

AUGUST 1982

# HOUSING

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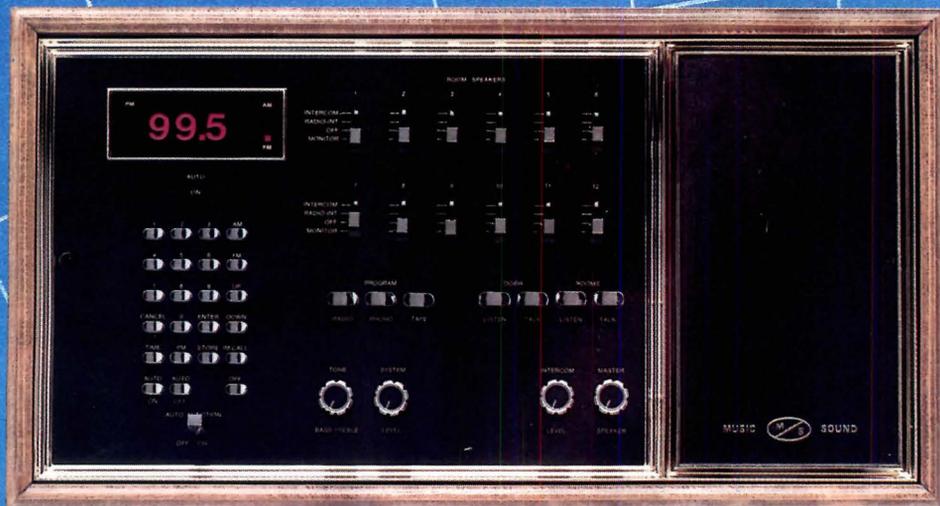
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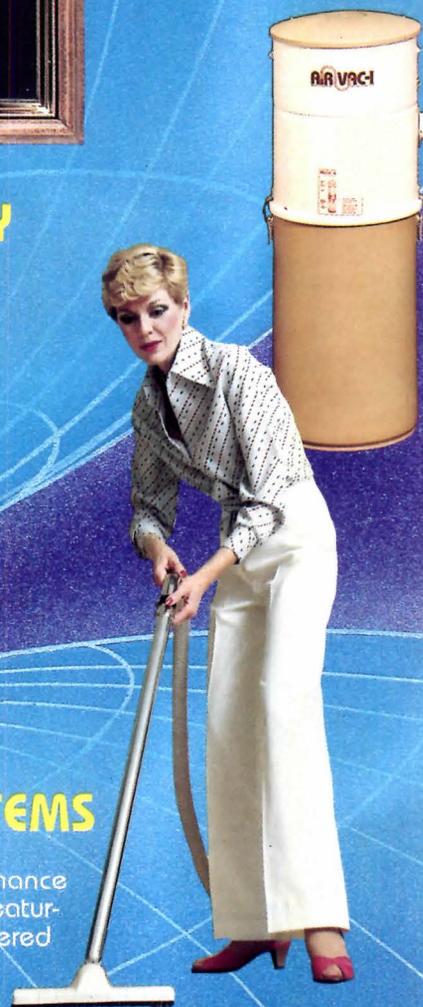
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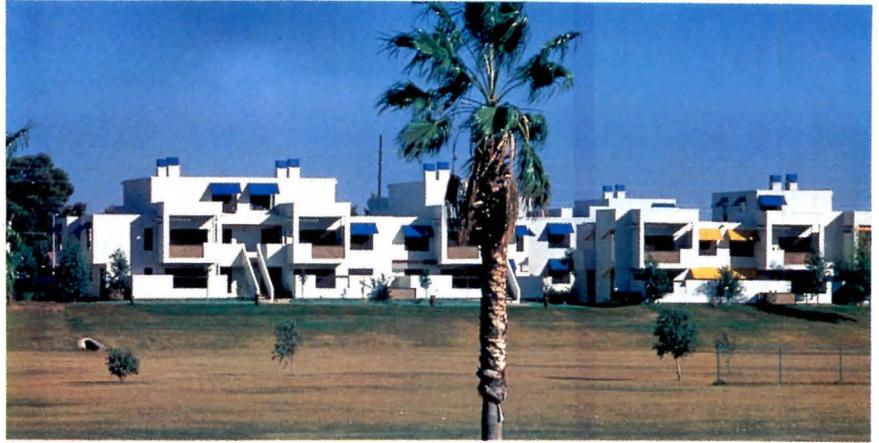


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# HOUSING

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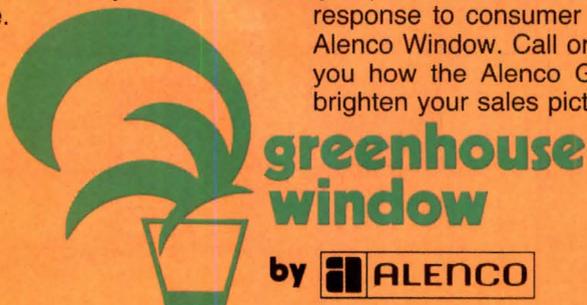
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## Housing's real problem: The confidence factor



"We will not promote a housing recovery by going even deeper in debt." With those words, President Reagan vetoed a bill containing a \$3 billion mortgage buy-down plan—a veto that was then sustained in the House of Representatives.

Doubtless there will be more attempts to get similar help for housing in the next few months, and doubtless the President's stance will remain the same. We must confess to mixed feelings about this, for while we'd like to see some relief for housing we'd also like to see the President's economic program work. So would everyone, which is why there has been so little public outcry even as bankruptcies and unemployment rates soar to their highest levels since the Depression.

We must also admit to some doubts about how well the buy-down program would have worked. The problem for housing is no longer simply high mortgage rates, but the results of three years of high interest: business failures, corporate belt-tightening, unemployment. Anyone who really looks for a housing bargain today—both in price and in terms—can find one. Builders and owners of existing homes are cutting tempting deals just to move their homes. If people aren't buying, it's because they lack confidence in their future. Which is understandable in this economic climate.

Remember, except for corporate transferees who must move, just about the only prospective buyers in the market today are first-timers. Many are dual-income families that could qualify for hefty mortgages; indeed, many are already paying steep rents. The one thing they lack is confidence. Even in the best of times first-time buyers are nervous; today they're downright scared.

Perhaps the mortgage buy-down program would have created confidence among prospective buyers who would have viewed it as a sign that the government wanted to get the economy moving again. Or perhaps it would have backfired, with the financial markets hiking interest rates because they felt the government was caving in to a special-interest group. After all, the buy-down program, despite its provisions for recapture, did smack of programs that many think contributed to our present problems. Which is one reason it's unlikely housing can lead the nation out of this recession.

So it's Catch 22. Housing isn't likely to get moving until the public is confident that a recovery is under way. But that recovery can't be led by housing, which is the one industry that can quickly stimulate numerous other sectors of the economy. The government will have to find some other way to get the economy moving. It's doubtful that the tax cut will accomplish this, because the man on the street can't comprehend why he should have received a tax cut at the same time as Congress was preparing a new tax hike plus a constitutional amendment to require a balanced budget. Nor does he believe the theoreticians who tell us that a recovery is already under way; the unemployment and bankruptcy rates are more convincing. The one thing the average man knows for sure is that the people in Washington don't know what they're doing. And so he's going to sit tight until there's real evidence that the tide has turned. Only then will he start thinking about buying a house. —NATALIE GERARDI



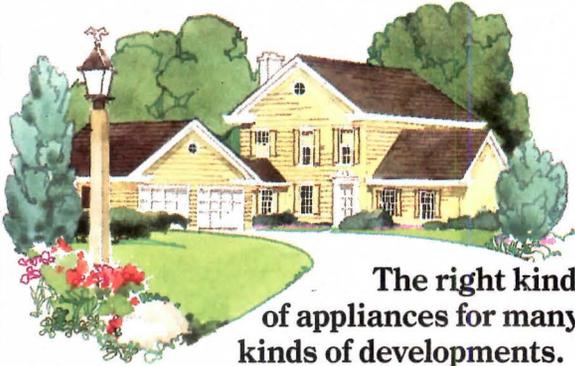
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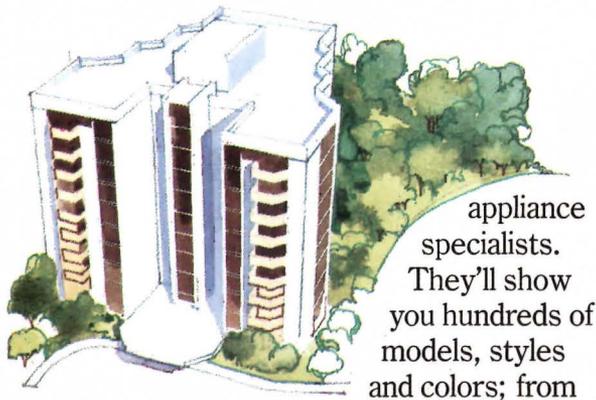
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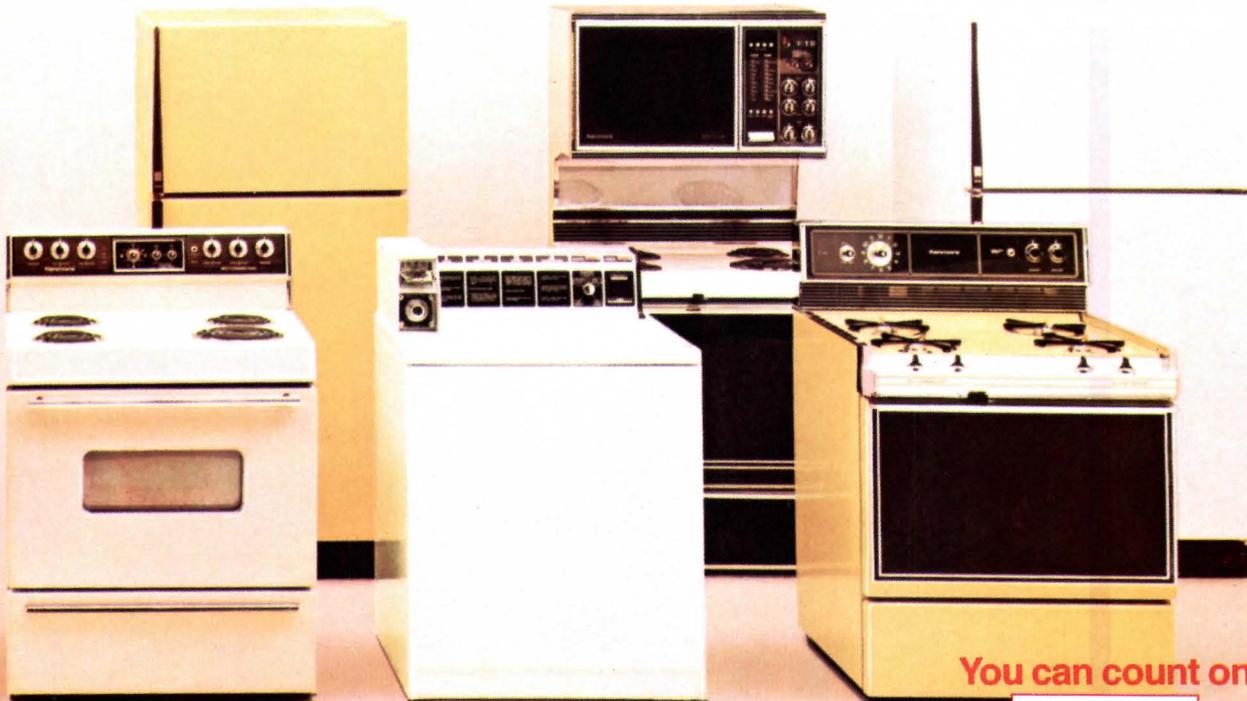
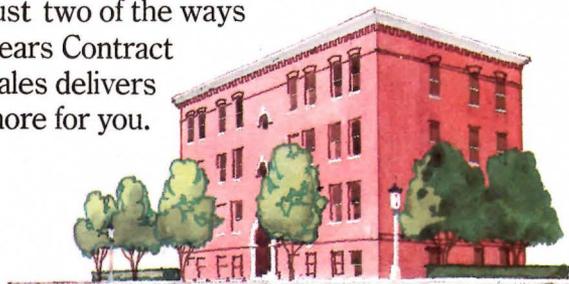
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By taking a tough stand, we're doing something today to change things and help get America rolling again.



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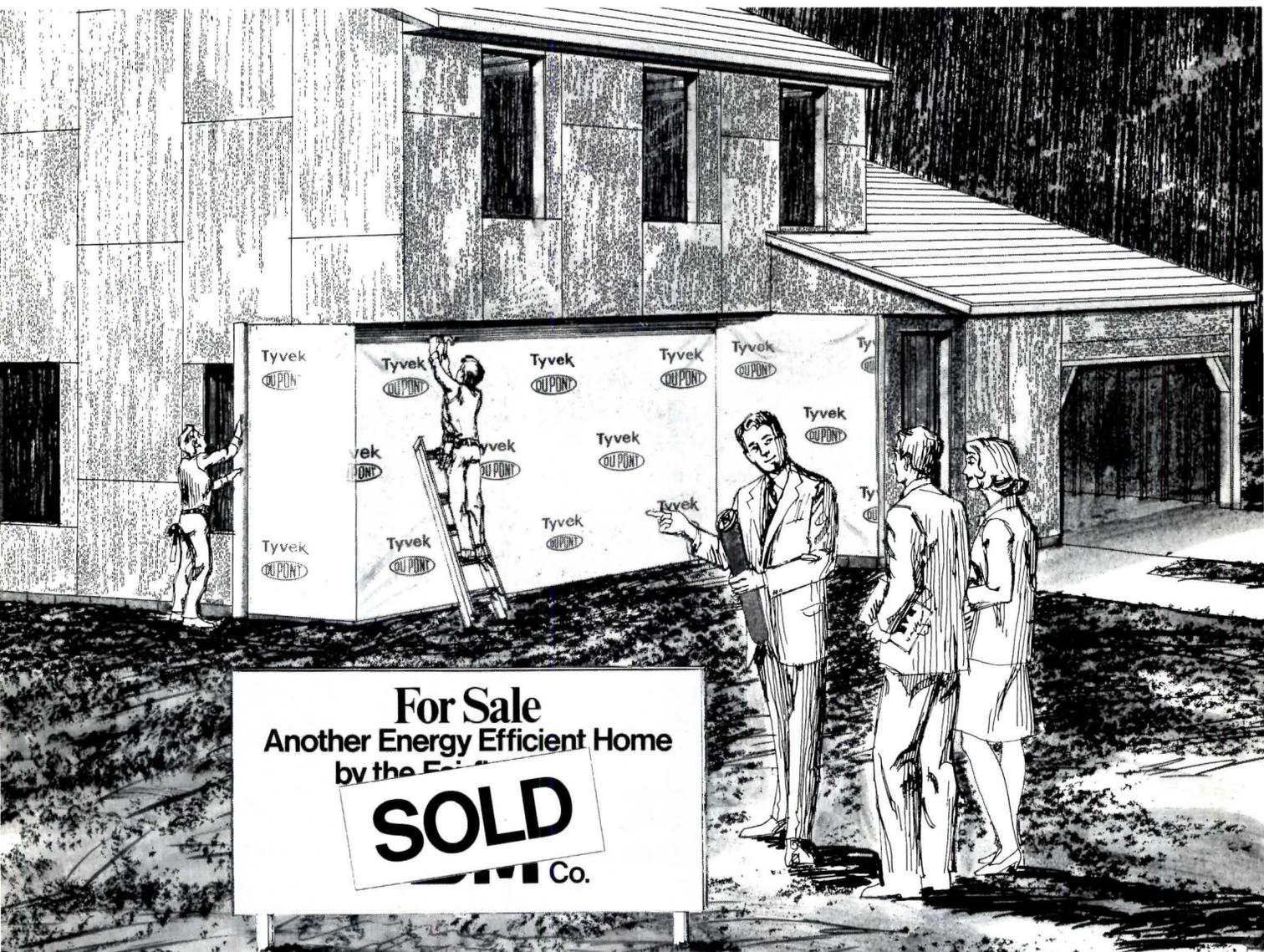
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\*Independent laboratory tests using 2x4 frame wall with 3 1/2-inch, R-11 insulation in 15 mph wind.



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**Homebuyers' woes won't end when the recession does.** That's the word from Chicago Title Insurance Co., which estimates a nationwide housing shortage of 1.85 million units at year's end. The shortfall has been building for the past three years, says John Pfister, vice president and manager of market research. The estimated shortage is based on the number of new households that have been formed each year, which have been "doubling up." Pfister adds: "In the past recessions, you had interest rates dropping sufficiently after a recovery started (so that those who wanted to buy a new house could), but this recession is something different—the drop won't be sufficient to break it loose."

**Two more states, Maine and Rhode Island, have adopted the Uniform Condominium Act** reports the National Conference on Uniform State Laws, while Virginia has amended its condo law to make it "substantially similar" to UCA. States that previously adopted the act, since its completion in 1977, include Minnesota, New Mexico, Pennsylvania and West Virginia. Virginia is also the first state to adopt the Model Real Estate Cooperative Act (MRECA), which extends benefits of UCA to cooperative developers, buyers, lenders and residents.

**Seeking to "replace yesterday's practices with measures that will meet tomorrow's needs,"**

41 organizations have joined forces as A Partnership for Affordable Communities. Among the 41 members—representatives from building, real estate, government, architectural and other industry-related groups. The idea, the new organization says, is to work for streamlined approval processes and find ways to keep construction-related costs down. For more information on the Washington-based group, contact Ral Widner, vice president for research, Urban Land Institute, 1090 Vermont Ave., N.W., Washington, D.C. (202) 289-8500.

**The on-again, off-again Solar Energy and Energy Conservation Bank is on again,** resuscitated by a federal judge in New York. The bank was created by Congress in 1980 to provide subsidized financing for lower- and moderate-income families who wanted to employ solar and other energy-saving measures, but were unable to obtain tax relief under other legislation. The Reagan Administration proposed abolishing the bank when it entered office; initially Congress agreed to halt all funding, but in an about-face, decided to revive the bank. And a suit was filed by a coalition of Congressmen, contractors, environmentalists and the solar lobby to make sure the Administration would order HUD to operate the bank. U.S. District Court Judge Charles S. Haight told the government to present new operating plans by August 30, and to explain next month how it intends to put them into practice.

**Is it a sign of an upturn, or wishful thinking or a return to normal pattern?** Probably the latter, says Lee Van Leeuwen of an increase in the demand for real estate, building and construction executives to 11 per cent of total executive demand in the second quarter. Leeuwen is managing vice president of the real estate division of Korn/Ferry International. The increase was reported in Korn/Ferry's 42nd quarterly National Index of Executive Vacancies. During the quarter, he adds, the demand for real estate executives was highest in the West and Southwest, with continued institutional demand in the Northeast.

**There may be quite a few executives around to fill that demand.** According to Dr. Kenneth R. Abel, partner with Kenneth Leventhal & Co., a national accounting firm, economic problems forced builders to lay off over 30 percent of their executives during the past year. Those executives who remained, he added, received major pay increases. What it all means, he feels, is that the traditional mobility of real estate executives "will probably be somewhat reduced. The way real estate is being developed now involves much larger institutions, bigger projects and the profit the developer ends up with will be less proportionately than it has been in the past." The result: Key executives will find less incentive to move.

# HOUSING HOTLINE

**A further shrinkage in larger centers of population and employment**, combined with further growth in the smaller centers, is forecast in the latest newsletter published by the Federal Reserve Bank of Philadelphia. In an article entitled "From Centralization to Deconcentrations: Economic Activity Spreads Out," Gerald Carlino, a senior economist for Philadelphia Fed, notes: "The very kinds of forces which gave rise to suburbanization also have made rural locations economically attractive." The trend, Carlino writes, is found in every region of the country—in Frostbelt as well as Sunbelt states. Similar trends are occurring in other countries, the report states.

**Thanks to a combination of several economic factors, homebuying is more affordable now** than at any time in the past 12 months. So reports Ticor Mortgage Insurance Co.'s Research Council. The three factors: real personal and family income is up; inflation is down and the "real cost of a home today—as a function of price and financing—is down," says Martin Stadel, Ticor's vice president and director of financial planning.

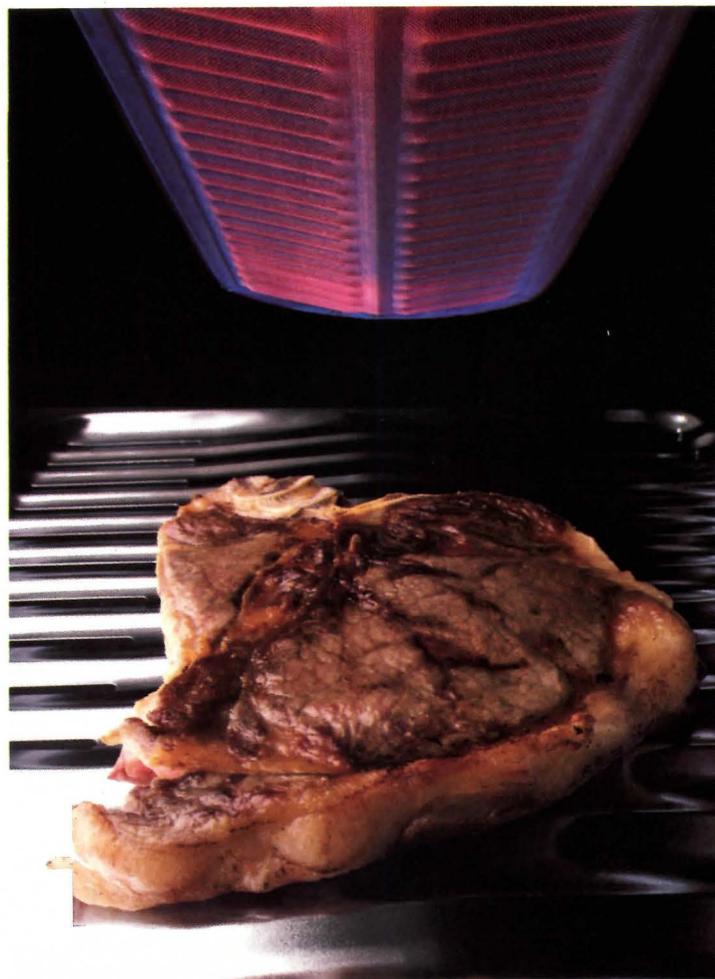
**Is housing's current stepchild—rental construction—about to get a shot in the arm?** Could be, according to a report by Citicorp Real Estate Inc. (CREI) in a monthly survey of benchmark mortgage rates. Although most life insurance companies are still leery of the apartment market—many refusing even to quote rates on such loans—affiliates of a number of commercial banks and investment banking houses are moving into the vacuum selectively, the survey points out. They are organizing to channel pension funds into apartment mortgages with kickers, and in some cases into equity investment in apartments. Most such mortgages will be made in the Sunbelt, the survey says, and will be placed only in areas where there is strong demand for units and no danger of rent control.

**A near match in spending for home improvement and new-home construction during 1981** shows up in the June Status Report, issued by the National Assn. of Realtors. The report, based on U.S. Dept. of Commerce figures, says Americans spent some \$46.5 billion for home improvement last year, while the value of new-home construction was running at a \$50 billion annual rate. What's more, the figures for home improvement don't take into consideration the amount of do-it-yourself labor involved, notes Dr. Jack Carson, NAR's chief economist and executive vice president. The largest share—\$20.4 billion—went for additions and alterations to existing units. Another \$16.1 billion was spent to maintain or repair such items as plumbing and heating systems and for painting and roofing work. The balance was paid out to replace major systems.

**It's not often that anything's offered free these days**, but use of Banco Mortgage Co.'s computerized loan finder service is being offered to all developers on that basis. The Instant Lender System, the company says, contains current information on lenders throughout the country, so Banco can search throughout the U.S. for financing deals that best fit a developer's individual requirements. The system will be in operation at the company's offices in Chicago, Dallas, Denver, Des Moines, Kansas City, Milwaukee, Minneapolis/St. Paul and Omaha.

**A modest decrease in home mortgage delinquency rates during the first quarter of 1982** is reported by the National Assn. of Mutual Savings Banks—a trend running counter to that reported last month by Mortgage Bankers Assn. of America. The latest NAMSBS survey showed the number of delinquent loans represented 0.69 percent of the total number of home mortgage loans held by savings banks at the end of March, a drop from the 0.72 percent rate registered at the end of 1981. And the drop was reflected in all types of mortgages: conventional mortgage delinquencies declined from 0.57 percent to 0.55 percent; FHA loan delinquencies decreased from 1.03 percent to 0.97 percent; and VA loan delinquencies fell from 0.75 percent to 0.71 percent.

# Neither rain, nor snow, nor gloom of night can stop this charbroiled steak from getting to your customer's table.



Let's face it. Nothing makes a steak taste better than broiling it over an open charcoal grill outdoors. But sometimes it rains. And sometimes it snows. And sometimes your customer comes home too late to wait for charcoal to heat up.

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**Scheirich has done it with quality cabinets and on-time delivery.”**

George Smith, Vice-President  
Cloverleaf Properties,  
Indianapolis, Indiana

With all the rental units we've been building, we've needed not only good-looking cabinets, but well-constructed cabinets as well. And just as important, we've needed them on the dates we've specified. With Scheirich cabinets and their distributor, Phil Trimpe Associates here in Indianapolis, we've had both.

“I've looked at a lot of cabinets and Scheirich's Gardencourt line is the best cabinet for our units. Why? Because we've had very few call-backs, and that's something I can't say about other cabinet suppliers we had before Scheirich.

“And with the number of units we build, the cabinets have had to be there. Scheirich and Trimpe have never let us down.

“The advantages of Scheirich haven't stopped

with the construction end of things either. The Gardencourt cabinets have a vinyl covering that we've found really protects and maintains the cabinet finish long after the apartments have been rented, not to mention during construction.

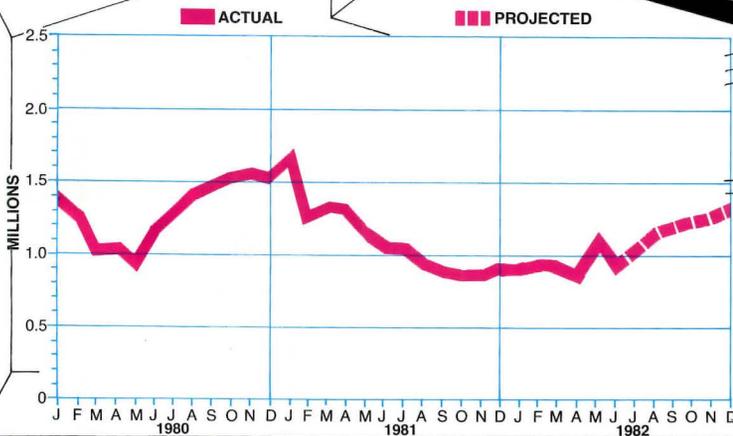
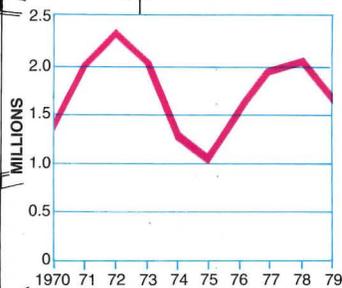
“Quite frankly, I believe the good looks of Scheirich cabinets have really helped rent the apartments for us. And that's what it's all about, isn't it.”

**SCHEIRICH** CABINETRY  
FINE FURNITURE FOR THE KITCHEN AND BATH



One of the leading multi-family development firms in the Midwest, Cloverleaf Properties specializes in the construction of well-built middle-income rental units. Most complexes are in Indiana, but Cloverleaf also has built developments in Missouri, Illinois, West Virginia, Florida and North Dakota. Units range in size from one and two bedroom apartments to two, three and four bedroom townhouses. Currently four projects are under construction totaling 275 units with Scheirich cabinetry used throughout.

## Housing Starts The Long-Term Picture



June's gloomy starts report should not overshadow some silver linings: First, the Federal Reserve has eased up on monetary policy and interest rates are backing down, as we had predicted. Second, there is real improvement in the offering for savings flows. In addition, the erratic starts data lately should not mask the fact that building activity has been

averaging higher—despite adverse financial markets. Realistically, of course, a recent setback has been the Supreme Court's due-on-sale ruling (*see page 19*). And interest rates will be under pressure again soon as the Treasury borrows \$100 billion or so. But demand for new housing is going to hold, with starts around a 1.25 million rate by year end.

**Homebuilding backtracked by 15.3%** in June to a 911,000 annual rate. Between faulty seasonal adjustment factors and May's outsized jump in multifamily starts, the whipsaw was expected. Single-family slipped a modest 3.8% and the two-to-four unit category essentially held its own. But the five-or-more-unit grouping skidded by 39.2%. To be sure, the bad news cannot be discounted: The bellwether South region's rate plunged by nearly 24%—a real blow to the solar plexus. And Northeast activity plummeted over 21%. But the North Central region held its own and starts rose slightly in the West. Permits data probably give a better reading of the true trend: June's total edged up by 0.4%, single-family by 6.4%. The weakness was in multifamily: a drop of 7.8% for two-to-four-unit buildings; 5.4% in the five-or-more-unit category. Second-quarter starts were at a 956,000 annual pace—3.9% ahead of the first quarter after seasonal adjustment and 10.5% over the nadir reached in 1981's closing period.

**A 13.3% rebound in sales** of new single-family homes in May was doubly welcome. The 391,000 yearly sales pace was the best since January, and April's rate was revised upward, showing a more modest 10.4% decline. May sales brought the stock of houses on the market to 8.1 months of present sales, lowest since the end of 1981. A 2.9% climb in the average sales price to \$88,100, coupled with a decline in the median sales price, suggests a genuine broadening in demand for new homes. Sadly, the market for existing homes failed to quicken, as sales were unchanged, but prices rose 1.9% to \$80,900. Mobile-home shipments slipped to a 246,000 annual rate, but some of that deterioration may stem from the pickup in demand for lower-cost stick-built houses.

### Construction Activity

In Thousands of Units/Year <sup>(7)</sup>

	6/82	5/82	6/81	Change From Previous Mo.	Change From Year Ago
<b>Private Housing Starts</b>	911	1,075	1,046	-15.3%	-12.9%
Single Family	607	631	705	- 3.8	-13.9
Two-to-Four Unit Bldgs.	88	89	89	- 1.1	- 1.1
Other Multifamily	216	355	252	-39.2	-14.3
<b>Total Building Permits</b>	948	944	986	+ 0.4	- 3.9
Single Family	519	488	573	+ 6.4	- 9.4
Two-to-Four Unit Bldgs.	94	102	109	- 7.8	-13.8
Other Multifamily	335	354	304	- 5.4	+10.2
	<b>5/82</b>	<b>4/82</b>	<b>5/81</b>		
<b>Private Housing Completions</b>	1,107	962	1,299	+15.1%	-14.8%
Single Family	651	594	879	+ 9.6	-25.9
Two-to-Four Unit Bldgs.	91	83	110	+ 9.6	-17.3
Other Multifamily	365	285	310	+28.1	+17.7
<b>Private Units Under Construction</b>	669	674	889	- 0.7	-24.7
Single Family	385	394	505	- 2.3	-23.8
Two-to-Four Unit Bldgs.	44	44	64	0.0	-31.3
Other Multifamily	240	237	320	+ 1.3	-25.0

### Market Activity

Annual Rate

	5/82	4/82	5/81	Change From Previous Period	Change From Year Ago
<b>New Single-Family Sales<sup>(7)</sup></b>	391,000	345,000	481,000	+13.3%	-18.7%
Average Sales Price <sup>(7)*</sup>	\$88,100	\$85,600	\$83,600	+ 2.9	+ 5.4
<b>Backlog of New Homes<sup>(7)</sup></b>	8.1 mo.	9.3 mo.	8.2 mo.	- 1.2	- 0.1
<b>Existing Home Sales<sup>(6)</sup></b>	1,910,000	1,910,000	2,580,000	0.0	-26.0
Average Sales Price <sup>(6)*</sup>	\$80,900	\$79,400	\$78,600	+ 1.9	+ 2.9
<b>Mobile Home Shipments<sup>(7)</sup></b>	246	255	262	- 3.5	- 6.1
	<b>1982 1st Qtr.</b>	<b>1981 4th Qtr.</b>	<b>1981 1st Qtr.</b>		
<b>Spending on Home Repair, Etc. (billions/year)<sup>(7)</sup></b>	\$42.9	\$46.1	\$45.6	- 6.9%	- 5.9%

## Construction Cost Indices

1967 = 100

	6/82	5/82	6/81	Change From Previous Mo.	Change From Year Ago
<b>Wholesale Price Index—</b>					
<b>All Construction Materials</b> <sup>(6)*</sup>	294.2	293.4	289.6	+ 0.3%	+ 1.6%
<b>Asphalt Paving</b> <sup>(6)</sup>	574.5	582.1	610.1	- 1.3	- 5.8
<b>Portland Cement</b> <sup>(6)</sup>	338.5	338.5	330.9	0.0	+ 2.3
<b>Softwood Lumber</b> <sup>(6)</sup>	326.6	320.5	357.0	+ 1.9	- 8.5
<b>Plywood</b> <sup>(6)</sup>	238.9	230.6	251.5	+ 3.6	- 5.0
<b>Plastics Products</b> <sup>(2)</sup>	148.6	145.7	155.4	+ 2.0	- 4.4
<b>Production Index—Construction</b>					
<b>Supplies</b> <sup>(4)*</sup>	121.5	122.4	143.4	- 0.7	-15.3
<b>Construction Employment (000)</b> <sup>(6)*</sup>	3,952	3,994	4,185	- 1.1	- 5.6
<b>Unemployment Rate—Constr.</b> <sup>(6)</sup>	19.2%	18.8%	16.1%	+ 0.4	+ 3.1
<b>Hourly Constr. Earnings Index</b> <sup>(6)</sup>	139.9	139.7	130.9	+ 0.1	+ 6.9
	<b>5/82</b>	<b>4/82</b>	<b>5/81</b>		
<b>New Materials Orders (000)</b> <sup>(7)</sup>	\$11,446	\$10,741	\$12,755	+ 6.6%	-10.3%
<b>Materials Shipments (000)</b> <sup>(7)</sup>	\$11,745	\$11,279	\$12,812	+ 4.1	- 8.3

## Financial Activity\*

	5/82	4/82	5/81	Change From Previous Mo.	Change From Year Ago
<b>Net New Deposits, S&amp;Ls</b>					
(millions) <sup>(3)</sup>	(\$ 279)	(\$ 5,205)	(\$ 70)	(\$4,926)	(\$ 209)
<b>Outstanding S&amp;L Mortgages</b>					
(millions) <sup>(3)</sup>	\$16,550	\$16,304	\$18,635	+ 1.59%	- 11.2%
<b>Mortgage-Backed Securities—</b>					
<b>S&amp;Ls (millions)</b> <sup>(3)</sup>	\$43,768	\$42,356	\$29,284	+ 3.3 %	+49.5%
<b>Net New Deposits—Mutual</b>					
<b>Savings Banks (millions)</b> <sup>(5)</sup>	(\$ 650)	(\$ 1,800)	(\$ 676)	(\$1,150)	(\$ 26)
	<b>6/82</b>	<b>5/82</b>	<b>6/81</b>		
<b>Effective Mortgage Commitment</b>					
<b>Rate (Convent., 25-yr., 75%)</b> <sup>(3)</sup>	17.17%	17.28%	16.82%	-0.11	+0.35
<b>Atlanta</b>	16.92	17.05	16.81	-0.13	+0.11
<b>Boston</b>	17.20	17.40	17.17	-0.20	+0.03
<b>Chicago</b>	17.72	17.72	17.41	0.0	+0.31
<b>Dallas/Ft. Worth</b>	16.48	16.52	16.24	-0.04	+0.24
<b>Denver</b>	17.47	17.43	17.09	+0.04	+0.38
<b>Los Angeles</b>	16.77	17.33	17.01	-0.55	+0.24
<b>Miami</b>	16.98	16.92	16.57	+0.06	+0.41
<b>Washington, D.C.</b>	16.96	17.15	17.15	-0.19	-0.19
	<b>9/83</b>	<b>3/83</b>	<b>9/82</b>		
<b>Ginnie Mae—8% Futures</b>	15.390	15.296	15.076	+0.220	+0.314
<b>Contract— % Yield</b> <sup>(1)</sup>					

## General Economic Indicators

	6/82	5/82	6/81	Change From Previous Mo.	Change From Year Ago
<b>U.S. Industrial Production Index</b>					
(1967 = 100) <sup>(4)</sup>	138.4	139.4	152.9	- 0.7%	- 9.5%
<b>Personal Income</b>					
(billions of dollars) <sup>(7)</sup>	\$2,561.4	\$2,552.7	\$2,398.4	+ 0.3	+ 6.8
<b>Savings Rate</b> <sup>(7)</sup>	6.7%	6.6%	6.3%	+ 0.1	+ 0.4
<b>Total Employment (millions)</b> <sup>(8)</sup>	99.764	100.117	100.430	- 0.4	- 0.7
<b>Unemployment Rate</b> <sup>(8)</sup>	9.5%	9.5%	7.4%	0.0	+ 2.1
<b>Wholesale Price</b>					
<b>Index (1967 = 100)</b> <sup>(6)*</sup>	299.4	298.6	294.8	+ 0.3	+ 1.6
<b>Retail Sales (billions of dollars)</b> <sup>(7)</sup>	\$89.301	\$90.682	\$87.299	- 1.5	+ 2.3
<b>Domestic New Car Sales</b>					
(millions/year) <sup>(7)</sup>	4.594	6.276	5.302	-26.8	-13.4
	<b>5/82</b>	<b>4/82</b>	<b>5/81</b>		
<b>CPI (1967 = 100)</b>	287.1	284.3	269.0	+ 1.0	+ 6.7
<b>CPI - Home Ownership</b>	377.4	370.6	345.0	+ 1.8	+ 9.4

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.

