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New Concerto by NuTone. America's first name in chimes. For the name of your nearest NuTone representative or distributor, **DIAL FREE 1-800-543-8687** in the continental U.S. Or write to the address below. Ohio residents call 1-800-582-2030. In Canada, write NuTone Electrical Ltd., 2 St. Lawrence Avenue, Toronto, Ontario M8Z 5T8.



# New Concerto Chime by **NuTone**

Senvil

Dept. HH-3, P.O. Box 1580 Cincinnati, OH 45201

Send us your song request. If we can whistle, sing or hum it, we'll send you the program. Write to Carol Blank, Chime Product Manager, NuTone, Madison and Red Bank Roads, Cincinnati, OH 45227.

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New Greenwich. The frame is genuine oak, finished with a rich walnut or mellow

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variegated glass and our new oak Mini-TriVista shown at left.

For the name of your nearest NuTone representative or distributor, **DIAL FREE** 1-800-543-8687\* in the continental U.S. Or write to the address below.

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Dept. HH-3, P.O. Box 1580 Cincinnati, OH 45201

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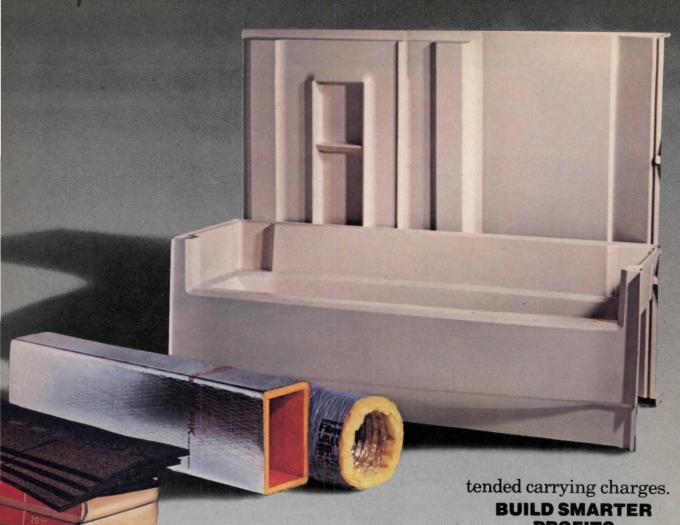
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#### HOMEBUYERS DEMAND ENERGY-EFFICIENCY

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## The more things change . . .



It's always instructive to look at the past, to develop, as it were, a sense of history, to gain some perspective.

We had that opportunity in preparing this, our 30th Anniversary issue. As we studied the early volumes of House & Home (as HOUSING was then known), we began to realize that an era we had looked upon as the halcyon days of our industry was instead a series of victories and defeats, challenges and achievements—and a lot of worry.

"You cannot start a building boom overnight," we warned in an October 1952 editorial urging the government to relax credit controls before the economy ran out of steam. "And once deflation gets started the problem of stimulating construction becomes many times more difficult."

Looking back, we realize that although the government always seemed to be placing obstacles in the way of our industry, it was in fact playing a very beneficial role. This was the era of the "GI Bill of Rights," of ever-more-generous terms for FHA, of the founding of Fannie Mae, of urban renewal, of tax breaks for rental housing, and many more programs which changed the face of the nation. It was a decade in which we averaged 1.5 million starts a year. But we always seemed to be on the edge of disaster.

From a report on the 1951 NAHB convention: "Why should the housing industry be cut to an austerity basis when no other industry is?"

And from an October 1952 report on the NAHB Directors' meeting: "Is homebuilding, having enjoyed a biblical seven fat years because of the postwar housing shortage, now facing seven lean years?"

Which shows what can happen when you lack perspective.

In looking through the old issues, we enjoyed seeing what a familiar ring many of the items had. Our September 1952 editorial, for example, asked: "Does code Babel add \$1,000 to small house building cost?" It then went on to say: "The most expensive thing about today's house is the local building code under which it has to be erected, with its countless unpredictable and often senseless variances from sound national standards. These variances cost the homebuyer (and the homebuilder) a lot more than it would cost to make all the living rooms and all the bedrooms 20% larger—more than wall-to-wall carpeting, more than complete insulation and double glazing, more than an extra bathroom." Change the numbers, and that could have been written today.

Our April 1952 issue carried the headline: "Self-Policing by Builders May Avert Home Warranty Legislation by Congress." This was more than 20 years before the HOW program was established, and it serves to remind us that in boom times consumerism always surfaces.

We hope you'll enjoy the look back at the past that we've prepared for this issue (pages 46-53). It should serve to remind us that things were never easy; not in the "good old days," and certainly not today. But as an industry we have always pulled through, adapting to crises, discovering new ways of doing things, turning—as the current expression goes—a lemon into

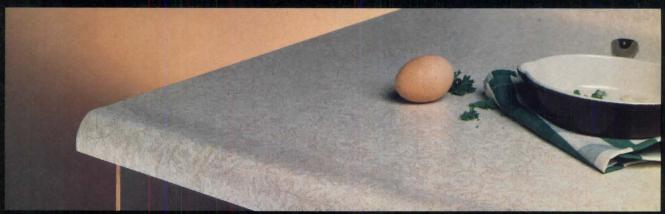
We cover that in this issue too, as you'll see by the sections on Design, Merchandising, Markets, Money and Factory-built housing beginning on page 54.

After all, later generations may look back at us too and think "Those were the good old days."

-NATALIE GERARDI

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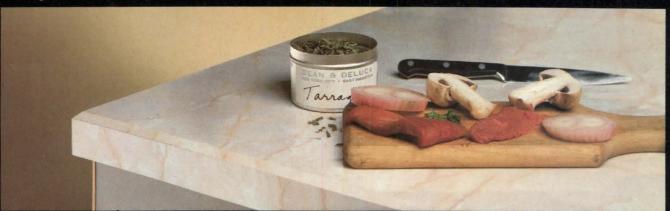
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Self Edge - 150 Natural English Leather



Bevelled Edge-132 Classic Onyx



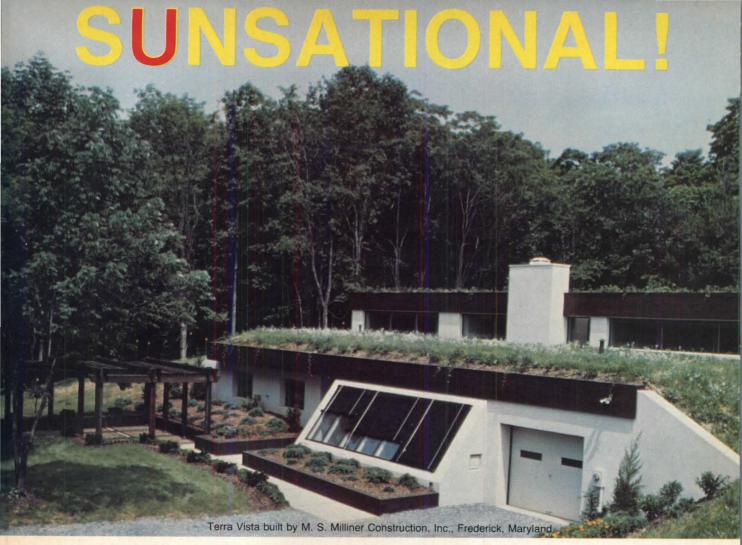
151 Beige English Leather Popular in Europe, this leather design has a smart, aristocratic look.



132 Classic Onyx (Pictured above) The whole effect of this beautiful design is warm and luminous.



135 Peach Melba Almond and peach colors softly intermingle in an abstract design.



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- Housing will be one of the "key areas of rebound" in the economy this year, according to President Reagan's just-released Economic Report to Congress. The report noted that, though "the second reversal in the housing industry in as many years has forced some builders out of business, a rapid expansion this year is still possible." In its portion of the economic report, the Council of Economic Advisors predicted housing will enjoy a "rapid recovery" which "should be apparent by spring and proceed through the year."
- Not so! Housing won't turn around so quickly this year, says Jack Carlson, chief economist of the National Association of Realtors. Carlson, who says he's "skeptical about the administration's economic predictions working," warns that "an anticipated recovery in housing will be adversely affected by the continuing high deficit" that will keep mortgage interest rates from falling below 15%. NAHB's new president, Fred Napolitano, said the NAHB is working on proposals to lower mortgage interest rates through government buydowns for new home and apartment mortgages.
- The U.S. Supreme Court will finally settle the raging due-on-sale controversy. At present, the Federal Home Loan Bank and various states disagree over the enforceability of due-on-sale clauses. The test case involves Fidelity Federal Savings & Loan of Los Angeles, which declared the balance of three mortgages due when the properties were sold. When the loans weren't paid, Fidelity began foreclosure proceedings. A California superior court ruled in favor of Fidelity—a decision that was overturned by a California appeals court. The California Supreme Court upheld the appeals court's ruling, setting the stage for the U.S. Supreme Court's entry into the case. Legislation allowing federal bodies to override the states in the due-on-sale cases is pending in the Congress. But it's unlikely the legislation will be passed before the Supreme Court ruling expected within a year.
- Freddie Mac has launched a plan to purchase "buy-down" mortgages that will allow it to compete with a buydown plan announced by Fannie Mae at the NAHB convention [HOUSING, February]. Freddie Mac says it will now purchase home mortgages whose interest rates have been bought down with a one-time payment that reduces the effective rate by no more than ten percentage points over the life of the loan. The borrower's monthly payment can't increase more than 7.5% a year for a mortgage to qualify for the Freddie Mac program. Freddie Mac will also buy certain shared equity mortgages, provided the lender is not a partnership, corporation or trust.
- Legislation to extend the All-Savers Act was introduced by Senator Dennis DeConcini (D-Ariz.). DeConcini wants to make All-Savers a permanent part of the tax code by lifting the December 31, 1982 expiration date. DeConcini also wants to do away with the present lifetime interest exemption of \$1,000 for individuals and \$2,000 for married couples and replace it with an annual exemption of \$2,000 for individuals and \$4,000 for couples. DeConcini, who does not believe in direct federal subsidies to bail out the private sector, called All-Savers "a much better approach" to helping the ailing housing industry.
- Two new tax proposals could impose an economic burden on builders, according to Leonard L. Silverstein, tax counsel for the NAHB. One proposal would require a builder working on a multi-year project to report gains and losses each year instead of at the completion of the project as currently required. Silverstein sees problems in this change, noting more audits will result as the IRS and builders disagree over what portion of a project is actually completed. The second proposal would force a builder to capitalize, then amortize over 15 years, construction period interest costs and tax expense rather than directly expensing these items as is common practice now. The administration's rationale for this proposal: Faster depreciation allowed by the new tax bill provides such a generous tax break that direct expensing of such costs is no longer needed.



- Apartments will be the best bet in the 80s, Balcor Company chairman Jerry Reinsdorf told 100 pension fund managers attending an investors' conference in San Francisco. Reinsdorf, whose real estate investment firm is based in Skokie, Ill., conceded that "normally there's little cash flow" from apartments, but added that because of low vacancy rates "cash flows are up." Reinsdorf's advice to the pension fund managers was to invest in below-market, fixed-rate long-term mortgages - and take substantial equity positions in the projects.
- For the first time in years, rents increased almost as fast as inflation, reports Robert J. Mylod, president of Advance Mortgage Corporation in Detroit. Last year, the rent component of the Consumer Price Index increased 8.5%, while the overall CPI went up 8.9%. Mylod further notes that rent increases in professionally managed units "are almost certainly higher than the rent index shows." According to Mylod, the large number of owner-occupied rental buildings tend to lag on rent raises and therefore hold the index down. In Atlanta, Boston and Los Angeles, the rent index jumped 11% or more, while rents in Cleveland, Detroit and Seattle performed less well, according to the index, posting gains of less than 6%.
- Mortgage delinquencies topped 1% for the first time since 1976, the U.S. League of Savings Association reports. The deliquency rate, which climbed steadily through most of the second half of 1981, hit 1.06% in December, meaning 1.06% of the mortgages held by savings associations were 60 days or more delinquent. The U.S. League says the rise reflects "high unemployment and worsening economic conditions." Seasonal factors were also partly to blame, according to a League spokesman, as borrowers postponed mortgage payments in favor of holiday shopping. The spokesman claimed current delinquency rates are "something to watch, but not to worry about - 1% is not a magic number." The delinquency rates in February 1962 and 1964 still hold the record at 1.41%.
- First-time buyers spent a record 38.4% of gross income in mortgage payments in 1981, reports the Chicago Title Insurance Company in its sixth-annual survey of new-home buyers in 11 cities. That translates into an average monthly payment of \$655 for principal, interest, taxes and insurance for the first-timers—up from \$558 in 1980. The \$725 average monthly payment paid by repeat buyers in 1981 was also the highest since Chicago Title began its survey in 1976 and represented 33.4% of the gross income of the buyers.
- Merrill Lynch is bullish on real estate! The Wall Street giant went on another buying spree and acquired a majority interest in two real estate brokerage firms: Johnson & Johnson Realty, a leading brokerage firm in Boca Raton, Fla., and The Harleigh Sandler Co., a prominent Beverly Hills firm. Both acquisitions were done through a Merrill Lynch subsidiary, Merrill Lynch Realty Associates Inc. Merrill Lynch now offers one of the largest umbrellas of real estate services, including mortgage banking, residential, commercial and industrial brokerage services, a relocation service and real estate investment and asset management.
- Traditional commercial mortgage lenders are fleeing the mortgage market, reports Citicorp Real Estate Inc. But the lenders are offering alternatives to mortgages. For instance, CREI reports that several large life insurance companies will now commit to purchase office buildings and shopping centers when they've been completed and substantially rented. Those offering such commitments usually start paying off the construction loan when the property is 30% leased and take possession when it's 70% leased. Other lenders offer three-to-seven-year "bullet loans" at 16% to 161/2% on a completed, well-rented property. Loan is due at the end of the term. Some lenders are offering standby commitments, at a hefty fee, to developers. Here, the lender promises to pay off the construction loan if conventional financing can't be found. The catch: The new loan carries construction loan rates, and the developer assumes personal liability for the loan.



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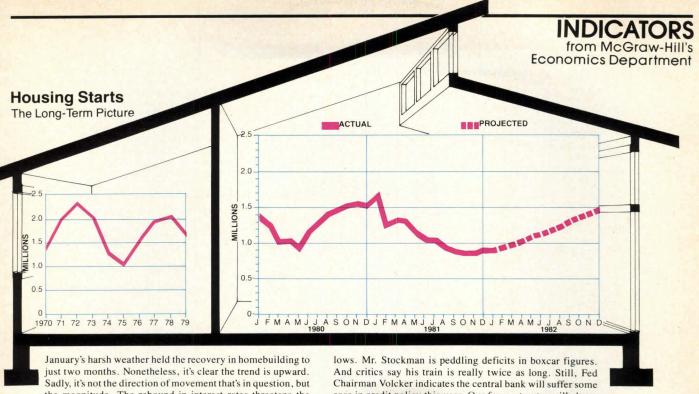
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the magnitude. The rebound in interest rates threatens the modest improvement in mortgage finance. And some prophets of doom say rates have already seen their yearly ease in credit policy this year. Our forecast: rates will abate; starts will exceed 1.2 million. The real squeeze is being postponed until 1983.

January chilled housing starts to an 894,000 annual rate. That's a 0.6% drop. But more discouragingly, the large jump in December's activity has been pared to a meager 4.5% increase. And those same revisions show that last year was the lowest for starts since 1946 — only 1,085,300 units. On the brighter side, single-family starts rose 5.2% in January, the third consecutive monthly gain. Two-to-four unit structures fell 2.6%, while the largest losses were in other multifamily. Starts jumped 9.9% in the bellwether Southern region, while deterioration was concentrated in the Northeast. Also favorable was a 6% gain in building permits during January, while improvement centered in the critical South and West regions. Moreover, the rise in permits suggests that bad weather played a large role in January's drop in starts, but that underlying trends are upward.

Private housing completions climbed 11.4% in December to partially offset November's collapse. A 31.6% gain brought completion in the five-or-more unit category almost to last year's level.

Single-family sales were up 10.8% in December—the third consecutive monthly gain. That pared the stock of unsold homes to 7.2 months of current sales. Sales soared an impressive 48% in the West and 12% in the South. The average sales price slipped 2.5% to \$83,500—a reduction expected as more popular-priced homes began to move. Existing home sales rose 1.6% to a 1.95-million yearly rate. And the average sales price advanced 1.4% to \$78,600.

Though market activity at year end portended improvement ahead, the year was a disaster. New single-family sales wound up at just 426,000 units, off 20% from 1980. And existing home sales fell 18.5% to 2.4-million. Not surprisingly, given home price inflation, mobile home shipments rose 8.6% overall last year, although falling at year's end.

		tion Act			
	1/82	12/81	1/81	Change From Previous Mo.	Change From Year Ago
Private Housing Starts	894	899	1,585	- 0.6%	-43.6%
Single Family	588	559	974	+ 5.2	-39.6
Two-to-Four Unit Bldgs.	74	76	139	- 2.6	-46.8
Other Multifamily	232	264	472	-12.1	-50.8
Total Building Permits	836	789	1,214	+ 6.0	-31.1
Single Family	456	454	715	+ 0.4	-36.2
Two-to-Four Unit Bldgs.	66	90	132	-26.6	-50.0
Other Multifamily	314	245	367	+28.2	-14.4
	12/81	11/81	12/80		
Private Housing Completions	1,132	1,016	1,373	+11.4%	-17.6%
Single Family	672	650	895	+ 3.4	-24.9
Two-to-Four Unit Bldgs.	106	97	123	+ 9.2	-13.8
Other Multifamily	354	269	355	+31.6	- 0.3
<b>Private Units under Construction</b>	705	709	915	- 0.6	-23.0
Single Family	401	399	535	+ 0.5	-25.0
Two-to-Four Unit Bldgs.	46	49	70	- 6.1	-34.3
Other Multifamily	251	262	311	- 4.2	-19.3

		et Activ	Change From	Change	
	12/81	11/81	12/80	Previous Period	From Year Ago
New Single-Family Sales(7)	438	395	514	+10.8%	-14.7%
Average Sales Price(7)*	\$83,500	\$85,700	\$81,500	- 2.5	+ 2.5
Backlog of New Homes (7)	7.2	8.4	7.7	- 1.2 mo.	+ 0.5 mo
Existing Home Sales(6)	1,950,000	1,920,000	2,910,000	+ 1.6	-33.0
Average Sales Price(6)*	\$78,600	\$77,500	\$74,000	+ 1.4	+ 6.2
Mobile Home Shipments(7)	206	207	239	- 0.5	-13.8
	1981 3rd Qtr.	1981 2nd Qtr.	1980 3rd Qtr.		
Spending on Home Repair,					
Etc. (billions/year)(7)	\$47.4	\$45.1	\$45.3	+ 5.1%	+ 4.6%

	1/82	12/81	1/81	Change From Previous Mo.	From Year Ago
	1/02	12/01	1/01	Previous Mo.	rear Ago
Wholesale Price Index—*					
All Construction Materials(8)	291.9	290.8	279.2	+ 0.4%	+ 4.5%
Asphalt Paving (8)	596.0	597.7	523.5	- 0.3	+13.8
Portland Cement (8)	336.3	327.0	324.3	+ 2.8	+ 3.7
Softwood Lumber (8)	322.3	321.4	352.9	+ 0.3	- 8.7
Plywood <sup>(8)</sup>	236.8	239.2	251.1	+ 1.0	- 5.7
Production Index—Construction					
Supplies <sup>(4)</sup>	122.0	128.2	148.4	- 4.8	-17.8
Construction Employment (000)(8)	4,052	4,191	4,390	- 3.3	- 7.7
Unemployment Rate—Constr.(8)	18.7%	18.1%	13.7%	+ 0.6	+ 5.0
Hourly Constr. Earnings Index(8)	140.8	136.1	127.6	+ 3.5	+10.4
	12/81	11/81	12/80		
New Materials Orders (millions)(7)	\$11,050	\$11,698	\$12,85	7 + 5.5	-14.1
Materials Shipments (millions)(7)	\$11,429	\$11,564	\$12,85	4 - 1.2	-11.1

	Financia	al Activit	y*		
	12/81	11/81	12/80	Change From Previous Mo.	Change From Year Ago
Net New Deposits, S&Ls	(6. 4.000)	A 1 500	\$ 2.055	(\$ 279)	(\$3,864)
(millions)(3)	(\$ 1,809)	\$ 1,530	\$ 2,055	(\$ 2/9)	(\$3,004)
Outstanding S&L Mortgages (millions)(3)	\$14,817	\$15,686	\$16,021	- 5.5%	- 7.5%
Mortgage-Backed Securities—	Ψ14,017	ψ10,000	Ψ10,021	0.070	
S&Ls (millions)(3)	\$32,758	\$31,862	\$26,973	+ 2.8%	+21.4%
Net New Deposits—Mutual	ψοΣ, του	401,002	420,0.0		
Savings Banks (millions)(5)	(\$ 1,300)	(\$ 1,060)	(\$ 639)	(\$ 240)	(\$ 661)
	1/82	12/81	1/81		
<b>Effective Mortgage Commitmen</b>	t	A PARTY			
Rate (Convent., 25-yr., 75%)(3)	16.81	% 16.99%	14.979	618	+1.84
Atlanta	16.99	17.12	14.37	13	+2.62
Boston	17.23	17.55	15.10	32	+2.13
Chicago	17.05	17.32	15.19	27	+1.86
Dallas/Ft. Worth	16.81	16.93	14.14	12	+2.67
Denver	16.80	17.02	15.93	22	+ .87
Los Angeles	16.28	16.40	15.54	12	+ .74
Miami	16.18	16.75	14.75	57	+1.43
Washington, D.C.	17.08	16.85	15.06	+.23	+2.02
Ginnie Mae—8% Futures	6/83	12/82	6/82		
Contract— % Yield(1)	16.044	16.026	16.007	+.019	+.037

Gener	al Econ	omic In	dicator	S	
	1/82	12/81	1/81	Change From Previous Mo.	Change From Year Ago
U.S. Industrial Production Index					- 13 M
$(1967 = 100)^{(4)}$	139.1	143.4	151.4	- 3.0%	- 8.1%
Personal Income					
(billions of dollars)(7)	\$2,494.7	\$2,490.9	\$2,300.7	+ 0.2	+ 8.4
Savings Rate(7)	5.7%	5.8%	4.6%	- 0.1	+ 1.1
Total Employment (Millions)(8)	99.581	99.613	99.901	0.0	- 0.3
Unemployment Rate(8)	8.5%	8.8%	7.4%	- 0.3	+ 1.1
Wholesale Price					
Index (1967 = 100)(8)*	298.2	295.9	284.8	+ 0.8	+ 4.7
Retail Sales (billions of dollars)(7)	\$86.119	\$87.060	\$85.463	+ 1.1	+ 0.8
Domestic New Car Sales					
(millions/year) <sup>(7)</sup>	5,244	4,952	7,104	+ 5.9	-26.2
	21/81	11/81	12/80		
CPI (1967 = 100)	281.5	280.7	258.4	+ 0.3	+ 8.9
CPI - Home Ownership	367.8	367.2	334.2	+ 0.2	+10.1

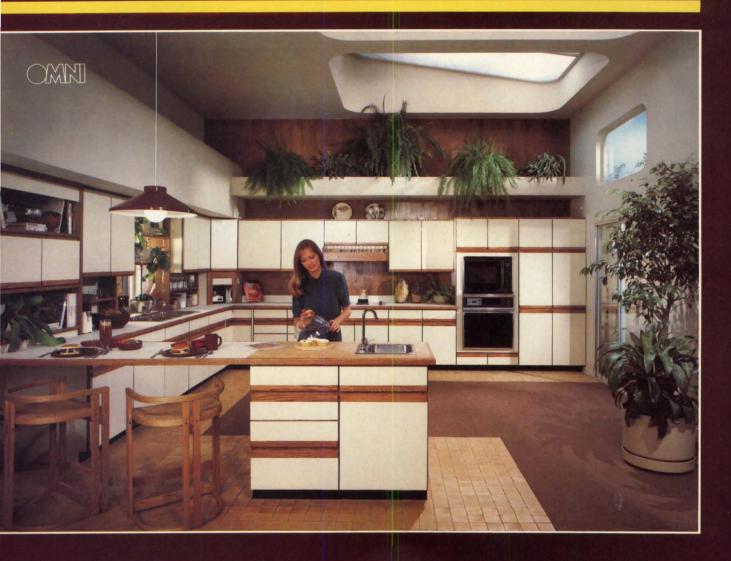
Sources: (1) Chicago Board of Trade; (2) Electrical Marketing Newsletter; (3) Federal Home Loan Bank Board; (4) Federal Reserve Board; (5) National Association of Mutual Savings Banks; (6) National Association of Realtors; (7) U.S. Department of Commerce; (8) U.S. Department of Labor. All data seasonally adjusted unless marked by an asterisk (\*). In most cases latest figures are preliminary, with revisions shown in next month's table

Markets for construction products deteriorated sharply in January abrogating earlier signs of bottoming out. Production of construction supplies plunged 4.8% farther in January and is down more than 18% over the last ten months. More pessimistically, new orders for construction materials and supplies fell 5.5% in December, though the drop in shipments lagged with just a 1.2% decline. Producer prices for construction wares rose 0.4% in January, but they were unchanged after seasonal adjustment. Construction employment shrank 3.3% in January and the unemployment rate among building tradesmen climbed to 18.7%, up 0.6 points on the month. This overall pattern of weakness also derives from the non-res building downturn, and in that sense may help alleviate homebuilders' costs in coming months. But a serious adverse development was a 3.5% rise in seasonallyadjusted construction wages. Construction workers are now doing better than their manufacturing counterparts.

Federal deficits totaling \$275-billion over the next three fiscal years pumped more helium into interest rates this last month. And money traders' fears were not allayed by private forecasts that the red ink could swell to twice the Administration's projections. Still, our prediction is that long rates will fall by about 250-basis points to late summer. First, the recession is already worse than expected, and this is showing up in credit demand. Likewise, inflation continues to moderate. Most importantly, the Fed is hinting that it will stand for mildly easier credit policies. Fed Chairman Volcker testified to Congress that a little extra money supply growth now is tolerable. Likewise, the Fed will abide by the upper end of its money supply growth target -51/2%, rather than the miserly 21/2% rate talked about earlier. Finally, the President has palavered with Volcker and, while public disclosure was surely not totally frank, one can be certain that the President got what he wanted: a tacit agreement not to send rates higher. Of course, money markets are near panic again, so rates can gyrate wildly. But they seem to want to fall on each piece of good news. In fact, any significant budget cutting by Congress could mark a genuine downturn in interest rates.

Industrial production plummetted 3% in January. While hard weather was obviously a factor, the recession is proving worse than any recent consensus forecast. Autos, steel and textiles have joined homebuilding as fullfledged basket cases. Things are so bad that the unemployment rate actually fell in January as many of the jobless stopped looking for work, thereby reducing the labor force. The big obstacle right now: excessive inventories. With sales weak, business can cut stocks only by throttling production and laying off workers. January's 0.2% rise in personal income was bleak news, since it means inadequate purchasing power to fuel the economy for now. More favorable was a rise in wholesale prices—at only a 5.3% annual rate-meaning inflation is still abating. Also, the savings rate is running higher than last year, suggesting that one objective of the Reagan program may be working. Though the recession will bottom out soon, the economy won't begin to rebound until mid-year, when the next 10% tax cut and higher Social Security benefits add to the spending stream.

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# The incredible shrinking HUD

The President released the fiscal 1983 budget figures last month and it looks like the Reagan administration is making good on its promise to wind down the federal housing bureaucracy.

In the proposed budget, HUD's total spending for fiscal 1983 would drop about \$1.5 billion to \$13.1 billion. However, obligational authority-which includes authority to make contracts for spending in 1983 and future years—is only \$13.4 billion. That's about equal

to projected spending for fiscal year 1983 and indicates the administration's determination to halt contracts that commit it to subsidies over the next 20 to 30 years.

In fiscal year 1981, obligational authority given HUD was \$38.7 billion. In fiscal year 1982, after the Reagan-Stockman cuts, obligational authority dropped to \$23.4 billion.

Ginnie Mae affected. The mortgage-buying authority of HUD's Government National Mortgage Assn. (Ginnie Mae) has been cut to \$38.4 billion, down from \$48 billion in fiscal year 1982.

But Secretary Pierce said, "Even with a reduced commitment level, we expect to issue almost twice the guarantees (to purchase mortgages) that were issued in 1981."



The Federal Housing Administration's mortgage-insuring authority is likewise cut by \$5 billion to \$35 billion. FHA's insurance will be made available almost exclusively to firsttime homebuyers, inner-city residents, and factory-built homebuyers.

FHA's mortgage insurance authority would be liberalized to cover variable rate mortgages (VRMs) and shared appreciation mortgages (SAMs). The interest rate would be negotiated between lender and buyer, ending HUD's authority to fix a maximum.

Up-front insurance premiums. Another change would allow FHA to collect the entire insurance premium at the time of sale, ending the monthly collection of the insurance premium over the life of the mortgage. The cost to the buyer would be added on to the

mortgage principle. HUD officials say the amount will have little effect one way or the other on the borrower's monthly payment.

Housing for the elderly under the Section 202 direct loan program will continue for an additional 10,000 units, which represents a 40% cut.

The administration has proposed a new \$150-million program to rehabilitate 30,000 existing apartments for use by low-income families who receive housing vouchers under the experimental program launched in HUD's 1983 budget.

But the budget makes no provision for additional subsidized housing units for low-income families either through Section 8 or public housing programs.

-DONALD O. LOOMIS

McGraw-Hill World News, Washington

### Washington: Ins and outs for housing

Housing industry representatives in Washington are looking ahead to a desolate 1982, with housing held down by high interest rates and recession, and little hope for help from a Congress dominated by those seeking reelection in November.

President Reagan's budget for fiscal year 1983 puts most housing programs either on "hold" or on the chopping block. But the President's budget also seeks to recapture subsidized housing funds allocated for fiscal year 1982 projects but not yet actually contractually committed.

Speaking last month to a group of public housing officials, Lawrence B. Simons, assistant secretary for housing in the Carter administration said that the problem in Congress is that "no one wants to be perceived as a prolific

spender" and "the perception is that if you're for housing you're a prolific spender.'

Simons sees some hope of Congressional agreement-at least by the House-for a shallow-subsidy program for single-family home buyers. But given the anti-spending mood, he doesn't see much else.

Yes-and-no score card. From Simons and other industry lobbyists, here's a check-list of how the major housing programs and issues are assessed as the year gets underway:

- •FHA is safe, albeit shrinking, for the foreseeable future, but Ginnie Mae may be on the skids (see above).
- •Sec. 202, the subsidy program for the elderly, is safe, although there will be substantial cuts.
  - · Construction of additional public

housing units seems dead, either under Section 8 or public housing.

- Rehab programs will continue to get HUD funds-and mortgage insurance.
- •The Urban Development Action Grant (UDAG) program appears safe at least for the foreseeable future. A recent report shows that about 16% of the UDAG-financed projects included housing. But most of the \$2 billion so far allocated under the UDAG program goes for industrial and commercial development.
- The Community Development Block Grant (CDBG) program also looks safe. HUD's most recent data shows that about one-third of roughly \$2 billion of CDBG funds per year has been spent for housing rehabilitation

Continued

# Interest rates: Ominous trends for housing

Interest rates have started the year by taking a turn for the worse-in more ways than one, as far as the housing industry is concerned.

Most obvious: The brief drop in mortgage rates at the end of 1981 gave way to a new increase. From its low of 16.9% in mid-December, the Federal Home Loan Mortgage Corp.'s weekly average of contract interest rates on commitments for new mortages shot back up by nearly a full percentage point by early February. The reversal was troublesome enough for the beleaguered housing industry. But even more ominous was an apparently more fundamental shift in rates during 1981.

After almost three years in which long rates were for the most part lower than rates on short-term maturities, yields shifted during September to what is generally considered a more normal configuration with long rates higher than short rates.

High rates to continue. The change is significant for the housing industry. Since mortgages are traditionally long-term loans, mortgage rates mirror trends in bonds and other long-term securities. A continuance of the current relationship in long and short rates would thus mean mortgage rates would remain stubbornly high, since they could decline no faster than rates in the highly volatile and unpredictable short-term credit markets. And the betting is that long rates will stay unusually high.

"After almost three years of inverted yield curves, the market will take whatever actions are necessary in order to ensure that yields on longterm debt instruments on average will exceed those of money market instruments," says economist John D. Paulus of the Goldman Sachs & Co. brokerage firm.

The pressures keeping long rates higher than short rates stem from historical factors as well as some more recent developments. Long rates tend to be higher by nature as a form of compensation to lenders for tying up their money for several years. Given the choice between investing a dollar at 15% for three months or 15% for 20 years, most lenders would stay in the shorter maturity. For one thing, the short term is obviously more predictable than the long term. For another, the shorter-term investment would preserve the option of spending or investing the money elsewhere should a better opportunity arise in the next year or so.

And the riskiness of long-term investment has been driven home time and again in recent years. Once the preserve of conservative investors who are willing to accept an assured rate of return from interest payments while foregoing the price gains offered in the stock market, the bond market has been transformed into something of a casino. One or two percent changes in bond prices once used to occur over a period of several months. Now, they can occur in an hour.

The Fed's new role. The volatility in interest rates has been the byproduct of the Federal Reserve's new monetary policy focus instituted in October, 1979. Instead of trying to smooth out changes in interest rates as it used to do, the Fed now lets interest rates fluctuate widely, and concentrates on controlling the money supply in order to fight inflation. As a result, long rates have come to contain a larger "risk premium" to guard against unexpected changes.

Over the past 30 years, interest rates have only rarely and fleetingly been more than three percentage points above the rate of inflation. But according to computations by Townsend-Greenspan & Co., for the last year, interest rates have been persistently running roughly eight percentage points above the inflation rate. It was once widely assumed that the risk premium represented by the spread between inflation and rates would narrow as inflation tapers off. But now, that appears unlikely to happen. Economist W. Lee Hoskins of Pittsburgh National Bank says, "Risk premiums are here to stay."

Cause and effect. Compounding the pressures keeping interest rates high are the Treasury's big borrowing needs over the next few years and the inability of the savings and loan industry and other financial institutions to attract the long-term deposits that are needed to fund long-term loans. The government has effectively deregulated short-term deposits by permitting the thrifts and banks to pay market rates on six-month and 21/2-year deposits while permitting rates of no more than 8% on deposits of longer maturi-

The result has been that savers have been unwilling to feed money into long-term maturities. And the heavy Treasury borrowing in long-term maturities are expected to sop up a major share of whatever long-term lendable money is available.

In short, the changes that have come over the credit markets in recent years are an important reason why current interest rate forecasts are so ominous for housing. The consensus forecast among economists is that the prime rate is not likely to reach its 21.5% record again this year, but long-term rates are likely to set records. And for home mortgages, the existing record stands at 18.6%-reached only last October. - DAVID WALLACE

McGraw-Hill World News, Washington

#### Washington continued from page 19

and "other housing activities." Housing Secretary Pierce recently said that the administration may submit recommendations that would allow cities to use block grant money to build new housing-not permitted at present.

Some urban programs. Reagan's Enterprise Zone proposal, expected to be targeted to perhaps 25 cities a year, is aimed directly at commercial and industrial development. When the details are revealed, insiders say there will be no special consideration for housing.

A housing block grant program for the cities may get consideration. Mayor Charles Boyer of Seattle has the staff of the U.S. Conference of Mayors working on such a proposal for "preservation and production."

Reagan's "new federalism" initiative would eventually turn over the UDAG and CDBG programs to the states and localities-but housing is not included in that.

As to a separate "de-federalizing" of housing by turning program responsibility back to the states and cities, Sen. Alfonse D'Amato (R-N.Y.), a member of the Senate housing subcommittee and of the housing subcommittee of the Appropriations Committee, noted that Reagan is "partial to the needs . . . of the governors."

But as a one-time city official, D'Amato said he "didn't think local officials should have to go begging hat in hand to whomever happens to occupy the state capitol." As to the issue of turning back housing to the cities and states, D'Amato said, "We want to see the specifics."

The Democratic strategy in this election year will probably be to offer up alternative programs—probably by mid-March - and let the Republicans oppose the alternatives if they choose.

-D.O.L.



WHEN AMERICAN BUSINESS HITS THE ROAD, AMERICAN BUSINESS MEETS AT HILTON.



## U.S. Home's high-risk game plan: payoff or shutdown?

CHICAGO-U.S. Home Corp. has endured an extraordinarily painful year, as its loss of \$8.9 million for the fourth quarter of 1981 indicates. During a five-month period starting last May 1, according to the company, U.S. Home "reduced the number of communities (it was building in) by 11%, the number of employees by 20% and the number of subcontractors and their employees by approximately the same 20%."

Still, despite these and other troubles which can be traced to the company's high-risk, aggressive strategy, the nation's number one single-family builder emerged intact from last year. "U.S. Home made a calculated bet that the downturn in the housing cycle would be more or less the way they (past downturns) had been historically," says Barbara T. Alexander, a housing analyst with Smith Barney, Harris Upham and Co. in New York. "It was a wrong bet." But she adds it's a credit to the company's management that it has stayed afloat financially and reduced its housing inventory to a level it finds acceptable.

