass stringent tests to qualify as certified operators. No one else has a national organization that can meet the demands and requirements of any developer, owner, builder or investor, anywhere. No one!

With credentials like that we feel quite qualified to show you how to make more money, more efficiently. We build images, the kind we both can be proud of.

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Too many sales can kill you as fast as too few, if you try to do more than cash permits. But how much does cash permit? It's often hard to tell . . . even after poring over cost reports, bank statements, accounting sheets, construction schedules, loan draws, sales projections and the like.

But now, this vital forecasting that used to take many tedious hours can be done in minutes . . . with far greater accuracy, too. The Mini-Risk* service, available to builders who feature Whirlpool appliances, puts \$500,000 worth of computer equipment to work for you. It comes up with an easy-to-understand report showing the probable amount of your bank balance, week-byweek, for a whole year ahead!

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Whirlpool distributor. He'll arrange for you to send a special data sheet to W.R. Smolkin, the well-known consultants who will work out the complete forecast for you. They'll mail it back directly to you in a confidential envelope. No one from Whirlpool ever sees the figures.

Your distributor can also tell you about other services which Whirlpool offers to builders. They include Investor Presentations of facts and figures to help you obtain financial backing . . Builder Counseling on land use, marketing, business management, etc. . . Marketing Plans which cover complete advertising and promotion campaigns.

If you aren't acquainted with your Whirlpool distributor, you should be! Contact the Builder and Contract Sales Department of the Whirlpool distributor nearest you.



^{*}Service mark of Whirlpool Corporation



You can't afford it!

■ You can't afford it if you do a lot of nailing. If increasing labor costs are cutting your profit margin.

Paslode puts profit back into your nailing operation with two fine pneumatic nailing tools—the Gun-Nailer[®] and the new Stallion. Both are lightweight, easy to load and operate, and eliminate nail waste. And both reduce labor costs considerably.

For example, if your total labor cost is \$5.50 an hour, you can save up to \$57.27 in labor per hundred pounds of 16d nails using the Paslode Stallion.

FREE COST CALCULATOR! Shows your nailing costs and potential savings. Write for your free Calculator. We'll include details on the Stallion and Gun-Nailer.



The STALLION Drives 16d nails wit

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Drives 16d nails with one blow. Powerful, fast nailing of box, sinker, common and screw-type nails— 4,000-5,000 an hour, including reloading time. Cartridge loading. Tool weighs only 11 pounds. Nails conform to Federal Specification FF-N-105a, Interim Amendment-2, April 7, 1964.

The GUN-NAILER®

Drives all types of 6d and 8d nails. Up to 7,000 an hour, including reloading time. Sturdy strip loading. Weighs under 8 pounds. Proved dependable. It's been the leading power nailer for over five years.



Good!

For a fast start in the right direction, here's the Chromalox[®]WAFL Electric Furnace. It has everything you look for in a central heating system: Compact cabinet, 10, 20 or 30 KW capacities, quiet centrifugal blower, precise thermostat control. And, since it can be installed in a horizontal, upflow or downflow position, you can use the WAFL either in new construction or remodeling.



Better!!

Now here's progress. Just add the Chromalox Compressor-Condenser and Evaporator and you have from $1\frac{1}{2}$ to 4 tons of summer cooling built into your furnace system. The Evaporator slides into the furnace discharge duct. The Compressor-Condenser is installed outdoors. And with the WAFL furnace you use the same blower, motor and ducts already installed.



Best!!!

And for those who want everything, just add the Chromalox Electronic Air Cleaner. It slips into the furnace return air duct and traps 95% of the airborne dust and pollen. It reduces routine dusting, saves cleaning bills and creates a more comfortable and healthful environment.



All from Chromalox.

Chromalox year-round comfort conditioning equipment offers you the best of everything. You can choose just one piece of equipment to do a specific job. You can have a complete heating/cooling/air cleaning system. Or you can add-to or replace other existing equipment. From any point of view, with Chromalox you get precision manufactured units doing a top-flight job for you and your customer.

Want to know more about the Good-Better-Best of Chromalox equipment? Contact your nearby Chromalox distributor. Or write for our new catalog R00103-5. Edwin L. Wiegand Company, 7770 Thomas Boulevard, Pittsburgh, Pa. 15208.



WR-110

So much of a Deck House is roof, that what goes on it is critical.

That's why Deck House insists on Bird Architect[®] Mark 25 shingles.

For the people at Deck House, only the finest quality materials are consistent with their standard of excellence. Their choice of roofing is Bird Architect Mark 25 Shingles.

Bird Architect Mark 25's provide clean, consistent design by eliminating cut-outs. The result is a beautiful long line, and a deep shadow effect.

Bird Architect Mark 25's assure labor savings and ease of installation, too — so the builder is even further ahead of the game.

There's powerful sales appeal in this dramatically beautiful shingle. Write us today for all the facts. EXCEPTIONAL FEATURES OF BIRD ARCHITECT MARK 25 SHINGLES.

Double surface, thick butt (290 lbs. per square) • Wind Seal® feature holds fast in hurricane • Triple-size jumbo mineral granules • Random embossing • Self aligning • Underwriters' Class C label for fire and wind resistance • Sparkling, contemporary colors.



BIRD & SON, inc.

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East Walpole, Mass.; Chicago, III. Perth Amboy, N.J.; Charleston, S.C. Shreveport, La.; Bardstown, Ky.



Luxury that homemakers dream about -so practical you install and forget them -that's practical luxury by Gerber Plumbing Fixtures. Luxury? And how! Look at Gerber's rich styling, for example. It's perfectly at home in modern apartments and motels as well as homes. There's luxury in Gerber's spacious lavatories and quiet-flushing closets. Luxury in fashionable decorator fixtures so popular today, such as gold-finished Swan, Dolphin, Floral, or Ribbon lavatory and bath faucet ensembles. Colorfully patterned countertop lavatories. Beautiful satin gold or satin chrome fittings with lead crystal or Crystalite[™] handles. And many more.

Practical? Unusually so. Practical for the homemaker and the installer alike. Users appreciate the lustrous appearance, cleaning ease, and durability of Gerber's triple-plated chrome finished brass. For contractors, features like Gerber's "All-Wall"[™] shower fixtures and "All-Tub"[™] waste and overflow designs save hours of installation time and reduce costs by eliminating the need for special fittings. Callbacks? Hardly ever.

Practical luxury by Gerber includes many other features and advantages that add up to extra value at no extra cost. Write or call for full information on Gerber's complete line of high quality plumbing fixtures.

ood Housekeeping

You get <u>practical luxury</u> in the complete line of Gerber plumbing fixtures and brass.







Gerber Plumbing Fixtures Corp., 4656 W. Touhy Ave., Chicago, III. 60646, Phone (312) 675-6570

"I save 5 ways by installing Long-Bell prefinished kitchen cabinets in the homes I build," says Seattle builder RICK DARST,

president of Legend Homes, Inc.



Long-Bell kitchen cabinets and vanities are used in every Legend Home. This kitchen, with the design service furnished by Plywood Supply, Inc., and featured in the Seattle Times' Parade of Homes, is from the Spacecraft line.

Saving: no lost on-job time

66 We can install the average Long-Bell kitchen in 6 to 8 hours, including countertops. Long-Bell's combination units are especially helpful. ??

VING: no finishing hold-ups

66There's no construction delays for finishing because Long-Bell cabinets are pre-finished at the factory. It's a superior finish, too-smooth, tough, rich.99

IIg: can get the units I need

66 No matter how elaborate or simple I want to make the kitchen, Long-Bell has cabinets that are exactly right for the job. Long-Bell has an exceptionally long line of styles, finishes and sizes.99



extra conveniences built in

66 My homes sell faster because of Long-Bell kitchen conveniences such as Lazy Susans, glide-out towel rack, lid and tray storage, pop-up mixer shelf and many others. 99

Long-Bell gives quick delivery

66 Long-Bell has given me great service, and with its network of assembly plants any builder in the country should get quick delivery.99

Are you wasting money you could be SAVING by using Long-Bell cabinets? Send the coupon today.

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Most houses require painting every few years. Vinyl won't! Most houses have gutters that can rust and peel. Vinyl won't! Most houses have overhangs that condensation can rot. Vinyl won't! Many houses have siding that will conduct electricity. Vinyl won't! Most houses have windows that can stick or corrode. Vinyl won't!

It's the fastest growing new material for building products. Look for it in gutters and downspouts, siding, soffits, windows, and many other building components. We don't make these products. What we do make is the vinyl that goes into them—Geon vinyl, the material difference in building. For suggestions on where to get building components made of vinyl, contact B.F.Goodrich Chemical Company, Dept. H-14, 3135 Euclid Avenue, Cleveland, Ohio 44115. **B.F.Goodrich Chemical Company**





Who are they?

People who prefer gas. Gas ranges. Gas dryers. Gas water heaters. Gas furnaces.

And, nowadays, gas air conditioning.

That's why it's going to be worth your while to feature gas air conditioning in your next project.

It'll help sell the homes. And your gas company will help, too, with active support.

And, because the gas companies are doing more than ever to promote gas this year, and especially gas air conditioning, the gas house gang will be bigger than ever.

And with Bryant equipment, they'll get dependable gas air conditioning.

It's quiet. And, in the long run, economical.

There are few major moving parts in the cooling system, so there's less to wear out or service.

And, because it's gas, it costs less to operate.

We back it up, too. With our more than 60 years of experience in gas-fired equipment. With our national network of distributors, branches and factory-trained dealers.

So, come on, be one of the gang.

Call your local gas company for more information.

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MARCH 1968

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"Dishwasher service problems haven't bugged me for 4 years."

This is what Michigan builder Al Leathers says.

"About 4 years ago, I started installing KitchenAid dishwashers in the homes I build," says Al, who's been in the building business for almost 20 years now.

"It was a good move. I've had a minimum of service problems. And I've also found that my customers recognized the KitchenAid name for quality and have accepted it wonderfully."

"In fact, I've had a KitchenAid dishwasher in my own home for 13 years. I've been very satisfied with its performance. So I think my customers will be happy with KitchenAid for many years, too."

Leathers, who has built around 700 houses, is currently building homes in Delta Glens subdivision, Lansing, Michigan. These homes, in the \$28,000 to \$35,000 price range, also include such features as fireplaces and carpeting.

If you'd like to forget about dishwasher service problems too, why not take a tip from Al Leathers? Look into KitchenAid, the quality dishwasher. It's built better to work better and last longer. And it won't bug a busy builder.

Your distributor has the whole story on KitchenAid dishwashers and disposers. So see him soon. Or write KitchenAid Dishwashers, Dept. 8DS-3, The Hobart Manufacturing Company, Troy, Ohio 45373.



KitchenAid Dishwashers and Disposers

By the makers of Hobart commercial dishwashers and food waste disposers.



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Red Cedar Shingle & Handsplit Shake Bureau

House & Home

MARCH 1968

EDITORIAL

The easy way out

The mystique of easy solutions to housing problems may hinder more than help us get on with a very tough job

We all know that we should produce something like $2\frac{1}{2}$ million dwelling units a year for the next 10 or 12 years, if we're going to house all Americans adequately by 1980. We also know we're not going to get the job done that fast, if at all. And there are some hard and very real reasons why.

First and foremost, there is no real political commitment to do the job. Second, there are lots of everyday roadblocks—like mortgages that can't easily compete in the capital pool; like property taxes that are so regressive they beat down both the citizen and the city; like red tape in local housing agencies and building departments; like local zoning that effectively says, "Give us your industry, but keep your workers out of our town."

While the housing industry struggles with these roadblocks, a whole mess of "experts" tell everybody how the problem can be solved. Each expert has his own pet solution, which usually becomes something of a mystique for those who espouse it.

All of these mystiques simply becloud the housing problem, so let's examine a few favorites.

Mystique No. 1: technology. This one hinges on a breakthrough in the way we build—for example, putting plastic houses on an assembly line. What the experts don't know is that it makes little difference whether you build a house out of mud block, wood, concrete or pressed straw. It all costs the same if you include the amenities that all of us now consider necessary for an adequate dwelling unit.

The experts also don't know that if you removed the exterior walls of a new house, you could only cut the price to the buyer 5%. In other words, the shell of the house is the most economic part and, therefore, the one place where it's hardest to cut costs.

Finally, the experts don't know that the basic cost of most new merchant-built dwelling units (excluding improved land, financing, overhead and profit) lies between \$6 and \$7 a sq. ft., just the ex-plant cost of a mobile home. So whither assembly-line techniques, experts?

Mystique No. 2: urban design. This one is based on the assumption that if cities were beautifully designedinstead of looking crummy as they do to the sweet people —and if land were developed according to some grand and magic plan, then housing and all other problems of city life would go away.

Don't think, gentle reader, that we are against beautiful cities. We love them. It's just that we have to stop dreaming and get up every morning and face reality. Nor are we against national and regional land-use policies; they would be valuable guides for planning. But under the laws of this land, land-use policies of a sweeping nature and over wide areas (what the experts say we need) would have almost no muscle.

Better urban design is an especially cherished hangup of the sweet people. No less an institution than the Ford Foundation last fall gave almost half a million dollars to a few architects to come up with beautiful designs. models and drawings for a few streets in old New York. The half million won't build anything; it will just go to show how pretty things might be if one could wave a wand. It would seem that the money is being used more to ease the conscience of the sweet people than it is to do anything about the real problems of the cities.

Mystique No. 3: new towns. The cry for new towns is based on the assumption that our present cities can't handle population expansion without creating more and uglier urban sprawl. So new towns are said to be the answer. Trouble is that we now know that a new town a self-contained municipality offering employment to a majority of its citizens—is a meaningless and bankrupt concept. New towns with any viability are simply bedroom communities feeding on major metropolitan areas. No one can go into the boondocks and create a new town (to prevent a brain-drain from the farmlands) without blowing millions of dollars. If the federal government has that kind of money to throw around, it ought to throw it around in established metropolitan areas that really need it.

From time to time we'll add to this list of mystiques. Coming up soon will be "Comsats for housing", "Standards for everything", "Rehabilitation, mon coeur", "Landbanks, the planners' Valhalla".

-RICHARD W. O'NEILL

Packaged apartments:

A FAST WAY FOR HOMEBUILDERS TO MOVE INTO RENTAL MARKETS

Packaged apartments are also a safe way to move into rental markets. Reason: Prefabbers who specialize in them do everything they can to make a project work.

The feasibility tests they apply to proposed jobs are tougher than those used by mortgage lenders. The financing and construction programs they develop for each new project are as carefully laid out as a follow-the-dots game.

