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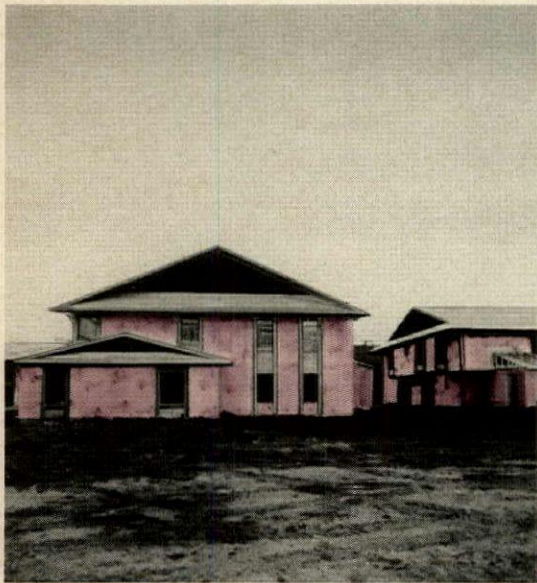
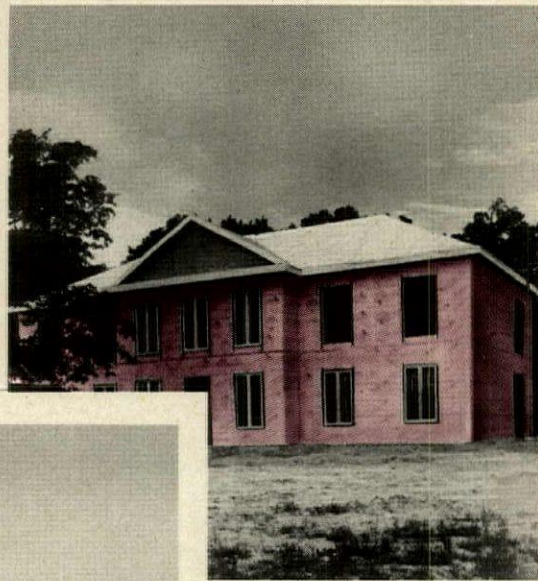
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This issue of Housing is published in national and separate editions.



A look back...and a look forward



A magazine like HOUSING is more than words and pictures. It's people — their ideas and perspectives. And in this regard, our magazine has always been blessed with the best.

If you were in the housing industry back in 1952, when Time Inc. put out the first issue — then called *House & Home* — you'll certainly remember Editor & Publisher Perry Prentice — one of the industry's giants. Or, if you arrived after 1964, when McGraw-Hill took the reins, you'll recall the strong opinions of Editor Dick O'Neill. In the early '70s you came to know and respect Editor John Goldsmith, who had worked with Perry and Dick since the mid-1950s. All of them — through their vision and their understanding of the reader's needs — helped shape the industry as we know it today.

Now it's my pleasure to introduce a new chief editor with a long and illustrious career: J. Robert Connor. Bob has directed a number of fine journals here at McGraw-Hill and at Fawcett Publications, CBS and Hearst. You'll find Bob — like Perry, Dick and John who preceded him — to be direct, dedicated and down-to-earth.

We have prevailed on John Goldsmith to become chairman of the board, as you'll see on our masthead. John's ideas and his perspectives, shaped by his years of experience in this industry, will continue to influence the pages of HOUSING.

Looking back on the early issues of *House & Home*, with their heavy emphasis on architect-designed custom homes, brings to mind how this magazine has contributed to changing the shape of America's housing. One of its early crusades was to improve the design of production homes by encouraging architects to work with builders. To this end, an awards program — known as Homes for Better Living — was begun in association with the AIA back in 1956. It's still alive today, as you'll see from this year's winners (pp. 44-46), chosen with the help of Senior Editor June Vollman.

That program has paid dividends through the years: Now the dramatic design that was once limited to one-of-a-kind custom homes is so much a part of the industry that you'll find it hard to distinguish between production and custom housing in "Selling the High-End Market" (pp. 63-71).

This issue is one of our special Kitchen & Bath Showcases. Under the direction of Managing Editor Natalie Gerardi, the staff, with the help of free lance Linda Downs, has spent the last six months gathering and assembling material that provides not only design ideas but also practical information on how to make these designs live well. A couple of examples: "The Wood Look" by Associate Editor Barbara Gers and "A Down-to-Earth Kitchen for the Handicapped" by Assistant Editor Steve Levin.

One exclusive feature is aimed at both new-home builders and remodelers. We asked kitchen specialist Bill Kline of Denver to redo some typical builder kitchens to suit particular lifestyles. His ideas, which appear on pp. 85-93, are valuable to anyone involved in kitchen planning.

And another remodeling feature, "Bring Old Baths Back to Life," was written by New Products Editor Jennifer Wagner. Jennifer is also responsible for "Talk Starters" and the other product items beginning on p. 127. Much of her material was collected at the NAHB Convention in Las Vegas, the NHIC Convention in New Orleans and the National Kitchen & Bath Conference in Miami. Also from that Kitchen & Bath show: Associate Editor Fran Donegan's report on computer-designed kitchens (pp. 40-42).

That's a topic the early editors of *House & Home* couldn't have imagined. Nor could they have foreseen Associate Editor Walter Updegrave's report on "A New Strategy for Condo Conversions," for the condominium form of ownership hadn't yet arrived in this country when our magazine was born. We know there are plenty of other changes around the corner, and we'll make you a promise: We'll be there, ready to provide you with news and interpretation on the changing shape of our industry. —G. ROBERT GRISWOLD



"Carrier heat pumps helped our homes win the first 'Super Saver Award' in the entire TVA area!"

More spending on housing programs is the theme emerging from House Democrats on the Budget Committee. They're pushing for more FHA mortgage insurance, more subsidized housing, and more for the Ginnie Mae tandem plan—all in defiance of the proposed Reagan budget cuts. The Senate Budget Committee bought the deep cuts Reagan requested almost to the dime. But the House Budget Committee—whose job it is to set overall budget totals—seems determined to see that what Reagan gets is more than what he wants.

FHA interest-rate ceilings rose to 14½% from 14% in mid-April. The record high rate was a “response to market realities,” a HUD announcement explained. In market surveys the agency noticed that free-market rates now exceed 15%, and that FHA borrowers were making up the difference by paying as many as 7½ points. The rise to 14½% covers single-family and multifamily loans insured by FHA, which also raised graduated-payment mortgage interest ceilings to 15% from 14½%.

Single American women—single, separated, divorced or widowed—are buying homes as never before, according to the National Association of Realtors. They are buying in their own names and becoming a major factor in the real estate market nationwide. Recent figures indicate that in 1979 more than 200,000 homes nationally were bought by single women, the fastest growing segment in the home-buying market.

“The great Italian tile empire is expanding,” says Vincent Fitzgerald, executive director of the Tile Council of America. That's his description of the current \$4.5 million media blitz conducted by the Italian tile manufacturers. Italy presently supplies nearly 20% of the tile in the United States. Italian tile imports last year rose 20% to almost \$84 million, according to Commerce Dept. figures. With tile in style, the Italians want to increase their share of the \$472 million U.S. market, as well as increase the demand of Americans for tile in their homes. Reactions of domestic manufacturers to the Italian tile invasion range from a guarded welcome to one of righteous indignation.

They sent the money back—all \$225,000 of it. The Commerce Dept. was surprised but delighted to have the Tile Council of America return its quarter-million-dollar Economic Development Administration Grant. In a letter, Tile Council President John M. Thompson explained to Commerce Secretary Malcolm Baldrige that the Council was sending the money back to show support for President Reagan's economic plan. Baldrige commended the Council for its sacrifice.

The most liberal variable-rate mortgage ever was approved in late April for federal S&Ls by the Federal Home Loan Bank Board. The Comptroller of the Currency had approved a similar type of mortgage for national banks a month earlier. The new loan's interest rates may be raised or lowered an unlimited amount under the version approved for S&Ls; the version approved for banks limits upward movement to one percentage point every six months. However, both S&Ls and banks may increase their rates an unlimited amount over the life of the loan. Rates would be pegged to an interest-rate index agreed to by both borrower and lender, such as six-month Treasury bill rates. Financial institutions have said that such flexible mortgages are necessary to keep them from going out of business; consumer groups have protested the new loans because there is no limit on how high rates may rise.

Eleven builders have agreed to pay nearly \$500,000 in penalties to settle Federal Trade Commission charges that the builders didn't disclose all required information in their advertising of mortgage terms. The FTC said that U.S. Home Corp. will pay \$90,000, Putle Home Corp. will pay \$70,000, and smaller builders will also pay penalties, subject to final action. No builder actually admitted any violations of the 1969 truth-in-lending law [HOUSING, Sept. '80].