Buy-downs hurt profits. U.S. Home ended all of 1981 with a \$10.1 million profit, down 77% from a \$44.3 million profit in 1980. During the course of the year, however, it chose to reduce its profit margins on many houses by buying down interest rates on mortgages-buy-downs that cost the company as much as \$30,000 per unit in some cases, according to Alexander's calculations.

Isaac Heimbinder, U.S. Home's senior vice president, finance, counters that, "We're maintaining a very substantial margin on our products," but admits, "There are houses that we sold at a loss in 1982 and in 1981."

And on December 7, U.S. Home issued a prospectus through Drexel Burnham Lambert Inc. to exchange up to \$16 million in debt for stock, a move that improved its balance sheet.

The question in the mind of many industry observers: Has U.S. Home put itself out of danger of financial collapse, or is the company living on borrowed time? Says one analyst, "I think they've got the staying power. But if the market stayed soft for the next year, and they weren't able to reduce their inventories and the banks were climbing all over them then I think they might file for bankruptcy voluntarily." Says another - Bob Curran of Merrill Lynch Pierce Fenner &

Smith Inc.—"We think there's going to be an improvement in housing, and I do think (U.S. Home) is going to be a viable company."

Heimbinder steadfastly denies the possibility of bankruptcy: "We're not having any difficulties," he says. He says the company is in no danger of financial collapse, at least "no more than the industry is generally."

Size is no protection. What kind of financial shape is U.S. Home in now, and how did it get that way? And, as the volume leader of an industry that is faring poorly throughout the United States, how well does U.S. Home's plight mirror that of smaller

"With 20-20 hindsight, we would have done very well to sell our inventory in the earlier part of the year"

homebuilders? Because the company is publicly held and its stock is traded on the New York Stock Exchange, its finances are more open to public scrutiny than those of the vast majority of homebuilders, which are privately held. And among those who scrutinize, of course, are security analysts.

Ken Campbell, president of Audit Investment Research Inc. of New York, likens U.S. Home's market strategy to a spec builder's. "There's probably more speculative inventory building than you might find in Ryland (Group), which is probably the most conservative (public builder) of all, has very low debt and almost never builds except on contract," he says. But U.S. Home does not land-bank. It works through a separate company, Homecraft Land Development Inc., which acts as a source of land for U.S. Home. U.S. Home owns 20% of Homecraft's voting stock, and the rest is owned by Homecraft management. Homecraft sells options on the land it owns to U.S. Home.

Campbell notes that U.S. Home doesn't "go into the business of buying enormous tracts of ground," but buys enough for developments with 100 to 200 homes-projects requiring one to two years for buildout. In light of U.S. Home's aggressive, speculative strategy, Campbell sees the company's difficulties as a natural consequence of the recession: "Anytime your markets get

soft, your more aggressive companies are probably more exposed than most.

Upbeat views. But is the company at risk of death due to that exposure? Campbell thinks not: "The message I got is that they feel mid-November was their turning point (in terms of greatest financial peril)." He concedes the company "probably has a liquidity strain," but adds, "They've done just about right in handling this kind of recession.'

Analyst Charles S. Glovsky expresses a similar confidence in U.S. Home. "I think the company has the financial resources to weather its current problems." He's with Eppler, Guerin & Turner Inc., a Dallas investment banking firm. His assessment of the impact of all the mortgage interest-rate buy downs? "Enormous," he says, adding that in his opinion, "That is really what's strangling the company right now."

Heimbinder's figures show why. In the boom times of the late 1970s, U.S. Home spent about 2.3% of its housing revenues on financing the houses it sold (1977 and 1978). In 1979, as interest rates rose, the cost of providing attractive financing to its customers increased to four percent of housing revenues. In 1980, the number jumped to 6.7%. And last year, the percentage had exceeded 11% by the fourth quarter; for the year as a whole, U.S. Home spent an average 9.1% of its housing revenues—or a shade under \$80 million—on customer financing, Heimbinder says.

The buydown campaign, costly as it was, succeeded in reducing the company's housing inventories, according to Barbara T. Alexander of Smith Barney. "They built a lot of speculative inventory in late 1980 and early 1981, and they've liquidated most of that," she says. "They will say they're down to a one-month inventory." (The company said in its 1981 earnings report that it delivered 14,308 units last year, down 9.6% from 15,821 in 1980.)

Says Heimbinder: "The inventory was brought down by 30% by the end of the year." He says the company at the end of January had less than one month's worth of completed houses in inventory, adding, "With 20-20 hindsight, we would have done very well to sell our inventory in the earlier part of the year. Our problem in 1981 was that we were liquidating our inventory at the same time that everyone else

was liquidating their inventory."

The Homecraft connection. But the problem that worries most analysts is the huge amount of land the company keeps available-both as an owned asset and available on option from Homecraft. The land owned by Homecraft is especially troublesome. Analysts estimate between \$150 and \$170 million in land is held by Homecraft, under an arrangement that would put a very severe financial squeeze on Homecraft if the land does not move quickly enough from its inventory to that of U.S. Home. And Alexander believes that U.S. Home may have purchased "land that they don't need" from Homecraft because "at the end of the third quarter they had more land than they did at the beginning." U.S. Home, according to one analyst, was selling land at very favorable terms in the latter half of last year in an effort to reduce its land inventory.

However, the company's balance sheet shows that at the end of 1981 it held \$327 million in land inventory, some \$82 million more than the \$245 million it held at the end of 1980. As for the land sales, Heimbinder responds, "We've always sold land and lots, and last year we sold more land

and lots because we had land to sell that was in excess of our current demand.'

By keeping other land in the "land bank" of Homecraft, the company engages in what is known as "off-balance-sheet financing." It is the weighty inventory of land in Homecraft that could pose a big problem later on-if market conditions don't improve, analysts agree, Homecraft could conceivably default. And one analyst says, "They've (U.S. Home) always told me that if push came to shove, they'd walk away from it (Homecraft)."

The unthinkable? Heimbinder responds to that by saying, in effect, that push could never conceivably come to shove. "They (Homecraft) have very substantial financing commitments and the wherewithal to carry them without assistance from U.S. Home."

But, assuming that Homecraft did overextend itself financially, there's no certainty that U.S. Home would endanger its own balance sheet by coming to Homecraft's rescue. And while such a posture would be wise for U.S. Home on its balance sheet, it would be devastating in the message it would communicate to its creditors

and stockholders. It's by no means certain that Homecraft will get in trouble, but it is a risk that U.S. Home must run in pursuing its aggressive strategy of being able to turn on a dime and build as soon as the market readies. Says Glovsky, "They are still planning a resurgence in the market which I'm pessimistic about—and they don't want to get caught with a shortage of land."

U.S. Home, he adds, is "the only builder ever to capture more than one percent of the market." Today its market share hovers between one and two percent. And if market conditions improve sufficiently to let the company survive, analysts believe, U.S. Home will not only survive, it will prevail. "If they can stay afloat-U.S. Home and the other 10 to 15 big builders—then they will emerge ahead in 1983 or 1984," predicts Alexander. "U.S. Home now has one percent of the market; they certainly could end up with five percent."

But there's no guarantee that the economy is headed towards better health. Said Curran late in 1981, "If next year continues like this year, a lot of companies will go under."

-DAVID GARFINKEL

#### MOBILE HOMES

### Mobiles: Almost everything's coming up roses

LOUISVILLE-"We've kept hearing that 'Our time is now'; well, I think it's finally here."

Skeptics might be inclined to dismiss these remarks, or at least downplay them, considering they were the utternances of Walter L. Benning, president of the Manufactured Housing Institute—a man whose job it is to make that segment of the industry look as good as possible.

But Benning perhaps has more justifiable reasons than ever for being enthusiastic. Consider:

Sales of manufactured houses were 240,000 in 1981, up about 10 percent in what was an otherwise disastrous year for housing overall.

Benning and his associates are predicting an increase to at least 250,000 units this year, with that number possibly ballooning to the range of 300,000 with any significant decline in mortgage interest rates.

The administration in Washington is proposing changes in FHA regulations covering the financing of mobile/manufactured homes.

Donald I. Hovde, undersecretary in the Department of Housing and Urban Development, told builders, developers



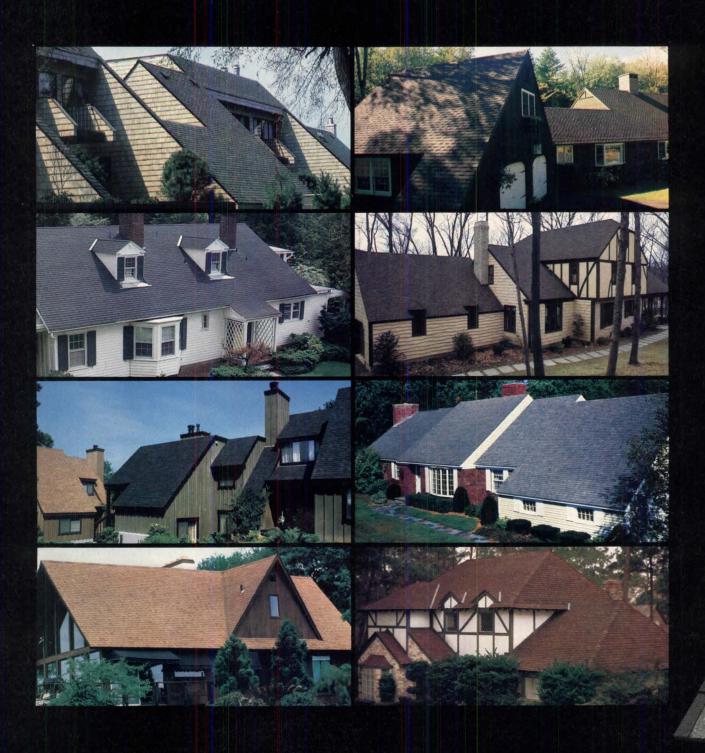
Lined-up in Louisville: registrants at 46th annual mobile home show.

and lenders at the industry's annual convention that proposed changes would make mobiles eligible for FHA Title II Section 203.B financing.

The loan program includes 30-year maturities and loan limits of up to \$90,000. Currently, new mobile/manufactured homes can be financed only with FHA Title I loans that, by contrast, provide maximum limits and terms of \$47,000 and 25 years, as well as higher interest rates. In addition, the Title I program insures only 90 percent of the loan, compared with total coverage under Title II.

Such action is important because it shows that factory-built homes are Continued on page 30

# OVER 22,000,000 PEOPLE LIVE UNDER OUR ROOF.



# GAF IS THE TOP ROOFING MANUFACTURER IN THE COUNTRY.

For over 95 years, we've been making durable asphalt shingles in every cut, color, and price point.

Which is the reason our shingles cover close to one-fifth of all the homes in America today.

#### GAF TIMBERLINE OUTSELLS EVERY OTHER SHINGLE OF ITS KIND.

With its deep irregular shadow pattern and unusual thickness, Timberline® bears an uncanny resemblance to wood. One no other asphalt shingle can top. But that's where the similarity ends.

Unlike wood, Timberline resists splitting,

warping and rotting. And since it's made of a high-quality, scientifically refined asphalt, it repels water, too.

And while wood shakes are flammable, Timberline has a granular ceramic baked surface that resists fire. So your customer's investment won't go up in smoke. To protect this investment even further, Timberline comes with a 25-year limited warranty.



In UL tests, a burning brand is placed directly on Timberline.



In less than 30 minutes, the fire is completely out.

Class A Timberline shingles are now

being introduced in many areas and will soon be distributed nationally.

#### MANY OF GAF'S HIGH-PERFORMANCE SHINGLES HAVE A LOW PRICE.

Even if your customers are on a tight budget, we have a variety of inexpensive shingles that live up to our highest standards.

Like Sentinel shingles. These low-priced fiberglass shingles are Class A fire-resistant. And because they're inorganic, they resist curling, rotting and oxidizing.

What's more, they come with a generous coating of waterproof asphalt. And like all GAF shingles, they have a self-sealing agent that works with the sun to form a wind-resistant roof.

# GAF CAN COVER ALL YOUR ROOFING NEEDS.

With interest rates sky-high, many people aren't buying new homes. But they are reroofing the homes they have. So now's a good time to sell our best-selling shingles.

And if you work on built-up roofs, we've got everything from insulation to fasteners

to help you get those iobs done, too.

So call your GAF representative for all your roofing needs.

You'll be using the asphalt roofing millions of Americans look up to. GAF.







### Fedders heat pumps and air conditioners under fire

Fedders Corporation, a major manufacturer of heat pumps and air conditioners based in Edison, N.J., has spent the last two years fighting charges by the Federal Trade Commission and state attorneys general. The charges: that certain models of its heat pumps and air conditioners are defective, have a higher than normal incidence of breakdowns and that the company did not repair broken units within a reasonable amount of time and without charge.

Fedders, through retailers and distributors, sells its heat pumps and air conditioners both to individuals and builders and developers.

Last year's consent agreement with the FTC, in which Fedders agreed to replace units, give refunds or reimburse consumers for repairs appears to have resolved some problems for Fedders. However, it hardly spells an end to the company's legal battles: The New York Regional Office of the FTC currently has the manufacturer under investigation for reported high failure rates in its air conditioners and for the company's alleged failure to make repairs to air conditioners in accordance with warranty provisions.

Also, five state attorneys general have filed either fraud or consumer protection suits against Fedders because of problems associated with heat pumps and/or air conditioners. According to Tam Ormiston, an assistant attorney general for the state of Iowa, approximately 16 states in addition to those which have brought suit have Fedders under investigation.

Winter of discontent. The company's troubles with its heat pumps began in the winter of 1977-1978 when it was discovered that frost buildup on a part of the pump that is installed outside a home or building caused the heat pump to malfunction. Paul Kolb, a Fedders vice president, said this was an "industry-wide problem" and that Fedders' heat pumps were by no means unique in experiencing this difficulty. Kolb also claims that Fedders had undertaken a voluntary program in June, 1978 to correct the problem causing the breakdowns. Still, the FTC filed a complaint against the company in June, 1979, and a month later served a consent order requiring Fedders to give each owner a full warranty on the heat pump's sealed system, including the compressor.

The order applied to units manufactured between November 1, 1975 and June 1, 1978 under the brand names

"Fedders Model CKH" and "Climatrol 333-3 and 333-4."

Non-compliance alleged. By June, 1981, however, "the commission felt Fedders was not living up to the consent order," said Lewis Franke, an FTC attorney in the Bureau of Consumer Protection. Specifically, in a complaint filed that month, Fedders was charged with violating the 1979 consent order "by not remedying defects or malfunctions of the hermetic system in such heat pumps within a reasonable time and without charge." The complaint further noted that the company's violations of the order were "numerous and widespread." Kolb disputes the FTC's complaint and says

#### "We had a problem and we're working our way out from under it" -Paul Kolb, vice president **Fedders Corporation**

most of the owners covered by the consent order had their problems resolved.

Still, because of Fedders' violations of the earlier order, the Justice Department filed a consent decree in federal court last June on behalf of the FTC. Under the decree, Fedders agreed to replace heat pumps or refund the purchase price to buyers whose heat pumps were not operating due to compressor failure. Fedders also agreed to reimburse heat pump owners for certain repairs and to give refunds, in some cases, to those who had replaced its heat pumps with other brands.

The consent decree applies to the same units as those covered in the consent order. A consent decree carries the force of law, but does not constitute an admission by Fedders that it violated the law. Franke says that to his knowledge Fedders is complying with the consent decree.

Continuing problems. The signing of the decree didn't sever Fedders' involvement with the FTC. Enter the New York Regional office of the commission which is conducting an investigation into warranty-related problems with Fedders air conditioners. According to Judith Schneider, the FTC attorney handling the investigation, all models of Fedders room and central air conditioners are being looked into by her office. She adds that this does not necessarily indicate there is a problem with all models.

Schneider refused further comment. But, according to an affidavit filed by Schneider in a U.S. district court, the alleged warranty-related problems include "repeated failures of Fedders air conditioners and/or of the compressors contained therein . . . causing consumers and/or dealers to expend repeated sums, frequently exceeding \$300 for each such failure." The affidavit further notes that in most instances the complaints revealed a number of parts failures. "Consumers who reported compressor failures," the affidavit says, reported "multiple (as many as eight) failures." Many of those who complained, according to the FTC, said Fedders did not respond to their requests for service and/or information and in some cases, the affidavit notes, Fedders made "abusive responses."

Multiple complainants. The complaints came, according to the FTC, from "consumers . . . present and former Fedders dealers, distributors and service representatives." The complaining consumers include "contractors, subdivision developers and residents" among others, the FTC says. According to the affidavit, the complaints, which "are not localized in any area of the country," have come from consumers and others in more than 20

Kolb says the wording of the affidavit describing the complaints is no more than "legalese to justify an investigation." He claims Fedders has been submitting documents to the FTC in connection with the investigation and he has "every hope it will be resolved to the favor of Fedders.'

The states act. Attorneys general have filed suit on behalf of consumers in Louisiana, Kentucky, Washington and Indiana

A similar suit by Iowa was settled out of court at the end of January. Before that settlement was announced Ormiston said his office had filed against Fedders because "we don't feel the consent decree (the FTC's latest action) was sufficient given the degree of the problem." The problem, as he sees it, is the "unreliability of products in Climatrol, Fedders and Airtemp heat pumps and air conditioners."

In a petition filed by Iowa state attorney general Tom Miller, as part of a consumer protection lawsuit against Fedders, Miller said Fedders makes products "so defective by design or manufacture that these appliances

Continued on page 28



have an unreasonably high rate of failure." To date, according to Ormiston, the state's consumer product office has received over 400 complaints about the company's products. Builders, says Ormiston, were among the complainants, sometimes because a homeowner complained to the builder about the appliance.

Under the terms of the out-of-court settlement Fedders will perform free inspections of complainants' air conditioners and heat pumps and, if necessary, repair or replace the units. In some cases, Fedders may give refunds. Fedders will also reimburse consumers for parts and labor when the costs are properly documented.

Iowa attorney general Tom Miller said the settlement "provides extraordinary coverage" and represents "a real effort by the Fedders Corporation to attend to the needs of these (Iowa's) consumers."

Talks, not action, Michael Minglin, deputy attorney general for the state of Indiana, says his office brought a breach of warranty action against Fedders last December only after negotiations proved fruitless. "They didn't make any effort to resolve the problem," says Minglin. "All they wanted to do was talk about it." As of January, he estimates his office had received about 200 complaints.

The Indiana suit covers any Fedders air conditioning appliance that "contains a sealed system hermetic rotary compressor," which, according to Minglin, includes room air conditioners, central air conditioners, heat pumps and split-system heat pumps. The remedy sought by his office is to have Fedders replace or make operable defective compressors and reimburse owners for out-of-pocket labor expenses for fixing Fedders units. Minglin claims that the labor costs for repairing a unit sometimes were greater than the original price of a unit.

Kolb contends that, because of the way complaints were uncovered, they are not true indications of the reliability of Fedders products. According to Kolb, states used the Freedom of Information Act to obtain copies of lists of owners of Fedders products which Fedders had supplied to the FTC. Lewis Franke, the FTC attorney, says such lists were furnished to state attorneys general offices. The states then, in Kolb's words, "solicited complaints." In Iowa, for instance, radio and television spots urged consumers to come forward with complaints, according to Kolb. Ormiston says the radio and television exposure in the Fedders case was nothing more than normal press coverage that the attornev general's office was conducting an investigation.

Motivations questioned. Even when such tactics were used, the number of complaints coming in were not enough to justify lawsuits, Kolb believes. He sees the actions of the state attorneys general as politically motivated, "an opportunity for an attorney general to get his name and face in front of the public," says Kolb. He calls the attorney general position a "political office" and the men holding that office "political animals," the implication being that the actions against Fedders are meant as much to further a career as to protect consum-

The FTC too, Kolb feels, was looking for a "landmark case" and Fedders was a convenient scapegoat on which to hang such a case. Lewis Franke denies that Fedders was in any way singled out. The FTC actions also contributed to Fedders' problems at the state level, according to Kolb.

"Fedders has been branded, in effect, by the consent order and decree," he says, adding that in the aftermath of the company's troubles with the FTC, state attorneys general felt compelled to pursue Fedders to prove to their constituents they were on top of the situation.

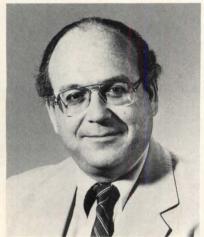
As for the problems on the state level, Kolb says Fedders goal is to try to resolve them out of court if possible. He says Fedders wants to make good on complaints against the company's units "whether they are matters of warranty or not." Notes Kolb, "We had a problem and we're working our way out from under it."

-WALTER L. UPDEGRAVE

WASHINGTON

### Abrams replaces Winn at HUD

Philip Abrams, a builder and developer from Brookline, Mass., will succeed the departing Denver developer Philip D. Winn as assistant secretary for housing at the Department of Housing



Abrams: moving up.

and Urban Development.

In his resignation letter to the president, Winn took credit for setting "an irreversible course" at HUD which "totally conforms" to the Reagan administration's policies and direction.

Winn left HUD to run for governor of Colorado. Abrams has been general deputy assistant secretary under Winn, supervising a wide variety of programs, including the deregulation of FHA's minimum property standards.

Winn took the lead in advocating liberalized FHA insurance for mobile homes, and at the same time worked to hold the line on construction standards called for in the law that makes HUD the administrator of a national building code for the manufacture and sale of mobile homes.

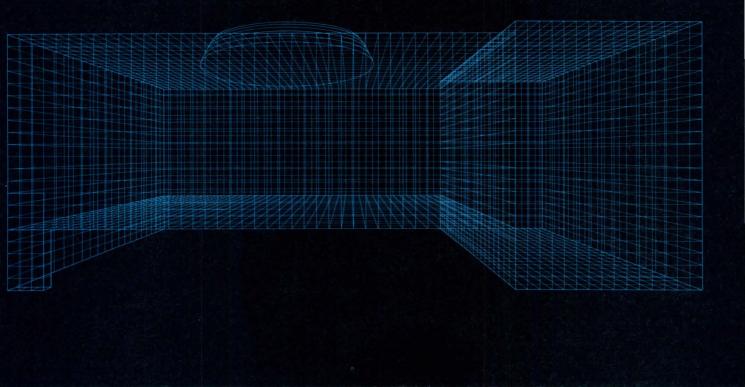
Prior to joining HUD, Abrams was active in Republican politics and in creating the New England chapter of the Associated Builders and Contractors (ABC). He became president of the national ABC in 1975. His firm, Abreen Co., mainly builds multifamily housing, including subsidized projects, and condos. - DONALD O. LOOMIS

McGraw-Hill World News, Washington



Winn: moving out.

# America's nergy-saving program is shaping up like this.



When we first introduced the York Smart One™ deluxe central air conditioner, we designedin a lot of smart features that were way ahead of their time.

Like the YORKGUARD® computer control, a solid-state brain that automatically monitors and controls 11 vital energy-saving and reliability functions.

And a thermostat that warns customers of potential malfunctions.

And a blower-off delay that allows the Smart One to squeeze out "free cooling" other air con-

ditioners let go to waste. And a whole lot more.

Well, it seems that the times are catching up with us. (But not our competition!)

More and more Americans are looking for the kind of energy-efficiency and reliability that only the York Smart One can deliver.

As a smart builder, you can continue to look to

York for the shape of things to come.

If you haven't looked into York lately, contact your nearby York dealer. Or write: Borg Warner Central Environmental Systems Inc., Department B, P.O. Box 1592, York, PA 17405.



Smart builders are switching to York.



being treated just like other kinds of housing, Hovde said.

"No longer should your group be a stepchild in housing," he told representatives at the mid-January convention. "You are on the leading edge of sales that will grow in larger increments. Your product will be a major leader of affordable homes."

Of course, members of the manufactured housing industry have said for years that the high price of conventional housing would mean big gains for their industry. Now, with interest rates near 20%, high construction costs and a recession working a triple whammy on site-built homes, that expectation may be closer to reality.

In fact, nearly a fifth of all housing units built in the U.S. last year were mobile homes, says Thomas E. Nutt-Powell, mobile-home analyst at the Joint Center for Urban Studies in Cambridge, Mass. And, says MHI, four of five new homes selling for less than \$40,000 last year were mobiles.

"The cost of site-built housing is so high no one can touch it," Nutt-Powell said.

He believes manufactured housing in just about any part of the country can be purchased and set up for at least 20 percent less than other types having the same square footage. And that, in itself, should make a big enough difference to mean fast-growing sales, he said.

"But that's not the opportunity this kind of housing has had," the researcher added. He explained mobile homes have had to overcome a poor image, and, until recently, mobile home buyers have had to contend with more costly financing.

But now, because fewer people can afford conventional housing, and because fewer and fewer builders can afford to build on spec, mobile homes have won a new hearing in a supreme court—the housing marketplace.

Stylish displays. Many of the 245 homes at the Louisville exposition showed how the industry was responding to its new life. Offered were such amenities as a circular kitchen with the range in the center, wood-burning fireplaces, ceiling fans, wet bars, cathedral ceilings and even spas.



MHI President Walter Benning

Interior decor showed a trend toward vinyl-covered walls and lighter colors—a move away from the traditional dark or mahogany paneling.

Benning said that while some of the homes on display provided 1,200 to 1,800 square feet of living space—made possible by joining two units—most still were aimed at the traditional buyer who wants 850 to 900 sq. ft.

"It's interesting . . . We're seeing the site builder downsize from the 3,000 or 2,500 sq. ft. to 1,000 or even 900 sq. ft. We've been talking to that market for years.

"We can be in the forefront (of any housing resurgence). We can be responsive in a matter of weeks once rates start dropping," said Benning.

Company expansion. Attempting to position itself for any market break, Champion Home Builders of Dryden, Mich., said it has acquired the Elkhart, Ind., plant that formerly made New Yorker brand homes.

Bill Clayton, head of Champion's housing divisions, said that up to now, "our company's expertise and concentration has been in manufacturing homes in the low-price, high-value range, which I feel will continue to account for the vast majority of our sales in the foreseeable future. Nevertheless, there's a growing market for the mid-priced, higher-quality homes" of the type formerly made by the New Yorker management.

Don Castello, who opened the New Yorker facility in 1959, and was owner and president, was named by Champion to be divisional president of the reopening plant. At capacity, it will produce six homes a day and provide about 100 jobs.

The facility gives Champion 24 manufactured housing plants in 13 states. It's the nation's second largest producer of such homes.

As hopeful as the prospects of better financing seem for mobile homes, a few questions remain. These include zoning regulations, which still exclude mobile homes from most of the nation's communities, and alleged health hazards caused by fumes from formaldehyde and some building materials, which are retained more in mobile homes because they generally have metal skins.

Nutt-Powell believes further research into the health-hazard question is necessary.

"Unquestionably it's something that needs to be controlled," he said. In Scandinavia, limits have been set on how much vapor of various types can be emitted in mobiles.

Guerdon Industries president E. B. Madden wants to tackle the zoning issue head on—with a showcase subdivision in the Louisville area.

Zoning regulations in many communities won't allow wide use of new mobile homes, but do permit modular housing if it meets local building codes. So, says Madden, the showcase subdivision will have to start, at least, with modular housing.

-JIM THOMPSON

#### WASHINGTON

#### FTC acts on vinyl siding claims

The nation's largest manufacturer of vinyl siding for houses and another major seller of the same product have agreed under legal pressure from the Federal Trade Commission not to make deceptive energy saving claims.

Mastic Corp. of South Bend, Ind., a subsidiary of Bethlehem Steel Corp., and Vinyl Improvement Products Co. of Columbus, Ohio, signed consent agreements with the FTC to instruct their distributors and retailers to stop asserting that vinyl siding, used by itself, saves energy. FTC alleged that their promotional materials and ads had claimed that the siding "conserves energy," and

"better insulation value than traditional sidings such as aluminum or steel" and "is a barrier against heat and cold."

In fact, FTC said in its complaint, vinyl siding significantly reduces neither heat loss through exterior walls nor air flow into and out of a home.

Mastic is the largest producer of the siding and Vinyl Improvement Products Co. is among the five largest. Consent agreements are for settlement purposes only and do not constitute an admission of violating a law.

— HERBERT CHESHIRE

McGraw-Hill World News, Washington



# Announcing the Viceroy concept in multi-family housing!

The new Viceroy townhouses represent an important breakthrough in multifamily housing. They combine strikingly beautiful designs with specifications of unparalleled quality. Features include triple seal windows, 6" walls, vaulted ceilings with magnificent skylights and greenhouse windows, roughsawn Western red cedar siding, and super energy-efficient construction. And these homes are not expensive! Because we manufacture our own building materials—windows, doors, triple-seal glass, etc.—we can sell to you on a direct manufacturer to builder basis. After 25 years of successful operation as Canada's leading home manufacturer, we are now establishing a network of reliable builder-dealers across the United States. Don't miss this great opportunity to become associated with this dynamic, fast growing company.

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We come down hard on windows that don't go up easy.

Because hard-to-open windows stick it to you. Nothing can turn a sale sour like a prospect puffing and pulling on a window.

So, at Andersen, we build windows to open smooth, straight and true. Build them to tolerances as fine as 25/1000ths of an inch.

Each Perma-Shield\* Narroline\* double-hung

is fitted with one of 17 different counterbalances —the one that best matches that particular window's size and weight.

Then we test our windows. Randomly.

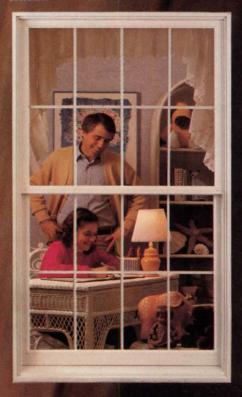
Vigorously.

The "Upward Pressure in Foot Pounds" test is shown here. If this window doesn't move up with the greatest of ease it won't move one millimeter down the production line.

The result is that your customers get windows that slide, glide and swing with precision. Windows that open summer-smooth. Close winter-tight. Keep students out of the draft.

Visit your Andersen distributor or dealer (listed in the Yellow Pages under Windows) and operate an Andersen® window or gliding patio door.

See who's at the forefront of the window movement.



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Andersen Windowalls



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Express yourself straight to the gate and...



express yourself straight to your seat.

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**Express yourself with** the American Express® Card. Traveling is easy when you carry the American Express Card. Use it to charge your TWA tickets, car rentals, hotels, meals, theatre, shopping, almost



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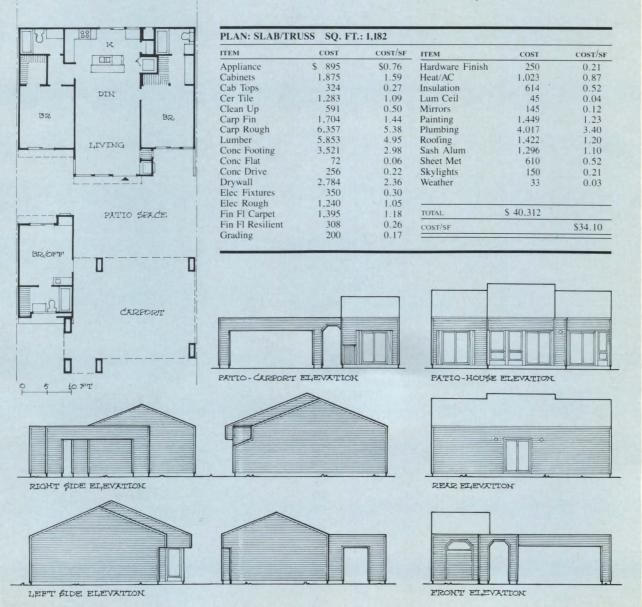
You're going to like us



# **Bringing HMX-1 down to basics**



As built by HOUSING for the NAHB convention [Feb.], HMX-1 had to be over-engineered to withstand the stress of over-the-road transport. It also included a lot of amenities - a loft, for example — that were cost raisers. So architect Barry Berkus of Santa Barbara, Calif., estimated the per-sq.-ft. cost at about \$70. He also estimated that a basic version of the house would come in at roughly \$35 per-sq.-ft. in the southern California market. As the take-off below by estimator Roy Barnes of Mission Viejo shows, the per-sq.ft. cost of a basic version like that shown in the accompanying drawings is \$34.10. To explain how Barnes reached that figure, we're including back-up-data printouts the following three pages - that spell out the cost of individual items needed to produce the basic house. The printouts also show the price of similar items (at their southern California rates) to give you a basis of comparison.