A packaged-apartment is much more than a truckload of materials. It includes building-site evaluation, rezoning assistance, site layout, presold lenders and investors, costing, job scheduling and market-tested design.

In fact, the apartment packagers devote as much attention to creating new apartment business as to making a product. Says one: "Our future in apartments lies in prefabricating the sale—not in prefabricating the building."

Three experts at prefabricating the sale are Scholz Homes, Kingsberry Homes and Presidential Homes. Each got into packaged apartments about five years ago and now produces close to 1,000 units annually. All claim they have never produced an unprofitable apartment job—and the support they get from major lenders bears that out. To see how they might serve you, read the next seven pages.

Apartment prefabbers' step-by-step programs virtually rule out failure

Some companies have condensed their programs into comprehensive manuals that include every possible detail of what it takes to make an apartment project successful. These are actually master success formulas based on thousands of apartment units built in all kinds of geographical locations, on all kinds of sites, and under all sorts of economic conditions.

But the success formulas don't work automatically. They have to be applied by the companies' experts on an individual basis.

Scholz Homes, for example, supplies its apartment builders with a comprehensive manual on design, costing, financing and construction. But Scholz also gives prospective apartment builders a manual that forces them to evaluate project plans on their own merits. It opens with four questions:

"1. Can apartments be built on the proposed land?

"2. Can mortgage financing be obtained based on a rental schedule that the cost of land and buildings will make necessary, a rental schedule which will, in turn, meet with market acceptance?

"3. Do the principals command the financial substance and/or experience that will justify the proposed financing? "4. Do the principals have available to them the equity cash that will probably be necessary above the mortgage financing?"

The Kingsberry Homes apartment manual is not written for builders at all, but for the company's sales representatives. Reason: Kingsberry approaches apartment builders in a three-step sequence: 1) find the money, 2) find the land and 3) find the builder. So the company's field salesmen are told exactly how to look for mortgage money, and are instructed to forget about finding an apartment site until they know a mortgage loan is available not only in a particular town, but in a particular neighborhood.

The object is not just to avoid wasted effort, but to develop solid deals that will appeal so strongly to a builder that he will undertake them with Kingsberry's stock packages. A qualified builder is committed to the product by a letter of agreement and by making the mortgage loan contingent on it.

Kingsberry's manual gives field salesmen the same guidelines and feasibility formulas that mortgage companies use. In fact, the program has been reviewed by 45 mortgage companies and was field-tested by its buildingconsultant author, William R. Smolkin & Assoc. of New Orleans.

Prefabbers make personal inspection tours of proposed apartment sites

Scholz Homes assigns a specialist to evaluate the land for any workable project of more than 16 units. The company will also assess sites for smaller projects, but only by special fee arrangements. Land for large-volume jobs will often be toured by a home-office executive.

If the company decides that a location is not economically feasible and cannot be adequately financed, it may do some exploratory work with lenders before dropping the project.

Kingsberry Homes, using its field men to initiate apartment projects, has clearly defined rules about what kind of land to look for. Its requirements for size and price are as follows: "1. No site larger than five acres.

"2. Raw-land cost must not exceed \$1,000 per living unit that can be built on it. (A single building contains four to 12 units.) Raw-land cost of \$300 to \$750 per living unit is ideal. Typical situation will permit 15 units per acre. Therefore, typical price should be \$4,500 to \$11,000 per acre. Discard anything costing more than \$15,000 per acre, unless it is the best site in town, with all utilities already in, and requiring no street paving of any kind around perimeter, or within site."

Whether to get involved in zoning problems is another question apartment prefabbers have to consider when they evaluate land.

Zoning battles are becoming part of the package for some prefabbers

Says Don Scholz: "The best apartment land is the kind you create through rezoning. We would much rather fight through a good piece of land in a prime location than take a mediocre site already zoned that can't produce nearly as good a return."

Scholz takes this direct approach to zoning fights because a high percentage of his apartment designs are aimed at luxury markets. For these he seeks land in good singlefamily neighborhoods and this inevitably gets him involved in rezoning. His reputation for this kind of work is becoming so well-known that much of Scholz's business comes from builders who are stymied by rezoning problems.

Not all prefabbers want to get directly involved in legal battles. Kingsberry, for example, advises its salesmen to look for sites in established new apartment areas and avoid zoning hassles:

"Land should *now* be zoned for apartments, or zoning must be easily changeable within three months. Do not consider anything that will involve zoning opposition from neighbors or competitive land interests. Require documentary evidence of such zoning, and make purchase contingent on ability to obtain building permits for apartments."

But Kingsberry salesmen, who work on straight commission, do tackle zoning boards on their own to some extent. Reason: So much of their work is in semi-rural towns that they frequently get involved with unzoned land.

Presidential Homes helps to prepare zoning-board presentations complete with color slides and photographs, and will consult with builders and prospects on the best approaches.

Prefabbers are generally reluctant to get heavily involved in projects contingent on new zoning for two reasons. First and most obvious, if the proposed zoning is not approved all the work that went into the project is lost. Second, if the zoning fight is won the proposed apartment site may be sold to make a profit on the rezoned land's increased valuation—and the building program forgotten. Scholz tries to protect itself by 1) refusing to do engineering work on a zoning-contingent project unless the owner commits himself to using Scholz apartments for at least 24 months after a building program is started on the land following rezoning approval, 2) making the commitment a condition of transfer of land ownership and 3) charging an extra \$1,000 deposit—in addition to a standard preliminary-engineering deposit—for planning work that is subject to new zoning. The \$1,000 is returned if the zoning application is unsuccessful, but applied against a packaged-apartment order if the zoning is approved.

Site layout depends on what kind of package the prefabber is geared to

Most apartment manufacturers offer stock buildings in the same manner as their stock single-family houses. So once density requirements are known, site planning becomes a matter of choosing one or more stock buildings and arranging them on the plot in the most logical way.

Kingsberry—a stock-building prefabber—advises its salesmen either to farm out site planning to a land engineer or do it themselves. The company has avoided getting into plot layout because so many of its projects are built piecemeal. Its salesmen choose from some half-dozen stock buildings, taking into account construction costs and site restrictions. And in some cases they are adequately qualified to lay out the job. For example, Kingsberry apartment builder Charles Williams had his 77-unit project in Rome, Ga., (*photos, p. 84*) laid out by a sales rep who is both a civil engineer and a subdivision builder with 12 years experience.

Kingsberry's suggested standards:

"Coverage: Do not cover more than 25% of the site with buildings.

"Density: Plan about 20 units per acre in two-story construction; for $2\frac{1}{2}$ story, 30 units per acre is okay.

"Parking: Unwise to provide less than 1¹/₂ parking spaces per living unit. Two per unit is desirable."

Scholz Homes takes a different approach to laying out a

project. Instead of stock buildings, it uses stock unit plans and stock elevations. This adds greater flexibility in adapting apartment buildings to site problems, but requires much more engineering work.

Scholz puts together its stock unit plans like building blocks, expanding them up or outward to conform to terrain as well as density requirements. Its planners draw from a half-dozen basic unit types—each with many size ranges for adapting to various rental levels—and apply an elevation consisting of stock details and components scaled to projected construction costs.

A Scholz apartment project takes six to nine months to plan and process, so the company takes pains to protect its investment. Before okaying a new job, Scholz wants to see 1) a boundary survey of the proposed site, 2) a topographical survey, 3) a city map, 4) a data sheet covering all zoning and code requirements, 5) full documentation on the status of the property, 6) a financial statement on the principals and 7) a preliminary indication of rental range and living-unit types.

Scholz also insists on nonrefundable engineering deposits ranging from \$500 for 16 units to \$2,500 for more than 96 units. And no program is okayed until it has been submitted to a weekly management-committee meeting representing sales, finance and engineering departments.

Packaged apartments come complete with market-tested tenant appeal

But exactly what form that appeal takes depends on which prefabber you deal with.

Kingsberry's stock buildings—four, six, eight and 12 units—offer living units that average 1,000 sq. ft. and sometimes exceed 1,300 sq. ft. The company's main selling point is abundant living space. Scholz, on the other hand, thinks the appeal of living space has been overemphasized. Says Don Scholz: "Remember, somebody's got to live in these apartments." He stresses "environment that sells prospective tenants before they reach the front door—lush landscaping, a gatehouse, an old European feel about the entranceway." And he



Sound-deadening-in garages as well as living units-is a Scholz standard
Scholz options get top returns from units in \$300 and \$400 rental ranges



MARBLE-FACED FIREPLACE set off by panel moldings and murals is a Scholz extra that can be worth as much as \$25-a-month additional rent.



BUILT-IN VANITY, prefinished in white and gold, enhances a Scholz compartmented master bathroom designed to double as guest powder room.



LUSH ENVIRONMENT is considered an essential drawing card by Scholz planners. They recommend rich textures and heavy landscaping.



COLOR-COORDINATED PUBLIC FOYER comes as a complete package including carpeting, wallpaper, wainscoting, chandelier and railing.



TRANSLUCENT PANEL of colored plastic helps lighten an inside kitchen. Luminous ceiling comes with everything but fluorescent tubes.

PACKAGED APARTMENTS continued

makes the most of new design fads like the current Old French or French Chateau style—a mansard roof with sophistication. Scholz stock exteriors, which are almost exclusively traditional, have universal appeal throughout their Northeast, Midwest and Southern markets.

An apartment prefabber's main concern with a new project is not design, but potential rentals. His design approaches have already been established and standardized through trial and error; a particular one is picked not to suit local market tastes, but to suit specific rental ranges. Rental potential is the key to determining living-unit sizes and amenities, just as in homebuilding. Says Scholz: "We produce a design that fits on the lot within all the control factors—density, terrain, codes and even view—but the most important control factor of all is rental range. Designers who don't take that seriously may end up producing apartments with full occupancy but without adequate cash flow."

The packaged-apartment approach makes it easy to scale designs either up or down to what the market will bear. The Scholz plan book shows exactly how much it costs to "deluxe up" a stock plan with fireplaces, luminous ceilings and crystal door pulls. Furthermore, the prefabber provides a good estimate of how much additional rent a particular extra may bring in. Scholz figures show that a marble-faced

Stock buildings and standard site plans simplify small-town apartment jobs



LOW-COST BUILDING for single persons, newlyweds or elderly couples contains 14 one-bedroom units designed like motel rooms with individual



outside entrances. Presidential Homes has sold this easy-to-build package to many small-town builders throughout its Northeast market area.



77-UNIT PROJECT on 5.2 acres in Rome, Ga., combines Kingsberry Homes stock townhouses and apartments renting for an average \$125 per month.

It was laid out by a field salesman. The builder-investor, a newcomer to apartments, is now undertaking projects in other towns.

fireplace, for example, can add \$25 a month to rentals. Heated underground garages—for buildings of 64'x100' or more—used in conjunction with automatic elevators can boost rentals by at least \$25.

Scholz favors luxury units because, while they require comparatively high amounts of equity, they also produce high return on investment. Typical cash flow returns, disregarding depreciation and equity buildup in the amortization of the mortgage, range from 12% up to 15%.

Yet Scholz is more likely to talk a builder down from his ideas than up, because of the realities of the project's rental range.

Packaged-apartment product engineering is aimed at long-term performance

Prefabbers' traditional sales pitch—speed—gets second billing in apartment sales. Quality is the apartment prefabber's number-one sales appeal because the product—unlike a packaged house—has to do three jobs: 1) to keep tenant turnover low, 2) ensure easy resale to knowledgeable investors and 3) establish a good reputation among big lenders.

Quality in packaged apartments shows up in ways that have little to do with prefabrication efficiency. Scholz, for example, claims to have achieved almost 100% control of airborne sound. But many of the methods for achieving this —lightweight concrete subflooring plus a separate ceiling structure, and insulation-packed soil pipes—involve more field work than assembly-line engineering. Both Scholz and Kingsberry have been experimenting with molded-plastic exterior trim—large decorative pediments, for example—to reduce maintenance costs rather than to speed up factory production.

Apartment prefabbers strive for higher quality for competitive reasons, too. Their basic structural technology subassembly and precutting—is being duplicated by hundreds of lumberyard-prefabbers all over the country. So the apartment manufacturers come up with construction systems and materials not offered by local lumberyards. Among Scholz's drawing cards, for example, are specially designed bow windows and curved stairways. Another Scholz exclusive is decorator packages that include color-coordinated wallpaper, draperies and carpeting (*photos*, p. 83), and classic trimwork like wainscoting and dentil cornices.

Scholz, which has specialized in luxury apartments, also designs for low and medium rentals with no basic changes in its structural specifications. Only the finishing materials are changed—to aluminum windows, plastic shutters, aluminum siding, straight stairways—and often so subtly that the lower-cost product can't be distinguished from the higher-cost line on the outside. The Scholz line includes plans for five rental levels from low to super luxury, which goes up to \$450 per month.

Speed is still an important selling point for apartment prefabbers. Their preassembled framing, while no different from what was available a decade ago, can get tenants into a project weeks, and sometimes months, sooner than conventional construction.

Prefabrication technology also provides consistent quality control. As Scholz puts it: "Prefabrication locks the design, so the project will end up looking like the picture in the manufacturer's catalogue."

Market-tested lender appeal smooths the way for packaged-apartment builders

Successful stock-apartment plans can speed up mortgage reviews by several months. In fact, Kingsberry Homes markets a 12-unit, three-story building that gets approval from Metropolitan Life Insurance Co. in ten days, compared with the usual four to six months. Metropolitan Life evaluated and approved the plan some time ago, and now as with other stock Kingsberry plans—clears it by model number.

Stock apartments can also help to improve mortgage terms. Some of Scholz Homes's pioneering in high-rent markets has helped to impress lenders with the product's consistent feasibility. For example, when Scholz built its first job in Chicago, it had trouble convincing insurance companies that a 1,100-sq.-ft. plan with two bedrooms and two baths could draw \$250 a month. Within 1½ years after the project opened, rentals had been raised to \$350 and there was a waiting list of prospective tenants.

Packaged-apartment manufacturers also speed financing arrangements by helping builders do their homework. Kingsberry salesmen, with their mortgage-oriented approach, calculate loan feasibility in the lender's terms, figuring in detail the difference between mortgage and project cost to determine the most realistic cash outlay required by the builder.

Scholz Homes publishes apartment cost-and-financing tables (pp. 86 and 87) for five different rental ranges based on completed projects. Builders and lenders are invited to inspect the projects and study their detailed cost breakdowns. And to make the figures even more impressive, the projects are located in high-cost areas so the guidelines they provide can be safely used to determine feasibility in any area.