HOUSING HOTLINE

The President's economic plan, while basically sound, is missing incentives that would "create a new savings ethic" and help the housing industry, NAHB president Herman Smith testified before the House Budget Committee. Smith urged support of legislation introduced by Rep. Bill Archer (R-Texas) which would give tax-free treatment to all savings used for residential mortgages. The bill would revive the flagging thrift industry, said Smith, and reduce the underlying cost of mortgage money by three to four percentage points. In addition, "It would stimulate the construction of an additional 600,000 housing units annually, which in turn would create 860,000 man-years of employment and generate \$8 billion in tax revenue," Smith said.

"Housing will do terribly over the next three to six months," Michael Sumichrast, NAHB chief economist, told a gathering of real estate owners, investors, managers, and lenders at a New York City meeting. "I can't think of any reason why we will recover within the next quarter." Sumichrast did say, however, that he expects a 15% to 20% improvement next year because "the main thrust of the Reagan policies are on target." What impresses him most, he said, is the administration's commitment to cutting government expenditures and regulation, reducing personal taxes and initiating a stable monetary policy. He predicted the prime rate would drop to 12% or 13% by the end of 1981 and as low as 10% or 11% by the end of 1982.

Illegal conversions—and basically legal but unreported conversions—of existing buildings during the '70s may account for a much larger increase in housing units than the Census Bureau had initially counted on. That's the assessment of Robert J. Sheehan, NAHB director of economic research. The nation's stock of housing units rose by 20 million from 1970 to 1980, a net gain of 28%, while the population rose only 11.4%, preliminary Census figures show. This increase in housing units is about two million more than Census projected. One reason for the increases, Sheehan says, is probably a large number of single-family houses occupied by more than one "household"—when a basement is rented as an apartment, for example.

Mortgage delinquencies decreased for the first time in more than a year, the Mortgage Bankers Association reports. The reduction occurred in the fourth quarter of 1980, when the number of outstanding mortgages with payments more than 30 days late dropped to 4.87% from 5.03%. The improvement results from overall gains in the economy in the final quarter of 1980, according to MBA chief economist Thomas R. Harter.

Fireworks have flown over condominium conversions in hearings convened by Rep. Benjamin S. Rosenthal (D-N.Y.), chairman of the House Subcommittee on Commerce, Consumer and Monetary Affairs. The hearings are being held to determine whether Congress should pass new legislation to regulate the wave of conversions around the country. Testimony by Nicholas Gouletas, chairman of American Invsco Corp., the nation's largest converter, quickly led to a rebuke by Rosenthal that Gouletas was not answering the questions he was asked. When Gouletas protested, Rosenthal exploded, "Who's going to be making the decisions around here!" In other testimony, Gouletas defended his conversions, saying "For more than a decade we have helped expand home ownership opportunities in this country." American Invsco has sold more than 11,000 units, Gouletas said.

Midnight oil burns over one condo conversion in the office of Rep. James Jeffords (R-Vt.). Jeffords says he has moved out of his small Washington apartment, renting for \$285 per month, because it is being converted to a condo unit and would cost him \$800 to \$900 a month if he bought it. "My only option was to move somewhere else," Jeffords told the House Commerce, Consumer and Monetary Affairs Subcommittee. So he decided to start sleeping in his Capitol Hill office because market rents in Washington are too high for him. But he says he returns home to Vermont each weekend to be with his family.

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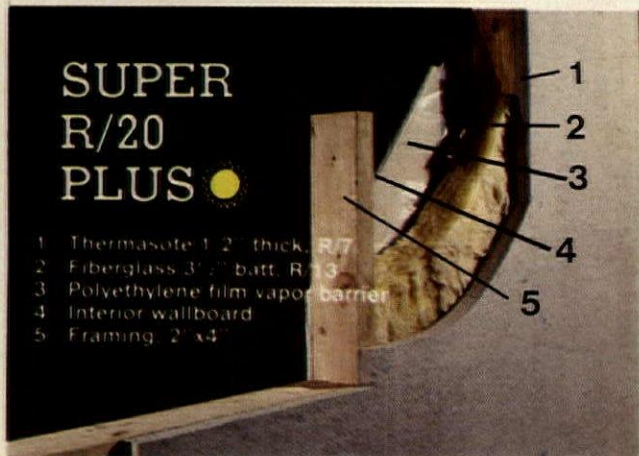


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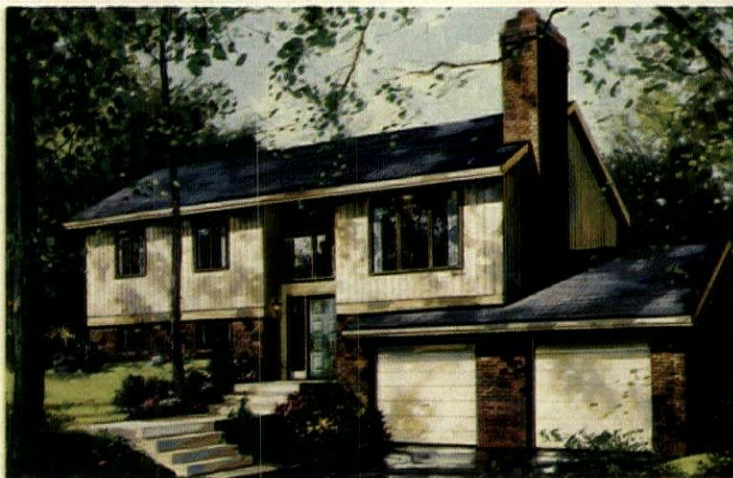
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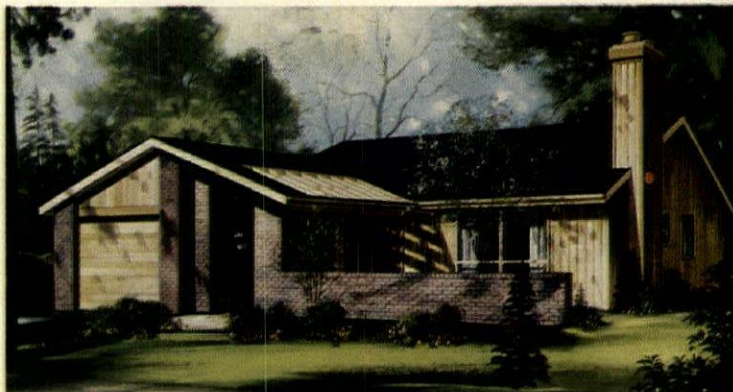
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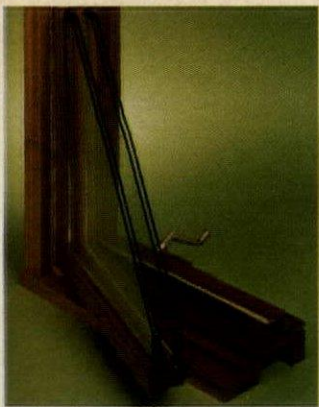


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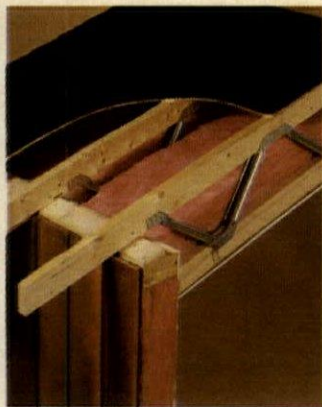


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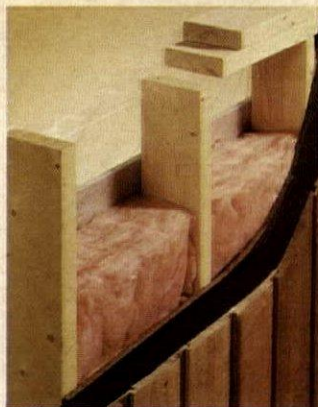
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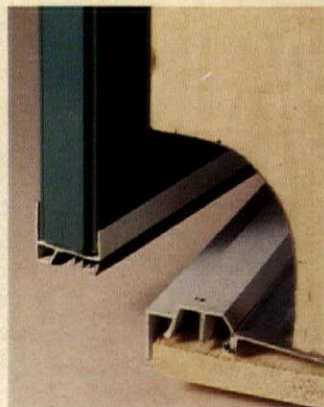
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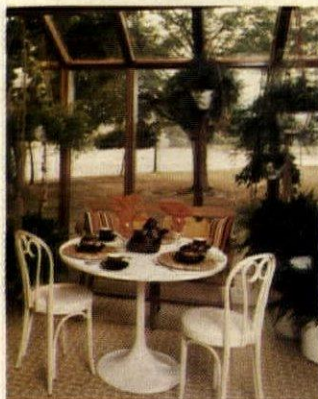
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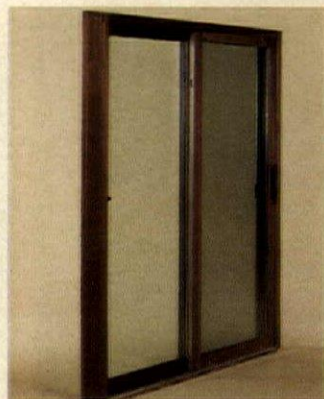
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Stockman's Plan for the FHA: Abolish It

At first, it looked as if the Reagan administration's plans for the Federal Housing Administration were limited to slowing the increase in mortgages that FHA could insure next fiscal year [HOUSING, April].