ITEM	LIN	SIZE	GRADE	BF	COST	COST
JSE	FT	SILE	JAMPE	USED	/BM	CUST
1UD SILL	384	2×4	PTDF	256.13	330.00	84.52
1UD SILL	6	2X6 2X8	PTDF	0.00	330.00	1.98
SILL	- 0	2X4	#2 HF	0.00	263.00	0.00
SILL	0	2X6 2X8	#2 HF #2 HF	0.00	263.00	0.00
L & BLKG	1152	2X4	#2 HF	768.38	263.00	202.08
PL & BLKG PL & BLKG	18	2X6 2X8	#2 HF	18.00	263.00	4.73
POST HDR	68	4 × 4	#2 DF	90.71	263,00 395,00	35.83
OST HDR	56	4×6	#2 DF	112.00	395.00	44.24
POST HDR	0 8	4X6 4X8	#2 DF RS	0.00	445.00	6.29
POST HOR	0	4×8	#2 DF RS	0.00	445.00	0.00
POST HOR	0	4X10 4X10	#2 DF RS	0.00	395.00 445.00	0.00
OST HOR	ő	4X12	#2 DF RS	0.00	455,00	0.00
BM HDR	66	4X14 6X6	#1 DF	308.02	610.00	187.89
BM HDR	0	6X8	#1 DF	0.00	610.00	0.00
BEAM	Ø.	6×10	#1 DF	0.00	610.00	0.00
BEAM BEAM	0	6X12 6X14	#1 DF	0.00	610.00	0.00
BEAM	0	6X16	#1 DF	0.00	610.00	0.00
BEAM POST	0	6X18 8X8	#1 DF #1 DF	0.00	610.00	0.00
BEAM	0	8X10	#1 DF	0.00	610.00	0.00
BEAM	ō	8X12	#1 DF	0.00	610.00	0.00
BEAM BEAM	0	8X14 8X16	#1 DF #1 DF	0.00	610.00	0.00
BEAM	Q.	8X18	#1 DF	0.00	610.00	0.00
BEAM CORBEL	0	10X10	#1 DF	0.00	610.00	0.00
SHEAR	192	6X12 4X8	#1 DF STRU #1	0.00	800.00	39.17
BRACE	280	1X5	#2 DF	140.00	275.00	38.50
STUD	3072 288	2X4 2X6	STUD GRDF	2049.02	258.00 258.00	528.65 74.30
STUD DIM	0	2×4	#2 DF	0.00	296.00	0.00
STUD DIM	0	2X6	#2 DF	0.00	296,00	0.00
STUD DW BK'G	150	3X4 2X4	STUD GRDF	100.05	296,00	29.6
OM BK G	150	216	#2 DF	150.00	296.00	44.40
URRING	300	2X4	*2 DF	200.10	296,00	59.23
IAMB TIES	0	2X6 2X4	#2 DF #2 DF	0.00	296.00	0.00
SWAY	0	2×4	#2 DF	0.00	296.00	0.00
PLATFORM MISC	300	2X4 2X	#2 DF #2 DF	42.69	296.00	12.64
PLATFORM	32	4X8	5/8 PLY	32.00	335.00	10.73
CEIL JO RIDGE	47	2X6 2X10	#2 DF #2 DF	0.00	296,00	0.00
RIDGE	0	2X12	#2 DF	78.35	357.00	27.97
RIDGE	- 0	2X8	#2 DF	0.00	296.00	0.00
ALLEY-	0	2X10 2X10	#2 DF #2 DF	0.00	357.00	0.00
RAFT	0	2X6	#2 DF	0.00	296.00	0.00
RAFT	390	2X8 2X10	#2 DF #2 DF	650.13	296.00 357.00	232,10
GABLE	0	2X4	#2 DF	0.00	296.00	0.00
PARAPET	0	2X 2X	#2 DF #2 DF	0.00	296.00	0.00
BRACE	0	2X	#2 DF	0.00	296.00	0.0
RIEZE	48	2X	#2 DF	48.00	296.00	14.2
TENCE	300	2X 2X6	#2 DF #2 DF	0.00	296.00	88.8
STRINGER	o.	2X12	#2 DF	0.00	357.00	0.0
LANDING TREAD	0	2X 4X10	#2 DF #2 DF	0.00	296.00	0.0
RISER	o	4XB	5/8 FLY	0.00	335.00	0.0
L JO L JO	0	2X10	#2 DF	0.00	357.00	0.0
L JO BLK	0	av	#2 DF #2 DF	0.00	269.00	0.0
SUB FL	0	4X8	5/8 PLY	0.00		
FASCIA FASCIA	0	2X10	SEL SP SEL SP	0.00	336.00	11.0
FASCIA	0	2X4				
STARTER	0			0.00	424 00	0.0
SHEATING SHEATING	1824	4X8	#2 HEM 1/2 PLY MASONITE CEDAR	1824.00	239,00	435.9
BIDING	2337	4X8	MASONITE	2337 00	555 00	1297 0
SIDING	0	1 X 8 2 X	CEDAR #2 DE			
TRIM MISC	250	2X	#2 DF #2 DF	300.00	296.00	88.8
BAL/DECK	0	2X 2X	RWD	0.00	900.00	0.0
TRUSSES	1182	NC NC	#2 DF RWD C GR DF STR GR DF	1182.00	0.90	1063.A
TOTAL TAX				12043.92		4816.2
CARTAGE						120.4
TOTAL						5225.6
HANDLING	*****					5852.7
STUR STL						
ITEM	QUAN	UN:	IT PRICE	COST		
STL STAIR	0.00		EA 300.00			
TOTAL				0.00		

APPLIANCE				
ITEM	UNIT	UNIT	PRICE	COST
11,211	QUAN	MEAS	111100	0001
(21.022-11-1			750.00	
RANGE	0.00	EA EA	250.00	0.00
R&O COMB	0.00	EA	350.00	0.00
EYE LEV	1.00	EA	485.00	485.00
DISH WASH	1.00	EA EA	310.00	310.00
FAN	0.00	EA	40,00	0.00
G D	1.00	EA	50.00	50,00
REF	0.00	EA EA	250.00	0.00
CLO WASH	0.00	EA	250.00	0.00
MICRO WV	0.00	EA	885,00	0.00
TRASH COM	0.00	EA	250,00	0.00
TOTAL				895.00
CABINETS				
CADINEID				
BASE	14.50	LF	35.00	507.50
PANTRY	3.00	LF LF	30.00	105.00
BROOM	0.00	LF	35.00	0.00
OVEN	0.00	LF	35.00	0.00
LAU BASE	0.00	LF LF	20.00	0.00
SHELVES	0.00	LF	15.00	0.00
WET BAR FULLMAN	0.00	LF LF	35.00	402.50
VANITY	0.00	LF	15.00	0.00
LINEN	6.00	LF	35.00	210.00
FIN BACK END	20.00	EA EA	1.00	20.00
FAU	0.00	EA	1.00	0.00
MISC	0.00	EA	1.00	0.00
TOTAL				1875.00
CAB TOPS				
KITCHEN	42.50	SF	4.20	178.50
WET BAR	0.00	SF	4.20	0.00
PATIO LAUNDRY	0.00	SF SF	4.20	0.00
PULLMAN	0.00	SF	4.20	145.95
VANITY	0.00	SF	4.20	0.00
ISLAND SPLASH	0.00	SF SF	4.20	0.00
TOTAL				324.45
CAB MAR				
	UNIT	UNIT	PRICE	COST
CAB MAR	UNIT GUAN	UNIT MEAS	PRICE	COST
CAB MAR ITEM PULLMAN	UNIT QUAN	UNIT	PRICE	COST
CAB MAR	UNIT GUAN	UNIT MEAS SF	PRICE	COST
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY	UNIT GUAN 0.00 0.00 0.00 0.00	UNIT MEAS SF SF SF SF	PRICE 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB	UNIT GUAN 0.00 0.00 0.00	UNIT MEAS SF SF SF	PRICE 6.20 6.20 6.20	0.00 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL	UNIT GUAN 0.00 0.00 0.00 0.00 0.00	UNIT MEAS SF SF SF SF SF	6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL	UNIT GUAN 0.00 0.00 0.00 0.00	UNIT MEAS SF SF SF SF SF	6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL CER TILE	UNIT QUAN 0.00 0.00 0.00 0.00 0.00	UNIT MEAS SF SF SF SF SF	6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL  CER TILE SHOWER	UNIT GUAN 0.00 0.00 0.00 0.00 0.00	UNIT MEAS SF SF SF SF SF	6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL CER TILE	UNIT GUAN 0.00 0.00 0.00 0.00 0.00	UNIT MEAS SF SF SF SF SF	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  SF	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL SHOWER TUBS PAN WAINSCOT SPLASH	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL  SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00
CAB MAR  ITEM  PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL  SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN RO CLEAN FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN RO CLEAN FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN RO CLEAN FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 207.00 0.00 0	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN UP CLEAN FIN TOTAL CAP FIN	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.20	0.00 0.00 0.00 0.00 0.00 0.00 0.00 1283.40 0.00 0.00 0.00 0.00 0.00 0.00 1283.40
PULLMAN WET BAR ULTRA TUB VANITY MISC TOTAL CER TILE SHOWER TUBS FAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL CLEAN FOR CLEAN FIN TOTAL CLEAN FIN TOTAL CLEAN FIN TOTAL CLEAN FIN TOTAL CABP FIN DOORS 2048 HC 2468 HC	UNIT GUAN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT MEAS  SF S	0.40 0.10 0.10 0.20 6.20 6.20 6.20 6.20 6.20 6.20 6.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PULLMAN WET BAR ULTRA TUB VANITY MISC  TOTAL  CER TILE SHOWER TUBS PAN WAINSCOT SPLASH CAB TOPS WET BAR FIREPLACE TOTAL  CLEAN UP CLEAN FIN TOTAL  CLEAN FIN DOORS  CASP FIN D	UNIT GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	UNIT MEAS  SF S	PRICE  6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

	JAMB FIN					
			LINITE		CDCT	
	TEM	UNIT	MEAS	PRILE	COST	
		1.00 0.00 8.00 0.00 1.00 1.00 4.00 471.00 39.00 36.00 0.00 13.00 0.00				
1	EXT SIN	1.00	EA	15.00	15.00	
1	INT SIN	8.00	EA	10.00	80.00	
	INT DBL	0.00	EA	15.00	0.00	
1	POCKET	1.00	EA	28.00	28,00	
1	BUMPER	4.00	FA	10.00	40.00	
1	BASE/SHOE	471.00	EA	0.20	94.20	
1	HOOK ST	39.00	EA	1.00	39.00	
-	SH\$POLE	36.00	EA	5.00	0.00	
1	ST&APRON	13.00	EA	10.00	130.00	
1	FALSE BM	0.00	EA	20.00	0.00	
1	SHUTTER	0.00	EA	30.00	0.00	
-	TOTAL				498.20	
-	0000	11.00		10.00	110.00	
	WD DR	8.00	EA	10.00	80.00	
	S&P SIN	4.00	LF	10.00	40.00	
	S&P DBL	1.00	LF	20.00	20.00	
1	BATH	3.00	EA	20.00	60.00	
	KIT	1.00	EA	20.00	20.00	
1	PANELING	11.00 8.00 4.00 1.00 10.00 3.00 1.00 0.00 8.00	SF	1,00	0.00	
	STEAPRUN	8.00	LA	10.00	80.00	
3	TOTAL				510.00	
	TOTAL F	ACTORED			714.00	
	TOTAL				1704.20	
	CARP RO PL	AN SLAB				
		200.00		0.00	312.00	
	FRAME	390.00	LF	0.80	312.00	
	P&LINE	390.00	LF	0.10	39.00	
	CIEL JO	0.00	SF	0.20	0.00	
	CUTISTK	1851.00	SF	0.35	0.00	
	BALCONY	0.00	SF	0.35	0.00	
	FASCIA	0.00	SF	0.35	0.00	
	SHEATING	1701.00	SF	0.25	425.25	
	OPENINGS	8.00	EA	15.00	120.00	
	SOFFIT	8.00	EA	15.00	120.00	
	SIDE/DECK	0.00	SF	0.80	1849.40	
	TRIM	150.00	SF	1.00	150.00	
	STAIRS	0.00	EA	1.00	0.00	
	PICK UP	1182.00	SF EA	0.25	295.50	
	PICK UP HWD	1182.00 250.00	SF EA	0.25	295.50	
	PICK UP HWD TOTAL	AN SLAB  390.00 390.00 390.00 0.00 0.00 1851.00 0.00 0.00 1701.00 0.00 8.00 0.00 0.00 2337.00 150.00 0.00 150.00 0.00	SF EA		4541.20	
	TOTAL F	1182.00 250.00 ACTORED			6357.68	
	TOTAL F	ACTORED			6357.68	
	TOTAL F	ACTORED			6357.68	
	TOTAL F	ACTORED			6357.68	
	TOTAL F	ACTORED LITERAL UNIT QUAN	UNIT MEAS	CU YD	6357.68 UNIT COST	COST
	TOTAL F	ACTORED LITERAL UNIT QUAN	UNIT MEAS	CU YD	6357.68 UNIT COST	COST
	TOTAL F	ACTORED LITERAL UNIT QUAN	UNIT MEAS	CU YD	6357.68 UNIT COST	COST
	TOTAL F	ACTORED LITERAL UNIT QUAN	UNIT MEAS	CU YD	6357.68 UNIT COST	COST
	TOTAL F	ACTORED LITERAL UNIT QUAN	UNIT MEAS	CU YD	6357.68 UNIT COST	COST
	TOTAL F	ACTORED LITERAL UNIT QUAN	UNIT MEAS	CU YD	6357.68 UNIT COST	COST
	TOTAL TOTAL F  CONCRETE  ITEM  EXT FT 1S  STEM INT FT 2S GAR FT 1S GAR FT 1S GAR T1 1E	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 44.00	UNIT MEAS  LF	CU YD	UNIT COST 4.00 4.50 6.00 3.00 3.50 4.00 5.00	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL FINANCE FOR TOTAL FOR THE FORE FOR THE FORE FOR THE FIRE PL 1	UNIT GUAN 197.00 0.00 0.00 0.00 0.00 0.00 0.00 44.00 0.00	UNIT MEAS  LF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 5.00	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F TOTAL T TOTAL F TOTAL T TOTAL T TOTAL T T T T T T T T T T T T T T T T T T T	UNIT GUAN 197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 5.00	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL FOR	UNIT GUAN 197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 5.00	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F CONCRETE  LITEM  EXT FT 1S EXT FT 2S STEM INT FT 1S INT FT 2S GAR FT 1S GAR FT 1S GAR T1E FIRE PL 1 RET FG PAD LG PAD SM HOUSE SL	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF	CU YD 10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.00 3.50 4.00 5.00 4.00 5.00 4.00 5.00 4.00 5.00 5	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F CONCRETE  LITEM  EXT FT 1S EXT FT 2S STEM INT FT 1S INT FT 2S GAR FT 1S GAR FT 1S GAR T1E FIRE PL 1 RET FG PAD LG PAD SM HOUSE SL	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF LF LF SF SF	CU YD  10.74 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.00 3.50 4.00 5.00 4.00 5.00 4.00 5.00 4.00 5.00 5	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL FOR	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF LF EA SF SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.00 3.50 4.00 5.00 5.00 4.00 5.00 1.20 1.20	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL FOR	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF LF EA SF SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 5.00 4.00 2.00 45.00 5.00 1.20 1.20 1.20 1.20	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL FOR	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF LF EA SF SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL FOR TOTAL	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL FOR TOTAL	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL FOR TOTAL	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL FOR TOTAL	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F T T T T T T T T T T T T T T T T T T	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F T T T T T T T T T T T T T T T T T T	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 2.00 45.	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F  CONCRETE  ITEM  EXT FT 1S  EXT FT 2S  STEM  INT FT 1S  INT FT 1S  GAR FT 1S  GAR FT 1S  GAR FT 2S  GAR T1 1S  GAR T1 1S  GAR T1 1S  FIRE PL 1  RET FG  PAD LG  PAD SM  LG  FIRE PL 1  STEP  FIRE PL 1  STEP  FIRE SL  MESH  MESH  MESH  MESH  MESH  MEMBRANE  SAND  SAND  FIG STL  MESH  MESH	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10, 94 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT COST 4.00 4.50 6.00 3.00 4.50 6.00 3.50 4.00 45.00 45.00 45.00 40.00 25.00 41.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F  CONCRETE  ITEM  EXT FT 1S  EXT FT 2S  STEM  INT FT 1S  INT FT 1S  GAR FT 1S  GAR FT 1S  GAR FT 2S  GAR T1 1S  GAR T1 1S  GAR T1 1S  FIRE PL 1  RET FG  PAD LG  PAD SM  LG  FIRE PL 1  STEP  FIRE PL 1  STEP  FIRE SL  MESH  MESH  MESH  MESH  MESH  MEMBRANE  SAND  SAND  FIG STL  MESH  MESH	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F  CONCRETE  ITEM  EXT FT 1S  EXT FT 2S  STEM  INT FT 1S  INT FT 1S  GAR FT 1S  GAR FT 1S  GAR FT 2S  GAR T1 1S  GAR T1 1S  GAR T1 1S  FIRE PL 1  RET FG  PAD LG  PAD SM  LG  FIRE PL 1  STEP  FIRE PL 1  STEP  FIRE SL  MESH  MESH  MESH  MESH  MESH  MEMBRANE  SAND  SAND  FIG STL  MESH  MESH	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA	CU YD  10, 94 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F  CONCRETE  ITEM  EXT FT 1S  EXT FT 2S  STEM  INT FT 1S  INT FT 1S  GAR FT 1S  GAR FT 1S  GAR FT 2S  GAR T1 1S  GAR T1 1S  GAR T1 1S  FIRE PL 1  RET FG  PAD LG  PAD SM  LG  FIRE PL 1  STEP  FIRE PL 1  STEP  FIRE SL  MESH  MESH  MESH  MESH  MESH  MEMBRANE  SAND  SAND  FIG STL  MESH  MESH	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10, 94 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT COST 4.00 4.50 6.00 3.00 3.50 4.00 5.00 45.00 45.00 45.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL FOR	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA	CU YD  10, 94 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	UNIT COST 4.00 4.50 6.00 3.00 3.50 4.00 5.00 45.00 45.00 45.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F TOTAL F T T T T T T T T T T T T T T T T T T	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.50 6.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F T T T T T T T T T T T T T T T T T T	ACTORED  UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F CONCRETE  ITEM  EXT FT 1S EXT FT 2S STEM INT FT 1S GAR T1E FIRE PL 1 RET FG PAD 2M HOUSE SL GAR SL OTHER SL PATIO SL STEP STOOPS PORCH FTG STL MESH FORCH FTG STL MESH FALSE SAND ROCK PIPE SAND ROCK PIPE EXP JOINT RAISED POST TEN RET WALL CONC BLK TOTAL CONCRETE WALKS DRIVES	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 5.00 4.00 5.00 4.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	COST  788.00 0.00 0.00 0.00 0.00 0.00 0.00 0
	TOTAL TOTAL F T T T T T T T T T T T T T T T T T T	ACTORED  UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F CONCRETE  ITEM  EXT FT 1S EXT FT 2S STEM INT FT 1S GAR FT 1S GAR FT 1S GAR FT 2S GAR FT 2S STEM F F IRE PL 1 R ET F F P AD SM HOUSE SL GAR SL OTHER SL P ATIO SL STEP STOOPS P ORCH F T C STL MESH MEMBRANE SAND R R C S AND R C S A	ACTORED  UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 6.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F CONCRETE  ITEM  EXT FT 1S EXT FT 2S STEM INT FT 1S GAR FT 1S GAR FT 1S GAR FT 2S GAR FT 2S STEM F F IRE PL 1 R ET F F P AD SM HOUSE SL GAR SL OTHER SL P ATIO SL STEP STOOPS P ORCH F T C STL MESH MEMBRANE SAND R R C S AND R C S A	ACTORED  UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.00 6.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F TOTAL F TOTAL F CONCRETE  ITEM  EXT FT 1S EXT FT 2S STEM INT FT 1S GAR FT 1S GAR FT 1S GAR FT 2S GAR FT 2S STEM F F IRE PL 1 R ET F F P AD SM HOUSE SL GAR SL OTHER SL P ATIO SL STEP STOOPS P ORCH F T C STL MESH MEMBRANE SAND R R C S AND R C S A	ACTORED  UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST 4.00 4.50 6.00 3.50 4.00 5.00 4.50 6.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F T T T T T T T T T T T T T T T T T T	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST  4.00 4.50 6.00 3.50 4.00 5.00 4.50 6.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	EXT FT 1S EXT FT 1S EXT FT 1S EXT FT 2S STEM INT FT 1S GAR FT 1S FIRE PL 1 RET FG PAD SM HOUSE SL OTHER SL PATIO SL STEP PAD SM HOUSE SL GAR HOUSE SL GAR HOUSE SL GAR COR FIRE STOOPS PORCH FTG STL MESH MEMBRANE SAND ROCK PIPE SAND ROCK PIPE SATURATE EXP JOINT RAISED POST TEN RAISED POST TEN RET WALL CONCRETE WALL CONCRETE WALL CONCRETE WALL CONCRETE LANDING STAIRS LANDING STAIRS LT WI CON STAIRS LT WI CON STAIRS LT WI CON	UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF EA	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST  4.00 4.50 6.00 3.50 4.00 5.00 4.50 6.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	TOTAL TOTAL F T T T T T T T T T T T T T T T T T T	ACTORED  UNIT GUAN  197.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT MEAS  LF LF LF LF LF LF LF LF LF SF	CU YD  10.94 0.00 0.00 0.00 0.00 0.00 0.00 0.00	UNIT COST	788.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

DRYWALL				
		110177	DOTOR	
ITEM	DIIAN	MEAS	PRICE	CUST
EXT WALL	1576.00	SF	0.52	819.52
DADTV	2192.00	SF SF	0.52	0.00
BALLOON RAKE	0.00	SF	0.52	0.00
RAKE	240 00	SF	0.52	191.36 632.84
CEIL CAT	1217.00	SF SF	0.52	0.00
CEIL CAT CEIL FLT 2 HR WALL	0.00	SF	0.52	0.00
ATTIC SKIP TR	0.00	SF	0.52	0.00
SKIP TR	0.00	SF SF	0.20	0.00
GAR WALL GAR BALL GAR RAKE	0.00	SF	0.52	0.00
GAR RAKE	0.00	SF	0.52	0.00
GAR PARTY GAR LID	0.00	SF	0,52	0.00
GAR LID	0.00	SF	0.52	0,00
TOTAL	5353.00			2783.56
ELECTRIC				
UNDER GR	1.00	EA	100.00	100.00
SER PANEL	100.00	AMP	1.00	100.00
EXP GAR R&O RACE	0.00	EA EA	100.00	0.00
HOUSE	0.00	EA	150.00	0.00
	0.00	EA	150.00	0.00
DRYER	0.00	EA	150.00	0.00
W/H AC	0.00	EA EA	150.00	0.00
LIGHTS	18.00	EA	10.00	180.00
OUTLET SWITCH SWITCH 3W	26.00	EA	10.00	260.00
SWITCH SWITCH 3W	22.00	EA EA	10.00	220.00
SWITCH 4W		EA	20 00	0.00
GFI	1.00	EA	30.00	30.00
GFI WP DUTLET FL OUTLET CHIMES	0.00	EA EA	20.00	0.00
CHIMES	1.00	EA		
PHONE	2.00	EA	10.00	20.00
TV OUTLET	2.00	EA	10.00	40.00
BATH HEAT	2.00 2.00 1.00 0.00 0.00	EA EA EA	40.00	
FLUSH LT FIX INST	0.00	EA	10.00	0.00
FIX INST	18.00	EA	5.00	90.00
SMOKE DET FIX LUM	6.00	EA	30.00	60.00
TOTAL				1240.00
FIRE PLACE				
	UNIT		DDICE	CMCT
ITEM	QUAN	MEAS	PRICE	2001
	QUAN	MEAS		
	QUAN 0.00	MEAS EA	520,00	0.00
FP ST 36 FP ST 42 OVER 12'	QUAN	MEAS		0.00
FP ST 36 FP ST 42	QUAN 0.00 0.00	MEAS EA EA	520.00 610.00	0.00
FP ST 36 FP ST 42 OVER 12' CONNER	0.00 0.00 0.00	EA EA LF	520.00 610.00 10.00	0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER	0.00 0.00 0.00 0.00	EA EA LF EA	520.00 610.00 10.00 610.00	0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER	0.00 0.00 0.00 0.00	EA EA LF EA	520.00 610.00 10.00 610.00	0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER TOTAL	0.00 0.00 0.00 0.00	MEAS EA EA LF EA	520,00 610.00 10.00 610.00	0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 GVER 12' CONNER TOTAL FLOORING CARPET	0.00 0.00 0.00 0.00 0.00	MEAS  EA EA LF EA SY SF	520,00 610,00 10,00 610,00 9,00	0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 GVER 12' CONNER TOTAL FLOORING CARPET	0.00 0.00 0.00 0.00 0.00	MEAS  EA EA LF EA SY SY SF SF	520,00 610.00 10.00 610.00	0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 GVER 12' CONNER TOTAL FLOORING CARPET	0.00 0.00 0.00 0.00 0.00	MEAS  EA EA LF EA SY SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00	0.00 0.00 0.00 0.00 0.00 0.00 1395.00 0.00 307.50
FP ST 36 FP ST 42 GVER 12' CONNER TOTAL FLOORING CARPET	0.00 0.00 0.00 0.00 0.00	MEAS  EA  EA  LF  EA  SY  SF  SF	520,00 610.00 10.00 610.00	0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY	0.00 0.00 0.00 0.00 0.00 155.00 0.00 205.00 0.00	MEAS  EA EA LF EA SY SF SF SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00	0.00 0.00 0.00 0.00 0.00 0.00 307.50 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER TOTAL FLOORING CARRET VINYL SHEET GD CERAMIC WOOD	0.00 0.00 0.00 0.00 0.00 155.00 0.00 205.00 0.00	MEAS  EA LF EA  SY SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	0.00 0.00 0.00 0.00 0.00 1395.00 0.00 307.50 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY TOTAL	0.00 0.00 0.00 0.00 0.00 0.00 205.00 0.00 0	MEAS  EA LF EA  SY SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	0.00 0.00 0.00 0.00 0.00 1395.00 0.00 307.50 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY TOTAL FIBER GLA	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA EA LF EA  SY SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL TIBER GLA TUB ULTRA TUB	9UAN 0.00 0.00 0.00 0.00 0.00 205.00 0.00 0.00 0.00 0.00 0.00	MEAS  EA LF EA  SY SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	0.00 0.00 0.00 0.00 0.00 0.00 307.50 0.00 0.00 1702.50
FP ST 36 FP ST 42 OVER 12* CONNER TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY TOTAL FIBER GLA TUB	9UAN 0.00 0.00 0.00 0.00 0.00 205.00 0.00 0.00 0.00 0.00 0.00	MEAS  EA EA LF EA SY SF SF SF SF SF	520.00 10.00 10.00 610.00 610.00 9.00 0.80 1.50 6.00 8.00 6.00	0.00 0.00 0.00 0.00 0.00 0.00 307.50 0.00 0.00 1702.50
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB ULTRA TUB SHOWER	9UAN 0.00 0.00 0.00 0.00 0.00 205.00 0.00 0.00 0.00 0.00 0.00	MEAS  EA EA LF EA  SY SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	1395.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12' CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL TUB ULTRA TUB SHOWER TOTAL	9UAN 0.00 0.00 0.00 0.00 0.00 205.00 0.00 0.00 0.00 0.00 0.00	MEAS  EA EA LF EA  SY SF SF SF SF SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 0,80 1,50 6,00 8,00 6,00 150,00 150,00	1395.00 0.00 307.50 0.00 1702.50
FP ST 36 FP ST 42 OVER 12' CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL TUB ULTRA TUB SHOWER TOTAL	GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	MEAS  EA EA LF EA  SY SF SF SF SF SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 0,80 1,50 6,00 8,00 6,00 150,00 150,00	1395.00 0.00 307.50 0.00 1702.50
FP ST 36 FP ST 42 COVER 12' CONNER TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY TOTAL TIBER GLA TUB SHOWER TOTAL GARAGE DR	GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	MEAS  EA EA LF EA LF EA  SY SF SF SF SF SF SF SF	520,00 10,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	1395.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 COVER 12' CONNER TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY TOTAL TIBER GLA TUB SHOWER TOTAL GARAGE DR	GUAN  0.00 0.00 0.00 0.00 0.00 155.00 0.00 0	MEAS  EA EA LF EA LF EA  SY SF SF SF SF SF SF SF	520,00 10,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	1395.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL TUB ULTRA TUB SHOWER  TOTAL  GARAGE DR	GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	MEAS  EA EA LF EA LF EA  SY SF SF SF SF SF SF SF	520,00 610,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 150,00 150,00 150,00	1395.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 COVER 12' CONNER TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY TOTAL TIBER GLA TUB SHOWER TOTAL GARAGE DR	GUAN  0.00 0.00 0.00 0.00 0.00 155.00 0.00 0	MEAS  EA EA LF EA LF EA  SY SF SF SF SF SF SF SF	520,00 10,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 6,00	1395.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 COVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB SHOWER  TOTAL  GARAGE DR 16X7 DR 8X7 DR 8X7 DR 8X7 DR 8X7 DR 8X7 DR	GUAN  0.00 0.00 0.00 0.00 0.00 155.00 0.00 0	MEAS  EA EA LF EA LF EA SY SF SF SF SF SF SF SF SF	520,00 10,00 10,00 610,00 610,00 9,00 0,80 1,50 6,00 8,00 150,00 150,00 150,00 150,00 125,00 400,00	1395.00 0.00
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL  FLOORING  CARRET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL  TUB ULTRA TUB SHOWER  TOTAL  GARAGE DR 8X7 DR 8X7 DR 8EC DR TOTAL	GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	MEAS  EA LF EA LF EA SY SF SF SF SF SF EA EA EA EA EA	520.00 610.00 10.00 610.00 0.80 1.50 6.00 8.00 6.00 150.00 150.00 150.00 150.00 400.00	1395.00 0.00
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL TUB ULTRA TUB SHOWER  TOTAL GARAGE DR 16X7 DR 8X7 DR SEC DR TOTAL HEAT/AC	GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	MEAS  EA LF EA LF EA SY SF SF SF SF SF SF UNIT	520.00 610.00 10.00 610.00 0.80 1.50 6.00 8.00 6.00 150.00 150.00 150.00 150.00 400.00	1395.00 0.00
FP ST 36 FP ST 42 COVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB SHOWER  TOTAL  GARAGE DR 16X7 DR 8X7 DR	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA EA LF EA LF EA SY SF SF SF SF SF SF SF SF	520.00 610.00 10.00 610.00 0.80 1.50 6.00 8.00 6.00 150.00 150.00 150.00 150.00 400.00	0.00 0.00 0.00 0.00 0.00 0.00 307.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL  FLOORING  CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL  TUB ULTRA TUB SHOWER  TOTAL  GARAGE DR 16x7 DR 8x7 DR SEC DR  TOTAL  HEAT/AC	GUAN  0.00 0.00 0.00 0.00 155.00 0.00 0.00 0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LEA EA E	520.00 610.00 10.00 610.00 610.00 0.80 1.50 6.00 8.00 6.00 150.00 150.00 150.00 400.00	0.00 0.00 0.00 0.00 0.00 0.00 307.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00
FP ST 36 FP ST 42 COVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB SHOWER  TOTAL  GARAGE DR 16X7 DR 8X7 DR	GUAN  0.00 0.00 0.00 0.00 155.00 0.00 0.00 0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LEA EA E	520,00 610,00 10,00 610,00 9,00 0,80 1,50 6,00 1,50 6,00 150,00 150,00 150,00 125,00 400,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL  FLOORING  CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL  FIBER GLA  TUB ULTRA TUB SHOWER  TOTAL  GARAGE DR  16X7 DR 8X7 DR 8X7 DR 8X7 DR 8X7 DR 16X7 DR	GUAN  0.00 0.00 0.00 0.00 155.00 0.00 0.00 0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LEA EA E	520,00 10,00 10,00 610,00 10,00 610,00 150,00 150,00 150,00 150,00 150,00 150,00 125,00 400,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 42 OVER 12* CONNER  TOTAL  FLOORING  CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL  FIBER GLA  TUB ULTRA TUB SHOWER  TOTAL  GARAGE DR  16X7 DR 8X7 DR 8X7 DR 8X7 DR 8X7 DR 16X7 DR	GUAN  0.00 0.00 0.00 0.00 155.00 0.00 0.00 0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LEA EA E	520.00 610.00 10.00 610.00 610.00 9.00 0.80 1.50 6.00 150.00 150.00 150.00 125.00 400.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 36 FP ST 46 FP ST 42 COVER 12 CONNER TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY TOTAL FIBER GLA TUB ULTRA TUB SHOWER TOTAL GARAGE DR 16X7 DR 8X7 DR 8X7 DR 8X7 DR 16X7 D	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LA EA	520,00 610,00 10,00 610,00 610,00 8,00 8,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 40,00 40,00 40,00 40,00 40,00 40,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 36 FP ST 12 COVER 12 COVER 12 CONNER  TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB ULTRA TUB SHOWER  TOTAL GARAGE DR 16X7 DR 8X7 DR 8X7 DR 8X7 DR 16X7 DR 16X	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LA EA	520,00 610,00 10,00 610,00 610,00 8,00 8,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 40,00 40,00 40,00 40,00 40,00 40,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 36 FP ST 46 FP ST 42 COVER 12* CONNER  TOTAL FLOORING CARPET VINYL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB SHOWER  TOTAL GARAGE DR 16X7 DR 8X7 DR 8X7 DR 8X7 DR 16X7	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LA EA	520,00 610,00 10,00 610,00 610,00 8,00 8,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 40,00 40,00 40,00 40,00 40,00 40,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 36 FP ST 12 COVER 12 COVER 12 CONNER  TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY  TOTAL FIBER GLA TUB ULTRA TUB SHOWER  TOTAL GARAGE DR 16X7 DR 8X7 DR 8X7 DR 8X7 DR 16X7 DR 16X	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LA EA	520,00 610,00 10,00 610,00 610,00 8,00 8,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 150,00 40,00 40,00 40,00 40,00 40,00 40,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 42 OVER 12' CONNER TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY TOTAL FIBER GLA TUB ULTRA TUB SHOWER TOTAL GARAGE DR 16X7 DR SEC DR TOTAL HEAT/AC ITEM FAU DUCT RET AIR PLEN DAMPER VENT REG WALL HTR FREGON LABOR	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA LF EA LF EA SY SF SF SF SF SF LA EA	520,00 10,00 10,00 610,00 9,00 0,80 1,50 6,00 150,00 150,00 150,00 400,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 42 COVER 12* CONNER TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY TOTAL FIBER GLA TUB ULTRA TUB SHOWER TOTAL GARAGE DR TOTAL TABOR TOTAL TOTAL TABOR TOTAL	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MEAS  EA LF EA  SY SF SF SF SF SF  EA	520,00 610,00 10,00 610,00 10,00 610,00 150,00 150,00 150,00 150,00 125,00 400,00 40,00 40,00 40,00 40,00 25,00 25,00 25,00 25,00 25,00 25,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
FP ST 36 FP ST 42 COVER 12* CONNER TOTAL FLOORING CARPET VINVL SHEET GD CERAMIC WOOD MASONRY TOTAL FIBER GLA TUB ULTRA TUB SHOWER TOTAL GARAGE DR TOTAL TABOR TOTAL TOTAL TABOR TOTAL	GUAN  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	MEAS  EA LF EA  SY SF SF SF SF SF  EA	520,00 610,00 10,00 610,00 10,00 610,00 150,00 150,00 150,00 150,00 125,00 400,00 40,00 40,00 40,00 40,00 25,00 25,00 25,00 25,00 25,00 25,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

INSULATION				
ITEM	UNIT	UNIT	PRICE	COST
WALL	1576.00	SF	0.15	236.40
VAULT	368.00	SF	0.20	73.60
CAT CEIL	0.00	SF SF	0.25	0.00
CELLOTEX	1217.00	SF	0.25	304.25
RIGID	0.00	SF	1.25	0.00
PARTY	0.00	SF	0.15	0.00
TOTAL				614.25
IRON DRNA				
BRACKET	0.00	EA EA	10.00	0.00
FENCE	0.00	LF	8.00	0.00
RAIL	0.00	LF	8.00	0.00
HAND RAIL	0.00	LF EA	2,50	0.00
TOTAL	*********			0.00
LUM CEIL				
KIT BATH	30.00	SF SF	1.50	45.00
BAR	0.00	SF	1.50	0.00
TOTAL				45.00
MASONRY				
FIREPLACE	0.00	EA	600.00	0.00
VENEER	0.00	SF	8.00	0.00
COL	0.00	SF	8.00	0.00
FENCE PLANTER	0.00	SF SF	8.00	0.00
FACE	0.00	SF	8.00	0.00
HEARTH	0.00	SF	8.00	0.00
TOTAL				0.00
MIRRORS				
PULLMAN WARDROBE	58.00	SF SF	2.50	145.00
BAR	0.00	SF	2,50	0.00
TOTAL				145.00
PAINTING				
ITEM	UNIT	UNIT	PRICE	COST
	QUAN	MEAS	FRICE	
WALL FLAT	QUAN 349.00	MEAS SY	0.90	314.10
WALL ENAM	349.00 110.00	MEAS SY SY	0.90	314.10
	QUAN 349.00	MEAS SY	0.90 1.00 0.10	314.10
WALL ENAM BASE DOORS DOORS WD	349.00 110.00 471.00 10.00 8.00	MEAS SY SY EA EA	0.90 1.00 0.10 10.00 10.00	314.10 110.00 47.10 100.00 80.00
WALL ENAM BASE DOORS DOORS WD DOORS FR	349.00 110.00 471.00 10.00 8.00 0.00	MEAS SY SY EA EA EA	0.90 1.00 0.10 10.00 10.00 30.00	314.10 110.00 47.10 100.00 80.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P	349.00 110.00 471.00 10.00 8.00	MEAS SY SY EA EA	0.90 1.00 0.10 10.00 10.00 30.00 10.00 15.00	314.10 110.00 47.10 100.00 80.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL	349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00	MEAS SY SY EA EA EA EA EA EA	0.90 1.00 0.10 10.00 10.00 30.00 10.00 15.00 0.20	314.10 110.00 47.10 100.00 80.00 0.00 40.00 15.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS	349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 0.00	MEAS SY SY EA EA EA EA EA EA EA	0.90 1.00 0.10 10.00 10.00 30.00 15.00 0.20 10.00	314.10 110.00 47.10 100.00 80.00 0.00 40.00 0.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB	349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 0.00 0.00	MEAS SYYEAAEAAEAA EAAEAAEAAEAAEA	0.90 1.00 0.10 10.00 30.00 10.00 15.00 0.20 10.00 50.00 25.00	314.10 110.00 47.10 100.00 80.00 0.00 40.00 15.00 0.00 50.00
WALL ENAM BASE LIOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL	349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 0.00 1.00 3.00 0.00	MEAS SY SY EAA EAA EAA EAA EAA EAA EAA	0.90 1.00 0.10 10.00 30.00 10.00 10.00 10.00 0.20 10.00 50.00 25.00	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STRIM	349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 0.00 0.00	MEAS SYYEAAEAAEAA EAAEAAEAAEAAEA	0.90 1.00 0.10 10.00 30.00 10.00 15.00 0.20 10.00 50.00 25.00	314.10 110.00 47.10 100.00 80.00 0.00 40.00 15.00 0.00 50.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P S&F SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 0.00 0.00 0.00 0	MEAS SYYEAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	0.90 1.00 0.10 10.00 10.00 30.00 15.00 0.20 10.00 50.00 25.00 0.40 0.20 1.00	314.10 110.00 47.10 100.00 80.00 0.00 40.00 15.00 0.00 50.00 75.00 0.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P S&P S&P S&F S&F TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE LIRDN, ORNA	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 0.00 0.00 1.00 0.00 0	MEAS SY EA A EA	0.90 1.00 0.10 10.00 10.00 10.00 15.00 0.20 10.00 25.00 0.20 1.00 0.20 1.00	314.10 110.00 47.10 100.00 80.00 0.00 15.00 0.00 50.00 75.00 0.00 0.00 0.00 0.0
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P S&F S&F S&F SAP SAP SAFIT TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING	GUAN  349.00 110.00 471.00 8.00 0.00 4.00 1.00 0.00 1.00 0.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 10.00 15.00 0.20 10.00 50.00 25.00 0.40 0.20 1.00 1.00 1.00	314.10 110.00 47.10 100.00 80.00 0.00 40.00 15.00 0.00 75.00 0.00 0.00 0.00 0.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING	GUAN  349.00 110.00 471.00 8.00 0.00 4.00 1.00 0.00 0.00 0.00 1.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 10.00 15.00 0.20 10.00 50.00 0.40 0.20 1.00 1.00 1.00 1.00	314.10 110.00 47.10 100.00 80.00 0.00 0.00 0.00 0.00 75.00 0.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING	GUAN  349.00 110.00 471.00 8.00 0.00 4.00 1.00 0.00 1.00 0.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 10.00 15.00 0.20 10.00 50.00 0.40 0.20 1.00 1.00 1.00 1.00	314.10 110.00 47.10 100.00 80.00 0.00 0.00 0.00 0.00 75.00 0.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 1.00 0.00 1.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 10.00 15.00 0.20 10.00 50.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00 75.00 0.00 0.00 0.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 4.00 1.00 0.00 1.00 0.00 1.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL SING SINK LAV WC BAR	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL SINK LAV WC BAR BAR LAUN TUB	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK LAV WC BAR LAUN TUB	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00 150.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK LAV WC BAR LAUN TUB	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00 150.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK LAV WC BAR LAUN TUB	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00 150.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 50.00 50.00 50.00 50.00 60.
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK LAV WC BAR LAUN TUB	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00 150.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00 0.00 0.00 0.00 467.40
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK LAV WC BAR LAUN TUB	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00 150.00 0.00	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00 0.00 0.00 0.00 467.40
WALL ENAM BASE DOORS DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB SHATTER TRIM SADDLE IRON ORNA SHUTTERS SIDING	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00 0.00 0.00 0.00 467.40
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00 0.00 0.00 0.00 467.40
WALL ENAM BASE DOORS DOORS DOORS WD DOORS S&P S&P SKIP SKIP TROL BEAMS BATH CAB BATH CAB BATH CAB BATH CAB STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL STARTER PLUMBING SINK LAV WC BAR LAUN TUB SHOWER ULTRA W/H GD ICE FG CONN COPPER SOIL 4 SOIL 2 VENT 4	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 0	MEAS SY SY EA	0.90 1.00 0.10 10.00 30.00 15.00 0.20 10.00 55.00 25.00 0.40 0.20 1.00 1.00 1.00 0.20	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 50.00 75.00 0.00 0.00 0.00 467.40
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING SIDING SIDING SINK LAV WC BAR LAUN TUB BAR LAUN TUB CONN COPPER SOIL 4 SOIL 2 VENT 4 VENT 2	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.0	MEAS SY SY EA	0.90 1.00 1.00 0.10 10.00 30.00 15.00 0.20 10.00 25.00 0.40 0.20 1.00 1.00 1.00 1.00 1.00 1.00 1.0	314.10 110.00 47.10 100.00 80.00 40.00 15.00 0.00 15.00 0.00 0.00 0.00 150.00 150.00 150.00 0.00
WALL ENAM BASE DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING SIDING SIDING SINK LAV WC BAR LAUN TUB BAR LAUN TUB CONN COPPER SOIL 4 SOIL 2 VENT 4 VENT 2	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.0	MEA SY SAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	0.90 1.00 1.00 30.00 10.00 15.00 0.20 10.00 25.00 0.40 0.20 1.00 1.00 1.00 1.00 1.00 1.00 1.0	314.10 110.00 47.10 100.00 80.00 40.00 15.00 75.00 75.00 75.00 0.00 0.00 40.40 150.00 150.00 0.00 0.00 150.00 150.00 150.00 150.00 0.00
WALL ENAM BASE DOORS DOORS DOORS DOORS S&P S&P SKIP TROL BEAMS KIT CAB BATH CAB BATH CAB BATH CAB HATER TRIM SADDLE ITRON ORNA SHUTTERS SIDING TOTAL	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00	MEA SY SAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	0.90 1.00 1.00 30.00 10.00 15.00 0.20 10.00 25.00 0.40 0.20 1.00 1.00 1.00 1.00 1.00 1.00 1.0	314.10 110.00 47.10 100.00 80.00 40.00 15.00 75.00 75.00 75.00 0.00 0.00 40.40 150.00 150.00 0.00 0.00 150.00 150.00 150.00 150.00 0.00
WALL ENAM BASE DOORS DOORS DOORS WD DOORS FR S&P S&P SKIP TROL BEAMS BATH CAB BATH CAB ENAMEL STARTER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL SIBLE PLUMBING SINK LAV WC BAR LAUN TUB SHOWER ULTERA W/H GD ICE FG CONN COPPER SOIL 2 VENT 4 VENT 2 COND DRAIN	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.0	ME - SYA A A A A A A A A A A A A A A A A A A	0.90 1.00 1.00 0.10 10.00 30.00 0.20 10.00 11.00	314.10 110.00 47.16 100.00 80.00 0.00 0.00 15.00 0.00 0.00 0.00 0.00
WALL ENAM BASE DOORS DOORS DOORS WD DOORS S&P S&P SKIP SKIP TROL BEAMS SHATER TRIM SADDLE IRON ORNA SHUTTERS SIDING TOTAL SINK LAV WC BAR WC B	GUAN  349.00 110.00 471.00 10.00 8.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00	ME SYAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	0.90 1.00 1.00 0.10 10.00 30.00 10.00 15.00 0.20 1.00 1.00 1.00 1.00 1.00 1.00 1	314.10 110.00 47.10 100.00 80.00 0.00 0.00 15.00 0.00 0.00 0.00 0.00