Packaged-apartment builders have no lack of job-scheduling help

Apartment prefabbers expedite their product all along the line. Long before construction starts, they keep up with a builder's progress in securing a mortgage, costing and approvals through weekly reports from field men. Scholz helps expedite subcontract bids by providing a recommended cost breakdown for each building by subtrade, along with a description of each sub's scope of work.

Once construction begins the manufacturers work hard to keep production flowing. Kingsberry coordinates shipments through its sales reps, using a site plan on which buildings are assigned a letter and living units a number. Its builders are instructed in how to schedule trailer loads based on crew size. Normal construction pace: one unit a day with a five- to seven-man crew. Builder Charles Williams of Rome was able to average 3^{1/2} units in four days, partly because his project is in a code-weak area that permitted him to take advantage of components like Kingsberry's preassembled plumbing walls. Scholz controls production and shipping by electronic data processing. Apartments are coordinated in production just as they are designed—as individual living units. The goal of the shipping-control department is to leave the builder with an absolutely uncluttered site at the end of each working day as well as to keep a project moving along the production line according to schedule.

To get its builders off on the right foot, Scholz supplies an erection engineer to supervise the first building in a project until it is under roof. And salesmen stay close to the project throughout construction to expedite problems and changes.

Would-be apartment builders can find a training school among prefabbers

Between the prefabbers' detailed manuals of procedure and their talented staffs (Scholz operates a hundred-man field force and a 60-man engineering department) a packaged-apartment builder has no excuse for failure.

But the prefabbers go further than guiding novice apartment builders after they go into business. They also invite interested prospects to learn the principles of apartment building while deciding whether to take the plunge into apartments. Sheer lack of knowledge keeps many eligible builders from venturing into multifamily.

Presidential Homes, in fact, puts more stock in face-toface schooling sessions with prospective builders than in all-purpose operating formulas. Presidential regularly brings together up to a hundred interested builders for day-long seminars held in their own towns and markets. Instead of outlining a manual of principles, Presidential brings veteran packaged-apartment builders and lenders to its seminars to describe their own operating procedures and to answer questions.

For example, a highlight of a recent Presidential seminar in State College, Pa.,—attended by 87 small-town builders —was the presentation by a successful local builder of complete cost-and-return figures for a current rental project. The builder, Alvin Hawbaker, is a big-volume home and apartment builder in State College who now manages 700 apartments, including other builders' projects as well as his own. He documented his reasons for rules of thumb like, "You can't pay more than 40% of apartment income for debt service or more than 35%—including taxes—for operating costs." And a mortgage banker from the same market area explained how he evaluates proposed apartment projects, and how to verify cash-flow figures from local market statistics. Within two days after the seminar, Presidential had orders for four plot plans.

Prefabbers prefer to sell packages to builders rather than investors

Says Don Scholz: "A builder is more likely to become enamored of a project and develop the desire to see it through to completion. An investor, primarily interested in quick and easy returns, would just as soon resell the land for a profit if he could." And the prefabber can't afford to have the deal fall through. All his profit is in the materials he sells, nct in the months of planning he spends putting the deal together.

These cost and financing guidelines for builders new to apartment construction are drawn from completed Scholz projects in high-cost areas ranging from low to luxury rentals



Low (\$125 to \$175 per month) 36-Unit Building: 20 2 bedroom 1 bath Average 836 Sq. Ft.

16		1 bath		616 Sq. Ft			r month
Standard	specifications,	slab c	onstruction,	aluminum	siding,	surface	parking

Construction cost, average per unit	\$	8,500
Site improvement costs, average per unit		500
Indirect costs @ 10%, average per unit		900
Builder fee @ 10%, average per unit		900
Typical land cost, average per unit		700
Total cost per unit	\$	11,500
Total cost: 36 unit building	¢4	14 000

	Total cost. 50-unit building	\$414,000
Probable Mortgage (standard)		
36 units @ \$10,800		\$390,000
Equity required (or if no builder fee is	involved, none)	24,000
With Participation Type Mortgage		
36 units @ \$11,300		\$407,000
Equity required		None

\$165 per month

Seasoned builders also have a more thorough knowledge of the needs and potential of their local housing markets than do most business investors. And, of course, they are better qualified to run a construction job.

Kingsberry Homes insists on a financially strong builder -"the builder must have about \$2,500 ready cash per living unit"-but at the same time tells its salesmen not to ignore a promising builder just because he isn't financially qualified. It suggests backing up a builder with a strong co-investor. Says Kingsberry: "Typical co-investors -merchants, lawyers, doctors and landowners-may be found by 1) checking with the bank, 2) checking with the real estate broker who wants to sell land, 3) checking with the principal real estate closing attorneys and 4) checking with a local mortgage broker or title company."

How to interest an investor in teaming up with a builder? Kingsberry suggests three approaches:

"1. The project may produce tax-sheltered income of \$100 to \$350 per unit per year; typical is \$200, so 25 units

would bring in \$5,000, all or most of which would be income-tax free.

"2. The project will be paid off in 20 to 25 years. After that, about 40¢ on the dollar of rent collected will be net income. On 25 units renting for \$1,500 a year each, the net income might be nearly \$15,000 a year.

"3. An apartment investment can produce an automatic savings plan for retirement, education of children, support for a widow and many other worthy personal financial objectives."

So the packaged-apartment manufacturer, to get a sure customer, will not only give a builder all the management and design expertise he needs but will even help find him a backer.

Kingsberry salesmen are also advised to explore secondary financing and methods of cash-stretching such as appliance manufacturers' second mortgages on kitchen equipment, deferred-billing arrangements with materials suppliers, and advertising allowances from utilities.

Future trend in packaged apartments: more turnkey projects by prefabbers

Turnkey is the ultimate in controlling the sale because the prefabber builds the project himself, then turns it over to a buyer.

Scholz Homes first turned to turnkey jobs to open up new markets. By controlling every aspect of a project, Scholz can be sure of sparking interest among lenders as well as renters in a community, and thus help pave the way for future builder-customers.

But recently Scholz has begun to look upon turnkey as an excellent way to sell apartment projects. It eliminates the problem of finding qualified builders, and eliminates the risk of deals collapsing after months of engineering work. It can also produce a much higher rate of profit than selling packages and subsidized services to builders.

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It also produces a much higher profit than selling packages to builders.

So Scholz has been devoting more and more of its sales effort to initiating projects that it builds either as a participating investor or independently. Projected sales for this year show how heavily Scholz has become involved directly in apartment construction. Of almost \$25 million gross sales, nearly \$12 million is expected to come from turnkey jobs and a half-dozen Scholz-initiated projects in large metropolitan areas. Package sales to builders of both houses and apartments is projected at less than \$11 million.

Turnkey is not without its problems, however. Scholz can expand in that direction only as fast as it can find competent field representatives to create and expedite the jobs.





Luxury (\$250 to \$350 per month)

 2 bedroom 2 bath Average 1120 Sq. Ft. \$300 2 3 bedroom 2 bath Average 1416 Sq. Ft. 350 (Includes every amenity: underground parking, elevator, firepla washer and dryer in units, deluxe decor.) 	
Construction cost, average per unit	\$ 15,600
Site improvement costs, average per unit	600
Indirect costs @ 10%, average per unit	1,620
Builder fee @ 10%, average per unit	1,620
Typical land cost, average per unit	2,000
Total cost per unit	\$ 21,440
Total cost: 36-unit building	\$770,000
Probable Mortgage (standard)	
36 units @ \$16,000	\$576,000
Equity required (or if no builder fee is involved: \$134,000)	194,000
With Participation Type Mortgage	
36 units @ \$18,500	\$660,000
Equity required (or if no builder fee is involved: \$50,000)	110,000

ODUCTION ANNER

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WOULD YOU LIKE TO HIRE

ONE OF THESE MEN?

- They're college graduates with degrees in building.
- They've studied light—and in some cases, heavy—construction.
- They've had courses in building management and finance.
- They've had on-the-job experience in construction.
- In fact, they may know more about some aspects of building than you do yourself.

In a word, they are the answer to one of homebuilding's most pressing needs: middle management that can grow into top management. And it's a rare builder indeed who hasn't a spot for a construction foreman or an estimator with the potential to take over the entire operation.

But the chances are you won't be able to hire one of these promising prospects.

For one thing, they're scarce. Only about 350 graduate each year from the 23 member colleges of the Associated Schools of Construction (see page 95).

More important, they probably don't want to work for you. Only about three out of every 20 graduates go into homebuilding; the rest choose heavy construction or building-materials supply firms.

Why is homebuilding getting such a small share of this pool of future executives? To find out, HOUSE & HOME polled professors who teach at the 23 ASC colleges, all of which offer degrees in building construction. Their reasons won't bring much comfort to anyone in the homebuilding industry:

Not enough money. On the average, homebuilders pay appreciably less than either commercial builders or suppliers.

Not enough prestige. "Image" is a real and important factor to the young man choosing a career, and homebuilding's image apparently leaves something to be desired.

Not enough security. Despite the industry's progress toward stability over the past few years, the fly-by-night stigma still clings.

Not enough challenge. The feeling seems to be that homebuilding is little more than a trade and requires few skills especially in the field of management.

Not enough opportunity for real advancement. All too many homebuilders run their companies as closed family operations and refuse to promote qualified outside talent. This view of your industry may be painful. But if you're seriously concerned with attracting top trained talent to your business, it can also serve as a very useful yardstick.

Is this talent worth attracting? To find out, HOUSE & HOME talked with graduates of building-construction schools and with builders who have employed them. Their opinions are presented in the next six pages. And a HOUSE & HOME editor spent several days attending classes at Michigan State University's school of building construction.

Photos: Joe Ruskin



To see the kind of training today's building-construction graduates are getting, turn the page

COLLEGE GRADUATES continued



MANAGEMENT TECHNIQUES are explained to a class of building-construction students at Michigan State University. Courses on the business side of homebuilding include personnel, construction and finance management.



COST ESTIMATING, an area where many builders are disastrously weak, is taught through the use of visual aids. The demand for good estimators is so great that many students choose to specialize in this field.



LUMBER GRADING is taught with material donated by local lumber suppliers. Other experiments are conducted to test the tensile strengths of different types and grades of wood.

These students learn everything from basic construction to urban planning

As a result, when they graduate from Michigan State University's school of building construction they have a thorough grounding in just about every phase of the homebuilding business.

Msu occupies a uniquely strong position in regard to residential building. Its building-construction program is part of the university's Forest Products Department, so the emphasis is naturally on wood construction. (The university worked with NAHB to build a research house in Lansing in 1960.) Hence it's not surprising that 90% of Msu's building-construction graduates—a higher percentage than from any other college—go directly into some phase of homebuilding.

A close look at MSU's building-construction curriculum gives a pretty good idea of the potential value of its graduates to a homebuilder: The first two years are devoted to liberal arts courses—social and natural sciences and the humanities. The primary purpose is to produce a well-rounded individual with executive potential, although some courses such as psychology and sociology can be of immediate value to a graduate who goes into building.

Junior and senior years are made up of courses directly related to building:

Technology includes strength of materials, mechanics, structures and industrial engineering.

Design includes site development, architecture and urban planning.

Business includes management, finance and sales.

While all students take general courses in all of these subjects, a student may also choose to specialize in a particular field. If he is especially interested in design, for example, he can take additional courses in architecture and planning.

In addition to their regular courses, students also undertake experimental work intended both to further their education and to contribute to homebuilding in general. Two such projects are currently under way at MSU: One is an evaluation of a particleboard made from sawdust; the other is an attempt to find a more efficient method of scheduling construction.

Finally, all students are required to supplement their classroom studies with firsthand experience in the actual process of building houses. Before they graduate they must spend at least 12 weeks working in the field for a builder—not as a manager, but as a mechanic, such as a carpenter. The usual procedure is for a student to fulfill this requirement during one or more of his summer vacations.



STRENGTH-OF-MATERIALS TEST involves the stressing to destruction of a glue-laminated beam in a hydraulic beam-loading press.



W-truss nailed together with steel connector plates. Hydraulic stress rig, called "the rack" by students, can create virtually any kind of load condition. Students themselves built the truss.



CHEMICAL ANALYSIS determines the makeup of a wood finish. Students also try to improve existing materials by brewing up and then testing their own concoctions.



TIME-AND-MOTION STUDY of a critical-path-method operation is logged from a tape viewer. The student will try to find a more efficient work schedule.

These builders say...



ROBERT SCHMITT, Berea, Ohio. "When there's an opening in our firm, MSU is one of the first places we look. The training these guys get makes them ideally suited to middle-management positions."



DAVID FOX, Dallas. "I wish I could find more of these guys; the two I have with me now are tremendous assets, as were the five before them. It hasn't been until recently that men like this have been available to homebuilders."



ANDREW PLACE, South Bend, Ind. "I have hired two building-construction graduates and they've worked out very successfully. In particular, their knowledge of land planning and estimating is invaluable."



EDWARD RYAN, Pittsburgh. "The combination of experience and theory that these graduates have is extremely valuable. I have three working for me now: a purchasing man, a sales manager and a construction foreman."

Does college training pay off? Here's what top builders and successful graduates say

You can hire promising young mechanics, engineers and businessmen. But if you want promising young men with training in all these areas—and their application to homebuilding—the schools of building construction are your only source.

That's the consensus of the four nationally known builders pictured above. All of them have hired building-school graduates and found them valuable in a number of key positions. And at least two of them feel that the graduates will have a direct influence on homebuilding's future.

Robert Schmitt, who has two MSU grads

working for him, believes that homebuilding cannot make its next step toward industrialization without the graduates—in middle-management positions—leading the way.

Edward Ryan sees homebuilding becoming an industry of big builders (he himself is a 1,000-house-plus builder) and believes that the kind of business training buildingconstruction graduates receive is vital in big operations.

The enthusiasm of these builders is echoed by graduates themselves, and the success of the three pictured on the facing page is strong evidence of the value of college training. None of the three has been out of school for more than 12 years, yet one is a vice president, one has become president of an established firm and one is head of his own business.

The latter, Joseph Grammatico, sees college training as essential in a building industry that is becoming more complex every day.

"A builder must be well-grounded in every facet of his business," says Grammatico. "Otherwise, the chances are he'll fall by the wayside."

These MSU graduates say...