**Bouncing along rock bottom** is the best that can be said for construction suppliers. Orders for materials and supplies surged by 6.6% in May and shipments rose 4.1%. And, June's wholesale prices for construction products actually encourages optimism, rising 0.5% after seasonal adjustment. Higher quotes were posted for such key products as plywood, softwood lumber and plastic wares. But sadly, suppliers once more slashed their output by 0.7%—the nadir thus far in this recessionary debacle—a rout amounting to 18.5% since March, 1982. Labor data support the notion of a weak June. Employment in construction fell by a hefty 1.1% and the rate of joblessness for building trades climbed to 19.2%—probably an understatement as many gave up looking for work. One saving grace: moderation in construction wages as the hourly earnings index advanced only 0.1%, less than the all-industry composite.

**The Fed has eased up** and short term rates are tumbling. Three-month T-bills have shed 200 basis points almost overnight. Thus the yield curve is positive again. And this promises to take some of the sting out of the cost of new funds to mortgage lenders. While we are glad to see our longstanding forecast come in right on target, there are a few sour notes. Some of the improvement in government yields stems from the flight to quality as investors are thoroughly shaken by Drysdale and Penn Square. More ominously, the present respite will be all too short. The Treasury will be borrowing an additional \$100 billion to year's end. Also, watch for the next round of estimates to scale up the federal deficit. In addition, a record \$27 billion in pending issues hangs over the corporate bond market, keeping the heat on long-term rates. And finally, the Fed's woes will revive as money supply growth picks up. More optimistically, a resurgence in personal saving will be showing up in deposit flows to mortgage institutions, especially as money market fund yields decline.

**Real GNP rose at a 1.7% annual rate** in the second quarter, but anyone who calls that a recovery is kidding himself. June was a wipe-out as industrial output fell 0.7%, while retail sales slumped 1.5%. Advance reports show that new-car sales plunged in early July—a grave sign. Clearly, this is going to be a peculiar recovery—and a weak one! In fact, some of the latest drop in interest rates can be ascribed to slackening private credit demands. The heavy industrial sector has been devastated. Investment is in a free-fall—dropping at a 20% yearly clip. The U.S. steel industry has retreated to Great Depression levels. Thus the recovery is due to be anemic—around 2% to 3% over the next 12 months. But there will be an upturn. The tax cut and boost in Social Security payments are pumping in too much purchasing power for the economy not to be affected. And the latest interest rate retreat will contribute a mild salutary impact. But such a lackluster recovery promises a large harvest of bankruptcies over the next 12 months.



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## Thrifts will negotiate in due-on-sale cases...

Mortgage lenders, armed with new leverage from the Supreme Court, say they will be moving cautiously in the months ahead in calling in existing, low-yielding mortgages as houses are resold.

The thrifts have been fighting a long battle to keep home sellers from passing on their mortgages to the new buyers. But until late in June lenders had been severely hampered by laws in 18 states. On June 18, the Supreme Court ruled that federal regulations permitting federally chartered thrifts to call in a mortgage are paramount. By some estimates, as many as 70 percent of the sales of existing homes in 1981 involved some sort of "creative financing," in which assumption of the existing mortgage was often a crucial element.

**Compromise rate.** But the initial beneficiaries of the Supreme Court ruling—executives of the nation's 1,880 federally chartered savings and loan associations—say they have no intention of killing that type of creative financing. The S&Ls will probably negotiate some sort of "blended rate that is higher than the rate of the existing loan—7%, for example—but lower than today's going rate of 16% or 17%. The reason, executives say, is that demanding the top rate could well kill the deal and keep the existing low-yielding mortgage on the S&L's books. By offering a blended rate—13%, for example—an institution would be improving the yield on its mortgage portfolio substantially. [Such compromise action was called

for by William D. North, senior vice president and general counsel, National Assn. of Realtors: "We urge accommodation and the blending of mortgage and market rates," he said.]

### Due-on-sale ruling called beneficial

More mortgage money at lower rates is what Dr. Mark J. Riedy anticipates from the Supreme Court's recent decision.

The executive vice president of the Mortgage Bankers Assn. of America allowed that some people would see the ruling as anti-consumer. But, he added, assumability benefits only a small group in the short run while helping escalate mortgage prices for everyone else over the long pull.

"If lenders continue to lose money on loans, to stay in business they will have to recoup . . . by charging a higher rate on new mortgages," Riedy says. "Thus, first-time homebuyers or those who purchase new or existing homes without assumability, end up paying for the real costs of assumability."

Riedy also pointed out that because of the national secondary market for mortgages which provided over half of all funds for mortgages in 1981, mortgage assumability in certain states and not others restricts the availability of mortgage money and raises its costs where those restrictions exist. □

And even though the federally chartered institutions are the ones to benefit most directly from the Supreme Court decision, the impact is likely to extend eventually to all conventional mortgage loans (FHA and VA loans are not affected because they are, by law, assumable).

**Defections.** In the past year or so nearly a dozen S&Ls in California alone converted to federal charters to take advantage of what they consider more sympathetic regulation. The process, which is relatively easy, would certainly pick up steam across the country should state authorities refuse to make whatever changes are necessary to permit the nation's 1,797 state-chartered thrifts to demand payment of a mortgage when a home is sold. And Senate Banking Committee Chairman Jake Garn (R-Utah) is pushing legislation that would permit all mortgage lenders, including commercial banks, to prohibit assumption of mortgages. What's more, the Federal Home Loan Mortgage Corp. says it also will prohibit assumption of mortgages covered by the Supreme Court Decision.

Ultimately, the impact of the decision will be to improve earnings at thrift institutions, thereby making more money available for home loans. Federal Home Loan Bank Chairman Richard D. Pratt estimates the ability of all S&Ls to call in mortgages as homes are sold would cut the thrifts' losses by up to \$1.3 billion over the next two years. —DAVID WALLACE

*McGraw-Hill World News, Washington*

## ...And they get a new short-term C.D. source of funds

Beginning next month the nation's thrifts and commercial banks will have a new way of competing with the burgeoning money market funds. More specifically, they will be permitted to offer a short-term account (running from seven days to a month) with interest rates pegged to three-month treasury bills, which were yielding 13.3% at the time the Depository Institution Deregulation Committee (DIDC) approved the new account. The exact maturity term for the new account will be up to each lender.

Under the program, commercial banks' short-term C.D. accounts will carry slightly less attractive interest rates than those of the thrifts: The latter can pay the full equivalent of the

three-month bills, while the commercial banks are restricted to paying at least a quarter of a percentage point less.

These rates are higher than those paid on passbook savings and the same as on a three-month deposit at the institutions.

**Pros and cons.** Yields on the new account will be close in most instances to what the money market funds pay; but there will be two drawbacks. For one thing, the new account requires a minimum balance of \$20,000, far more than the \$1,000 or so minimum deposit required for opening a money market fund. Secondly, the newly sanctioned account will not offer checking privileges, an attractive fea-

ture of the money market funds.

The five-member deregulation committee, which was constituted by Congress to oversee the gradual elimination of interest rate ceilings on deposits, balked at providing an account fully competitive with the money funds on the grounds that until thrifts are able to make commercial and other shorter-term loans, they could not be expected to take highly liquid, high-rate deposits. The committee, which is chaired by Treasury Secretary Donald T. Regan, indicated that it would be more willing to introduce a money fund-style account if Congress approves legislation that is pending, which would expand the thrifts' lending powers. —D. W.

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## **BUYDOWN MORTGAGES**

In a buydown, the seller, builder, the buyer's relatives, or even the buyer makes a lump sum payment to the lender at the time the loan is originated. This sum is used to lower the buyer's payments during the early years of the loan. Fannie Mae was the first national investor to qualify buyers on the reduced payments. In our new, expanded program, we will offer both temporary and permanent buydowns. The allowable temporary buydown period has been extended to 10 years, and the amount of the buydown may be considerably larger than in the past. In addition, Fannie Mae will purchase permanent buydowns, which reduce the interest for the entire life of the loan.

Fannie Mae is now purchasing mortgages that combine adjustable rate mortgage (ARM) plans and buydown provisions, further adding to the affordability of these loans. The terms of Fannie Mae buydowns are purposely flexible, to accommodate each individual situation.

## GRADUATED PAYMENTS ON ARMs

An alternative method of lowering monthly payments in the early years of a loan is the graduated payment option on Fannie Mae's six-month, three-year and five-year adjustable rate mortgages. This means that a buyer is able to defer part of the usual payment to later years, thus reducing the initial monthly payments and lowering the amount of annual income needed to qualify for a loan.

## LAND LEASES

Under land lease plans, buyers finance only their homes and rent the land with the option to purchase it at a later date. Down payments are lower and monthly payments are also often less than with a completely financed purchase. Fannie Mae now purchases mortgages with land lease arrangements.

## A BUYDOWN VS. A 30-YEAR FIXED RATE MORTGAGE

LOAN AMOUNT: \$67,000			INITIAL INTEREST RATE: 16.5%		
<b>WITH A 3-2-1 BUYDOWN</b> Annual Income Required: <u>\$37,200</u> Lump Sum Buydown Payment: \$3,632			<b>WITHOUT A BUYDOWN</b> Annual Income Required: <u>\$44,100</u>		
Year	Effective Interest Rate to Borrower	Borrower's Monthly Payment	Year	Effective Interest Rate to Borrower	Borrower's Monthly Payment
1	13.5%	\$767.43	1-30	16.5%	\$928.05
2	14.5%	\$820.45			
3	15.5%	\$874.03			
4-30	16.5%	\$928.05			

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## Are subs employees? Congress asked for rules

New legislation to define the tax status of independent contractors—supported by various housing groups—is beginning to move through Congress.

The bill, introduced this spring by Senate Finance Committee Chairman Robert J. Dole (R-Kans.), won that committee's approval and was incorporated into a broader tax-raising measure. Dole's bill includes a so-called "safe harbor" provision, of concern to the National Association of Home Builders, which in earlier hearings before the House subcommittee on select revenue measures had urged Congress to bring construction subcontractors more clearly under independent-contractor status with such a provision.

The distinction between independent subcontractor and employee makes a substantial difference in the way federal tax liabilities are handled. If a worker is classified as an employee, the employer must then withhold for each pay period a portion of wages to satisfy all, or part, of the employee's income tax liability.

The employer must also pay federal unemployment taxes, and both employer and employee must pay social security taxes. On the other hand, when a worker is classified as an independent contractor, he is self-employed and therefore not subject to income tax or social security tax withholding; there is also no unemployment tax involved. The worker, of course, then makes periodic income and social security tax payments on his own.

**What's in a name?** Under present law, the classification of workers for tax purposes generally is determined by common (non-statutory) law. Under common law, if a person engaging the services of another has "the right

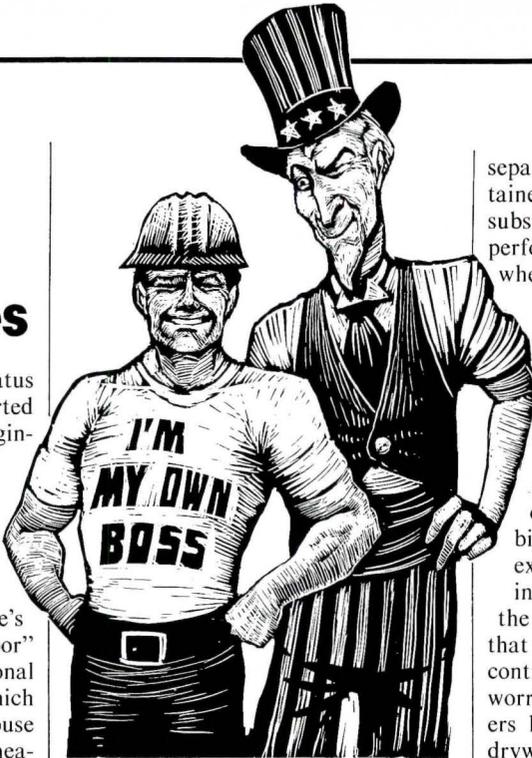


ILLUSTRATION: DAVID G. KLEIN

to control and direct the individual who performs the services, not only as to the result to be accomplished by the work, but also as to the details and means by which the result is to be accomplished," then the relationship of employer and employee exists.

Over the years, numerous controversies have arisen between the Internal Revenue Service and both employers and taxpayers as to the proper classification. The Revenue Act of 1978 provided some relief. In general, it said that the IRS could not punish employers for tax-law violations where the employer could show a reasonable basis for treating workers as other than employees. In addition, the 1978 act prohibited the issuance of IRS regulations and rulings based on common law employment status. These interim relief measures were to expire June 30, however.

As a result, several bills have been introduced in Congress providing a so-called "statutory safe-harbor test" for determining independent-contractor status. Among the tests set up by the various bills are such things as who controls the hours worked, whether a

separate place of business is maintained, whether the individual has a substantial investment in assets used in performing the work involved, and whether a written contract is required for the work.

**NAHB cites problems.** In recent testimony, NAHB urged adoption of some form of safe-harbor legislation, saying the current definition of independent contractor is governed by some 20 common-law tests that can be both "confusing and ambiguous." But it urged Congress to exercise care in the rules it writes into law. NAHB noted, for example, the requirement in some proposals that the independent contractor must control his own hours of work. What worries NAHB is that when homebuilders hire teams of subcontractors like drywall installers, carpenters, painters and plumbers—who are in fact independent—typically they must fit in an overall construction schedule in a particular order; hence, cautions NAHB, the "own-hour" provision would not be met.

A similar dilemma crops up with the test that says an independent contractor has to maintain his own principal place of business; subcontractors, in fact, sometimes work out of trailers at the site.

NAHB says that legislation should take into account "the working conditions particular to the homebuilding industry." If not, "homebuilders would be vulnerable to tax rulings that could play havoc with the entire wage and tax structure of the industry," NAHB said in a statement.

**Remodelers seek twin rules.** The recently merged National Remodelers Association/National Home Improvement Council, now known as the National Assn. of Remodeling Industry (see page 26), urged adoption of the "safe-harbor" approach as well as retention of the common law test in any legislation. Safe harbor would give certainty in tax status to "independent contractors who are able to satisfy the five strict requirements outlined in the bill," said NRA/NHIC Vice President Randolph J. Seifert. "By retaining the common law test, it will not foreclose independent-contractor status to an individual who may not meet all five 'safe-harbor' provisions. This safe-harbor approach is important because it would be virtually impossible to design one specific legislative proposal to clearly meet the needs of all the numerous occupations and industries affected by the issue," he added.

—PETER HOFFMAN

McGraw-Hill World News, Washington

## Davis-Bacon rules overhauled by labor department

Revisions in the way the Davis-Bacon Act is administered will "eliminate many of the procedures and practices that have made the outmoded Davis-Bacon legislation a burden on taxpayers and the construction industry alike," in the view of Hubert Beatty, vice president, Associated General Contractors, an industry trade group.

Construction industry groups have

long pushed for outright repeal of the act, the authority for establishing minimum rates, based on the "prevailing wage" concept, for wages and benefits paid to workers on construction projects financed by the federal government. The industry complained that, as interpreted by the Department of Labor, the prevailing wage rate had

Continued on page 28



**GE didn't design so many popular features into one refrigerator just to impress home builders. We did it to impress home buyers.**

**1**  
**General Electric**  
**No-Frost 17**  
**refrigerator.**

If you want a refrigerator with the features that home buyers want most, the No-Frost TBFM17V General Electric is your answer.

It's a family-size refrigerator with an extra freezer to meet today's needs. A built-in icemaker? It's the fastest growing feature you want, and we've got it—fact or fiction. Adjustable shelves? We have them. Storage flexibility.

**WE BRING GOOD THINGS TO LIFE.**

**GENERAL ELECTRIC**

And to top it all off, we've even put wheels on the bottom for easier installation and cleaning.

Capitalize on the growing trend for these features by including the GE No-Frost 17 in your kitchens. You'll be giving buyers the features they want. And a brand name they can trust. The No-Frost 17 from GE could be helping you sell homes right now. Just call your General Electric contract supplier.

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Introducing the Andersen box bay. Space-savings,  
energy-savings and work-savings...in one beautiful package.

Come  
home.to  
quality.



# Come home to Andersen.™

Did you say space-savings?

Yes. The bay's sides are 90° to the house. This reduces the width of the opening. To as little as 50". Yet a high wide view still comes home. You're saying less is more?

We're saying this Andersen box bay is ideal for your space-conscious new homes, remodeling and window replacing.

And the energy-saving claim?

Fact not claim. This window is made of naturally insulating wood and uses double-pane insulating glass to reduce conducted heat loss through the glass area by almost 50%, compared to a single-pane window without storms. This energy efficiency can mean year-round fuel savings for your customers.

That alone won't sell them.

Then consider this. Covering the wood core of the window is a layer of thick rigid Perma-Shield® vinyl. The vinyl (available in white or Terratone color) resists installation damage. Ends staining and priming for your crew. Ends scraping and painting for your customers. Saves work for everyone.

Nice. But everything sounds good in an ad.

Then go see your Andersen distributor or dealer. They're in the Yellow Pages under Windows. Tell them we sent you.



**Andersen Windowalls**  
ANDERSEN CORPORATION BAYPORT, MINNESOTA 55003



**Come home**

to more information on the Andersen box bay. Mail coupon to Andersen Corp., Box 12, Bayport, MN 55003.

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Area Code

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## Going, going, gone: U.S. to sell 'surplus' land

Hundreds of valuable federal real estate parcels in urban, suburban, and rural areas will be sold under a new Reagan-sponsored program that's designed to "help stimulate local development," according to Edwin Harper, chairman of the Administration's Property Review Board. The board was created by the President this year to "move systematically to reduce the vast federal holdings of surplus land and real property. . . ."

The program, which is being actively supported by the National Assn. of Realtors, among others, has already stimulated the listing of 485,000 acres in "urbanizing areas" by the Dept. of Interior's Bureau of Land Management—including 12,280 acres in Eastern states.

The Review Board's first list shows 307 properties totaling 60,000 acres in all 50 states, now held by such agencies as the Army Corps of Engineers, the General Services Administration

and the Depts. of Defense, Interior and Transportation.

**50th state demurs.** Attention has focused on 17 "unused" acres in Wai-kiki, Hawaii, which the Heritage Foundation, a conservative Washington "think tank," says might bring more than \$200 million. However, local officials, including the mayor of Honolulu, the governor of Hawaii and the state's congressional delegation oppose such a sale on the grounds that any buyer would only build another highrise hotel in what they consider an already over-developed area.

Also listed are parcels on or adjacent to reservoirs and lakes of the Corps of Engineers and the Dept. of Interior. California has 30 listings, ranging from Agriculture's 35-acre date and citrus research station at Indio to three parcels totaling 2,713 acres at Beale Air Force Base in Yuba County.

**NAR acts as 'finder'.** The Realtors

have polled members seeking nominations for disposal—and have turned up, says one NAR official, World War II development of 40 single-family houses on a 40-acre in-town tract that have been unused, but maintained by GSA, since the war ended.

Last year, says Jack Carlson, executive vice president of NAR, 400 communities responded to an Interior Dept. request for suggestions of public tracts that could be conveyed to local governments. They cited "over one million acres of public land which are prohibiting growth," Carlson told a congressional committee recently.

One Review Board official said it would be "months" before the first sale from these new lists is completed. All properties first will be screened for possible transfer to state and local governments. Adds Harper: "We do intend to seek fair market value."

—DONALD LOOMIS

McGraw-Hill World News, Washington

## Barrier island update: Landowners continue fight

The battle over coastal development rights continues. In the thick of the battle—Senators Sam Nunn (D-Ga.) and Lawton Chiles (D-Fla.). They are backing constituents—owners of hundreds of acres on Amelia Island, Fla.—who want to block a federal designation that could stop future development of their property.

Other senators, including Jesse Helms (R-N.C.) Strom Thurmond (R-S.C.), John East (R-N.C.), and John Tower (R-Tex.) are also lobbying hard for constituents who own coastal area property—or against legislation in Congress that would strengthen a program they want weakened or killed.

House members from coastal districts are also negotiating with federal

officials and their colleagues. Rep. Tom Evans (R-Del.), who spearheads the coastal barrier issue in the House, is especially active.

The brouhaha over Amelia Island's future is one of a score of political battles that center on maps of 175 coastal areas from Maine to Mexico delineating about 750,000 acres as "undeveloped" [HOUSING, Oct '81].

Under a law already on the books this would make them ineligible for federal highway, sewer, and bridge funds that developers count on.

**Flood insurance an issue.** Also, the law would prevent federal flood insurance from covering any mortgages on houses and condos built in such developments. Without such in-

surance, lenders are wary of providing mortgage money.

One of the major Amelia Island owners is PLM Associates of Atlanta, which acquired 728 acres after another developer went bankrupt. PLM argues that they should not be designated in Interior Department's maps as "undeveloped," since the rules allow acreage that is part of a "phased development" plan to proceed. But Ric Davidge, chairman of Interior's coastal barrier task force, recommended to Interior Secretary James Watt, after reviewing these and other comments, that the map not be changed.

**Other maps in works.** The last word on the maps may be decided in Congress where committees in both houses are working on maps, which many hope will be written into law to replace those Interior is trying to complete. The "congressional" maps would see that constituents' properties, in many cases, would be on the "developed" side of the line. Interior has until August 13 to complete a revised set of maps, which the legislators may use as a guide to drawing their own, after the log-rolling and favor-swapping is completed.

If the barrier islands legislation fails, that leaves in place an October ban on flood insurance that would be tied to Interior's maps. That would allow federal agencies to continue infrastructure grants for highways and the like, and some senators are said to prefer this result.

—D.L.

## Remodeling groups join forces

Officials of the newly formed National Assn. of the Remodeling Industry—an amalgam of National Remodelers Assn./National Home Improvement Council—are: Sam Graziano, chairman (l) and Neil Kelly, president.



## Indoor air treatment should be as standard as the bathroom tub.

Everybody knows bathroom air is full of pollutants. The typical response to that problem has been merely to blow contaminated air outside via a ducted exhaust fan. And that's a waste of expensively heated and cooled air.

There is an efficient, cost-effective solution to bathroom air treatment problems. The Ecologizer® built-in air treatment system. It treats, cleans, deodorizes, and

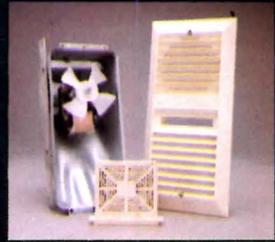
recirculates indoor air. The uniquely effective CA190® advanced scientific formula filtering system continuously removes household and tobacco smoke odors, dust, and pollen from interior spaces.

### It's been working construction for a decade.

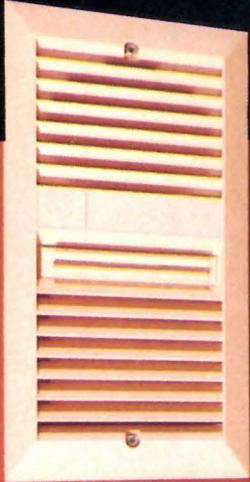
Hotels, motels, condominiums, apartments, and single family homes have been using this proven air treatment unit in bathrooms, walk-in closets, laundry rooms, and other small spaces for over 10 years. It's the only system of its kind to meet the National Sanitation Foundation C-10 Criteria for Ductless Air Treatment Devices.

### More than built-in clean air.

The Ecologizer® built-in air treatment system is easy to install and maintain. It has an attractive new look. And it saves per unit construction costs by eliminating ductwork. The Ecologizer® built-in air treatment system. Setting the standard for indoor air treatment.



**ECOLOGIZER®**  
BUILT-IN AIR TREATMENT SYSTEM



Rush-Hampton Industries, Inc.  
Longwood, Florida

PHOTOGRAPHY BY MARY E. NICHOLS  
INTERIOR BY ALAN LUCAS DESIGN

## Developers agree to settlement in rec lease suit

One of the longest running antitrust cases against land developers is coming to an end with a \$675,000 payment by the developers—even though the judge admits the charges are without much merit.

What has been at issue in the case for the past decade are deed restrictions on single-family houses in 31 subdivisions in Tamarac, Fla., developed by Behring Corp. and affiliated companies. Those restrictions required the homeowners to lease recreational facilities in the subdivisions, and ran for 50 years. The plaintiffs—suing on behalf of thousands of homebuyers—claimed that tying the house purchase to the leasing contract violates the antitrust laws.

Without admitting any guilt, the developers offered to settle for \$675,000, and hundreds of the homebuyers objected to the compromise. But Federal District Court Judge Jose A. Gonzales, Jr. of Miami swept aside the objections and okayed the offer. His main reason: if the matter finally got to trial, the chance of the plaintiffs' winning "is low . . . certainly less than 50-50."

While those objecting to the settlement offer calculated that they might get as much as \$36 million at trial, Gonzales called that claim unreasonable. It was based on the total amount of the lease payments for the recreational facilities, and would, in any case, have to be reduced by the value to the homebuyers of those facilities. "The record reflects use of the facilities," Gonzales noted.

Gonzales suggests, in fact, that the homeowners are lucky to get anything on their claim. He points out that the Justice Dept. has taken the position that there is nothing unlawful about tying the purchase of a house to a lease of recreational facilities, and that the Federal Trade Commission actually investigated the Tamarac situation and decided not to bring a case. No such suits have ever been successful, he found. That's because in the given subdivisions, there is no other seller of land, and so the policy of insisting that all buyers take leases on the recreational facilities cannot hurt competition, because there is no competition.

Why, then, did Behring and the associated companies agree to any payment at all? Gonzales estimated that if the case went to trial, the trial itself would last eight weeks, and, with subsequent appeals, the litigation could well stretch out for an expensive additional five years.

The decision also gave the various

homeowners associations a right to purchase the recreational facilities.

In other cases:

A city was found in violation of the **Fair Housing Act** for blocking construction of a racially integrated housing project, even though part of the motivation for the action was to protect property values. It is a violation of the law if the actions are even partly caused by racial bias, the U.S. District Court in Detroit ruled, and it found such motivation in the case of Birmingham, Michigan. The city fathers were responding to citizen outcry against the housing project, and that outcry was based on "racial considerations," the judge found.

The Arizona Attorney General reached an agreement with Jorodobe, Inc. that **broadens resale rights of buyers** of lots in the company's Rock Forest Estates. Under a 1979 agreement, all deeds for Rock Forest Estates property contained a clause requiring buyers to channel any future sales of the property through Reissner Investment & Realty Co., Inc. The state called the restriction a violation of Arizona law, and got both companies to agree to drop the arrangement and to rewrite all existing deeds to strike out the clause.

The **Veterans Administration got an endorsement of its eviction powers**. The agency had been challenged by former homeowners who defaulted on loans

made by or guaranteed by VA, but had continued to live in the houses and pay rent to the agency. The tenants tried to block VA eviction notices, claiming that they have a right to live in the houses until the VA finds another buyer. But the U.S. District Court in Brooklyn found that Congress never meant for the VA to be in the rental business, and upheld the evictions.

A **homebuyer can rescind a second trust** involved in the purchase of property if the lender did not make all of the disclosures—such as the annual percentage rate of interest and the total financing cost—required by the Truth and Lending Act. The U.S. Court of Appeals for the District of Columbia said that the buyer could use the faulty information as an excuse to cancel the entire note, as long as the principal was repaid.

**Gilbilt Homes Inc. has no case against Wylain Inc.** Gilbilt claims that Continental Homes of New England, a division of Wylain, broke the antitrust laws when it dropped Gilbilt as a builder/dealer of its houses in New Hampshire. But the trial court threw the case out, and the U.S. Court of Appeals in Boston agreed, finding that Gilbilt had presented nothing more than "a nearly incoherent set of complaints" that did not really allege any unlawful acts.

—DANIEL MOSKOWITZ  
*McGraw-Hill World News, Washington*

### DAVIS BACON *continued from page 22*

usually come to be synonymous with the union wage rate in a particular area and had the effect of pushing the cost of government-sponsored construction six to seven percent over that of private construction. The industry also contended that inflation in government construction wages tended to push up private industry construction wages as well.

**Repeal move 'scratched'.** After first indicating sympathy with a move to repeal Davis-Bacon, the Reagan Administration came to realize there was not sufficient political support to get Congress to go along. The Administration has concentrated instead on administrative changes in labor department regulations for carrying out the act.

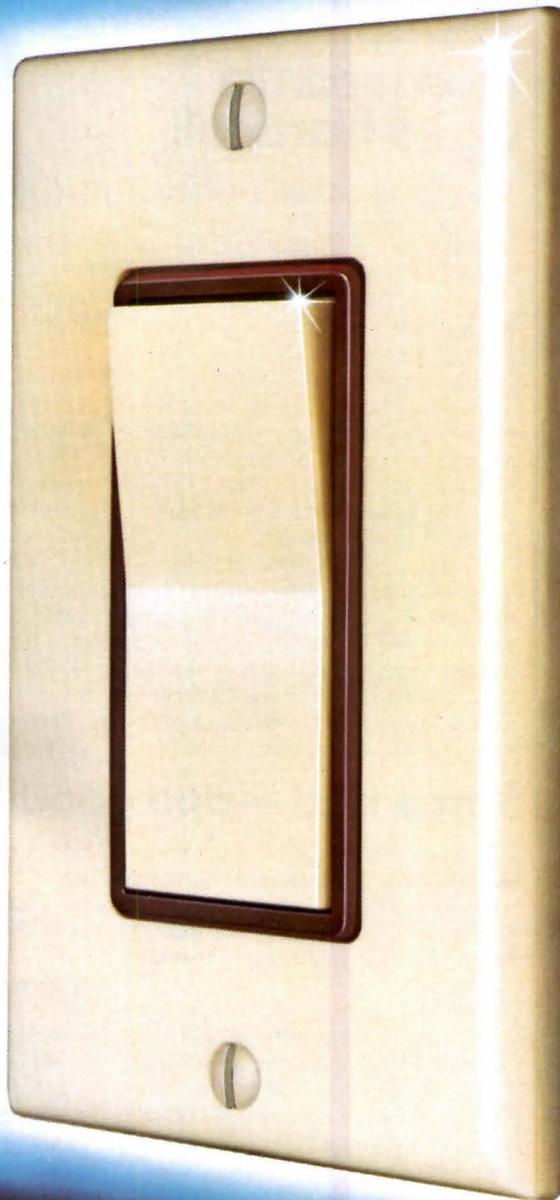
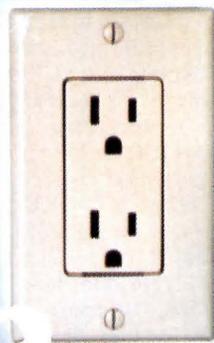
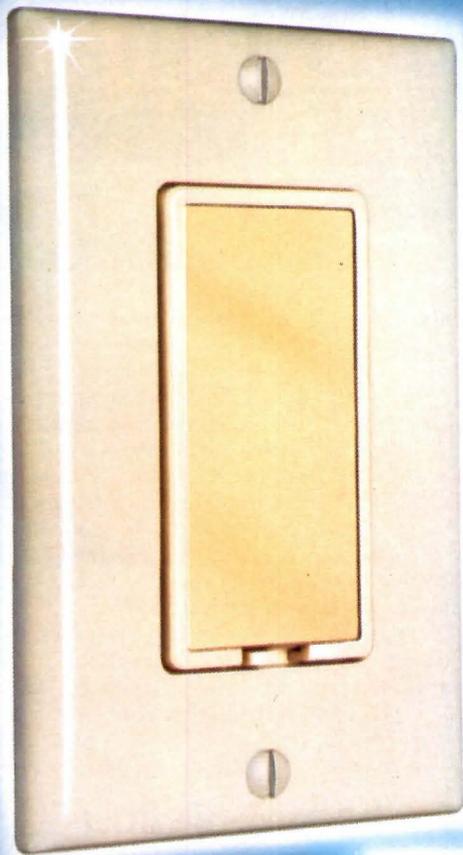
The new regulations drop the "30 percent rule," which had permitted the labor department to define the prevailing wage as the wage that was being paid to 30 percent of the workers in a particular building trade. The new rules define the prevailing wage as the

rate being paid to at least a majority of workers in the area performing similar work, or the weighted average where there is no majority wage.

**Other changes.** In compiling data for wage determinations on federally sponsored residential and building construction (as distinguished from heavy construction and highway construction), the department will not use wage data for Davis-Bacon projects in an area unless there is insufficient data available from private projects. In addition, urban wage data will not be mixed with rural data in making wage determinations.

The new regulations also permit contractors to expand their use of semi-skilled helpers on federal projects at wage rates lower than those paid to skilled journeymen. Past regulations severely limited use of helpers on federal projects. Under the new rules, contractors may use two helpers for every three journeymen on a contract.

—HERBERT CHESHIRE  
*McGraw-Hill World News, Washington*



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contemporary styling that  
adds so much value for so little cost.

*Decora touch-sensitive dimmer. Complete switch line in popular colors. Matching outlet.*

More and more builders are choosing Decora decorator devices to add classic styling and value to their homes. Decora rocker switches, matching receptacles and touch dimmers bring instant value and sales appeal to any home or apartment. For about \$100 more than ordinary switches and outlets, you can completely decorate a 7-room house with Decora. That's a small price in comparison with Decora's proven appeal.

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## Economic reality: Homerama goes hardsell

It was like serving dessert before soup, but the radical shift at this year's Homerama in Cincinnati did not deprive builders of their nutrients. "The day the show opened, nine houses were already sold," says Orville Brown, Executive Director, HBA of greater Cincinnati.

During Homerama's 21 years, Cincinnati builders have traditionally avoided the subject of sales until after the show. But hard times have changed that. Says Brown, "In a down market, you have to work harder."

So the HBA worked on presales this year, enlisting the help of area Realtors and targeting well-to-do prospects with ads in *Cincinnati* magazine. And instead of giving the show its familiar task of merely creating excitement among prospective buyers, the builders took a hardsell approach. First, HBA

limited the show to 16 entrants, down from 23 last year, to make sellout easier. Secondly, the site chosen, the "Sycamore School District" in the northeast Cincinnati suburbs, was the hottest selling location in town. "That's the area where most transferees want to relocate," says Brown.

**Bottom-line help.** Participating builders were also offered financial aid. "Our association promised that if the house was not sold by July 1, we would pay \$800 a month until it is," says Brown. "If they were looking at \$1,600 a month in carrying costs, now it's down to \$800."

**Heavy interest.** The two-week show opened June 13, and by the time

it closed, it looked like the HBA wouldn't have to help carry very many of the entries. For by early July, 11 of the 16 houses had been sold and Brown expected other sales shortly.

If anyone at the HBA had been worried that this blatantly more commercial tack would turn buyers off, those fears proved to be groundless. "Our paid gate was up this year," says Brown. "There's no recession in home-buyer interest."

Houses displayed in this single-site parade ranged in price from \$135,000 to \$237,000—"about the same range as last year," says Brown.

—DAVID GARFINKEL  
*McGraw-Hill World News, Chicago*



## Some bad—and good—omens for homebuilding

CHICAGO—Most members of the housing industry have looked at the 42 million Americans who will turn 30 this decade as an asset, since that age is when people traditionally buy their first homes.

The U.S. League of Savings Associations has examined the liability side of those 42 million as well. Its report, "Homeownership: The American Dream Adrift", not only details the plight of first-time buyers over the last two years [HOUSING, July]. It also examines how this demographic bulge will present problems, as well as opportunities for builders in the decade.

**Negative one.** To builders who have been told repeatedly about only the positive aspects of the huge "baby boom generation," it may come as a surprise that there is a downside as well. To explain the future effects, the League begins by recalling the well-known present: the plight of the thrifts—their losses as savers turned to investments carrying higher interest rates than the thrifts could offer.

For savers' joy—receiving higher returns—was also the housing industry's sorrow because so little in savings was left in the thrifts notes the report.

**Savings habits.** Thus the question becomes: Will the saving habits of the baby-boom generation be a blessing or a curse to the badly injured thrift industry? A curse, says the report.