ROOFING				
ITEM	UNIT	UNIT	PRICE	COST
	QUAN	MEAS	PRICE	000.
SP TILE	0.00	SQ	185.00	0.00
CON TILE	0.00	50	135.00	0.00
SHAKES	0.00	50	120.00	0.00
SHINGLE	0.00	SQ SQ	70.00	896.00
HOT MOP	4.21	50	100.00	421.00
STARTER	0.00	SQ	70.00	0.00
HIP RIDGE	0.75 0.75	SQ	70.00	52.50
EMVE	0.75	SQ	70.00	52.50
TOTAL	18.51			1422.00
SASH ALUM				
5068 DR	5.00	EA	170.00	
6068 DR	0.00	EA	190.00	0.00
8068 DR	0.00	EA	210.00	0.00
10068 DR	0.00		220 00	
12068 DR		EA EA	230.00	0.00
6030 WD	0.00	EA	210.00	0.00
3650 WD	0.00	EA	210.00	0.00
3030 SL 4030 SL	5.00	EA EA	35.00 40.00	200.00
5030 SL	0.00	EA	45.00	0.00
6030 SL 2040 SL	0.00	EA	50.00 35.00	0.00
CLEAR ST	0.00	EA SF	3.00	0.00
	~	EA	45.00	0.00
5040 SL	0.00	EA EA	50.00	0.00
6040 SL 2050 SL	0.00	EA	35.00	0.00
5050 SL	0.00	EA	FF 00	0.00
6050 SL	0.00	EA	60.00	0.00
8050 SL 1640 SL	1.00	EA EA	70.00	0.00
1650 FIX	0.00	EA	35.00	0.00
PRO ARCH	0.00	EA	1.00	0.00
GREEN	0,00	EA	1.00	0.00
TOTAL				1080.00
BRDZ 20% MULL 20%				1296.00
				1312.00
SHEET MET				
SCREED	227.00	EA	0.60	136.20
KIT VENT		EA	40.00	40.00
BATH VENT		EA	40.00	120.00
DRY VENT	0.00	EA SF	30.00 5.75	0.00
GAR VENT	0.00	EA	20.00	0.00
RAFT VENT	10.00	EA EA	20.00	10.00
DORMER	0.00	EA	40.00	0.00
GUTTER/DS	147.00	LF	1.00	147.00
SCUPPER DIVETER	0.00	EA EA	6.00	0.00
GRAVEL ST	48.00	LF	0.80	38.40
Z FLASH	60.00	LF	0.80	48.00
CHIMNEY	0.00	LF EA	20.00	0.00
SADDLE	0.00	EA	20.00	0.00
SCUTTLE		EA	20.00	0.00
MISC	0.00	EA	1.00	0.00
TOTAL				
				609.60
SHW INC				
TUB	0.00	EA	128.00	0.00
TUB SHR PIVOT	0.00		128.00	
TUB SHR PIVOT SHR 30 SHR 40	0.00 0.00 0.00 0.00	EA EA EA	128.00 90.00 90.00 100.00	0.00 0.00 0.00 0.00 0.00
TUB SHR PIVOT SHR 30	0.00 0.00 0.00 0.00	EA EA EA	128.00 90.00 90.00	0.00
TUB SHR PIVOT SHR 30 SHR 40	0.00 0.00 0.00 0.00	EA EA EA	128.00 90.00 90.00 100.00	0.00 0.00 0.00 0.00 0.00
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF	0.00 0.00 0.00 0.00 0.00	EA EA EA EA	128.00 90.00 90.00 100.00 150.00	0.00 0.00 0.00 0.00 0.00
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF	0.00 0.00 0.00 0.00	EA EA EA EA	128.00 90.00 90.00 100.00 150.00	0.00 0.00 0.00 0.00 0.00
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF	0.00 0.00 0.00 0.00 0.00	EA EA EA EA EA	128.00 90.00 90.00 100.00 150.00	0,00 0,00 0,00 0,00 0,00 0,00
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF STUCCO EXT TO 12	0.00 0.00 0.00 0.00 0.00	EA EA EA EA EA	128.00 90.00 90.00 100.00 150.00	0,00 0,00 0,00 0,00 0,00 0,00
TUB SHR PIVOT SHR 30 SHR 40 SHR 40 TOTAL COST/SF STUCCO EXT TO 12 EXT OVER GABLE	0.00 0.00 0.00 0.00 0.00 0.00	EA EA EA EA SY SY SY	128.00 90.00 90.00 100.00 150.00	0,00 0,00 0,00 0,00 0,00 0,00
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF STUCCO EXT TO 12 EXT OVER GABLE BALLOON	0.00 0.00 0.00 0.00 0.00 0.00	EA EA EA EA SY SY SY SY	128.00 90.00 90.00 100.00 150.00	0.00 0.00 0.00 0.00 0.00 0.00
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF STUCCO EXT TO 12 EXT OVER GABLE GABLE GABLE COL/CHIM	0.00 0.00 0.00 0.00 0.00 0.00	EA EA EA EA SY SY SY SY	128.00 90.00 90.00 100.00 150.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SDEFIT	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH FENCE SCR TUB	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 2SIDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA EA SY SY SY SY SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00 10.00 90.00 30.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA EA SY SY SY SY SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00 10.00 90.00 30.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA E	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 10.00 10.00 10.00 10.00 90.00 30.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE TOTAL WEATHER DOOR DBL DOOR SIN	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 12.00 10.00 10.00 90.00 30.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OUL EXT TO 17 EXT TO 18 BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE TOTAL WEATHER DOOR DBL	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA E	128.00 90.00 100.00 150.00 150.00 12.00 12.00 10	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE TOTAL WEATHER DOOR DBL FORENCH	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA EA EA EA SY SY SY SY SY SY SY SY SY SY SY SY SY	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 12.00 10.00 10.00 90.00 30.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
TUB SHR PIVOT SHR 30 SHR 40 SHR 25IDE TOTAL COST/SF STUCCO EXT TO 12 EXT OVER GABLE BALLOON COL/CHIM WING ARCH SOFFIT FENCE SCR TUB TEXTURE TOTAL WEATHER DOOR SIN FIRE DR FRENCH	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	EA E	128.00 90.00 100.00 150.00 150.00 12.00 12.00 12.00 10.00 12.00 10	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

# ALL THOSE IN FAVOR OF A BETTER FLOOR JOIST AT LOWER COST,

SAY



Say Residential TJI, that is. The TJI joist is getting builders' votes right across the country because the record shows it builds a better floor at lower cost than conventional 2x10 or 2x12 joists.

And builds it faster. The Residential TJI joist is strong enough to install at 24" o.c. and comes in continuous lengths up to 60 feet. That means fewer pieces. And there's no blocking or bridging required either.

Easy handling means faster construction, too. A typical 26-foot, 9½ inch deep TJI joist weighs in at less than 50 pounds. It is the oneman floor joist.

Residential TJI joists are made

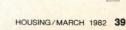
of strong, stable, MICRO=LAM® engineered lumber—virtually no warps, splits, twists or shrinkage.

The wood flange is easy to nail and the plywood web is easy to drill for wiring and plumbing. No special tools or techniques needed.

To speed up framing and hold down costs, say "I" to the Trus Joist Corporation products dealer in your area.



Circle 39 on reader service card



# Can any camera make you a better photographer?

We think the answer is "yes" While talent, admittedly, comes first, equipment comes second. And there's a world of difference between cameras.

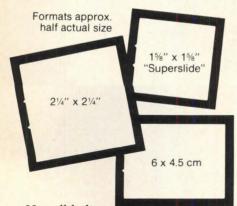
The moment you hold a Hasselblad in your hand you'll sense that difference.

When you look into the viewing hood you'll see a big, bright 21/4" x 21/4" image projected

onto the ground glass screen. You'll find this experience considerably more satisfying and stimulating than peering with one eye through the tiny evepiece of a 35mm. The Hasselblad viewing system brings you closest to what your finished photograph will actually look like,

which will help improve your

results.



Hasselblad's interchangeability is another great creative stimulant.

It helps you shape the camera configuration to suit your own ideas, so the camera and your mind's eve can work together as one.

For a start, you can interchange the film magazine with other magazines, permitting changes in film types, film capacity and even formats. And you can switch magazines even in mid-roll, without wasting a single shot and that includes a Polaroid back.

You can also interchange the lens with other Carl Zeiss lenses. for a wide range of optical options. These lenses greatly extend the vision of the camera and open up an exciting range of creative possibilities.

You can further adapt your Hasselblad to your own creative needs through a wide number of accessories, including specialized viewfinders, bellows extensions,

grips—even an underwater

housing.

Considering the extraordinary scope and versatility of the Hasselblad, the uninitiated might be inclined to conclude that this is a complicated camera. But nothing could be further from the truth. The Hasselblad is designed to be easy to operate

enabling the photographer to concentrate on the subject and not on the camera.

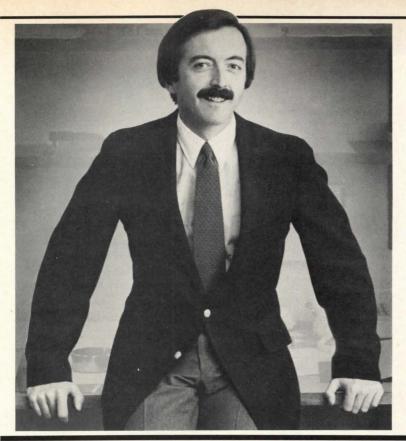
So if you're looking to improve your photography, look into a Hasselblad.

See your Hasselblad dealer or write for our comprehensive brochures, to:

Victor Hasselblad Inc., 10 Madison Road, Fairfield, N.J. 07006



HASSELBLAD When you shoot for perfection



# about product selection

It's time to

be realistic

John Scott is president of Scott, Fitton & Co. Inc., a research, planning and consulting firm based in New Haven, Conn. Over the last 10 years, he has participated in the planning, development and marketing of more than 100 housing complexes in the Northeast and Midwest, and of numerous commercial and adaptive reuse projects as well. His company also publishes New England Developer, a public service trade magazine.

Scott believes we've entered "a new era where we no longer design on whim and fancy or by trial and error." Rather, because of fear of failure in a rapidly changing marketplace, builders are calling on marketing consultants and other professionals to help them deliver a house that's precisely targeted to its market.

Marketing consultants have a lot of power today. Developers now want to know what we really think during the early stages of planning: Our clients are becoming less anxious about the actual selling process and much more concerned with advance product planning-creating a house in which value and cost are in optimum balance. The effectiveness of this new approach depends, in large measure, on how well we understand our buyers—what they need, what they think they want and what they really can afford.

Similarly, manufacturers who want to sell their products to builders should understand what the builder's needs and goals are—and what really goes on when products are selected.

Specifically, in the "real world," building products are chosen in either one of two ways: by the builder himself or by a team of building professionals representing different disciplines brought together for the specific purpose of selecting building products. The former is nice and clean, but it is also trial and error. The latter involves a lot of yelling and derogatory comments about buyers, builders, professionals, trade publications, etc.

The trick is to have a benevolent dictator (the builder) present to prevent product sessions from becoming a

# Our first test of a product's worth in the marketplace is "Can you see it?"

fruitless exercise in management by committee-one who listens and then makes a decision.

Someone once told me that I won a lot of product arguments because the underlying premise of all my recommendations was: "If you don't do it this way, it won't sell." This same person (an architect) observed that such logic was infinitely more compelling to builders than: Do it because your buyers will be happier; or because you'll sleep better; or because it will make your project function as a community; or because it's the right type of architectural statement.

In fact, our first test of a product's

worth in the marketplace is "Can you see it?" Next, we rank the characteristics of each item in the following descending order of significance:

- 1. Cost to the builder.
- 2. Perceived value to the consumer.
- 3. Availability from the manufacturer or supplier.
- 4. Ease of installation.
- 5. Construction phasing criteria.
- 6. Effect on housing liveability.
- 7. True values to the consumer.
- 8. Design excellence.

Items one and two, of course, go hand-in-hand. Together they add up to something we call "value effectiveness." In simpler terms: Will the value of using this product equal or exceed

At the risk of sounding somewhat cynical, I have to say that items six through eight rarely get a passing mention in product selection conferences. (Those who dwell at length on such philanthropic notions often don't get invited back.) These items do, however, have a great deal to do with how a new product will be percevied by consumers next time around.

The true tests of any building product, however, are as follows: Will it speed sales? Will it increase the developer's profit margin? Will it reduce financial risk? Will it reduce callbacks and warranty liability?

If the answer is "none of the above" the product probably won't be chosen.

If one were to create the ultimate building product, it would increase value by \$1,000, but cost only \$100 in place. It would be available in any quantity from one to one hundred units at a day's notice, and could be installed in any stage of construction without creating any sub call-backs or involving more than one trade.

Since you can't use every worthwhile product in a single project, the builder must discriminate among those that will achieve the best results at the lowest possible price. When he makes his decision, good product samples

count. So do good catalogs. And getting them is often like pulling teeth. Some manufacturers will pay a salesman a handsome commission, but not give him the tools he needs to make a sale. When the builder asks for a copy of the brochure he's just been shown, the salesman often says: "I'm sorry, but it's the only copy I have."

Of course, the lines between marketing success and failure are considera-

# The ultimate building product would increase value by \$1,000, but cost only \$100 in place.

bly more elusive than we sometimes let on. The truth is that many of our product recommendations are also based on common sense; others, on street smarts acquired through years of marketing experience; the balance on the simple need to make a creative decision.

Incidentally, it seems that every time we rely on some national survey of consumer preferences, our recommendations bomb. I think this has something to do with the nature of attitudinal research: Homebuyers tell

us what they like without regard to what they can afford, and builders tell us what buyers like without telling us they didn't offer anything else.

Personally, I like to assess buyer behavior in a specific, unmanipulated environment - e.g. as they make product selections with a salesperson-and determine what they did, what it cost and what they gained or gave up.

This way, I've found out that in one case, people were picking gold kitchen appliances because the only countertop offered was gold. And, in another project, that buyers were all selecting gray carpet because that was the salesman's favorite shade: His enthusiasm was contagious.

Besides misleading research, other common impediments to successful product selection are:

- Point-of-purchase material supplied by manufacturers that is so poor or visually overwhelming (e.g. dayglow orange) that it's never used.
- Builders who give all their business to suppliers and subs who are still owed lots of money for the last job.
- Architects who are still trying to change the way America lives instead of selling its citizens what they really
  - Salespeople who remember only

the nasty comment about a product.

- Builders who have interior decorators in the family.
- Construction superintendents and purchasing agents who only order what they like: The other thing is always "unavailable."

In the final analysis, the more testing, the more slamming around of ideas, the better our product selections will be. And although it's almost

# **Good product samples** count. So do good catalogs. And getting them is often like pulling teeth.

impossible to relate the marketplace success or failure of a house to an individual component, we keep trying. And this also produces better houses which, for me, makes it all worthwhile.

Whether you agree or disagree with John Scott, we invite your comments on his views. Write: Natalie Gerardi, Editor in Chief, HOUSING, 1221 Avenue of the Americas, New York, N.Y. 10020. Due to space limitations, we reserve the right to edit any letters we publish.



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It's a simple, inexpensive way to add appeal to your homes. Reduce heat loss through insulated walls by 33% when you cover sheathing with an air barrier of DuPont TYVEK\* spunbonded olefin. DuPont tests prove it! BOCA Report No. 79-34 confirms it. It's the kind of energy savings homebuyers are looking for. And it costs very little to add to your homes

TYVEK Housewrap is not a film or paper. It's a special fiber with unique properties that block

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That's a big sales advantage for you. And to make sure home-buyers know it, DuPont offers you FREE handout literature and a display for use in your models and sales office. They can help you close the sale.

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Order TYVEK from your building supply dealer, and add solid sales appeal to your homes without adding much to costs. For FREE detailed test data, literature, or the names of your nearest TYVEK dealer, call (302) 999-2474, or write DuPont Company, Room C-11K4-H, Wilmington, De 19898.

°DuPont registered trademark \*DuPont laboratory tests using 2x4 frame wall with  $3\frac{1}{2}$ -inch, R-11 insulation in 15 mph wind.



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An intensive three-day program that will take a long, hard look at the country's most emulated housing market and how it's coping with today's economic crunch.

Newport Beach, California Marriott Hotel

March 22, 23 & 24, 1982

Southern California's Orange County has been a booming housing market since builders and developers discovered it some 20 years ago. Now, even this "golden market" is feeling the pinch of the economic squeeze.

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Southern California's top professionals will tell you what's selling in their market and why.

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Comprehensive Marketing Strategy how well-directed marketing and merchandising programs can keep a project active.

And, you'll also hear in-depth panel discussions about selected projects on the tour. Key members of the marketing teams that have created these projects will talk to you about site planning, design, landscaping, merchandising and sales strategies.

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You'll tour the finished products—plus many others. An exciting variety of housing types will be represented.

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**Planned Communities**—you'll get a first-hand look at how a strong master plan, coupled with good architectural control, can improve the drawing power of your community.

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# A HOUSING CONFERENCE MANAGED BY INFOSOURCE

# Coordinated Sales Environments—

carefully designed to help prospects make the final commitment to buy.

And above all, you'll learn to take everything you've seen and turn it into a practical, aggressive marketing program—no matter what or where you build.

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You'll be able to extend your stay at the Newport Beach Marriott either before or after the conference at the same special rate.

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You'll study with Barry A. Berkus, AIA, president and founder of Berkus Group Architects. The wenty-year old firm is based in Santa Barbara, California and has offices in Santa Ana, California and Washington, DC; Carole Eichen, president of Carole Eichen Interiors, Inc., based in Santa Ana, California; Dr. Alfred J. Gobar, president of he southern California-based real estate research irm, Alfred Gobar Associates, Inc.; Lester Goodman, president of his own marketing services firm, Lester Goodman Associates Inc., in Brea, California; William E. Mitchell, president of Real Estate Development Company, a development services company in Santa Ana, California; Walter J. Richardson, FAIA, president of Richardson-Nagy-Martin, the widelyknown architectural and planning firm in Newport Beach, California; Roger Holloway, president of Notivational Design and Marketing, Inc., a firm which specializes in the design and fabrication of ales office interiors—and other experts as well.

### How to register

Please complete and return the coupon below to: Seminar Dept., Housing Magazine 1221 Avenue of the Americas New York, NY 10020

Or you may register by phoning (212) 997-6692. All registrations will be confirmed by mail.

### Conference fee

Individual registration fee — \$895 Additional fee for your spouse — \$195

The full registration fee is payable in advance and includes all conference materials, cocktail parties, luncheons, a banquet and full set of audio cassettes. Your spouse is invited to attend all cocktail parties and the banquet.

### Cancellations and refunds

Registrations may be cancelled without charge up to two weeks before the seminar date. Cancellations received later than that are subject to a \$100 service charge.

### Hotel reservations

While Housing does not make individual reservations for conference participants, we have arranged with the Marriott Hotel in Newport Beach to hold a special block of rooms for our attendees. To make your reservations call the Marriott at (714) 640-4000. Please be sure to say that you are attending the HOUSING conference. This will identify your reservation with the block of reserved rooms and assure you of the special conference rate. Space is limited so please make your reservations as early as possible.

possible. For those wishing to extend their stay the special rate will apply three days before and after the conference dates.

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A cocktail reception will be held at 6:00 p.m. the evening before the conference. Registrants may check in then or between 8:30 and 9:00 a.m. the next morning. Conference sessions run from 9:00 a.m. to 5:00 p.m. the first day and from 8:30 a.m. to 5:00 p.m. the second and third days.

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An income tax deduction is allowed for expenses of education (includes registration fees, travel, meals, lodgings) undertaken to maintain and improve professional skill. See Treasury Regulation 1.162-5 Coughlin vs. Commissioner 203F .2d 307.

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# "WE BUILD THE SALES TALK INTO THE HOUSE!"



ARCHITECT: CHARLES M. GOODMAN ASSOCIATES

Trim design, imaginative site plan and Fiberglas\* Building Insulation speed sale of Hammond Homes





You, too, can sell more new homes by following the common-sense strategy employed by Paul Burman and Paul Hammond, builders of the Wheatoncrest subdivision at Wheaton, Maryland.

Mr. Hammond says, "Today's small home buyer is looking for value—and when he finds it, he manages to get hold of the necessary down payment some-how. Insulation is one of the things he's looking for. And of all insulations, Fiber-glas is most efficient, best known. That's why we feature it in the homes we've built to date and why we will continue to feature it in the 600 additional homes we plan to build in the next 5 years.

Does the formula of this merchandising-minded team, work? And how! Their first group of 20 houses was sold out within a week. Following groups have moved just as fast.

How does the insulation YOU use measure up? Is it firesafe without special treatment? Is it quick and easy to install? Compression packed for easy storing and handling? Does it provide no food for vermin? Does it have a self-contained, FHA-approved vapor barrier? Is it as well known to prospective buyers and lenders? Can you use it as a selling feature for your houses?

If you can't answer "Yes" to all the above, what are you waiting for? Hurry down to your building supply dealer and get complete information on Fiber-glas Building Insulation. These five leaders distribute it nationally—so you'll find it everywhere.









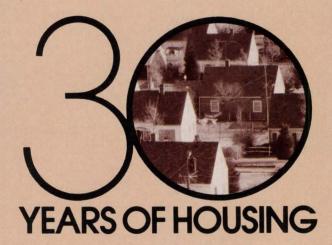


Build YOUR sales talk into the house, too. Insist upon Fiberglas Building Insulation! Owens-Corning Fiberglas Corporation, Department 67A, Toledo 1, Ohio. Improving building everywhere by co-sponsoring the Housing Research Foundation of the Southwest Research Institute.

\*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning

# is in your life. for good!

Reprinted from HOUSE & HOME, January 1952.



# IS HOUSING INFLATIONARY? In fact, this year too few homes would be more inflationary than too many

## January 1952 article concluded: One important way to guard against inflation is to put real savings into homebuilding. And considering all the risks ahead, we may well begin to ask, not is housing inflationary? but can we afford to run the risk of inflation by unduly restraining housing?



Levittowner model, in Levittown, Pa., had 1,000 sq. ft. of space and  $70' \times 100'$  lot. It sold for \$9,900 with a low down payment and carrying costs of \$60 a month.

In some respects, our industry has come a long way since House & Home — as HOUSING was then known — published its first issue in January 1952. And in other respects we've come full circle.

Looking back, we see a nation proud of its accomplishments in World War II and eager to turn its industrial might to peaceful pursuits. The Seabees' "can do" motto applied to all of us.

At the same time builders were coping with shortages caused by the Korean war. And we were already debating housing's effect on inflation.

One thing was simpler back in 1952: Our market was homogeneous. Buyers all wanted homes of their own in which to raise children. And they'd wanted them for a long time — all during the Depression and all during World War II.

Despite the shortages, our first issue reported that builders had managed to produce six million new housing units since V-J Day. And the demand was still strong. Remember, this was the era of the baby boom and of "togetherness," which meant such homebound pleasures as potluck suppers, backyard barbecues and evenings in front of the brand-new TV set.

Some other things were also easier back in 1952. There was plenty of land to be had. And the government was making more land accessible with an ambitious roadbuilding program. You didn't hear about no-growth in those days. You didn't hear about environmentalists, either. New houses were good, new communities meant progress — a chance to do things right. And some of the people who bought homes in them still feel that way today (see "How they lived," page 83).

Others kept trading up and plowing their profits into ever larger and more elaborate homes. Then they bought vacation homes. And in the late '70s they even bought homes to rent to others. Better and better housing was everyone's birthright — the American Dream.

The baby-boom children who grew up in those 1950's houses have reached homebuying age themselves, now, and most experts say there's still plenty of demand for housing. And our industry is faced with a new challenge: providing homes the baby-boomers can afford and that suit their diverse lifestyles (see

In 1952, builders were just beginning to learn the basics of design and planning. Up until that time, there were just two types of housing: There were custom, one-of-a-kind homes, many of them designed by architects whose names are legendary today.

And there were builder houses, which needed all the help they could get. H&H tried to get builders to realize this. "Isn't the architect's design worth the price of a bathtub?" asked the editorial in our March 1952 issue.

In August 1952, H&H excerpted a book entitled "New Frontiers for Homebuilders" by C. W. Smith, director of the Southwest Research Institute's Housing Research Foundation in San Antonio.

Some of the "new frontiers" bear repeating. Examples:

- Most bad housing projects are characterized by a conscious effort to achieve dissimilarity in the appearance of the houses.
  - Too often builders using basic plans repetitively try too hard to achieve

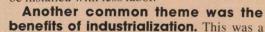
dissimilarity by wasting money on a mixture of bird houses, false gables, shutters and meaningless variations of exterior materials and colors. If the basic plan is good this is unnecessary, and anyhow ornamentation never does disguise similarity of the design and structure.

· Many builders, able to sell houses of inferior design, concluded that the public was satisfied with new-Cape Cod and neocolonial abortions and saw no reason for spending money, time or effort on an architect. Now the better builders are upsetting the market and making the public more discriminating because they have learned that using a good architect to design clean contemporary houses, without the gimeracks of the past, finds an immediate and enthusiastic response on the part of the public.

· Planning rooms for more than one use and giving an "open" feeling to the whole living area gives a sense of spaciousness

even when the house must, because of price limitations, be relatively small. Every good builder has learned that it pays to select materials and items of equipment that are of high quality and will provide long service without requir-

ing frequent repairs or maintenance. In many instances it is actually less expensive to use materials that, in themselves, may cost slightly more than the cheapest available, but which can be installed with less labor.



legacy from the war years, when prefab housing had contributed mightily to the defense effort. It also reflected society's faith in technology.

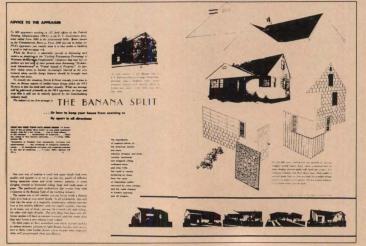
That faith was not without lapse, however: A news story in the first issue of H&H reported on using mobile homes for temporary housing around military bases and defense plants. "HHFA's (the Housing and Home Financing Agency) aim was to make sure temporary housing was so temporary it would not remain to blight post-defense communities," the story said.

A decade later our faith was as strong as ever:

"Just 10 years ago, most building was still a hand-craft business. Today, housing is on the threshold of complete INDUSTRIALIZATION," our 10th anniversary issue proclaimed. "Several approaches to building with factory-made parts are ready for the building boom ahead."

The article discussed another of H&H's early crusades—standards of measurement for the industry. In 1961, the magazine had teamed up with the American Standards Association and the NAHB Research Institute to sponsor five round tables to work out industrywide standards for room modules and component

The consensus of the experts quoted was that coordinated components would be the on-site builder's answer to prefabrication. The one dissenting opinion came from National Homes' George Price, who was then president of the Prefabricated Home Manufacturers Institute:



Early crusade of H&H: to teach builders about good design and to encourage builders and architects to work together.



1952 book excerpt was one of a multitude of articles educating builders about good design.

"Coordinated components would help the builders match one economy of the prefab house. But the prefab builder would still have the advantage of national advertising, packaged merchandising, packaged financing, packaged design by the very best architects, lower overhead and lower capital needs. The on-site builders' best answer is to join the prefabricators instead of trying to compete with them." Twenty years later, there's still a question of who is competing with whom. But in today's economic climate, factory-built housing's poor-relation image may be coming to an end (see page 64).

In 1952 we had a Buck Rogers image of the future. Take, for example, this interview with the retiring president of the NAHB which appeared in the second issue of H&H.

"Now that he can relax after a year of shepherding the NAHB, ex-President [W.P.] At-

kinson let his thoughts wander to the house of 1962. Said he: It may be atomically heated, gain its light from light-radiating surfaces, have few movable furniture units, glareless windows, a push-button roof aperture, movable walls and room enough for sister to take her elementary arithmetic class by television."

And indeed, since the war, a host of new products had become available to the American public. Ads in H&H's first issue depict "brand-new" heat pumps, intercoms, skylights, insulating concrete systems, ranges and ovens, unitized kitchens. Dishwashers and garbage disposers represented the height of luxury. And aluminum and plastic building products had already appeared.

Unlike today's market, however, only two or three manufacturers made most of these products, and their offerings rarely varied in any substantial way. In short, there was very little choice.

Interestingly enough, the technology exists for most of the items mentioned by President Atkinson in that long-ago interview. If they are not on the market today, it's because our tastes have changed.

The product advances of the past thirty years fall roughly into five major groups: labor-saving, low-maintenance, luxury/convenience, energy-saving and space-saving products.

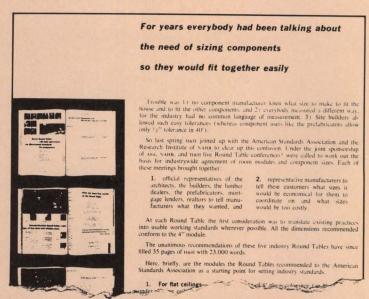
Labor-saving products include such components as trusses, and prehung windows and doors which were just coming into use in the '50s. Plywood was opening up new vistas for architects, and plaster was giving way to drywall and prefinished panelings. Their use was spurred by the need to build quickly to meet market demand.

At the same time power saws and automatic nailers began to move from factory to field, as did paint sprayers.

Two materials that had contributed to the war effort now made their appearance as low-maintenance products for the home: plastics and aluminum. Vinyl plastic floor coverings were advertised as being "amazingly stain-resistant," and aluminum showed up as "window beauty that never needs painting, never needs repairs, stays strong and beautiful year after year."

Over the years they were joined by plastic laminates, no-wax flooring, silicon grouts, aluminum siding and a host of other low-maintenance and labor-saving products.

It was the luxury/convenience products that gained the most attention, for they were the sizzle that helped create the desire for new homes and thus fueled the move-up market. Ever more sophisticated appliances belong in this category. So does air-conditioning, which in some areas was a luxurious amenity and in the Sunbelt the technological advance that made a housing boom possible.



A common language of measurement for the industry was the aim of a series of round tables run by H&H in



1952 product stories featured air conditioning, heat pumps, prehung doors, built-in refrigerators, island sinks and the "dressed-up boiler sealed for kitchen installation" used in Levittown, Pa. (see page 80).



High finance got just as much attention in the '50s as nowadays: Typical: this call by economist Miles Colean for market-rate interest for mortgages.

"We can imagine no new sales feature which could do as much to make yesterday's house obsolete and create a whole new market for tomorrow's house," an H&H editorial said in June 1952.

Two more recent product categories are those which save energy and those which save space, the one made necessary by the end of cheap energy that came in the wake of the Arab oil embargo of 1973, the other by the trend toward smaller units to make housing more affordable.

And in 1952, just as now, we were trying to find new sources of money. Skyrocketing interest rates . . . chaos in the mortgage markets . . . creative financing . . . calls for the pension funds to pump money into housing ... All of this sounds like the stuff of today's headlines, and it is. But, thirty years ago, these same issues dominated H&H's financial pages.

January, 1952: "Mortgage Recovery Slow as Interest Rates Climb" reads the headline in the H&H news section. Interest rates on new issues of corporate bonds, notes the story, are hitting "peaks" of 3.75%, making managers of investment portfolios unwilling to invest in FHA and VA mortgages whose rates are frozen at 4% and 4¼%. Still, the conventional mortgage market, the Feb. 1952 issue notes, finds "plenty of investor money" at those high-flying, free-market 41/2% to 6% rates. Numbers are lower, but the problem has a familiar ring: Inability of artificially-low interest rates to compete for funds in a competitive market.

The early '50s didn't boast the mind-boggling maze of mortgages that exist today—the ARMs through VRMs. But that didn't mean there weren't any creative minds at work in financing.

The "open-end" mortgage was the new-fangled financial instrument of the day in 1952. This mortgage allowed the homeowner who had reduced the principal balance on his loan to re-borrow on the same note for home improvement or other purposes. Lenders making the open-end loan said the new borrowings were not only profitable in themselves, but they helped bring relativelyfixed loan-servicing costs back in balance with interest earnings which naturally decline as the loan amortizes.

Another controversy in the '50s concerned the "package" mortgage: Should the home mortgage cover the cost of appliances, carpets, linoleum, the oil burner, etc. in addition to the lot and house? "No!" said the purists, differentiating between personal and real property. "Yes!", said the package-mortgage advocates. The appliances, in effect, become part and parcel of the home and, besides, by stretching payment for the appliances out over 25 or 30 years instead of the two or three years used in installment finance contracts, the homeowner's monthly payments are lower—and there are fewer delinquencies!

As early as 1960, industry leaders were calling for pension funds to invest in housing. April, 1960: "Will Pension Funds End the Mortgage Pinch?" is the headline on a story about a seminar, sponsored by this magazine, bringing together bankers, corporate heads and pension fund managers. "Are the pension trust funds—the fastest growing reservoir of capital in the nation—about ready to end their long holdout against buying mortgages?" the writer of the story asks. Apparently, the funds were not. Only 2% of their then \$25 billion in assets were invested in mortgages in 1960. Today, although the funds have grown to some \$600 billion in assets, the percentage of those assets now invested in mortgages is, according to industry observers, roughly the same. Again, the cry goes up to bring the funds into the mortgage market and again, the funds, still "the fastest growing reservoir of capital in the nation," are cast as the industry's saviors.