JAMES BEACHUM, '56, vice president of Alco Construction Co., Lansing, Mich. "Multifamily is the future of homebuilding, and it takes more knowledge about financing and planning to building them. This is one of the areas where building-construction graduates have it over some of the other guys. Sure, there are a lot of older successful builders, but the new breed is smarter. They have to be, because the competition is so great."



JOSEPH GRAMMATICO, '56, head of his own building firm in Lansing, Mich. "I gave my training the supreme test; I went into my own homebuilding business right after graduation. I found that the most important thing I had learned in college was marketing. Without it I could have built houses, but I certainly couldn't have marketed them as successfully."



RICHARD NELLER, '60, president of Walter Neller Co., Lansing, Mich. "The day a student graduates from MSU, he knows more about certain facets of homebuilding than many established builders do. For example, we are the only builders in the city that use land planners. I'd like to think that I was instrumental in bringing that about—that my training in land planning at MSU gave us an advantage over other builders in the area."

These MSU professors say...



AUBREY WYLIE, professor in production management: "To get one of our graduates into his firm a homebuilder is going to have to offer him both challenge and stability. The former is absolutely essential to give him incentive, and the latter gives him the feeling of security."



WILLIAM LLOYD, professor in materials marketing: "If a homebuilder of today is to attract one of our graduates, he is going to have to pay him what the commercial construction and building supply industries are willing to pay—at least \$8,000."



ALAN SLIKER, professor in mechanics and strength of materials: "If homebuilders showed these students that they're really needed, it would make it easier for us to impress upon the students what is important for them to learn."



OTTO SUCHSLAND, professor in wood technology: "Building-construction graduates want responsible jobs. They'll take positions as assistant building supervisors or materials expeditors, but that's about as low on the scale as they have to go."



CHESLEY WELLS, instructor in cost estimating: "It's a matter of supply and demand. Builders in Michigan alone could hire as many graduates as we turn out, but we want national recognition as well. These grads are frequently willing to work out-ofstate if more builders would contact them."

Want to attract graduates? Here's advice from professors and students

It is often said that if you want to be able to hire more college-trained men, you must work more closely with universities that offer building-construction degrees. The professors and students at MSU agree, but they don't consider this the crux of the problem. The best way to attract graduates, they say, is to make the job you're trying to fill as attractive as those in commercial and building supply firms.

What does this mean you must do?

It means you must pay these graduates starting salaries equal to those paid in the other two fields. The general range is currently from \$8,000 to \$10,000.

It means you must offer them a challenge. Specifically, they want work that utilizes as fully as possible the skills they have learned in college. And they want to work for a company that appreciates the value of these skills.

It means you must give them real opportunity for advancement. They want promotion by merit, not the spoils system.

It means you must offer them a reasonable degree of security. The fact is that while the entrepreneur with high personnel turnover still flourishes, homebuilding companies as a group are far more stable than they were a decade ago. You need to convince the graduate that yours is one of the stable ones.

The results of such a program are twofold:

First, you'll be hiring a highly trained man with the potential for a variety of managerial and executive spots.

Second, by creating a greater demand for college graduates, you'll help bring more of them into homebuilding. Result: Over the long haul you'll have a much bigger pool of talent from which to draw.

These MSU students say...



PAUL BARTLETT, '68: "When I graduate I hope to get a job as a construction superintendent for somewhere between \$8,000 and \$9,000. Then in a couple of years, if I get the opportunity, I would like to be a designer-estimator."



carpenter, but I got tired of pounding nails and decided to go to school. On the job I learned how to do things; here I'm learning why. Eventually I want the chance to put all of that together in a top management job, but right now I'll settle for construction super."



BUD NILSON, '68: "I'm a builder right now; I've built some apartments and I'm currently doing a ten-unit townhouse. But my real goal is to become a fullfledged land developer. And I'll hire graduates of building-construction colleges to help me."



HOWARD HOOVER, '68: "Architectural design is my interest and I hope to get a job in the \$8,000 to \$9,000 range. I'll go where the best job opportunity is, even if it means leaving Michigan. Many of the other guys here would do the same thing if more of the larger builders would interview us."

These colleges offer degrees in building construction

ARIZONA STATE UNIVERSITY Construction Dept. Tempe, Ariz.

AUBURN UNIVERSITY Department of Building Technology Auburn, Ala.

BRADLEY UNIVERSITY Building Construction Technology Peoria, III.

CLEMSON UNIVERSITY. School of Architecture Clemson, S. C.

COLORADO STATE UNIVERSITY Industrial Construction Management Fort Collins, Col.

DREXEL INSTITUTE OF TECHNOLOGY Civil Engineering and Mechanics Philadelphia

UNIVERSITY OF FLORIDA Department of Building Construction Gainesville, Fla.

FRESNO STATE COLLECE Dept. of Industrial Arts & Technology Fresno, Calif. HAMPTON INSTITUTE Building Constuction Engineering Hampton, Va.

IOWA STATE UNIVERSITY Building Construction Ames, Iowa

KANSAS STATE UNIVERSITY Building Construction Manhattan, Kan.

MICHIGAN STATE UNIVERSITY Department of Forest Products East Lansing, Mich.

UNIVERSITY OF NEBRASKA School of Architecture Lincoln, Nebr.

NORTHEAST LOUISIANA STATE COLLEGE Department of Building Construction Monroe, La.

PEPPERDINE COLLEGE Technical Management Los Angeles PRATT INSTITUTE School of Continuing Studies Brooklyn, N.Y.

STOUT STATE UNIVERSITY School of Applied Science & Technology Menomonie, Wis.

TEXAS A & M UNIVERSITY School of Architecture College Station, Tex.

TRINITY UNIVERSITY Department of Building Construction San Antonio

VIRGINIA POLYTECHNIC INSTITUTE Department of Building Construction Blacksburg, Va.

WEST VIRGINIA STATE COLLEGE Department of Light Construction Institute, W. Va.

UNIVERSITY OF WASHINGTON Building Technology and Administration Seattle

UNIVERSITY OF WISCONSIN School of Commerce Madison, Wis. Even in good times for housing, sudden expansion has wrecked some ambitious developers. And times were hardly good when Kettler Brothers, a 200-house-a-year builder, decided to go ahead with a 2,200-acre planned-unit development.

A rash move? Not the way the Kettlers went about it. Their strategy shows you ...

How to minimize the risk in developing a giant project

Montgomery Village, the P.U.D. shown in the plans below, is ten times the size of any project ever tackled by Washington, D.C.'s three Kettler brothers—Milton, Clarence and Charles. And most of its critical planning took place in the midst of the 1965-66 tight-money crisis, when sales were lagging for builders everywhere and some new towns were running into spectacular troubles.

But even though Montgomery Village dwarfs any previous Kettler venture and even though it was launched at the worst of times, it is off to a strong start. "In the first six months, we have met or exceeded every sales goal," says Board Chairman Milton Kettler, "and by the end of this month [March], we expect the project to start showing a profit."

Taking a project the size of Montgomery Village from plan to profit in two years is a remarkable achievement. How did the Kettlers do it?

The answer is a combination of many factors, including the Kettlers' long experience in homebuilding, their sound and progressive management, their solid cash position and, above all, their studied and deliberate handling of the Montgomery Village venture.

Unlike some new-town entrepreneurs, the Kettlers had been building and selling houses and buying and developing land in the same market area for more than ten years. They had established mutually beneficial relations with homebuyers, lenders and local officials. And they were operating three successful subdivisions and a general contracting division, whose profits partly offset the high costs of planning and developing their big new project.

Further, the Kettlers have always



REGIONAL MAP of Washington area shows strategic location of Kettler Brothers' new Montgomery Village. Also shown: three nearby new towns.



MONTGOMERY VILLAGE PLAN has first large developed area, Whetstone, in dark tone. Light tone shows public parks and other recreation areas, planned for steady growth—stressing the need for finding good employees, holding onto them and developing them into effective foremen and managers (H&H, July '67).

All this experience and management knowhow was put to its toughest test when the Kettlers began Montgomery Village. The way they met the test offers the following set of useful guidelines for any builder stepping up to major community development:

Be extra careful about the No. 1 essential for success: location

Every builder's first concern is location, but this cardinal point takes on added importance in a large-scale development like Montgomery Village. The stakes are higher, and the commitment is longer.

The Kettlers applied the same basic criteria to the Montgomery Village location as they would have applied to an ordinary house subdivision. They looked for—and found—these assets:

1. A desirable locale. Montgomery Village is in Montgomery County, a natural extension of northwest Washington and an area favored by middle- and upper-income homebuyers. The Kettlers knew this suburban market well because they had been serving it for more than a decade.

2. Good transportation. An interstate highway (map, facing page), with an interchange at Montgomery Village, leads directly to downtown Washington. It also connects with the Capital Beltway, an easy route to other Maryland and Virginia suburbs.

3. Convenient shopping. The Kettler site is next door to Gaithersburg, Md., a well established community.

"Even the first family in Montgomery Village didn't have to rough it," says Milton Kettler. "They could go to church, call a cab, attend a movie, or do their grocery shopping the day they moved in. We have an existing major shopping center right at the entrance to our property."

4. Municipal utilities. A local agency the Suburban Washington Sanitary Commission—installs sewerage and water facilities in Montgomery County. The Kettlers made sure that their development schedule would coincide with extensions of lines into their property.

5. Good schools. Montgomery County has a highly rated school system. An elementary school will be ready by fall, and a junior high will follow, both in the center of Montgomery Village.

6. Nearby employment. The Kettler site is in the midst of a fast-growing industrial area. Along Interstate 70-S, and within a few miles of Montgomery Village, huge new research and manufacturing facilities are being built by companies like IBM and Eastman Kodak and government agencies like the Bureau of Standards and the Atomic Energy Commission. These new plants, laboratories and offices will not only provide employment for Kettler's buyers but will also bring in many highly paid scientific and managerial people, most of whom will want to live nearby.

The Kettlers didn't make the entire land commitment in one gulp. Their first purchase was a cousin's 400-acre farm in 1961. At that time they were simply stockpiling land for future growth; they had no specific plans in mind. When market research showed that the Gaithersburg area growth was outstripping all official projections, they put another 600 acres under option. The clincher came in 1964, when the Maryland National Park and Planning Commission issued a report calling for a new city of 200,000 residents right on what is now the Montgomery Village site. The Kettlers immediately went after another 1,000 acres, which their planning consultants said would be needed to provide the proper housing mix.

Find ways to buy land without imperiling your cash position

More than a dozen land deals—no two identical and none for more than 400 acres —went into the purchase of the Montgomery Village site. And in the process, the Kettlers applied many of the methods learned in buying land for their previous subdivisions.

Generally, these methods conserve the buyer's capital and also benefit the seller. Three examples:

1. Arrange for long-term mortgages with small down payments. The Kettlers showed several sellers that this arrangement would serve them better than a cash sale because it allows more favorable income-tax treatment. Dates and amounts of payments were staggered so that no large part of the debt fell due at one time.

2. Lease back land not immediately needed for development. The seller, usually a farmer, then continues to farm the land, manages and controls it and preserves its attractiveness. Meanwhile, the land retains its favorable tax status as a working farm.

3. Divide large parcels into two or more smaller ones, with stipulated purchase dates for each. This has a double attraction: It keeps the seller's tax liability to a minimum in any one year, and it reduces the buyer's need for immediate cash.

Make every effort to hold your debt-equity ratio in balance

The Kettlers have invested some \$13 million in Montgomery Village, including \$3 million of their own money. So their debt-equity ratio is about 3¹/₂ to 1—by all business standards a conservative position, and by most homebuilder standards,



WHETSTONE PLAN includes three subdivisions—one for court houses and two for high- and medium-priced conventional houses.



COURT-HOUSE NEIGHBORHOOD (*dark tone in plan at left*) has central entry road and is laid out in clusters of 15 to 18 houses each.

These four models appeal to a wide range of incomes and tastes













MEDIUM-PRICE DETACHED HOUSE at \$40,950 has four bedrooms and three baths. Buyers have median age of 37, average two children, earn an average of \$16,000 annually, and most commute to work in downtown Washington. Just over half were previous homeowners, the rest rented houses. Subdivision opened in September, had 42 sales by Feb. 1.



HIGHEST-PRICE DETACHED HOUSE at \$64,000 has five bedrooms, four baths and study. Buyers are older (median: 41), have three children, earn an average of \$20,000, and many are executives in Montgomery County. All were previous homeowners. First models to open in Montgomery Village, these houses had accounted for 17 sales by Feb. 1.



TOWNHOUSE, priced at \$32,950, has three or four bedrooms, 2½ baths. Many buyers are young, but number of older couples brings median age to 36, almost the same as for detached houses. Income average is \$14,800. Almost half are childless; the average is less than one child per family. About 25% owned houses. Sales: 33 since October.



COURT HOUSE is in newest subdivision, costs \$45,950, has four bedrooms, $2\frac{1}{2}$ baths. Buyers' median age is 41, same as in high-priced detached houses, but they have lower incomes (\$16,950), and 2.5 children. Seven of first nine buyers had owned houses, two had rented apartments. Section has only been open since Jan. 7, but four houses sold in advance. ultraconservative. Ratios of 6 and 7 to 1 are common in the housing industry, and some highly leveraged companies accept 20 and 25 to 1 as normal.

These variations represent two opposing philosophies: 1) Borrow every penny you can to get the maximum leverage on your own capital and 2) never borrow more than you can repay out of normal operations, even under depressed conditions.

In homebuilding's golden post-war years, the out-on-a-limb approach pyramided minuscule capital into impressive businesses. But more recently every market downswing has left a trail of bankruptcies because interest charges outran the ability to generate cash.

The Kettlers' relatively heavy investment of their own funds has gotten them the best possible terms on land loans from two commercial banks. The current rate: just under 6%. And partly because the company has had 15 years of profitable growth, it has been able to build up a \$4.2million line of credit with a third commercial bank. The line of credit provides the Kettlers with all their building capital, and lets them avoid the need for construction loans, expensive refinancing of loans or recourse to the "funny money" boys.

Leave yourself an exit in case you want to-or have to-sell out

Land developing is like a poker game; if you want to draw cards to improve your hand, you have to put in some chips. In the Kettlers' case, it was a blue chip— 11/2 million.

In 1965 the Kettlers knew that they had less than two years' supply of finished land and that both of their bread-andbutter subdivisions would be sold out by mid-1967. Montgomery Village was costing them \$1,000 a day in interest, and the market for reselling it as raw land was practically nonexistent. In fact they couldn't even count on recouping the \$4,000-an-acre purchase price.