Now it's clear the administration has something more drastic in mind: the complete phase-out of FHA unsubsidized single-family insurance.

Budget director David Stockman says that FHA—a part of HUD—is no longer really necessary in this market. And even if it were, Stockman says, it wouldn't be in five to ten years.

Whether the elimination of FHA insurance programs will constrict the flow of mortgage money is far from certain. FHA foes, including the administration and the private mortgage insurance industry, say that mortgage lending would do just fine without any federal insurance programs. However, FHA friends, including the NAHB and the Mortgage Bankers Assn., see FHA as absolutely essential.

FHA fight ahead. Friends and foes will undoubtedly do battle before any decision is made.

Stockman says his reason for eliminating FHA is that 15 private mortgage insurers are standing ready to fill the demand for single-family mortgage insurance. Private mortgage insurers have demonstrated they can do what FHA does, and do it cheaper and better, he adds.

The FHA phase-out, should it occur, would be part of a broader administration decision to eliminate programs it feels interfere with the free market's role in allocating credit.

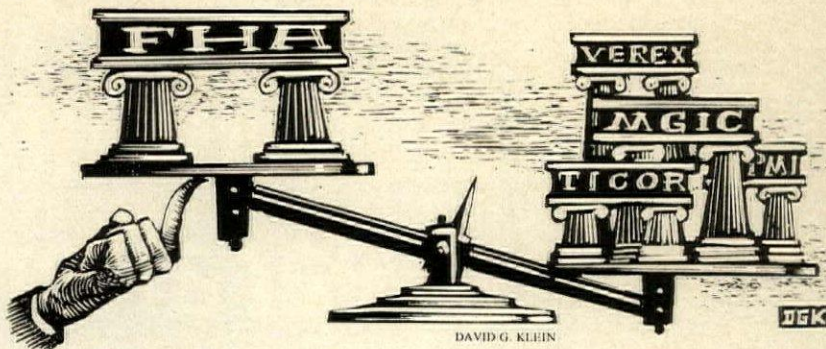
The administration's initial proposal to trim \$9 billion from additional FHA authority for fiscal 1982 is just the beginning, says Stockman.

He adds, "The FHA must develop a system to ration the available insurance authority to those areas and local offices where it's clear that private mortgage insurance companies won't meet the needs."

A complete phase-out is five to ten years away, and "There is nothing to be alarmed about," he told the House Housing Subcommittee.

Pierce position unclear. HUD Secretary Samuel R. Pierce, Jr., has remained non-committal on the future of FHA, to the point where some critics regretfully refer to him as "the invisible cabinet member."

Pierce told the House panel, "No decision has yet been made" on phasing out FHA insurance, but that he agrees with Stockman that FHA "should play a lesser role."



Pierce's silence may pay off politically, and he may be more effective in private efforts to save the FHA—if, indeed, that is what he wants to do.

Opposition. Members of two major trade associations—NAHB and the Mortgage Bankers Assn.—have a lot to lose if FHA is dissolved. So naturally these groups do not support the administration's plans.

NAHB President Herman Smith treads lightly when he criticizes. He fears Stockman's attack offers only a sneak peek at a broader administration plan to divert capital from the mortgage market to other areas of the economy, such as manufacturing.

"During more stable economic periods," says Smith, "privately insured conventional loans can match—or come close to matching—FHA loans in terms of price, down payment requirements, and qualifying standards."

But Smith correctly notes that during credit squeezes—such as those in 1974 and 1979—FHA volume increases, and private insurers' volume falls.

Smith says NAHB will fight any phasing out or restrictions of FHA's

non-subsidized programs—including its single-family mortgage insurance—"until the private insurers are able to compete during the entire business cycle and not just during the good times."

'Incapable.' MBA executive vice-president Mark Riedy told the House Budget Committee, "The conventional mortgage market cannot pick up the market share now held by FHA." In 1980, this was almost half of the number of home loans insured.

Disagreeing with Riedy is Leon Kendall, president of Mortgage Guaranty Insurance Corp. of Milwaukee, the nation's largest private mortgage insurer.

At a recent meeting of securities analysts in New York, Kendall said that private insurers could pick up any slack that FHA cutbacks create.

Many of MGIC's competitors are owned by large corporations, including General Electric, Sears, and Greyhound. They have considerable untapped capital available only because there has not yet been sufficient demand, he says. —DONALD O. LOOMIS

McGraw-Hill World News, Washington

No More Minimum Property Standards?

One part of FHA given little hope of survival is the Minimum Property Standards. MPS are now used to certify that a house is qualified for an FHA-insured mortgage. The administration and the NAHB want MPS compliance requirements to be waived when a house gets an O.K. from a local inspector, provided the inspector uses an acceptable building code. Such a code would conform to the standard Council of American Building Officials' one- and two-family code.

The enemies of Minimum Property Standards may get their way. Says Donald F. Luebs, a building systems expert in Washington, "MPS are on their way out. Even HUD's bureaucrats are becoming resigned to this."

Argument. The NAHB quarrel with MPS is twofold. First, the builders charge, most of MPS has nothing to do with traditional code criteria of health, safety, and durability. As examples, NAHB cites MPS sections on utilities, setbacks and parking areas. Other sections on toilet, bath and shower compartments are related only to "marketability and liveability," NAHB charges, and should have no bearing on eligibility for mortgage insurance.

NAHB's second argument is that MPS sections which do relate to health, safety, and durability duplicate local standards, in most cases, and sometimes conflict with them. Examples include sections on grading design and drainage. —D.O.L.

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Financial Forecast: A Glimmer of Optimism

Executives of the nation's thrift institutions are hardly leaping for joy over their prospects for the next year or so. The high interest rates they are paying to attract deposits and the relatively meager returns they are receiving on mortgages made years ago have squeezed the industry's profits paper-thin and driven some institutions into red ink.

But the drop in short-term interest rates since December—and prospects for further declines—should provide eventual relief from the earnings squeeze, as well as dissipate fears of widespread thrift failures ahead.

"If short-term rates come down appreciably in a relatively short period of time, then the whole thing has been overblown," says Robert C. Douglas, vice president of corporate planning and development of Cleveland's Trans-Ohio Financial Corp. Even President Donald H. Mitzel of Detroit's First Federal Savings is optimistic, despite the thrift's distinction as one of six whose commercial paper was given a lower rating by Standard & Poor's Corp. in March.

First Federal's earnings fell to \$6.8 million last year from \$19 million in

1979, but "that's still a very good result, given the high interest rates," says Mitzel.

Flash flood feared. That optimism could vanish in a flash, of course, if interest rates rise unexpectedly. But the yield on six-month Treasury bills had already dropped to the 12% range by March from the peak of 15.4% in December, and most analysts predict further declines. That rate is crucial to thrifts because one-third of their deposits are held in savings certificates whose rate rises and falls with the six-month Treasury bill rate.

These recent high rates paid to depositors have inflicted pain on the thrifts, which had an average return on mortgage portfolios nationwide of 9.4% in the last half of 1980—a return only one-third of a percentage point above their cost of funds. Predicts Jonathan E. Gray of Sanford G. Bernstein & Co., an investment banker, "Even if rates keep going down, well over half of the savings and loans will lose money in the first half of the year."

Catalyst. The difficulties are likely to hasten the mergers which were already expected. But federal regulators see the thrift industry in general

as well-positioned to absorb the present damage for some time. Assets of savings and loans still grew faster than liabilities last year, leaving a net worth of just over \$32 billion at year-end.

And even among mutual savings banks, which are concentrated in the Northeast and suffered the biggest losses among the thrifts last year, net worth declined only \$170 million to a total of \$11.3 billion by the end of 1980.

Help wanted. Top administration officials are generally ruling out any sizeable bailout of the industry, although they are considering book-keeping changes which would enable the thrifts to essentially spread out some of their losses. The Federal Home Loan Bank Board is also considering letting savings and loans in neighboring states take over failing thrifts in a different state, something it has discouraged in the past.

And dedication to avoiding any banking system catastrophe is evident. "These are insured institutions, and their stability will be protected," says Federal Reserve Chairman Paul A. Volcker.

—G. DAVID WALLACE

McGraw-Hill World News, Washington

S&L Plans a Retail Pass-Through

The savings and loan industry, badly strapped for funds, may find some relief in a method of fund-raising developed by Republic Savings and Loan Association of Wisconsin. The Milwaukee lender is planning to sell mortgage pass-through securities at retail for as little as \$5,000 each.