Lest anyone get too sure that any day now the pension funds are about to unleash an industry-saving torrent of capital in housing's direction (see Letters, p. 109), take note of this statement made at the H&H pension fund seminar in 1960: "Now, managers of pension funds all across the country are waking up to the fact that mortgages today offer such bargains no one can afford to overlook them. I predict it will be the managers of pension funds, not politicians, who will be credited with having broken housing's tight-money problem."

Who knows, maybe he'll be right yet. TO PAGE 52

# another HOMASOTE FIRST - designed to reduce the cost of building

# Announcing the NEW/ Weatherproof

# Weatherproof HOMASOTE UNDERLAYMENT

Specifically designed for use under WALL-TO-WALL CARPETING and 1/8" LINOLEUM



Photo by G. Barrows-Executive Office for Interiors designed by Knoll Associates, Inc.

• Greater resilience and longer life for the floor covering—a substantial saving in cost—these are the gains you get with this revolutionary new product.

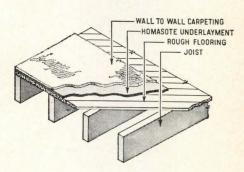
Homasote Underlayment — integrally waterproofed throughout—is nailed directly to the rough flooring. The pieces—normally 4' x 6'—are simply butted together; they require no joining.

When used with ½" linoleum, the linoleum is cemented directly to the Underlayment; no felt is required. This saves the cost of both the felt and one cementing operation. When used with wall-to-wall carpeting, no pad is needed under the carpeting, saving both material and labor.

Along with a major improvement in floor-covering method, you save ½ to ½ the cost of the materials usually used for 5%" underlayment. (The 5%" Underlayment brings the floor covering up to the normal height for 25/32" hardwood flooring.)

For combination awning and storm shutters—Florida tested—here are the ideal thickness and strength in a low cost material that is completely weatherproof. In Big Sheets—up to 8' x 14'—you have the perfect answer for protecting store windows and fronts.

Let us send you samples and full details. Please give us the name of your lumber dealer!





Because of the constant need for energy efficiency, Homasote Carpet Board is even more important today. See our new ad on page 13.



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— makers of the oldest and strongest insulating-building board on the market

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Shades of Reaganomics: 1952 article complained

that "HHFA has used FHA to further welfare state concepts and Fair Deal politics.'

In 1952 we worried about the government's role in housing. On the one hand, government seemed to be getting into the housing business itself with public housing, and on the other it was discouraging private construction with credit controls.

The FHA was in danger back then too, although for far different reasons than it is today. Back in November 1952 we complained: "HHFA (the Housing and Home Finance Agency) is making FHA a social-purpose agency rather than a cooperative insurance agency — a social-purpose agency used to grant different sorts of privileges to special classes of builders and owners, with special terms for defense housing, low-priced housing, prefabricated housing, co-operative housing, large-scale housing, and so forth. The originally straight-forward FHA insurance system has been made so various and complex that even the bestinformed officials can rarely be sure of the rules without consulting the book. HHFA "co-ordination" has imposed upon FHA many of the purposes of public housing and has turned FHA away from the business policies that won FHA the confidence and esteem of the homebuilding and home-financing world."

The HHFA faded into history, but government's role in the housing industry kept growing. As early as 1949 the housing act had provided for 810,000 public housing units in six years and set a goal of "a decent home for every American." Again in 1965, President Johnson declared that "the ultimate goal in our freeenterprise system must be a decent home for every American family" and in 1968 he succeeded in pushing through a housing bill that included Sec. 235 interestrate subsidies and Sec. 236 rental subsidies, the establishment of Ginnie Mae, new FHA ceilings, an ambitious new-town program and a National Housing Partnership plan to encourage corporations to invest in low-income housing.

Today, of course, the fear is that as a nation we've invested too many of our resources in housing. As former Secretary of Commerce Peter G. Peterson recently wrote in The New York Times Magazine, "Taken together, the tax-code housing incentives alone cost more than \$30 billion in lost Federal revenue for the fiscal year 1981, nearly all of it lost, of course, to ... the middle and upper-middle classes. In the same year, direct Federal subsidies to low-income homeowners and tenants amount to \$8 billion. The Government also has more than \$100 billion at risk in unsecured deposit insurance at the nation's troubled savings and loan institutions. And no one really knows what future costs we will incur from about \$350 billion outstanding in home loans insured and guaranteed by the Federal Government."

Peterson's remedy is "to eliminate some of the tax incentives for housing, or at least to extend similar incentives to other productive assets . . . that . . . provide for the new plant and equipment required for our economy's future growth."

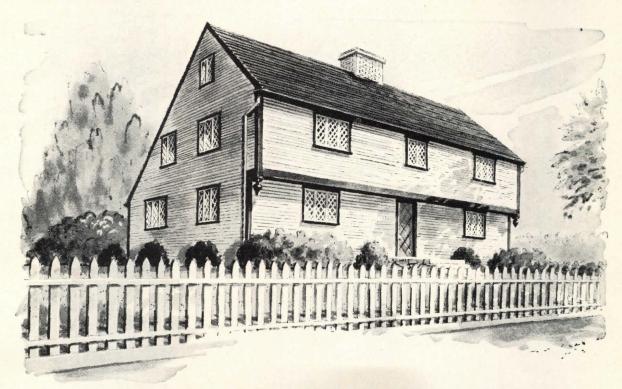
Thirty years after our founding, the climate for our industry is once again uncertain and difficult. And that's not unusual, as a quick review of those past three decades would show. With all the ups and downs, however, we have made progress in housing this nation. During those years we've switched from being a nation in which 55% of all homes were rented to a nation where 65% are owned. And the homes we own are better planned and better equipped than ever before.

The overall level of design has gone up too, which would please those early editors of H&H. Instead of single-family houses on 70' × 100' lots, we're clustering our houses, attaching them in various ways, sitting them on the lot line and doing many other things to conserve our resources while providing more comfort than those early houses provided.

We've introduced new forms of ownership — remember, even condominium hadn't been tried in this country when H&H began — and endless new forms of financing. When urban renewal didn't work so well, we turned to recycling and rehab. In short, we've been creative in finding our way around problems.

We've faced plenty of problems in the past 30 years and we'll face many more in the next. But we have a willingness to work hard and to try new things on our side. And like the long-forgotten Seabees, we still "can do." — THE EDITORS

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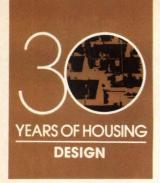
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# THERE'S NO ONE STYLE FOR TODAY'S TASTES AND NEEDS

Even people in similar age groups are attracted by a host of housing types and styles—a far cry from the Levittown era when a single-family home in the suburbs was everyone's dream.

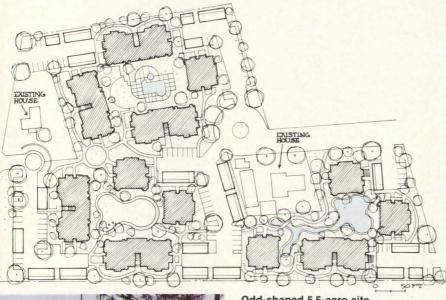
The projects shown on the next seven pages address this diversity of tastes. The looks range from hi-tech (below) to turn-of-the-century (page 60) and the housing types from stacked flats at 108 d.u./acre (page 59) to detached homes (page 60). There's even a recycled school (page 57). Yet, with one exception, all appeal to young, first-time buyers. And what's that exception? Zero-lot-line homes for empty nesters (page 61).

There's another twist in design today, too—and that's saving energy. So on pages 62 and 63 you'll see four houses planned to capitalize on the sun's heat.

—BARBARA BEHRENS GERS



# MULTIFAMILY An in-fill project hits a 'hi-tech' note



Odd-shaped 5.5-acre site (above) was pieced together by Prometheus Development. "We assembled six different parcels," says company President Sanford Diller. Even so, the project had to jog around two existing dwellings (labeled on site plan). Another challenge: screening condos from an adjacent plumbing-supply yard and the small, older homes of a neighborhood in transition. So the project was subdivided into three groups of four buildings-each oriented inward to a heavily landscaped common area. One features a lake (see cover); another has a swimming pool; the third, a pleasant grassy space with fountain (left). Bright red accents in-

clude off-the-shelf corrugated sheet metal used to wrap chimneys (left) and pipe railings around balconies (right). Note that the circular shape of the chimneys and bay windows is repeated in the balcony forms and in barrel vaults of garage roof (structure in background of photo at

oday, buyers don't necessarily want the look of a cottage complete with gable roof and picket fence," says architect Rob Steinberg of San Jose, Calif.

Hence the very "un-house-like" structures at The Lakes, a condo project in Mountain View, Calif. - part of the well-known "Silicon Valley."

The flat-roofed fourplex and eightplex buildings are sheathed in redwood plywood-"for warmth"-but are accented with red-painted metal-pipe railings and corrugated metal chimneys (see photos). It's a style that has been called "hi-tech" and, according to Steinberg, it literally stopped traffic when the project went up.

The 72 stacked flats sold quickly at prices from \$110,000 to \$155,000. Buyers: sophisticated young professionals, ranging from the interior designer who decorated the model units to affluent engineers. Not only did the buyers like the looks of The Lakes, but they liked its location, too-it's only a short drive from many of the area's electronics firms and is just a five minute walk from downtown Mountain View, Calif.





"Maximum openness"that was the architect's goal in designing floor plans for The Lakes. So as much glazing as possible was included (see photos above and below). Units never feel dark and confined, even though there's a windowless common wall-or two, in the case of interior units in eightplex buildings.

Upper-level flats, such as

the one pictured, have 12ft.-high ceilings, which allow for clerestories in living areas, dining bays and master bedrooms. Lower-level units have ceilings only 9 ft. high, so natural light is maximized by such devices as using taller-than-normal 8-ft. high sliders.

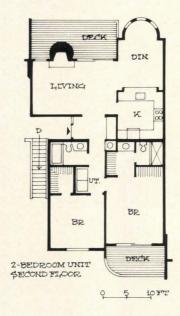
Elimination of partitioning in living areas also creates a sense of opennessand spaciousness. Note in

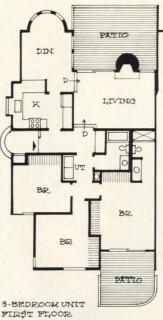
the units pictured above, for instance, that the kitchen isn't walled off from the dining area. And the dining bay is similarly open to the living room (See floor plan at top left).

Living areas and master bedrooms also gain visual-and functional-space from patios and balconies. Note in the photo below, for instance, how the living space extends outside.



Floor plans (below) come in two sizes: a 1,182-sq.-ft. two-bedroom layout and a 1,416-sq.-ft. three-bedroom scheme. Offering only two plans simplified merchandising according to developer Diller. Additional storage is provided in one-car garage spaces.





PROJECT: The Lakes, Mountain View, Calif. BUILDER: Prometheus Development, Cupertino, Calif. ARCHITECT: Goodwin Steinberg Assoc., San Jose, Calif.
INTERIORS: Bond and Chandler,

San Francisco

# MULTIFAMILY New construction complements a recycled school



New and old: \$78,000 townhouses (above) should appeal to couples and singles who enjoy living in a revitalized area. One has been sold already, although the first five units are still under construction. Condos in classroom building (shown at right, before renovation) will go to investors-who will get a hefty tax credit for renovation expenses-and to first-time buyers. Prices: \$45,900 to \$80,900. All are reserved and there's a waiting list.



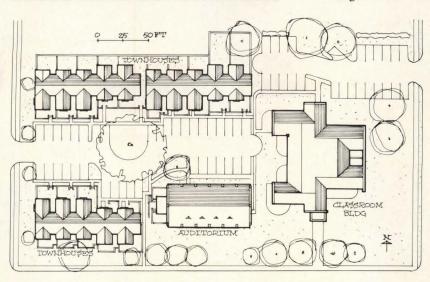
The townhouses shown above are being built where a baseball field used to be. And their roof shapes, arched windows and brick chimneys echo the look of an adjacent turnof-the-century classroom building (left) which is being recycled into 18 condos.

"If we built the townhouses entirely of brick, as the school is, the effect would be too institutional," says architect Jack Tucker. "Besides, we also wanted them to blend with the woodsided bungalows of the surrounding neighborhood."

That neighborhood: midtown Mem-

# 2.2-acre school site

(right) will hold 15 new townhouses, 18 condo flats in the recycled school (at far right in plan) plus six two-level units in what once was an auditorium (rectangular structure to the left of the school). Parking lot serving the former classroom building is entered from the east; parking for other units from the west.

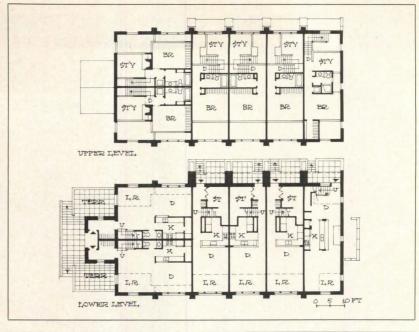


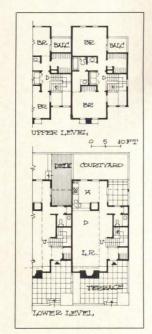
phis, an area in resurgence, according to Larry Wade, vice president of developer Elkington & Keltner.

The firm-which has previously done infill, but no rehabbing-purchased the land, school, an auditorium building "and everything down to the incinerator and a flagpole for \$180,000," says Wade.

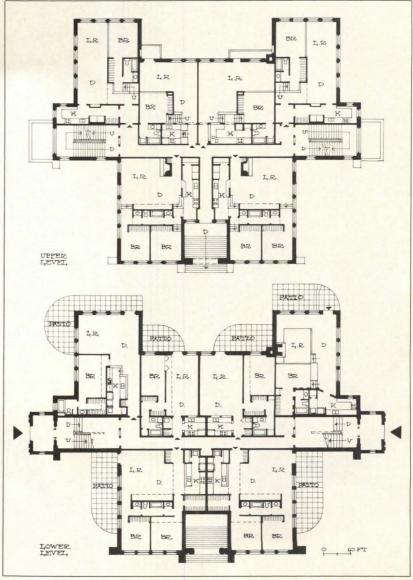
He estimates that it's costing about \$32 a sq. ft. to recycle classrooms into condo units: "We try to take as few walls out as possible; we just put new ones in." (See plan of building at right below.)

PROJECT: Lenox School Condominiums, Memphis, Tenn.
BUILDER: Elkington & Keltner, Memphis, Tenn.
ARCHITECT: Jack R. Tucker Jr., Memphis, Tenn.





Variety of plans: Townhouses (typical unit above) are 1,303 to 1,476 sq. ft. Note step-down to courtyard: Units sit somewhat above grade-as do surrounding homes. Auditorium units (above right) are 1,100 sq. ft. Common walls line up with beams in existing ceiling. Living areas of condos in the former school (right) were created within classroom spaces. Kitchens and baths use space from a corridor formerly 15 ft. wide. Level changes in upper-story units were made possible by 13-ft.-high ceilings. Unit sizes: 709 to 1,276 sq. ft.



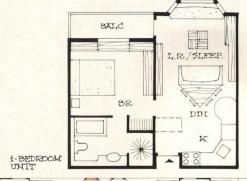
# MULTIFAMILY Give young buyers a chance

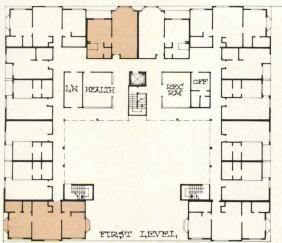


Old-time look-clapboard siding, cupola, etc.-will characterize Broadway Pines, although building plan has been revised since rendering above was completed (see final plan, at right below). Parking for 70 cars is provided underground.

U-shaped building has 14 first-floor units (right). The same floor plans will be offered in two other, smaller, buildings Effinger will construct in the same neighborhood; so units were designed to fit together easily and to be interchangeable, to a degree. For instance, the footprint of the twobedroom plan shown below right also accommodates two efficiencies (plan not shown). Effinger expects to offer buyers a package of built-in furniture, such as shown so "they can move in with just a suitcase." Although he won't be taking deposits until June-and has done no advertisingthere's already a 100-name waiting list.

2-BEDROOM UNIT







360-sq.-ft. unit may not be a dream house," says developer Bill Effinger, "but it will give first-time buyers an opportunity to get on the real estate ladder.'

Prices will start at \$29,900 for one of those 360 square footers and go to \$62,900 for a 715-sq.-ft. two bedroom plan. "Price is all a matter of size," says Effinger. "These come out to over \$80 a sq. ft.—the units won't be nofrills."

He plans to build the compact flats in three locations, all about 10 "walking minutes" from San Diego's central core. The largest project, Broadway Pines, is the three-story, 52-unit building shown here. And it will replace a single house on 21,000 sq. ft. in what was once the city's premier neighborhood, Golden Hill.

The developer thinks such projects are a natural for this now-rediscovered area of San Diego. "About three blocks away, there's a 29-unit rental building which has been declared an historic structure," he says. "And 28 of those units are studios, almost identical in size to what I'll be building: I'm just recycling an old idea."

PROJECT: Broadway Pines, San Diego. BUILDER: W.R. Effinger & Co., San Diego. ARCHITECT: Ralph Martin Henry, AIA, Architects and Assoc., San Diego.

# SINGLE-FAMILY New houses help revitalize an old neighborhood

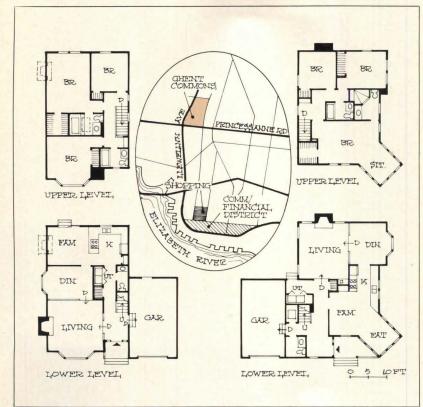




# "Neo-Victorian" houses have less elaborate detailing than the real thing, but

harmonize well with nearby existing homes. The builder was careful to locate skylights-a contemporary touch young buyers appreciate-so that they're not visible from the street. The two models pictured above front on a boulevard, so ga-

rages are rear-loading. Layouts are slightly different than basic plans (below). Three different plans are offered. Some homes are attached at garages.



# Up-to-date floor plans

(above) include master-suite sitting areas and stepdowns to living rooms. Plan at left has 1,525 sq. ft: Layout at right has 1,760 sq. ft. Buyers-55 to date-are chiefly 28-to-35year-old professionals who

work in downtown Norfolk. (Inset map shows how close project, called Ghent Commons, is to main business district.) There is also a smattering of older buyers, who have been displaced from rental apartments by condo conversions.

ne reason these homes are having an impact: They're moderatepriced-starting at \$69,000 to \$78,000 when sales opened 15 months ago and only \$78,000 to \$88,000 now.

"That was part of the deal the Norfolk (Va.) Redevelopment and Housing Authority made with us," explains builder Frederick Kober. "They sold us 80 lots for \$11,000 each, and we agreed to price and profit ceilings.'

Kober's firm, The Christopher Companies, had always been a suburban builder of starter housing. "We'd never seriously considered going back to the inner city," he says. "The Authority came to us. They wanted some moderate-priced single-family homes because most of the redevelopment work so far had been townhouses with an average price of \$100,000." (For a look at some of those townhouses, see HOUSING, Feb. '78.)

The houses' Neo-Victorian style, chosen to complement existing older dwellings, presented some challenges.

"There was a lot of detailing that the carpenters just hadn't seen before," says Kober, "and the steeppitched "tower" roof (photo above) has to be finished on the ground and hoisted into place."

PROJECT: Ghent Commons, Norfolk, Va. BUILDER: The Christopher Companies,

Vienna, Va. ARCHITECT: Cohen and Haft, Holtz Kerxton Associates, Washington, D.C.

# Zero-lot-line design makes the most of less house



Privacy wall (above) screens bedroom courtyard of 1,920-sq.-ft. dual-master-suite house (plan below). Thirty-acre site (partial plan at right) will hold 147 zerolot-line homes, some with lakeside views. Sixty have been sold to date.

he concept: to make all of a buyer's property private and usable for living-whether indoors or out. At Pradera, in Boca Raton, Fla. that adds up to 5,000 sq. ft. (lots are  $50' \times 100'$ ) of which 1,460 to 1,944 sq. ft. is under roof.

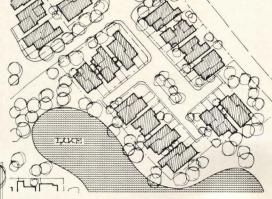
The lots are surrounded by six-ft.high garden walls, so the wroughtiron-entry gate feels like each unit's "front door." Private side- and backyards are extensions of living space.

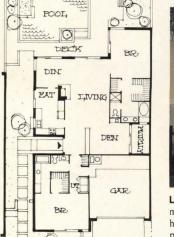
Pradera is the first project of this kind for long-time single-family builder Pat Hucker, but he doesn't think it will be his last.

"People still dream of a home on their own piece of land," he says, "but when the house is smaller, you have to bring the outdoors in to make it saleable.'

He envisions building zero-lot-liners at six or seven to the acre (Pradera is built at five d.u./acre) and reducing square footage and amenities to bring prices within reach of small families. (Pradera, with prices from \$145,000 to \$165,000, has been selling primarily to empty nesters.)

PROJECT: Pradera, Boca Raton, Fla. BUILDER: Showcase Homes Inc., Coral Springs, Fla. ARCHITECT: Richardson-Nagy-Martin, Newport Beach, Calif. INTERIORS: The Childs/Dreyfus Group, Chicago.





5 10 FT



Living area of 1,666 sq. ft. model (plan not shown) has high ceilings to visually expand space. Built-in bookcase/desk gives room dual function. Cornered fireplace in foreground is a focal point for both living and dining areas.



Atrium seen through sliders (above) offers outdoor space on zero-lot-line side of 1,944-sq.-ft. home (plan not shown). It's a visual and functional extension of the dining area-typical of how rooms in these homes blend with the outdoors.

# SOLAR DESIGN can't be typecast

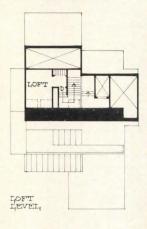
or the most part, new housing concepts evolve with the changing needs of the marketplace. And these homes are prime examples: Their designs demonstrate ways of coping with today's skyrocketing fuel costs.

Solar houses come in a variety of guises, as shown in this sampling. But all share a common attribute: They are built to capture the sun's energy and

conserve conventional fuels. The variety of designs attests to the options open to the builder.

All of these houses are rather large, ranging from 2,200 sq. ft. to 3,500 sq. ft., mostly because they were built to demonstrate the feasibility of the particular design. They could just as easily be scaled down to fit today's smaller house profile.

# SOLAR HYBRID

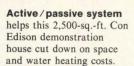












Double-glazed windows allow the sun's energy to penetrate into the interior. Tile covered concrete floors and a solar storage wall in the atrium store some of the heat (photos below). An active domestic hot water system will supply about half of the house's hot water needs.

Besides the solar aspects of the house, the architect specified 2×6 construction for sidewalls and 2×12 rafters for added insulation. Electrical and plumbing lines are installed in "raceways" along the interior walls. This cuts down on wall penetrations.

The architect placed the garage and entry vestibule on the north side of the house to act as buffers against cold winter wind. Other energy features: airto-air heat exchanger for ventilation, and moveable insulation for glass areas.



PROJECT: Con Edison Demonstration House, Briarcliff, N.Y.
ARCHITECT: Alfredo Di Vido Associates, New York City BUILDER: Syracuse Brothers, Briarcliff, N.Y.

# STRICTLY PASSIVE





A wall of glass on the south side of this 2,900-sq.ft. house in Troy, Mich. is one of the chief components of the house's passive solar system. The home was funded by Detroit Edison to test solar designs.

The sunspaces on the first floor are integrated with the rest of the structure (see plans). A Trombe wall at the master bedroom is treated with a selective coating for greater solar absorbtion. A photo sensing device operates the shades on the direct-gain glass: When the sun rises, the shades open; when it sets or the temperature rises too much, the shades close. Notice in the plans how the first floor is open for easy heat circulation.

# **EARTH SHELTERED**



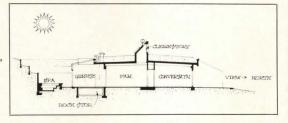


PROJECT: Solar Terra, Riverside, Calif. ARCHITECT: Bussey, Brown and Hofmann,

Riverside, Calif. BUILDER/DEVELOPER: The Guthrie Co., Riverside, Calif.

LANDSCAPING: Randolph Hlubik Associates, Riverside, Calif.

STRUCTURAL ENGINEER: Johnson and Nielsen, Riverside, Calif.



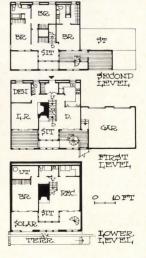
Built into a hill, the house at left is designed to show the feasibility of earth sheltered structures.

Concrete block walls and a poured concrete ceiling help the 2,250-sq.-ft. house withstand the structural load of the earth. The entire structure is covered with a 60-mil.-thick butyl rubber membrane for waterproofing. In this house, the earth-with an average temperature of 66° - is the sole insulator. A greenhouse, skylights and clerestories bring light and heat into the living areas. Excess heat from the greenhouse is ducted to a rock storage area for later use (cross section left).

# **ENVELOPE HOUSE**

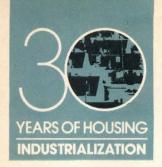


PROJECT: Private home, Walpole, Mass.
ARCHITECT: Natural Energy Design, Middletown, R.I.
BUILDER: Burke Residential Construction, Walpole, Mass.



Convective loops transport heated air from the south-facing solarium through the attic and down the north wall (space shown in floor plan) and into the crawl space of this 3,566-sq.-ft. house.

At night, the loop action reverses, but to a lesser extent. Some heat is stored in the mass of the house to counteract the falling temperature in the sunspacejust how much is hotly debated among envelope designers. But the advantage of the envelope is that the air spaces and hence the glazing are moderated by the earth's temperature.



# FACTORY-BUILT HOUSING It's blending in with the rest of the building industry

ore and more builders are making factory-built housing a part of their businesses.

The factory-built housing industry has been making that claim for years. But in reality the influx of site-builders becoming package builders has been slow and sporadic. Not until the current slump did builders realize the advantages of getting on and off the site quicker with less of a staff. Enough builders recognized this potential to prompt the NAHB to form a Home Manufacturers Council.

The council is a merger of the National Association of Home Manufacturers with NAHB. The council provides information to NAHB members on all phases of factory-built houses, including modular, panelized, log homes and mobile homes. In the past, the NAHM did not represent mobilehome manufacturers unless they also produced modular units.

"The NAHB got our staff and our expertise on factory-built housing," says John Kupferer, staff vice president for the council. "The NAHB membership had a lot of questions about the industry.'

Kupferer feels builders are getting their questions answered now so they're ready for the turnaround. "When things get better, does a builder go out and hire 20 carpenters, or does he hire three and buy packages?" Kupferer says. "There is going to be a shortage of skilled labor in the future. It just isn't going to be there. At that time, a lot of people are going to see the advantages of factory-built homes.'

Walter Benning, president of the Manufactured Housing Institute offers another reason: "If the federal government stops building subsidized housing, it doesn't mean the demand for low-cost housing is going to go away. It will still be there. And the builder will see manufactured housing as a way to fill that need."



Mobile-home subdivision in Corona, Calif. Units made by Silvercrest Industries.

The council is divided up into seven

- Pre-cut and panelized (open wall)
- Modular housing, including closed wall panels
  - Log homes
- Truss and panel fabricators (open wall panels not sold as a package)
  - Dome homes
  - Associate members
  - HUD-code homes (mobiles).

Jack Wynn, publisher of the Manufactured Housing Investor, a newsletter for the financial community, says, "The NAHB/NAHM merger is a bridge between the manufacturers and the builder. It is especially good for mobile homes because it reinforces interest among builders."

There is other evidence of builders' and developers' deeper commitment to in-plant manufacturing:

•U.S. Home has entered into ven-

tures with manufacturers. One of the latest is a condo project in Gulfport, Miss., using modular units supplied by Guerdon Industries, Louisville, Ky. Chateau de la Mer is a 216-unit second-home development of stacked modular units, which are sold completely furnished. Condos will range in size from 960 to 1,200 sq. ft.

"We feel that aggressive developers like U.S. Home will expand their use of modular construction because of the cost-saving aspects, this meaning lower housing costs to the retail customer,' says Bill Poynter, Guerdon's director of marketing.

 The Ryland Group Inc. is expanding from panelized to modular manufacturing. The company is building an 87,000-sq.-ft. plant in New Windsor, Md. that will be able to produce 600 houses a year when it is completed this spring.

For years the factory-built housing industry has been fighting a "poor-relation" image with a variety of educational and marketing programs aimed at both builders and homebuyers. The industry, which comprises mobile, modular, panelized and pre-cut manufacturers, has stressed quality control, faster build-out, and affordability factors as some of the advantages of their products.

Those programs are finally beginning to pay off—partly because many manufacturers are making more of an effort to blend into the mainstream of the building industry and partly because of a number of recent developments that are making factory-built housing more attractive to builders as a way of doing business. - FRAN J. DONEGAN



According to Robert Hafer, marketing manager for Ryland, the company's three panelized plants service metropolitan areas. The new plant will enable the company to expand into smaller markets, like Harrisburg, Pa., by working with small builders in those areas. These locations generally have good housing demand but a small subcontractor base. Since fewer subs are typically needed with modular construction, builders in those areas will be able to build more houses.

"It will be like having additional people working with us but who are not on our payroll," says Hafer.

• Fox and Jacobs is also getting into modulars. At present, the Texas-based company is developing a product line with the emphasis on the look of conventional housing. Although still in the start-up stage, the company, like Ryland, hopes to penetrate areas where there's a shortage of skilled labor, but high housing demand. F&J designed the houses, which were manufactured by Lancer Homes, a division of Brinkcraft. The company has not made a decision on a modular plant of its own at this time.

# Factory-built homes can be just as energy-efficient as their sitebuilt counterparts

Manufacturers claim in-factory control of labor can produce a higher quality home than one built on site. And many manufacturers have cashed in on their high degree of quality control to produce a variety of energyefficient models.

A case in point: Cardinal Industries. The Columbus, Ohio company began upgrading its modular units 10 years ago by designing in more energy saving features, then subjecting the units to energy monitoring. Standard modulars include insulated doors that are completely weatherstripped, wall, floor and ceiling insulation with R values consistent with the needs of different locations, heat pumps for colder climates, triple-glazed windows, and a venting system that includes soffit and ridge vents.

Likewise Viceroy Homes of Scarborough, Ontario was shipping energyefficient designs to the "states" before the company opened its plant in Georgia. The company's homes make use of 2×6 construction for added insulation levels, triple-sealed windows and sliders, and insulated doors that include a PVC thermal break for an air-tight seal.

Besides providing well insulated, tight houses, certain companies have been rolling solar designs out of their factories. Some builders consider this a good way to catch up with the new technologies with a minimum amount of work on their part.

"I don't have the time or resources to research the passive solar field,"

says Burl Lance, a builder from Fletcher, N.C. "But my manufacturer

Lance builds passive solar homes from Mayhill Homes, Gainesville, Ga. (see photo page 67). The company's designs should be oriented to the south and include glazing for solar gain and a factory-made water storage system.

Some manufacturers got a boost into passive solar design from the Dept. of Energy's Passive Solar Manufactured Buildings Program. DOE provided \$2 million in 1980 to help 23 manufacturers design passive solar homes. So far four companies - Acorn Structures, Dynamic Homes, Usry Inc. and Wick/Marshfield Industries-have built prototypes that are being monitored by the agency.

"We felt that the factory-built housing industry was the best area to influence the development of passive solar in the building field," says Ron Lutha, the program's manager. "It is a well organized, unified group within the housing industry."

The program is now threatened by cutbacks within DOE and the possibility that the agency itself will be eliminated. But Lutha is satisfied with the results so far. He says that different manufacturers approached passive solar in different ways. For example, passive design was totally new to Wick and, consequently, it approached its design in a step-by-step fashion. The company first increased the south-facing glazing on one of its models. After studying the design, DOE recommended installing more mass in the house to cut down on the possibility of overheating due to all the glazing. As it received each recommendation, the company acted on it.

Acorn Structures, on the other hand, went at its design more aggressively. The company already had solar models on the market and was interested in adding more solar features. The Acorn prototype features (see page

67) heavy insulation levels, 287 sq. ft. of direct gain glazing, slab on grade storage and moveable insulation for windows.

Some manufacturers have plunged into energy design on their own. Many of them are offering less conventional energy-efficient houses.

Brandywine Homes, Oskaloosa, Iowa, offers a number of panelized envelope house designs (an example is shown on facing page). The houses resemble other envelope houses in that heat collected in a south-facing solarium travels in a loop through the attic, down the north wall, into the crawl space and back to the solarium. This gives the house's shell an artificially induced temperate climate to respond to. From Dec. 7 to Jan. 7, when Wisconsin Public Service monitored one of the homes, it cost \$14.74 to heat (not including the cost of operating a woodburning stove).

"Conventional houses in this area are just not moving," says Rodney Francis, president of Brandywine. "You can't even get people out to look at them. Our first envelope drew over 5,000 people on a three-day weekend. In the past six months, 75% of the houses we've sold have been envelopes."

Mobile manufacturers have not been silent in the area of energy efficiency. Guerdon Industries has laid claim to the country's first solar mobile home. The multi-section house features 2×6 wall construction, double-glazed windows and a roofmounted air system that provides hot water and space heat. Cost, according to the company, is \$23- to \$25-asq.-ft.

### Mobile homes can be financed just like site-built houses—almost

The industry still has a lot of work cut out for itself in the area of financing, but there have been important changes on how the financial community views mobile homes

As HOUSING noted last year [March, '81] mobile homes would never become attractive to developers either in subdivisions or on odd lots until buyers could obtain conventional long-term mortgages. Today, some mobiles are financed this way, and a number of recent developments have opened the door for more mobiles than ever before to obtain conventional financing.

The Federal National Mortgage Assn. (Fannie Mae) has approved nationwide secondary market purchases of mobile-home mortgages, providing the mortgage covers both the home and lot. Some experts believe this will blow open the whole mobile home market, attracting more builders and developers to the industry.

"The Fannie Mae announcement lays the whole concept of mobile homes bare to lenders," says Harvey Weiner of the Coordinating Council on Manufactured Housing Finance. "It lets them know that manufactured housing (mobile homes) is not a hitor-miss proposition."

Patrick Di Chiro, director of public affairs for the Manufactured Housing Institute, says, "It is a major first step. A lot of lenders wanted to go to work on mobile homes, but without the secondary market they couldn't move. They couldn't hold all that paper. Once the lenders get going it will set up a chain reaction among builders and buyers.'

While the industry basks in the glow of the Fannie Mae announcement, it knows the battle isn't over yet. At present, very few-one estimate puts the mark at five percent—of mobile homes are financed with conventional mortgages. The great majority, still treated as personal property rather than real property, are financed by chattel mortgages.

Holt Blomgren, president of the National Federation of Housing Manufacturers, a group representing state and regional associations, feels the secondary market should be expanded to include the purchase of chattel mortgages. Ginnie Mae currently buys this type of mortgage, but the agency is in the process of being phased out (see page 19). If it is, and no other provision is made for the purchase of chattel notes, the industry could be in serious trouble, Blomgren says.

FHA has announced that more mobile homes than ever before will be eligible for Title II insurance. Donald Hovde, undersecretary of HUD told an audience at last January's mobile home show that FHA is proposing changes in its regulations concerning mobile homes (see page 23).

In the past, multi-section mobile homes qualified for Title II insurance-total coverage up to \$90,000if the developer obtained a structural engineering bulletin, the house was on a permanent foundation and financed as real estate, or if a house on a permanent foundation was resold. The bulletin states the house meets standards similar to HUD Minimum Property Standards. So a developer had to obtain the bulletin and have the house in the ground before getting a commitment on Title II protection.

The new ruling will probably still stipulate a permanent foundation and real estate financing (final regulations are not available yet). But the builder or developer can get a forward commitment on Title II based on his plans for the project. He can do the site work and wait for a buyer before placing an order with the factory, knowing that Title II financing is available.

The majority of mobile homes are still covered under Title I financing, the same insurance that covers homeimprovement loans for site-built housing. FHA recently increased loan limits for this program: from \$30,550 to \$35,000 for single sections on a developed lot; and from \$40,550 to \$47,500 for multi sections on a developed lot. Home loan maturity terms remain the same: 20 years and 32 days for single section and 25 years and 32 days for multi sections on developed lots.

### Zoning changes have helped move mobiles out of trailer parks into subdivisions

Since 1976, mobile homes have been built to a single preemptive HUD code. No local code officials had the authority to require additional structural improvements. But many state and regional zoning laws prohibit mobile homes, even when placed on permanent foundations, from being built anywhere but trailer parks. This too is beginning to change.