But developed land was in short supply in Montgomery County, and the market for ready-to-go lots was strong with small builders who could not develop their own.

Says Milt Kettler: "In that critical economic period, we concluded we would be safer owning this land with major roads and utilities installed, even though our total investment and exposure would be greater." So the Kettlers put in three miles of streets, dredged out two lakes and completed grading and drainage. And the Sanitary Commission installed sewer and water lines on schedule.

From that point on, the company was in a position to pull out of the project at will. Its convenient exit door: eminently salable building sites in platted areas with roads, utilities and recreational facilities.

When it comes to land development,

says Clarence Kettler, homebuilders have a decided edge over financiers and other non-builders.

"Many of the problems at Montgomery Village are the same problems we've solved in developing smaller projects. They're not harder just because the job is bigger. But if you haven't been through every development problem before you tackle a big job, you're liable to pay pretty high tuition for your education."

On the other hand, he adds, Montgomery Village also posed some problems that most builders don't face. "For the first time we kept the streets instead of deeding them to a town. So we had to set up procedures for cleaning, maintaining and policing them. We've also had to learn how to run a golf course, operate a restaurant and even show movies in a 90-seat theater."

Run 'go-no go' checks at critical stages during development

The Kettlers were not absolutely committed to developing Montgomery Village until March 1967, when they decided to go ahead with the model houses.

They were able to stay loose because of a series of "we do or we don't" decisions at critical points in the development program. Each decision was based on a thorough review of the project's financial position and on constantly updated market research. And, as it turned out, each decision put the company further along the road to full commitment.

Says Milton Kettler: "In every case the question was whether to commit large sums of additional money or to explore alternatives."

For example:

In late 1965 the company had to decide whether to put $1\frac{1}{2}$ million into the first phases of land improvement. All the planning was complete, and contracts were ready for signing. Although carrying costs were not uncomfortable, the land was not gaining the value that improvement would bring.

Four months later the Kettlers ran a "go-no go" check on whether to commit \$500,000 for a golf course. Through the summer and fall of 1966, three decisions had to be made about the platting and improvement of the three detached-house subdivisions. And, finally, each of four model areas required a different okay before it was built, furnished and opened for sale in the second half of 1967.

Cut out all nonessential spending, but don't stint where it counts

In tight-money 1966, the drain of developing the new project demanded that every dime of profit be extracted from the Kettlers' normal operations.

All run-of-the-mill expenses were questioned and, if possible, reduced. The three These facilities set the tone for the community, make an important first impression



INFORMATION CENTER includes a 90-seat movie theater, displays of development.



MODEL shows future swim club, shopping area and offices planned for village center.



GOLF CLUBHOUSE is simple wood design, has locker rooms and restaurant.

Charles

Charles



LAKES, part of park system, are large enough (26 acres) for fishing and boating.

MONTGOMERY VILLAGE continued

Kettlers took 8% salary cuts and asked employees earning more than \$10,000 to forego raises for the year ahead ("so we can be in business in 1967"). Nobody was let go, but a few employees who quit were not replaced.

No new vehicles were bought, although the company has a normal vehicle inventory of \$750,000. And inevitable costs like signs, logos, brochures and promotion planning for Montgomery Village were postponed until the last minute.

No expense was too small to be reviewed. All travel was stopped, including a trip to the NAHB convention in Chicago. Some phones were eliminated. Organization dues and magazine subscriptions were questioned, and even 59ϕ ballpoint pens were ruled out as too expensive.

Says one executive: "We were writing on both sides of the paper."

Reflects Milton Kettler: "Out of this crisis came a sure knowledge of who the team players were."

But belt-tightening did not extend to costs that would boost sales—and profit. In fact, some of those outlays were raised.

At two existing Kettler subdivisions, five new models were built and furnished, a display area was refurbished, and budgets were increased, salesmen and demonstrators were retrained, model-house hours were lengthened, picnics and other social gatherings were organized for recent homebuyers and extra emphasis was put on customer service.

The Kettlers also canceled a planned price increase and even took a few rentpurchase deals to squeeze in some marginal sales that they normally would not bother with.

Meanwhile, the public relations department tried for every possible opportunity for publicity. For instance, the swimming pool site at one subdivision was turned over to the homeowners' association ahead of schedule and with great fanfare.

In a disastrous year for many builders, the result of all this belt-tightening and calculated spending was the highest volume and net profit in Kettler history. The yearend balance sheet permitted a \$225,000 contribution to the employees' profitsharing plan, and also firmly established the banks' willingness to finance the allout development of Montgomery Village in 1967.

Broaden your product line in price as well as building type

In their previous subdivisions, the Kettlers built up their reputation and their sales with single-family, detached houses that are traditional in design and priced from about \$35,000 to \$60,000. At Montgomery Village they started with these established sellers. But to widen their appeal and boost their volume, they added three new housing types: townhouses, walled court houses and garden apartments.

The townhouses are aimed at a price range (under \$30,000) that detached-house builders in Montgomery County—Kettler Brothers included—can't touch. Priced from \$25,950 to \$34,750 the townhouses are selling mainly to two distinct types of buyers: 1) young families who just can't afford a detached house in the county and 2) older families with high incomes who like maintenance-free townhouse living. In fact, many of the older group moved out of houses that are similar to previous Kettler models.

Five walled court houses (H&H, Feb.) —all strongly contemporary—were introduced in January, and the first nine sales showed they had indeed widened the company's sales potential. Says Milton Kettler: "Not one of these buyers would have bought a traditional house on a conventional site."

Built on 50'x100' lots, the court houses have yards enclosed by 7' brick walls. Their prices are high—from \$43,500 to \$53,500.

To be started this spring are 120 rental apartments, the first of 3,000 planned for the project. The two-story buildings will be in a separate area next to the village center and between the townhouses and the single-family units. They will have one or two bedrooms, and rentals will range from moderate to high.

"There are already many apartments in the county," says Milton Kettler, "but none have the amenities of Montgomery Village. We feel we will draw many of our tenants away from these older buildings."

Base your break-even point on easy-to-meet sales goals

With no Montgomery Village subdivision open over four months, the Kettlers sold 90 houses there in 1967. On that basis, they estimated 1968 sales at a modest 248—125 conventional single-family houses, 75 townhouses and 48 court houses. (Another 135 sales are expected at two other company subdivisions, both closer to Washington than Montgomery Village.)

But when it came to figuring their break-even point, the Kettlers cut that estimate almost in half—to only 140 sales for the whole year.

At that volume they expect to have no more than \$16 million invested in the project at any one time, and annual interest charges of roughly \$1 million will be offset by profits from sales.

Confirmation of the Kettlers' confidence is already apparent. Their line-of-credit outflow leveled off at \$2.1 million in February, and the tide should be reversed as more and more completed houses are turned over to buyers.

DESIGN FILE

Here are 33 ideas that can help you bring a fresh approach to your floor plans

They are the work of three architects (pictured at right) who are part of an unfortunately small group: specialists in the design of merchant-built detached houses. As such, their concern is not merely with design; they must also be familiar with costs, the limitations of the production process, and-perhaps most important--the constantly shifting preferences of the homebuyer.

<u>HERMAN YORK</u> of Jamaica, N.Y., is the country's most prolific designer of builder houses; since he started his practice 20 years ago, some 200,000 of his houses have been sold. Working chiefly in the \$20,000 to \$30,000 range, York has achieved a reputation for 1) floor plans with excellent traffic flow and zoning and 2) relatively simple touches--particularly in the entrance area--that add great appeal to modest-sized houses.

WILLIAM THOMPSON of Princeton, N.J., has spent most of the six years he has been in practice for himself specializing in authentic colonial design wrapped around completely up-to-date floor plans. The average price of his houses is from \$40,000 to \$50,000, giving him the opportunity for considerable elaboration in his plans, particularly in the master bedroom and kitchen area.

<u>HENRY NORRIS</u> of Atlanta has been a detached-house specialist for 17 years. Of late his practice has swung from predominantly builder houses to predominantly custom houses. But he now sees it swinging back, and feels that his custom work has helped him bring new ideas to builder clients (H&H, Mar.,'67).

On the following six pages you will find what might be termed borrowable ideas from houses designed by these architects. They are not intended to be dropped intact into your own houses, but rather to serve as starting points when redesign time next rolls around.



HERMAN YORK



WILLIAM THOMPSON



HENRY NORRIS

DESIGN FILE continued



HERMAN YORK



<u>PRIVATE TERRACE</u> for this master bedroom suite is recessed into the rear of the house; a fence shields it from the rear yard. The room directly behind it can be used in a number of ways: as a fourth bedroom, a nursery, or-if a doorway were cut through from the master bedroom--as a parents' sitting room.

Dining terrace is recessed into wall in a location where it can be reached from both the dining room and the kitchen. A certain amount of quiet is assured by the rear of the garage, which shelters the terrace from the street, and by the fact that most noisy outdoor living will take place on the larger terrace around the corner of the house.

<u>INFORMAL AREA</u> includes kitchen, dining area, full bath and a big laundry room with plenty of space for sewing, ironing, etc. The rear family room, while it is an integral part of the plan, could be left off without destroying the circulation pattern of the house. It could also be added later with a minimum of rebuilding.

Entrance vista is made possible by the use of wood columns around the perimeter of the sunken living room, rather than solid walls. Visitors in the foyer can see all the way through the living room to the garden beyond the glass doors.



HOUSE & HOME



<u>CIRCULAR</u> FOYER is designed for a one- or two-story house with an on-grade entrance. It is not a feature for a small house -- it requires about 4' extra width and a fairly expensive curved staircase -- but it creates a striking first impression.



<u>ANGLED</u> FOYER for a splitentry runs stairs to upper and lower levels at right angles to each other. Biggest advantage: Visitors see planting rather than a tunnel-like stair to the basement. Cost: little more than a conventional foyer.



LOWER LEVEL



UPPER LEVEL

BRIDGED FOYER for a splitentry leads visitors across a railed deck that passes over a Japanese-style garden and pool on the lower level. The stairways flare out from the entry deck. Coat closet has been moved from entry level to lower level.



SIDE ENTRANCE offers a way to break the monotony of rows of split-entry houses all facing the street. The house is turned endwise to the street and a detached garage set alongside it, as shown in the small sketch at left. Then an entry gallery is used to connect the garage to the side entrance of the house. Two versions are shown above: one with covered porches at either end, and one with an entrance lanai or court at the front.

DESIGN FILE continued





BATHROOM AREA occupies a 27'x6' strip across rear of this five-bedroom second floor. Both bathrooms are compartmented, and the family bath is laid out so that it becomes, in effect, two full baths. Note that the dressing room off the master bedroom includes a vanity and sink.

HIMMIN



BEDROOM

DN



SERVICE AREA is slotted in between the kitchen and dining room on the first floor of this twostory colonial house. It includes a powder room, strategically placed off the short corridor between the family room and front hall, and a pantry. The latter is only 6'x6', but provides room for two walls of storage and a counter for stacking dirty dishes when they come out of the dining room.



LAUNDRY-AND-SEWING ROOM is part of what might be termed an oversized mudroom area. It is 8' x16', and has counters and cabinets around one end. Remainder of the area includes a full bath, and a storage wall with closet, pantry, and tote bins for laundry.



OPEN KITCHEN AREA includes an island counter, which delineates the cooking department without closing it off. On the other side of the corridor is a well-glassed breakfast room made by pushing out into the entry court. Since this part of the house will be the focus of family living, a fireplace and a bar are tucked into one end. An oversized garage makes room for a laundry and a large tool-storage area.



<u>SECLUDED STUDY</u>, intended primarily as a hiding place for the harassed housewife, is located at the very end of this utility wing. Laundry facilities and a lavatory are set along the hall leading to the garage. The kitchen and breakfast room are located opposite each other, much like the plan at left. In this house, however, the dining area is larger, and it has a pantry closet at one side.



OFFSET DINING AREA makes possible a feeling of separation from the kitchen opposite, while retaining easy access. The remaining space between the kitchen and the garage is filled with an unusually compact mudroom.

The two fireplaces at far left in the plan represent an economy feature. They are joined on the second floor, and the flues go through the roof in a single chimney.

DESIGN FILE continued



FLEXIBLE FAMILY AREA is composed of a centrally located kitchen, an informal dining area that is big enough to serve as a small family room, a sewing or hobby room that can double as a guest bedroom, and a small laundryrear entry area. The full bath off the sewing room has a second door giving access from the back hall.



<u>ADULT WING</u> includes a master bedroom suite, library and a multitude of closets. While the library is actually part of the living area, the placing of an additional door next to the stairway would, in effect, add it to the master bedroom complex as a private sitting room.

Two ideas at the other end of the plan are worth noting: a small mudroom taken from the relatively inexpensive space of the slightly oversized garage, and a bright eating corner off the family room, created by pushing one wall section out about 3'.



An enormous family room, at the right end of the plan, occupies relatively cheap space created by raising the roof of the garage. It is three risers above the main floor, and has its own half bath and outdoor entrance.





HENRY NORRIS

<u>ATTIC PARTY ROOM</u>, shown at the top of the page, provides almost 500 sq. ft. of entertaining area. This space is more pleasant than the basement, and no more expensive. Area beyond the balcony railing is covered by a big gable dormer. UPPER LEVEL

There are three interesting ideas on the first floor: The kitchen is located where it can serve widely separated formal and informal dining rooms; there is space for a study or hobby room in front of the kitchen; and the two children's bedrooms and bath are treated as a separate wing, which can be closed off during adult parties.





<u>UTILITY CORE</u>, which includes the kitchen and a compact laundry room, completely changes what would otherwise be a typical Cape Cod plan. All three main rooms of the living area now have ample exterior walls and windows. And even though the kitchen is set back from the wall, it gets plenty of light from corridor windows. Another point: The laundry equipment and the kitchen sink share the same rough plumbing.





ANOTHER VALUE BUILDER

Building a 5-bedroom 3-bath home for \$25,000 calls for astute use of many "value builders" by the contractor. Plastic DWV with GSR fittings was one of the important value builders installed by Orrin Thompson Homes in their Pineridge Estates development in Cottage Grove, Minnesota, a suburb of St. Paul.

"I'm convinced that the use of plastic DWV increases the value of the homes we build," says contractor Orrin Thompson. "Yet our saving in installation time and material cost is substantial."

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PLASTIC PIPE FITTINGS

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POURED ROOF DECK—with poured trusses underneath—is hand-floated prior to power floating (*far right*). Finished surface is painted with plastic and incorporates a drainage system.