The "baby boomers" are in the "prime borrowing phase" of their lives,

says the report. This is the time of life when "households are formed, careers launched, and children raised." And even though people at this stage of life experience quick income growth, it's "generally not faster than the claims made on them (their incomes)."

What about the group which has traditionally provided the bulk of savings? Just as the "baby boom" has sprouted explosively to dominate the economy of the '80s, the prime savers group—45- to 65-year-olds—has withered in its impact on the economy. This group will shrink considerably in proportion to the "baby boomers," the report states. "In the 1980s, the ratio of . . . prime savers to prime borrowers (that is, older wage-earners to younger wage-earners) will reach its lowest level in the entire second half of the 20th century."

That casts a second curse on the housing industry, the report claims. "These demographics dictate a decade of capital shortage that is likely to have its most profound effects on the housing market."

**Negative two.** Other changes not directly related to demographics will also work against savings, says the report. "The spread of group health, accident and life insurance, along with government programs—Medicare, Medicaid, unemployment and disability insurance—has reduced the felt need . . . to save for 'rainy days.'"

The report recommends making sav-

ing more desirable by giving it a favored tax status: "Direct tax incentives for saving should . . . be a much more prominent feature toward the economy and the housing sector than had been implied by the Economic Recovery Tax Act of 1981."

**Another threat.** Even an increased savings rate will not solve the mortgage problem, says the report, claiming that mortgage lending is threatened by the growth of electronic communications. Easier communication, says the report, has created large-scale competition for credit, forcing housing to compete "with borrowers in other regions of the country, with major corporations, both here and abroad, with the U.S. government and even foreign governments."

This electronic liability has an asset side to it, however, as the report points out. Advances in electronics will loosen workplace requirements, allowing more people to move to small and medium-sized cities. There is already a trend in that direction, notes the report, and it suggests many people prefer to live in cities "small enough to preclude the cost and inconvenience of congested major cities, but large enough to offer recreational and cultural diversions and to provide a sufficient array of public and commercial services."

If this trend continues, of course, it will mean new growth opportunities for builders in those markets. —D.G.

# HOW FIRE RESISTANT TIMBERLINE ASPHALT ROOFING EVEN HELPED KEEP SOME WOOD ROOFS FROM BURNING.



**WOODWAY, TEXAS  
AUGUST 1, 1979**

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Needless to say, Timberline shingles bear an uncanny resemblance to wood. Their unusual thickness and deep irregular shadow pattern make it hard to tell the two apart.

So use Timberline shingles, either to put on a new home or one you're reroofing.

Because the only place in a home wood shingles belong, is in the fireplace.

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Shearson/American Express has agreed to buy the Balcor Co., Skokie, Ill., one of the nation's largest real estate syndicators. A two-step transaction valued at about \$103 million will consist of a \$53 million cash payment and additional payments based on performance over the next five years, which could be \$50 million.

The company, whose new name will be Balcor/American Express, has about \$1.5 billion in real estate assets under its management, says Gregory

Junkin, a partner and executive vice president. He adds that the company has never been in single-family development and he doesn't foresee any, but notes that Balcor has been involved in financing multifamily since its inception, and will continue to finance new and existing projects.

Junkin says Balcor's business is up this year. "In the first six months, we have received about \$110 million from investors compared to \$142 million in all of 1981, \$109 million in 1980 and

\$49 million in 1979." The acquisition "should increase our activities from current levels" but would not necessarily change the nature of those investments, he says.

Condominium converters and developers should take heart from a jury decision in Los Angeles, which held that builders cannot be held responsible for events beyond their control.

In the case, more than 130 owners in a condominium conversion had filed suit against [Harry B.] Helmsley companies, primarily contending they had misrepresented monthly maintenance fees and subsidies.

The cost of maintenance at the condo conversion during the first year of operation exceeded the initial monthly maintenance fees by about \$100,000 because of inflation and energy price increases caused by the Arab oil embargo. Fees continued to increase in 1976 and 1977, and a suit was filed by three owners who later were joined by others in the class-action suit. The Helmsley interests were represented by the Los Angeles law firm of Cox, Castle & Nicholson.

A model site installation code for manufactured housing has been drafted by the Council of American Building Officials (CABO). The code is performance-based, with requirements that are compatible with the One and Two-Family Dwelling Code and the model codes—Basic, Standard and Uniform.

CABO also reports that ballots are available on the 1982 proposed changes to the One and Two-Family Dwelling Code. The changes were proposed by HUD in anticipation of the phasing out of minimum property standards as recommended by National Institute of Building Sciences, the HUD Task Force on Housing Costs and the President's Commission on Housing. Ballots, which list recommended changes and the reason for each recommendation, are available to any interested person or organization. Copies may be obtained from Council of American Building Officials, 1201 One Skyline Place, 5205 Leesburg Pike, Falls Church, Va. 22041.

CABO is a consortium of three groups—Building Officials and Code Administrators International, International Conference of Building Officials and Southern Building Code Congress International.

**CORRECTION:** The Home Ownership Benefit Worksheet on page 61 of the June issue contains an error. Line 23 should read: "Est. Monthly Gain from Home Ownership (22-16)."

**Baldwin Technology**  
**The Ultimate in Lock Security**

Over thirty years ago, Baldwin introduced the process of **FORGING** to the builders' hardware industry, a concept which has established **BALDWIN** as the "ULTIMATE STANDARD" in the field of architectural hardware. What is a forging? A forging is the most technological advancement in forming metals to create a flawless surface condition plus additional structural properties unobtainable by conventional castings.

The result? A product which is finished to reflect the Quality and Standards of American Excellence.

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## Modern Gas Equipment with Energy Savings Payback.

Offer homebuyers what they are looking for: maximum energy efficiency and comfort. Nothing is more efficient than modern gas appliances designed to save energy and money. The savings is called the Energy Savings Payback (ESP).

The ESP on a new, energy-saving gas-heating system, for example, can amount to as much as \$2,300 over a 17-year period\* compared to a conventional gas-heating system. Gas water heating means additional savings. And these savings would be greater still if compared to other, more expensive energy systems.

All energy costs are going up, but gas will remain America's best energy buy because it's the most efficient energy system. And the lower operating costs on gas-heating systems and water heaters can help homebuyers qualify for mortgages. Sell gas equipment with ESP. Homebuyers will save—you'll profit.

*\*Based on DOE testing procedures and current national average gas prices.*



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1 f i e a s t t h e f i e n t.



CAROLE EICHEN  
Carole Eichen Interiors  
Fullerton, Calif.

## Do's and don'ts: How to keep patterns in their place

Pick up any of the consumer shelter magazines and you'll see how much interest there is these days in printed fabric and wallpaper. Which is one good reason to use them in your models—they give prospects something familiar to identify with. Another good reason is that bold patterns—used, say, as upholstery on a sofa—can make a room come alive visually. And, as I've discussed previously [Mar. '81], a careful mix of dissimilar designs can get budget-conscious prospects excited about their ability to decorate a new home: They'll realize they can re-use some of the upholstered pieces, yet still create a "new" look.

The trick, of course, is not to go overboard. Unfortunately, in my travels around the country, I've seen quite a few models that went wrong because the merchandiser didn't keep patterns under control. When there's a floral design, for instance, on all the furniture, draperies and walls, it's really hard for prospects to judge the size of a room and—unluckily for the builder—they almost always think it's smaller than it really is. Excessive use of *special* fabric and wallpaper also discourages potential buyers because they can't afford to copy such decorating—the yards and yards of material called for are just too costly.

As I traveled, I photographed such instances of "pattern overdose": three of my photos are shown at right. In each case, I've contrasted the "don't" with a "do." Use these examples to guide your merchandising.

### Everything—even the ceiling—

is patterned in the living room at near right. The result: visual confusion. Prospects won't know where to look first, so they're likely to feel rather uncomfortable in such a "busy" room. What's more, the ceiling seems lower than it would if painted white or a light color, so the room feels less spacious than it actually is. Finally, such a ceiling treatment is highly unorthodox, which goes against one of the ten commandments of effective model merchandising—namely, to make decor *believable, achievable* and *practical* in terms of the market [June, p. 52]. Your goal should be to make prospective buyers feel at home, not startle them with special effects.

By contrast, the living room shown on the facing page looks welcoming and comfortable. Though a rather bold pattern is used here, too, it's used more sparingly and in colors—browns and blues—that are warm and serene. Duplicating the sofa pattern on the draperies helps carry the eye



around the room, thus drawing attention to its generous proportions.

The living room pictured on the facing page is from The Highlands, Fullerton, Calif. Builder: The William Lyon Co. Carole Eichen Interiors project director: Margo Hazlett



### A prospect may trip over the bed

in the room above: The bedspread blends into the patterned wallpaper and there's not much of a headboard. The bed at right is "framed" with a wall treatment and patterns are used with more restraint. The bedroom at right is from The Highlands, Fullerton, Calif. Builder: William Lyon Co. Carole Eichen Interiors project director: Margo Hazlett.

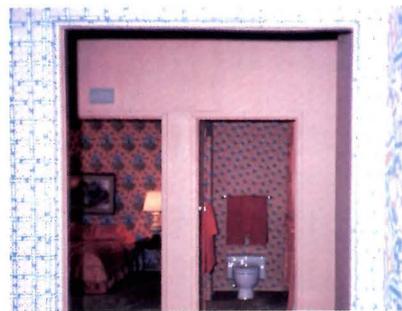




ROBB MILLER

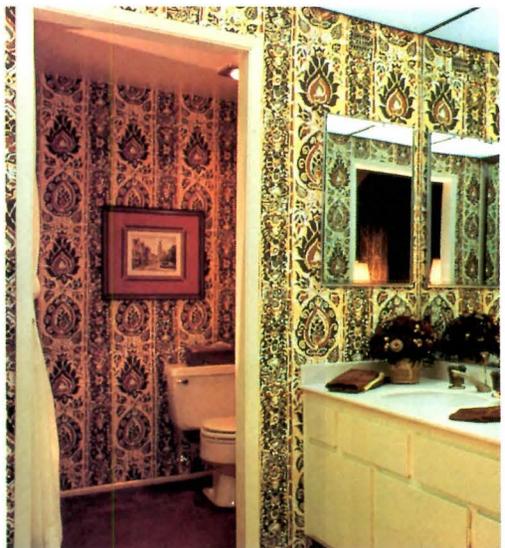


ROBB MILLER



**Too many dissimilar wallcoverings**

are visible in the photo above: two in the foreground; one each in hall, bedroom and bath. The merchandiser apparently neglected to place herself mentally in this model's kitchen (where I was standing when I took the photograph) and think about what a prospect would see. Such a jumble of designs is hardly easy on the eye. What's worse, the rooms seem small, because spaces are visually flowing into each other. Another no-no: the w.c.

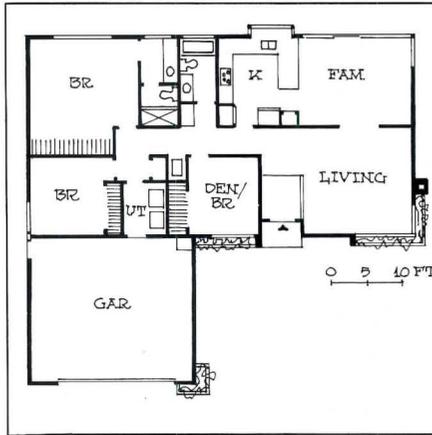


LELAND LEE

that's directly in the line of sight. Although such an arrangement can't always be avoided, I recommend that this fixture be positioned as is the one above. The master bath above is from Turtle Rock, Irvine, Calif. Builder: Irvine Pacific.

# CONSTRUCTION

Estimated cost to build  
the same ranch house  
in 100 metro markets  
rises only 1.6% in six months



**Foundation**—excavation and footings  
**Floor on grade**—fill, concrete, steel-trowel finish  
**Roof system**—framing, sheathing, insulation plus stairway and second-floor framing  
**Roofing**—shingles, flashing, gutters, downspouts  
**Exterior walls**—framing, sheathing, wood siding, insulation, paint, wood doors, aluminum windows, insulating glass, block party wall  
**Partitions**—studs, drywall, doors  
**Wall finishes**—paint, ceramic tile  
**Floor finishes**—ceramic tile, vinyl asbestos tile, carpeting  
**Ceiling finishes**—drywall, paint  
**Fixed equipment**—range, range hood, exhaust fans, refrigerator, counters, cabinets, vanities, medicine cabinets, bathroom fittings  
**HVAC**—forced hot air heating plus air conditioning  
**Plumbing**—water heater, bathroom fixtures, kitchen sink, pipes, laundry rough-in  
**Electrical**—light fixtures, switches and outlets, connections for major appliances, service panel, wiring

	Foundations			Floors on Grade			Roof system			Roofing			Exterior Walls			Partitions		
	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.
ALBANY, NY [B]	2,941	1,938	2.48	1,597	1,263	1.45	4,947	4,401	4.75	1,628	1,615	1.65	6,298	8,496	7.51	2,620	3,498	3.11
ALBUQUERQUE, NM [B]	2,651	2,210	2.47	1,330	1,541	1.46	4,581	4,763	4.75	1,466	1,747	1.63	6,268	9,154	7.83	2,587	3,697	3.19
ALLENTOWN, PA [B]	2,628	2,277	2.49	1,446	1,573	1.53	4,315	4,880	4.67	1,528	1,813	1.70	6,113	9,424	7.89	2,490	3,811	3.20
ATLANTA, GA [C]	2,433	1,915	2.21	1,294	1,251	1.29	4,040	4,312	4.24	1,211	1,588	1.42	5,817	8,303	7.17	2,380	3,423	2.95
AUGUSTA, GA [C]	1,926	2,045	2.02	1,051	1,441	1.27	3,134	4,358	3.80	817	1,597	1.23	4,558	8,414	6.59	1,888	3,462	2.72
AUSTIN, TX [E]	1,083	1,002	1.06	1,397	1,285	1.36	4,442	4,245	4.41	1,236	1,647	1.46	6,121	8,573	7.46	2,562	3,509	3.08
BAKERSFIELD, CA [E]	4,108	2,400	3.31	2,119	1,668	1.92	6,706	4,908	5.90	1,970	1,904	1.97	8,478	9,907	9.34	3,570	3,978	3.83
BALTIMORE, MD [C]	2,736	2,365	2.59	1,443	1,676	1.58	4,393	4,995	4.77	1,349	1,845	1.62	6,387	9,618	8.13	2,466	3,864	3.21
BATON ROUGE, LA [C]	2,602	1,992	2.33	1,255	1,433	1.37	4,253	4,181	4.28	1,333	1,541	1.46	5,782	8,029	7.01	2,444	3,336	2.94
BIRMINGHAM, AL [C]	2,375	2,023	2.23	1,241	1,429	1.36	3,790	4,309	4.11	1,273	1,599	1.46	5,540	8,312	7.04	2,189	3,421	2.85
BOISE, ID [B]	3,101	1,994	2.59	1,595	1,362	1.50	5,083	4,358	4.79	1,663	1,597	1.66	6,780	8,414	7.72	2,780	3,462	3.17
BOSTON, MA [B]	3,114	2,604	2.90	1,684	1,762	1.75	5,271	5,686	5.56	1,670	2,106	1.92	7,505	10,989	9.39	2,974	4,301	3.69
BUFFALO, NY [B]	3,420	2,102	2.80	1,826	1,587	1.73	5,740	4,221	5.06	1,805	1,557	1.71	7,547	8,107	7.95	3,091	3,368	3.28
CHARLESTON, SC [C]	1,668	2,143	1.94	902	1,548	1.24	2,833	4,449	3.70	848	1,647	1.27	4,179	8,573	6.48	1,719	3,509	2.66
CHARLOTTE, NC [C]	1,789	2,076	1.96	917	1,490	1.22	3,158	4,358	3.82	883	1,597	1.26	4,390	8,414	6.50	1,849	3,462	2.70
CHATTANOOGA, TN [C]	2,468	1,796	2.17	1,211	1,231	1.24	3,956	3,919	4.00	1,311	1,442	1.40	5,423	7,573	6.60	2,270	3,193	2.77
CHICAGO, IL [B]	3,295	1,984	2.68	1,804	1,386	1.62	5,602	4,262	5.01	1,858	1,571	1.74	7,619	8,186	8.03	3,049	3,400	3.28
CINCINNATI, OH [B]	3,420	2,167	2.84	1,846	1,576	1.74	5,802	4,494	5.23	1,889	1,655	1.80	7,649	8,669	8.29	3,156	3,549	3.41
CLEVELAND, OH [B]	3,548	2,671	3.16	1,955	1,670	1.84	5,992	6,181	6.18	1,993	2,275	2.17	7,850	11,901	10.03	3,262	4,591	3.99
COLORADO SPRINGS, CO [B]	3,075	2,481	2.82	1,659	1,737	1.72	5,107	5,280	5.28	1,658	1,944	1.83	7,045	10,181	8.75	2,916	4,030	3.53
COLUMBIA, SC [B]	1,724	1,879	1.83	1,002	1,310	1.17	2,883	4,058	3.53	930	1,508	1.24	4,181	7,822	6.10	1,751	3,269	2.55
COLUMBUS, OH [B]	3,127	2,232	2.72	1,630	1,534	1.61	5,137	4,835	5.06	1,693	1,783	1.77	6,942	9,341	8.27	2,838	3,753	3.35
DALLAS-FT. WORTH, TX [C]	2,680	2,292	2.53	1,511	1,561	1.56	4,628	4,641	4.71	1,335	2,100	1.74	6,696	9,270	8.11	2,679	3,754	3.27
DAVENPORT, IA [B]	3,243	2,161	2.74	1,691	1,553	1.65	5,467	4,520	5.07	1,732	1,673	1.73	7,304	8,693	8.12	2,998	3,550	3.33
DAYTON, OH [B]	3,092	1,939	2.56	1,632	1,360	1.62	5,246	4,151	4.77	1,674	1,524	1.62	6,993	8,006	7.62	2,895	3,345	3.17
DENVER, CO [B]	3,298	2,488	2.94	1,780	1,853	1.85	5,547	5,058	5.39	1,817	1,856	1.87	7,848	9,717	8.92	3,121	3,879	3.56
DES MOINES, IA [B]	2,911	2,193	2.59	1,486	1,587	1.56	4,754	4,561	4.73	1,579	1,679	1.65	6,481	8,767	7.74	2,590	3,575	3.13
DETROIT, MI [B]	3,739	2,441	3.14	1,930	1,629	1.81	6,236	5,400	5.91	2,053	1,998	2.06	8,324	10,393	9.51	3,424	4,109	3.83
EL PASO, TX [D]	1,841	2,288	2.10	918	1,707	1.33	2,999	4,652	3.89	996	1,728	1.38	4,132	8,964	6.65	1,771	3,638	2.75
EUGENE-SPRING, OR [B]	3,492	2,011	2.79	1,846	1,477	1.69	5,882	4,142	5.09	1,865	1,537	1.73	7,901	7,991	8.07	3,220	3,287	3.30
FLINT, MI [B]	3,592	2,372	3.03	1,869	1,569	1.75	5,930	5,289	5.70	1,931	1,957	1.97	8,181	10,206	9.34	3,345	4,045	3.75
FRESNO, CA [C]	4,093	2,601	3.40	2,117	1,717	1.95	7,057	5,782	6.52	2,018	2,137	2.11	9,232	11,169	10.36	3,771	4,369	4.13

# COST GUIDE

The 100-market average is now \$36.68 a sq. ft.—up a modest 58¢ from February, when the Cost Guide last reported on this house. But the pattern of change varies widely from market to market: Estimates rose in 81 markets, fell in 18 others and stayed the same in one (Mobile). Increases ranged from \$3.44 per sq. ft. in Denver and Worcester to just one cent in Pensacola. The largest decrease: \$1.08 per sq. ft. in Dallas/Fort Worth. The smallest: eight cents in New Orleans.

*A few points to keep in mind as you read the cost table starting below:*

- The house (plan, facing page) has a 1,502-sq.-ft. living area and a 467-sq.-ft. garage. Its construction is wood frame on slab. Its quality is "above average," according to McGraw-Hill's Cost Information Systems Division, which produces the Cost Guide.

- The Guide divides the house into 13 elements (listed next to the plan) and breaks out the labor, materials and square-foot costs for each.

- Some estimates may seem high. That's partly because, based on one-time construction, they don't reflect economies of repeating the same model. Also, labor rates are union scale—typically higher than non-union but easier to pin down.

- Specs for HVAC, foundations and roof insulation are altered for five climate zones ranging from coolest (Zone A) to warmest (Zone E), and each market is labeled accordingly (e.g., A for cold Milwaukee, E for hot San Antonio). Roof insulation is 9" in Zone A; 6" in B, C and D; 3½" in E. Foundation footings are 4' deep in Zone A, 3' in B, C and D. In all Zone E markets except Los Angeles, specs call for monolithic slabs with no footings.

- The Cost Guide markets were selected primarily for their size—85 are among the 100 most populous SMSAs (Standard Metropolitan Statistical Areas)—but geographical distribution was also a factor.

Wall Finishes			Floor Finishes			Ceiling Finishes			Fixed Equipment			HVAC			Plumbing			Electrical			Totals		
Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.
1,426	681	1.07	805	2,494	1.68	1,660	718	1.21	1,146	5,350	3.30	2,511	2,371	2.48	3,450	2,224	2.88	1,826	1,297	1.59	32,855	36,346	35.16
1,276	744	1.03	808	2,688	1.78	1,562	779	1.19	1,184	5,683	3.49	2,957	2,558	2.80	3,612	2,396	3.05	1,921	1,399	1.69	32,203	39,359	36.36
1,591	761	1.19	757	2,770	1.79	1,758	794	1.30	1,101	5,839	3.52	2,844	2,639	2.78	3,167	2,474	3.02	1,608	1,439	1.55	31,646	40,494	36.63
1,356	673	1.03	710	2,443	1.60	1,588	711	1.17	1,117	5,254	3.24	2,343	2,317	2.37	3,241	2,178	2.75	1,892	1,271	1.61	29,422	35,639	33.05
1,050	676	0.88	592	2,471	1.56	1,223	711	0.98	1,001	5,300	3.20	2,324	2,348	2.37	2,835	2,203	2.56	1,632	1,286	1.48	24,031	36,312	30.66
1,217	684	0.97	789	2,522	1.68	1,587	718	1.17	1,194	5,402	3.35	2,659	1,668	2.20	3,652	2,250	3.00	1,892	1,312	1.63	29,831	34,817	32.83
1,778	780	1.30	1,090	2,913	2.03	2,172	836	1.53	1,430	6,083	3.82	3,755	1,924	2.88	4,584	2,598	3.65	2,748	1,514	2.16	44,508	41,413	43.64
1,455	765	1.13	782	2,828	1.83	1,636	807	1.24	1,135	5,928	3.59	2,882	2,692	2.83	3,691	2,522	3.16	1,881	1,471	1.70	32,236	41,376	37.38
1,207	629	0.93	760	2,357	1.58	1,514	671	1.11	1,143	5,111	3.18	2,641	2,239	2.48	3,234	2,104	2.71	1,793	1,228	1.53	29,961	34,851	32.91
1,343	676	1.03	685	2,438	1.59	1,514	698	1.12	1,067	5,259	3.21	2,343	2,323	2.37	3,321	2,174	2.79	1,720	1,269	1.52	28,401	35,930	32.68
1,434	676	1.07	859	2,471	1.69	1,660	711	1.20	1,188	5,300	3.30	2,028	2,348	2.22	3,636	2,203	2.97	1,967	1,286	1.65	33,774	36,182	35.53
1,723	887	1.33	902	3,224	2.10	2,051	931	1.51	1,281	6,595	4.00	3,105	3,070	3.14	3,923	2,874	3.45	2,226	1,678	1.98	37,429	46,707	42.72
1,632	634	1.15	941	2,381	1.69	1,928	677	1.32	1,279	5,161	3.27	3,162	2,261	2.75	3,640	2,124	2.93	2,143	1,238	1.72	38,154	35,418	37.36
1,070	684	0.89	523	2,522	1.55	1,222	718	0.99	950	5,402	3.23	2,101	2,402	2.29	2,556	2,250	2.44	1,382	1,312	1.37	21,953	37,159	30.05
790	676	0.74	603	2,471	1.56	1,076	711	0.91	998	5,300	3.20	2,045	2,348	2.23	2,491	2,203	2.38	1,237	1,286	1.28	22,226	36,392	29.76
1,283	616	0.96	733	2,225	1.50	1,416	640	1.04	1,090	4,904	3.04	2,473	2,116	2.33	3,030	1,986	2.55	1,773	1,156	1.49	28,437	32,797	31.09
1,540	640	1.11	955	2,403	1.71	1,830	684	1.28	1,294	5,210	3.30	3,217	2,283	2.79	3,729	2,144	2.98	2,278	1,251	1.79	38,070	35,404	37.32
1,682	689	1.20	960	2,550	1.78	1,928	718	1.34	1,268	5,448	3.41	3,179	2,433	2.85	3,851	2,274	3.11	2,061	1,327	1.72	38,691	37,549	38.72
1,708	954	1.35	1,006	3,502	2.29	1,978	1,004	1.51	1,301	7,053	4.24	3,031	3,337	3.23	3,697	3,120	3.46	2,132	1,819	2.01	39,453	50,078	45.46
1,420	814	1.13	889	2,996	1.97	1,684	853	1.29	1,236	6,187	3.77	3,292	2,857	3.12	4,025	2,671	3.40	2,089	1,559	1.85	36,095	43,590	40.46
1,109	622	0.88	574	2,297	1.46	1,247	656	0.97	936	5,023	3.03	1,767	2,183	2.01	2,585	2,051	2.35	1,089	1,199	1.16	21,778	33,877	28.28
1,632	751	1.21	862	2,746	1.83	1,830	779	1.33	1,193	5,780	3.54	3,105	2,620	2.91	3,801	2,449	3.17	1,929	1,428	1.70	35,719	40,031	38.47
1,458	698	1.09	827	2,790	1.84	1,753	729	1.26	1,169	5,996	3.64	2,597	2,567	2.62	3,218	2,226	2.76	1,656	1,398	1.55	32,207	40,022	36.68
1,647	688	1.19	909	2,554	1.76	1,879	732	1.33	1,239	5,440	3.39	2,268	2,426	2.38	3,629	2,276	3.00	2,064	1,326	1.72	36,070	45,922	37.41
1,572	629	1.12	885	2,354	1.64	1,855	677	1.29	1,229	5,120	3.22	2,733	2,245	2.53	3,590	2,099	2.89	2,013	1,224	1.64	35,409	34,673	35.59
1,912	760	1.36	1,008	2,859	1.96	2,148	812	1.50	1,324	5,954	3.70	3,422	2,718	3.12	4,181	2,549	3.42	2,354	1,486	1.95	39,760	41,989	41.54
1,487	691	1.11	787	2,582	1.71	1,660	732	1.21	1,148	5,490	3.37	3,012	2,456	2.78	3,674	2,301	3.03	2,071	1,342	1.73	33,640	37,956	36.34
1,922	825	1.40	1,065	3,056	2.09	2,221	880	1.57	1,380	6,297	3.90	3,495	2,900	3.25	4,256	2,722	3.54	2,406	1,588	2.03	42,451	44,238	44.04
840	701	0.78	513	2,633	1.60	1,027	739	0.90	939	5,588	3.31	2,158	2,512	2.37	2,641	2,350	2.53	1,431	1,370	1.42	22,206	38,870	31.01
1,810	649	1.25	976	2,344	1.69	2,076	671	1.40	1,333	5,057	3.25	3,495	2,233	2.91	4,681	2,091	3.44	2,622	1,220	1.95	41,199	34,710	38.56
1,922	818	1.39	1,055	2,995	2.06	2,221	861	1.57	1,380	6,199	3.85	3,495	2,854	3.22	4,256	2,671	3.52	2,406	1,560	2.01	41,583	43,396	43.16
1,865	898	1.40	1,162	3,284	2.26	2,296	940	1.64	1,464	6,708	4.15	3,514	3,131	3.37	4,838	2,929	3.94	2,450	1,707	2.11	45,877	47,372	47.34

	Foundations			Floors on Grade			Roof system			Roofing			Exterior Walls			Partitions		
	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.
GARY, IN [B]	3,267	2,141	2.75	1,811	1,490	1.68	5,578	4,605	5.17	1,841	1,694	1.80	7,583	8,856	8.35	3,017	3,610	3.37
GRAND RAPIDS, MI [B]	2,681	2,258	2.51	1,458	1,582	1.54	4,556	4,788	4.75	1,388	1,778	1.61	6,187	9,246	7.84	2,613	3,741	3.23
GREENSBORO, NC [C]	1,564	2,056	1.84	733	1,419	1.09	2,528	4,450	3.54	2,929	1,640	1.25	3,576	8,585	6.18	1,527	3,515	2.56
GREENVILLE, SC [C]	1,503	2,252	1.91	777	1,531	1.17	2,333	4,902	3.67	820	1,817	1.34	3,559	9,439	6.60	1,544	3,815	2.72
HARTFORD, CT [B]	2,682	2,258	2.51	1,359	1,558	1.48	4,532	4,901	4.79	1,639	1,795	1.74	6,448	9,418	8.06	2,511	3,806	3.21
HONOLULU, HI [E]	1,458	1,644	1.58	1,874	2,163	2.05	6,016	6,142	6.17	1,870	2,365	2.15	8,167	12,381	10.44	3,302	4,745	4.09
HOUSTON, TX [D]	3,058	2,126	2.63	1,619	1,624	1.65	5,107	4,221	4.74	1,609	1,557	1.61	7,170	8,107	7.76	2,879	3,368	3.17
HUNTSVILLE, AL [C]	2,121	1,952	2.07	1,175	1,338	1.28	3,272	4,261	3.83	1,131	1,564	1.37	4,566	8,181	6.47	1,983	3,398	2.73
INDIANAPOLIS, IN [B]	2,997	2,281	2.68	1,481	1,439	1.48	4,917	5,243	5.16	1,651	1,924	1.82	7,010	10,091	8.69	2,762	4,016	3.44
JACKSON, MS [C]	2,136	2,078	2.14	1,080	1,499	1.31	3,461	4,350	3.97	1,232	1,613	1.44	4,912	8,390	6.76	2,042	3,451	2.79
JACKSONVILLE, FL [E]	991	1,030	1.03	1,084	1,370	1.25	3,979	3,695	3.90	1,227	1,425	1.35	5,565	7,448	6.61	2,300	3,154	2.77
KANSAS CITY, MO-KS [B]	3,135	2,038	2.63	1,518	1,487	1.53	4,973	4,226	4.67	1,704	1,550	1.65	6,860	8,108	7.60	2,699	3,368	3.08
KNOXVILLE, TN [B]	2,147	1,902	2.06	1,048	1,350	1.22	3,437	4,032	3.79	1,128	1,480	1.32	4,911	7,747	6.43	2,034	3,270	2.69
LANSING, MI [B]	3,081	2,119	2.64	1,538	1,410	1.50	5,059	4,698	4.96	1,603	1,737	1.70	6,902	9,041	8.10	2,800	3,686	3.29
LAS VEGAS, NV [D]	3,541	1,971	2.80	1,996	1,428	1.74	5,936	4,112	5.10	2,101	1,510	1.83	8,352	7,931	8.27	3,278	3,310	3.35
LEXINGTON, KY [B]	2,730	1,997	2.40	1,462	1,388	1.45	4,556	4,303	4.50	1,457	1,578	1.54	6,208	8,259	7.35	2,476	3,430	3.00
LITTLE ROCK, AK [C]	2,279	1,945	2.15	1,197	1,346	1.29	3,876	4,222	4.11	1,320	1,549	1.46	5,241	8,099	6.78	2,241	3,363	2.85
LOS ANGELES, CA [E]	4,032	2,612	3.37	2,129	1,736	1.96	6,729	5,511	6.22	2,099	2,137	2.15	9,098	11,169	10.29	3,692	4,369	4.09
LOUISVILLE, KY [B]	2,794	1,868	2.37	1,491	1,330	1.43	4,644	3,938	4.36	1,551	1,448	1.52	6,295	7,608	7.06	2,607	3,208	2.95
MADISON, WI [A]	3,844	2,844	3.40	1,488	1,371	1.45	4,655	4,677	4.74	1,541	1,655	1.62	6,184	8,669	7.54	2,523	3,549	3.08
MEMPHIS, TN [C]	2,660	2,005	2.37	1,382	1,511	1.47	4,284	4,032	4.22	1,368	1,480	1.45	6,171	7,747	7.07	2,483	3,270	2.92
MIAMI, FL [E]	995	1,036	1.03	1,420	1,375	1.42	4,063	3,737	3.96	1,493	1,434	1.49	5,770	7,538	6.76	2,374	3,179	2.82
MILWAUKEE, WI [A]	4,730	3,358	4.11	1,758	1,579	1.69	5,861	5,627	5.83	1,828	1,998	1.94	7,568	10,393	9.12	3,099	4,109	3.66
MINNEAPOLIS, MN [A]	3,898	3,399	3.71	1,509	1,613	1.59	4,845	5,675	5.34	1,589	2,009	1.83	6,600	10,490	8.68	2,675	4,147	3.46
MOBILE, AL [C]	2,518	1,968	2.28	1,312	1,342	1.35	4,205	4,309	4.32	1,253	1,599	1.45	5,688	8,312	7.11	2,418	3,421	2.97
NASHVILLE, TN [C]	2,311	1,835	2.11	1,097	1,305	1.22	3,790	3,898	3.90	1,213	1,432	1.34	5,369	7,483	6.53	2,166	3,167	2.71
NEW BRUNSWICK, NJ [B]	3,094	2,111	2.64	1,661	1,469	1.59	5,272	4,538	4.98	1,714	1,670	1.72	7,483	8,752	8.25	3,012	3,582	3.35
NEW HAVEN, CT [B]	3,176	2,271	2.77	1,674	1,548	1.64	5,437	4,928	5.26	1,742	1,829	1.81	7,300	9,511	8.54	3,041	3,849	3.50
NEW ORLEANS, LA [C]	2,581	2,066	2.36	1,396	1,474	1.46	4,338	4,358	4.42	1,330	1,597	1.49	5,909	8,414	7.27	2,450	3,462	3.00
NEWARK, NJ [B]	2,953	2,115	2.57	1,619	1,519	1.59	4,832	4,445	4.71	1,704	1,630	1.69	7,013	8,579	7.92	2,779	3,531	3.20
NEWPORT NEWS, VA [C]	2,128	2,118	2.16	1,064	1,556	1.33	3,461	4,358	3.97	953	1,597	1.30	5,007	8,414	6.82	2,066	3,462	2.81
NORFOLK, VA [C]	2,128	2,137	2.17	1,064	1,572	1.34	3,461	4,401	3.99	953	1,615	1.30	5,007	8,496	6.86	2,066	3,498	2.83
OKLAHOMA CITY, OK [C]	2,411	1,953	2.22	1,217	1,413	1.34	3,790	4,072	3.99	1,309	1,495	1.42	5,270	7,858	6.67	2,211	3,278	2.79
OMAHA, NE [B]	2,884	1,961	2.46	1,573	1,370	1.49	4,832	4,222	4.60	1,482	1,549	1.54	6,659	8,099	7.50	2,727	3,363	3.09
ORLANDO, FL [E]	908	1,052	1.00	1,213	1,379	1.32	3,679	4,038	3.92	1,174	1,557	1.39	5,166	8,107	6.74	2,152	3,368	2.80
PENSACOLA, FL [E]	950	1,028	1.00	1,276	1,358	1.34	3,901	3,784	3.90	1,149	1,466	1.33	5,150	7,630	6.49	2,311	3,192	2.79
PEORIA, IL [B]	3,453	2,130	2.84	1,843	1,445	1.67	5,880	4,696	5.37	1,852	1,745	1.83	7,543	9,052	8.43	3,134	3,673	3.46
PHILADELPHIA, PA [B]	2,927	2,420	2.72	1,592	1,542	1.59	4,917	5,552	5.32	1,737	2,047	1.92	6,924	10,689	8.95	2,763	4,227	3.55
PHOENIX, AZ [D]	2,927	2,382	2.70	1,531	1,583	1.58	4,807	5,289	5.13	1,595	1,957	1.80	6,752	10,206	8.61	2,737	4,045	3.44
PITTSBURGH, PA [B]	3,349	2,559	3.00	1,776	1,768	1.80	5,222	5,505	5.45	1,980	2,036	2.04	7,237	10,593	9.06	2,832	4,186	3.56
PORTLAND, OR [B]	3,591	2,173	2.93	1,856	1,517	1.71	5,852	4,649	5.33	2,028	1,715	1.90	7,897	8,982	8.57	3,200	3,608	3.46
PROVIDENCE, RI [B]	2,763	2,345	2.59	1,475	1,526	1.52	4,533	5,297	4.99	1,505	1,953	1.76	6,137	10,207	8.30	2,492	4,046	3.32
RALEIGH, NC [C]	1,657	2,046	1.88	911	1,445	1.20	2,585	4,358	3.53	805	1,597	1.22	3,658	8,414	6.13	1,563	3,462	2.55
RICHMOND, VA [C]	2,285	2,313	2.34	1,191	1,641	1.44	3,601	4,855	4.29	1,324	1,801	1.59	5,165	9,344	7.37	2,127	3,779	3.00
ROCHESTER, NY [B]	3,123	2,212	2.71	1,698	1,688	1.72	5,137	4,401	4.84	1,704	1,615	1.69	6,899	8,496	7.82	2,856	3,498	3.23
SACRAMENTO, CA [D]	4,061	2,399	3.28	2,100	1,712	1.94	7,032	5,041	6.13	2,318	1,863	2.12	9,635	9,712	9.83	3,809	3,901	3.92
ST. LOUIS, MO [B]	3,189	1,922	2.60	1,720	1,391	1.58	5,389	4,022	4.78	1,725	1,495	1.64	7,461	7,752	7.73	2,916	3,238	3.13
SALT LAKE CITY, UT [B]	2,793	2,080	2.47	1,465	1,539	1.53	4,502	4,261	4.45	1,521	1,564	1.57	6,150	8,181	7.28	2,528	3,398	3.01
SAN ANTONIO, TX [E]	1,018	1,015	1.03	1,295	1,312	1.32	4,142	4,218	4.25	1,293	1,615	1.48	5,443	8,496	7.08	2,434	3,498	3.01
SAN DIEGO, CA [E]	3,767	2,741	3.31	1,890	1,856	1.90	6,094	5,725	6.00	1,963	2,220	2.12	8,812	11,569	10.35	3,498	4,486	4.05
SAN FRANCISCO, CA [D]	4,275	2,496	3.44	2,191	1,852	2.05	7,222	5,088	6.25	2,351	1,870	2.14	10,050	9,809	10.09	4,005	3,915	4.02
SAN JOSE, CA [E]	4,040	2,558	3.35	2,074	1,815	1.98	6,870	5,142	6.10	2,246	1,995	2.15	9,470	10,399	10.09	3,753	4,122	4.00
SEATTLE, WA [B]	3,768	2,523	3.20	1,968	1,731	1.88	6,158	5,452	5.90	2,074	2,018	2.08	8,011	10,494	9.40	3,391	4,146	3.83
SHREVEPORT, LA [C]	2,337	2,059	2.23	1,187	1,432	1.33	3,901	4,403	4.22	1,262	1,631	1.47	5,279	8,492	6.99	2,283	3,475	2.92
SPOKANE, WA [B]	3,441	2,054	2.79	1,799	1,535	1.69	5,740	4,145	5.02	1,926	1,530	1.76	7,588	7,972	7.90	3,157	3,338	3.30
SPRINGFIELD, MA [B]	2,972	2,077	2.56	1,597	1,416	1.53	4,998	4,538	4.84	1,566	1,670	1.64	6,700	8,752	7.85	2,780	3,582	3.23
STOCKTON, CA [D]	4,103	2,670	3.44	2,095	1,864	2.01	6,924	5,695	6.41	2,100	2,093	2.13	9,374	10,955	10.32	3,776		