Four states - Vermont, Kansas, California and Indiana-have enacted legislation that says if a mobile home meets local requirements, it cannot be zoned out of an area simply because it was produced in a factory. (A number of other states have similar legislation pending.)

While local zoning ordinances in these states cannot change the HUD code's structural requirements, they can stipulate aesthetic requirements, such as roof pitches, roofing and siding materials, setback and side and rear yard requirements. For the most part the industry is willing to meet these demands to get the homes onto previously restricted land.

The industry has also challenged the validity of such zoning regulations in court. A 1981 decision by the Michigan Supreme Court ruled that local zoning policies restricting mobile homes to licensed mobile home parks had "no reasonable basis under the police power.'

The Michigan court seemed to be ruling against zoning laws enacted before the HUD code was put into effect. "What is being considered now

is the per se exclusion not of trailers, but of mobile homes, and more than the label has changed this time." The court went on to point out that it thought mobile homes compared favorably with site-built homes in size, safety and attractiveness.

Not all court decisions have turned out as well for the industry. According to "Regulating Mobile Homes" a report by Frederick Bair for the American Planning Commission, at least 17 higher courts have rendered opinions on mobiles in the last 10 years with mixed results.

"To a considerable extent, decisions hinged on how definitions were worded," the report says. Six decisions said that if the mobile home was on a foundation, it should be treated like any other dwelling. Three said a distinction could be made for regulatory purposes. Eight said a mobile home remains a mobile home and is therefore subject to local zoning regulations.

"The change in zoning laws will take time," says Holt Blomgren. "It is not simply a matter of building codes, but involves complex questions of state and even federal intervention at the local level. But I am optimistic because there are so many economic pressures on the marketplace, so many people are being priced out of the market that the existing regulations seem archaic. More and more people need affordable housing, and the people who control the ordinances are responsive to their electorate, so there will be changes."

One change that may affect local zoning ordinances is the possibility that HUD will get out of the code writing business. The Reagan administration wants all federal agencies to turn over regulatory matters to the private sector. HUD is currently working with the Council of American Building Officials (CABO) to combine the MPS with CABO's one- and twofamily dwelling code. And HUD may give the mobile-home code over to the private sector. That means the code would be developed and changed by industry consensus. Fine, says the industry, but the question it wants answered before any changes are made: Will the code retain its preemptive status?

Some people say the evidence keeps shifting from one side to the other, and it is too soon to guess which way the decision will go. But the Manufactured Housing Institute reports that HUD has assured it that when the code is turned over to the private sector, it will still be preemptive.

# **ENERGY EFFICIENCY: BUILT IN** AT THE PLANT



Energy savings characterize Cardinal modular units above.

# **PASSIVE SOLAR HOMES: INCREASED** MARKETABILITY





Southern orientation and a factory-built solar storage system are standard design elements in passive packages, such as the Mayhill house above and the Acorn below.

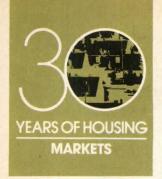


# **ENVELOPE HOUSES:** SOPHISTICATED **DESIGNS IN PACKAGES**





Envelope home package from Brandywine is shown above. Heat from the sun enters through south-facing glazing (upper photo) and is collected in the sunspace (above). The warm air rises to the attic down the north wall and into the crawl space, forming a convective loop. The cycle reverses itself when the sun goes down. The above house is one of 31 envelope designs the company offers.



# WHATEVER **HAPPENED** THE BABY

he maturing of the baby-boom generation-that vast cohort of children born between 1946 and 1964—was to have created a boom for our industry, right now. And, in fact, this is the year the largest crop of baby boomers—children born in 1957 enters the 25-34 age group, the traditional first-time-homebuyer segment of the market.

True, the baby-boom generation played a large role in the housing boom of the '70s. And many people expect the younger members of this generation to play an equally large part when the turnaround finally arrives.

But will they? Will these young people catapult our industry into another boom when the economy turns? Or will they act differently from their older brothers and sisters? What segments of the market will be most active? What parts of the country? What types of product will be in demand?

### Two trends that contributed to recent booms may have run their course

So says Dr. Alfred Gobar, Californiabased market analyst and author of the quarterly Housing Demand Index (HOUSING, Jan., p. 53).

One of these trends is the pattern of decreasing household size. The other is the tendency for there to be multiple wage-earners in each household.

The way baby boomers have chosen to live-starting their own households right after graduation, marrying late, having fewer children than their parents, and often separating and divorcingresults in a large number of small households. In 1980, for example, 4.6 million persons between the ages of 25 and 44—the prime family years—lived alone. In 1970, there were only 1.6 million such households.

In fact, the total number of households increased by 17 million between 1970 and 1980-from 63.4 to 80.4 million-while the total population grew by only 23.2 million—from 203.3 to 226.5 million. And average population per household dropped from 3.14 in 1970 to 2.94 in 1974 to 2.75 in 1980.

At the same time, median family\* in-

come was rising-from \$10,236 in 1970 to \$14,268 in 1975 to \$21,904 in 1980. In 1970, only 5% of the nation's 46.5 million families were earning \$25,000 or over; in 1980, 41.6% of the 52.7 million families were in that income range.

And Census data for 1979 shows that 21.4% of households\* headed by someone between the ages of 25 and 34 earned \$25,000 or more. Inflation plays a role in these rising incomes, but it isn't the whole story.

Again the lifestyle of the baby-boom generation—which encourages working wives—is responsible for much of this

The problem, however, is that there's a bottom limit on how small a household can get, and there's also a top limit on how much a household can earn from the contributions of multiple wage earners.

"We're running out of unemployed wage earners per household," says Gobar. "The reservoir of potential additions to the labor force represented by heretofore unemployed women is being exhausted." And he adds:

"I don't think that we can look to high real income and rising real income for the first-time buyer over the next ten years the way we have in the last five, because the number of multiple-earner households is beginning to reach its limit."

# At the same time, there's good reason to think move-up buyers may stay put

Members of the baby-boom generation fueled much of the boom of the '70s, for they quickly understood the investment potential of housing and—with the prosperity of two-income households were in an excellent position to buy homes. Many even bought as singles, sharing expenses with a roommate.

It will be a long time, however, before they become move-up buyers.

No one expects interest rates to drop back to where they were before the current crisis. And no one expects lending institutions to play according to the old rules of the game. For the foreseeable future, at least, they're going to protect themselves with variable-rate mortgages, rollovers and other instruments that offer flexibility.

Flexibility for the lender, however, means uncertainty for the buyer. A recent study by Doyle Dane Bernbach, the giant advertising agency, underscores the problem this creates. A national cross-section of consumers in the 25to-49 age range was surveyed twice, first in 1979 and again in August 1981. During that time there was a 17% increase in the number of men who said "there's nothing worse than being in debt" and who would avoid "long-term financial responsibilities."

In addition, eight out of ten said a secure job is more important than higher salary; three out of four feared that their "standard of living will be eaten away by inflation," and 57%—up from 53% the previous survey-said that they didn't think they would "be able to achieve their long-term material goals."

Thus, except for transferees who must move, present-day homeowners are certainly not in a frame of mind to give up security-represented by a fixed-rate mortgage-for a few extra square feet of space or some new amenities. If they want these things, they're far more likely to get them by remodeling.

Note that the study covered more than the baby-boom age group; it included part of the generation born during the Depression. This older segment would be the natural market for second homes. But the financial uncertainty, and the small size of this group due to the low Depression birth rate, do not auger well for the second-home market.

# Thus, the main action will be among first-time homebuyers

And affordability will be the key.

Many people are going to want a place to live, but they're going to have to adapt themselves to high interest rates. They're also going to have to live with a fair degree of uncertainty because of

flexible mortgages. So they're going to be afraid-or unable-to stretch as far to buy a home as their predecessors did before the recession.

Another factor enters into this: Quite a lot has been written recently about the reduced expectations of baby boomers in the job market.

"There is going to be an intensification of the logjam in all of the middleand upper-middle-level jobs," Pat Wash, a labor economist with the Bureau of Labor Statistics, recently told The New York Times.

"There will be fewer advancement opportunities because people will find their bosses are the same age as they are. This will also have a dampening effect on wages."

All of this means that builders would be wise to focus on less-expensive housing -primarily infill, high-density housing. Single-family-detached units in more remote locations are another possibility, although these will have to be priced lower in relation to the prospective buyers' incomes to accommodate lenders' loan qualification standards, says Gobar. And he points out that such projects also run the risk of marketing problems should oil prices start rising again.

This does not mean a return to the basic house, however. "One of the real



social problems that we must solve as a society is to change the traditional means of conspicuous consumption," Dr. Jay Siegel, vice president of the Planning Economics Group of Boston, told a group of security analysts recently.

"In the past," Siegel explained, "the goal was a single-family house in the suburbs, with two cars, and a summer house as well. Too few people are going to be able to afford that in the future. Our perceptions must change so that if you have a condominium in the city or a townhouse in the suburbs and you have only one car, you're still communicating economic power and success."

Siegel suggests keeping an eye on the General Motors new baby Cadillac, the Cimmaron, to see how it fares in the marketplace. "It is designed to be a necessity luxury car," he explains. "The baby boomers must purchase necessities, but they typically try to include as much luxury and 'discretionary power' in those necessities as possible.

(For an example of a housing product designed with this concept in mind, see HOUSING'S HMX-1, Feb. 1982).

# Look for new parts of the country to prosper when building resumes

Employers are becoming more and more aware of the need to locate facilities in areas where the labor force has an adequate supply of affordable housing. As a result, some of the hot areas of the past decade may experience a slowdown in growth.

"We see price differentials of as much as 80% or 90% when the same house is built in different parts of the country," says Gobar. "We think economic growth is going to go towards those areas where home prices are relatively within reach of consumer incomes and away from those places—such as Los Angeles and Orange Counties—where the new median price for a two-bedroom condo is something like \$100,000. Which is out of reach of most first-time buyers.

The shifts should benefit those areas in which the infrastructure—roads, streets, utilities, etc.—is either already in place or can be provided at reasonable cost. "We expect to see a shift in the focus of industrial activity to the second-tier markets and, in fact, to the much smaller third-tier markets," says Gobar.

Smaller markets, such as Jackson, Miss., will emerge because the low weight-to-value ratio of much of what is produced in this country today means that the industrial base can be scattered. Jackson, for example, has a strong computer and electronic data transfer industry

The steel and automobile industries needed large plants located where there is good transportation, says Gobar, but many of today's important productssuch as electronics products—are lightweight and require little infrastructure.

Which markets will do well in the next five years? Gobar points out some of the good ones: They include Riverside-San Bernardino in southern California; Phoenix; Las Vegas; Albuquerque; Salt Lake City; most of the Texas cities; Knoxville, Memphis and Nashville, Tenn.; Shreveport and Baton Rouge, La.; Mobile and Birmingham, Ala.; all of the Carolinas; and to some extent, Atlanta.

Gobar sees Florida as a good market, although he thinks individual areas will undergo different cycles as retirees shift from one to another looking for the best buy. "The first-time retirement buyer tends to go where housing is cheap," says Gobar. "But the more buyers come into a market, the more they bid prices up and pretty soon it's not cheap anymore. So the focus moves to somewhere else.'

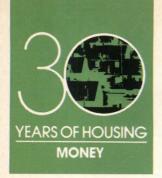
And he thinks that some of the older cities will experience what happened to Boston, which priced itself out of the market, stiffling economic growth, and is now recovering because the rest of the country has caught up in price.

"In the early '60s electronics was centered in Boston, and then it died out because you couldn't house the people who were attracted by the boom," he says. "Now the rest of the country has caught up, and the pressure is shifting back to Boston."

Some of the traditional markets with heavy unionization-Detroit and Flint, Mich., for example, and Gary, Ind.are in for a fairly protracted decline because society can't afford to pay auto workers the wage scale it paid in the past.

And the Northwest will experience its own business cycles. Seattle, for example, won't have the buoyancy it once enjoyed from Boeing because of the reduced demand for jet aircraft. And the fortunes of Portland and Tacoma are tied to the wood-products industry, which means their cycles will be tied to the housing cycles with some lag time.

<sup>\*</sup>Notice the distinction between families and households: Families consist of related people living together; households may consist of single people living alone or unrelated people living together. In March 1980 there were 52.4 million families, but 79.1 million households.



# THE NEW SHAPE OF HOUSING FINANCE

he financial landscape of the housing industry has changed dramatically over the past few years. So fundamental and far-reaching have these changes been that it seems almost impossible that this new terrain evolved from the housing finance system that served the industry up until the late 1970s. What's more, the transformation is not complete-most industry experts believe this sector of the industry is still in the throes of a radical re-structuring.

George Christie, chief economist for McGraw-Hill Information Systems Co., describes the housing industry as being in the midst of "an economic counter-revolution." Previously, this country's resources were directed toward housing which enjoyed a favored place on the nation's priority list. Now? "We're seeing a reversal of that process," says Christie. "Housing must compete for funds with business and other borrowers in the capital markets."

Other economists and industry analysts agree. Alan Sinai, senior economist for Data Resources Inc., sees today's "more competitive, deregulated environment" changing the "fundamental, long-term demand for housing." Kenneth Kerin, the National Association of Realtors' chief economist, warns "the industry's not going back" to the boom days of the '70s when credit was cheap and home prices running ahead of inflation made homeownership one of the best inflation-hedges available to the average American. "We've gone through a time warp," Kerin simply states, and he believes there's no going back.

Many factors, both singly and in combination, provided the impetus for this "counter-revolution." Deregulation of financial institutions, rise of money-market funds, elimination of Regulation Q, persistent inflation and high interest rates—all of these things have resulted in a more wide-open economy where investors' and savers' funds move freely among a number of competing investments. Traditional sources of housing finance—the S&Ls and savings banks found their reservoirs of savings-which fueled housing's credit machine-were not nearly so stable in this new environment as they'd been in past decades.

Another factor: The re-industrialization of America. According to Kenneth Kerin, the government has shifted its priorities from housing America to retooling it. Christie concurs, noting that industrialization and militarization is where the "big bucks" will flow in the next few years.

Instead of having resources channeled toward it, housing, in Christie's words, "will have to hack it in the open market" to get its share of credit.

Outflows, negative earnings hurt thrifts. Traditionally, housing has gotten its share of credit through the thrifts. But deposit outflows and poor earnings have put a terrific strain not only on the thrifts' ability to provide mortgages, but for them to survive. In 1981, according to National Association of Mutual Savings Banks President Saul Klaman, savings banks lost some \$13.8 billion in deposits. Klaman noted this was almost double the previous record annual loss - \$7 billion in 1979—and the fourth consecutive year of deposit outflows. S&Ls fared as dismally, losing approximately \$25.5 billion in deposits in 1981.

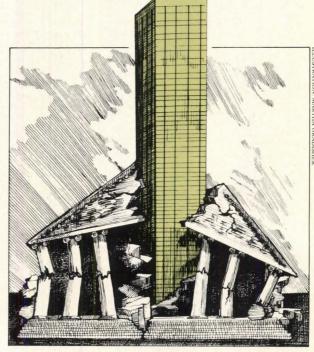
Those deposits that remained cost the thrifts more than they had in the past. Money that previously sat in lowinterest passbooks moved to higheryielding CDs or to interest-rate-sensitive money-market funds. The All-Savers Certificates were supposed to attract new funds and help lower the cost of funds for thrifts, but preliminary tallies suggest All-Savers has shuffled existing deposits more than attracted new ones.

What has resulted is an earnings squeeze for the thrifts. While the cost for their deposits has steadily risen, the return on their assets-made up largely of fixed-rate mortgages - has remained relatively fixed. James Christian, chief economist of the U.S. League of Savings Associations, estimates that two-thirds of S&Ls' mort-

gage portfolios yield 10% or below. Last year, the "squeeze" turned to a death grip. "Bottom line losses of the savings bank industry exceeded \$1.5 billion in 1981 and threaten to be larger in 1982," claims Klaman. S&L losses for 1981 were about \$4.9 billion, says the Federal Home Loan Bank Board. Unless thrifts soon reverse the negative spread between what they pay and what they earn, their ability to survive and pump funds into housing is tenuous.

Mortgages take on a new character. One move the thrifts and other lenders have taken to combat this negative earnings spread is to make mortgage loans whose rate of interest fluctuates with the market. Over the past few years the housing market has become saturated with an alphabet soup of alternative mortgage instruments-ARMS, VRMS, SAMS, AMLS, RRMS.

In HOUSING's June, 1981 issue, an



article titled "A Guide To The Mortgage Maze" looked at 14 different mortgages that have hit the market. And when all the variations in each mortgage are considered - how often the rate is adjusted, how often that adjustment is reflected in the payment, what index is used to determine the interest-rate change, etc.—the number of different possible mortgages appears limited only by the imaginations of the lender and borrower. A study by the Mortgage Guaranty Insurance Corporation, Milwaukee, Wis., found approximately 47 different types of ARMs alone in use.

The one feature that most of these mortgages hold in common is that they allow the lender to pass along to the borrower the risk of interest-rate rises. By linking the mortgage interest rate to an index which rises and falls with some measure of cost of funds, thrifts hope to be able to maintain a positive spread between their cost and return. In short, the thrifts are trying to avoid a later replay of their current problems, which amount—at least in part—to having to fund long-term, 30-year fixed-rate mortgages with short-term, volatile-rate money.

Managing assets and liabilities to try and assure a positive spread is one way the thrifts can deal with the current "counter-revolutionary" market. Another way, which some industry observers believe is the wave of the future, is having thrifts act more like mortgage brokers than traditional lenders. Instead of making mortgages and holding them in a portfolio, thrifts may originate loans, take a fee for origination and servicing, and sell the loans to investors. Key to this system are links between the mortgage and capital markets.

Mortgage-backed securities enter the picture. Many Wall Street and housing industry observers see mortgage-backed securities, particularly, mortgage pass-through certificates, as the likely vehicle to bring mortgage lenders and investors together. Selling an investor a security backed by a pool of mortgages that are adequately insured gives the investor a safe investment and eliminates the paperwork involved in dealing with individual loans. The lender, on the other hand, gets to replenish his supply of lendable funds from the proceeds of the security sale.

Ginnie Mae kicked off passthroughs, backed by pools of FHA and VA mortgages, in the early '70s. To date, over \$110 billion of GNMA passthrough certificates have been bought by investors. The Reagan administration, however, plans to phase out the GNMA securities program by 1987.

Freddie Mac issues participation

certificates, a similar security backed by conventional loans, and has sold over \$20 billion to date. Fannie Mae has also launched a mortgage-backed securities program that has already issued securities against older, existing mortgages and will include new mortgages this year, according to David Maxwell, FNMA chairman. Private mortgage insurance companies, such as MGIC, have also entered the mortgage-backed securities market doing 'conduit" pass-throughs. In such a pass-through, mortgages from many lenders are pooled by the "conduit", a company like MGIC, who issues the security against the mortgage pool. This allows a lender that is too small to generate mortgage volume sufficient to back its own pass-through to participate in a mortgage pool.

The mortgage-backed securities business is expanding. Merrill Lynch, the diversified financial services firm, has introduced a new security backed by low-yielding, seasoned mortgages held by thrifts. Serial mortgage certificates, as the new securities are called, are touted by Merrill Lynch as a way for thrifts to turn their portfolios of low-yielding mortgages into fresh funds.

Builders too have begun issuing mortgage-backed securities. At present, such issues are limited to large builders such as U.S. Home and Pulte Homes, both of whom have placed multi-million dollar issues. However, according to Stan Ross of Kenneth Leventhal & Co., a Los Angeles-based CPA firm, "smaller builders can band together to issue bonds or do so through their local builder associations." Ross predicts builders could raise as much as \$500 million in 1982 for home mortgages by issuing their own mortgage-backed securities.

Pension funds could be a major mortgage source. An investment vehicle, such as a mortgage-backed security, is only one side of the money equation. To balance the equation, there must be an investor to buy the security. The health of the housing industry depends on finding new sources of funds to replace traditional ones.

"You are deceiving yourself," Richard Pratt, chairman of the Federal Home Loan Bank Board, told home-builders at the last NAHB convention, "if you think the S&Ls, the traditional sources of finance, are going to be there with the funds."

So who will be there? "I would expect to see investment by pension funds, both public and private; bornagain thrift institutions and commercial banks; and consumers, investing not in creative financing stopgaps but in retail certificates backed by residential mortgage credit," answers James

F. Aylward, president of the Mortgage Banker Association of America.

Pension funds—with total assets between \$600 billion and \$800 billion—are viewed as the likely savior for housing finance. Testifying at a Senate hearing on proposed changes in regulations governing pension funds, Douglas E. Johnson, vice president of Chase Home Mortgage Company, Montvale, N.J., noted that pension funds, a source of long-term stable money, are ideally suited for mortgage investment. To date, however, he contended only public funds have become important investors in residential mortgages. Private funds, says Johnson, have virtually neglected residential mortgages because of ERISA (Employees Retirement Income Security Act), the legislation that regulates pension fund investments.

Several things may have to happen before pension funds assume the role of money supplier for housing. According to Stuart M. Lewis, a partner in Silverstein and Mullens, the firm providing legal counsel for NAHB, new laws are needed to enable the funds to invest in mortgages. Lewis specifically cites an ERISA provision which prohibits all dealings between pension funds and related parties. Since mortgage transactions usually involve a large number of parties-builders, developers, unions, mortgage bankers, etc.they have been classified as prohibited transactions, according to Lewis. Lewis says that NAHB endorses Senator Orrin Hatch's bill, S1678, which would free the funds to invest their assets in the mortgage market.

Also necessary, according to Robert Tobin, vice president of Merrill Lynch's mortgage-backed securities group, is uniformity in mortgage instruments. The ability to pool mortgages and issue a security backed by those mortgages depends upon being able to come up with sufficient volume of like mortgages. The ever-expanding maze of mortgages offers versatility to consumers but it scares off investors who don't want the uncertainty and unfamiliarity associated with a wide variety of mortgage instruments. "Let's establish one, uniform, fair new mortgage so investors can price it and begin to fund them," says Tobin.

Some might disagree with Tobin's call for a single mortgage instrument, noting that in the new financial market a single instrument won't meet enough needs. There may be room for several types of mortgages. Still, financial experts do agree that uniformity of mortgage instruments is of crucial importance in packaging mortgages into investment vehicles that will be acceptable by institutional and individual investors. —WALTER L. UPDEGRAVE



## WE HAVE TO FIND NEW WAYS OF SELLING

n the past two years we've seen major changes in the Federal government's attitude toward our industry, in the attitude of institutional lenders and Savings & Loans toward financing new construction and in the consumer's reason for buying a home.

Item: The high cost of money, which will be reflected in higher housing costs for buyers, makes investing in a new home less profitable when measured against alternative market instruments such as money market funds, Keoghs and IRAs. This is not to say that owning a new home will not be profitable or desirable. It simply means we cannot sell housing as the best place for a small investor to put his money.

Item: The motivation to buy homes is changing. New types of households will have more discretionary income, and they will become more exacting in their needs, desires and demands. They will be dominated by people who really don't

have to buy housing unless it really turns them on.

Item: More than ever before, the income of the target market will determine the price of a home. No longer can a builder total up his costs, add his profit and expect the buyer to pay the price. Instead, he will have to back his way into the size house and the price range he can build for his target market.

These changes in consumer attitudes must be reflected in the way we sell new homes. The basics of selling that we taught in the 1950s, the 1960s and 1970s—including the art of qualification, desire, overcoming objections and closing—are handled very well by those salespeople who have made a determined effort to become professionals. But now they must relearn fundamentals of selling—a new selling psychology that will address itself to the 1981 Tax Act and what it means to buyers of new homes, to the supermarket of financing

plans a builder may offer, and to ways of customizing a mortgage payment plan to fit a buyer's needs and desires.

These fundamentals can be summed up as follows:

- Reassure frightened prospects that now is a good time to buy.
- Identify ways to achieve affordability or to make your product more affordable.
- Use advertising, publicity and merchandising techniques to stimulate traffic.

Here's how to put these fundamentals to work for you:

## STEP ONE: Put yourself in the proper position to compete.

- 1. Spend more time on the job—possibly daily, but certainly on weekends, depending on the size of the project. Work with your salespeople to make a sale. The name of the game in selling today is "be-backs"—the consumer is shopping around for the best deal.
- 2. Shop around to see if there are any shifts in prospects' buying motives or in the design features they want. Last year's model may not sell in 1982.
- 3. Fit your products to specific market segments, not to all prospects or all target market audiences.
- 4. Don't succumb to "builder's panic" and switch from a sound marketing plan that made allowance for a soft market to "fire-fighting" techniques for immediate results.
- 5. Don't confuse lack of prospect activity with lack of productivity on the part of your sales personnel.
- 6. Understand that today's home shopper is less interested in the home than in whether he can afford it. Only when he has established affordability does he look with sincere interest at the home and value you are offering.
- 7. Teach your sales personnel that they are no longer selling homes, but financing. They must become financial consultants and counselors to your prospects.
- 8. Be competitive with other builders in the financing programs you offer. This means you cannot offer just one financial plan, but you must offer a variety of financial and mortgage plans. Flexibil-

## Some things you can do ...

## ... To reassure frightened prospects

- 1. Offer buy-now, pay-later plans with no mortgage payments for six to twelve months if the buyer should become unemployed.
- **2.** Offer buy-back guarantees for the first two years at the base price.
- Pick up the fees for association dues and monthly maintenance costs for six months or a year.
- **4.** Offer lease/purchase plans or rent with an option to buy.
- **5.** Offer guaranteed trade-in plans in cooperation with a local Realtor.
- **6.** Offer deferred purchase plans to hold up closing until the buyer has liquidity.

## ...To achieve affordability

- 1. Use pre-construction or preview prices with big discounts off grand opening prices—up to \$7,000 to \$10,000 in certain price ranges.
- Include closing costs in the sales price (except for those that are prepaid).

- 3. Include options at no extra cost.
- Offer a lump-sum cash payment at closing to reduce mortgage principal.
- **5.** Pay part of the monthly mortgage payment for buyers.
- **6.** Use price reductions for a limited time period.
- **7.** Assist the buyer with the down payment.
- **8.** Use buy-downs for periods of five to seven years, not three.
- **9.** Give a discount of up to 10% for cash buyers, or for buyers who get their own mortgages.
- 10. Investigate land-lease plans.

## ... To stimulate traffic

- **1.** Use incentive giveaways, such as cash, gifts, cars for buyers.
- 2. Work closely with brokers/Realtors on co-op sales programs.
- Develop a house giveaway program with local media, a group of builders or the HBA.
- **4.** Hypo referrals by giving previous buyers incentives or gifts to recommend new buyers.

ity to adjust to market conditions is allimportant.

9. Pay attention to pre-selling techniques. With the prime rate estimated to float between 12 and 16 percent for the next six to twelve months, spec homes or houses built with the understanding that they will be sold by completion must be placed under contract not in four to six months, but in four to six weeks. Shorter mark-ups and tighter pricing can cut those heavy interim interest charges.

## STEP TWO: Train your salespeople not to sell on emotional appeal.

Teach them that they are trying to solve a financial problem for a prospect who may like a house, location, community, etc. but who constantly questions whether he can afford it if he can't get a fixed-rate mortgage. Today's buyer is more in tune with the bottom line than with the emotional benefits of house value.

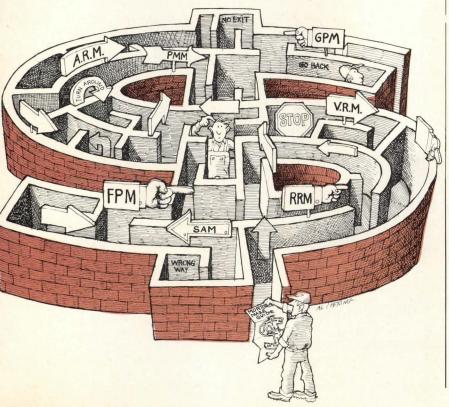
Provide your sales staff with sales tools that point out the reason why anyone should buy a new home in today's economy. These should include:

- 1. A table showing prospects how much it costs to carry a home at different sales prices and varying interest rates. This helps answer "Why buy now?" and "I'll wait until the rates come down."
- 2. A table showing prospects how much housing they can afford based on different interest rates. This offers a way to answer "I plan to put down X dollars and I want monthly payments of Y."
- 3. A chart showing prospects how shifting mortgage rates affect monthly

payments and how waiting costs money. This offers a way to help convince the prospect who wants to wait for a better deal. Call this chart "The \$17,000 Difference," because that's how much a one-point rise in rates would cost on a \$60,000 mortgage over 30 years.

- 4. A table showing the net, after-tax cost of interest. This is for prospects concerned with investment and getting the most for their money, particularly if they're in a tax bracket where interest deductions allow them to keep aftertax dollars.
- 5. Promotional material written by third-party experts-newspaper or magazine articles, for example—which point out the benefit of home ownership in a rising inflationary economy.
- 6. A chart explaining the cost of rising and flexible mortgage rates. This allows prospects to compare the different mortgages and pick the one that fits their
- 7. Tables showing sales personnel how to qualify buyers for conventional mortgages or their alternate mortgage choice both from an income and a down-payment standpoint. A small computer could be programmed to handle this information.

The key to using these materials effectively is to quickly get answers to two questions: "How much do you plan to utilize as a down payment?" and "How much income can you spend on a new home?" The answers can help your sales personnel use the sales tools described above to overcome most objections.



## STEP THREE: Help your salespeople understand current market psychology.

The first thing they should keep in mind is that housing is still the most dominant status symbol in the mind of most people. While single-family housing was the status symbol of the '50s, the '60s and a good part of the '70s, it has now been joined by condominium, feesimple attached, townhouse, villaanything that connotes ownership.

The consumer's real question is "What is the relationship of housing costs to my other monthly expenses, and would I be using my money wisely if I moved? Or should I stay in my present home and not move?" Your salespeople must learn to meet this objection headon, not avoid it.

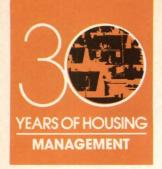
Your salespeople must also understand that the old ways of qualifying prospects are out when the first question out of a shopper's mouth is "What type of financing do you have?" They can't say "After you see the models we'll talk about that." Instead, they must say "What type of financing and mortgage payment are you looking for?" and "How much are you planning to put down?" Once they have the answers to these questions they can know what type of home to show.

And, finally, they must understand that the days of 100, 200 or 300 people walking through a project on a weekend are over-at least for the foreseeable future. The other side of the coin is that the day of the tire-kicker is also over; most of the prospects coming out today are serious about buying but they're shopping around for the best deal. Good follow up, "be-back" selling and straight answers to objections are the keys to today's sales efforts.

Your goal, and the goal of your sales personnel, must be to show the prospect how to afford a home. To offer a variety of financial plans to choose from. To get the prospect to stop talking about interest rates and start talking about monthly payments. To get him to consider equity build-up and the cost of waiting for rates to come down. To aggressively push "home values" in an inflationary economy.

In essence, prospects want reassurance that they're making the right decision. And they can get that from salespeople who act like investment professionals.

The above was adapted from a talk given by marketing consultant William E. Becker, of Teaneck, N.J. Becker has been a contributor to this magazine since its early days.



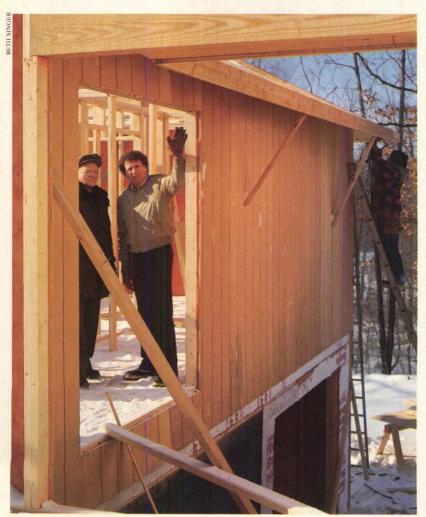
Many children have followed their parents

into the building business, but not always in the same vein. Here's what's different—and some things that are the same—about

## SECON GENERATION

'Building non-res will be my social security'

ROBERT KATZMAN ABBEY HOMES WEST BLOOMFIELD, MICH.



Bridging the generation gap: Father Sidney Katzman (left) gets a guided tour through distressed condo project son Bob (right) is rescuing.

t may seem strange that a 36-yearold is weaving a security blanket out of small office buildings. But, then, being a builder in Detroit in 1982 tends to make a person something less than sanguine.

The situation was quite different in the '50s when Katzman's father, Sidney, was building 1,500 to 1,800 units a year-and sometimes selling 200 or 300 on a single weekend.

"Nobody else could build as cheaply or as fast," says Sidney Katzman, now 73. "And we did a good job. After all, construction is honest: If you don't do it right, it falls down."

Groundbreakers. What's more, according to his son, Katzman and his partners were "more imaginative" than other builders of the era.

"They were one of the first largevolume builders to put in curved roads," says Bob Katzman. "Their subdivisions are still extremely popular today: They have character.'

The excitement of his father's successes—of attending project openings that made headlines in the Detroit Times-got Katzman hooked on building early. And, as well, there seems to be an inherited bent.

"I was born with the entrepreneurial spirit," Bob says. "As a kid, I used to listen to my father spending many hours on the phone every night, and at one point I conned him into giving me a nickel every time he used a swear

And he got an early introduction to the nuts-and-bolts side of the business as well.

"I started out when I was fourteen-cleaning out crawl spaces, working for the painter, etc.," the younger Katzman says. "I found out it was One thing's for certain: Today's builders aren't carbon copies of an earlier generation. The housing industry has changed too much since the '50s for that.

Bob Katzman, for example, wouldn't think of building the 800-house subdivisions his father used to: A leaner operation makes more sense in today's Detroit (see below).

And Orlando-based Bing Hacker can't even build in the same city (Birmingham, Ala.) that his father did—much less operate his business

the same way (see page 76).

This doesn't mean that all younger builders are forsaking family firms. Jeff Alpert of Kansas City is an example of one who was able to move comfortably into his father's company—and add his own mark to it (see page 79).

There's another second generation in our industry, too, and that's architects. For a look at one who's joined on his father's team—and given it a contemporary twist—see page 77.

—BARBARA BEHRENS GERS

hard work—much harder than making my bed or cleaning up my room."

But he didn't join his father's company: By the time Bob graduated from college, that firm had moved into real estate investment.

"As far as I was concerned, single-family stopped in the '60s," says Sidney Katzman. "Not only did my partners want to slow down, but our type of production operation was disappearing: Development costs were too high."

So Bob worked instead for a company doing FHA "multiples—that was where the major part of the building business was in the late '60s and early '70s." Soon he was superintending a 270-unit project, not earning a lot of money, but getting an education. "It's a lot cheaper to make mistakes at someone else's expense," he says.

By 1973, he was ready to go off on his own, in partnership with Bob Scheer, the son of one of his father's partners.

Their company, Abbey Homes, started out small—"It was just the two of us in a garage"—and built tract homes—"1,000-sq.-ft. tri-levels and ranches and stuff." But it mushroomed quickly.

"By 1978 we had a real estate company, a land development company and were building custom homes," says Bob Katzman. "I think we had about \$53 million in sales that year—the peak."

Managerial blues. Getting a house built was the easy part of their business; the tough part was dealing with people in the organization.

"Our time was spent deciding who was going to do what, and how do we tell them what to do, and wondering if

an employee was going to like his office because it didn't have a window, and whether we should put padding under the carpet in his office or not," says Bob Katzman. "That wore us down."

In his father's day, he thinks, those kinds of problem didn't arise. "If a guy didn't like it, then, tough, you went out and hired someone else."

Another difference he sees: "I couldn't afford to be too good." By that, Bob Katzman means, among other things, he had to learn to live with waste. "My father had a huge magnet to pick up nails the carpenters dropped," he says. "Today it would cost too much to pick up the nails."





### Contrast in styles:

Elaborate spec house (above) — Bob Katzman's last—was used as an interior design showcase to benefit the Detroit Symphony in May 1981. Selling price: \$750,000. The \$12,500 model shown in the ad at left is typical of what Sidney Katzman was selling in the '50s.

At the time of their greatest success, Katzman and his partner liquidated their corporation—"the smartest thing we ever did." One reason: advice from his father and uncle who smelled a recession coming.

Katzman kept the Abbey Homes label for himself, continuing to build custom homes [HOUSING, July, '80]. But big-ticket houses weren't a booming business in a market deteriorating as rapidly as Detroit.

So about a year ago, Katzman got involved with various lenders, land developers, etc. who had projects in trouble. He and his new partner, Herb Lawson, are paid on a fee basis for their expertise in turning such projects around. They have no liability, but often are promised a percentage of the profits.

"The new growth market in Detroit is troubled projects," says Katzman not entirely facetiously. "Every lender is stuck with some."

For example, there's the condo project Katzman's rebuilding now.

"The original builder was trying to make money by squeezing as many units as he could on the site. And it was horrible. We redesigned everything, scratched the site plan, and pulled up the sewer and water that was already in."

The market for this reborn project: cash buyers—primarily empty nesters who are moving out of big houses in Michigan and who plan to spend half the year in Florida.