A concrete roof—at no extra cost gives buyers a new kind of option

Florida builder Jack Sullivan has offered the option—a wood-framed roof or poured concrete—to a hundred homebuyers in his Ft. Lauderdale subdivision. All have chosen concrete.

They can't help but be impressed by the advantages of a concrete roof, particularly in a Southern hurricane area like Florida. Specifically:

1. Fire and wind-storm insurance rates are reduced 52%.

2. Air-conditioning units can be onethird smaller, and operating costs are reduced even more than that.

3. Roof maintenance is simplified.



FINISHED HOUSE requires minimum exterior upkeep and is highly storm resistant.

There is also an advantage for the builder. Sullivan cuts a week off construction time, compared with his former wood-roof houses, because he now has fewer trades to coordinate: His floor-slab crews double as roofers.

Sullivan isn't the first Florida builder to try a poured-concrete roof, but he is the first to offer one at the same price as wood-truss roofs.

He made his costs competitive by developing economical casting forms and faster ways to handle them. His forms are cut from 4x8 plywood panels and coated with fiberglass resin that permits re-use for 70 to 100 castings. They form both 35%"-thick trusses and 3" roof deck in a single pour, are easily set up with wire clips and hangers, and can be expanded to fit most house dimensions.

Instead of using conventional screw jacks to support and level the forms, Sullivan has designed a simple knockout-wedge system so workmen can drop the main support beams in a matter of minutes and get the forms down in less than half a day.

Truss and deck forms



1. NAILING STRIP and one side of a truss form are laid on pipe-supported steel channels.

Quick-drop support beams



TRIANGULAR SPACERS, set on cleats in the truss forms, make voids for ducts and wiring.



REINFORCING STEEL interlaces roof deck and ties bottom chord of trusses to bond beam.



PRECAST FASCIA, used as rain-water barrier, is applied separately to roof perimeter.

118

made of resin-coated plywood are set up without nails and can be re-used 100 times



2. PLYWOOD SPACER is laid flat between truss forms to position them on $4'2'_{2}$ centers.



3. EGG-CRATE SPACER adds lateral support after triangular spacers are set inside forms.



4. DECK FORM spans truss forms on wire hangers after a mid-level plywood spacer is added.

and high-speed concrete work permit casting two roofs a week with one set of forms



SUPPORT SYSTEM for forms consists of 2" galvanized pipes, flitch beams, steel channels.



PIPE CAP contains a welded-on pin that fits into a hole in the flitch beam (left), but the beam is supported by a $\frac{1}{4}$ " steel-plate wedge (right). Beams can be dropped 2" by knocking out wedge.



3,000-PSI CONCRETE of 5"-slump consistency is hoisted by crane and half-yard bucket.



SPUD VIBRATOR consolidates concrete in the narrow 35%" space between truss forms.



POWER FLOATS apply finished surface after concrete has been leveled and hand-floated.



FORM REMOVAL is easy: When the steel channels are slipped out, forms fall to the floor.



FINISHED TRUSSES, integral with the 3" roof deck, span up to 36' with 3-in-12 pitch.



FURRING STRIPS for drywall ceiling are nailed to 1x4s cast into bottom truss chords.

We decided a frame would improve the picture.



IT SURE DID!

This is the mounting frame for the Lennox GCS3 rooftop air conditioning/heating/ventilating unit. A time- and trouble-saver for the engineer, contractor, electrician and roofer. In fact, two men can begin with a hole in the roof and have the unit installed and operating a few hours later.

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For additional details, write Lennox Industries Inc., 383 South 12th Avenue, Marshalltown, Iowa 50158...or see Sweet's.





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Residence, Darien, Conn.



Photo by Richard Avedon

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- 1. Unusual bleeding or discharge.
- 2. A lump or thickening in the breast or elsewhere.
- 3. A sore that does not heal.
- 4. Change in bowel or bladder habits.
- 5. Hoarseness or cough.

- 6. Indigestion or difficulty in swallowing.
- 7. Change in a wart or mole.

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NEW PRODUCTS

For more information, circle indicated number on Reader Service card p. 126

Interiors



Imitation wood panels—1'x2'—are self-sticking vinyl embossed to look like hand-carved wood in three motifs: Spanish Classic (*above*), French Provincial and Colonial. Installer simply peels off paper backing. Decro-Wall, Elmsford, N.Y. *Circle 217 on Reader Service card*



Two-way redwood paneling with T&G rough-sawn face for walls can be reversed to expose a smooth back (*ceiling, above*) with hairline joints. The $\frac{3}{8}$ "thick panels come 4" and 6" wide in random lengths. Simpson Timber, Seattle.

Circle 221 on Reader Service card



Vinyl wallcovering with a pattern of bold white flowers on a black background is one of 39 new patterns. The vinyl-impregnated line is washable and easily stripped from walls for redecorating. Imperial Wallpaper Mill, Cleveland, Ohio.

Circle 222 on Reader Service card



sists scratching and chipping is suitable for home work areas. Five patterns—all textured to look and feel like stone—include white quartz, tan Georgian marble and natural travertine. Johns Manville, New York City. *Circle 218 on Reader Service card*



Low-maintenance panels, made of plastic-finished hardboard that can be wiped clean, simulate random-grooved, roughsawn wood. Size: 4'x8'. Color choice: charcoal brown (*above*) or shale white. Masonite, Chicago. *Circle 219 on Reader Service card*



Sculptured laminate that simulates slate looks and feels threedimensional, yet retains the features of a flat-surface laminate: It won't break, chip or stain. Photo shows architectural grade. Nevamar, Odenton, Md. Circle 220 on Reader Service card



Carved-wood panels—of ³/₄" vertical-grain redwood, 111/₄" wide and 84" long—have T&G edges. Some designs (*not shown*) combine two or three related panels. Price per panel: \$22 to \$30. Forms & Surfaces, Santa Barbara, Calif. *Circle 223 on Reader Service card*
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Wood: redwood. Architect: Dean Unger, A.I.A. / For color samples on wood and A.I.A. Manual write Olympic Stain, 1118 N.W. Leary Way, Seattle, Washington.

Baths



Self-rimming lavatory made of stainless steel is just 18" in diameter. Design highlights include a satin-finish in the bowl, brass outlet and acrylic-handled fittings. American Standard, New York City. *Circle* 260 on Reader Service card



Bathroom ensemble—including an incandescent light, mirror and cosmetic cabinet—hangs on the face of the wall. Four models are available: 33½" high, 43%" deep, and in widths from 243%" to 48%". Miami-Carey, Cincinnati.

Circle 261 on Reader Service card



One-piece shower stall—36" x48"—combines three walls molded of fiberglass in a single unit with no joints or seams. The built-in pillar serves (at different levels) as a soap dish, shelf and seat. Owens-Corning Fiberglas, Toledo, Ohio. *Circle 262 on Reader Service card*



Roomy countertop lavatory of vitreous china has an anti-splash rim, concealed front overflow drain and two integral soap dishes. It measures 20"x18" and is available in pastels and white. Universal-Rundle, New Castle, Pa. *Circle 263 on Reader Service card*



Elegant lavatory fittings—with onyx mounted in 24-carat goldplate —come complete with basic plumbing adaptable to all major-brand lavatories. Matching shower and tub sets are also available. Sherle Wagner, New York City. *Circle 264 on Reader Service card*

Here's a luxury console that tops them all-it goes up and down at the push of a button



High-rise vanity adjusts in heightfrom 28" to 38"-for kids or adults.

If the Crane Co. decides to put the cabinetmounted lavatory into its line, buyers in the higher price ranges can have:

• Color-coded pushbuttons that control water temperature and flow.

• An accessory bar (on the bottom shelf) that recharges battery-operated appliances like shavers and toothbrushes.

Instant hot water.

Crane is building six prototypes of the unit to test its appeal on a nationwide basis throughout 1968. This decision was made after the console drew what one company spokesman termed "excellent reaction" from builders at the NAHB convention.

What the unit will cost has not been determined, but a spokesman hazarded the guess that it would be "slightly under \$1,000." Crane's decision on whether or not to put the unit into production is at least six months away.



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NEW PRODUCTS start on p. 126

Construction materials



Concrete block with handles lets mason grasp the block with only one hand, and continue troweling with the other. This means block can be laid faster, resulting in decreased labor costs. Concrete Masonry Corp., Elyria, Ohio. Circle 250 on Reader Service card



Non-slip aluminum steps are coated with a mixture of silicone carbide and silica sand, can be used in both residential and commercial construction. The abrasive surface is welded to the aluminum. Seidelhuber, Redwood City, Calif. Circle 276 on Reader Service card

New coding system for hardboard industry makes it easy to select the right grade

Two manufacturers-Georgia-Pacific and U.S. Plywood-have recently inaugurated coding systems that should enable builders to select hardboard at a glance.

To explain their systems (not unlike those for the plywood industry) both manufacturers have designed colorful coding charts. U.S. Plywood's chart is shown at right. Georgia-Pacific's (not shown) works like this:

One red stripe (at both side- and end-center of panels) identifies tempered exterior boards; a single green stripe identifies standard interior boards; and one blue stripe marks economical service hardboard like underlayment. Georgia-Pacific, Portland, Ore., Circle 285 on Reader Service card. For information from U.S. Plywood, New York, Circle 286 on Reader Service card



Wood-post anchor can be adjusted during installation even if anchor bolt is placed in concrete out of line. Anchor is packaged ten assemblies -seat, support and washer plate-to a carton, with nails. TECO, Washington, D.C. Circle 251 on Reader Service card



Beam clip, with staggered nail holes for a stronger connection, is made of 16-gauge steel, plated after stamping with a special finish to resist weathering and hold paint better. Two clips per post are recommended. Panel Clip, Farmington, Mich.

Circle 252 on Reader Service card



Roof insulation-consisting of rigid polyurethane foam and felt skins-is compatible with exist-ing roof systems. Manufacturer promises low thermal conductiv-ity. In 36"x48" boards from 34" to 21/4" thick. Armstrong Cork, Lancaster, Pa. Circle 253 on Reader Service card



Rubber pipe boot-molded of a blend of EPDM and butyl-has a tapered flange that ties in with other waterproofing systems. One style fits 2" to 5" pipes, and can be buried in dirt, concrete or asphalt. Uniroyal, New York City. Circle 254 on Reader Service card







Princely new fittings...Bold Gold! For '68, Kohler presents a full line of fittings electroplated in 24 carat gold. Pictured: the Flair pattern, with handles of amber acrylic. Crowning touch for lavatories, bathtubs and bidets, the new fittings are equally at home with all Kohler colors, from cool Avocado to new Harvest Gold —to this vibrant new Tiger Lily.

KOHLER OF KOHLER

Kohler Co., Kohler, Wisconsin

Floors



Imitation wood blocks with an embossed woodgrain pattern come in five colors: red, green, tan, brown and white. The 12"-square tiles are made of vinyl asbestos in standard 1/16" gauge. Ruberoid, New York City. Circle 200 on Reader Service card



Parquet teak tiles, backed with felt, blend rectangles of teak in two traditional patterns: basketweave, right, and squareand-check. The 9", 12" or 18"sq. tiles are installed with adhesive. Walker & Zanger, New York City.

Circle 201 on Reader Service card



Indoor-outdoor carpet consists of a polypropylene-tufted face backed with high-density foam, so it needs no padding. Fourteen colors are offered, including four multi-color combinations (*photo*). Lees Carpets, Bridgeport, Pa.

Circle 202 on Reader Service card



Embossed tile flooring features a classic medallion design in six colors: antique white, black, beige, red, brown and green. The 12"x12" tiles are solid vinyl in 1/8" gauge, and may be installed on any grade-level floor. Amtico, Trenton, N.J. Circle 203 on Reader Service card

FAMED SCHOLZ DESIGN SETS THE PACE IN GARDEN





Textured vinyl tiles, 12"x12" in residential gauge, are designed with colored chips in a random pattern. Colors include pineapple gold, avocado, maple, fawn, cameo and turquoise. Goodyear, Akron, Ohio. *Circle 204 on Reader Service card*



Cushioned-vinyl flooring for semipermanent installations comes in 6', 9' and 12' widths, is installed without adhesive. It features a geometric design in four bold colors—red, blue, avocado and gold—and two pales—champagne and sand. Congoleum-Nairn, Kearny, N.J. *Circle 205 on Reader Service card*



Subtly colored tiles of vinylasbestos (shown above with feature strips in a contrasting color) feature a random-chip pattern in beige, gold, mahogany, sand, white and two shades of green. Tiles are 12"x12", and 1/16" thick. Johns Manville, New York City.

Circle 206 on Reader Service card

New products continued on p. 136



Scholz Apartments have set phenomenal records everywhere they have been built. Top rents. Top mortgages. Speedy rent-up. Unequalled return.

Very frankly, they are doing this because they provide more appeal than anything offered in their competitive markets. There has never been an unsuccessful Scholz Apartment Project.

To any builder, the complete engineering provided saves months in start-up time, insures closely controlled costs, speedy construction.

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The unit shown is just one of the hundreds of architecturally varied types available in buildings from four units to a hundred plus, in every rental range from \$100 to \$500 shown in the Scholz Homes Apartment Book. If you are planning an apartment program, it provides invaluable information on every phase of apartment design, construction and financing. Send coupon today. A consultation with the Scholz Representative can save you countless weeks of lost time, insure a POSITIVE Economic Success of your program.

Mail to : SCHOLZ HOMES, Inc. • P. O. Box 3355, Toledo, Ohio 43607. Circle 98 on Reader Service card

Circle 99 on Reader Service card

Read how this new Kemper idea can make the difference in your 1968 home sales

Here's an idea that can help apartment rentals, too. Use Kemper crafted cabinets as room dividers. It's a great tie-in with the kitchen and it's now practical because of Kemper engineering ... cabinets are constructed and pre-finished to furniture quality. Kemper is the only cabinetmaker licensed to display the NAFM Warranty. Add to this Kemper's unique reversible and replaceable door front and we can't think of a more attractive and economical way to provide bookshelves, or, that precious extra storage space. Choose from four handsome Kemper styles and finishes. There's a Kemper kitchen cabinet and bath vanity idea just right to make your houses into homes. For more good ideas see your Kemper Dealer. And for your free copy of our comprehensive "Kitchen & Bath Planning Guide" write to us. Kemper Brothers, Inc., Rich-mond, Indiana 47374.







Put the Number One Disposer into your new homes before she asks for it.