Wall Finishes			Floor Finishes			Ceiling Finishes			Fixed Equipment			HVAC			Plumbing			Electrical			Totals		
Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.	Labor	Material	Sq. ft.
1,505	698	1.12	920	2,607	1.79	1,952	739	1.37	1,291	5,541	3.47	3,217	2,480	2.89	3,750	2,323	3.08	2,007	1,354	1.71	37,739	38,138	38.55
1,370	747	1.08	792	2,717	1.78	1,612	779	1.21	1,132	5,728	3.48	2,790	2,589	2.73	3,377	2,425	2.95	1,617	1,413	1.54	31,573	39,791	36.25
795	684	0.75	444	2,525	1.51	930	711	0.83	881	5,395	3.19	1,656	2,410	2.07	2,172	2,251	2.25	1,394	1,313	1.37	19,029	36,954	28.43
944	754	0.86	502	2,774	1.66	1,003	799	0.92	864	5,826	3.40	1,618	2,637	2.16	2,329	2,475	2.44	1,002	1,442	1.24	18,798	40,463	30.09
1,484	765	1.14	778	2,766	1.80	1,733	801	1.29	1,154	5,846	3.56	2,995	2,631	2.86	3,243	2,467	2.90	1,910	1,439	1.70	32,468	40,451	37.04
1,925	972	1.47	1,047	3,641	2.38	2,221	1,025	1.65	1,365	7,289	4.40	3,179	2,418	2.84	3,886	3,248	3.62	2,440	1,891	2.20	38,750	49,924	45.04
1,676	634	1.17	884	2,381	1.66	1,904	677	1.31	1,237	5,161	3.25	2,790	2,261	2.57	3,661	2,124	2.94	2,111	1,238	1.70	35,705	35,479	36.16
1,033	636	0.85	594	2,410	1.53	1,247	677	0.98	1,013	5,212	3.16	2,416	2,292	2.39	2,962	2,149	2.60	1,703	1,254	1.50	25,216	35,324	30.76
1,498	815	1.17	859	2,970	1.94	1,757	861	1.33	1,223	6,156	3.75	2,714	2,822	2.81	3,590	2,650	3.17	2,143	1,542	1.87	34,602	42,810	39.31
1,115	682	0.91	637	2,461	1.57	1,271	705	1.00	1,017	5,310	3.21	2,361	2,345	2.39	2,875	2,196	2.58	1,544	1,281	1.43	25,683	36,361	31.50
1,222	607	0.93	742	2,187	1.49	1,539	637	1.11	1,141	4,831	3.03	2,473	1,451	1.99	3,095	1,949	2.56	1,732	1,136	1.46	27,090	30,920	29.48
1,571	632	1.12	849	2,390	1.64	1,733	671	1.22	1,197	5,166	3.23	2,751	2,272	2.55	3,734	2,131	2.98	2,196	1,242	1.75	34,920	35,281	35.65
1,215	620	0.93	632	2,281	1.48	1,343	660	1.02	1,012	4,999	3.05	2,454	2,178	2.35	2,824	2,036	2.47	1,540	1,186	1.38	25,725	33,741	30.19
1,622	705	1.18	869	2,662	1.79	1,880	759	1.34	1,202	5,638	3.47	2,603	2,527	2.61	3,744	2,373	3.11	1,866	1,385	1.65	34,769	38,740	37.34
1,918	624	1.29	1,015	2,331	1.70	2,148	671	1.43	1,374	5,070	3.27	3,645	2,224	2.98	4,932	2,080	3.56	2,812	1,212	2.04	43,048	34,474	39.36
1,390	643	1.03	778	2,433	1.63	1,588	684	1.15	1,131	5,265	3.25	2,809	2,314	2.60	3,423	2,170	2.84	1,868	1,267	1.59	31,876	35,731	34.33
1,102	631	0.88	657	2,386	1.55	1,368	671	1.04	1,080	5,162	3.17	2,584	2,270	2.47	3,160	2,129	2.69	1,868	1,241	1.58	27,973	35,014	32.02
2,157	898	1.55	1,129	3,284	2.24	2,415	940	1.70	1,425	6,708	4.13	3,440	2,177	2.85	5,079	2,929	4.07	2,658	1,707	2.22	46,082	46,177	46.84
1,330	620	0.99	809	2,236	1.55	1,539	642	1.11	1,174	4,931	3.10	3,254	2,125	2.73	3,962	1,996	3.03	2,132	1,162	1.67	33,582	33,112	33.87
1,374	689	1.05	750	2,550	1.68	1,563	718	1.16	1,113	5,448	3.33	2,864	3,586	3.28	3,501	2,274	2.93	1,881	1,327	1.63	33,281	39,357	36.89
1,474	620	1.06	793	2,281	1.56	1,636	660	1.17	1,139	4,999	3.12	2,790	2,178	2.52	3,508	2,036	2.82	1,883	1,186	1.56	31,571	34,005	33.31
1,394	614	1.02	701	2,215	1.48	1,539	637	1.11	1,112	4,881	3.04	3,179	1,467	2.36	3,710	1,977	2.89	2,136	1,151	1.67	29,886	31,241	31.05
1,653	825	1.26	942	3,056	2.03	1,928	880	1.43	1,275	6,297	3.85	3,087	4,304	3.75	3,783	2,722	3.30	2,192	1,588	1.92	39,704	46,736	43.89
1,502	829	1.18	828	3,081	1.99	1,733	880	1.33	1,195	6,346	3.83	2,939	4,335	3.69	3,582	2,749	3.22	2,138	1,603	1.90	35,033	47,156	41.75
1,332	676	1.02	727	2,438	1.61	1,563	698	1.15	1,089	5,259	3.22	2,695	2,323	2.55	3,298	2,174	2.78	1,557	1,269	1.44	29,655	35,788	33.25
1,226	609	0.93	683	2,197	1.46	1,391	640	1.03	1,049	4,855	3.00	2,343	2,083	2.25	3,068	1,958	2.55	1,591	1,142	1.39	27,297	32,604	30.42
1,530	697	1.13	915	2,574	1.77	1,929	724	1.35	1,287	5,499	3.45	3,162	2,456	2.85	3,851	2,296	3.12	2,067	1,339	1.73	36,977	37,707	37.93
1,559	768	1.18	935	2,975	1.89	1,879	801	1.36	1,272	5,892	3.64	3,105	2,664	2.93	3,433	2,496	3.01	2,110	1,455	1.81	36,663	40,807	39.34
1,308	676	1.01	751	2,471	1.64	1,539	711	1.14	1,128	5,300	3.26	2,436	2,348	2.43	3,085	2,203	2.69	1,792	1,286	1.56	30,043	36,366	33.73
1,445	687	1.08	831	2,518	1.70	1,757	724	1.26	1,224	5,402	3.37	2,882	2,394	2.68	3,851	2,246	3.10	2,203	1,309	1.78	35,093	37,099	36.65
1,137	676	0.92	630	2,471	1.57	1,296	711	1.02	1,013	5,300	3.21	2,324	2,348	2.37	2,841	2,203	2.56	1,453	1,286	1.39	25,373	36,500	31.43
1,137	681	0.92	630	2,494	1.59	1,296	718	1.02	1,013	5,350	3.23	2,324	2,371	2.38	2,841	2,224	2.57	1,453	1,297	1.40	25,373	36,854	31.60
1,301	617	0.97	692	2,309	1.52	1,417	664	1.06	1,055	5,016	3.08	2,511	2,202	2.39	3,057	2,058	2.60	1,715	1,201	1.48	27,956	34,136	31.53
1,459	631	1.06	817	2,386	1.63	1,707	671	1.21	1,183	5,162	3.22	2,827	2,270	2.59	3,437	2,129	2.83	1,987	1,241	1.64	33,574	35,054	34.86
1,173	634	0.92	657	2,381	1.54	1,344	677	1.03	1,043	5,161	3.15	2,676	1,576	2.16	2,917	2,124	2.56	1,703	1,238	1.49	25,805	33,292	30.02
1,077	616	0.86	710	2,241	1.50	1,271	637	0.97	1,044	4,927	3.03	2,268	1,482	1.90	2,744	1,999	2.41	1,368	1,164	1.29	25,219	31,524	28.81
1,768	707	1.26	945	2,658	1.83	1,978	745	1.38	1,228	5,642	3.49	3,124	2,536	2.87	3,569	2,371	3.02	1,884	1,386	1.66	38,201	38,786	39.11
1,586	846	1.24	895	3,141	2.05	1,830	898	1.39	1,208	6,467	3.90	2,714	2,988	2.90	3,592	2,800	3.25	1,815	1,632	1.75	34,500	45,249	40.53
1,504	818	1.18	828	2,995	1.94	1,707	861	1.30	1,208	6,199	3.76	2,920	2,854	2.93	3,301	2,671	3.03	2,307	1,560	1.96	34,124	43,420	39.36
1,775	840	1.33	881	3,115	2.03	1,905	898	1.42	1,205	6,177	3.87	2,920	2,956	2.98	4,032	2,776	3.46	2,129	1,617	1.90	37,243	45,266	41.90
1,850	721	1.31	989	2,640	1.84	2,051	749	1.42	1,335	5,554	3.50	3,978	2,519	3.30	4,771	2,355	3.62	2,717	1,372	2.08	42,115	38,554	40.97
1,373	827	1.12	757	2,998	1.91	1,563	857	1.23	1,116	6,222	3.73	2,089	2,861	2.88	3,431	2,671	3.10	1,854	1,557	1.73	31,808	43,367	38.18
859	676	0.78	456	2,471	1.49	980	711	0.86	863	5,300	3.13	1,637	2,348	2.02	2,222	2,203	2.25	1,194	1,286	1.26	19,390	36,317	28.30
1,208	747	0.99	645	2,746	1.72	1,368	792	1.10	1,001	5,771	3.44	2,436	2,610	2.56	3,081	2,450	2.81	1,345	1,428	1.41	26,777	40,277	34.06
1,657	681	1.19	875	2,494	1.71	1,855	718	1.31	1,211	5,350	3.33	3,197	2,371	2.83	3,899	2,224	3.11	2,083	1,297	1.72	36,194	37,045	37.21
2,414	772	1.62	1,230	2,855	2.07	2,635	815	1.75	1,477	5,983	3.79	3,978	2,718	3.40	4,860	2,546	3.76	2,608	1,487	2.08	48,157	41,804	45.69
1,638	617	1.15	886	2,277	1.61	1,880	650	1.28	1,251	4,977	3.16	3,327	2,164	2.79	3,461	2,032	2.79	2,429	1,188	1.84	37,272	33,725	36.08
1,414	636	1.04	766	2,410	1.61	1,613	677	1.16	1,137	5,212	3.22	2,546	2,292	2.46	3,121	2,149	2.68	1,938	1,254	1.62	31,494	35,653	34.10
1,193	681	0.95	757	2,494	1.65	1,442	718	1.10	1,127	5,350	3.29	2,864	1,654	2.29	3,503	2,224	2.91	1,737	1,297	1.54	28,248	34,572	31.90
2,230	915	1.60	1,097	3,396	2.28	2,562	961	1.79	1,452	6,896	4.24	3,700	2,258	3.03	5,064	3,026	4.11	2,811	1,767	2.33	44,940	47,816	47.11
2,397	775	1.61	1,242	2,883	2.09	2,708	815	1.79	1,579	6,032	3.87	5,279	2,750	4.08	6,431	2,572	4.57	3,396	1,501	2.49	53,126	42,558	48.49
2,096	833	1.49	1,154	3,053	2.14	2,466	878	1.70	1,510	6,320	3.98	4,											



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# 1982 HFBL WINNERS

This year's Homes for Better Living award winners are a study in contrasts: The 17 projects singled out range from apartments packed at more than 20 units to the acre (*photo below left and page 42*) to large custom homes sited in regal isolation, such as the one pictured below and on our cover (*see also page 52*). Even so, there are some similarities among them. For example: Six of the 10 production-housing winners are designed for less-than-an-acre sites in established neighborhoods; two even incorporate existing residences. And three of the seven custom winners could be called infill as well, such as an unorthodox vacation house designed to reflect

the ambience of a beachfront community (*see page 56*). Other common threads: energy-consciousness and sensitivity to regional architectural styles.

The HFBL program is the oldest national design competition devoted solely to housing. Since its debut in 1956, the program has been held in co-operation with the American Institute of Architects, and judging—a painstaking two-day process—is held at the AIA's Washington, D.C.

headquarters\*. Though projects must be designed by a registered architect in order to be considered, submissions came from builders and developers across the country, as well as from AIA members: This year's program attracted 586 entries. For more information about this year's winners, see the next 18 pages. For instructions on entering the 1983 program, see page 83.

—BARBARA BEHRENS GERS & JENNIFER WAGNER

**\*Production-housing jury:** Donald Sandy Jr. FAIA, chairman; Do H. Chung AIA; Cynthia Weese AIA; James R. Cornwell, associate member, AIA; Burton Bines, builder; June Vollman, managing editor, HOUSING; Stephen A. Schwartz, architectural student. **Custom-home jury:** Charles Dagit Jr. AIA, chairman; Arne Bystrom AIA; Ingeborg B. Rose AIA; Dwight Holmes AIA; James Childress, associate member, AIA; Walter F. Wagner, editor, *Architectural Record*; Robert D. McKerrow, architectural student.

JOSHUA FREIWALD

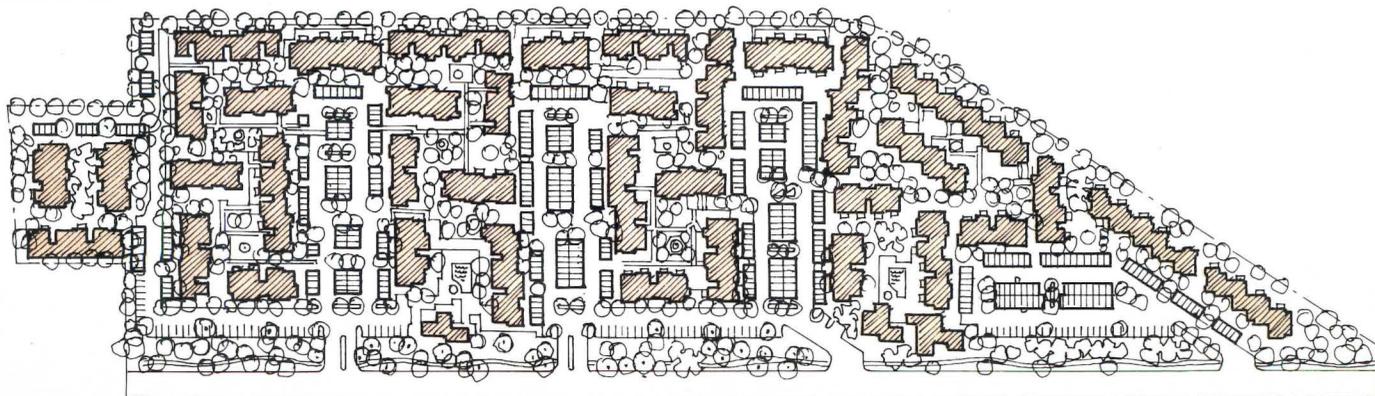


BENT REI

# MULTIFAMILY



PHOTOS: JOSHUA FREIWALD



**Tight rental complex** has a "village-like" feeling, said the jury. And, more important, the 22-acre project is designed to suit the hot, dry climate of Arizona.

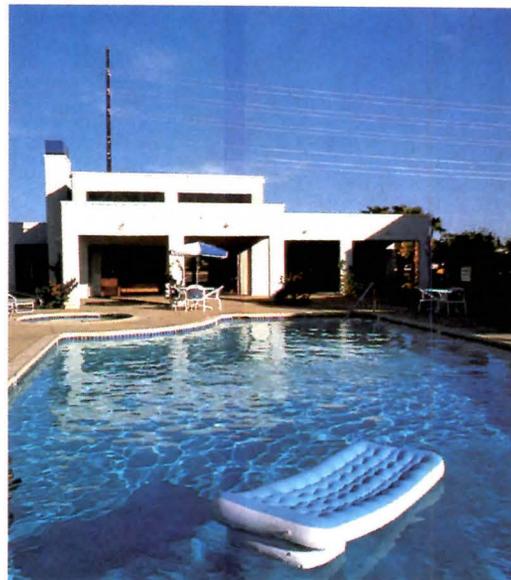
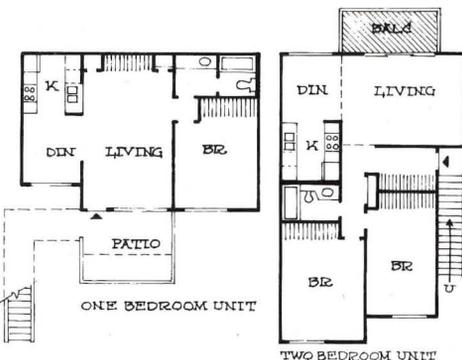
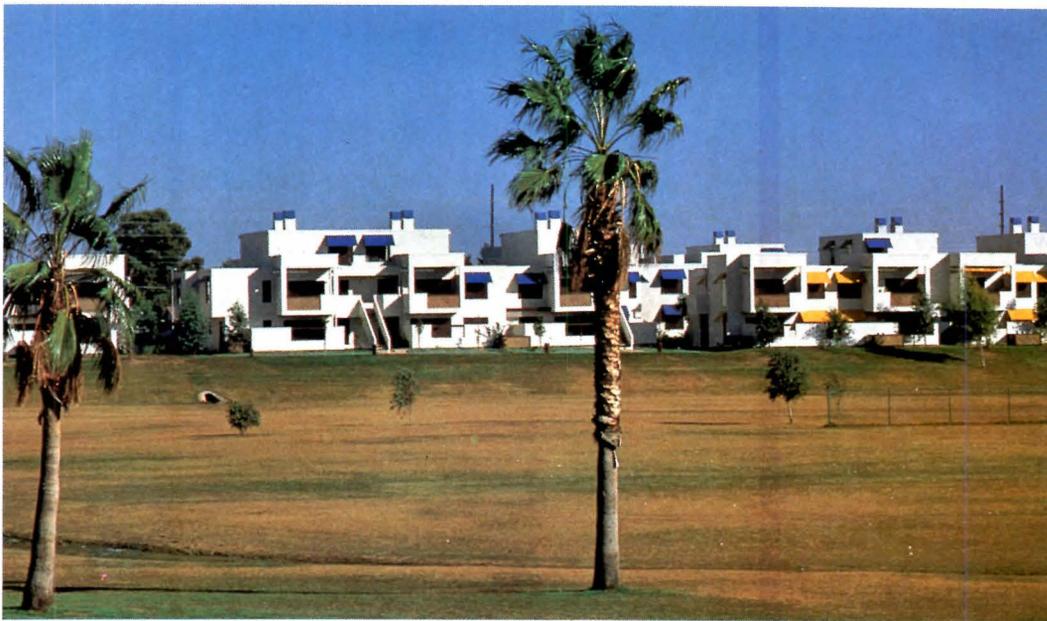
Landscaped courtyards, for example, feature desert plants that don't require constant watering. The low-maintenance hardscaping and fountains, which have a psychological cooling effect, are copied from plazas in similarly hot Mediterranean countries, such as Spain and Morocco. And here's where a rarely discussed advantage of high density (about 20 d.u./acre) comes into play: Since the courtyards are relatively compact, the buildings are close enough to provide a measure of shade for one another.

Climate also influenced design in other ways: There are trellis-covered balconies with deep overhangs; balcony and patio walls with lattice-work inserts to take advantage of available breezes; and windows shaded by awnings. Another design function of the bright-blue awnings: adding spots of color to the stuccoed structures, which are painted white to reflect sunlight.

An adjacent oasis in the form of a golf course also provides psychological relief from the heat. The majority of the project's 442 apartments are sited to take advantage of views of its cool-looking, grassy slopes (*photo right, site plan left*).

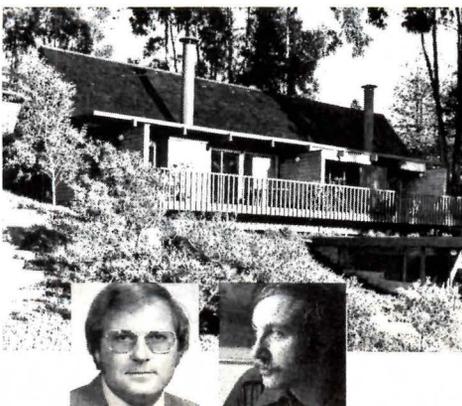
Apartments, which range from 694 to 962 sq. ft., are a mix of one- and two-bedroom units (*typical plans are shown*). Rents range from \$345 to \$436 a month.

Also included: a clubhouse building and swimming pool.



### FIRST HONOR AWARD

PROJECT: Sunscape, Scottsdale, Ariz.  
 ARCHITECT: Fisher-Friedman Associates, San Francisco  
 DEVELOPER: Prometheus Development Co., Cupertino, Calif.  
 LANDSCAPE ARCHITECT: Anthony M. Guzzardo & Associates, San Francisco



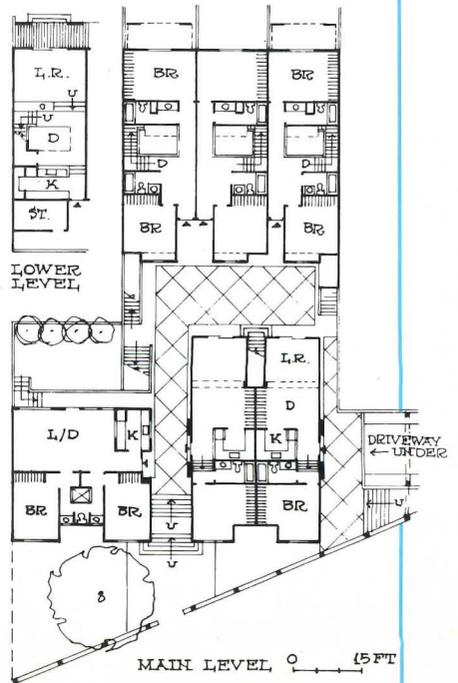
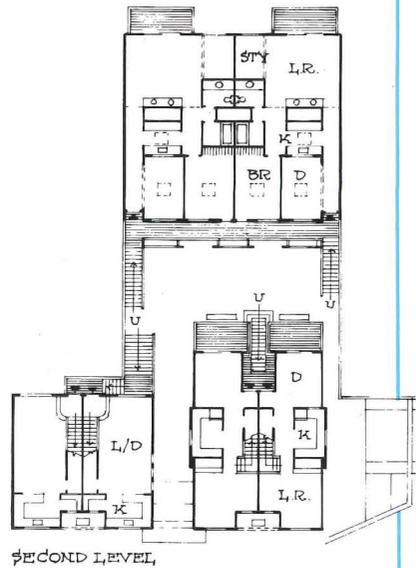
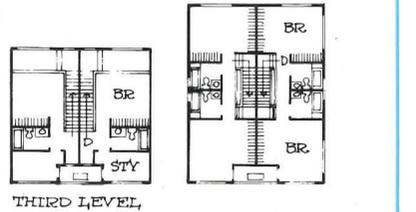
**"Honored" architects**  
 Robert Fisher (*far left*) and Rodney Friedman (*left*) are no strangers to the HFBL winners' circle: Their firm has garnered 34 awards—the first, an honorable mention received in 1964. (This category of award has been discontinued.) One reason for the impressive number of citations: Fisher-Friedman has tackled a wide variety of residential designs, ranging

from the hillside duplexes which earned an award in 1965 (*photo left*) to dramatic custom homes, such as last year's award-winning residence [HOUSING SEPT. '81], to the high-density desert project pictured above. These architects have put their mark on the HFBL program in another way as well: Both have served as jury chairmen—Fisher in 1974; Friedman in 1978.



TIM STREET/BOPTED

**FIRST HONOR AWARD**  
 PROJECT: Castro Common, San Francisco  
 ARCHITECT: Daniel Solomon,  
 Paulett Taggart, San Francisco  
 BUILDER: Shannon Construction,  
 San Francisco  
 LANDSCAPE ARCHITECT: Max Schardt,  
 San Francisco

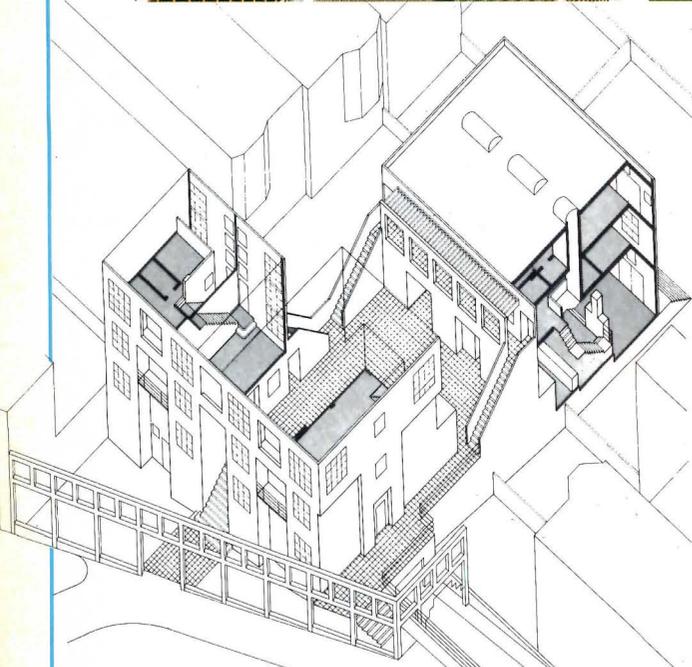


**Low-rise urban housing** provides security and privacy even though the 12,400-sq.-ft. site faces a subway entrance and is around the corner from a "raucous" commercial area. The building is set back from the street and is shielded by a fence from passersby (photo above). To further promote privacy—both visual and physical—units are entered from a central courtyard (plans right; photo below left) and most are oriented to this secluded space or, in the case of rear units, to private outdoor areas behind the project.

The existence of the subway entrance influenced design in another way as well. Because of it, there's only one corner of the site which is accessible to cars (see isometric), so the location for the garage entrance was predetermined.

Also of concern to the architect: fitting the project in with the older, white clapboard houses of the neighborhood. That's why white-painted cedar siding was specified for the exterior. And the exterior stairways, decks and railings are reminiscent of the pattern of fire escapes on adjacent structures.

The project's 12 units are not inexpensive—they're slated to sell for \$130,000 to \$230,000—but most are designed so that they can be shared, featuring two bedrooms and two full baths. Square footage averages around 950.



HENRY BOWLES



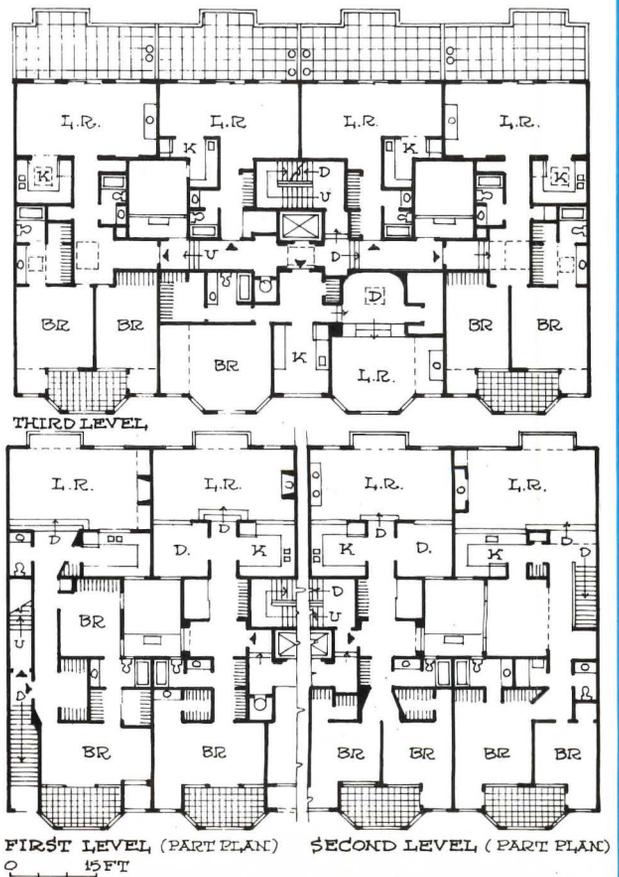
**Infill rental project**, which appears to be four separate structures, respects the scale of its San Francisco neighborhood. Actually, it's a 100'-wide building organized into 25'-wide sections. The impression of four buildings is strengthened by the fact that there are multiple entrances: Though nine of the 13 flats are served by the brightly-accented "front door" (*photo left*), four others—at either end of the building—are walk-ups with separate entrances (*see photo above, plans right*).

While the building's bay windows are typical of the city's Victorian architecture, they're also put to a contemporary use—namely, as part of a passive solar heating system. In ten of the units, the bays create south-facing "garden rooms" with heat-absorbing tile floors (*photo left*). Warm air is ducted from these areas to the north end of the units. The garden rooms have another benefit: They serve as acoustic buffers between bedrooms and the street. (Living areas, kept to the rear of the building, overlook a common landscaped courtyard.)

Unit sizes range from 470 to 1,530 sq. ft.; rents from \$600 to \$1,100. Parking is provided in the street level of the building (garage doors can be seen in the photo above).

### AWARD OF MERIT

PROJECT: Washington House, San Francisco  
ARCHITECT: Daniel Solomon and Associates, San Francisco  
BUILDER: U.C. Construction, San Francisco  
OWNER: Paul Melodia, San Francisco

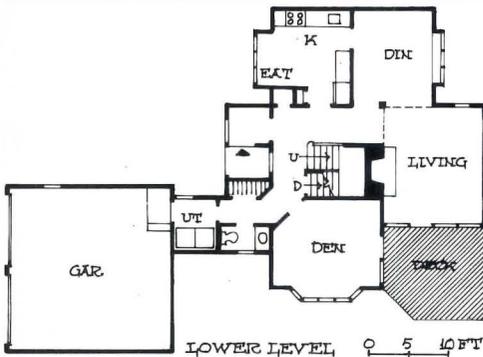
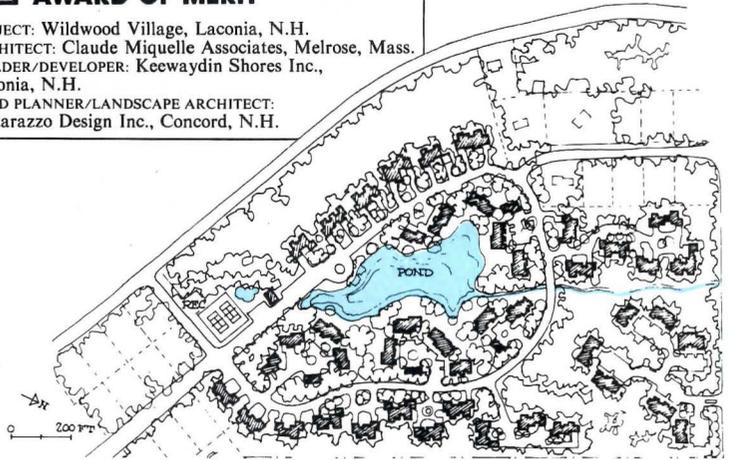


FOR DETAILS, SEE PRODUCT INFORMATION INDEX

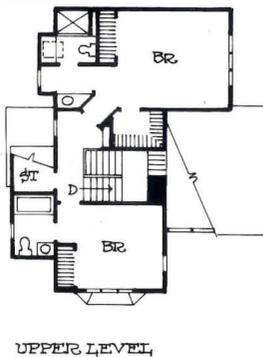


## AWARD OF MERIT

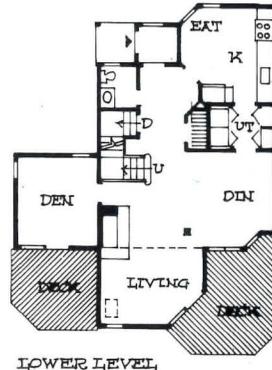
PROJECT: Wildwood Village, Laconia, N.H.  
 ARCHITECT: Claude Miquelle Associates, Melrose, Mass.  
 BUILDER/DEVELOPER: Keewaydin Shores Inc.,  
 Laconia, N.H.  
 LAND PLANNER/LANDSCAPE ARCHITECT:  
 Matarazzo Design Inc., Concord, N.H.



LOWER LEVEL 0 5 10 FT



UPPER LEVEL



LOWER LEVEL



UPPER LEVEL



## AWARD OF MERIT

PROJECT: 222 Columbia Heights,  
 Brooklyn Heights, N.Y.  
 ARCHITECT: Alfredo De Vido, AIA, N.Y.C.  
 BUILDER/OWNER: Ian Bruce Eichner,  
 Brooklyn, N.Y.

OTTO BAITZ



A 'tremendous infill' is how the judges described this four-unit building in a landmark preservation district. Like its 19th-century neighbors, the structure has a masonry exterior—in this case, brick—and windows, including a bay window, that are larger on lower floors. But its look is unabashedly contemporary. Said the jurors: "It's an elegant restatement of the rhythm of the street."

Originally, the client wanted only a two- or three-story house to be built on the then-vacant 50' x 100' corner lot. But the Landmarks Commission pressed for a building whose bulk would equal that of adjacent structures. So two condos (1,320 sq. ft. and 670 sq. ft.) and a rental unit (570 sq. ft.) occupy the first two floors; the three top floors form the owner/builder's 3,800-sq. ft. home (*plans right*), which offers dramatic views of the harbor and Manhattan skyline from the main living areas (*photo right*) and provides a "roof-level" family/billiards room and study (plan not shown).

**New England PUD** capitalizes on a wooded, rolling site: Buildings are clustered along winding roads that follow the contours of the land, and natural vegetation was preserved as much as possible. A centrally located pond, which serves as a focal point for the 156-unit community, was created not only as an amenity but also to solve a drainage problem resulting from development.