The plan is the brainchild of Terry Wakefield, formerly Republic's senior vice president and now a savings and loan consultant. The plan is unorthodox for an S&L because it brings in consumer funds through the issuance of a security—not through the traditional savings accounts. This is being done for the first time, says Wakefield, at a price the small investor can afford. Mortgage pass-throughs normally sell for \$25,000 or more.

Cheaper. Besides selling at a lower price, the new pass-throughs offer the investor a higher yield. Wakefield says, "We now have a security instrument which allows Republic—and it could allow other S&Ls—to offer to the retail public direct access to our mort-

gage portfolio. This would save investment broker charges—1% to 1½%."

The Securities and Exchange Commission has approved Republic's plan, which is not yet in operation. The reason: Short-term interest rates are higher than the long-term rates.

This condition makes the pass-throughs unattractive to investors, says Wakefield, because short-term instruments, such as money-market certificates, offer higher yields than a longer-term pass-through. But Wakefield is optimistic that "in the future, we'll get back into a normal yield curve" where the long-term interest rates will exceed the short-term rates.

In the pool. The program works like this: Republic makes mortgages totaling \$10 million, for example, at 12%. The loans are five-year balloon

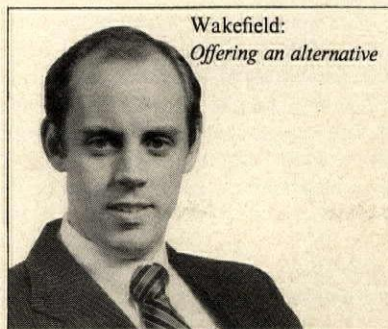
mortgages, with payment schedules based on a 30-year amortization of the amount of the loan. (This is a typical loan at state-chartered associations in Wisconsin.)

Costs. Republic then obtains \$1 million in mortgage pool insurance from a private mortgage insurer to protect against defaults. Against the \$10 million pool of mortgages, Republic offers pass-throughs of \$10,000, and possibly as low as \$5,000, at a rate of 11.4%. The difference between 12% and 11.4% represents 0.28% to cover servicing costs, and 0.32% for costs of issuing the security.

The "servicing spread" of 0.28%—known in financial jargon as 28 basis points—is more than an adequate return. Wakefield says, "We consider anything over 20 basis points to be profitable."

The pass-throughs would consist of five-year investments by the purchasers, who would receive monthly payments as a proportion of the actual payments on the mortgage they had invested in. If a mortgage borrower paid off early—as in the case of a sale—then a prorated payment would be made to the investor.

If a borrower defaulted, however, the mortgage insurance would presumably cover the loss.—DAVID GARFINKEL



Wakefield:
Offering an alternative

Miami Beach's Fix-up Starts...at Last

The cash may start to flow this month toward the \$1.2 billion redevelopment project on Miami Beach's southern tip.

The Miami Beach Redevelopment Agency, blocked by litigation for nine months, is free to sell bonds now that the Florida Supreme Court has ruled in its favor. The agency will issue \$12 to \$15 million in revenue bonds this month, as the first-phase of an \$80 million bond issue. Revenue will be used to purchase most of the 250 acres targeted for redevelopment in the dilapidated South Beach.

An additional \$300 million in bonds will be put on the market later. One purpose of the revenues is to relocate about 6,000 persons who are now living in run-down buildings slated for demolition.

Builders will replace the old structures with new rental and condominium housing—market-rate and subsidized—as well as non-res construction. Nearly 2,000 condos and 1,500 rental units are planned.

The \$300 million will also help pay for new streets, parks, and a Venice-like canal system. The canals, however, are still subject to approval by state environmental officials.

Shovels poised. Herbert Kay, executive director of the redevelopment agency, says seven firms are

ready to start building. Four have housing proposals.

Shovels won't be in the ground before year-end, Kay says, because it will take at least that long to raise enough funds just to get things started. The complete project should take five to eight years.

These companies are planning housing projects:

- Tridel Corp. of Toronto: 65 luxury condo apartments

- Cheezem Development Corp. of St. Petersburg: 143 condo apartments

- The Rouse Co. of Columbia, Md.: 200 condominium apartments, as well as hotel and commercial space

- Related Housing Co. of New York City: 200 condominium apartments, and 450 low- and moderate-income rental apartments

The stumbling block was bond financing.

Kay says that additional rental apartments will be built by a builder not yet chosen.

Down and out. The approximately 6,000 persons to be dislocated will have an option of staying or leaving. Some of the new rental and condo housing will be made available to them as subsidized housing.

The redevelopment agency has set up a relocation program, and Kay expects no problems. Assistance is available to residents of the target area who can show that they lived there at least one year before the March, 1976,

adoption of the redevelopment plan.

For those who do not take advantage of the new subsidized housing, assistance is available for both renting and condo/co-op purchase—as long as the new home is within 50 miles of South Beach.

If renters can't find a comparably-priced place to live, the relocation assistance plan will subsidize their rent payments so that it is no more than 25% of their monthly income.

Condo or co-op owners now living in the target area will be given "fair market value" for their units. They will be subsidized for any difference in maintenance fees, up to a total of \$15,000, if they buy another unit of comparable value.

Court battle. Surprisingly, the relocation of South Beach's elderly residents has not been the focus of most controversy. Rather, the biggest dispute to date has been about the sale of bonds to finance the project.

Last December the Florida Supreme Court ruled five-to-two that bond sales for redevelopment, as provided for under the state Community Development Act, are constitutional. This act permits bond sales for condemnation and redevelopment of property without the authorization of a referendum.

The decision went against a constitutional challenge by the Dade county State Attorney, who argued that the constitution of Florida required a referendum for such a bond issue. The ruling cleared the way for the bond sale—although the current depressed state of the bond market may hold up financing for a few months. □

Vet Mortgage Program Loses A Battle with Rates

Even the government-subsidized mortgage market is feeling the pinch of high interest rates these days. For example, a state program in Oregon is increasing its rates on mortgages for veterans, even though the new, higher rates will still be a bargain.

The program, administered by the Oregon Department of Veterans' Affairs, is raising its rates for new borrowers who buy single-family homes to 7.2% from 5.9%. Borrowers currently holding such loans will have their rates raised to 6.2% from 5.9%. Borrowers for mobile homes can still get loans at the unchanged rate of 4%.

The Oregon veterans' program offers home and farm loans to veterans of World War II, Korea, and Vietnam. Most of the home loans are 30-year mortgages, with financing up to 95%.

Casualties. Staryl Austin, Jr., Veterans' Affairs director, says Vietnam-

era veterans will be most affected by the increase, because they make up the greatest number of new borrowers.

The increase to 7.2%, announced in March, applies to all applications made since January 1, 1981. When the possibility of this rate rise was announced in December, about 7,500 applications streamed into the Veterans' Affairs office before the cutoff date.

The agency will also raise the rates on existing loans to 6.2% from 5.9% for the 140,000 borrowers who took mortgages from 1971 to 1980. They have a choice of extending the term of their loans up to three years, or increasing their monthly payments.

Austin says, "Agency publications from 1972 to 1978 said we could raise rates (if we had to) only by extending the length of the loan—not by increasing the monthly payment."

No kick-out. If a borrower decides to increase monthly payments, rather than lengthen the term, the maximum rise would be \$10 a month. Austin says, "I know we will not have forced anyone out of his or her home with the increase."

Loans from the Veterans Affairs' program can be used for new construction, purchase of homes, major home improvements, and weatherization. The latter two loans must be made in conjunction with an existing mortgage from the program.

Last year the department sold \$1.2 billion in bonds to fund 38,385 new loans. It expects to sell about half that amount in bonds this year. An 8.4% increase in the average rate of the tax-free bonds sold last year, forced the increase in mortgage rates, Austin says.

—FRANK KING

McGraw-Hill World News, Portland.

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The GE Grill/Griddle Range

Today's homemakers are looking for versatility in their kitchens. Include the range with more great ways to cook than they can shake a spoon at—the Grill/Griddle Range from General Electric

This 30" modular cooktop range comes with both easy-to-plug-in grill and griddle elements for grilling, barbecuing, frying and even stir-frying—right on the cooktop, at the same time. Plus two conventional surface elements, a full-size self-cleaning oven and a convenient storage drawer. And you'll find install-

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Live in Cincinnati, It's...Condorama!

First there was the razzle-dazzle of Homearama, a successful parade of homes. Now get ready for a new twist: Condorama.

What's that? It's a condominium-only home show planned for August by the Greater Cincinnati Home Builders Assn., "the first of its kind in the nation," according to Executive Vice-President Orville Brown.

The show's purpose: to educate a broad range of potential buyers about condominiums. Condorama will be exhibited on a five-acre site in the northern suburb of Blue Ash.