IN-SINK-ERATOR®

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Introducing In-Sink-Erator Model 77 for 1968: The smart look, long life and performance of shining stainless steel. And not just an ordinary but *double* warranty! A lifetime corrosion warranty *plus* 5-year parts protection.

Now there's a quality model and price that's just right for your requirements. Also 800 Authorized Service Centers across America to eliminate call-back headaches and insure owner satisfaction. Women buy more In-Sink-Erators than any other brand. So go ahead. Put the Number One Disposer into your new homes before she asks for it.



<section-header>

NEW PRODUCTS

start on p. 126

Two-tone mural, showing a Flemish harbor outlined in gold and black, is made of $\frac{1}{8}$ "-thick plastic-finished hardboard, has gold-finished moldings to match. Suitable for tub-shower area, the mural is 5' wide. Marlite, Dover, Ohio. Circle 225 on Reader Service card



Prepasted flock wallcovering—the first designed especially for nurseries—doesn't object at all to soap and water. Reason: It's made of acrylic flock fibers bonded to vinyl-coated paper. The material is also non-allergenic. Birge, Buffalo. *Circle 226 on Reader Service card*



Prefinished pecan paneling with wide grooves is designed to give the appearance of Colonial planking. The ¹/₄"-thick plywood panels are 4' wide and 7', 8' or 10' long. Moldings are available to match. E. L. Bruce, Memphis. Circle 227 on Reader Service card

A Class "A" Fire-Safe Shake-Type Roof?



With PHILIP Carey, '350 RUSTIC SHAKES

At a glance, you recognize the distinctive difference of this new shingle! It's the newest form of the famous Fire-Chex® asbestosplastic shingle. Gives vibrant new personality to roofs, as well as the highest available fire-safety rating.

Wind-tight, too! Special Wind-Tite[®] thermo-plastic adhesive seals tabs tight. New bevelled headlap gives you smoother, flatter shingle courses. And an exclusive new self-aligning feature speeds up your shingle application.



Select from three dramatic Rustic Shakes color blends . . . Desert Tan, Sage Gray, Bark Brown. All have been specifically styled to enhance the special Rustic Shakes look. One of the three colors can be the ideal choice for the roof you have in mind.

You have to see Rustic Shakes to realize how much they will do for a building. Send for your full-color Rustic Shakes catalog. Write Dept. HH-368, The Philip Carey Mfg. Company, Cincinnati, Ohio 45215.

And for the classic straight-line shingle effect ...

Class "A" Asbestos-Plastic '325 DOWN FIRE-CHEX® SHINGLES



Or long-life low-cost seal down SOL-SEAL SHINGLES



New Andersen Perma-Shield value of wood plus a rigid vinyl



New Andersen

Windows offer the insulating shield that needs no painting.

(No wonder you're seeing more of them lately.)

Inside a Perma-Shield sash there's a core of warm, stable wood. Outside, there's a thick sheath of rigid, weatherproof vinyl. And the glazing is welded insulating glass.

Is it the perfect window? You'll have to decide about that for yourself. We're proud of it, and we're pleased that Perma-Shield windows are being specified for some of the best new commercial buildings and residences.

Wide range of styles and sizes.

Choose casements, awning style, fixed types, single or multiples right from stock. There are 26 basic Perma-Shield sizes and 3 sizes of gliding doors-6, 8 and 12 feet.

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Architect. L	.van 5. meeorkie	, virginia beach,	va.



Emma Norton Methodist Girls' Residence, St. Paul. Difficult elevation could make window maintenance a nightmare, but there's little or no maintenance with Perma-Shield. They've been performance proved on thousands of residential and commercial jobs like this one-exposed to every climate over the last 9 years.





Low maintenance home, Long Lake, Minn. The Perma-Shield Windows in this home won't need painting, or storm windows, and they won't pit or corrode like metal. They combine the insulating value of wood and the maintenance savings of a rigid vinyl shield. Architect: George F. Panuska, Virgin Islands.

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ma-Shield Windows



DEPENDABLE SEWAGE TRANSFER AND TREATMENT EQUIPMENT



NEW PRODUCTS start on p. 126

Exteriors.



Interlocking roof tiles—made of bituminous-coated galvanized steel that is covered with stone chips, then sealed against weather and fungus—have been used for several years outside the Continental U.S., and are now being introduced here. Advantage for mansard roofs: Tile's light weight (180 lbs. per sq.) permits nailing directly to horizon-tal strips fastened to roof trusses. Has not yet been approved for low-pitch roofs. Decramastic, Miami. *Circle 208 on Reader Service card*

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Rough-textured plywood siding in two groove patterns (Stri-gruv, *above*, and reverse board-and-batten) and three panel sizes (4'x8', 9' and 10') is factory-finished in white, grey, green, rustic, charcoal and sand. Vancouver Plywood, Portland. *Circle 209 on Reader Service card*



Translucent fiberglass-reinforced-plastic panels with 5%" ribs 4" apart are striped in choice of four natural-color combinations. Panels are 26" wide; 8', 10' and 12' long. Price: less than 50¢ a sq. ft. Filon, Hawthorne, Calif. Circle 210 on Reader Service card

Is there anything in the kitchen Tappan doesn't make?

We don't make people eat cold meals.

This new Tappan Gallery range has a built-in electric warming shelf. It keeps food hot for slowpokes and second helpings. Warms plates, too. (A little feature like this can sell a whole house.)

We don't make a lady clean the oven.

This Tappan Self-Cleaning oven removes all spills and spatter automatically -far better than she could by hand. No stooping, no scouring. Just set a dial, close the latch and forget it. (Installation? Just slide it in.)

Convenience by the Kitchenful

Tappan - 250 Wayne Street, Mansfield, Ohio 44902

Tappan Renaissance II Range has two big ovens. Available in gas or electric. (We don't make you disappoint a single prospect.)

Tappan Twin-Temp Refrigerator and Freezer holds a world of food. And has quick-change front panels that let her be creative.

Tappan Reversa-Jet Dishwasher gets dishes far cleaner with 2-way washing action. (We don't make her rinse them off first.)

Tappan Electronic Range is fast because it cooks with microwaves, not heat. (Would you believe a 5-pound roast in 30 minutes?)





Circle 103 on Reader Service card



How Marlite paneling gets involved in everybody else's business.



New Rosewood does wonders for a corporate image by capturing all the rich grain and color of hand-rubbed natural wood. Only difference: Marlite stays like new, Annual Report after Annual Report.

New American Tile is the answer where clean walls are the question. All the beauty of ceramic tile, but none of the problems of grouting. And like all Marlite paneling, this wall wipes clean with a damp cloth.

New Antique White Tapestry has texture you can see and feel—down to the most delicate thread. But Marlite texture can't peel off. It's deep-embossed in the panel for a lifetime of wash-and-wear beauty.



New Lombardy Travertine has been accused of looking like costly Italian limestone. That's the idea exactly. So if your customer wants magnificent walls without paying a heavy penalty, make a case for this Marlite paneling.

New Marlite Mural, entitled "Flemish Harbor," is crafted in deep brown and gold on a white background. Use this panel when you want pictorial effects in a hurry. (Marlite goes up fast without interrupting business.)

New Textured Oak gives you everything the real wood has except acorns. Authentic texture. Distinctive grain. Plus a rugged plastic finish that resists heat, moisture, stains and dents. A great background for any business.

plastic-finished paneling

HOUSE & HOME

MASONITE

See Marlite's new line of prefinished hardboard paneling (including new Fire-Test Panels) in Sweet's File or write Marlite Division of Masonite Corporation, Dept. 322, Dover, Ohio. 44622.



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Advertising Sells Good Works

(as well as goods and services)



Have you noticed how often, when an important public cause is at stake, people turn to a good salesman for leadership? Successful businessmen have given uncountable man-hours to America's schools, churches and charities, and have led in solving major national problems. For its part, advertising—good salesman that it is—has provided the means to communicate such causes to the American people.

For 25 years ads like these have been prepared by advertising agencies who volunteer their services. Radio and television give time on the air; space is donated by newspapers and magazines. Last year alone, for example, business publications like this one gave more than a million dollars' worth of space in the public interest through The Advertising Council of which the American business press is a part.



25 years of advertising contributed for the public good

NEW PRODUCTS

start on p. 126



Seamless tubular zinc-plated steel rods slip over "end serts." Each "end sert" is a plastic anchor that attaches to wall with a single wood screw. A twist motion extends the telescoping rod flush with the wall surface.

The low competitive price and the fast installation are money-saving advantages builders welcome.

Available for all closets up to twelve feet. See your Hager dealer for range of sizes and prices.

HAGER HINGE COMPANY 139 Victor Street • St. Louis, Mo. 63104



Circle 106 on Reader Service card



Tools and equipment



Hydraulic motor grader—with 12' blade, 83-hp engine and powershift transmission—is sized to handle most jobs between rough and finish grading. Other features: forward speeds up to 21.4 mph, 18' turning radius. John Deere, Moline, III. Circle 229 on Reader Service card



ward or in reverse, drills at high or low speeds and drives or removes screws, nuts and bolts. The drill is double-insulated throughout and incorporates DuPont nylon housing. Black & Decker, Towson, Md. *Circle 230 on Reader Service card* ROUTE PORTE

Compact voltage booster— 3¹/₂ "x4"x6"—weighs only 8 lbs., has a capacity of 15 amps. to restore the voltage drop common when electric tools are used with long cords. Packaged with threewire AC cord and plug. Terado, St. Paul, Minn.

Circle 295 on Reader Service card



Tilt-bed trailer—with a 4'x8' platform of welded steel and heavyduty plywood—tilts at a 15° angle to load drive-on equipment weighing up to 1,000 lbs. Model's 8" clearance permits use in rutted areas. International Harvester, Chicago. *Circle 232 on Reader Service card*

Customers insist on built-in security in a home. And that goes for the bathroom, too! Consider: Eljer's slip-resistant Perma-Mat[®] textured tub.

When it comes to building a new home, you want to give your customer all the security possible for the money. So, why stop at the tub? You don't have to, you know.

Now, the bathroom can reflect an added measure of security when you install Eljer's Perma-Mat textured tub with a slip- and slide-resistant surface.

This feature in bathtub surfaces, Perma-Mat, comes in the elliptical pattern (shown), in cast iron tubs and in a rectangular-shaped area in formed steel tubs. Of course it's available in snowy white or Eljer pastels. When it comes to stepping into the tub, your customer will thank you.

For your nearest plumbing contractor, look for the Eljer trademark in the Yellow Pages, or write Eljer, Dept. HH8, P.O. Box 836, Pittsburgh, Pa. 15230.



Eljer Plumbingware Division / Wallace-Murray Corporation



Harris Homes' success story: Build in old neighborhoods ahead of urban renewal with U.S. Steel Homes components. George and Mike Harris are Erie, Pa., builders who plan to build 248 units in 1968 in several cities in Western Pennsylvania, in areas that most builders would consider risky. They build compact luxury units on small sites in old neighborhoods, close to downtown.

"We get in just ahead of urban renewal," says George Harris, "and design our projects to environmentally exclude the surrounding neighborhood." The Commons, shown here, is located on less than an acre and a half of land in an old neighborhood near downtown Erie. It consists of two 8-unit apartment buildings and four 4-unit townhouse units that face inward on a small park. All of the units were rented before the project was completed.

Harris Homes know what they're doing, and that's why they use U. S. Steel Homes pre-engineered components. They feature an exclusive, proven steel framing system that assures quality construction at competitive cost. "It's the most versatile system in use in the nation today, and because of its very nature, it lends itself to both residential and commercial applications," says George Harris. "On-site uses of labor are far more efficient and result in large savings. Construction scheduling is made easier, as the greater percentage of work is done in the plant, reducing costly delays due to weather, strikes and other variable conditions." Mike Harris



adds, "The architectural staff of U. S. Steel Homes does an outstanding job of furnishing up-to-date designs with features not found in many conventionally built custom homes that are many thousands of dollars higher in price."

U. S. Steel Homes offers a wide range of apartment, townhouse, and duplex plans in a variety of sizes and designs, priced to fit any market, as well as a complete line of single-family homes and plans for special markets such as dormitories, nursing homes, motels, and vacation homes.

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NEW PRODUCTS

start on p. 126

Doors and windows



Steel bifold closet door incorporates decorative panels of molded high-impact plastic. Levitt & Sons developed the door in cooperation with two building-industry suppliers. It will be marketed by U.S. Plywood, New York City. *Circle 245 on Reader Service card*



Plexiglas acrylic plastic, in a series of transparent gray and bronze colors that control heat and glare, is designed for use in windows, skylights, transparent enclosures, and as sunscreens. Rohm & Haas, Philadelphia. *Circle 248 on Reader Service card*



Mediterranean-style grilles of wood (with molded-plastic head and sill) fit standard casement windows in three heights. Package includes bronze-finished hardware and restyled handle. Window frame need not be changed. Crestline, Wausau, Wis. Circle 298 on Reader Service card



Removable vinyl grille is available for all standard-size windows, can be sanded or cut to fit odd-size units. Grilles are shipped knocked down, can be assembled by hand (*above*) without special tools. Color choice: white or grey. Rimar, Mt. Joy, Pa. *Circle 297 on Reader Service card*





Mediterranean carvings in three designs are appliqued on solid-core stock for interior or exterior use. Standard doors measure 3'0"x6'8", but manufac-turer will custom-design for any size opening. Maderas, Santa Barbara, Calif.

Circle 247 on Reader Service card

porates tubular steel framing, an 8" kick panel and a single panel of high-strength safety glass. Four standard sizes up to 3'0"x 7'0" are offered, in a choice of 22 colors and finishes. Rusco, Pandora, Ohio.

Circle 246 on Reader Service card



Circle 111 on Reader Service card



High-style door knob with a fluted pattern is offered in a choice of brass, bronze or aluminum, each with several finishing options. Dimensions: knob diameter, 2"; projection: 23%". Weiser, South Gate, Calif. Circle 249 on Reader Service card



Steel folding door is constructed of vinyl-laminated steel panels finished in a choice of four woodgrains: walnut, fruitwood, birch or oak. Widths range from 3'2" to 4'0"; heights from 6'8" to 8'0". Clopay, Cincinnati. Circle 296 on Reader Service card



- For concrete, cement, all masonry surfaces inside or out . . . basement floors, walks, steps, patios, sun decks.
- Resists moisture and abrasion, will not crack, peel, or scale. Detergents and bever-ages will not mar the finish. It is alcohol-proof.
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- Eight colors: Mint Green, Brownstone, Brick Red, Quarry Gray, Evergreen, Cobblestone Gray, Sandstone, Pipstone Red . . . plus White and Black.