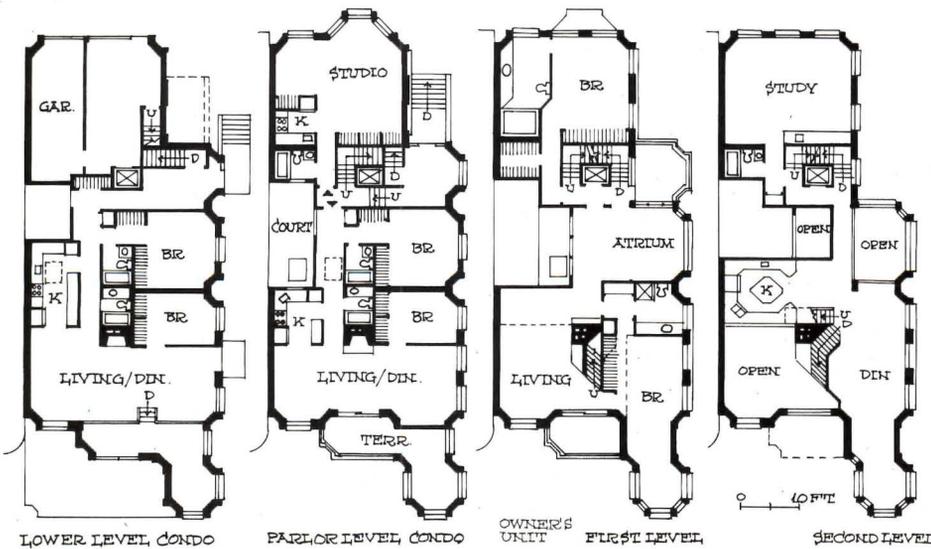
Buffer strips of common areas along the edge of the 40-acre project ease the transition from nearby single-family homes. For the same reasons, the project's smaller buildings—duplexes (*photo and plan far left*)—are located at the perimeter.

Exteriors with traditionally detailed multi-paned windows recall the region's heritage, while floor plans feature more up-to-date styling—e.g. vaulted ceilings, angled walls and spacious decks. (A 1,581 sq. ft. duplex layout and a 1,444 sq. ft. townhouse plan are shown.)

Buyers have been a mix of empty nesters and professional couples: Prices range from \$70,000 to \$150,000.



PHOTOS: SAM SWEETZ



NORMAN MCGRATH



FOR DETAILS, SEE PRODUCT INFORMATION INDEX

**Senior-citizen complex** was designed to complement one of Sacramento's oldest neighborhoods—an area of restored Victorian workmen's cottages.

So the project's 40 units are broken up among five separate structures that reflect the scale of surrounding residences. And even though budget constraints limited the amount of Victorian-style detailing (the project is public housing) such characteristics as the variety of pastel exterior paints used contribute to the Victorian look.

Each building holds eight 576-sq.-ft one-bedroom flats for independent elderly (*plans below*). They vary only in that the location of the entry changes, depending on a unit's orientation to the exterior stairway at the heart of each cluster of units (*see site plan*).

Interior courtyards (*photo bottom of page*) provide outdoor sitting areas and make the most of towering elms which characterize the nearly one-acre site.

Commented the jury: "The architectural style for elderly housing is just perfect . . . and that, coupled with a very good site plan, makes living there very desirable."

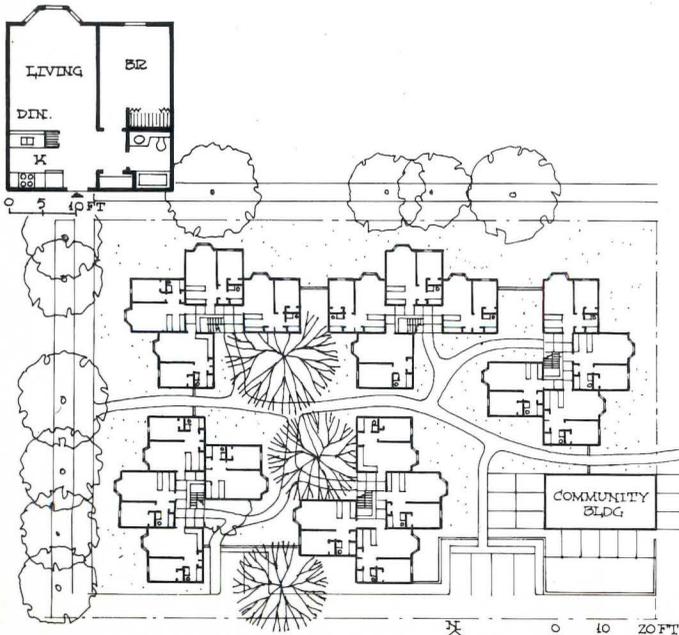


PHOTOS: JIM MAZZUCHI



## AWARD OF MERIT

PROJECT: Las Victorianas, Sacramento, Calif.  
 ARCHITECT: Dreyfuss & Blackford  
 Architectural Group, Sacramento, Calif.  
 BUILDER: J.R. Roberts Construction Co.  
 Fair Oaks, Calif.  
 OWNER: Sacramento Housing &  
 Redevelopment Agency, Sacramento, Calif.  
 LANDSCAPE ARCHITECT: Dennis Tsuboi  
 & Associates, Sacramento, Calif.



**Congregate living facility** for 20 frail, elderly people masquerades as a rambling old single-family house—a style of living and of architecture that residents are comfortable with.

As well as being symbolic of “home,” the front porch encourages social interaction. And it’s visible from the town’s main street, where there are shops, entertainment, etc. Therefore, when residents venture out, say the architects, they will not feel it is a long walk and may be more likely to stay active.

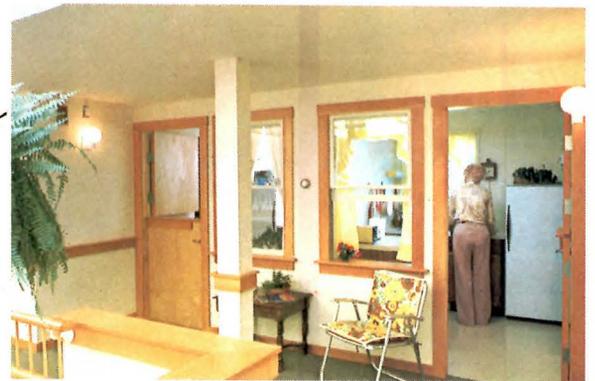
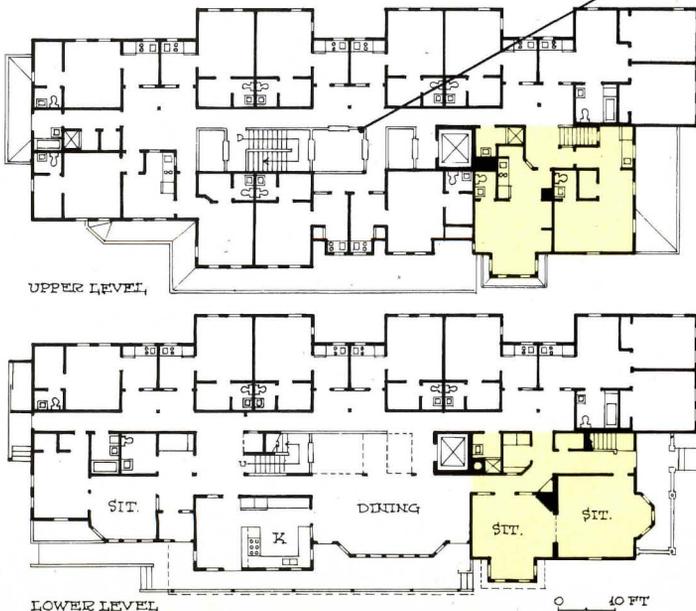
Community life is a high priority inside, too. The 275-sq.-ft. apartments feature dutch doors and interior windows (*top photo, lower right*) so that residents will always feel they’re part of what’s going on—and yet feel secure. There are also various shared spaces on the first floor—kitchen, dining room, sitting area overlooking the entry and two “parlors” (*plan bottom of page*).

Most of this facility is new construction. But the parlors were created from living spaces of a much smaller house (*see yellow area in plan*) that occupied the 10,500 sq. ft. site. A side porch (*lower photo right*) signals the dimension of the original structure, but there are few other signs of it.



**FIRST HONOR AWARD**

PROJECT: Captain Eldridge House, Hyannis, Mass.  
 ARCHITECTS: Donham & Sweeney, Boston;  
 Korobkin Jahan Associates, Somerville, Mass.;  
 Zeisel Research, Cambridge, Mass.  
 BUILDER: McDuff Building Corp.,  
 Marston's Mills, Mass.  
 OWNER: Barnstable Housing Authority,  
 Hyannis, Mass.  
 LANDSCAPE ARCHITECT:  
 William Lewis, Barnstable, Mass.



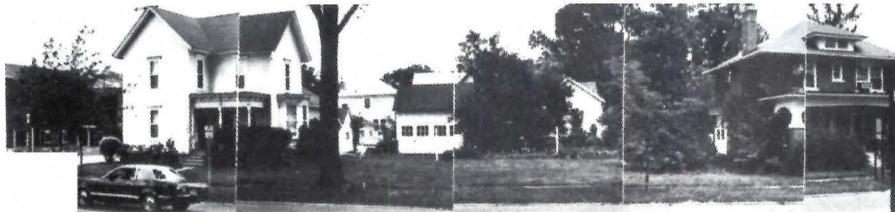
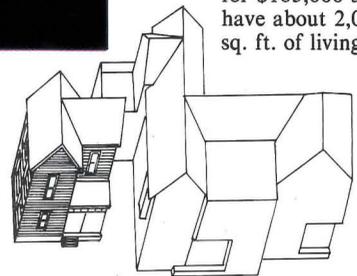
PHOTOS: STEVE ROSENTHAL



**Old plus new:** A 100-year-old historic residence has been joined by three condo units (*before and after photos left*). Because of a zoning ordinance, development of the site—in a highly desirable neighborhood—required attaching any new construction to the existing house, so architect/developer Robert Ziegelman restored the 1,500-sq.-ft. dwelling while matching new condos to it.

The added-on units fit smoothly into the streetscape: The lines of the old house are repeated (*see isometric*) and the same vocabulary of materials—e.g. white-painted siding; black roofing—is used.

The new units, which sold for \$185,000 and have about 2,000 sq. ft. of living

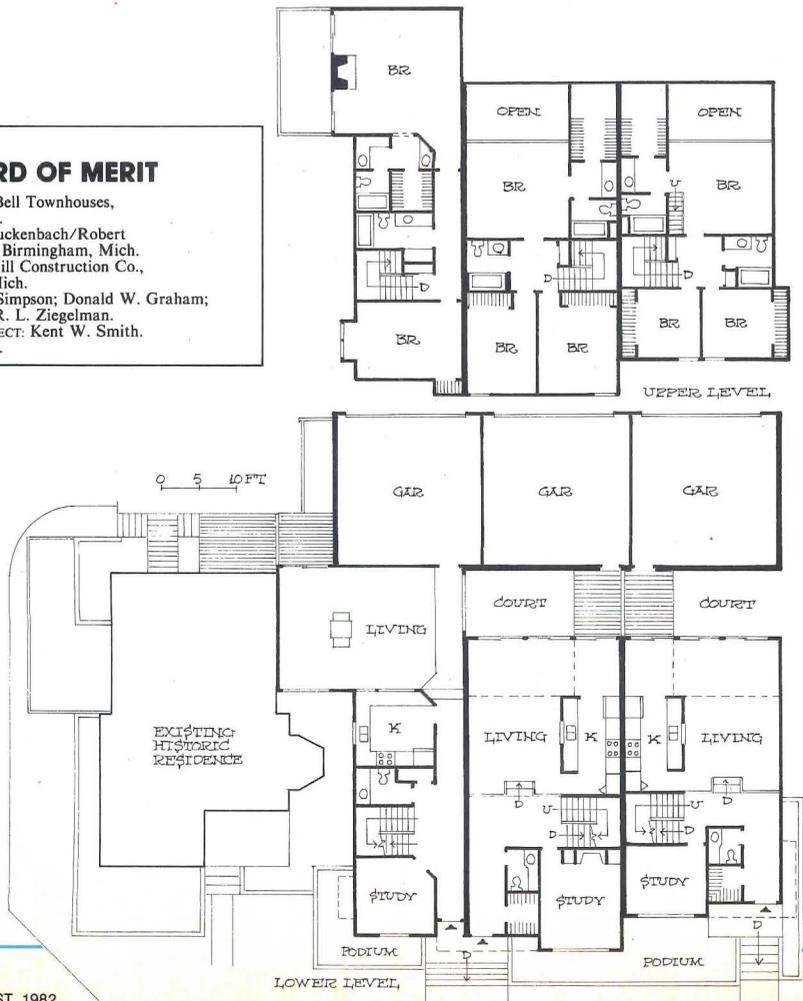


KENBACH/ROBERT L. ZIEGELMAN INC.



## AWARD OF MERIT

PROJECT: William Bell Townhouses, Birmingham, Mich.  
 ARCHITECT: Carl Luckenbach/Robert L. Ziegelman Inc., Birmingham, Mich.  
 BUILDER: Beacon Hill Construction Co., Lathrup Village, Mich.  
 OWNER: James A. Simpson; Donald W. Graham; Jay H. Robinson; R. L. Ziegelman.  
 LANDSCAPE ARCHITECT: Kent W. Smith, Birmingham, Mich.



space, have individual podium entries and rear courtyards between living areas and garages (*plans left*). As well as providing private outdoor spaces, the courtyards are a source of natural light for the high-ceilinged living rooms (*photo below*).

"It's a complicated project with a lot of a square footage on a small [116' X 103'] site," said the jurors. "Yet it looks incredibly simple."



PHOTOS: DANIEL BARTISCH

### School house recycling

called for a 10-classroom building to become 21 condominiums—without disrupting the existing facade. Even so, the architect was able to provide sunny, recessed decks for some units (*photo far right*)—specifically, for six created out of an attic area (plans not shown). The decks are cut above the cornice line to preserve the building's profile and are away from the front elevation. (For more information see HOUSING, Jan. '82 and Nov. '81.) Other units, which range from 700 to 1,400 sq. ft., were designed in former classroom spaces (*see typical plan right*). Living rooms are often at corners to allow for maximum light through the tall windows; former wardrobe and hall spaces were incorporated into master suites when possible.

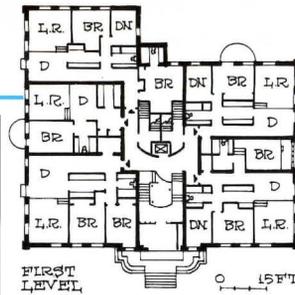


### FIRST HONOR AWARD

PROJECT: The School-House, Boston, Mass.  
 ARCHITECT: Graham Gund Associates Inc., Cambridge, Mass.  
 BUILDER: Erland Construction Co., Burlington, Mass.  
 OWNER: School House Condominiums Inc., Cambridge, Mass.  
 LANDSCAPE ARCHITECT: Carol Johnson & Assoc., Cambridge, Mass.



PHOTOS: STEVE ROSENTHAL



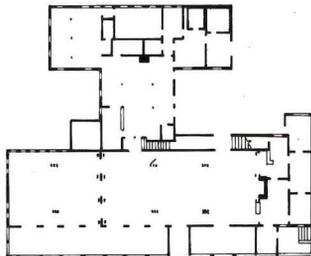
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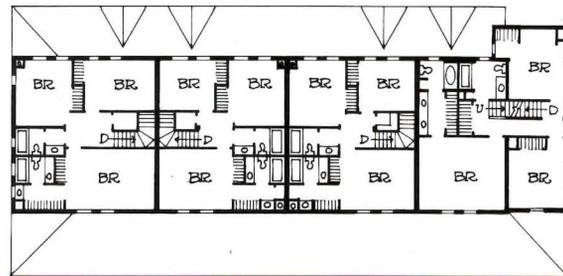
**Restored inn** on the shore of Lake Tahoe is starting over as four "exclusive" townhouses priced from \$495,000 to \$535,000.

Revamping the turn-of-the-century building was no easy task. Not only had the window-sills, wood siding, etc., deteriorated over the years, but the structure also fell short of contemporary building codes. It had to be jacked up so that an existing foundation of 16-in.-square redwood lumber could be replaced with poured concrete. The roof, which sagged, had to be strengthened. And "structural gymnastics" were required to adjust loading to accommodate the new townhouse layouts. For example, in order to provide natural light and lake views, former enclosed porch space was incorporated into living/dining areas (*see before and after plans right*). To do this, a load-bearing wall—formerly the exterior wall—had to be removed and the load transferred to new structural beams.

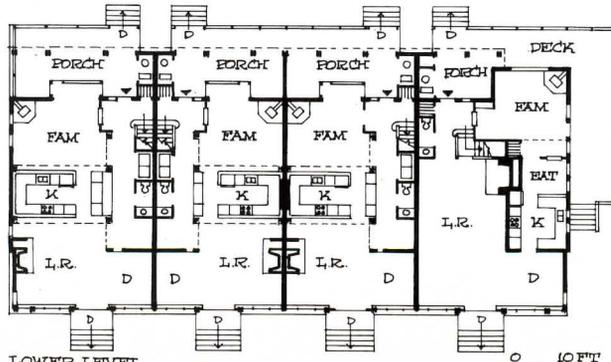
An east wing of the old inn was demolished: It had held a commercial kitchen which didn't lend itself to conversion into living space. In its stead, new porches were constructed, which help define individual units and establish a sense of arrival: Though this is technically the rear of the building, it's where most people will enter, since detached garages are located on this side.



BEFORE - FIRST LEVEL



UPPER LEVEL



LOWER LEVEL  
 0 10 FT



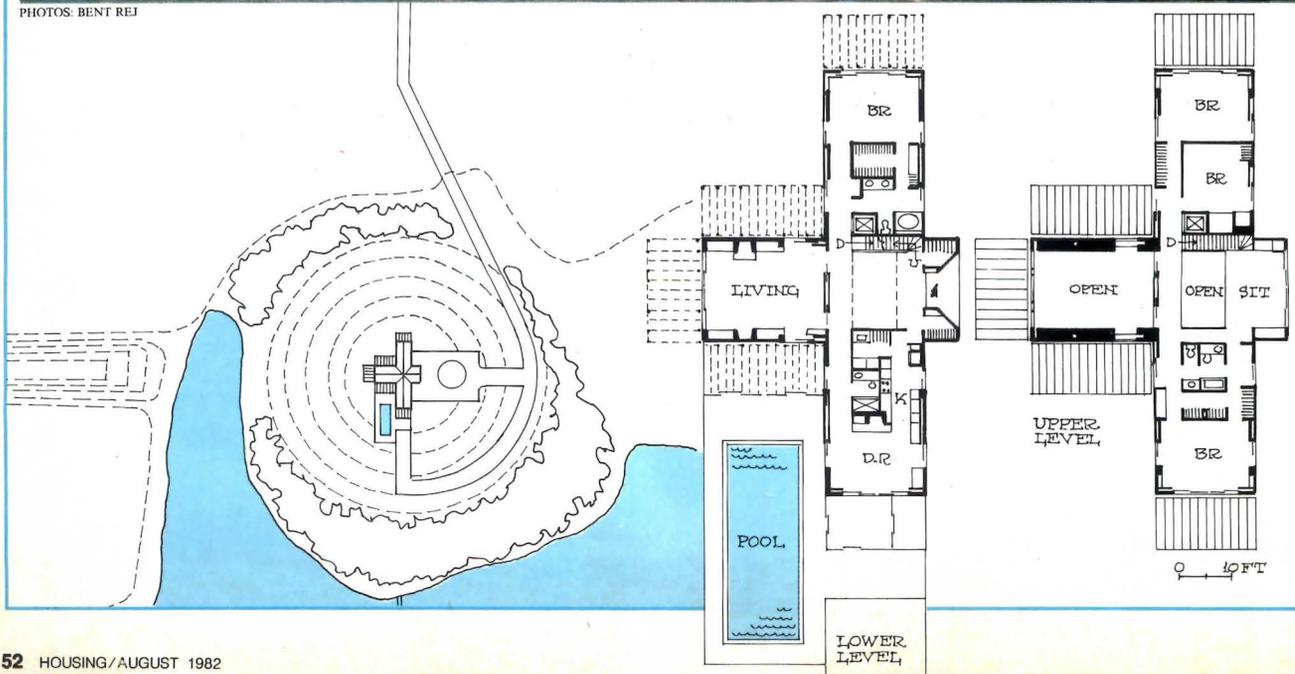
### AWARD OF MERIT

PROJECT: Glenbrook Inn Townhouses, Glenbrook, Nevada  
 ARCHITECT: Backen, Arrigoni & Ross, Inc.  
 BUILDER: Squaw/Wynn Construction Co., Carnelian Bay, Calif.  
 OWNER: Glenbrook Properties, Glenbrook, Nev.

# CUSTOM



PHOTOS: BENT REJ





**Understated exterior** of an eastern Maryland residence—this month's cover house—takes its form from the area's predominant wood-frame architecture. Hence the high, peaked roofline, white clapboard siding, gables and trellises that can be seen in the photo left.

Key to the house's contemporary, classic look is architect Hugh Newell Jacobsen's attention to scale, which, says the architect, tends to reduce the apparent size of the house on its 70-acre site. Expansive windows, for example, are carefully proportioned, the 10' floor-to-ceiling height of lower windows balanced by smaller windows above. Thus, from a distance, it becomes difficult to judge the size of the house—even whether it consists of one or two levels of living area.

Where the house sits the site was graded five feet—a sort of landscaped "riser" (see site plan). A similarly sculpted 'allee' (far left on site plan), narrows as it stretches 800 yds. from the house, creating a viewpoint from the living room to a river beyond. This 'allee' is visible from the long driveway as one approaches.

Parking is hidden below the house (see inset). The garage was located for easy access to the dock seen in photo at left; the owner, a yachtsman, wanted to store boat equipment there without dragging it halfway around the house.

Spacious floorplans benefit from the elevated siting: Besides the living room, the bedroom on the lower floor and three secondary bedrooms on the upper floor offer river views. The upper floor features two loft-like areas, one overlooking the entry, the other the living room.

Those plans, however, cannot suggest the volume created, as the photo above right illustrates; the living room ceiling peaks at somewhere around 28'.

Said the jurors of this award-winning residence: "It is a consonant, professional work . . . a wonderfully dignified place to live."



### FIRST HONOR AWARD

ARCHITECT: Hugh Newell Jacobsen, F.A.I.A., Washington, D.C.  
 BUILDER: Harper & Sons, Inc., Queen Anne, Md.  
 OWNER: Name withheld  
 LANDSCAPE ARCHITECT: Lester Collins, F.A.S.L.A., Millbrook, N.Y.

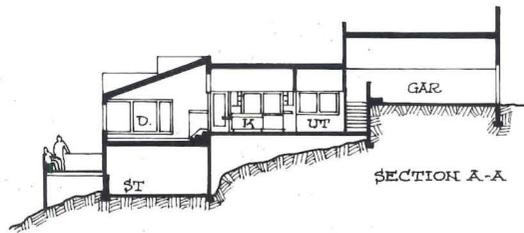


ROBERT C. LAUTMAN

**Award-winning homes** are no novelty to architect Hugh Newell Jacobsen, FAIA (inset). The elegantly quiet vacation home shown at left was Mr. Jacobsen's first HFBL success. It was entered 17 years—and 14 awards—ago. Since that time, the architect has pulled in three honorable mentions (no longer presented in the HFBL program), three awards of merit and—including the residence featured here—nine first honor awards.



PHOTOS: MARC & ERIC HEFTY

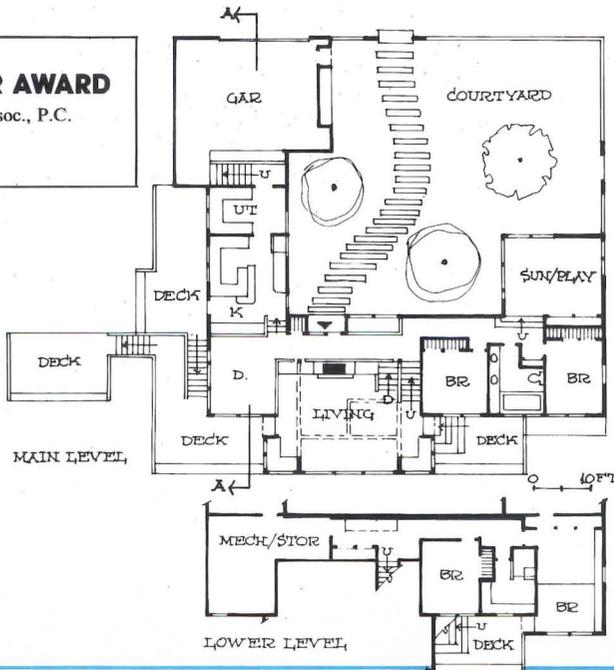


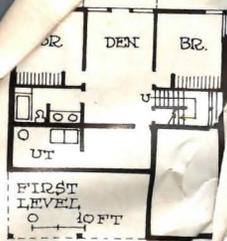
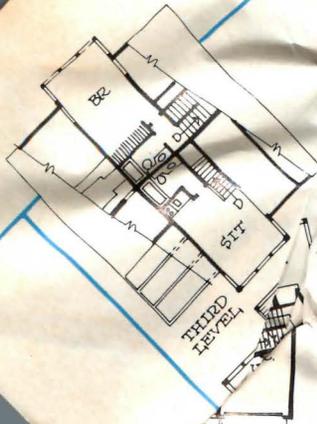
**Shingled mountain residence** steps down a pristine, 30-acre hillside—a site that offers panoramic views of a river, hayfield, game preserve, the city of Missoula, Mont. and, finally, the wilderness of the Rattlesnake Range. Thus the orientation of rooms in that direction—and the 980 sq. ft. of multi-level decks.

Site preservation was a main consideration. Says architect/builder/owner Eric Hefty: “We surveyed the site, locating all trees and bushes—and designed the house around them.” Hence the courtyard, with its special entrance, where grass is cut—but major vegetation left.

Energy efficiency was compromised to a degree for large windows towards the views. But the wood- and gas-heated house is heavily insulated (R-30 walls, R-40 roof), windows are triple-glazed, and rock thermal storage lies beneath the living room. Also, heating for the “utility wing” can be shut down at night.

**FIRST HONOR AWARD**  
 ARCHITECT: Eric Hefty & Assoc., P.C.  
 Missoula, Mont.  
 OWNER/BUILDER: Eric Hefty  
 LOCATION: Missoula, Mont.





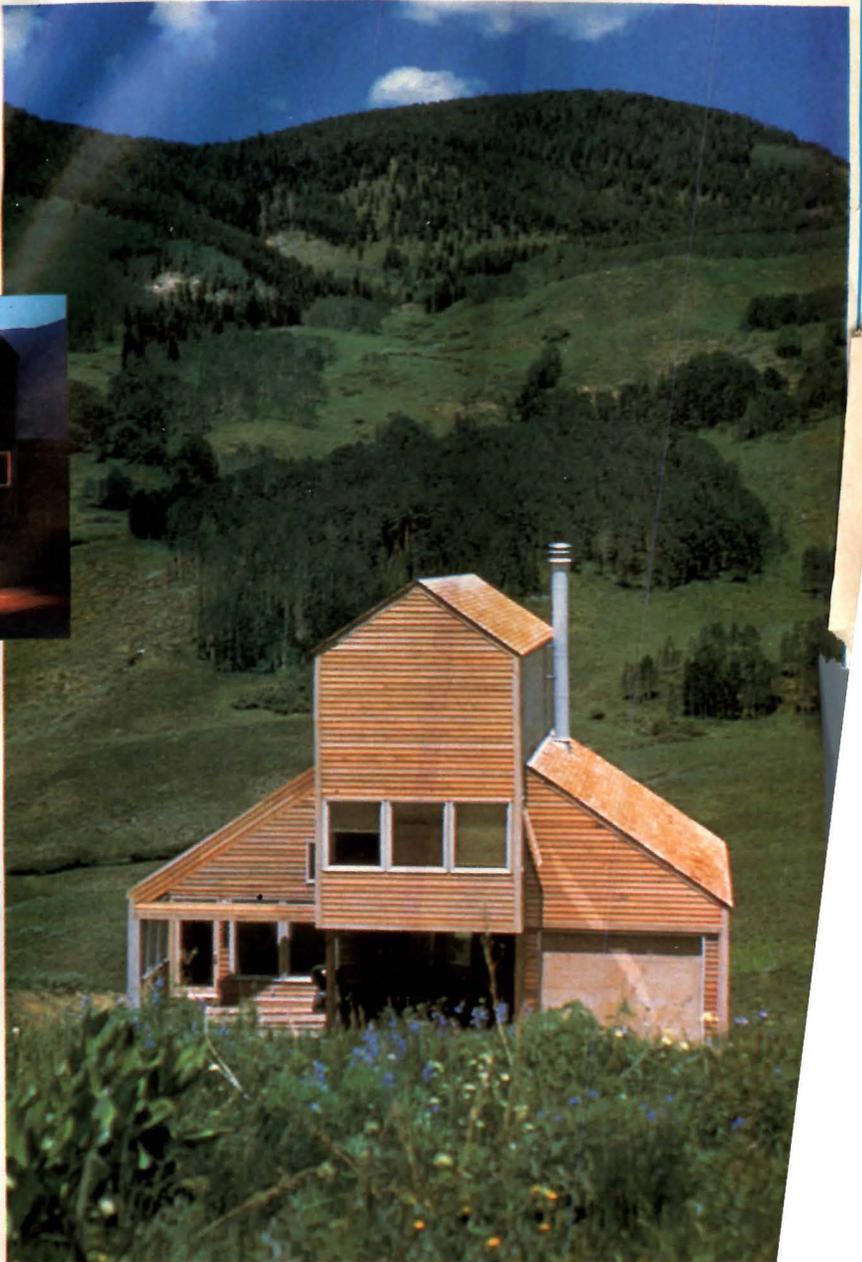
**Energy-conscious design** is the hallmark of a mountain lodge in Crested Butte, Colorado. Common snow accumulations of 10 feet, for example, dictated the distinctive, steeply pitched "cold roof." Shining through the south-facing windows helps heat the house. The north-south orientation of the site made passive solar a natural choice. Note in the floor plans how little fenestration there is on the north facade, in contrast to the south. Other climate-related design considerations: Both entry and balcony are covered; walls and ceilings are heavily insulated; windows are triple-glazed; doors are an "air-lock" type.

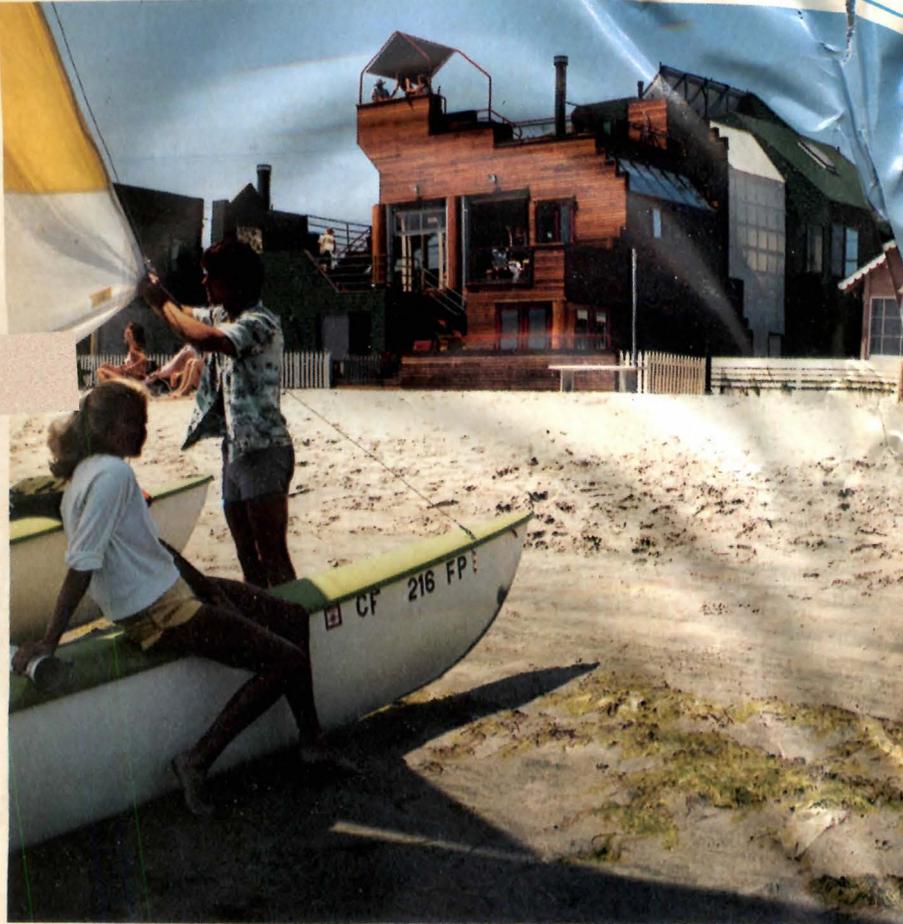
The 4,000 sq. ft. of living space in the home is designed to accommodate a family of six—with a separate activity area and bedrooms on the lower floor for four older children, and general living space on the entry level. The master suite and an apartment for year-round tenants share the high-ceilinged space upstairs.



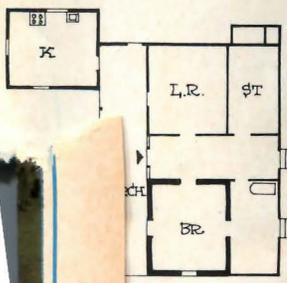
**FIRST HONOR AWARD**  
 ARCHITECT/LANDSCAPE ARCHITECT:  
 Nagle, Hartray & Associates, Ltd.,  
 Chicago, Ill.  
 BUILDER: Paul Buscovich Construction Co.,  
 Crested Butte, Colo.

PHOTOS: BOB BRAZELL PHOTOGRAPHY

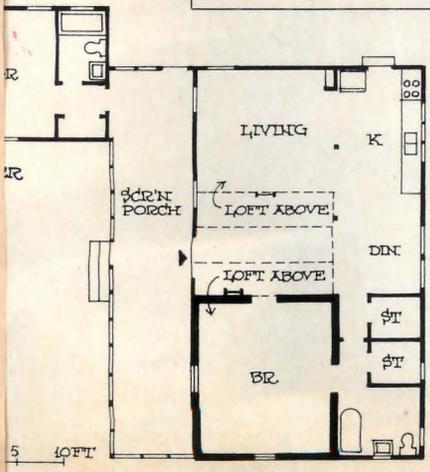




**FIRST HONOR AWARD**  
 ARCHT. ATIA, San  
 BUILDER: W  
 Cardiff, Calif.  
 LANDSCAPE ARCH  
 Ininitas, Calif.  
 R: Bart and Judy  
 s, Calif.  
 Mission Bay, Sa.



**FIRST HONOR AWARD**  
 ARCHITECT: Clovis Heimsath, FAIA  
 Fayetteville, Tex.  
 BUILDER: Jerry Michalsky, Fayetteville, Tex.  
 LOCATION: Fayetteville, Tex.





**Playful beach house** — as much a product of its environment as the mountain retreat shown on page 55 — has two architectural styles depending upon which direction it is seen from. The beachside facade (*facing page*) has a clean, contemporary styling, featuring redwood siding, wood windows and colorful detailing.



Rear and side elevations, on the other hand, reflect the characteristics of what one juror called a "frightful neighborhood." It is from that neighborhood that the architect borrowed ideas for materials: green asphalt shingles as siding, aluminum windows, pipe railing and the "gas-station"-type doors that literally open up to sand and surf.

smaller bedrooms (indicated as future apartment on plan).

Spacious floor plans include a ground floor condominium with 1,106 sq. ft. Public space in the owner's unit includes formal living/dining areas that offset the casual atmosphere of the house. Sleeping quarters include a master bedroom and two

On the roof level, there is a self-contained guest room adjacent to a large outdoor deck equipped with a hot tub, barbecue pit and "look-out tower," seen in photos at left and on facing page.

Outdoor living will be dominant in this house—the architect described the house itself as "a series of sunny platforms," which buffer the inside living areas from a noisy boardwalk and streets. Residents can choose between a sheltered, private deck that wraps around the living room, and the more exposed beachside decks.



**Born-again farmhouse**, a 100-year old prairie home in Fayetteville, Tex., was bought by a young couple for remodeling into a weekend retreat. When the renovation projects had begun, the seemingly distinguished farmhouse revealed a remarkable secret: It had been built around a small timber cabin (*heavy out-plan*), long hidden by red siding. Rather than "log" the log structure, the architect decided to keep it—and turn it into a decorative element (*photo right*) and

out (*facing page*). A tin roof motif was also preserved (*left*).