The Cincinnati HBA has had great success with Homearama, its single-site display of local builders' single-family homes. Last year, close to 100,000 people came to browse, even though many of them were crowded out of the new-home market by high-interest rates and soaring prices [HOUSING, Sept. '80].

This year nine condo builders will present a display of single-family and multi-unit condos in this new promotion. Condorama will build the homes on a golf-course site in the Carpenter's Run subdivision of Blue Ash.

Spelling 'condominium.' Brown says Condorama's purpose is to educate and persuade. The most important result he seeks: "to convince developers that there's a ready market in lots for the small builder who can't afford to do an entire condo development. Right now, no developer in this area is providing ready sites to build condos, as they do for single-family."

Condorama is aimed at these groups:

- Builders whom Brown hopes will learn more about building and selling condos, as well as other aspects, such as how to deal with homeowners' associations.

- Consumers whom Brown hopes to convince that "condos are an acceptable alternative lifestyle."

- Planners and zoning officials whom Brown hopes to show "that developments with condominiums are good for the community."

Going in style. The site surrounds a cul-de-sac containing nine "pads" where builders will put their units. Each pad looks out on the Blue Ash municipal golf course. Because the units will be so close together—density averages about 4½ units to the acre—the HBA is imposing architectural restrictions on the builders to ensure uniformity.

For example, all sidings must be redwood or cedar; any brick used must be earth-toned; and windows must be

wood-framed or earth-colored and metal-framed.

Of the nine pads, five will have triplexes, two will have single-family detached, one will have a duplex, and one will have a fourplex. The Condorama site will later become part of an 83-unit condominium development within the Carpenter's Run Planned Unit Development (PUD).

Participating exhibitors include large and experienced condo builders, and seven small builders, some of whom have not built condos before. Brown says, "The large ones are using this exhibit to market their other projects; the small ones are using it to get their feet wet."

Product line. Designs have yet to

be finalized. Brown expects prices to come in between \$80,000 and \$150,000 when the units are sold after the promotion. Multifamily units are required to have at least 1,200 sq. ft. of floor space, and single-family units must have at least 2,000 sq. ft. "so that the mass of the single-family houses will be compatible with the multifamily units," says Brown.

Will the inauguration of the new Condorama mean the end of the established Homearama? Not at all. Homearama will take place the second half of June, two months before Condorama is launched. Timing is important, says Brown: "We always hold this kind of promotion when school isn't in session." —D.G.

Is the 'Smaller House' a Myth?

All signs point to a continuing decline in the size of new houses. But a similarly confident prediction, made five years ago, turned out to be a false alarm, warns the economics department of NAHB in *Economic News Notes*.

Are the chances now greater that square footage in new homes will keep shrinking? Yes, the economists concede. But they offer the insight that in the past the average size of a house has usually, fallen during economic slowdowns—even though, over the long term, the size climbs up steadily.

Start of a trend? Last year the size of a new single-family home insured

by the Home Owners Warranty program shrank by 39 sq. ft. to 1,673 sq. ft. (In a Census survey, the average house size declined by 10 sq. ft. from 1978 to 1979. No 1980 figures are available yet.)

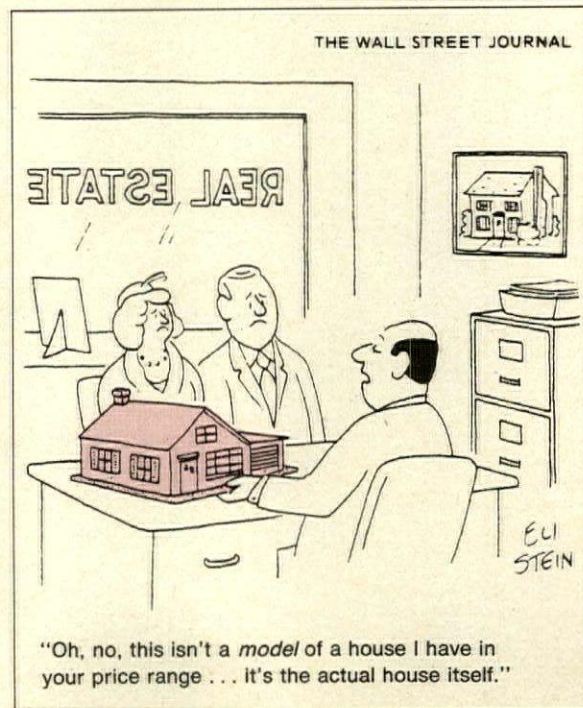
"The question remains as to whether this is the start of a trend," say the economists. They point out that during the '74-'75 recession, new home sizes in the Census survey fell by 49 sq. ft. on average.

"Then as the recovery occurred," the economists say "units became larger. This occurred even though many policymakers were forecasting a continuing decline resulting from energy and housing price surges."

The policymakers went wrong, say the economists, by underestimating "the overall impact of demand on housing prices and the investment aspects of homeownership—along with the growth in real income taking place."

Surely shrinking.

Will that trend reverse as it did after the '75 recession? The economists say, "The probability that the 1980 downturn will become a trend is certainly much higher than at any time in the past 35 years," citing sustained high costs and smaller households. —D.G.



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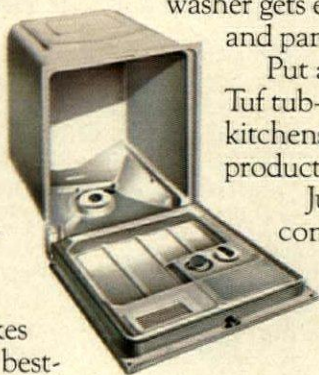
The Potscrubber 1200 dishwasher has our exclusive PermaTuf[®] tub and door liner—so incredibly tough it won't crack, chip, peel or rust in normal use. So incredibly reliable we back it with a 10-year full written warranty. (Ask for details.)

Of course, it isn't just the tub that makes General Electric's quiet-running 1200 our best-

rated dishwasher ever. You can bet your customers will be just as impressed by the way this versatile dishwasher gets everything from delicate crystal to pots and pans with baked-on foods sparkling clean.

Put a Potscrubber dishwasher with PermaTuf tub—model 900, 1000 or the 1200—in your kitchens and give your customers a quality product with a brand name they can trust.

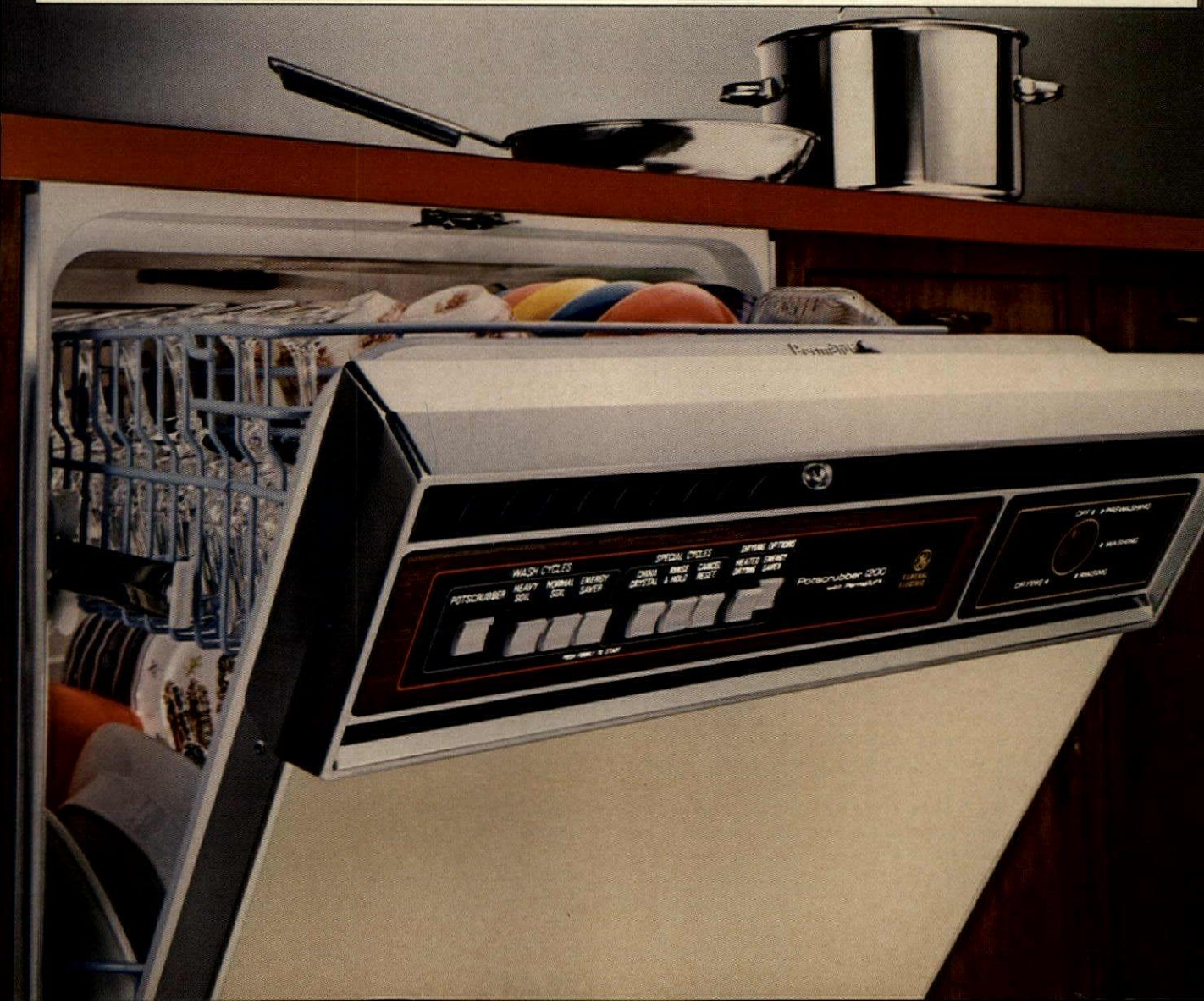
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Planner Becomes an 'Affordable' Builder