SAMUEL CABOT INC. 330 S. Terminal Trust Bldg., Boston, Mass. 02210 Please send color card and information on Cabot's Cement Floor Stains.



NEW PRODUCTS

start on p. 126



High-rise laundry mates have eye-level control panels about 2' above the washer and dryer. Directly below the contols: built-in storage compartments spacious enough for detergent boxes and other laundry aids. Frigidaire, Dayton, Ohio. Circle 235 on Reader Service card





Chrome-finished built-in toaster that fits between studs takes up no counter space: it tilts out to toast (*right*) and fits flush with wall when not in use (*left*). Wall opening: $13\frac{1}{2}$ " wide, 9" high. Nautilus, Freeland, Pa. Circle 244 on Reader Service card



Refrigerator/freezer rolls on wheels, allowing the homeowner to move the entire unit to clean behind it. The 22-cu.-ft. model above incorporates decoratordoor feature, lets owner coordinate unit with kitchen decor. Tappan, Mansfield, Ohio. *Circle 241 on Reader Service card*



Electric eye-level range features a self-cleaning lower oven that uses temperatures up to 900° in cycles of one to four hours. A safety lock—activated when the temperature reaches 550°—prevents door from being opened. Roper, Kankakee, III.

Circle 242 on Reader Service card

152



Food-waste disposer that incorporates stainless steel parts and a motor partially imbedded in epoxy to combat corrosion carries a lifetime parts warranty. The unit installs with snap-on mountings. Six models. General Electric, Louisville.

Circle 236 on Reader Service cad



Paper-towel dispenser, incorporating a two-shelf section for wax paper and foil, etc., is installed through a rectangular cutout in the bottom of a wall cabinet. The unit's top offers additional storage space on top for spices. Murray, York, Pa.

Circle 234 on Reader Service card



Automatic washer and dryer are offered in white, copper and avocado with teakwood control panels. Four washer models accommodate 16- to 18-lb. loads. Matching three-cycle dryers are available in a choice of gas or electric. Kelvinator, Detroit. *Circle 243 on Reader Service card*

Slide-in range has a lift-up cooktop that overlaps the countertop, giving a built-in look without extra trim kits or molding. Optional feature: black-glass doors on oven and broiler sections. Magic Chef, Cleveland, Ohio.

Circle 240 on Reader Service card



Prefinished hardwood cabinets with deep graining come in three styles: Colonial, Hermitage and Contemporary (*above*). They have die-cast pulls and knobs plated to simulate pewter. H. J. Scheirich, Louisville, Ky. *Circle 255 on Reader Service card*



Move them up to the elegance of "Thai-Teak" Floors WITHOUT MOVING THEM OUT OF THEIR PRICE RANGE!

> Thai-Teak (Botanical name, Tectona Grandis; imported from Thailand) is lustrous and luxurious . . . easy to maintain with just an occasional waxing . . . withstands the hardest wear . . . resists termites, rot, decay . . . is available at a cost that compares with mediumpriced carpet and vinyl . . . and comes in 85 different patterns.

> See our insert in Sweet's Light Construction Catalog. For complete details, attach coupon below to your firm's letterhead.



Please send details on Thai-Teak Custom Flooring.
 Please have your representative call on me.

ADDRESS

NAME

Circle 116 on Reader Service card

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1. World's most dependable dry whiteprinter. 2. Prints and develops in one unit. 3. Makes sprints up to 42" wide by any length at dramatic speeds. 4. Makes sepias without turning them over, black line and foils. 5. Newest circuitry and design. 6. Auto-Start Lamp and reverse switch. 7. VACU-FLO ammonia system (optional) never lets liquid ammonia enter the machine, eliminates daily handling. SEND FOR INFORMA-TODAY.

7 DIFFERENT MODELS FROM \$129.50

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Send for free catalog. At-tach this ad to your letter-head and send directly to us for FAST response.

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Circle 117 on Reader Service card



your prints for only 1-1/2c per sq. foot! Just look at these features, don't they make you want to take one home? Zuickie

Tools and equipment

start on p. 126

NEW PRODUCTS



Rubber-tired trencher is designed to provide traction close to that of a track-mounted machine. It digs up to 1,200' per hour, as deep as 64", as wide as 12", and comes with an angle dozer and a borer. Davis, Wichita. Kan. Circle 237 on Reader Service card





Circle 215 on Reader Service card



Pickup-truck cover of galvanized steel features side and rear windows of impact-resistant acrylic plexiglas. It is finish painted inside and out with aluminum lacquer, white enamel or a choice of colors. Collins, Cincinnati.

Circle 238 on Reader Service card



Steel caulking guns provide maximum force at the nozzle with minimal trigger squeeze, plus 50% extra capacity. Top: drop-in cartridge gun; center: high-capacity air-pressure gun; bottom: hand-operated pressure gun. Kenmar, Philadelphia. Circle 231 on Reader Service card



Ladder-platform hoist fits any wooden or aluminum ladder with 12" rung spacing, but is recommended for use with a special 28' sectional ladder complete with platform of 200- or 400-lb. capacity. With 100' cable. Reimann & Georger, Buffalo. Circle 239 on Reader Service card

HOUSE & HOME

DESKS

KITCHEN "KADDYS"

BATH HEATERS . TOASTERS . CLOCKS . BATH SCALES

RANGE HOODS

CAN OPENERS

VENT FANS

Who put 23-gauge in closet doors without changing the price?

Peachtree Door Did

What a steel! What a difference a gauge makes. Now Strato-Fold doors have 12½% more steel by thickness and weight. So sturdy. So quiet.

What a steal! PEACHTREE DOOR refuses to sell 23-gauge Strato-Fold doors at a premium price. Every Strato-Fold door is built with the same high quality materials and we don't charge a penny more. Furthermore, we refuse to manufacture a budget-basement door made from a lower-grade steel.

What a deal! We use only 23-gauge. We sell at no extra cost. This means that you and your customers get more for the door and more for the dollar when you choose PEACHTREE DOOR's Strato-Fold.

Introducing the Regency. Shown here is the Regency, the newest design in bi-folding closet doors. New narrow-line 3-inch louvers are uniform width on every door size, and have matching panel design with beautiful die-cast knobs. The heavy gauge steel makes it so quiet and so sturdy. Available in six very vogue colors. Choose 6'8" or 8'0 heights for economical installations. The price? Unbelievably low. The Regency is only one of the Strato-Fold designs. You should see the other five!





PEACHTREE DOOR is the manufacturer of the original reversible sliding glass door in both wood and aluminum.

Tools and equipment



Self-priming portable pump for excavation, ditch and caisson work pumps 13,800 gph at a total head of 50', yet weighs only 106 lbs. Three other models with head capacities of from 20' to 100' are available. Skil, Chicago. *Circle 211 on Reader Service card*



Worm-drive saw can perform continuously without overheating because a new waterfeed attachment keeps the blade cool. The saw is powered by 13-amp motor, has removable diecast-aluminum handle. Black & Decker, Towson, Md. *Circle 212 on Reader Service card*



Electric hand shear cuts 20gauge steel at a rate of more than 25' per minute. The shear permits left-hand cuts with ½" radius, right-hand cuts with 1" radius. Lumaside, Milwaukee. Circle 213 on Reader Service card



Traveling-arbor table saw weighs about 600 lbs. Performance rating per minute: two cuts up to 9'6" long in 1" plywood. A 2-hp motor is standard. Price & Rutzebeck, Hayward, Calif. Circle 214 on Reader Service card

New literature starts on p. 158



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"I don't know who you are.
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I don't know what your company stands for.
I don't know your company's customers.
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Now-what was it you wanted to sell me?"



House & Home





Two guides tell what to expect from elastomeric sealants



PROPER INSTALLATION requires that a portion of the sealant precede the advancing nozzle.

For copies of free literature, circle the indicated number on the Reader Service card, p. 143

CONCRETE TERMINOLOGY. The first edition of a pocket-sized glossary contains the terms most used in the cement and concrete industry. For a copy send \$3 to: Publications Dept., American Concrete Institute, P.O. Box 4754, Detroit, Mich. 48219.

SOUND-CONTROL SYSTEMS. The advantages of wood-framed partitions for sound control are cited in an 18-page booklet that contains detailed cross-section drawings and specs. With sTc and fire-resistance ratings. Western Wood Products Assn., Portland, Ore. *Circle 300 on Reader Service card*

CONSTRUCTION MATERIALS. Thirteen design ideas that utilize manufacturer's line of building products highlight a well-illustrated 32-page booklet. Subjects include waterproofing, fire-protection and termite and decay protection—in areas from roofing to flooring. Koppers, Pittsburgh. Circle 301 on Reader Service card

SEAMLESS FLOORING. A four-color brochure displays and describes a complete line of resilient flooring and wall coverings. The product's advantages for both residential and commercial use are cited. Twelve pages, with specs. Torginol of America, Montebello, Calif. Circle 302 on Reader Service card

PLASTIC-FINISHED PANELING. Four new woodgrain patterns and colors are included in a four-color brochure describing the full line. The paneling is available in a wide choice of substrate types and sizes as well as patterns and colors. Photos and diagrams detail installation methods. Videne, Akron, Ohio. *Circle 303 on Reader Service card*

CEILING SYSTEMS. A comprehensive 40-page booklet is a reference file for acoustical ceiling systems, lay-in panels, perforated and fissured tiles, companion lighting fixtures. Includes timerated floor/ceiling assemblies. Design characteristics, dimensions and specs. Celotex, Tampa, Fla. *Circle 304 on Reader Service card*

RESIDENTIAL CHIMES. A new line of door

They should be easy to apply, have good wetting properties, be able to stretch without loss of adhesion, show good recovery as the joint closes and show little or no shrinkage.

There are wide distinctions, however, between the many sealants classified as elastomeric. So the Carlisle Corp. has come up with a comprehensive bulletin that will help you decide which sealant to use. Highlighting the bulletin: a chart that illustrates typical applications (*above*) for three products: 1) hypalon one-component sealant, 2) butyl calk and 3) latex calk. The sealant's position is shown in dark grey.

chimes gets the spotlight in an eight-page catalog in full color. Also included: lighted pushbuttons and accessories. Emerson Electric, St. Louis. *Circle 305 on Reader Service card*

RESILIENT FLOOR TILES. Color-comparison charts that include vinyl-asbestos and asphalt-tile lines of eight manufacturers simplify selection of floor tile by style and color. Asphalt & Vinyl-Asbestos Tile Institute, New York City. *Circle* 306 on Reader Service card

SHELVING SYSTEMS. More than 25 wall and floor-to-ceiling arrangements are displayed in a four-color brochure that includes suggestions on the best place to put them. Grant Pulley & Hardware, West Nyack, N.Y. Circle 307 on Reader Service card

PLASTIC-FINISHED PANELING. Four-color photos illustrate manufacturer's complete line of wall panels, including woodgrains, solid colors and textures like travertine and leather. Accessory moldings are also shown. Marlite, Dover, Ohio. *Circle 308 on Reader Service card*

EXTRUDED BRASS. Twenty-six-page booklet contains sections on extruded angles, channels, T sections, rectangular rods and tubes. Includes dimensions and weight per ft. Anaconda American Brass, Waterbury, Conn. Circle 309 on Reader Service card

BACKHOE/LOADERS. An eight-page brochure enumerates—with photos and specification tables —the advantages of owning loader units in the 90 hp class, and their attachments. International Harvester, Chicago. *Circle 310 on Reader Service card*

TROWEL-TRADE TOOLS. A 64-page catalog describes and illustrates more than 1,200 tools for six trades, including block and stone masonry, cement finishing, plastering, drywall hanging and finishing. New tools include a gasoline-powered hand saw for cutting concrete expansion joints and masonry units. Goldblatt Tool, Kansas City, Kan. Circle 311 on Reader Service card

WHOLESALE BUILDING MATERIALS. The 1968 catalog of a building-materials wholesaler announces this bonus: It will pay full freight on all orders totaling more than \$250 east of the conA second bulletin, part of the Canadian Building Digest series, comes up with these conclusions: 1) design the joint so the seal is located where it will have the least critical function to perform, 2) design it to protect the sealant from factors that may cause deterioration, 3) select the sealant in accordance with its properties and the conditions to which it will be subjected, 4) see that it is properly installed (*diagram, left*).

For more information from Carlisle Corp., Carlisle, Pa. Circle 375 on Reader Service card. For the Canadian Building Digest, Circle 376 on Reader Service card

tinental divide; and on orders above \$350 in the rest of the U.S. Morgan-Wightman Supply, St. Louis. Circle 314 on Reader Service card

ALUMINUM PRODUCTS. Full-line catalog includes manufacturer's aluminum swimming pools, siding, doors and windows. Six pages. International Aluminum, Moonachie, N.J. Circle 312 on Reader Service card

SINGLE-CONTROL FAUCETS. Kitchen, lavatory and tub-and-shower styles are displayed in a tenpage catalog that also explains characteristics and line's unconditional guarantee. Vance, Chicago. Circle 313 on Reader Service card

INTERIOR PANELING. Information on woodgrained-plywood, vinyl-overlay and natural-hardwood panels makes up a 24-page catalog in fullcolor. Includes installation instructions. Evans Products, Riverside, Calif. Circle 350 on Reader Service card

ROOF COATINGS. A 32-page catalog of paints, coatings and maintenance products includes data on how to apply each product, its drying time and coverage data. Amspro Products, Cleveland. *Circle 351 on Reader Service card*

VINYL-SIDING SYSTEM. Brochure (of interest to lumber dealers and prefabbers) tells how to custom laminate vinyl siding in your own shop. Company leases laminating equipment on a franchise basis. Morgan Adhesives, Stow, Ohio. *Circle 352 on Reader Service card*

FANS. Full-line catalog presents manufacturer's residential, commercial, institutional and attic models. It details operating features, contains performance charts, and explains how to install. Emerson Electric, St. Louis. *Circle 354 on Reader Service card*

ALUMINUM-SIDING APPLICATION. In light of a shortage of applicators, the Aluminum Assn. has tried to simplify installation steps to the point where unskilled labor can master them, Result: a manual that shows in detail—with photos and diagrams—how to apply the siding. Aluminum Assn., New York City. Circle 355 on Reader Service card

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If you're an experienced executive who knows how to build and sell homes, we've got a position for you that will equal or better the income you're enjoying now, and put you close at hand to even greater opportunities in one of the finest, fastest growing companies of its kind in the country.

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