While maintaining the tone of the farmhouse, the architect did make considerable changes in both structure and layout. The roofline, for example, was raised to a sharper pitch—to provide sleeping lofts for two young children. Windows were added all-around. An existing porch was screened in. And for informal family activities existing walls forming the living room and storage area were knocked down, creating a large, open living/dining/kitchen space.

A second major layout change: The old kitchen, separated from the main house by the porch, is now a private, self-contained guest room. Note too that the original oversized bathroom was turned into two storage closets. Total square footage: 2,000, including the enclosed porch.

One final but important criterion for this job: a low budget. Thus the entire renovation cost only \$20,000.



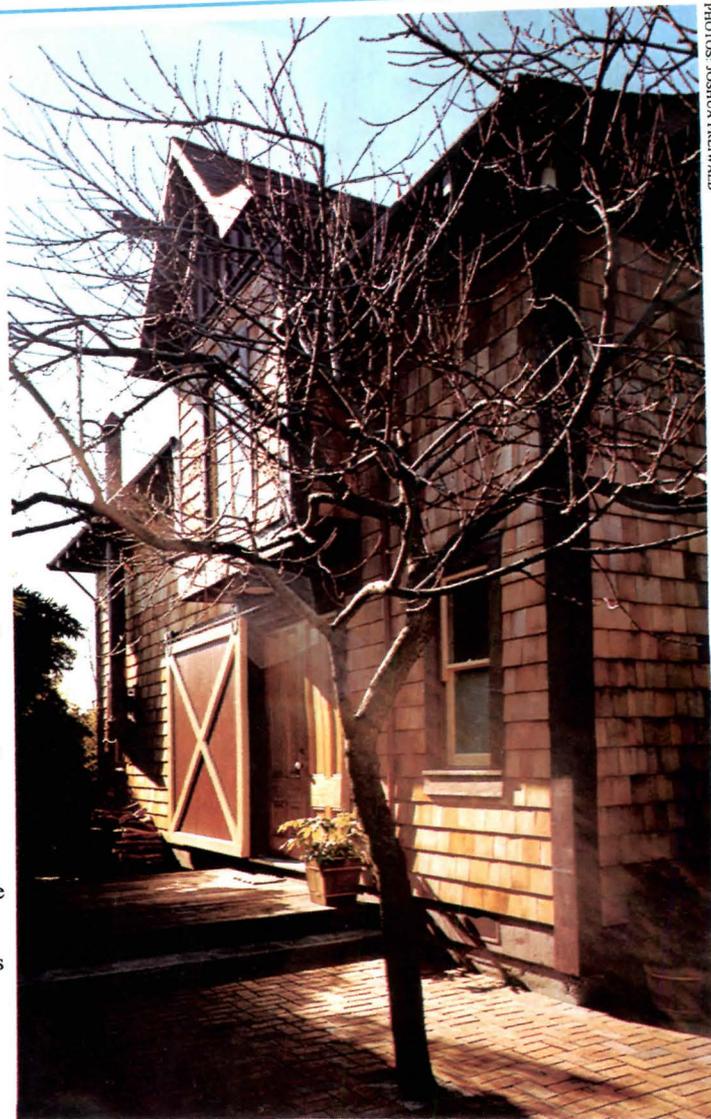
PHOTOS: MARYANN HEIMSATH

# CUSTOM

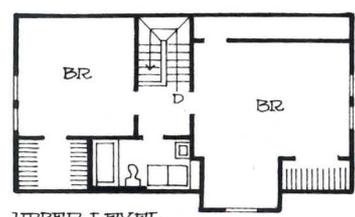


**Remodeled Victorian barn** retains the “whimsy” of the original exterior (*above*)—while providing practical spaces inside. The job was kept simple, for the owner chose to do the work himself (remodeling cost: \$55,000). Thus floor plans are conventional, with sleeping quarters upstairs and public spaces and kitchen below. One special feature, however, is the “inglenook,” as the architect calls it, just off the living room. This was a response to the owner’s desire for an oversized fireplace; the nook—equipped with a Franklin stove—suggests that, but is a less massive and more practical den with built-in storage. (Additional storage is provided by a shed built outside.)

Although interior spaces have a contemporary feel, many traditional touches, such as woodplank flooring and sliding barn doors (*far right*), are reminders of the house’s origins. On that same note, the architect mentions that the scale of the interiors is “deceptive in an old-fashioned way”—as the high ceiling of the lower floor opens up the small living/dining room, while the spacious bedrooms, tucked under low eaves, become more intimate.

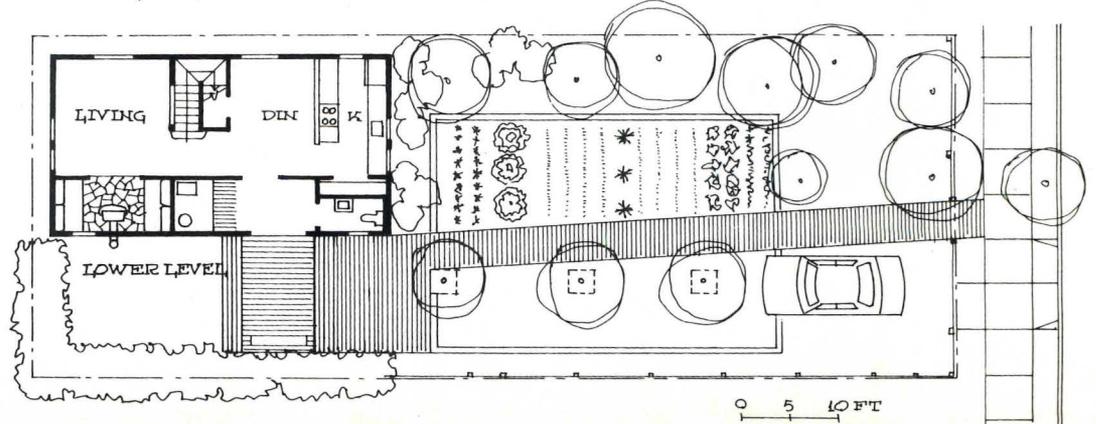


PHOTOS: JOSHUA FREIWAJD



UPPER LEVEL

**FIRST HONOR AWARD**  
 ARCHITECT: Agora Architects & Planners, San Francisco  
 BUILDER/OWNER: John M. Campbell, Oakland, Calif.  
 LOCATION: Oakland, Calif.



LOWER LEVEL

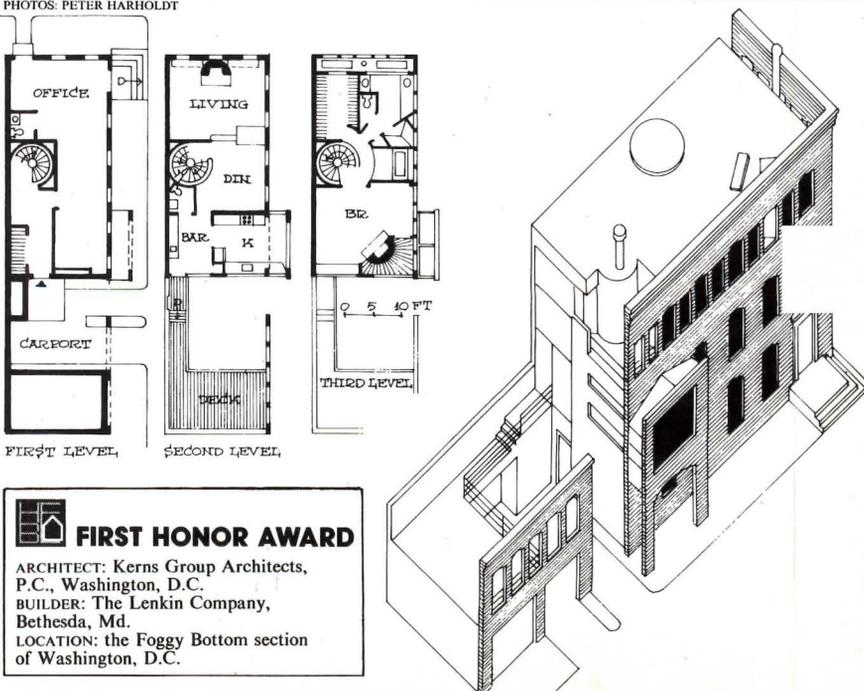
0 5 10 FT



PHOTOS: PETER HARHOLDT

**Interplay of old and new:** Cypress-clad contemporary residence (*above right*) weaves in and out of existing, 19th-century brick shell—so that a modern bachelor home blends right into the fabric of an old Washington, D.C. neighborhood. Project design was complicated by codes limiting the ratio of living area to lot size. To meet that code, half of a two-car garage was backfilled (*see drawing right*), as was space below the bridge leading to the deck above the garage. A section of that bridge was designed to be removable for the same reason. Total coverage on the 1,888 sq. ft. lot: 1,440 sq. ft.

The first floor of the building, originally planned as an office (as shown) was more recently turned into a library/den equipped with a sauna. The rest of the living area is quite open, with few walls breaking up the long, narrow space. The away-from-it-all master suite on the third floor was constructed so it would overlook the Potomac River, historic Georgetown and the Watergate Hotel.



FOR DETAILS, SEE PRODUCT INFORMATION INDEX

# SYSTEMIZING CUSTOM DESIGN: A SECOND LOOK

A few years ago (Mar. '79) we reported on a modular design system for custom homes being used by New York architect Alfredo DeVido. At the time, he and the builders employing the system reported construction cost savings between 10 and 15 percent. Because we considered this idea truly innovative we thought it was worth a second look.

So we went to DeVido and asked if he was still using the system and if he still found it as successful. The answer to both questions was a definite yes; and his most recent "products" are shown on the facing page. In fact he is now using the same basic format to design higher-density attached houses, preliminary drawings for which appear on page 64.

In a nutshell, DeVido's idea is this: By systemizing the design of custom homes, an architect and builder can produce one of a kind houses more efficiently. They can increase their profits or reduce the sale price depending on circumstances. And in the process, they can establish a rational framework within which all concerned parties can communicate.

Here's how it works: *DeVido uses a conceptual module that measures 10' x 10' in plan and 8'9" in elevation.* The major plan module is subsequently divided into thirds to yield a minor module: 3'4" x 10'. With these two building blocks in hand he goes to the client and first explains that his design format is a cost-cutting device. He suggests that they both make every effort to remain within its limits.

After finding out, in detail, exactly what the client wants and can afford, DeVido incorporates this information into his modular scheme.

He does concede that all things being equal, two clients with the same basic requirements and budgets will tend to get similar room sizes. But because the sites will be different, the rooms will never be similarly arranged. "Repetitive floor plans," says DeVido, "would totally defeat the whole idea of custom building."

*DeVido has worked with this system exclusively for ten years and has built over fifty houses with it. Originally he used two different modules depending*

on the house: The first was a 9' x 9' and the other is his present 10' x 10' module. Both had the same elevation component, 8'9". He finally discarded the 9' x 9' because he found it produced room sizes that were too small for the custom market. He had to frequently digress from his grid and in the process lost efficiency.

His reasons for staying with the second grid reveal much of the subtlety in his approach. With the 9' example the minor module is 3'0"; with the 10' module it is 3'4". Because all the modules are measured from the center of one wall plate to the center of another, the 3'4" could easily accommodate such necessities as hallways and stairwells where the typical minimum width for residential building is 3'0" clear. The 3'4" minor module is also convenient for placing doorways within a hallway run because it will accommodate up to 2'8" door.

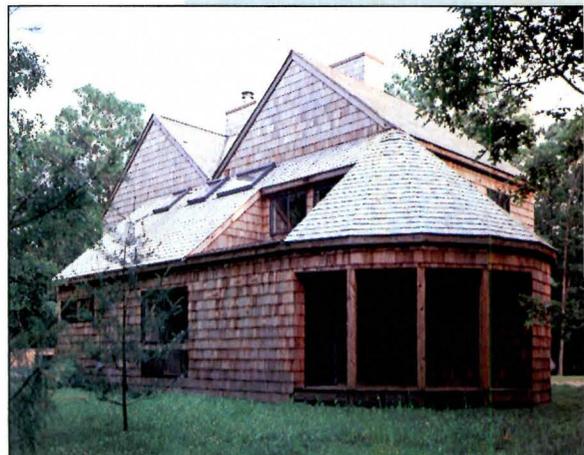
*The 8'9" elevation component is based solely on what is required to maintain a standard 8' ceiling height.* It is calculated from the top of one floor joist to the top of the joist in the floor above; it assumes 2 x 8 joists. If, for structural reasons, the joist width must be increased, then the height of the vertical module increases. For 2 x 10s he uses an 8'11" vertical module.

The most frequent exceptions to the 3'4" module—which he breaks in half often to achieve an 1'8" plan module—are in closets and bathrooms. If clients will accept a 4'6" shower and tub combination, then he can maintain a 5' plan module, or one half the major module. But if they want a standard tub, then he has to make adjustments to arrive at the typical 5' finished opening.

When designing closets, DeVido treats them as "furniture" within each room rather than fitting them into the modular scheme. This solves the problem of a 1'8" module being too small and a 3'4" module being much too large.

From the cost-cutting standpoint savings are most notable in design and framing stages. *Design costs are lower since fewer sections and details are needed to orient the carpenter properly.*

TO PAGE 62



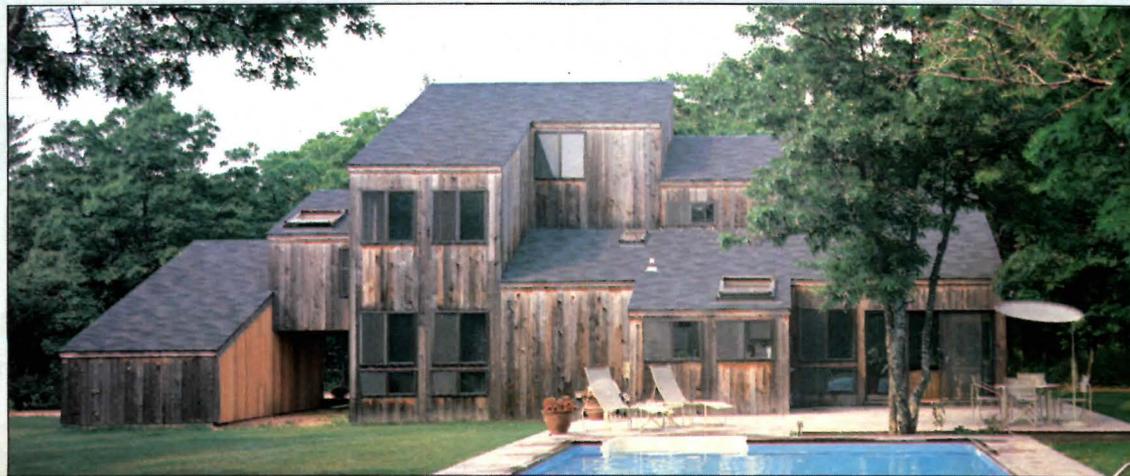


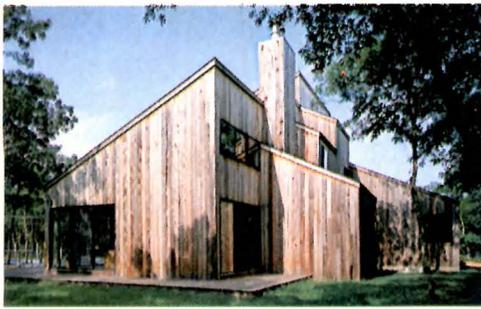
PHOTOS: DAN COHNISHI

**Beautifully proportioned double gabled** house with rounded corners (*above and facing page*) has all the earmarks of custom building, as does the more contemporary multi-shed-roof house shown below and at the right. And despite their dissimilar looks, both were designed within the same modular system.

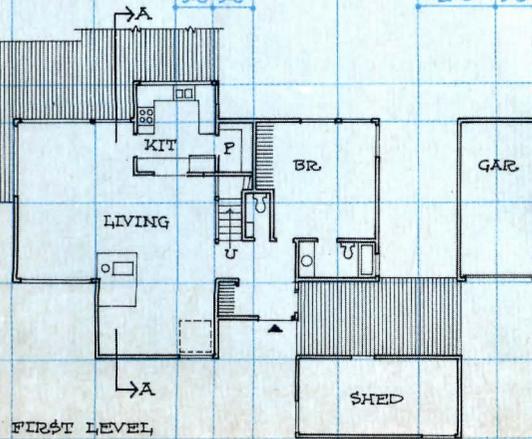
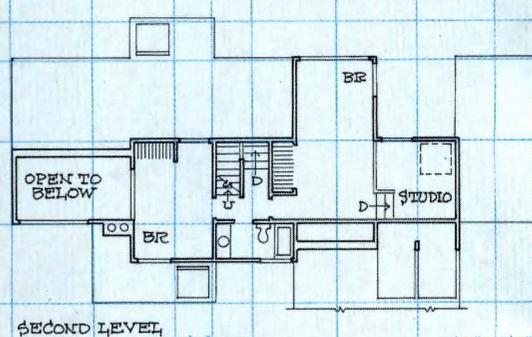
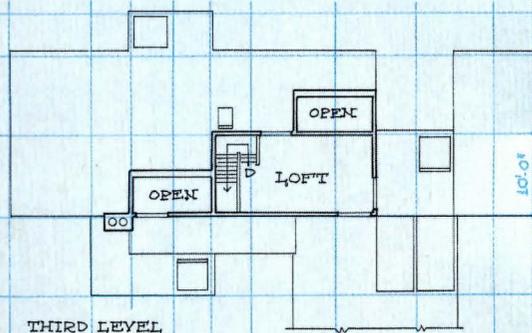
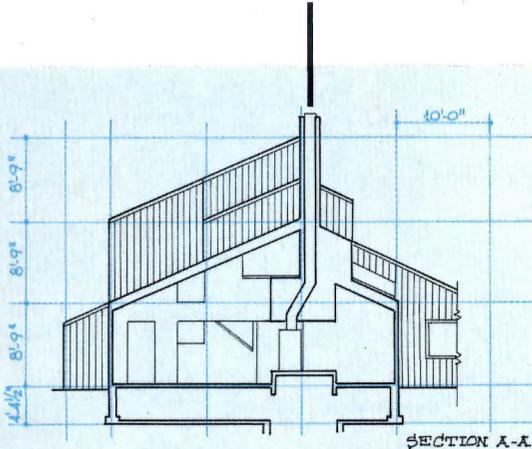
The method utilizes a three dimensional module that measures 10' x 10' in plan and 8'9" in elevation. With it the distinctive rounded rooms and decks of the one house and the highly staggered floor plan and elevation of the other are not only easier to design but less costly to build.

The system also embraces some production building techniques not commonly used in the custom business. Standard size windows and doors, precut studs, and uniform header heights are examples. The construction costs on the house above, completed this year, were about \$110,000. The costs on the one below were about \$80,000 two years ago. For a graphic illustration of how the system works, turn to the drawings on the following pages.





## A CUSTOM DESIGN SYSTEM THAT EMBRACES PRODUCTION BUILDING METHODS . . .



**Dramatic volume space** in living room (*right*) is systematically incorporated into the elevation and plan module as shown in drawings at left. During construction, this greatly reduces the possibility of framing errors and costly work interruptions while the carpenter figures out what is required. These efficiencies are reflected in his bid. "Cost savings with other trades are harder to determine," explains DeVido. "So far I haven't seen any real improvement. Maybe with higher density, production work, the system will pay off for the other trades too."

And the framing costs are lower because the system discourages the high bids that are typical of custom building. A carpenter—once he understands the system—will be able to organize his work more efficiently, lay out the walls and partitions more quickly, and will not have to be as cautious in plotting elevations and figuring the angles of diagonal walls, or the arcs of curved walls.

DeVido concedes that a carpenter's skepticism probably will not be overcome on the first house. But on the second and third houses, bids will drop substantially.



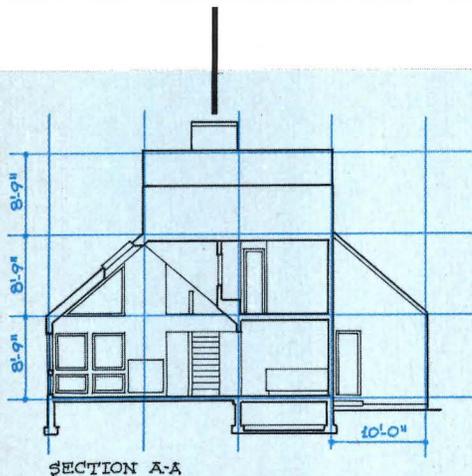
As a corollary to the system, DeVido makes use of some specific building techniques that commonly are used in production work but not in the custom business. For example, he keeps all headers for windows and doors at the same height. And he specifies the use of precut studs. He also uses standard size windows and doors and specifies only rough, instead of finished, openings on the construction plans.

There are, however, limitations to the use of production techniques. This system forces the use of trusses instead of rafters because the elevation module is based on a set number, 8'9", instead of directly on the building span. The odd pitches that result are not economically conducive to prefabricated trusses. But this is not a distinct drawback in custom building because the

TO PAGE 64

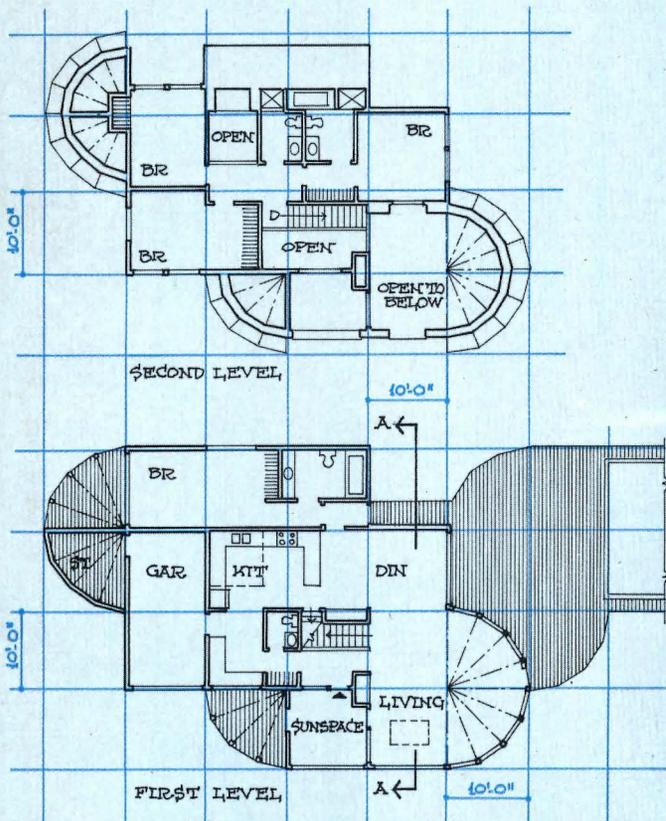


... AND STILL YIELDS STRIKING INTERIORS LIKE THOSE SHOWN HERE



**Striking umbrella-shape ceiling**

in the sunspace shows that systematic design does not mean unimaginative design, merely a streamlined construction process. Such dramatic effects are easily incorporated into DeVido's system, as the grid on this page shows. The rounded walls are plotted on a 10' radius but are actually based on a 16-sided polygon. This allows the use of standard size windows and doors and straightforward framing practices. Once the joining angles for the wall sections and roof components are calculated they are applied to the other rounded walls without exception.



Note: Sections for both houses are drawn slightly larger than floor plans for the sake of clarity. Actual dimensions of module are identical.



PHOTOS: DAN CORNISH

## HERE'S HOW THE MODULE WORKS FOR HIGHER DENSITY ATTACHED BUILDING

cathedral ceilings and other volume spaces that are so prevalent also preclude truss use.

Neither house shown on these pages is a split level, but according to DeVido, the system works just as well for that type of plan. The elevation modules would simply remain consistent within each side of the split.

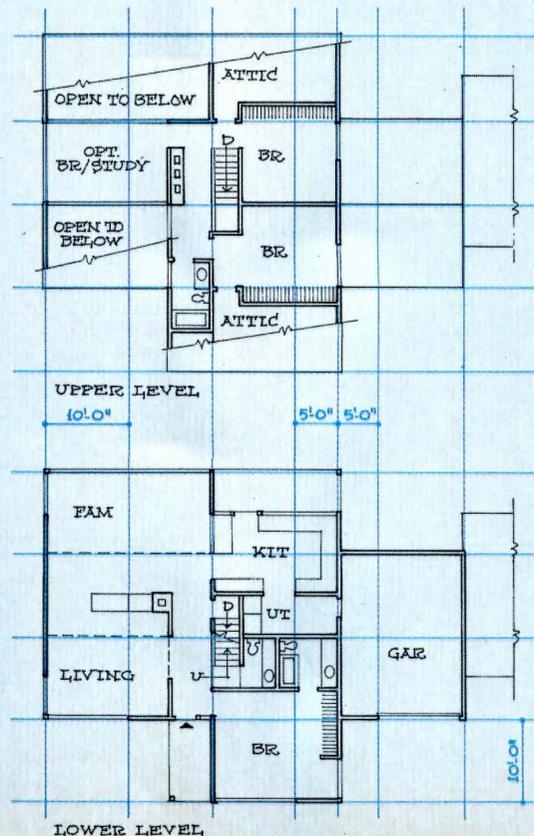
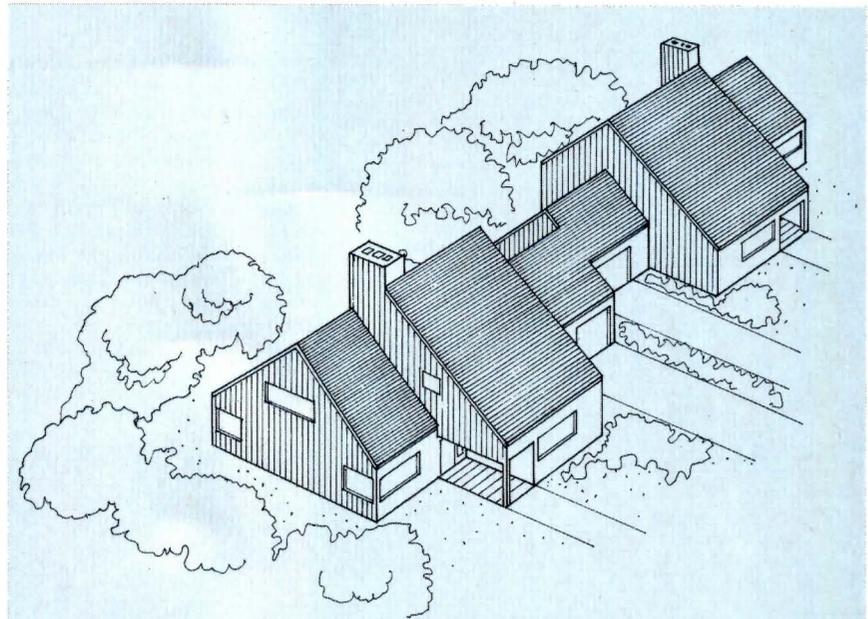
Even though DeVido was both the architect and the builder on these houses, he finds little resistance when he goes to an outside builder—once he explains the system. “The first thing I tell a builder is that he can rely on the module,” DeVido says. “He is not going to be surprised by any digressions, either in plan or elevation. And once I tell him that, you can see the look of relief on his face immediately. It is a real builder’s system.”

The system also creates a distinct framework within which discussions about design and construction can take place. When all parties involved—the architect, the builder, the client and the subcontractor—understand what is going on and are talking the same language, much of the contention and many of the expensive changes associated with custom building can be eliminated.

DeVido admits that design changes will always have to be made no matter how successful your communication. This is in the nature of custom building. “But,” he says, “if a client wants an additional eight inches in a room—to accommodate a specific piece of furniture in a specific place—I explain that instead we should increase the room by 1’8”. And the additional expense will be less than if the room was made only eight inches wider.”

Other architects and some builders have shown interest in DeVido’s system. But so far only a few are emulating it. In these difficult times, it seems that any proven cost cutter deserves a good hard look by everyone.

—STEVEN WILLSON



**High density potential** of the system is shown in these preliminary drawings for 1800 sq.ft. attached units at four per acre. The floor plans adhere frequently to the full 10' x 10' module and its half module, 5' x 10'.

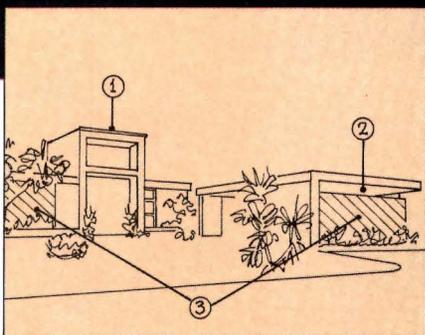
Implications for production construction are clear: All exterior walls and many interior partitions can be prefabricated in manageable 10' sections, then erected and joined with continuous top plates. Layout and assembly time will be drastically reduced.

The repetitive 10' increments also simplify foundation layout and greatly reduce the chance of the block or slab being out of square.

DeVido has also used this system to design much higher density garden apartments and stacked flats.

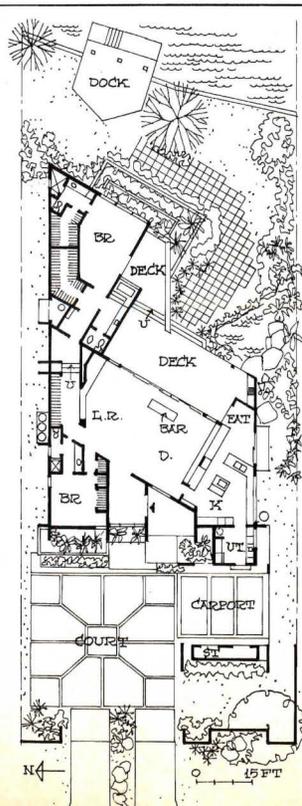


DAN FORER



**“Adding an entry tower** was my solution to the most pressing elevation problem: diverting attention away from the narrow lot width and toward the entry,” says Sugerman. (No. 1). This also recesses the foyer, a device that further directs the eye toward the center of the house. The carport functions in a similar way. Its roofline falls just beneath the house eave and creates a strong perpendicular line which moves toward the entry. By recessing the front wall of the carport and “floating” it beneath the roof, Sugerman provided yet another sightline into the lot instead of to the sides. (No. 2) “Finally,” says Sugerman, “the diagonal siding on both the house and the carport brings the viewer’s eye up and down instead of side to side.” (No. 3)

# SPACE EXPANDING DESIGN



Skilled architects have always had the ability to create illusions of spaciousness with adroit design. And in these days when building lots are smaller and floor plans are shrinking, such an approach is more in demand than ever.

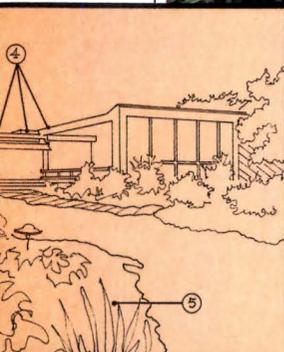
The custom house shown here and on the next two pages, designed by Barry Sugerman, and built in Southern Florida, clearly illustrates just how successful these space-stretching techniques can be.

Some of the space-expanding devices were incorporated directly into the site and floor plans. But others are more “cosmetic” in nature, and would work just as successfully for a wide variety of remodeling and renovation work. —STEVEN WILLSON



**Back of the house**, like the front, shows multiple roof lines. These create interest in the overall elevation and serve to emphasize the depth of the house as they recede into the background. (No. 4) Sugerman also situated the main entertainment area of the house on a diagonal to the lot line, thus providing a view that extended over a neighbor's beautifully landscaped rear yard (see floor plan, page 65). "I used similar plant material for my client's backyard. This blurred the division between the two lots and naturally made this one look bigger," says Sugerman. "It's like visually borrowing some of the neighbor's space." (No. 5)

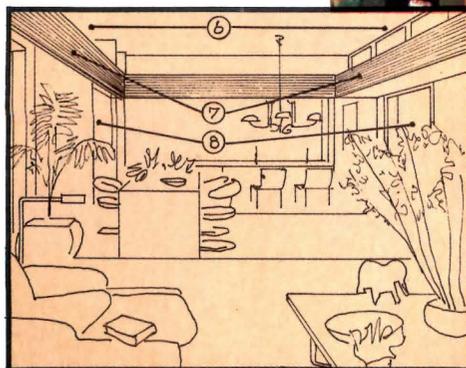
ARCHITECT:  
Barry Sugerman AIA  
INTERIOR DESIGN:  
Sugerman/Neuman  
GENERAL CONTRACTOR:  
Besola Construction  
ENGINEER:  
Spolter-Frechtel



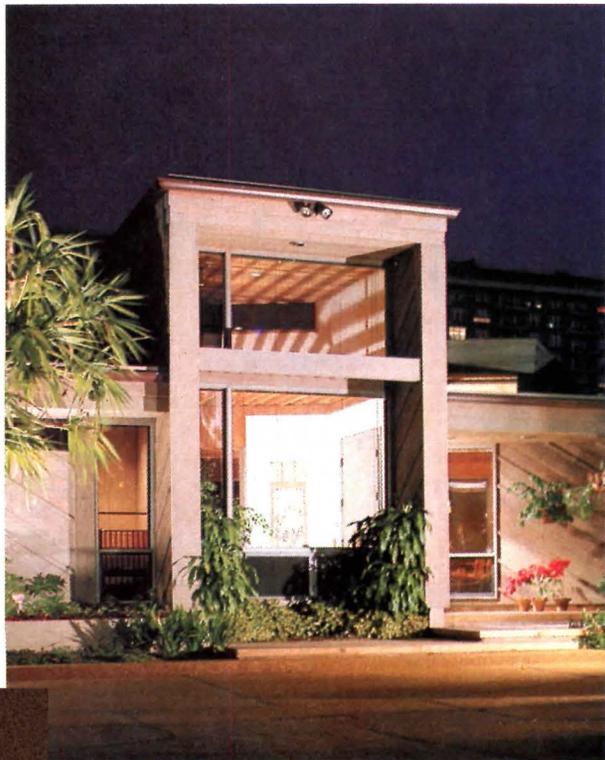
**"Continuous clerestories** let in soft, natural light and make the ceiling appear to float," says Sugerman, "creating the illusion of greater height." (No. 6) Light fixtures are installed in the top of the soffit to maintain the illusion at night.

The strong horizontal lines established by the soffit draw one's eye into the room and, according to Sugerman, make the room look larger. (No. 7)

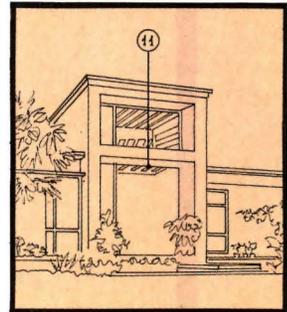
The 8' high windows and sliding doors extend to the soffit and stretch the room horizontally by allowing the eye to move without interruption to the broad rear deck (left in photo) and the entry deck on the right. (No. 8)



**Livingroom fireplace** is built so the flue ascends only the outside wall. This allows the rest of the brick wall to serve as a bookcase and space organizer, separating the bedroom hallway from public areas. And, says Sugerman, "By keeping the fireplace wall short of the soffit height, the ceiling continues into that hall, making the livingroom seem longer." (No. 9). In contrast to the house exterior where he wanted to direct the eye vertically, interior spaces needed to be stretched horizontally. Sugerman accomplished this by installing both ceiling and floor boards from side to side. (No. 10). He also attached the boards to the underside of the soffit in the same direction. This device works especially well in the context of the soffit band and the floating ceiling. The boards stretch the room in width, the soffit in length and the ceiling in height.



**Problem-solving tower** created another problem. The entry tower height was so much greater than its width and depth that it distorted the scale of the front elevation. So Sugerman installed a horizontal wood trellis and fascia that mimicked the house plate line. During the day, the fascia breaks the strong vertical line and at night, the trellis (just visible in this photo) casts a compelling shadow on the tower ceiling that draws one's eye into the house. (No. 11)





# HOW TO NEGOTIATE WITH MONEY SOURCES

In today's tight-money market, the ability to sit down at a bargaining table and skillfully negotiate financing with lenders and investors is as crucial to a builder's business as design, construction and marketing skills. And as the housing-finance system evolves away from one centered primarily around the thrifts toward a more complex scenario of pension funds, institutional investors and mortgage-backed securities, money-negotiation skills will become even more important, increasing the odds for success for builders who possess such skills, increasing the possibility of failure for those who don't.

Of course, working with money sources is a skill that, like any other, must be learned and developed. Following are some basic guidelines builders should keep in mind when dealing with lenders, investors and any other sources of financing.

**Timing.** One of the most important aspects about approaching a lender is knowing when and when not to do it. Paradoxical though it may seem, the best time for seeking out a lender or other money source is when you need him least. Stan Ross, senior partner with the Los Angeles-based accounting firm Kenneth Leventhal & Company, cautions that "the time to seek a lender is not when you are in desperate need and you think the cost of money has gotten out of hand or you have a problem project." Rather, claims Ross, "The time to talk to lenders is when

everything is going well—when you have either limited needs or you have a lot of options." In other words, a lender who is unfamiliar with you or your business isn't likely to show eagerness in striking up a relationship where trouble isn't just a possibility but has already arrived.