Deanna Walsh, 40, a former city planner, has been appointed vice-president/project manager at Affordable Communities (AFFCO), a Long Beach, Calif. builder. AFFCO claims it limits its profit margin to 6½% to keep its houses affordable.

Walsh says, "AFFCO is totally committed to satisfying the needs of moderate income buyers, especially first-timers."

AFFCO depends heavily on federal block grants and state revenue bonds to build a 1,250-sq.-ft. house—with land—that sells for \$68,000 in Los Angeles County.

In Los Angeles, Kaufman and Broad promoted vice-president **Norman J. Metcalfe** to senior vice-president, treasurer. K&B also appointed two new vice-presidents: **Jana Waring Greer** for public affairs and **Kenneth L. Cohen** for tax affairs. At U.S. Home's Houston headquarters, **Michael K. O'Kelley** was named vice-president, operations. He was formerly president of the company's Houston Condominium Division. **William B. Seith**, formerly treasurer, moved up to vice-president and treasurer at Daon Corp., in Newport Beach, Calif. In New York,

Peter D. Joseph, a former city housing official, was appointed senior vice-president for Related Housing Companies. Ryan Homes named **Thomas W. Ford** to the new position of vice-president of human resources. Ford was previously Ryan's vice president of planning. He was succeeded by **Lawrence Brean**, who now heads planning activities.

—TOM READ

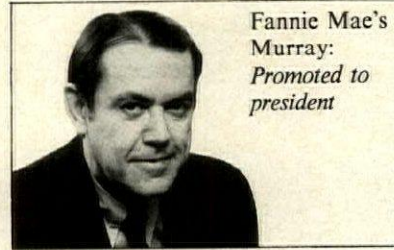


AFFCO's Walsh:
Affordability comes first

It's Maxwell and Murray at Fannie Mae

This month the leadership of the Federal National Mortgage Association (Fannie Mae) passes to David O. Maxwell and James E. Murray.

Maxwell became Fannie Mae's president and chief operating officer last February [HOUSING, Nov. '80],



Fannie Mae's
Murray:
Promoted to president

and May 21, he takes over from Oakley Hunter as the \$225,000-per-year chairman of the board and C.E.O.

Maxwell was general counsel of HUD, from 1970 to 1973. When he left he founded Ticor Mortgage Insurance Co. (Los Angeles).

Fannie Mae, based in Washington, D.C., is a privately owned quasi-governmental investor in mortgages. Its holdings were \$55 billion in 1980.

Maxwell's promotion to chairman of the board moves James Murray to president and chief operating officer. Murray joined Fannie Mae in 1970 and is now its senior vice-president and general counsel.

—T.R.

THE COURTS

Ruling: A Lease Promises a House in Order

The California Supreme Court has ruled that when landlords offer property for rent, they are implicitly promising that it is habitable.

The ruling rebuffs attempts by the owner of an apartment building to force tenants to pay rent for premises that the tenants claim were defective.

The dispute went to a lower court after the building was sold and the new owners raised the rents. Tenants refused to pay, pointing to cracked walls, leaks, peeling paints, broken windows, rodents and cockroaches. This, claimed the tenants, was proof that the units were not fit to live in.

The landlord took the tenants to court to collect back rents, and won. However, the high court said that at the rent-collection trial, the judge had made two mistakes: First, he had told the jury that tenants could not withhold rent for defects they should have known about at the time they chose the apartment. Secondly, he had said that under any circumstances, tenants must give their landlord time to make repairs before they got the right to withhold rent.

The high court deemed both holdings wrong. They pointed to the scarcity of rental property and the superior economic power of the landlord as reasons why the tenant has to get a break in such controversies.

Other decisions affecting housing:

•Communities in Michigan cannot use local zoning laws to restrict the location of mobile homes—just because they are mobile homes, the Michigan Supreme Court ruled in a four-to-three vote. The case grew from a town's attempt to block a family from placing a mobile home on a privately owned piece of land within town

limits. The court said, in effect, that a single mobile home in itself cannot be termed a nuisance.

•A utility moratorium against electric heating was struck down by a Washington state court. The Puget Sound Power and Light Co. had wanted to deny electrical space and water heating outlets to new construction projects whenever gas or oil was available. The court said neither the utility—nor the local regulators who approved the moratorium—had the authority to set building code thermal standards.

—DANIEL B. MOSKOWITZ

McGraw-Hill World News, Washington

Court Lets 'For Sale' Sign Stand

The U.S. Supreme Court has upheld a lower court ruling upholding property owners' rights to put "for sale" signs on their homes.

The high court found a Baltimore zoning rule against the signs unconstitutional. The city put the rule into effect in 1974 to prevent "panic selling" and block-busting.

But real estate agent James Crockett and his wife Mary defied the ordinance and put a for-sale sign on a house they owned in Baltimore. They claimed that the ban violated their constitutional right to free speech.

A municipal court ruled in their favor in 1979, and the recent Supreme Court decision upholds the ruling. □



GE didn't design a refrigerator that saves energy just to impress home builders. We did it to impress home buyers.

The GE Energy-Saver 17 Refrigerator. Today's homemakers are looking hard for ways to keep their energy costs down. Offer them our most energy-efficient, no-frost refrigerator ever—the Energy Saver 17 from General Electric.

The most impressive thing about our Energy Saver TBFM17V refrigerator is the way it can reduce operating costs when its Energy Saver switch is set on "Normal."

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Capitalize on the growing trend for these features by including the GE Energy Saver 17 in your kitchens. You'll be giving buyers the features they want—and a brand name they can trust.

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Inexpensive, easy-to-install STYROFOAM* brand insulation can save your customers up to 24%† on heating and cooling costs. No matter what you're building, from conventional, to solar, to earth-sheltered, STYROFOAM can help you build more salable homes in today's tough housing market. Here's how:

Prospects want energy efficiency—and they're willing to pay. A comprehensive nationwide survey of new home prospects showed they rank energy efficiency as overwhelmingly important. More important than a family room, wall-to-wall carpeting or central air. In this same survey, new home prospects said they'd pay an average of \$1,363 more for a home with energy savings built in!** Plus, many lending institutions are giving preferential treatment to buyers of energy-efficient homes.