Non-res relief. For his own account, he's starting to build small office buildings - his "social security." The first venture is four one-story structures "built like a house."

"Because the Detroit market is so bad, people are moving into smaller, cheaper office space," he explains. "We can offer that."

And the deals offer him rental income and the promise of appreciation that compensates for the loss of homebuilding revenue. (He still builds a few custom homes on a cost-plus basis.)

In addition, Katzman will be traveling to California this spring to scout out sites for a possible outpost. And, if his father's career is any indication, he'll be in the business for years to come. For the elder Katzman is still quite active, overseeing a management company.

"Successful builders never retire," says Sidney Katzman.

## 'Knowing how to build is less important than the business side'

E. BING HACKER HACKER HOMES



Father and son: Ed Hacker (inset) built in Alabama: Bing went farther south.

degree in finance has been a big help to Florida builder Bing Hacker, 36. And he also gets an assist in money matters from a computer: He leases time to track costs on a 156-unit condo project (photo facing page).

His is a much different background-and management approach—than his father's. The elder Hacker, Ed, now 68, had no special training and ran a one-man operation out of his Alabama home.

"The day the war (World War II) ended, I started building," says Ed Hacker, "and I was always a merchant builder. I never built a house on anyone else's lot."

Rather, he'd buy lots in Birmingham subdivisions—sometimes working in two or three simultaneously-and put up spec houses like the threebedroom split-level entered in the city's 1962 Parade of Homes (see drawing and plan facing page).

The major change in Hacker's career: In 1963 he pulled up stakes and moved 100 miles north to Huntsville, Ala.—a city then experiencing a boom because of space-related industry.

"You could sell anything then," says Ed Hacker, who, nevertheless, limited himself to less than 50 houses a year.

Unfortunately for Hacker's son Bing, the boom had gone bust by the time he came back from his war-Vietnam.

"I wanted to be a builder from the time I could think," says Bing Hacker, "and I had envisioned myself going into business with my father. But when I got out of the service in 1970, there just wasn't enough activity in Huntsville to justify us both trying to make a living out of it.

(His father jokes: "It's just not true that I told him 'this town isn't big enough for both of us.")

Prospecting. So Bing Hacker hit the road-traveling from Lexington, Ky., to Macon, Ga. to Miami, Fla., visiting with people at the local HBAS. And he decided to stake his claim in Orlando.

"Disneyworld was still under construction," he says, "and I thought the area would grow.'

Until 1974, he worked for others handling, for example, estimating and field operations for a 1,000-house-ayear firm. Then the slowdown came.

"Another young builder, Bill Harkins, and I were both working for firms that were feeling the crunch," says Bing Hacker. "We decided we'd rather control our own destinies than worry whether we were going to be laid off, so we formed our own company. We used to say 'If we're going to starve to death, we might as well do it on our own."

That company—Hacker and Harkins-got its start doing residential framing contract work, but by the end of its first year was bidding on commercial jobs as a general contractor work the firm still does today, along with the Winter Park, Fla. condo project shown at right.

"Going into business at that particular time taught us a lot," says Hacker. "Not only did we have to keep close tabs on the money, but we had to beat the bushes to get jobs."

After Hacker and Harkins had become firmly established, Hacker started soloing as a residential spec builder-Hacker Homes. Though he returned to the single-family fold, his style is different from his father's. It's not just that his houses are generally smaller and much more contemporarylooking—it's that his approach is more sophisticated.

For one thing, his father doesn't "estimate per se," according to Bing Hacker. Rather, he's so familiar with his floor plans, that he knows what his costs are going to be.

"But we do a lot of estimating, and keep up with costs on an almost weekly basis.'

Another big difference: Bing Hacker is getting into develoment.

He believes there's some cost-cutting that can be done by watching prices and refining a materials list, "but the problem is basically land and development costs. That's one of the only areas that allows much variation anymore."

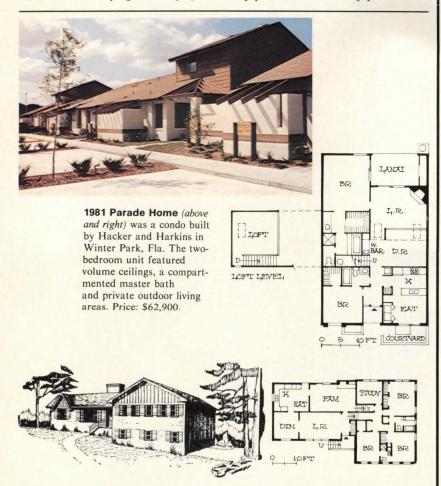
So, in order to keep building in the mid-price range ("It's virtually impossible to build an \$80,000 house on a \$50,000 lot"), Hacker is buying raw land and developing small projects.

Typical is the 24-lot subdivision he's doing now, where about half the lots will be sold to other builders.

And he doesn't envision his company tackling projects much larger than this one-for fear of losing control over construction quality-even though he sees the small builder as something of an endangered species.

Last of the Mohicans. "Our type of builder, our size, is going to have a hard time surviving," he says. "The financial, political, economic spectrum is difficult for one man to understand."

Nevertheless, he keeps going. One reason: he loves the building business. "One of the first memories I have is of when I was six or seven years old and I'd go along to my father's jobs. They'd take a rope and tie it around my waist so I could get up on the roof and try to nail without falling off. I enjoyed it then and I enjoy it now."



1962 Parade Home (above) was built by father Ed in Birmingham. Paneled lower-level playroom was included.

## 'I'm a stronger team member because I'm not only an architect'

ROBERT STEINBERG GOODWIN STEINBERG ASSOC SAN JOSE, CALIF



JOSHUA FREIWALD

The Steinbergs: Rob (left); Goodwin.

developer will typically think: 'That damn architect doesn't know what my problems are.' But I've worn that hat: I know what he faces.'

Specifically, Steinberg, 31, has ushered family-owned condo projects through the approvals maze, has worked with contractors and is well aware of the financial side of lifematters his father, Goodwin, never had to deal with when he started out in the early '50s with a practice that was solely architectural. What's more, the only housing he did then was lavish homes for the well-to-do-practically the only residential work that architects handled in those days.

"In California, in 1952," says "Goody" Steinberg flatly, "builders didn't use architects for tract housing."

It's some measure of the changes that have occurred in the last 30 years that not only would the Steinbergs now be designing quite a few for-sale projects, but that the firm would have even spawned a development arm, Enshallah Development. (See Jan. p. 88 for a

project designed by Goodwin Steinberg Assoc. and joint-ventured by Enshallah.) How did it all happen?

For one thing, according to the elder Steinberg: "The day that apartments came in and builders had to hook them together, they had to use architects more. And as land became more expensive and densities had to be higher, there was no question: They used architects."

His own entry into "mass housing" was somewhat roundabout. As Goodwin Steinberg recalls it, he designed a home for a builder/developer, establishing a friendship, which led to his being hired to design some of that developer's production housing.

Son Rob, on the other hand, was primed by his education to tackle the design of attached dwellings. In fact, he says the main difference between his approach and his father's can be traced to their schooling.

Building blocks. "His training was very much focused on detailing and refinement," he says. "Mine-at Berkeley-was more of a systems approach." By that, Rob means that he was given assignments that called for the design of a three-dimensional shape—such as a cube—which then had to be linked with others of its kind in progressively more complex ways.

One of the first chances Rob had to put that training to the test: designing a condo development for the family account. "It was a case of sink or swim," he says. "If I'd blown it, there would have been severe financial repercussions."

But he didn't. So there weren't.

In fact, just the opposite, in a way. For Goodwin Steinberg says that he

never would have attempted developing if there weren't a younger generation in the family firm.

"Before, I stayed with architecture because the demands were so great," he says. "Once a bit of the pressure was removed, I could do a little more long-run planning, and I decided it's more fun to have a nice 20- to 30person firm where we can concentrate on quality, and mix that with something else-namely, developing-that will bring in better income than architecture can.'

Credibility factor. And their role as developers hasn't hurt the design business—a fear the Steinbergs shared at first. "We thought developers might be afraid we'd steal their ideas," says Rob, "Instead, it's given us credibility."

Another help, strangely enough, is Goodwin's long experience with custom homes.

Says Rob: "One thing we've done is to try to take what's important to people in those homes and incorporate that into multifamily housing-entry impact, for instance.

Rob also likes to talk about "sequence of arrival"-a concept that can be related to several years he spent in Hollywood working on made-for-TV movies, and to a sharp marketing sense. Here's how he explains it:

"Say we have a beautiful site and it looks down to a valley. If you show someone the whole view from his car as he drives in, you've shot your wad right there."

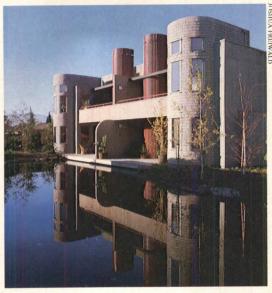
Instead, he believes, you should create a feeling of excitement by offering a brief glimpse of the view, but withholding the full panorama until the unit is entered: Then a prospective buyer feels the maximum impact of the view through the living room windows. "Otherwise," says Rob, "walking inside is anticlimatic.'

Recognition. Another kind of impact Rob's interested in: publicity for his firm.

"I never really went after work," says his father. "But Rob will put in the extra energy after he's got a good project to make sure it gets noticed."

Says the son: "I want to be able to get jobs in different parts of the country and do different types of buildings to keep from getting stale. If you specialize too much, you keep cranking out the same thing and merely change the elevation a little. We just don't do that."

"Hi-tech" condos (right) were designed recently by Goodwin Steinberg Associates. Developer: Prometheus Development, Cupertino, Calif. For more on this project, see page 54.



Spacious custom home (right) is typical of the single-family dwellings Goodwin Steinberg has designed for the well-to-do. Location: Woodside, Calif.



## 'Flexibility is the key' to our success

JEFF AND DONALD ALPERT THE ALPERT COMPANIES PRAIRIE VILLAGE, KANS



United front: Jeff Alpert (left) and father Donald inspect NAHB convention exhibits.

ays founding father Donald Alpert, 55: "If one thing doesn't work, you don't just sit there: You find another profit center." And it's a philosophy that's been passed down to his son-and partner-Jeff, 30.

The Alperts's willingness to search out the opportunities that suit the times has written a company history that is, in many ways, a microcosm of the last 30 years of homebuilding. For instance:

"If anyone was self-made, it was me-and my partner, too," says Don Alpert. "We had \$500 between us and that was because his father signed a note for us at the bank."

Not to mention the fact that Alpert didn't know anything about remodeling-the business he was proposing to go into. "My background was in accounting," he says, "I didn't know a joist from a stud."

That year was 1953. From there, the business went along "just so-so" until 1957—the time of the killer tornado in Kansas City.

"It destroyed about 400 homes,"

Alpert recalls. "We built back 11 or 12 and that's when we got involved in production.'

Changes. That led, in 1959, to a brush with manufactured homes—subdivisions in both Kansas City and Topeka which were bequeathed to Alpert's partner when they split "amiably" in the early '60s. Post-break-up, Alpert swung into the apartment business. And, in the late '60s, into subsidized housing-multifamily projects built under programs 221d3 and 236. But that didn't last either: the subsidies died out and Alpert went condo.

That's where the company was when son Jeff joined up, fresh out of college, in 1973. "The first development I worked on was 120 condos," he says. "Prices were \$27,000 to \$34,000remember those days?"

But shortly thereafter he was introduced to downturns. ("I've already seen three recessions. You may wonder why I'm still here.") That was the '74-'75 slowdown, when they "decided that the scale of our developments was much too large." So-exit condos.

Instead, Jeff jumped onto the late '70's big-house bandwagon with a series of large custom homes—a natural choice for him because he loves the construction side of the business.

"As a kid working summers on my dad's jobs," he says, "I spent more time watching the plumber, the carpenter, etc. than I did actually working. People were always telling me to get back to work."

Besides custom homes, the Alperts-now partners-were also doing land development and taking in income from apartment buildings left over from the '60s-properties which have recently come in handy.

"We decided we needed stable income," says Jeff, "so we went into the apartment management business."

It started with properties the Alperts own, but has grown to include others. Currently, the company manages about 750 units.

"It was a logical and comfortable thing for us to do," says Jeff, "because Donald and I had both built multifamily housing."

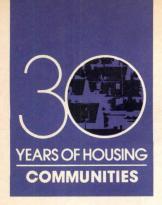
Other new "super" businesses for the Alperts:

- Commercial renovation ("More than a typical residential builder might tackle—hospitals, for instance.")
- Construction administration ("Last year a small contractor we know came to us and asked for our assistance—he had an opportunity to do some good-sized jobs. It turned out to be nice for him and nice for us.")
- •Urban infill and renovationnamely a major program which will involve high-density residential housing and commercial renovation.

This venture may turn out to be "history-making," for the developer is signing a legal contract with the neighborhood. "They-actually the neighborhood association-promise to support us for rezoning, get owner/occupants to bring their properties up to standard, etc.," explains Jeff Alpert. "We, the developer, agree which structures will be saved, which demolished."

Because of their chameleon-like approach, it's hard to tell what the Alpert Companies will be up to next much less what they'll be doing by 1990. But Donald Alpert, for one, is sure an Alpert will still be around.

"Jeff is extremely creative and very observant,"he says. "And those are the attributes you need to be successful in our business.'



Reading rave notices about projects right after they

## open is okay. But how often can we go back for a reprise 30 years later? Here's a rare chance to see THEY LIVED...

egally, this 5,500-acre planned community that William and Alfred Levitt and their father, Abraham, carved out of farmland in the mid-1950s, does not exist.

But in their minds and hearts, the 60,000 people who now occupy the 17,331 houses the Levitts built in six years love their home town.

"I think it's a great community," says realty broker David Dickstein who set up shop here 26 years ago, two years after arriving in Levittown. He's stayed, he says, for the same reasons many other long-time residents have: "I want to be where my family and friends are. In that regard, there's nothing unique about Levittown."

Mrs. Roy Gearhart, a 19-year resident, resented her move here at first. But she and her husband no longer needed their big house in Delaware County, Pa., so they bought a smaller Levittown house to be closer to her sister. Now she says, "I'm very happy here."

Pioneers. One of the town's first residents, plumber George Peto, followed the Levitts from Levittown, N.Y., and raised five children here. Three of them now own houses here and "are doing fine," Peto says with pride. "I'm very happy here," adds Bernard Kogel, one of the eight originals who still live on the same block with Peto.

"Levittown has been a good place to raise kids," emphasizes another longterm resident, George Morris, whose relatives once thought his Levitt "cheesebox would blow away with the first good wind." A couple of blowhards named Hazel and Agnes (see page 84) proved that belief to be a fallacy. And to confirm the point, builder Nat Schwartz, a civil engineer when he worked for the Levitts in both New York and Pennsylvania, says he couldn't have built the houses any better himself.

Disregarding the harsh winter of 1951 and the holiday season, traditionally a poor time for housing sales, the Levitts unveiled what still stands today as the largest planned community ever built and developed by a single builder: It opened two weeks before Christmas to an unexpected crush of 50,000 visitors.



Comparable street scenes at Levittown today (above) and 30 years ago (top) show how



The David Dicksteins, shown in the living room of their Country Clubber, have remained in Levittown to be near their families and friends.



Second-generation residents Joel and Marylou Tryell (photographed with their six-week-old son) agree Levittown offers a good buy in a good area.

By spring, before the first owner had moved in, the first year's production of 5,500 houses was sold out.

They came in those days in search of affordable houses in an environment suitable for rearing children. They're still coming, albeit not from as far away, and many second generation residents now are raising their own young here.

Although the Levitts eventually offered six different models, there were only two at the outset:

• The two or three-bedroom Levit-

towner, which sold for \$9,990, including a fireplace in the living room, carport with a 12' x 6' storage shed, double-glazed windows and an eat-in kitchen with a refrigerator, stove and washing machine.

• The top-of-the-line Country Clubber, a three-bedroom, two-bath model which came with the same features plus a double garage, rear patio, clothes dryer and an unfinished second floor with enough space for two more bedrooms and another bath.



## ...LEVITTOWN, PA



well the Levitts' planning has withstood the test of time.

PHOTOS: WILLIAM CADY



Joel and Merrill Friedman could afford to live elsewhere, but are high on Levittown's schools. They're currently remodeling their home.

All of the houses were built on slab with hot-water radiant heat, and were set on lots considered substantial in their day—100' x 70' for the Levittowner and 100' x 120' for the Country Clubbers.

These houses seem to have held their value well, with current prices ranging from the mid-\$30,000s for a basic Levittowner to about \$70,000 for a Country Clubber (more if the house has been expanded).

"The appreciation has been fantastic," says broker Bob Manzo. "Because resales are so good, Levittown is the best buy around here for first-timers. And based on the house you're getting, it's the best buy for the money for any buyer."

"It was the best buy for the money when I moved here in October 1952," agrees Bobbie Walsh, a Dickstein agent, "and it's still the most house for the dollar around here." In nearby areas, residents and real estate professionals maintain, the same houses would go for as much as \$20,000 more.

Joel Tyrrell who moved to Levittown when he was eight, bought his first house there because elsewhere, "you pay a lot of money for the same house in a neighborhood that's not as nice." Tyrrell's folks are separated now, but they both still live in the community. So do his wife's parents and one of her two brothers.

Joel and Merrill Friedman, both of whom grew up in Levittown and had "great childhoods here," bought a house a year and a half ago exactly like the one she grew up in. They could have afforded to buy somewhere else, Merrill says, but they chose Levittown because of the schools, and to be close to their parents, who have remained here.

Opposition. In the beginning, the Levitts' plan was attacked as monotonous and their houses as ticky-tacky. Unquestionably, to keep prices down, they repeated the basic Levittowner thousands of times on street after street. But the builders took great pains to avoid monotony, and Alfred ventured that "this will be the least monotonous mass-housing group ever planned in America."

To derive some individuality, they designed four different carports, and half the houses were turned 90 degrees. Seven different siding and trim colors were used, and streets were curved so that at most two dozen houses are in view at a time.

And where the Levitts' effort left off, the imaginations of the residents took over, just as Alfred had predicted. On a typical block of Levittowners, owners have dressed up their houses with such individual touches as screened porches, bay windows, wood garage and entry doors, vestibules, awnings, patios, lampposts, porches, wrought iron trim, stone retaining walls, second fireplaces, circular driveways and new roofs, paint and siding of varying colors. A few

## The population today is mostly blue-collar, and, on the average, older

homes even have been refinished with

Space explosion. As the owners of the smaller houses and the succeeding Cape-Cod-like models needed space for their growing families, they knocked out walls and added dining and family rooms, enclosed their carports or made them into one or two-car garages (often converted again into extra living space), built second-story porches and completed unfinished space upstairs.

Some whose economic fortunes improved as their needs increased moved out of Levittown altogether, but many others moved up to the larger, more expensive Country Clubbers. There they usually finished the upstairs.

Few exterior changes other than new paint, masonry facades, roofing and siding are visible on the prestigious Country Clubbers. But even by today's standards, they were large houses with 1,600 square feet of enclosed space on the ground floor alone and a highly efficient floor plan-a giant leap forward from the house that had been successful for the Levitts since 1949.

Exterior amenities. To break the monotony even further, the Levitts landscaped lavishly. Each Levittowner had 13 trees and more than 50 shrubs and flowers, and the Country Clubbers had even more—2½ street trees, one shade tree, three fruit trees, 12 white pines or Norway spruce, 24 flowering shrubs, a climbing rose, one grapevine, 12 mountain laurels, two rhododendrons, three azaleas and 12 myrtles. The elder Levitt, Abraham, was called "God's Gift

to the Nurseryman," and he was frequently seen instructing landscaping crews to uproot dead plants and replace them, without first consulting the homeowners.

Today, the few neighborhoods of Country Clubbers—only about 1,000 were built—are truly breathtaking with neatly manicured lawns, tightly trimmed shrubbery and mature trees. Some of the Jubilee, rancher and Levittowner neighborhoods are almost as attractive, but several have not fared as well. While thousands of trees that line the streets have grown to full, majestic size, residents on some blocks have allowed their landscaping to grow haphazardly. Some have ripped out the original shrubs and flowers—perhaps because they had become overgrown,

## THE SHAPE **OF LEVITTOWN** THEN AND NOW











PHOTOS: WILLIAM CADY

## Basic Levittowner, as

shown at far left, was target of critics in 1952. Though it was to be offered with four carport variations, repeating it thousands of times would lead to monotony, it was said. Not so, replied Alfred Levitt, and it would seem that he was correct; for the photos at near left show the current status of four updated Levittowners. They attest to the vast amount of fix-up, dress-up and remodeling that is a hallmark of all early Levitt communities.

As to why the Levitts concentrated on this model: to keep the price as near \$10,000 as possible. For that, buyers got 1,000 sq. ft. plus a carport and outdoor storage area. Said H&H in 1952: No outsiders know what the Levitt costs are but 'educated guesses' are that land . . . utilities ... recreation areas ... big town hall . . . church site . . . extras, plus a reasonable profit come to about \$5,000 per house. This is a price to make strong builders shudder and government public housers drop dead.

and added little or nothing in their place. But new plantings at other houses are every bit as beautiful as the originals.

Thinking big. The first Levittown on Long Island grew irregularly because the Levitts bought small parcels, built and sold their houses, bought more land and gradually created a town. They didn't make the same mistake in Pennsylvania. In nearly 75 transactions, they bought 5,500 acres in advance and, said Bill, "planned every foot of it."

Not much has changed in the ensuing years. Dozens of strip centers have cropped up on the outskirts to complement and compete with the three original groups of neighborhood stores, but the 41 residential neighborhoods—each starting with a letter of the alphabet that coincides with the first letter of every

street in the section—are still intact.

The neighborhood concept was the heart of the Levitt plan. "Each family will identify itself with the other 400 to 600 families in its neighborhood," Bill said. Kids would go to the same school and be on the same ball teams, and their parents will join in neighborhood activities.

The plan may not have changed much, but Levittown and its residents did. Settled originally by young families whose breadwinners had gone to college on the GI bill—"people with potential," broker Dickstein says-the population today is mostly blue-collar and, on the average, older. Family size has decreased as children grew up and left home. And unemployment, crime and drugs-problems that affect most urban

areas in the East-have affected Levittown as well

A political nonentity. But if there's one problem that confronts Levittown today more than any other, it's that all its parts no longer hang together as they once did. And that's because the town is not a legal entity. Although it has two post offices of its own, it does not have its own government. Politically, it is part of four other jurisdictions, each of which levies its own taxes, operates its own police and fire departments and runs its own Little League. Even social organizations are based on political rather than geographic boundaries. And the children of Levittown are educated in three school systems entirely separate from the political jurisdictions.

There still is a sense of continuity and

## The Country Clubber

model at \$16,900 is as remarkable a bargain at its price as the Levittowner, said H&H in a Feb., 1952 report on Alfred Levitt's newest model. For that \$16,900, buyers had a choice of six elevations varying carport arrangements and the following: a 12,000 sq.-ft. landscaped lot; 1,600 sq.-feet, of enclosed space plus a carport and outdoor storage; three bedrooms, two baths and an expandable attic with enough space for two more bedrooms, another bath and more storage; a full line of kitchen appliances refrigerator, stove, dishwasher and washer/dryer; and an amenity package including a fireplace, paved terrace and sliders. Interior walls were sprayed with two coats of washable paint, flecked with two color tones. Seven exterior colors were offered. Veterans paid \$4,950 down, other \$5,800; monthly carrying charges: \$90 and

Shown at near right are three up-dated Country Clubbers as they appear today; renderings of the way they look when built are at far right.













## Some feel unification might restore some of the community's lost vitality

pride here. Residents say they live in Levittown rather than this township or that. But some neighborhoods have not prospered, and people—as well as the real estate market-are aware that values in some neighborhoods are better than in others. In a sense, this may be no different from any standard metropolitan statistical area, where economics dictate that some parts of the whole will

do better than others. But in Levittown, this may be impossible to correct.

Over the years, attempts have been made to incorporate Levittown—the first was in 1954—as a single municipality, which, if it were, would be the state's 10th largest city. Some feel that unification might restore some of the community's lost vitality. But incorporation would require action by the state

assembly and there is little interest in that today. Residents would have to approve, and it seems unlikely that those in more affluent neighborhoods would vote to join with those showing signs of decay. Or that voters with low taxes would want to amalgamate with those in higher-tax areas. Or that those whose children are in a particularly good school system would risk a union that could result in lower education standards.

Our return to Levittown produced these other findings:

Heating: More than half the houses retain their original oil-fired radiant heating system, using a compact furnace in the kitchen. Emitted from steel piping buried in the slabs, the heat was great for people with cold feet. But when residents tired of the asbestos tile floors and wanted to install wall-to-wall carpeting, they found that they would be heating the floor under the rug. So many, especially after chemicals in the water had clogged their narrow pipes, switched to baseboard heat utilizing the same oil furnace. Some even installed all-electric systems in a period when electricity was relatively cheap. Natural gas has never been piped into Levittown. The change made it unnecessary to break into the slab to repair the pipes.

The Levitts, incidentally, had developed an air-conditioning system that they were able to offer for only \$250 extra. It didn't work well, however, and after 800 were installed, the option was dropped.

**Apartments:** As a concession to local officials, the company, which shunned apartments like the plague, offered a two-bedroom rental house with a flat roof, called the "Budgetteer." But there was little demand for a house that would rent for \$65 a month when people could have ownership at \$60 a month, with a down payment of nothing to a top of \$1,500. The public's preference was overwhelming. By the time 1,300 families had bought the \$9,990 house, only one had signed up for the Budgetteer. None were ever built.

Levitt's rental bargain might have been a success somewhere else, but competition from the Levittowner was too much. Customers apparently agreed with Bill Levitt, who said: "I believe it is a fraud to make a man rent a house. He doesn't rent his clothes or his car or the other things he needs." Still, mindful that apartments might be needed, he said he would build some if and when justified. But he never did.

Others did see the need eventually.

## THE FORGOTTEN PLANNER

The name "Levitt" in housing brings to mind assembly-line techniques and close calculation of material needs to pull down the cost of a house to a level that was accessible to families that had not previously been able to realize the dream of home ownership.

There is another side to the Levitt technique, however-the side personified by Alfred, the forgotten brother of William. Before a tragically early death in 1953, Alfred had put an indelible stamp on the company as its in-house architect. It was he who created floor plans that would serve thousands of families, continuing to satisfy their needs for decades, and imitated by home builders from coast to coast.

Alfred Levitt's genius didn't stop with floor plans. The fact that Levitt homes continue to hold up after more than 25 years owes much to what goes under the foundation and over the eaves. Alfred ordered it that way.

Abe Eckert knows. He was the subcontractor responsible for all the roofs in Levittown, Pa., Willingboro, N.J., and Bowie, Md., from 1952 to 1973. That's more than 35,000 roofs, plus some of those in the first Levittown on Long Island as well.

Eckert gives Alfred Levitt credit for the fact that Hurricanes Hazel and Agnes couldn't wreck his roofs. It was he who prescribed three-tab shingles instead of the two-tab ones that most builders used. Workers had to snap a chalk line for every fifth course so that the horizontal lines would be straight. Plumb lines were straight too. Alfred ordained the use of six nails for every shingle, not the usual four.

To prevent leaks around the furnace vent stack, Levitt designed a two-part copper flange that Eckert modified into a one-piece lead flange. Much heavier than the aluminum flanges Eckert said other builders use, it never moves, and therefore never leaks. "Even custom builders can learn from Alfred Levitt's methods," Eckert said.

He also credited the architect with ordering use of copper flashing on chimneys, which was continued until copper became too expensive around 1966. Heavy-gauge aluminum flashing was used in the valleys. But where there was a dormer, all corners were soldered with copper. Levitt also ordered something Eckert says no other builder has done to this day-15pound felt was sandwiched between copper and aluminum wherever the two metals met, to prevent a chemical reaction.

It thus appears, as Eckert said, that: "Buyers got more value than they expected"-or knew about. Another way they gained, he said, was through Levitt & Sons' insistence on having its own inspectors check every step of the building process. That's why it was able to keep customers satisfied even when the firm was delivering 250 homes a week during the spring, summer and fall of 1954 and 1955. "I wish I had saved the letters I've received from insurance companies thanking us for the fact that none of our roofs blew off in those hurricanes," he said.

Long after Levitt sold out to ITT in the late '60s, Eckert continued to fight the conglomerate to let him go on building roofs the old way. Finally, though, he quit in 1973 when, he said, the old way lost out-perhaps because the building pace had slowed down too much.

Eckert, who owns a small shopping center between Levittown's Thorn Ridge and Vermilion Hill neighborhoods of Jubilees, said 50 percent of the original owners still occupy those sections, and are both proud of and pleased with the town that Levitt built.

Rental complexes have sprung up around Levittown to take care of the new generation and the inlaws whose needs grew steadily. More recently, several apartment buildings for the elderly have been erected with state and federal subsidies.

Shopping: Hailed as revolutionary when it was completed 25 years ago, the 55-acre Levittown Shopping Center (in the eastern corner of the big development) now suffers from some of the same problems as older retail complexes elsewhere. Shoppers have been drawn away by newer, larger enclosed malls.

As leasing agent Lionel Friedmann of Philadelphia predicted in 1952, the center became "the economic center for Lower Bucks County," drawing from a radius of up to 25 miles. In the early years, merchants staged such promotions as Easter parades, and young mothers wheeled strollers through the curving mall to socialize as well as shop.

Today, after several changes of ownership, more than half the 50 stores sit empty and boarded up. There's new hope, though. The latest owner, a Canadian firm with a reputation for reviving worn-out centers, bought the retail complex just last month.

Like many of the original Levittown residents, a handful of store owners have clung to the center through the years as though it were their own creation. Pomeroy's, the three-floor department store in a chain that owned the center for 20 years, still is operating, as are the original beauty shop and cobbler. Says Jules Sussman, who now owns the popular children's clothing discount store he managed for more than 30 years, "This is our home."

Amenities: Levitt originally planned eight recreation areas with swimming pools, but built only five. Like the shopping center, they have fallen on hard times. As children have grown older, use of the pools has plummeted.

So has membership in the Levittown Public Recreation Association. From a peak of 8,200 families in 1962, the rolls have dropped to less than 3,000. Fees, originally \$6 a year per family, now are nearing \$100, and people are putting the money they once invested in LPRA into their own back-yard pools. Meanwhile, classes once sponsored by the association—which is supported entirely by membership dues-also have been cut back.

Schools: Because of union opposition, the non-union Levitt Co. built only three of the 10 elementary and two high schools it had planned. Eventually, to accommodate the rush of students, 18 schools were built in Levittown and others were built nearby. But enrollments peaked and then turned into a steady decline in the 1970s as the population aged. A number of schools are closed now, the buildings serving as parochial schools, non-educational purposes or not being used at all.

every 16 minutes or as many as 50 a day under a full head of steam. Thus, it serves no purpose to review the assembly-line methods that made such speed possible. It is enough to say that the techniques Bill Levitt learned in the Seabees served the family business well and helped bring an entire industry out of the Stone Age.

It is worth remembering, however,



**Nighttime** view of 55-acre shopping center, which has new owner.

Restrictions: To build pride in their community, the Levitts placed restrictions on their buyers, such as barring commercial vehicles from carports and the stringing of clotheslines between poles. Clothes-drying "trees" were allowed, but clothes couldn't be strung out to dry on Sunday. No more than two pets of the same kind were permitted, and no fences whatsoever. If lawns were not kept trim, the builder had them mowed and billed the homeowners.

There is no evidence that these covenants are enforced today, but neither are they a dead letter. While we spotted several clotheslines during our drives around Levittown, only a few fences could be seen.

Conclusion: By any standard, Levittown was an immense success. What lessons can today's builders draw from it?

It is doubtful that any one builder will ever again approach the magnitude of constructions the Levitts achieved. The proliferation of regulatory bodies, the shortage of large tracts within an easy commute to major metropolitan areas, the growth of citizens' groups which oppose rapid development are just a few of the changes since the '50s that prevent firms like Levitt from building a house that Levittown proves an old and trusted adage: The Levitts built a better mousetrap and the home-buying public beat not a path but a highway to their door. They built terrific value into their houses, and they couldn't build enough of them. So what if they all looked alike? So were their buyers' aspirations, and the Levitts made their dreams come true. Buyers addressed the problem of repetition after they made their purchases, not before. Equally important, the houses have not outlived their time, but have kept with the times.

Today's builder faces an entirely different set of economic circumstances, with financing a bigger obstacle than price. New solutions to that problem are needed, of course. But a backlog of demand is building, and if someone comes along with a Levitt-like mousetrap, it will take more than a highway to contain the crowd.—LEW SICHELMAN AND AARON RUVINSKY

Lew Sichelman, a nationally syndicated housing writer whose weekly column appears in more than 100 newspapers, was real estate editor of The Washington Star. Aaron Ruvinsky, assistant real estate editor at The Star, has lived in two Levitt houses in Bowie, Md., during the last 20 years.

## HOW THEY LIVED

...PARK FOREST, ILL





Then and now: Little but a vintage car distinguishes a Park Forest street in 1952 (top photo) from today.

y March, 1952, when House & Home "walked" its readers through Park Forest, Ill., the "new town" was celebrating its approaching fifth birthday by introducing such new designs as co-op row houses that were needed to "fill a gap in the marketplace" between low and high-end housing.

Nevertheless, American Community Builders, headed by Philip Klutznick, continued to build the popular brickand-stone single-family houses (see above) that were selling for \$13,000 for the two-bedroom model. Such was the commitment for a well-rounded community—it had started with rentals—a "GI town" that would give veterans and their families all the amenities of modern living in a greenbelt setting.

Thus it was to contain a shopping center, an industrial section and, of course, schools, parks and other hallmarks of "good living."

Today, Park Forest has evolved into a promotion piece for private planned communities. Twice it has won an All-American-City award from the National League of Cities, and it has been studied by planners from France, Yugoslavia and Norway.

Of Park Forest's approximately 27,000 residents, 12% are black; and village President Ronald Bean notes that the city's population is "a cross-section of the world. We have Africans, American Indians, Indian Indians, Latins, Laotian refugees and Vietnamese refugees."

Bean, who has a law degree and is an executive with a state finance agency located in Chicago, is an apt representative of the community whose residents have a

median education of 13.8 years, according to Public Communications, the public relations firm that currently represents the city.

Despite such high marks, Park Forest is not an example to follow today, says Klutznick, who adds that the community's easy-country-living tone is an accident of time.

Klutznick served as commissioner of the Federal Public Housing Authority under Presidents Roosevelt and Truman. He recalls: "I shall never forget the day President Truman called us in and said, 'I'm going to bring them all back home, and I expect you to take care of housing them.' We brought back 13 million people from World War II.'

The tremendous demand for housing, coupled with an awful shortage of starter housing around Chicago, allowed Klutznick to handpick his first residents, who lived in rentals. Industry claims of a huge pent-up demand notwithstanding, today's climate is different, Klutznick states. "I would say it's totally impossible in today's economy with its relative stability (of population). I would caution anyone who would undertake it, to quit thinking about fancy dreams and start thinking about customers."

A first family. The Rysers family was one of Park Forest's "pioneers". Lee Ryser, working out of St. Louis as a salesman for Monsanto, was transferred to Chicago by the chemical company. He and his wife Jackie first lived in-town. At the time their second child was born, they were among the first group of Park Foresters living in rental courts.

Lee Ryser remembers the neighbors:

"They were all in the same category; they were all working for companies; and all about the same age."

Not too long after, the Rysers bought a two-bedroom, one-bath home, certainly the best bargain for new suburban housing at the time in Chicago. "We got a VA loan, with very little down for a \$12,300 house," Lee Ryser recalls. He liked the

Ronald Bean, the village president, is one of the blacks who make up 12 percent of Park Forest's population. Bean calls the city's roughly 27,000 residents a "crosssection of the world."





The De Lues, longtime residents of Park Forest, are the subjects of a running debate in the community: Were they the first, second or third renters in Park Forest?

planned green space, patterned after earlier greenbelt towns near Washington, Cincinnati and Milwaukee:

"It did have a village approach; it was wide open, it was wonderful."

Two things irked him however: the long drive to downtown Chicago when he didn't commute by the Illinois Central, and the size of the house, which was okay at that time; but as the children grew, he believes the family would have wanted something larger.

Lee and Jackie Ryser now live in Houston — thanks to another transfer by Monsanto. Their son Jeff, a journalist, recently visited Park Forest and observes, "Park Forest seems to have retained its identity and flourished." Though he says he finds it pleasant enough, he would never want to live there. "It's too far away from the center of the city."

Village President Bean, who lives in Park Forest and commutes daily to Chicago's "Loop," doesn't complain about his daily commute. But a concern of his does echo one of Lee Ryser's: "If there's anything we suffer from, it's the inability of residents to move up to that \$150,000 house. I think that hurts us in a human sense. A number of people who would have chosen to stay have moved, because their preference in lifestyle and amenities forced them to move out of town.

A different viewpoint. Apparently Ross and Leona De Lue would just as soon have move-ups move out: Their idea of a true Park Forester is something different.