Despite the current slump in the housing market, now is a ripe time for cultivating relationships with new sources of money. Explains Ross, "As we move forward in a deregulated environment and banks and institutions begin to cross state lines, they will be making more entries into newer markets." Many West Coast and New York banks, for instance, are branching out into Texas and other areas in the Sunbelt. In addition, more players are entering the housing-finance game. Wall Street firms like Merrill Lynch and E.F. Hutton and public and private pension funds, for

instance, have recently assumed major roles in housing finance. The upshot of this is that lenders and investors breaking into housing or looking for new markets will be pursuing business leads and seeking experienced builders and developers. This is the best of all possible worlds for builders since it switches the tables from builders chasing money to money chasing builders.

**Preparation.** Regardless of how ripe the time is, before you approach a lender or investor, you should sit down, examine your financial needs and come to a clear idea of the kind of financing you need. This doesn't mean, Ross says, just picking out financing for a particular project. Rather, a builder should take an overall look at his operation and figure out what he needs money for—working capital, expansion, equipment financing, project financing, for example. Then, based upon those needs, the builder would consider a variety of financing options such as lines of credit, construction loans, term loans and other financing vehicles.

The worst approach you can take is the "bushel" approach, which Ross describes as a builder walking into a bank, being asked how much money he needs and in what form of loan he wants it, and replying, "I'll take a bushel full and then I'll figure out what I'm going to spend it on." In general, you're best off thinking of financing not as a one-shot deal but as a continuing and long-term relationship between yourself and a lender or investor.

Many builders find they need several lenders or investors to fill their financing needs. The number of banking and other financial relationships a builder has will vary according to his size and the number of projects he has going. Still, notes Ross, some builders, as a matter of policy, like to maintain relationships with several banks, a regional bank and a major city bank, for instance, or a West Coast and East Coast bank. Even if one lender is able to fulfill all your needs, it doesn't hurt to have good relationships with a number of money sources so you know

ILLUSTRATION: DAVID G. KLEIN

they're there should you want to draw upon them in the future.

The concept of drawing upon a number of different financial sources for different types of financing will become even more important in the future. William Crocker, a senior vice president with Philadelphia Investment Corp., the real-estate investment subsidiary of INA, the fifth largest insurance company in the world, claims that chances are the thrifths, once the main source of housing money, won't be able to rebound and re-assume their premier position in housing finance. This means builders will have to look for money sources to replace the thrifths.

One place to look, says Crocker, is to institutions that have been fueling the boom in office-building investment, a boom that now appears to be winding down. According to Crocker, "lots of people who were doing offices are now looking to do housing." Apartment buildings intended for later conversion to condos, new condominiums, single-family-attached housing—these, says Crocker, are the investments that pension funds, insurance companies and real estate investment firms will turn to.

Bond financing will be one of the important "avenues of the future," according to Louis Pohoryles, a senior partner with Pohoryles, Goldberg, Forrester, Staton & Harris, a Washington, D.C. law firm that represents clients in the housing industry. Tax-exempt bonds, mortgage-backed bonds and other mortgage-backed securities, already a significant factor for the industry, will assume an even larger financing role in the future. For that reason, builders may want to cultivate relationships with lenders or financial institutions that can help a builder tap into the bond and mortgage-backed securities markets.

**Choosing a source.** Just as any potential lender or investor is going to rate your creditworthiness, you too should rate a money source in terms of its ability to satisfy your financial needs. There are many criteria for rating a lender, for instance, but sur-

## Do's and Don'ts of Money Negotiation

**Do:** Examine specific financing needs before approaching lenders and investors;

- Look for lenders that provide new types of financing options;
- Consider construction financing tied to indexes other than the prime interest rate (for example LIBOR [London Interbank Offered Rate], CD and treasury bill rates);
- Explore whether a financial institution will provide rate protection programs or assistance to help control interest costs;
- Provide key financial data on prior projects to demonstrate your ability;
- Prepare a full cash-flow analysis and projection until sale or rent up;
- Provide any available market data or appraisal data;
- Show the specific assumptions of your forecast;

- Show one alternative or fall-back plan;
- Submit a breakdown of major segments: land, infrastructure, hard construction costs, rent up or start up (where applicable), on-going operating costs;
- Submit the breakdown and timing of cash investment;
- Discuss specific issues that would or could impact the project (for example, rent controls, sewer, water, transportation moratoria);
- Include appropriate project pictures, maps and related graphics;
- Describe your organization and the scope of authority of people on the project and give appropriate communications channels for the lender/investor;
- Prepare a summary of your material and present it before going into a detailed presentation.

**Don't:** Submit an excess amount of disjointed material to lenders or investors;

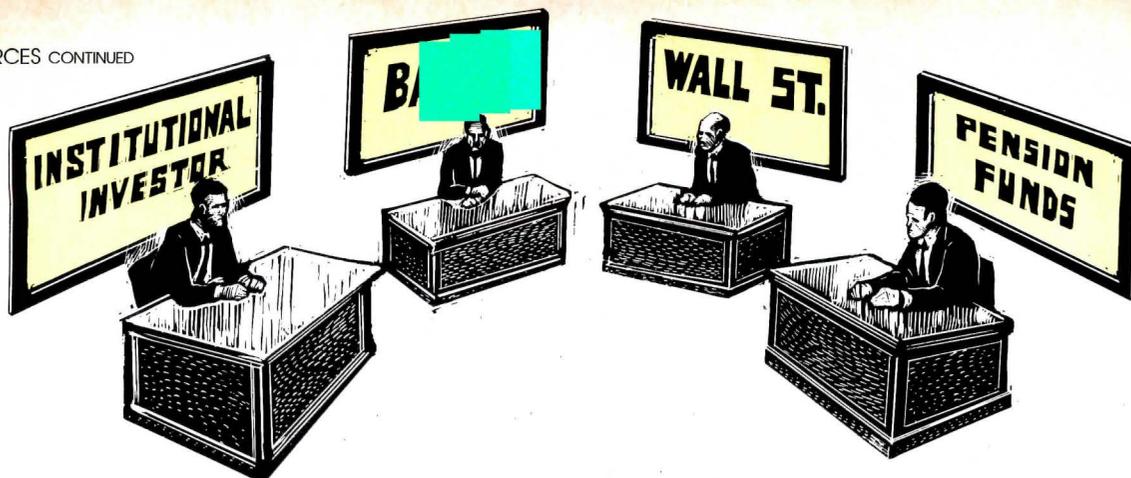
- Give extraneous detailed statistical financial data;
- Over-complicate the cash-flow analysis with complex internal rates of return or discounted-cash-flow formulas;
- Forecast an excessive rate of inflation;
- Limit the data to aggregate or bulk numbers;
- Assume that the way you've structured the deal is acceptable or desirable;
- Assume tax brackets or capital gains treatment;

- Discuss general political problems;
- Assume that the lender understands so-called "creative financing";
- Submit detailed engineering plans and schematics until requested;
- Provide too much analytical detail until needed;
- Give a general list of all company employees;
- Overemphasize interest rates;
- Overcollateralize or provide inextricable cross collateral;
- Confuse project financing with corporate financing.

This list was compiled by Stan Ross, a senior partner with the Los Angeles-based accounting firm Kenneth Leventhal & Company. For the complete checklist, write: Stan Ross, Kenneth Leventhal & Company, 2049 Century Park East, Suite 1700, Los Angeles, Calif. 90067.

prisingly enough the least important consideration in most cases is the interest rate the lender charges. "If you're just looking for rate," Ross says, "you're really wasting a lot of time in terms of trying to shop a lot of rate differentials."

The interest rates charged by most lenders for similar types of loans fall into a fairly narrow range, so shopping around to shave a fraction of a point off the rate might mean going to a lot more trouble than the savings are worth. The most important single fac-



tor in rating a lender or any other money source is flexibility. "Make sure," advises Ross, "that you're dealing with a bank that provides flexibility and options." That goes not just for banks, but any financial entity with whom a builder is considering developing a relationship.

A specific area where flexibility is both highly important and desirable is in determining what index a loan's rate may be tied to. "You don't want to just be paying a rate tied to prime," says Ross. "I'm not focusing on negotiating what the rate is—an eighth of a point may not be as relevant as whether or not you have the option of flowing off LIBOR (London Interbank Offered Rate), a certificate of deposit rate, a treasury bill rate, a treasury note rate or even other indices that are being currently developed."

The types of loans and variety of financial services a source can make available is another consideration. Can your lender offer a variety of structures for short-term loans, including provisions for converting such loans into longer-term obligations in times of trouble? Can the lender provide letters of credit, help with hedging schemes, devise other ways of helping you protect yourself from volatile rates? Some lenders are more strict than others when it comes to demanding and enforcing loan conditions and covenants such as liquidity and debt ratios or limitations on inventory. You don't want to wind up with a lender whose requirements are so restrictive they inhibit your ability to run your business.

Finally, you'll want to examine the lender's track record. How did the lender treat his builder clients during this and other downturns? Obviously a lender who was quick to foreclose or unwilling to give leeway so problems could be worked out is a less attractive financial partner than one willing to compromise, defer payment schedules and let interest accrue and see a builder through hard times.

**The presentation.** After using the criteria mentioned above to pick out a lender or other financial institution,

you'll want to get down to specifics concerning a financing plan for your company as a whole or for a particular project.

The first step in a meeting with your money source, says Ross, should be a demonstration to prove that your business is an on-going concern that "not only focuses on projects, but also has a plan and a strategy and is a real business." Even if the financing you're seeking is limited to a particular project and not your business overall, Ross says the starting point is establishing your business' credentials.

The best way to do this is to go over your business' vital statistics with the lender or investor. This means going

### **'Make sure that you're dealing with a bank that provides flexibility and options.'**

over your balance sheet and earnings, discussing your position within the market, and giving your company's track record. The goal is to prove to the money source that you've performed well in the past and have every intention and capability of doing the same in the future. Only after convincing the lender that your company is a viable, on-going professional concern with a proven track record should you turn to a discussion of financing for a specific project.

Even then, Ross advises that you first give a lender or investor a non-financial rundown of the project. Describe the project, its units and amenities, who the expected buyers are and why you think the project is right for the market.

Graphics can be a major help. Don't underestimate the value of a "very attractive rendering" of the project at this point in the discussion, says Crocker of Philadelphia Investment Corp. According to Crocker, financial institutions like pretty things like renderings that they can send to the chairman so he can see just where the institution's money is going.

"After you've described your entire project in a non-monetary sense," says Ross, "then you can get down to the numbers." The "numbers" should include a detailed cash flow, a breakdown of expenditures over time, schedule of revenues, a market analysis and an estimate of absorption of the project's units. Be sure your assumptions behind the numbers are realistic, and be prepared to defend those assumptions. "If you're not realistic, you can lose credibility really quick," warns Ross.

Finally, builders can make a big hit with a potential money source simply by assembling all this information into a coherent, well-organized package.

"All your information should be in one pot," says Crocker. He suggests putting all the numbers, the renderings, the market information and all other pertinent information into a package which, in effect, walks the lender or investor through the project. (For more information on what to include and what not to include in the presentation to a money source, see previous page, "The do's and don'ts of money negotiations".) In the interests of saving both your time and the lender's, Ross says it's a good idea to prepare a brief summary of this package. The summary should capsule the most important information contained in the package and give highlights on the project.

By preparing a concise, easily read summary, a potential money source should be able to give you a quick answer as to whether or not he's interested enough in the project to delve into the details of your package of information.

A final caveat: All presentations of this type to potential sources of money should be made face to face. Under no circumstances, warns Crocker, should you send material on your company and project on an unsolicited basis. It is extremely unlikely that even the most meticulously prepared material coming in unsolicited over the transom will get serious consideration from a lender or investor.

—WALTER L. UPDEGRAVE

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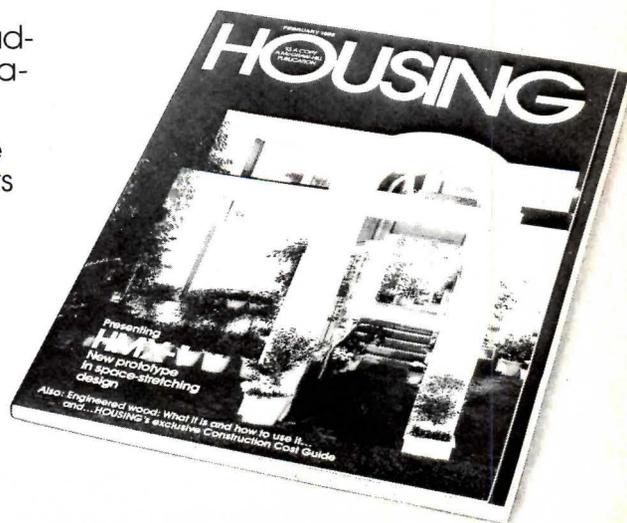
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**HOUSING produces results.**

**Builders will install 18 million kitchen and vanity cabinets this year** in single- and multifamily housing units, according to a marketing study by Housing Industry Dynamics for the National Kitchen Cabinet Assn., Louisville, Ky. Add this figure to the 2.7 million units the study estimates will go into manufactured/mobile homes, and the 22 million cabinets in remodeling projects, and the total comes to about 43 million units—a 13 percent increase over last year's estimated 38 million cabinets. The projections for this year break down to 37.2 million kitchen cabinets and 5.6 million vanity cabinets. The research group assumed a figure of 1.3 million housing starts this year for the purpose of this study.

**Closet Maid Corp. has changed its name to Clairson International.** Donald Sauey, president of the storage system manufacturing company, explained that “while the former name was popular in the marketplace,” it was “restrictive, depicting us as a manufacturer of products used only in the closet.” The company in fact offers shelving, racks, sliding basket systems and other storage products for commercial and industrial as well as residential uses. The new name also stresses the firm's plan for further penetration of commercial and institutional markets here and abroad.

**Vinyl products are expected to make greater inroads in the construction market** over the next five years, according to a study by Frost and Sullivan Inc. The report, “Residential Vinyl Building Market,” estimates the total volume of PVC compounds used in building materials will climb from 2.76 billion lbs. in 1981-82 to 3.58 billion lbs. in 1985-86. The largest growth will occur in the vinyl window market, with a 27 percent per year increase. The report forecasts a market for 200,000 vinyl windows in new residential construction and 3.5 million replacement and storm windows in 1985-86. The use of vinyl in sidings and soffits should increase 17.3 percent per year over the next five years. In flooring, the use of vinyl tiles will grow 1.7 percent annually, and sheet goods will jump 7.9 percent a year. PVC pipe will increase at a 6.5 percent annual rate. The report (No. 807) can be purchased from Frost and Sullivan, 106 Fulton St., New York, New York 10038.

**Whirlpool challenges GAO report on appliance standards in comments filed with DOE** on the agency's no-standards proposal [HOUSING, Jan]. A.J. Takacs, vice president, public and government relations for the Benton Harbor, Mich.-based company said: “Our review of the Government Accounting Office report has uncovered errors, misinterpretations and unjustified recommendations.” The report states that a no-standards rule will not save as much energy as standards would, and the marketplace does not place enough pressure on manufacturers to produce energy-efficient products. The company responded by pointing to increases in the efficiency of products since 1972: 78 percent for refrigerators; 84 percent for freezers; and 22 percent for room air conditioners. The manufacturer also took issue with the statement that builders account for 40 percent to 60 percent of major home appliances purchased and tend to shop for the product with the lowest price, ignoring its energy efficiency. In response Takacs said: “For the eight products covered by the DOE rule, less than 25 percent are purchased by builders. Furthermore, one recent study shows that 76.4 percent of builders are installing more efficient heating and air-conditioning equipment, and 46.1 percent are upgrading the efficiency of the appliances they include in new homes.” DOE is expected to make a final decision on the no-standards proposal by late October.

**Standards for certifying solar collectors have been developed** by the Interstate Solar Coordination Council, a group of solar agencies and manufacturers from 39 states. The national standards, which are modeled on Florida's and California's collector certification standards, allow builders and consumers to compare ratings on collectors for domestic hot water systems. Ratings are based on the btu/sq.ft./day the collector can deliver. The program also reviews entire solar systems, including pumps, controls and storage tanks. To date, California, Arizona, Louisiana, Minnesota and Florida require collectors be certified under the program.



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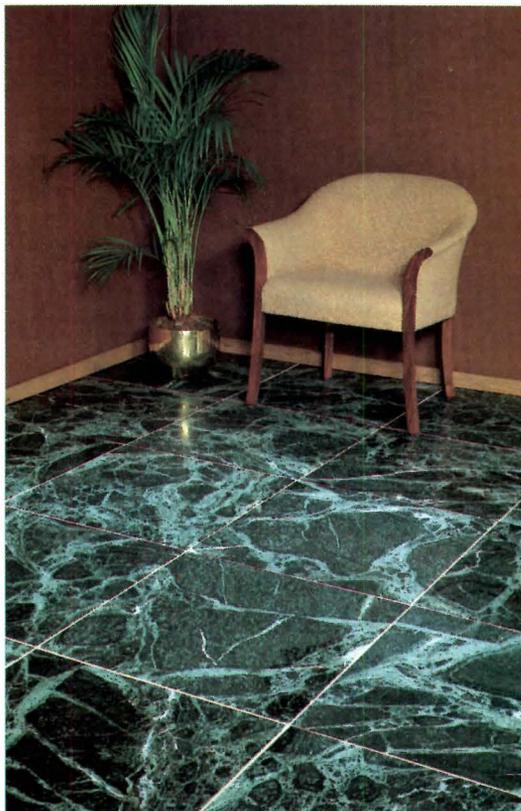
## Marble tiles cut the cost of luxury

Natural marble has been heretofore too heavy—and too expensive—for most homebuilders to consider. But an advance in stonecutting technology has made possible a line of large, natural marble tiles that make this desired material a plausible alternative for use in walls and floors of many homes—both new and remodeled.

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Although GL Marble is recommended for interior use only, it can be utilized in high-traffic areas such as public lobbies, as well as in homes. Other possible applications include fireplace surrounds, hearths and accent walls. The marble tiles come in four sizes:  $1' \times 1'$ ,  $1' \times 2'$ ,  $2' \times 2'$  and  $2' \times 4'$  (for walls only). For more information, circle 300 on reader service card

—JENNIFER A. WAGNER



### Installation procedure

varies little from tile setting (see photo above), using cement mortar or (for walls only) mastic adhesives. The  $2' \times 4'$  tiles being installed above weigh just 30 lbs. each. The tiles can be cut with a circular saw.

**Large marble tiles** are available in eleven marble and two onyx types; shown installed at left are  $2' \times 2'$  tiles in green aosta marble. Special orders are accepted as well.

Smaller tiles are also available from Marble Technics (see photo far left). These tiles may be more suitable for surfacing small areas, as shown, or for special applications.

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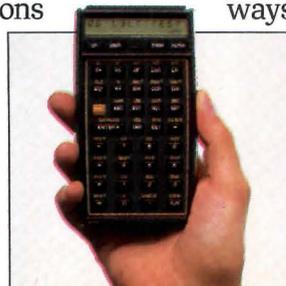
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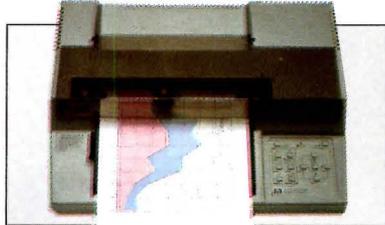
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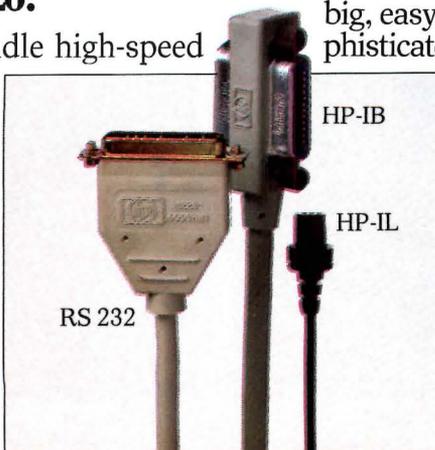
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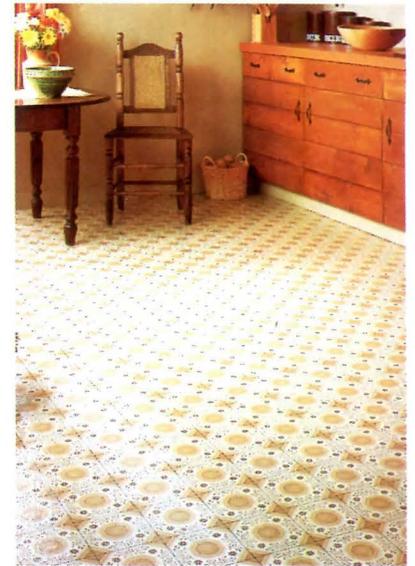
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**Tile-like vinyl flooring**, shown installed in living room above, comes in rolls 6' or 12' wide. Flooring, called "Scarsdale," is from the "Castilian" line, and is easy to install. Vinyl floor-covering, shown above in beige, needs no waxing. Armstrong World Industries. *Circle 398 on reader service card*



**Plush carpeting** (right), called "Broadway Dreams," is constructed of Pentron® polyester and is Scotchgard® treated. Saxony carpeting is offered in a choice of 25 colors; color shown is grecian rose. Carpeting comes in 12'-wide rolls. Cabin Craft Carpets/WestPoint Pepperell. *Circle 399 on reader service card*



**Sheet vinyl flooring** (above), the "Delft Floral" pattern from the "Lustrecon" collection, is shown in swiss chocolate/spice beige coloration. Mannington. *Circle 401 on reader service card*



**'Elan' carpeting** is an addition to the Eligere™ line. The Antron III™ nylon carpeting is available in 24 colors. Collins & Aikman's Carpet Div. *Circle 402 on reader service card*



**"Fontainebleau" parquet flooring** shown installed in living room above is available in quartered oak (shown), plain oak, ash, walnut, cherry and a variety of other hardwoods. The classic parquet pattern measures 42" square including the double-mitered outside pickets. Easy-to-install modules are 3/4" thick, with T&G construction to ensure stability. Kentucky Wood Floors. *Circle 400 on reader service card*



**Brick-like tile**, called "Rustic Flair," is from the "Olde Towne Quarry" series. The tiles measure 4" x 8", and are available in four colorways. Summitville. *Circle 403 on reader service card*

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**Solid oak parquet**, shown installed above, has a double urethane coating to ensure durability and low maintenance even in high-traffic areas. Hartco. **Circle 404** on reader service card

**Large floor tiles** shown at right are from the "Garden" Series; 12" x 24" tiles are shown in "Castagno," one of three colors offered. Tiles are suitable for outdoor or indoor use. Marazzi. **Circle 405** on reader service card



**Natural-tone oak flooring** comes in 12" sq. tiles that feature T&G construction and aluminum splines for easy installation and maximum strength and stability. Flooring, shown in a one-directional pattern, comes in oak, walnut, ash, maple and cherry. Pennwood. **Circle 406** on reader service card



**'Gracefield' sheet vinyl** (above) is one of four designs in the new "Pavillion" line, which is warranted for five years against color changes due to wear, mildew or alkali. "Gracefield" flooring comes in six or twelve-ft.-wide rolls, and is available in five colorways. Congoleum. **Circle 407** on reader service card



**Hardwood flooring** has been custom-stained and treated with polyurethane for a high-traffic application. "Stone" pattern shown comes with smooth or distressed surfaces. Smooth flooring comes in red or white oak and angelique teak; distressed pattern is offered in red oak only. Harris. **Circle 409** on reader service card



**Checkerboard-pattern synthetic turf** (above) is designed for exterior as well as interior use. The all-weather floorcovering is especially recommended for recreation and game rooms, entries, pool surrounds and patios (shown). Instant Turf Industries. **Circle 408** on reader service card



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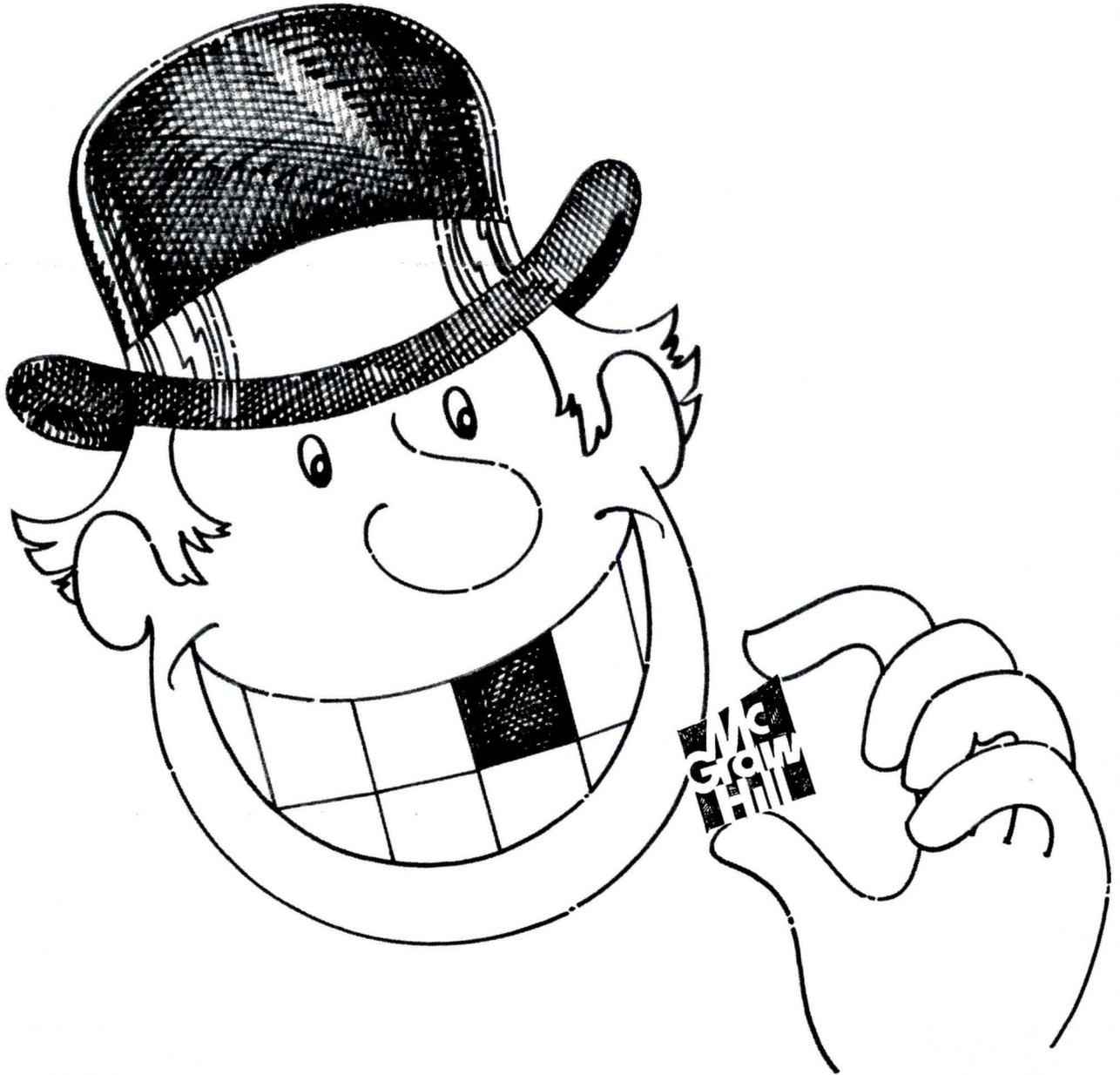
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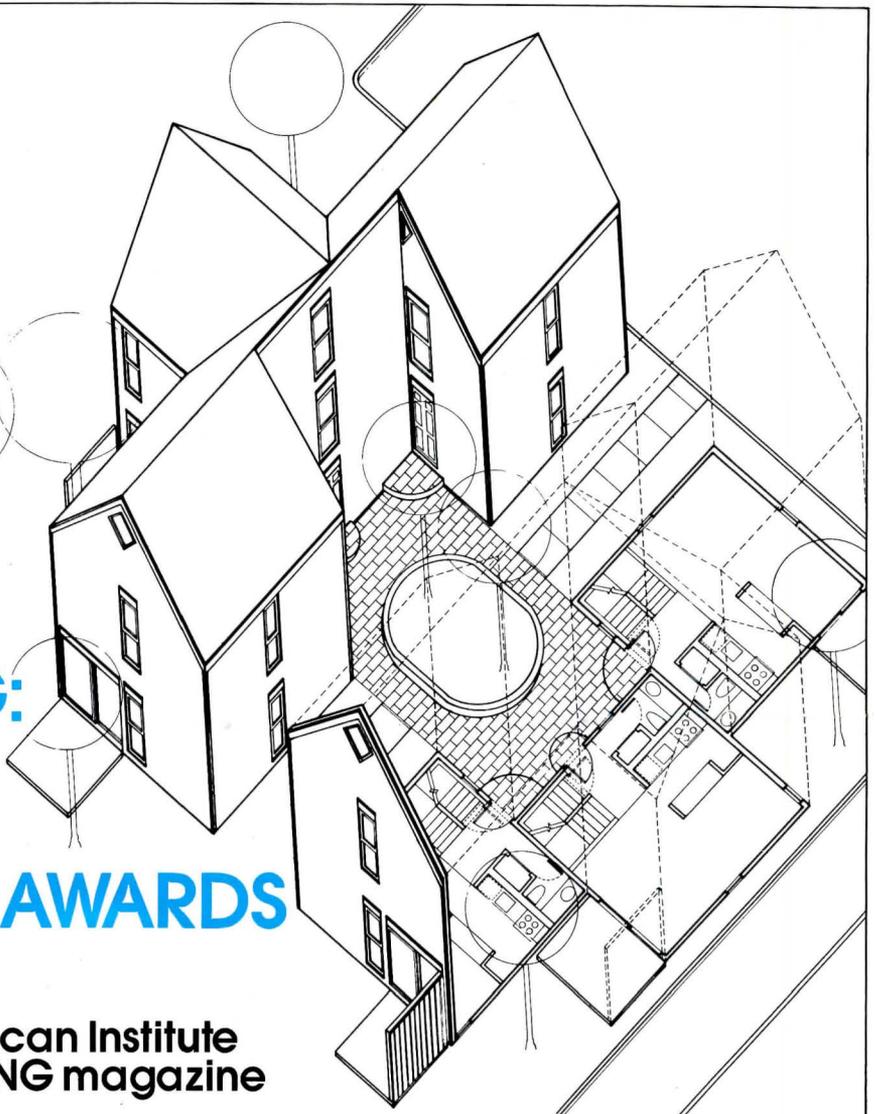
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# ANNOUNCING: THE 1983 HOMES FOR BETTER LIVING AWARDS PROGRAM

sponsored by The American Institute  
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**What's eligible:** Any house or multifamily building(s) in the U.S. or its possessions built since January 1, 1980. Must have been designed by a registered architect.

**Entry categories:** *Production housing*—any housing, single-family or multifamily, built for sale or for rent. Includes: year-round or vacation housing; rehabilitations and recyclings; experimental houses; PUDs; mixed-use buildings or developments, etc. *Custom-designed housing*—any one-of-a-kind house designed for a private client. Includes both year-round and vacation houses, remodelings and additions (remodelings must involve structural changes; redecorations and single-room remodelings are not eligible).

**Registration deadline:** October 15, 1982

**Registration fee:** \$50 per entry (fees are nonrefundable)

**Submission of materials:** A spiral binder for each project entered will be sent to registrants by December 1, 1982. Detailed instructions on photos and plans required will be sent with the binders. Additional information regarding deadline for return of binders, judging date and time and place of awards presentation will also be sent. Winning binders will not be returned.

ALL WINNING ENTRIES WILL BE PUBLISHED IN HOUSING MAGAZINE

Isometric: Lake Bluff Townhouses, Lake Bluff, Ill., winner of an Award of Merit in the 1981 Homes for Better Living Awards Program. Architect: Nagle, Hartray & Associates Ltd., Chicago. (See HOUSING, Sept. '81.)

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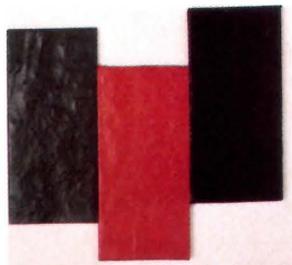
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**Bordered tile floor** suggests a simple way to add interest to kitchen decor. Pattern was created by inseting 2"×2" units in buff, granite, cobalt and cinnabar. American Olean. *Circle 390 on reader service card*



**Synthetic rubber tiles**, for high-traffic applications, can be installed directly over properly prepared existing terrazzo or quarry tile. Nora. *Circle 391 on reader service card*



**Hexagonal paver tiles** shown installed above in a terracotta color, are from the manufacturer's "Carolina" paver series. Mid-State Tile. *Circle 392 on reader service card*



**Heavy-duty sheet flooring** is constructed of durable, easy-to-maintain vinyl embossed to look like real brick. Sheets, with fiber glass reinforced backing, come 6'×60'. Lonseal. *Circle 393 on reader service card*



**Textured nylon carpeting**, available in 12 colors, is designed primarily for commercial use. Bigelow. *Circle 394 on reader service card*



**Patterned carpeting**, "Executive Graphics III," is designed primarily for contract applications. Hercules, Inc. *Circle 395 on reader service card*



**"Whitehall" oak parquet flooring**, consisting of 6" squares and 2¼"×14¼" bands, is available prefinished, unfinished or stained. Chickasaw. *Circle 396 on reader service card*



**Ceramic tile** from the "Earthstones" group acts as a heat sink plus a durable floor surface in a solar "great room" above. Tiles are available in six colors and five sizes. Florida Tile. *Circle 397 on reader service card*



*Free job training  
is second nature  
to Alabama.*

*Gerald Cannon, Vice President of Operations, Dexter Lock, Division of Kysor Industrial Corp.; with family at Chewacla State Park, Auburn AL, home of Auburn University.*

Dexter Lock says a key to the extremely high productivity of its Auburn plant is a unique Alabama job training program. The state-funded program developed a proficient work force from scratch, beginning with screening. It followed with hands-on training in mobile classrooms and shops and continues with on-going screening, upgrading and renewal programs. Dexter Lock's Gerald Cannon credits the program for the plant's low 2% turnover and absenteeism rates

and extremely high productivity. Other significant benefits Mr. Cannon has found include: • Business oriented state government • An unequaled zero tax program • A total transportation network of roads, rail, air facilities, navigable rivers and a major ocean port • An abundance of engineers and technicians • State grants for industrial site development • High technology support industries.