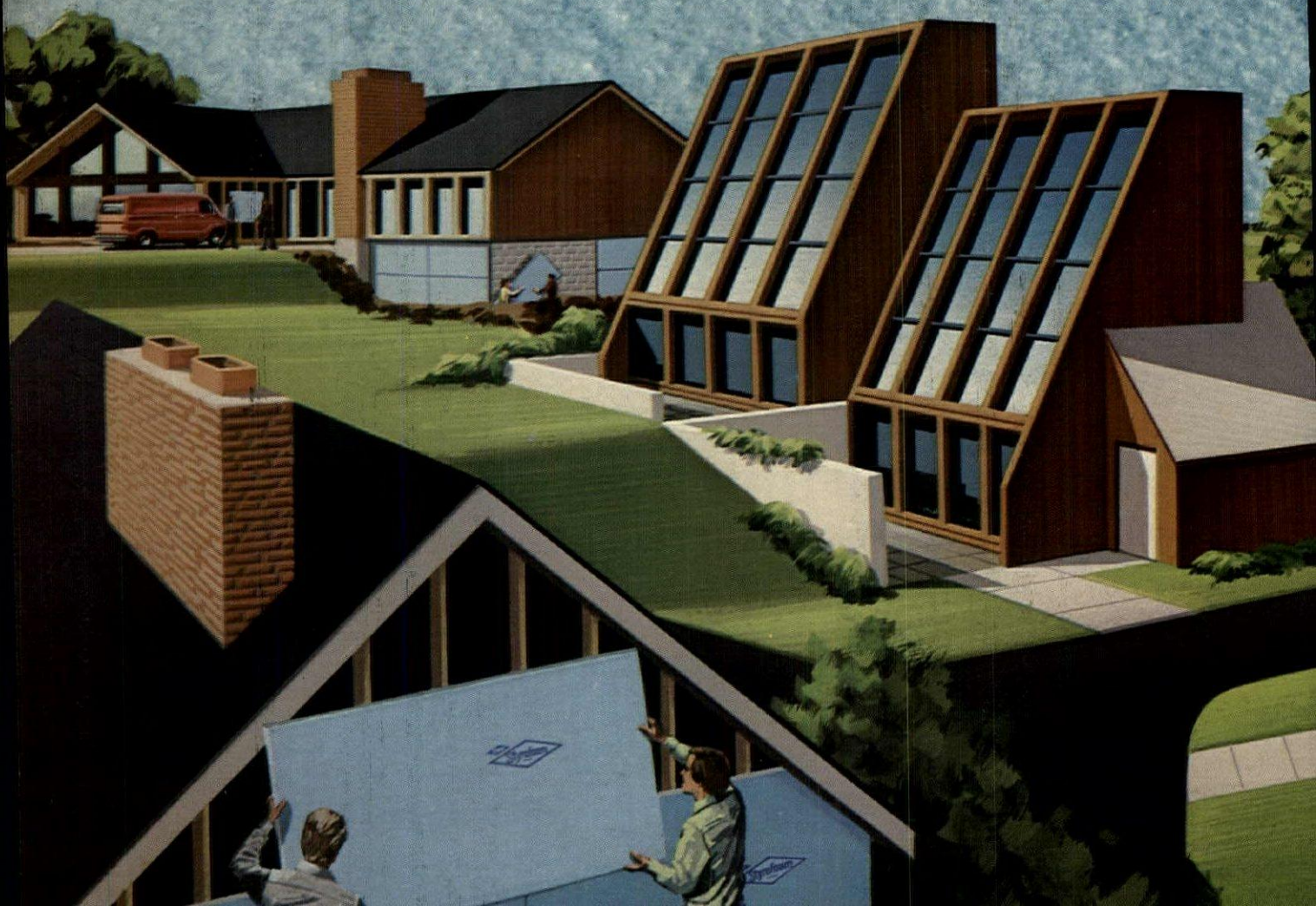
†Based on 1" STYROFOAM insulation (R-5) from roofline to frostline (3 ft. below grade) versus 1/2" wood fiberboard from roofline to floorline. 14% is the frame wall saving as determined in tests of identical full-size typically insulated, unoccupied homes. 10% is the basement wall savings calculated according to the 1977 ASHRAE Handbook. Actual savings can vary depending upon house design, orientation, climate, workmanship and occupants living habits. Learn more in the seller's fact sheet on R-values. Higher R-values mean greater insulating power.

You save on time, labor, materials, and equipment. Builders tell us they can sheathe a house in half the time, compared with conventional sheathing. Because STYROFOAM brand insulation is non-structural, there's less nailing. Tongue-and-groove edges make it unnecessary to line up with studs. STYROFOAM is also light for fast, easy handling and moisture resistant for uncovered outside storage. Finally, STYROFOAM brand insulation delivers such high energy efficiency that heating and cooling units can be downsized, adding still more savings.

You and your customers get proven performance. STYROFOAM brand insulation has been installed in nearly a million homes across the country. It's proved itself in demanding applications: STYROFOAM protects access roads along the Alaska pipeline and keeps airport runways from buckling in

**Survey conducted September, 1979 by The Opinion Research Corp., commissioned by The Dow Chemical Company.

††Meets requirements of ASTM E 119-79 endurance test criteria for 60 minutes. Further information available from your supplier or from Dow.



northern states; it tops New York's World Trade Center and countless skyscrapers with weatherproof roofs. And it keeps marina docks afloat all around the world.

STYROFOAM brand insulation delivers the unique combination of lasting high R-value, compressive strength and moisture resistance that stands up to tough below-grade installations. These same characteristics make it your logical choice for walls, too. So wrap your new houses in an insulating overcoat of STYROFOAM from roofline to frostline. It can even be used in a specified one hour fire-rated frame wall system.**

You get comprehensive support from The Dow Chemical Company. STYROFOAM brand insulation is made only by The Dow Chemical Company, and has been since 1946. Dow backs STYROFOAM with outstanding quality control, complete distribution, quick availability, a full staff of

research and technical service engineers specializing in home construction, a nationwide advertising and public relations campaign, and a full package of hard-working materials, from ad elements to site signs, to help you sell. It's support like this that has made STYROFOAM brand insulation America's #1 selling insulating sheathing. Find out how easy it is to put STYROFOAM and Dow on your side, to help sell homes your customers can afford to own. Call your Dow representative. Or write The Dow Chemical Company, Dept. E60, STYROFOAM Brand Insulation, Midland, MI 48640.

Put Dow
on your side.



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Styrofoam



WARNING: STYROFOAM brand insulation is combustible and should be properly installed. A gypsum board interior finish should be used in residential construction. For specific instructions see Dow literature available from your supplier or from Dow.

Sell the Gas Advantage:

Energy Savings Payback.

Most people looking for a home today probably already know the advantages of gas. If not, tell them the selling points:

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Provide the gas advantage. You'll find it a lot easier selling a home that offers the utmost in energy efficiency. And low operating costs can help more home buyers qualify for mortgages. So, with gas, you and your customers both profit.

*Government testing procedures were used to determine all annual operating costs.

It helps sell homes.



Gas: The future belongs to the efficient.

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Survey: Energy Improvements Are Preferred

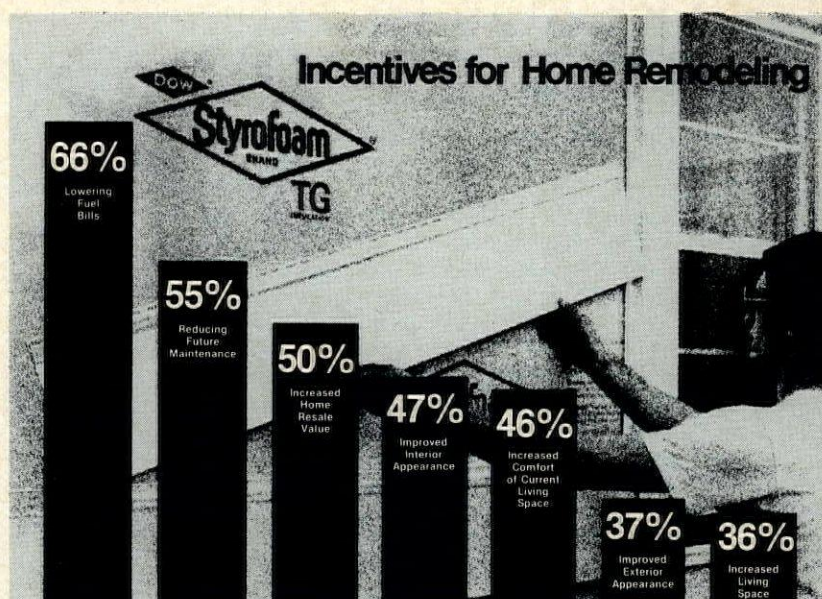
Reducing a home's fuel bill is the No. 1 reason a homeowner will remodel, says a recent survey commissioned by the Dow Chemical Co.

Opinion Research Corp. of Princeton, N.J., surveyed 823 homeowners in Boston, Philadelphia, New York, Chicago, Cleveland, Detroit, Pittsburgh, Washington, D.C., Minneapolis-St. Paul, and New Haven. If a homeowner remodels, here are the reasons:

- To lower fuel bills (66%)
- To cut future maintenance (55%)
- To increase resale value (50%)
- To improve interior appearance (47%)
- To increase comfort (46%)
- To improve exterior appearance of the house (37%)
- To increase living space (36%)

Energy, not aesthetics. Dow points out that homeowners are more concerned about energy savings and less concerned about the home's appearance and comfort.

Homeowners, according to the survey, showed a high level of awareness on energy topics. For example, 93% know of federal tax credits for energy-saving home improvements, and 61% realize that the Federal Trade Com-



mission requires insulation sellers to provide product information.

Seventy-three percent of the homeowners know that R values measure insulation effectiveness, and 83% said they will pay more for insulation with a higher R value.

Contractor preference. A con-

tractor's local reputation is the top factor in selecting someone to do the work for 81% of the homeowners. After that was price (64%), Better Business Bureau recommendation (57%), professional remodelers' association affiliation (31%), and news articles (24%). □

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K&B's Karatz Sees Future in Single-Family Rentals



Bruce Karatz, president of Kaufman and Broad Development Group, is trying to convince major United States life insurance companies and pension funds to invest in single-family housing for the same reasons they buy other income-producing properties such as apartment and office buildings. According to Karatz, the income from rent, combined with the future resale value of single-family homes, makes them at least as attractive an investment as other rental properties.