Ross De Lue, a native Chicagoan, and a former public relations man, might be called the center-spread of the Park Forest promotion piece—witty, urbane, knowledgeable. When he moved into Park Forest with his wife in August 1948, however, he was a newspaper reporter for the now-defunct Chicago American. He is either the first, second, or third renter in the rental courts-a subject of perennial debate that he, Klutznick and others relish.

In 1948, he notes, newspaper reporters were notoriously underpaid. Socially, this was never an impediment in Park Forest, he claims: "This is a town that valued schools and education above money." He tells of his daughter, on the high-school debating team, who returned from a meet with a team from a fancy North Shore suburb, where, he implies, the values were quite different. "She said, 'Daddy, they're so different up there, all they talk about is how many cashmere sweaters they have."

Leona De Lue, speaks of the benefits of living in Park Forest: "We have a very informal relationship with one another. There are many of us who have been living here for more than 30 years. Last night our electricity went out, and we could have gone anywhere. People were calling us up demanding that we stay with them.

Has Park Forest become an aging closed circle of the wagons of its pioneers? Not at all: According to Public Communicators, the median age of residents is 29 years. And Barbara Berlin, the village planner, adds: In 1949 the town population was very homogenous. It tended to be white-collar or professional men whose wives stayed home and had children.

"The range of income wasn't terribly great. That's much less true now, both because of the elderly on fixed incomes (on the low end), and those who could afford to live in much fancier surroundings but choose to stay (on the high end)." Park Forest now also has a bluecollar population, she adds.

Housing is considered to be one of the best values, still, in the Chicago metropolitan area. Of some 3,000 original rental units, all but 600 have become condominiums or co-ops. The co-ops are the real bargains: Residents pay a \$200 fee to purchase a share in the co-op; they buy "improvements" from the current resident (essentially accumulated equity), and pay carrying charges or monthly fees of \$195 to \$245. "Improvement costs" range from \$5,000 to \$15,000 according to a co-op manager. The reason the carrying charge is so low: The co-ops were financed in the 1960s on a HUD section 213 mortgage at 41/4%.

The condos are also a bargain, notes Chicago-area real estate appraiser Alvin L. Wagner Jr. "Park Forest is the best buy in America." "You can get a condominium townhouse for under \$25,000 and still be near good schools."

Berlin says that she has seen original single-family homes go on sale for \$50,000 and \$60,000, and guesses some of the least expensive would sell in the \$40,000s.

Non-res a problem. If there's one thing that's not glowing about Park Forest, it's business. The central shopping mall, residents agree, is losing out to a newer, more centrally located mall near Interstate 57. And planner Berlin notes that the large 475-acre industrial park that Klutznick and company planned in the early years didn't work out as hoped for, partially because of its distance from the interstate highway, which didn't exist (nor did any other) when the community was planned.

About 60 acres, some not yet developed is an industrial park; another like parcel was used by a state facility for the mentally retarded; and the rest was traded to a neighboring community for residential use as part of a deal involving land for school districts, which in Illinois are determined separately from municipalities. Park Forest for example, is served by four different elementary school districts. - DAVID GARFINKEL







Housing mix at Park Forest includes rental townhouses (top), co-op units (center) and single-family homes (bottom). The community originally boasted some 3,000 rental units; that figure has declined to about 600 through co-op conversions. Park Forest, as a matter of fact, was a co-op pioneer, and a March, 1952 feature story on the project cited it for the "first big co-operative venture in the conservative midwest.'

A major complaint from some residents at the community is that it lacks moveup housing. This accounts for many families relocating; others opt for expansionadditions like those seen in the homes in the left of the bottom photo. Village President Bean is one who recently solved the problem for himself by building a \$30,000 addition onto the back of his home.

## WHAT LIES AHEAD FOR HOMEBUILDING?

Predictions, no matter how hard they try to project into the future, are inevitably a product of the concerns and beliefs of their times.

Back in our first issue, for example, we foresaw a steady one million new homes a year. We backed up that prediction with three factors:

"Nothing less than one million new homes a year will keep up with new family formations and replace the 46 million existing homes over an 80-year cycle;

"The 'new type of tenancy' created by low down payments and low monthly charges makes homes as easy to buy as to rent, even in bad times:

"Government policy is clearly directed to a stable construction volume.'

We also concluded that "the industrial revolution" had come "at long last to homebuilding.

So much for the past. Now let's see what today's experts predict for the future.

In design: There's probably no escaping higher densitiesprojects at 10 to 20 d.u./acre will be commonplace, according to architect Walt Richardson of Richardson-Nagy-Martin, Newport Beach, Calif.

The reason isn't a shortage of affordable land per se. Rather, it's a shrinking supply of buildable sites in sought-after areas.

"Buyers have become more choosy about where they want to live," explains architect Barry Berkus, Santa Barbara, Calif. And higher-density housing makes best use of those prized locations close to jobs, cultural centers, recreation or whatever a particular market deems most valuable.

In such tightly-packed projects every square foot—indoors and out—will be designed for optimum use. "You can't leave any loose ends," observes Richardson.

And this will hold true for tomorrow's single-family projects as well—for fewer and fewer homes will be built in "conventional" subdivisions. Instead, as lots—and houses—become smaller, detached units will be sited with as much care as attached dwellings—in clusters, for example as part of a PUD's land plan.

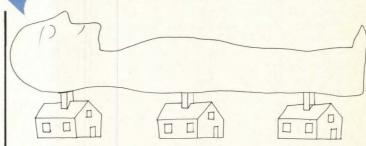
Living spaces in attached and detached housing will be smaller than Americans have been accustomed to. "But we aren't going to be dealing with a 10' x 10' room with a flat ceiling," says Richardson. "We'll use volume, angles, windows—whatever it takes to make these spaces fun to be in."

Floor plans will also be influenced by changing lifestylesshared living arrangements, for instance. Two-master-suite units are already on the scene and architect Berkus envisions a variety of designs adapted to the need to double up. One example: units designed for elderly widows or widowers who want to share expenses, or for an elderly person and a nurse/companion. On the opposite end of the age spectrum, there may be high-density condos built near universities and designed so that a student—with an assist from Mom & Dad-could buy a unit and rent out a room to a classmate.

In markets: No guesswork about this one—the people who'll comprise the important markets of the next few decades have already been born.

And they're getting older all the time. Census figures show that the over-65 age group has doubled in the thirty years since H&H was founded and now represents about 11.2% of the population. Predictions are that in 2020, when the baby boom hits retirement age, over-65ers will represent 15.5% of the population, and in 2030,

In the meantime, the median age of the population will be creep-



ing up, from 30.2 in 1980 to 32.8 in 1990 to 35.5 in 2000.

The result: a demand for smaller units with a great deal of security. There will also be a demand for housing suitable for people with limited mobility as life expectancy keeps stretching out. And there will also be a demand for housing in those Sunbelt areas where the affluent retire; also more demand for apartments or small units for the vast majority who don't migrate to the Sunbelt.

In financing: Far-sighted industry observers say the future of housing finance lies in the industry's ability to tap into the nation's capital markets. Richard Pratt, chairman of the Federal Home Loan Bank Board, recently brought this point home when he told an audience of homebuilders at the NAHB convention that in the third quarter of 1981 the thrift institutions' share of the mortgage market dropped to 8%. Historically, Pratt noted, thrifts provided 50% of the mortgage funds for housing.

Fortunately, the groundwork which will enable the capital markets to take up the slack left by the thrifts has already been laid. Mortgage-backed securities, the likely vehicle for linking the capital and mortgage markets, are already gaining wide acceptance. Ginnie Mae pass-throughs are well-established in the investment community, and it appears pass-through certificates backed by conventional mortgages are meeting with similar success. However, with plans underway to dismantle the Ginnie Mae security program by 1987, the onus of providing mortgage money through mortgage-backed securities fall squarely on the back of the private

Can the private market approach Ginnie Mae's volume—over \$110 billion in pass-throughs sold over the last ten years? Salomon Brothers' Jay Connelly thinks so. He feels conventional passthroughs "could definitely grow to Ginnie Mae levels" if for no other reason than the fact that the conventional mortgage market is three to four times larger than the government-insured market that provides mortgages for the Ginnie Mae program. MGIC's Mark Korell also thinks the private market is up to the task, noting that "people are beginning to wonder whether we really need all the government involvement we've had in these markets.

Pension funds are being heralded as the major source of funds for housing in the future. Estimates of the total assets held by the funds vary with the optimism of the observer. Some claim the funds hold \$600 billion currently, others say as much as \$800 billion. "Guestimates" concerning the growth of the pension funds' assets vary just as widely: \$1.3 trillion by 1985, \$3 trillion by the early 1990s. More important, however, than the assets the funds hold is how much of that asset pool will go to housing.

Public pension funds are showing an interest in making residential-mortgage investments. One particularly encouraging trend that is expected to continue is that of state employee pension funds buying mortgage-backed securities that are backed by mortgages made exclusively in the pension fund's home state. The private funds, however, have not begun investing heavily in

mortgage-backed securities. This much is clear, however: Pension funds, as the largest single source of capital in the country, will be a major target of marketers of mortgage-backed securities.

Where will the thrifts fit in? Richard Pratt expects those thrifts that survive their current troubles to emerge as more specialized institutions. Some will act primarily as loan originators and servicers, selling the loans to investors. Others, says Pratt, may go into direct real estate investment or become syndicators. As deregulation gives the thrifts wider lending powers, still others may go into consumer or commercial lending, according to Pratt. The traditional S&L that makes mortgages and holds them for 30 years in its portfolio will probably be as rare as a fixed-rate, 30-year assumable mortgage in the housing finance system of the future.

Surprisingly, when it comes to the likely shape of future mortgage instruments, the future could very well lie in the past. Not the past of thirty years ago, but that of fifty or sixty years ago when the average down payment for a mortgage given by a life insurance company or an S&L was between 45% and 55% and the term of the loan ran anywhere between six and 11 years.

As housing finds tougher competition for available credit, says Dennis Kelley, senior vice president of Chicago's La Salle National Bank, "homeowners will have to form capital." The way they'll do that, he says, is by going to shorter-term mortgage instruments which stress equity buildup in the home through quick reduction of principal. A good example of such a mortgage is Merrill Lynch's GEM mortgage. The Growing Equity Mortgage, according to Judd S. Levy, managing director of Merrill Lynch White Weld, calls for 3% annual raises in the mortgage payment for the first ten years of the loan and constant payments the next six years. The extra 3% each year goes toward principal reduction and the mortgage is paid off in 16 years.

The five-year "zero-interest" loans are a more extreme example of the same principal of quick equity build-up. Most of the zero-interest plans popping up around the country require a hefty down payment—usually around 30%—and result in an increased purchase price to cover the cost of the zero-interest loan to the builder. However, builders using these financing schemes say customers like the prospect of owning the home free-and-clear in five years and feel the higher purchase price is justified by savings in interest expense one would normally incur with a conventional mortgage.

The extent to which a single mortgage instrument will dominate the future—as the 30-year, fixed-rate mortgage has dominated the past 30 years—has yet to be determined. "I don't see us returning to a single mortgage instrument," Dall Bennewitz of the U.S. League of Savings Associations said when HOUSING put together "A Guide To The Mortgage Maze" [June '81]. Yet, others, like Merrill Lynch's Robert Tobin, stress that uniformity is needed if the mortgages are to be packaged into securities and sold to investors. The resolution of the contradictory needs of borrowers who want tailored mortgages and investors who want the certainty of like instruments will be a major on-going process.

**In products:** More closed-loop plumbing/sewage systems and more water-saving appliances.

Builders will turn to the closed-loop systems because they are already being cut off from sewer hook-ups. And water will replace energy as a critical problem.

Says Joe Sherman, director of HUD's Building Technology Division: "Energy is in short supply, but there are a lot of alternatives. Water, on the other hand, has no substitutes."

Another scarce resource is wood. "If the housing industry meets housing demand, wood supplies cannot be sustained," says Sherman. One answer: more engineered wood products (see "Engineered Wood: What it is and how to use it, Feb.).

New electrical products—specifically greater use of flat wiring—are in the cards for the future, according to Don Carr, senior associate at Steven Winter Associates, a New York architectural/engineering firm.

Labor-saving products will enjoy the same attention they have

received over the past 30 years, according to Ralph Johnson, president of the NAHB Research Foundation. Johnson expects to see products that are "less skill-dependent, contribute to faster building, improve productivity and reduce the number of subcontractors."

Computers will become more common for security, energy and financial management. Says Robert Hafner, vice president of marketing, The Ryland Group, Columbia, Md.:

"It is something I would like to see offered in our homes as an option—and someday even as standard."

The long-term direction of new products? Sherman sums it up as follows: "I think the movement toward self-sufficiency in housing will bring us the greatest advancements in the next thirty years—especially in the heating and plumbing areas. You won't see many changes in the nickel-and-dime stuff, the new styles. They're evolutionary, and that's fine. But of neccessity—from resource shortages and economics—I think we will see some real revolutions in building products."

In factory-built housing: In the short run, the mobile home industry will be working on staying abreast of any changes in the way site-built houses are financed, such as funds from credit unions and pension funds.

"The President has made clear he wants to liberalize mortgage instruments for real estate," says Harvey Weiner of the Coordinating Council on Manufactured Housing Finance. "We are proposing that the new instruments be applicable to manufactured housing as well."

According to Patrick Di Chiro of the Manufactured Housing Institute, the financial developments of the past few years will lead to more mobile homes being sold by builders.

"The industry doesn't have a boom or bust syndrome anymore
... In the next five years, there will be a ground swell of support at
the local level among builders, lenders and buyers."

Walter Benning, president of MHI says, "we will see more and more builders and developers working with manufacturers, putting projects together where the developer takes care of the roads and sewer lines and then places the houses as he needs them. He won't have large inventories piling up, hence he will be able to cut the cost of his construction loans."

Jack Wynn, publisher of the Manufactured Housing Investor, says the changes the industry is going through now will not only affect builder participation but will alter the manufacturing companies. The interest among builders will prompt more "Wall Street-type" executives to enter the field. The new executives will improve marketing techniques and encourage mergers and acquisitions. Once this happens, the large site-builders will start purchasing smaller home manufacturers.

But there are still a few snags slowing down the momentum the mobile home industry is trying to develop. For example, The Farmers Home Administration does not recognize the HUD mobile home code and requires structures to conform to the Minimum Property Standards before they are considered eligible.

John Kupferer, staff vice president for the Home Manufacturers Council, NAHB, feels the recent merger of the NAHM with the NAHB is a good omen for factory building.

"A lot of homebuilders have put some part of their operation in mothballs. When things turn around, and the skilled labor isn't there to fill the needs of the industry, builders will turn to factory-built housing."

Most manufacturers will continue to keep step with the design innovations of the rest of the industry. Some will go a little further. Case in point: Lindal Cedar Homes has been awarded a grant to develop modular units that are shipped from the factory with wood foundations already attached. Sir Walter Lindal, chairman of the board of the company, says site work will be reduced to scraping away top soil to crawl space depth, installing utility lines and laying down a bed of crushed stone. The modular-attached foundations will include plumbing work and heating ducts.

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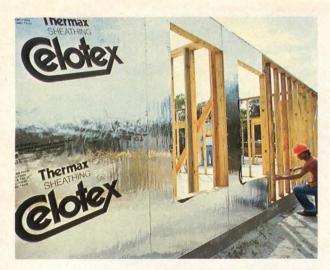
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Thermax® sheathing is made of a glass fiber-reinforced plastic core with aluminum foil facers. Sheathing is available in lightweight 4'×8' and 4'×9' boards. Celotex. Circle 246 on reader service card

Tapered TJI® joist, with a built-in slope of 1/4" or 3/8" per foot, is specifically designed for minimum-slope roof construction. Trus Joist. Circle 247 on reader service card





Building system, used to form outer walls of building shown above, consists of two layers of structurally reinforced concrete with an insulation board core. Solarcrete. Circle 249 on reader service card

Top plate tie is one of the "Panel Clip Structural Connectors" for fastening wood to wood, concrete, and drywall. Panel Clip. Circle 250 on reader service card



Quietone® acoustical ceiling products are constructed of flame-resistant mineral fibers. Panels and tiles are available in a variety of designs and configurations; shown above is a filigree pattern called "Fleet Street". United States Gypsum. Circle 248 on reader service card



"The Cooper SpiralStair" is custom-built to any floor height, with either a right-hand or left-hand rotation. Stairs are available in a variety of hardwood species; each flight is sanded and left unfinished. Product can be shipped knocked down or preassembled. Cooper Stair. Circle 251 on reader service card



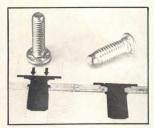
Spiral staircase is a freestanding unit and is available in steel or aluminum. The steel models are prefinished with a dark bronze, baked-on enamel. Stair is shipped disassembled. Spiral Mfg. Circle 254 on reader service card



All-wood circular staircase, offered in oak, teak, mahogany or walnut, is available factory-stained, lacquered, or unfinished. Outer circumference of the average staircase is 8'6". Levolor Lorentzen. Circle 258 on reader service card



Handcrafted spiral stair is constructed of clear red oak; a variety of other wood is also available. "United All Wood Spiral" stair comes in several diameters: 4', 4'6", 5' and 6'. United Stairs. Circle 257 on reader service card



Strux® clinch studs are an alternative to weld studs. They are available in both inch and metric sizes. Camcar Division of Textron. Circle 255 on reader service card



Thermboard™ panels (above) for installation around foundations, are composed of rigid Styrofoam<sup>TM</sup> with a stucco-like decorative finish. Three thicknesses are available. Omni Energy Products. Circle 256 on reader service card





ThermaStructure system is composed of metal bands molded to Structural Expandable Polystyrene panels. In the model home shown above, furring strips are preinserted for drywall installation. No wood studs are used. Radva Plastics. Circle 266 on reader service card

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## PRODUCTS/KITCHENS



Appliance coordinates include refrigerator/freezer, dishwasher and range. White-Westinghouse. NAHB booth 1200. Circle 323 on reader service card

"Sierra" tiles (below) come in a new line of pastel tones. Tile sizes: 41/2" or 6" sq. Franciscan Ceramic Tile. NAHB booth 809. Circle 324 on reader service card

Compactor and dishwasher

set shown at left features deco-

rative front panels with wood-

grain design. Whirlpool Corp.



Convection microwave can be programmed for single-mode or combination cooking. Sharp. NAHB booth 1132. Circle 327 on reader service card

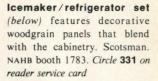


cludes the 6.4 cu. ft. refrigerator, electric oven, range, sink and storage. Cervitor. Circle 328 on reader service card

One-piece kitchen (above) in-





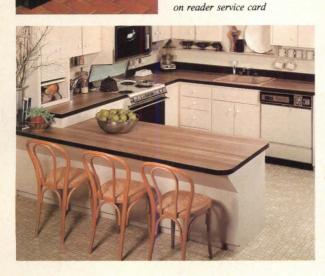
















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Modular industrial building system (below) features components that are reusable and interchangeable. System components are constructed of vinyl-clad hardboard facing and a paper-based, load-bearing honeycomb core. National Partitions. Circle 260 on reader service card





"Change-A-Board" display system (above), with horizontal lines spaced 1" apart, comes equipped with special pencils. Writing wipes off with a dry cloth. Caddylak. Circle 263 on reader service card



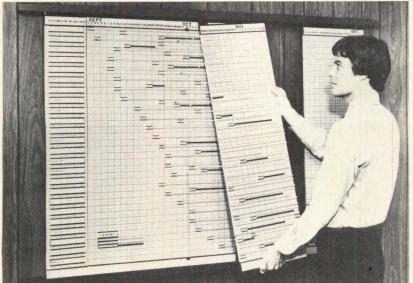


"Stowaway" accessory table (above) is designed for the Diazit® line of table top copiers. Unit has separate storage compartments for rolls and sheets. Diazit. Circle 264 on reader service card

Portable drafting system (right), designed for on-site use, includes drawing board with drafting instrument, paper, scales and accessories. Draftette. Circle 261 on reader service card

Modular scheduling system can be expanded vertically and horizontally. Panels are available in 6" and 12" widths, 2" and 3' heights. Methods Research. Circle 262 on reader service card







Tab-Trac™ mobile storage system (above) provides high density storage in limited office space. Carriages move along tracks that are part of the carpeted, custom-fitted floor. Three systems are offered: manual, mechanical-assist and electrically powered. TAB Products. Circle 265 on reader service card

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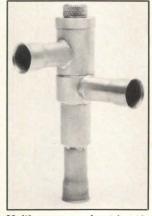


Frost-proof sill cock (above), offered in two models, prevents the backflow of contaminated water or chemicals into the potable domestic water supply. Mansfield Sanitary. Circle 237 on reader service card

Polyethylene septic tank (left), part of a line of water management and treatment products, is offered in four sizes: 300, 500, 750 or 1,000 gal. Also shown are corrugated tubing, valves, sumps and other components. Hancor. Circle 238 on reader service card



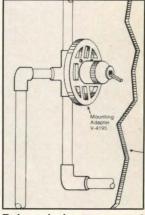
Flow control valve (above), made entirely of bronze, resists damage by corrosion from sand and grit. "Whisper Guard," for applications with heat pumps, is said to close without water hammer. Taco. Circle 239 on reader service card



Multi-purpose valve (above) is available in two- or three-way configurations. Unit includes a temperature element that mixes hot and cold to a preset temperature. Unit is suitable for solar applications. H&H. Circle 240 on reader service card



Water filter (above) removes most unpleasant taste and sediment from the domestic water supply. The compact unit, which is installed underneath sink, has a flow range of one to two gallons. Filterite. Circle 244 on reader service card

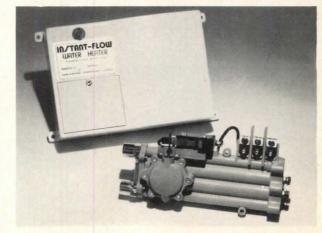


Tub-and-shower mount shown in the drawing above, is designed to secure the manufacturer's "Valley" single-control tub and shower faucets to fiber glass or other thin wall enclosures. U.S. Brass. Circle 241 on reader service card



Instant water heater (right) boosts temperature at point of use-primarily on hot water line leading to dishwasher. "Instant Flow" permits lower temperature setting for domestic hot water. Chronomite. Circle 243 on reader service card

Iron removal filter (left), made of corrosion-resistant stainless steel, removes dissolved and precipitated iron from domestic water supply without use of chemicals or backwashing. AMF Cuno. Circle 242 on reader service card



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## Structural systems and products for 1982

If you're looking for new ways to cut labor and material costs, study the following assortment of brochures and booklets. They introduce some of the new techniques and products engineered for that purpose.

**Insulation** basics are reported in a 96page booklet. The manual is designed to provide the builder with a detailed understanding of product benefits and of installation techniques for fiber glass insulation that provide maximum performance.

The comprehensive manual begins by explaining the properties of fiber glass blanket and blow-in insulationpointing out that controlling heat flow and transfer are not the only advantages: Fiber glass insulation, it reports, also reduces sound transmission, and can act as a deterrent to fires in vertical walls. A map and table detail recommended insulation levels on a geographical basis.

The manual is also a catalog of the manufacturer's many insulating products. Each is illustrated and fully described.

Finally, detailed installation instructions are featured. Techniques for installing the various types of insulation are described and often illustrated in line drawings and cross-sections. Suggestions are made for procedures that reduce installation time, with pointers on insulating various types of ceilings and floors. Condensation problems—and ways of preventing them are also examined. A copy of this booklet is available from Manville Corp. Circle 300 on reader service card

An eight-page brochure introduces the "TMI" wood I-beam, which according to the manufacturer has greater loadcarrying capabilities than comparable units. The features of this beam are detailed, with black-and-white photographs illustrating a variety of installations. Specifications are included. TIMJOIST Inc. Circle 304 on reader service card

Design freedom, versatility and cost savings are three benefits of the Gang-Nail® engineered truss system, according to an eight-page booklet. The manufacturer offers systems for floors and roofs, plus a component-maker; all three are described in the brochure. Also presented: the Gang-Nail® computer service, which takes job specifications and determines the most economical and efficient truss required

according to local codes. Information on specifying and on code approvals is also incuded. Gang-Nail Systems. Circle 305 on reader service card

A truss fabricating system is introduced in a four-page, two-color brochure. The "T.T.S. Travelmatic Press" is designed to be expandable, so that you can add on as production increases. Several black-and-white photographs illustrate how the assembly system works, and highlight some of its features. Product advantages are described and specifications are included. Jager Industries. Circle 302 on reader service card



Structural connectors are the subject of a 12-page brochure (see photo above). The publication details the various types of connectors available, including units for wood to wood, drywall and masonry applications. The Panel Clip Co. Circle 310 on reader service card

Fast construction, according to a foldout, is the primary advantage of using Fabcon® prestressed precast concrete panels. Other advantages include: security, design flexibility and durability. Four-color photographs show a variety of applications. Fabcon. Circle 306 on reader service card

A 1982 catalog presents a line of acoustical tile and lay-in panels. System features and panel properties are reported in tabular form. Cross-sections illustrate panel construction. A number of four-color photographs show possible applications. Technical data and architectural specifications are included. Also presented: tips on installing insulation in this type of ceiling system; cleaning and maintenance suggestions. Celotex. Circle 307 on reader service card

Also from this manufacturer: a 12page brochure describing Thermax® insulation board. The foil-faced board is fully described with both crosssection illustrations and text. Product construction is detailed, and benefits summarized. Use of the board in a variety of applications is demonstrated: Thermax®, for example, is shown used in a cavity wall system, in furred masonry walls and as exposed finish. Circle 308 on reader service card

And a third publication from this manufacturer introduces the Tuff-RTM insulating sheathing, designed for installation on the sidewalls of a house. Product properties, such as dimensional stability, flammability and aged Rvalues, are summarized in a detailed table. Circle 309 on reader service card

Glass blocks can be used to construct entire walls or to accent walls and partitions. A line of such units are featured in a six-page brochure. Included are four-color photographs showing the glass blocks individually, and in both residential and commercial applications. The variety of patterns available are illustrated as well. Bienenfeld Industries. Circle 311 on reader service card

Insulating properties and light transmission control are two of the advantages of using glass blocks, according to a four-page brochure. Eight patterns are available, each of which is illustrated in photographs and described. A table summarizes such properties as impact strength, sound transmission loss, light transmission, U- and R-values, weights and sizes. Pittsburgh Corning. Circle 312 on reader service card

A new framing system is introduced in a 15-page booklet. The Engineered 24-Inch system uses plywood over lumber framing spaced on a 24" module. According to the manufacturer, structures can be assembled using fewer pieces, and with less labor than in conventional construction. The brochure illustrates how to use the system for floors, roofs and walls; tables summarize allowable clear spans for joists spaced 24" o.c. Three more tables compare in-place costs, installation time, and unit costs with conventional 16" o.c. framing. American Plywood Assn. Circle 313 on reader service card

HOUSING Magazine's Cost Guide offers builders unique cost control

tool.

exclusive quarterly editorial feature which gives builders, contractors, and architects detailed costs of typical houses in key U.S. markets.

HOUSING Magazine's exclusive, editorial feature—THE COST GUIDE published quarterly, will include valuable cost information in these major categories:

- FOUNDATIONS
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- ROOFING
- EXTERIOR WALLS
- PARTITIONS
- WALL FINISHES
- FLOOR FINISHES

- ☐ CEILING FINISHES
- ☐ FIXED EQUIPMENT
- ☐ HVAC
- ☐ PLUMBING
- ☐ ELECTRICAL

Within each category are the costs of labor and materials as well as cost per square foot of living area. Single-family detached homes and townhouses will be covered in alternating quarterly reports to provide a continuing update on each type of housing.

This service for HOUSING's readers is the result of the cooperative efforts of HOUSING's editors and the McGraw-Hill Information Systems Company.

For builders, contractors and architects, HOUSING Magazine's Cost Guide is one more example of McGraw-Hill's vast construction data resources and our commitment to information that leads to action in the housing and light construction industry.

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## Readers debate pension-fund/mortgage issue

HOUSING: Michael Amenta's article on "Should Pension Funds Be Forced To Invest In Housing" [January] is right on target and his points are well taken.

Yes, pension funds should invest more in housing, but isn't it about time our industry stopped looking for government relief every time we have a financial problem?

Isn't it about time all the segments of the industry got together (lenders, mortgage bankers, realtors, builders, etc.) and formed a cohesive and far-reaching task force to tell their story to the pension funds-why housing is a better investment and return than their other forms of alternative investments?

When we sell consumers we compare the return on their money to stocks, bonds, IRAS, KEOGHS, etc. and it works. Let's do this with the pension fund industry and in addition make a guaranteed minimum they can receive or give them an incentive to buy the mortgages or certificates. They do this in the stock and bond industry. . .

I commend HOUSING for taking the lead and opening up with a strong issue for the industry. Why not take the lead and form this industry group to make presentations to the pension funds?

WILLIAM E. BECKER, MIRM, CRA, president The William E. Becker Organization Teaneck, N.J.

HOUSING: I agree completely with Michael Amenta . . .

I am a small builder, employing 15 fulltime employees. In 1981 we built two homes financed by savings and loans; one for a doctor, another for a transferee.

We are not doing anything at this time.

I disagree with President Reagan on his supply side theories.

I strongly believe that we in the building industry cannot be completely stopped-and the U.S. have a healthy economy.

If or when money is available at a reasonable rate, prices will rise.

1966, 1974-1975 are good examples of feast and famine-boom or bust.

> FRANKLIN M. SWING, president Cletus R. Swing Construction Co. Inc. Lexington, N.C.

HOUSING: In response to the article about pension funds being involved in low-rate mortgage, I would like to make a few comments.

The first comment is that I agree with Mr. Amenta 100%.

The second is a factor missed by Mr. Amenta. If the pension funds are regulated into the mortgage business, I believe that whether they are directly or indirectly involved in construction related business, they should be able to offset the losses on their investments by increasing the work force, which should increase the contribution made to the pension funds. The mortgages should increase the number of people working and the number of hours worked. The increased contributions would allow the pension funds to have more money to invest in more areas to increase the earnings of the pension funds. This should help them grow at the same or faster pace in the future.

Third . . . is how to handle the mortgages. If the pension funds do not want to get directly involved in the mortgage business, they should make the money available to the thrift institutions that would like to return to . . . origination. . . . Have the S&Ls finance housing like they did in the past, and maybe we can get on an even keel again in the near future. The mortgages could-or maybe should-be insured by either private insurance companies or an agency of the government.

My final comment is that I apologize for my hand-written letter; but I cannot afford a secretary these days because most of my income is derived from new housing.

> JOSEPH M. FONS, president JMF Construction Corp. Dousman, Wis.

HOUSING: I share Mr. Amenta's frustrations; however, I vehemently disagree with his proposal to alleviate them. He proposes by law to require pension funds to invest in mortgages, regardless of their own wishes in the matter. Why not by law require individuals to save 10% of their income? His proposal may be academic in any case, since it appears that pension funds are now able and willing to invest in mortgages.

Some of Mr. Amenta's other statements also should not go unchallenged. The Federal Reserve Board has every warrant for its actions. It is responsible for the money supply. Rapid growth of the money supply is the direct cause of inflation. Past boards let the money supply grow rapidly to accommodate Congress' deficit spending habits. Putting the Federal Reserve Board under control of Congress is like putting the fox in charge of the hen-house.

Incidentally, interest rates are the price at which demand for money equals the supply of money, so there is no point to the observation that historically interest rates were 3% over the rate of inflation. Paradoxically, because investors/lenders have finally realized the connection between money supply growth and inflation, when the Fed now increases money supply growth, interest rates go up in anticipation of more inflation. Meanwhile, borrowers, including the Treasury, continue to be willing to pay virtually any rate asked. Is it any wonder that our economy is fouled up?

As an alternative to Mr. Amenta's suggestions, I suggest a little prayer, "Lord, grant me patience-Now!"

GERALD R. MUELLER, Chief lending officer Freedom Federal Savings and Loan Assn. Worcester, Mass.

### Tax bill: clarifications on depreciation

HOUSING: In reference to . . . "Will the new tax bill help housing". [Dec. '81], this article states: While component depreciation for real property has been done away with, tangible personal property within a building is considered separate from the building and depreciated over a five-year period. Appliances, rugs, furnishings, many fixtures and other non-real property within an apartment or office building fall into this category; and, besides being depreciated more quickly than the building itself, these items are eligible for the investment tax credit. . .

I am an apartment owner and wish to take advantage of the investment credit on appliances and carpets. However, both the IRS and my tax accountant have informed me that appliances and carpets for apartments are excluded from investment tax credits. My accountant advised me to contact the magazine for further information.

> FRANK FUERST Lakeport, Cal.

Tangible personal property in a non-residential building may be depreciated over five years and is eligible for the investment tax credit, according to Thomas Deliberto, partner and director of tax operations in the Baltimore office of public accountants Touche Ross & Co. In residential buildings, such as apartment buildings, says Deliberto, tangible personal property may be depreciated over five years, but it is not eligible for the investment tax credit. Deliberto notes, however, that in some cases where the occupancy of a residential building is on a temporary basis—a hotel, for instance—the tangible personal property within the building may still qualify for the investment tax credit. A tax attorney or accountant should be consulted for specific cases and questions.

## ...and corporate rates

HOUSING: It should be noted that the corporate rate remains at 30% between \$50,000 and \$75,000; 40% between \$75,000 and \$100,000; and 46% for income over

The constant changes in the tax laws make it difficult for businessmen to stay on top of things. That, coupled with this kind of error, makes the situation impossible.

> TERRY L. MEYER, controller Heritage Homes of Nebraska Inc. Wayne, Neb.

We thank Mr. Meyer for bringing this mistake to our attention. Our article should have said: "No reductions were made in the rates for income between \$50,000 and \$75,000 and the rate remains at 46% for income above \$100,000."

We invite your reaction to the views expressed on these pages-or to anything else that affects your interests and those of the housing industry. Write to: Natalie Gerardi, Editor in Chief, HOUSING, 1221 Ave. of the Americas, New York, N.Y. 10020. Due to space limitations, we reserve the right to edit any letters that we publish.

## Let there be no confusion...



So wrote Perry I. Prentice, Editor and Publisher, in our first issue thirty years ago. No confusion about the role of HOUSING (then House & Home) magazine for its readers. "This magazine," wrote Prentice, "must help architects find a new understanding of the builder's role, help builders learn a new understanding of design, help every professional to a new feeling for

housing economics and finance . . ." Nothing has changed.

A 912-sq.-ft home that sold for \$6.47/sq. ft. was featured in our first issue. An FHA official quoted in the article said: "In FHA's opinion . . . It is the biggest Title I buy we've seen." And the builder, Mrs. Dorothy Shahan, one of two women directors of NAHB, was quoted: "I was so sure — and so determined — that I didn't give up when nearly everyone discouraged me. I simply decided to roll up my sleeves and see what I could prove."

We've come a long way since then. Buyer demographics, financing plans and amenity packages have certainly changed; but your informational needs and our educational responsibilities to you remain the same. Nothing has changed.

In some ways we've even come full circle — for example, we're back to building smaller units. The reasons may differ today, but the need to understand why smaller units are once more desirable and how to design them for today's markets remain the same. So again, nothing has changed.

Many of our readers—some 250,000 last year alone—have "gone to school" in HOUSING—have learned from other builders, have borrowed ideas from our pages. I encourage new readers to do the same. As Managing Editor Vollman says, "Ours is a teaching job for the builder — how to build better, merchandise better, manage better." Nothing has

changed since Prentice spelled out the same commitment 30 years ago.

Downsizing, higher density, continued high land and financing costs - and concurrent high demand - require industry professionals to work together more effectively than ever before to provide affordable and acceptable housing for all market segments. Let there be no confusion about HOUSING's role. This magazine's commitment is to bring together those industry professionals in an educational forum where all many learn and benefit from each other. Nothing has changed.

—G. ROBERT GRISWOLD

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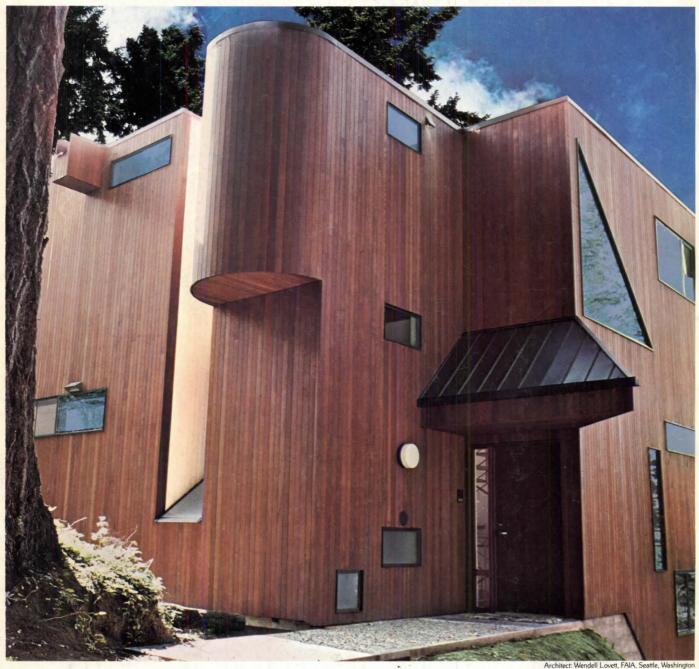
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