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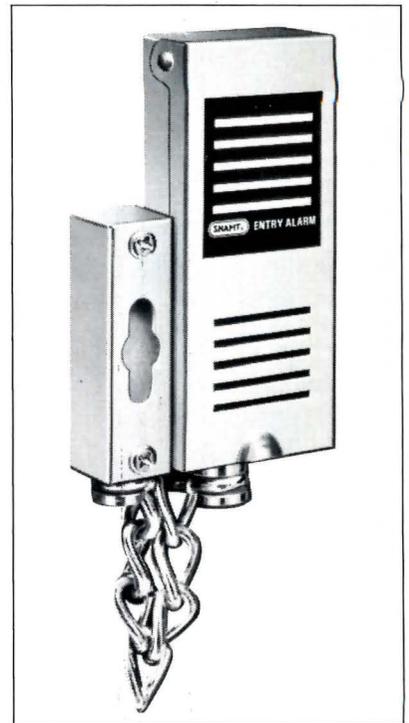


**ALABAMA**  
*Cut out for business.*



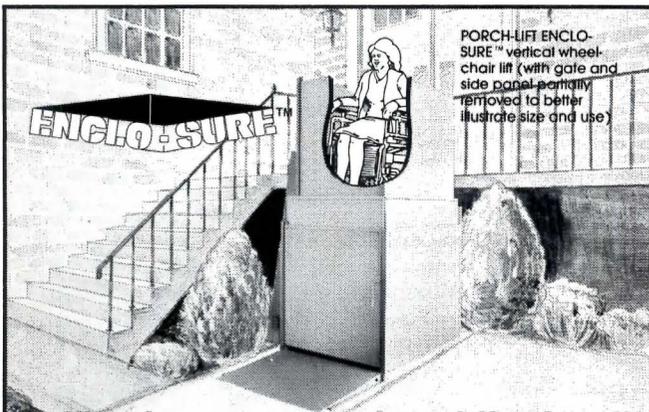
**Home energy management system**, the Regulator™ 5700, controls the timed operation of up to 100 lights and appliances, including HVAC units and electric water heaters. Remote modules come in five models, each with a different function. Regency. Circle 351 on reader service card

**Intercom security system** (right), the "Townhouse Control Panel," is a wall-mount unit equipped with individual push-buttons to control communication and door security circuits. Jeron Electronic Systems. Circle 352 on reader service card



**Door and window guard**, the Snapit Entry Alarm™, has chain guard and automatic alarm system. Unit uses a 9v alkaline battery. Cable Electric Products. Circle 354 on reader service card

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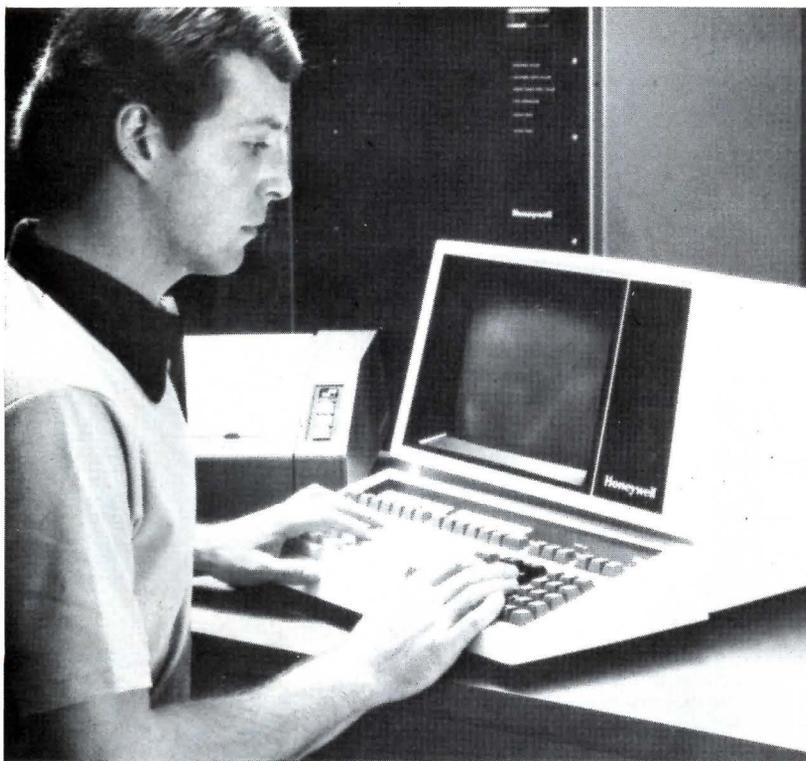
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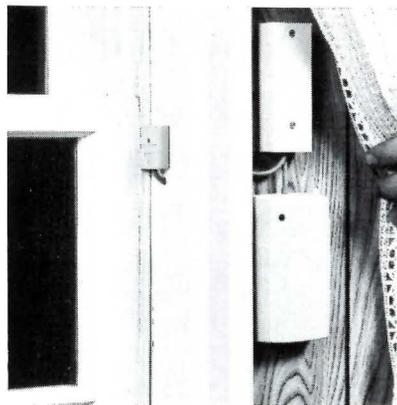
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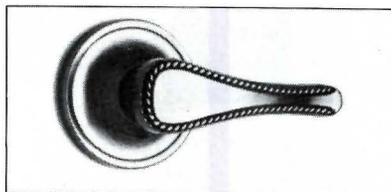
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**Central microcomputer station** for the "Security Link" management system is connected to subscribers' alarm systems. Terminals display messages regarding fire, theft and equipment failure. System can be customized to meet particular security needs. Honeywell. Circle 353 on reader service card



**'Wireless Interface' unit** is part of a perimeter protection system. Terminus® shock sensor shown mounted to window frame connects to a wireless transmitter. Litton. Circle 335 on reader service card



**Lever handle**, with decorative "rope" design, is one of the "Comet" lock series. A variety of finishes is offered. Arrow. Circle 356 on reader service card



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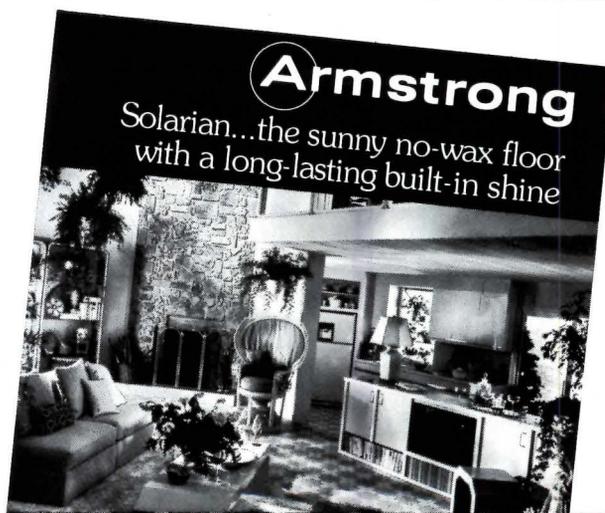
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Circle 87 on reader service card

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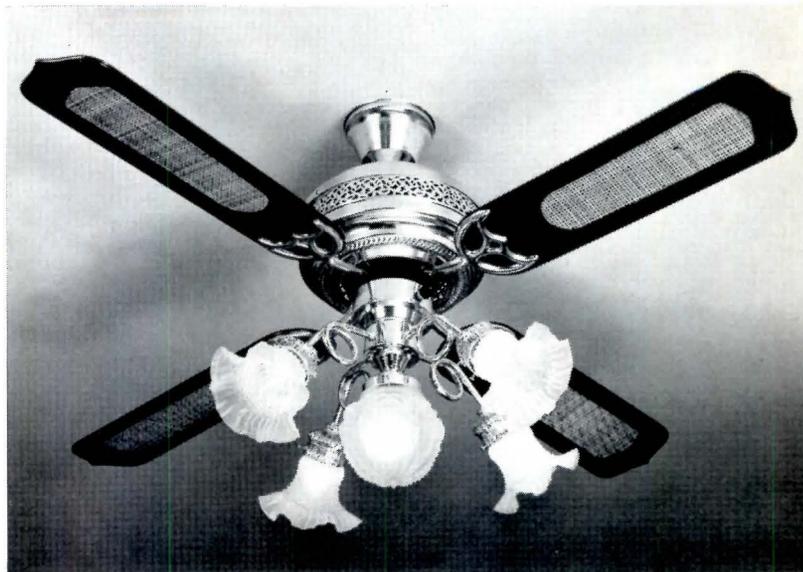
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Circle 88 on reader service card



**Ceiling fan**, from the “Custom Deluxe” line, has hardwood blades with cane inserts. Blades are offered in 36” and 52” sizes. Light fixture is optional. Patton. Circle 364 on reader service card

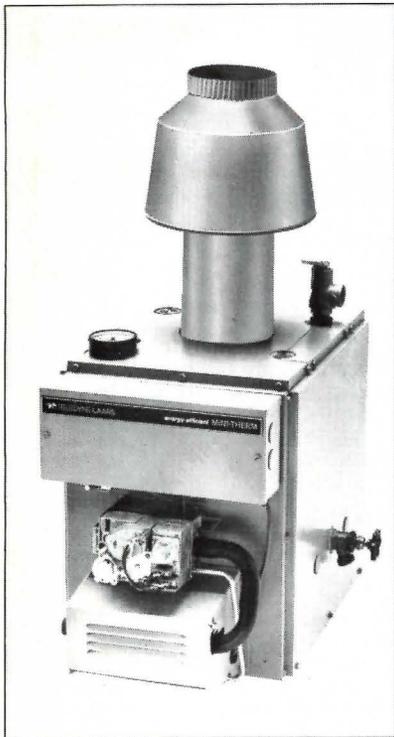
**Evaporator console** (right) is part of a split air conditioning system. Four models have cooling capacities ranging from 8,000 to 24,000 Btuh. Console shown can be mounted on floor, wall or ceiling. Fedders. Circle 365 on reader service card



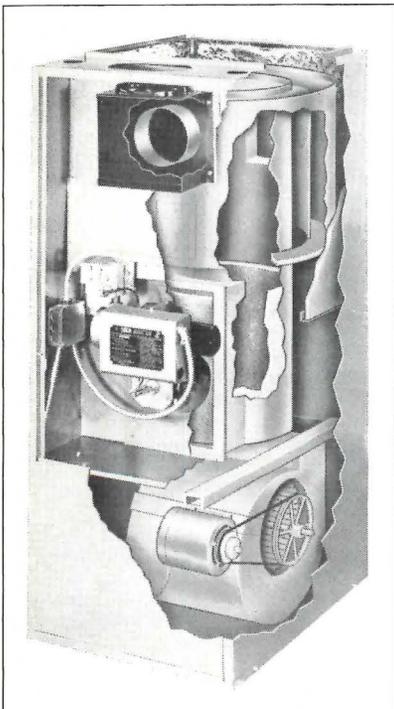
**Ceiling fan** (above) is available in 52” and 38” sizes. Features include reversible motor and variable speed control. Five finishes are offered: polished brass, antique brass, white, white with polished brass and brown with polished brass. Progress. Circle 366 on reader service card

**Energy management system** for small buildings, the 2616 Energy Controller™, can monitor four temperature zones and register outside air temperature. Up to 16 electrical loads can be handled. Self-contained cabinet measures 17½” x 21” x 7½”. Robertshaw Controls. Circle 367 on reader service card





**Residential gas-fired boiler** is offered in two sizes, delivering 50,000 and 75,000 Btuh. Compact "MiniTherm" adapts to most existing systems. Teledyne Laars. *Circle 368 on reader service card*



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**Pages 42-43** (Architect: Fisher-Friedman Associates)—Paints/Stains: Deero. Insulation: Owens-Corning. Sheathing: American Plywood Association (3/4"). Roofing: Owens-Corning. Windows: Joe Keith Industries of Tucson. Doors: Masonite Corporation. HVAC: GE. Plumbing fixtures: American Standard. Kitchen appliances: Broan (kitchen fan), Badger (disposal), Hotpoint (refrigerator & range). Kitchen cabinets: Hilton Woodcraft. Finished flooring: Armstrong (tile, linoleum), Thomas (carpet). Hardware: Weslock.

**Page 44** (Architect: Daniel Solomon, Paulett Taggart)—Exterior siding: California stucco. Paints: Roy Anderson, color by James Goodman. Windows: Western metal sash. Fireplaces: Majestic. Plumbing fixtures: Chicago. Kitchen appliances: GE. Hardware: Schlage.

**Page 45** (Architect: Daniel Solomon and Associates)—Exterior siding: 1x8 Cedar lap siding. Paint: Roy Anderson, color by James Goodman. Finished flooring: Hardwood.

**Page 46** (Architect: Claude Miquelle Assoc.)—Exterior siding: MacMillan Bloedel Atlantic White Cedar Clapboards. Paints/Stains: Fuller O'Brien. Brick/Masonry: Glen-Gery, Gilbert Block. Insulation: Owens-Corning. Roofing: Bird. Windows: Weathershield, Vellux skylights. Doors: Morgan (entry); Taylor (patio); Masonite (interior); Fimbel (garage). HVAC: Burnham. Plumbing fixtures: Delta (kitchen & bath); American Standard (bath). Kitchen appliances: Magic (range); Frigidare (all other appliances). Kitchen cabinets: Connor Forest Products. Finished flooring: Armstrong (vinyl); White Crest Carpet Mills (carpeting). Hardware: Schlage.

**Page 46** (Architect: Alfredo De Vido)—Insulation: 3/2" Owens-Corning Fiberglas. Built-up Roofing: Xpandek with Shelltex by Polysheal. Windows (aluminum frame): Three Rivers. Doors (exterior): Permadoor, U.S. Steel. Plumbing fixtures: Kohler. Kitchen cabinets: custom. Kitchen countertops: Formica. Hardware: Arrow (locks, hinges, sliding door hardware). Masonry (exterior): Belden-Stark (brick). Elevators: Sedgwick.

**Page 48** (Architect: Dreyfus & Blackford)—Exterior siding: custom. Paints/Stains: Dutch Boy. Windows: Pella Windows. Doors: Masonite (Colonist). HVAC: Lennox (furnace). Fireplace/Wood Stove: Vermont Casting Resolute. Plumbing fixtures: Kohler (bath); American Standard (kitchen sink). Kitchen appliances: Jenn-Air (range); GE (oven and refrigerator); KitchenAid (dishwasher). Kitchen countertops: Dupont Corian. Bath tile: Dillon. Hardware: Schlage (locks); Plymouth (door-knobs).

**Page 49** (Architect: Donham & Sweeney)—Exterior siding: Mastic (vinyl). Paints/Stains: Benjamin Moore. Insulation: Owens-Corning. Roofing: Bird & Son. Windows/Glazing: Andersen (exterior), Wes'pine (interior). Doors: Brosco. HVAC: Dunham-Bush; Beacon Morris (hydrotherm boiler); Honeywell (thermostats); Nutone (exhaust fans). Plumbing fixtures: American Standard, Symons, Delta. Apartment Kitchen appliances: GE (refrigera-

tors); Thermador (ranges). Kitchen cabinets: Triangle Pacific Co. Finished flooring: Armstrong (resilient flooring); American Olean (ceramic tile); Gulistan (carpet). Hardware: Almet.

**Page 50** (Architect: C. Luckenbach/R. Ziegler)—Paints/Stains: Olympic, Pratt & Lambert. Insulation: Owens-Corning. Windows: Pella. HVAC: Bryant. Fireplace: Heatilator. Plumbing fixtures: American Standard (toilets, tubs); Elkay (kitchen sink). Kitchen appliances: GE (dishwasher, oven/range, waste disposers). Hardware: Schlage. Lighting: Halo.

**Page 51** (Architect: Graham Gund Associates)—Paints/Stains: Pittsburgh Paints. Insulation: Owens-Corning. Windows/Glazing: J.B. Sash; Roto Roof. HVAC: Carrier. Fireplace: Preway. Plumbing fixtures: American Standard. Kitchen appliances: GE. Kitchen Cabinets: Kochman Woodworking. Finished flooring: Stratton Carpets. Interior paneling: U.S. Gypsum.

**Page 51** (Architect: Backen Arrigoni & Ross Inc.)—Exterior siding: Burnett & Sons (custom-milled). Paints/Stains: Dutch Boy. Insulation: Owens-Corning. Roofing: Red Cedar shingles. Windows: Pella Storm Windows. Doors: Masonite "Colonist" (interior), custom (exterior). HVAC: Lennox Furnace. Fireplace/Wood Stove: Vermont Castings "Resolute." Plumbing fixtures: American Standard (kitchen), Kohler (bathroom). Kitchen appliances: Jenn-Air (range), GE (oven, refrigerator and disposal), KitchenAid (dishwasher). Kitchen cabinets: custom. Kitchen countertops: Dupont "Corian". Hardware: Schlage "Plymouth"; Pemko (thresholds).

**Pages 52 and 53** (Architect: Hugh Newell Jacobsen)—Paints/Stains: Benjamin Moore. Insulation: Zonolite (6"x9" batts). Roofing: GAF Timberline shingles. Windows: Arcadia sliding aluminum, double-glazed. HVAC: Carrier. Fireplace: Majestic. Kitchen appliances: KitchenAid (dishwasher), Thermador (oven), Sub-zero (refrigerator and freezer); Jenn-Air (range). Kitchen Cabinets: Burger Cabinet Shops, white suede Formica, No. 949-64. Flooring: Pennsylvania Bluestone, white oak strip flooring. Hardware: W.T. Weaver & Co. Interior paneling: gypsum wallboard. Sheathing: plywood. Plumbing fixtures: Speakman Diamond 75.

**Page 54** (Architect: Eric Hefty & Associates)—Exterior Siding: No. 1 Fivex Cedar Shingles. Paints/Stains: Watco Marine Teak Oil (exterior), Cedar Benjamin Moore Aquavelvet (interior). Insulation: Owens-Corning Fiberglas (12" roof), Thermocon (6" walls). Roofing: #1 Fivex Cedar Shingles. Windows: Andersen (operators); 1 3/8" triple-pane, custom-made (fixed). Doors: Plain sliced oak. HVAC: Yukon "Polar" wood/gas furnace. Fireplace: Heatilator. Plumbing fixtures: Kohler; Artistic Brass (trim). Kitchen appliances: Sub-Zero (refrigerator); Maytag (dishwasher); KitchenAid (compact); GE (double oven); Jenn-Air (grill range). Kitchen cabinets: Custom-made by Barry Fitzgerald & Chuck Eckert, Whitefish, Mont. Finished flooring: American Olean Primitive (kitchen, laundry & upper bath tile);

American Olean Siena (lower bath tile); 2 1/4" oak (hardwood); Lockweave 5 Star (carpet). Hardware: Schlage. Interior Paneling: 1"x4" Grade A Cedar. Brick/Masonry: Modular brick fireplace. Sheathing: 1/2" plywood walls, 3/4" plywood roof.

**Page 55** (Architect: Nagle Hartray & Assoc.)—Exterior siding: 1 x 6 beveled Western Red Cedar. Roofing: Western Red Cedar, Shingles-No. 2 Red Label Windows: Pozzi Window Co. (wood). Fireplace: Majestic. Plumbing fixtures: Elkay (kitchen sinks); Kohler "Caxton" lavatories; Kohler "Wellworth" water closets; Kohler "Mendota" tubs; Kohler "Triton II" faucets. Kitchen appliances: GE (refrigerator, range, dishwasher). Hardware: Schlage (locks); Stanley (hinges and bifold door tracks); Ironmonger (door pulls); Pemko (weatherstripping). Ceiling fans: Casablanca. Lighting fixtures: Precolite; Alcco. Interior ceiling: 3/8" gypsum board, 1 x 4 beveled edge pine. Interior walls: 3/8" gypsum board, 4 x 4 matte glazed ceramic tile by American Olean. Flooring: Quarter-sawn red oak random-length strips; 6 x 6 quarry tile by American Olean.

**Page 56** (Architect: R.W. Quigley)—Exterior siding: Redwood shingles. Paints/Stains: Sinclair. Windows/Glazing: Andersen (aluminum), Pella (wood). Doors: wood, TM Cobb (entrance and interior). Plumbing: Kohler (tubs, toilets); Redwood (sauna/whirlpool); American Standard (fittings/showerheads). Roofing: Bird (asphalt shingles). Hardware: Schlage. Insulation: Owens-Corning Fiberglas batts. Flooring: brick (exterior paving); carpet; ceramic tile (interior).

**Page 57** (Architect: Clovis Heimsath)—Exterior siding: 1x6 yellow pine clapboard. Paints/Stains: Bute. Insulation: Owens-Corning Fiberglas batts. Kitchen appliances: Citation (refrigerator); Hardwick (stove). Plumbing fixtures: Andersen.

**Page 58** (Architect: Agora Architects & Planners)—Exterior siding: Cedar shingles. Paints/Stains: Dunne. Insulation: Manville Corp. Roofing: Johns Manville "Fire King III." Windows: wood, some antique, some custom. Doors: wood, some antique, some Masonite "Colonist" model. HVAC: Rheem (40,000 btu forced air). Fireplace/Wood Stove: Franklin Stove "Scandia." Plumbing fixtures: American Standard. Kitchen appliances: Magic Chef (stove). Kitchen cabinets: Diamond Industries. Finished flooring: Antique w/Dunne Polyurethane. Hardware: Safe Hardware Rim Locks. Interior Paneling: Alder (trim). Brick/Masonry: Port Costa Patio Brick. Sub/Sheathing: 1" net redwood (antique).

**Page 59** (Architect: Kerns Group)—Exterior siding and window wall framing: Washington Woodworking (vertical siding). Roofing: KMM membrane or lead. Windows: General bronze. HVAC: Trane. Fireplace: Brick Herring Bone, metalasbestos chimneys. Kitchen appliances: Thermador; Frigidare; In-Sink-Erator; Alpos Inox. Kitchen cabinets: Allmilmo. Finished flooring: 6" oak strip, marble, terra cotta. Millwork: Washington Woodworking.

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**Single-handle faucet**, shown with optional matching hose and spray unit, is constructed of solid brass. The "Euromix" unit is offered in six finishes. Grohe. *Circle 375 on reader service card*



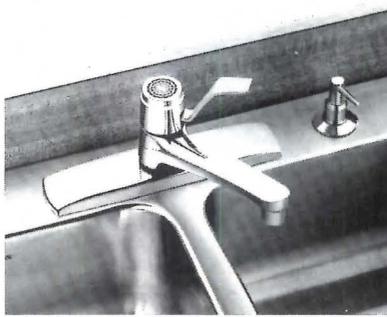
**Self-cleaning gas range** features charcoal brown glass oven door. Five models are offered in three colors: white, almond and harvest wheat. O'Keefe & Merritt. *Circle 376 on reader service card*



**Noncorrosive disposers** are constructed of stainless steel and cast iron. Five models are available, as shown above: two batch-fed units and three continuous feed units. All have a 1/2 hp motor. KitchenAid. *Circle 377 on reader service card*



**Top-of-the-line dishwasher** features touch-sensitive electronic controls, built-in water heater, and water temperature display. Unit can be programmed to delay the start of the wash cycle from one to nine hours. When dishes are clean, display panel flashes "CL" and an audible signal is sounded. White-Westinghouse. *Circle 378 on reader service card*



**Chalet™ faucet** is constructed of cast-brass waterway with washerless cartridge. Unit features 8" o.c. shank design for mounting escutcheon firmly to sink. Moen. *Circle 379 on reader service card*



**Microwave oven**, with acrylic-coated 1.5 cu. ft. cavity, has a sensor probe that automatically shuts oven off when the food reaches a preset temperature. Sanyo. *Circle 380 on reader service card*



**Versatile range** has an oven that acts as both a conventional self-cleaning oven and a microwave unit. The Timemaker™ Model JBV64G features solid-state touch-sensitive controls. General Electric. *Circle 381 on reader service card*



**Energy-saving refrigerator/freezer** defrosts once every four days rather than every 16 hours as in conventional frost-free refrigerators. Model TSC-18E has 18.2 cu. ft. capacity. Amana Refrigeration. *Circle 382 on reader service card*

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**Swinging terrace door** comes in a variety of sizes, including 5' and 6' units that are designed for retrofit applications. Marvin Windows. Circle 383 on reader service card

**Garage door (right)** is constructed of low-maintenance fiber glass panels. Door sizes: 8', 9', 10', 16', 18'. Optional insulation is factory-installed. Roll-Lite Overhead Doors. Circle 384 on reader service card

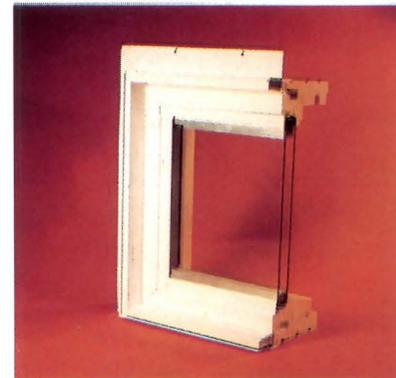


**Insulated garage door (above)** has a solid polyurethane core sandwiched between steel skins. Thermal break prevents conduction of cold temperatures to inside surface. Prepainted skins are embossed with woodgrain texture. Door has an R-value of about 7.5, says manufacturer. Wayne Door Co. Circle 385 on reader service card

**"Classic" bifold doors (right)** are available mirrored, as shown, or in three other styles: birch veneer, embossed woodgrain and colonial. The latter feature decorative wood trim around the perimeter of each panel. Ledco. Circle 386 on reader service card



**Insulated steel door (above)** features Adjusta-Fit™ door/jamb system that accommodates minor irregularities in wall construction. The "Benchmark" door is available with a 1½-hr. "B" fire rating. The other available model features magnetic weather-stripping. General Products. Circle 387 on reader service card

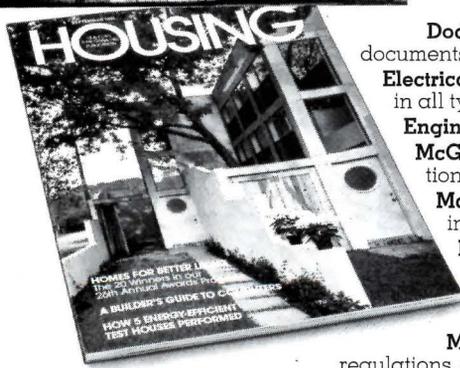
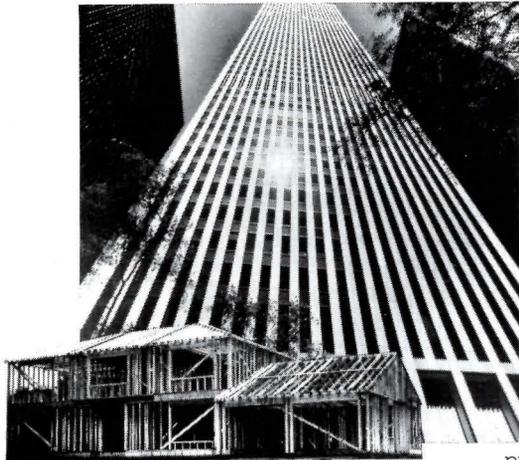


**Triple-glazed window (above)** provides some solar gain through a center lite of solar film. Weather Shield. Circle 388 on reader service card



**Operable skylight (above)**, offered in a wide variety of sizes, is easily installed in retrofit applications. Caradco. Circle 389 on reader service card

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## Running through the literature on flooring

A 1982 catalog displays a full line of **resilient floor tiles**. The 20-page catalog features four-color illustrations highlighting the many patterns available. Also included: detailed information on tile sizes; application suggestions; installation recommendations; specifications. Azrock. *Circle 301 on reader service card*

Solid **wood tiles** and a variety of **parquet and plank flooring** are featured in a 24-page brochure. Each product line is fully described, with details provided on construction, grade and species of woods, packaging and installation. Specifications for each line are also included. Accompanying each product's description are four-color photographs showing a sample tile or parquet design—and a room installation. Sykes Flooring Products. *Circle 303 on reader service card*

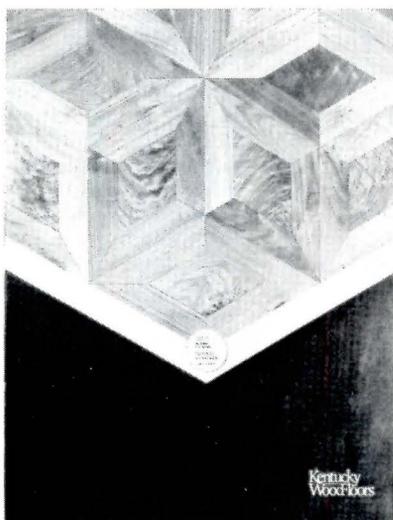
An eight-page brochure emphasizes technical information on several lines of **hardwood flooring**—including laminated oak parquets, plank flooring and solid-wood parquets. Detailed information describes unit dimensions, physical properties, test performance, acoustical rating and recommended uses. Installation information is also included. Several charts summarize properties, application possibilities and price range of the plank flooring line. Bruce Hardwood Floors. *Circle 304 on reader service card*

A line of **concrete tile** is presented in an eight-page, four-color brochure. Text describes the composition and performance advantages of the product; four-color photographs illustrate the variety of shapes and colors available. Installation tips are included. Also featured: the manufacturer's "Ro-Brick" veneer, a 3/8"-thick concrete surfacing material that can be installed indoors or out. Ro-Tile Inc. *Circle 305 on reader service card*

A catalog of **ceramic wall and floor tiles** presents the wide range of patterns and colors available from this manufacturer. Four-color photographs of installations in bathrooms, living rooms and other living areas highlight the manufacturer's decorative accent tiles as well. The 24-page booklet also gives details on product's physical properties, performance and suggested applications. Villeroy & Boch. *Circle 309 on reader service card*

Flooring is only one of many applications for **ceramic tile**, as shown in a

48-page booklet. The publication displays the use of tile on floors in many four-color photographs, highlighting the patterned effects that can be created with this durable material. These photos exhibit most of the manufacturer's tile and paver lines. Also featured are ceramic accessories for the bathroom, such as soap dishes and towel racks. Dal-Tile Corp. *Circle 310 on reader service card*



A 12-page catalog (see photo above) exhibits a line of solid **wood parquet floors**, with four-color photographs of room settings showing the wood types and patterns offered. Several new lines are introduced. Installation and maintenance tips are summarized. Installation and maintenance accessories are listed. Kentucky Wood Floors. *Circle 302 on reader service card*

A six-page foldout introduces "The Grohe Collection" of European-made **ceramic tiles**; featured are ten lines ranging in type from quarry tile to decorative accent tiles. Four-color photographs highlight residential installations, although several of the more durable lines are recommended for installation in commercial or public buildings as well. Also included is information on the floor, wall and accent tiles. Mid-State Tile Co. *Circle 306 on reader service card*

The decorative and functional advantages of **ceramic tile** are stressed in a 24-page brochure. Included in the four-color publication are: several types of quarry tile; floor brick; "Summitstones"; and a new series of hand-decorated tiles. Also featured: designer tiles with a sculptured look. Four-color photographs of room settings show uses of tile on floors, walls and count-

ertops. Trim shapes are shown in dimensional drawings. Specifications are included. Summitville Tiles Inc. *Circle 307 on reader service card*

"Sunshine Pavers," featured in an eight-page brochure, are suitable for both indoor and outdoor installations; text describes the advantages of using pavers for both kinds of applications. Application ideas are shown in four-color photographs. Two charts summarize information on availability of colors and sizes for four paver types. Color options are illustrated in four-color "sample" photos. Florida Brick & Clay Co., Inc. *Circle 308 on reader service card*

Six **flooring adhesives** are discussed in a four-page brochure. The mastics are suitable for a range of applications, from installing wood parquet to resilient flooring and carpeting. Featured too is the manufacturer's underlayment concentrate for preparing subflooring. A warranty program is also described. Franklin Chemical Industries. *Circle 311 on reader service card*

*The Concrete Flatwork Manual* is designed for concrete contractors who wish to expand their range of services—and for builders who want to enter that field or improve their skills.

This 160-page guide provides a comprehensive look at the what and how of concrete flatwork. Text, enhanced by line drawings and photographs, has information on materials and concrete preparation, with details on concrete mixes, air-entraining agents, slump ranges and tools. Also included: step-by-step instructions on how to pour and form curbs and gutters; tips on how to handle exposed aggregate, colored and stamped concrete; guidelines for laying driveways and sidewalks, patios, floors and foundations.

*The Concrete Flatwork Manual*, by George Gilson, is published by Craftsman Book Co., 6058 Corte Del Cedro, Box 6500, Carlsbad, Calif. The paperback edition costs \$7.75.

The compatibility of Chickasaw **hardwood flooring** with traditional or contemporary furnishings is displayed in a 12-page brochure. Four-color photographs depict a variety of room settings. Shown are plank, strip and parquet-type flooring. Also pictured: pre-finished wall planking. A series of drawings illustrate 12 possible parquet designs. Available for 50¢ from Memphis Hardwood Flooring Co., PO Box 7253, Memphis, Tenn. 38107

# Readers' letters: corrections and congratulations

## President's Commission: Two views

HOUSING: [I] read your editorial on the President's Commission in the June issue with great interest . . . and a measure of disappointment.

Did you know that one of their recommendations concerned getting the federal housing agencies out of the warranty business and letting the private sector handle it?

Picking up on the GAO report of last year, the Commission recognized that the insured aspect of warranties was the key. When you consider that 75 percent of the claims we get on first- and second-year problems are due to builder insolvencies, it becomes more obvious than ever that the only true protection the consumer can get is through insurance.

Responsible builders throughout the country have recognized this, which accounts for HOW's share of the market, which tops 40 percent nationally. In key areas such as Atlanta and Dallas, it is up to 65 percent to 75 percent.

Like you, we hope that the implementation of these recommendations will be prompt.

JANE MOSS SNOW

Home Owners Warranty Corporation  
Washington, D.C.

HOUSING: When I started looking at the May issue of HOUSING and, more specifically, on page 9 and your caption "On the road to deregulation—maybe," I was quite perturbed with the way you applauded, or at least started to applaud, the President's Commission on Housing.

Unfortunately, this has been inconceivably the *worst partisan* Commission that has ever come out of any Presidency. I suggest you read the "overview" of the report in the event you don't want to muddle through 600 pages of rhetoric.

I am sending you comments from NAHB which should show you how the builders think and feel about the Commission's report and their recommendations. I, personally, think the members are bank-oriented and don't even know what motivates builders or the need for production goals to house the American people. Obviously, the building material manufacturers are in deep trouble this year and, unless some stimulus such as a long-term mortgage instrument is reinvented, I don't think a lot of the building material manufacturers will be in our midst when at least 1,600,000 starts annually are necessary for pure shelter.

SAMUEL PRIMACK

The Perl-Mack Companies  
Denver, Colo.

## Deltona sets the record straight

The following letter was addressed to Kenneth Campbell, president of Audit Investments Inc., New York City, who reported on housing's public companies in our June issue.

The Deltona Corporation reported revenue from 1,777 units in 1981, or 3 percent more than in 1980—not 24 percent less units as

your article in HOUSING indicated.

In 1981, The Deltona Corporation:

- was one of the *top 10* revenue producers among housing's public companies;
- had the *second-largest increase* in 1981 unit deliveries of all the companies in your survey (which showed only four companies with gains);
- was one of only six companies to show a *profit gain* for 1981 over 1980;
- had the *sixth-largest* unit backlog at yearend of the companies you surveyed;
- entered *timesharing* and is the largest developer nationwide to do so;
- reported *record revenues* both for housing and in total.

Despite these achievements in 1981, Deltona was referenced only in the tables of your article while smaller firms were accorded several paragraphs of text. In your survey last year of 1980 results—when Deltona turned in far and away the greatest unit-delivery increase for the year (+60 percent)—at least you mentioned Deltona in your text, although we were omitted from your list of superbilders. . . . We at Deltona are pleased to supply you with backlog-unit data for the HOUSING survey, although the more meaningful dollar volume of our backlog is the statistic we routinely make public. At yearend we had 910 units in our backlog vs. 1,908 the prior year.

I hope you will give Deltona consideration in future surveys. Of course, since our housing revenues and profits *strengthened* in both 1981 and 1980 while other builders' operations generally sagged, our 1982 results may appear more negative when compared to the record levels of 1981.

BARBARA H. VAN BLARCUM

Director of Corporate Relations  
The Deltona Corporation  
Miami, Fla.

*Kenneth Campbell replies: Apologies all around; the HOUSING count omitted condominium units at your Marco Island resort, which were discussed in a separate paragraph. . . . A tabular presentation would keep us analysts from going astray, and hopefully we'll be on target next year.*

## Cracking the code

HOUSING: Three times in your May issue you mentioned the name of an architect followed by the abbreviation "P.C." Does this mean Partner in Charge? Planning Consultant? Or something more mysterious? Please tell me.

HARRY COMPTON  
architect  
Bartlesville, Okla.

"P.C." means Professional Corporation.

## HMX-1: A secret weapon . . .

HOUSING: I have taken some time to send this letter in order to reflect more fully on thoughts I had after reading the February issue of HOUSING.

At the time, I wrote the following comment: "HMX-1, Wow! This is strength. Let's

send the HMX-1 to Moscow, rather than the MX. I'm not kidding. The State Department ought to consider this one."

I am now even more convinced . . . What we should challenge the Soviets to match is our technology, particularly in the area of housing. HMX-1 would be perfect for this. Our State Department should not ask, it should demand, that HMX-1 be shown at the next trade exhibit in the Soviet Union. Even if the Soviets deny the request, we would achieve a propaganda victory.

WALTER J. HARRINGTON,

General Partner

Harrington-Kulakoff Development Co.  
Palo Alto, Calif.

## . . . and suitable for families

HOUSING: I think your HMX-1 is the best house plan I've ever seen. I'm not a professional, just interested in utilizing space efficiently, and that you did. One thing I disagree on is [your comment] that the house is built for couples and singles mainly. With three bedrooms and three bathrooms (something every house should have) the plan shows it could accommodate a large family very well. Adjustments would have to be made only on the laundry area; even with a family of three, closet units are really small. . . . I feel a full-sized washer and dryer could go in the area provided plus part of the pantry. This would leave enough space for a slide-out pantry like the ones used in travel trailers. . . .

Are you going to sell plans to individuals?  
Great house!

MIKE MOORE

Greenwood, S.C.

*For information about plans of HMX-1, contact architect Barry Berkus. His address: The Berkus Group Architects, 223 E. De La Guerra Santa Barbara, Calif. 93101.*

## Worksheet correction

HOUSING: [I'm writing] to say I'm really enjoying my subscription to HOUSING and to ask a question . . . concerning point No. 23 of the Home Ownership Worksheet on page 61 in your June 1982 issue.

To get estimated monthly gain do you really subtract monthly tax savings (No. 15) from Estimated Annual Dollar Appreciation (No. 21)? Or would it be Estimated Monthly Appreciation (No. 22)?

T.O. NASH III  
Kennewick, Wash.

*To get the estimated monthly gain from home ownership, subtract No. 16 (Net Monthly Cost) from No. 22 (Estimated Monthly Appreciation). We made a mistake in renumbering the items from the original worksheet.*

*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.*