Karatz notes that European insurance companies are just beginning to buy single-family housing for investment purposes. Last year, he says, Kaufman and Broad sold 153 single-family homes in two subdivisions in France to two major French insurance companies: La Concorde and Union D'Assurance de Paris. One subdivision is located in a suburb of Rouen, the other one is outside Lyon. Both companies plan to rent the homes, most of which are detached units sized from

1,100 to 1,350 sq. ft., for approximately ten years and then sell them for their appreciated resale value. Sales could be made on a fee simple or leasehold estate basis.

Karatz points to two main reasons that single-family homes would make good investment prospects for U.S. insurance companies and pension funds. First, says Karatz, "there is a tremendous shortage of rental housing in this country." Second, the "numbers" on single-family homes operated as rental units compare favorably with alternative investments.

The 48 homes in the Lyon project, for instance, each sold for approximately \$120,000. They will rent for about \$600 a month, says Karatz, offering a 6% to 6½% return. Though this return is modest, Karatz admits, the real return comes when the home is sold. Karatz examined resale values over the past eight years in France and found that single-family homes appreciated 22% to 25% annually.

Karatz also notes that while leases tend to have longer terms in France than in the United States, landlords are allowed to raise rents annually under most agreements. Karatz estimates that rents increase between 12% and 14% annually.

Although there are some substantial differences between the housing markets in France and the U.S.—tax incentives for home ownership are far greater in the United States, for instance—Karatz says the differences shouldn't significantly affect the profitability of single-family rentals here. He sees single-family rental/investment properties doing best "on the fringe of major urban areas where there are known shortages of rental housing."

Kaufman and Broad, Inc., whose corporate headquarters are in Los Angeles, describes itself as a "multinational company specializing in housing, shelter-related financial services and life insurance." —W.L.U



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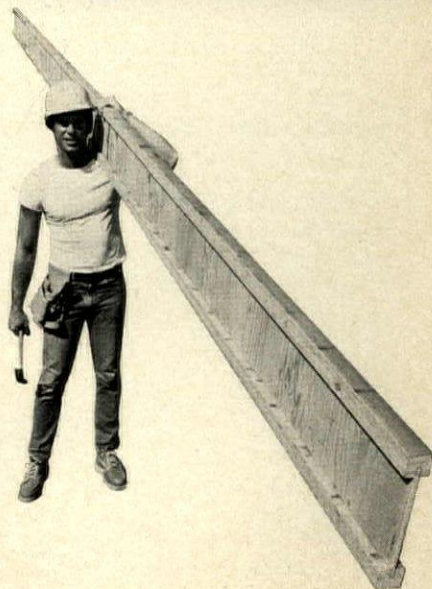
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housing 5/81

31

Reagan's Policies Offer Hope to Builders

Despite problems, there is a note of optimism that the Administration's new economic program may turn housing around

The long anticipated decline in homebuilding came with February's 27% plunge in housing starts. The figures for March jumped 6%. High mortgage interest rates and home prices, coupled with weak gains in personal income, mean homebuilding will hit rock bottom again in the first half of this year, averaging a woeful 1.3-million annual rate after a seasonal adjustment.

Interest rates remain the chief culprit. The Federal Reserve intends to keep rates sky high throughout 1981 until inflation drops. Though the economy is not strong, it isn't weak enough to suppress credit demands and thus take the pressure off the money markets. Things will get especially sticky in the near term as growth in the monetary aggregates accelerates, forcing the Fed to tighten the money supply another notch. That will siphon even more of the savings stream into the money market funds, driving up the marginal cost of funds and hurting mortgage lenders.

But despite the gloom and doom there is a note of optimism extended by the Reagan Administration's new economic program. And there is subtle evidence that the program may already be working to turn housing markets around. Though interest rates remain near record highs, they are surprisingly volatile, and there is disagreement among the experts as to future rates. The price of gold has tumbled and the dollar has strengthened in foreign exchange markets. This means that many traders no longer regard U.S. inflation as runaway, and some are optimistic about a slowdown.

In addition, the Administration is forecasting dramatically better economic conditions ahead for housing. In the official budget forecast, Reagan economists predict Treasury bill yields to average just 8.9% in 1982, 7% in 1984 and 5.6% in 1986. Consumer price inflation is expected to slow from 11% this year to 8.3% in 1982 and 5.5% in 1984. Meanwhile, real economic growth is projected to be 4.2% next year, 5% in 1983, and 4% plus thereafter. Such improvement would allow housing to reach its underlying potential of better than two million new units per year.

Of course, the Administration's forecast is controversial. The foundation is that lower taxes and reduced government encroachment on the private economy will spur productivity. Other forecasters say that our problems are deeply rooted and will require more time to solve. Nonetheless, there is a genuine logic to the notion that a less inflationary,

more entrepreneurial economy is better for growth than one fed by government largesse and throttled by federal regulation. Homebuilding would be a major beneficiary.

Current developments. As noted, housing markets are slumping again. Total starts, seasonally adjusted, plunged 26.9% to a dismaying 1.2-million annual rate in February and then edged up to 1.3 million in March. Single-family starts slipped 20.1% in February—to the lowest ebb since last June—before edging up in March. The downslide is corroborated by the erosion in building permits since last September's peak. Sales of new single-family homes fell 5.3% in February, and the stock of unsold homes rose to 8.6 months of current sales.

Not all the news is bad, however. Recent survey data on attitudes toward home purchase showed the first improvement in more than six months. Though multifamily construction dropped 37% in February, it staged an 11% rebound in March. The rental vacancy rate averaged a low 4.8% in the closing quarter of 1980. The number of units coming into the market are relatively modest, suggesting that multifamily markets will stay comparatively firm.

Finally, the construction slump has taken some of the starch out of labor and materials costs. Unemployment among construction workers jumped 1.5 points in March to 14.7%. This has helped to stem the rise in construction wages. Also, prices for materials and supplies used in construction are running at half the rate of increase for all wholesale prices through March. A painful exception has been asphalt products. Prices have surged, averaging about 11% higher than last November. With refinery output falling—including the demise of many small refiners— asphalt supplies are due to continue tight.

The outlook. All told, we can look for weakness in the first half of the year, with seasonally-adjusted starts averaging a 1.3 million annual rate. Activity will pick up in the third quarter as mortgage rates edge down and savings flows improve with a cut in personal taxes. Starts should average 1.5 million in the second half. The big spurt will come in 1982, with expected starts of 1.82 million.

Of course, the full scenario painted by the Reagan budget could allow even faster growth in housing demand in 1982, given the drop projected in interest rates and the surge in savings anticipated. That rosy outcome amounts to at least 2 million starts in 1982. *McGraw-Hill's Economics Department.*

Construction Activity: In Thousands of Units/Year Seasonally Adjusted

	3/81	2/81	3/80	Change From Year Ago
Total Housing Starts ⁽¹⁾	1,284	1,214	1,040	+23.5%
Single-Family Starts ⁽¹⁾	817	793	628	+30.1%
Total Building Permits ⁽¹⁾	1,128	1,165	968	+16.5%
Single-Family Permits ⁽¹⁾	653	665	556	+17.4%

Market Activity: In Thousands of Units/Year Seasonally Adjusted

	2/81	1/81	2/80	Change From Year Ago
Existing Home Sales ⁽²⁾	2,560	2,580	3,010	-15.0%
New Home Sales ⁽²⁾	487	514	529	-7.9%
New Homes For Sale ^{(2)*}	338	333	382	-44

Financial Activity

	3/81	2/81	3/80	Change From Year Ago
Commitment Mtge. Rate⁽³⁾ (Conventional, 30 yr., 75%)	15.49%	15.36%	14.72%	+ .77
GNMA—8%⁽⁴⁾				
Futures Contract	6/82	12/81	6/81	
% Yield	14.156%	14.334%	14.444%	-.288
Outstanding S&L Mtges.⁽³⁾	2/81	1/81	2/80	
Millions of Dollars	\$16,095	\$15,893	\$16,650	-3.3%
Net Deposit Flow, S&Ls⁽³⁾	2/81	1/81	2/80	
Millions of Dollars	\$ 2,220	\$ 2,083	\$ 1,839	+20.7%
Personal Income⁽¹⁾	3/81	2/81	3/80	
Billions of Dollars	\$2,334.9	\$2,317.3	\$2,101.0	+11.1%

(1) Source: U.S. Dept of Commerce (2) Source: National Association of Realtors (3) Source: FHLBB (4) Source: Chicago Board of Trade (*) Not Annualized



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The fact is, our shower and tub enclosures cost about the same as most other brands. But they offer superior quality. And you can be sure that quality will be noticed by the discriminating home buyer.

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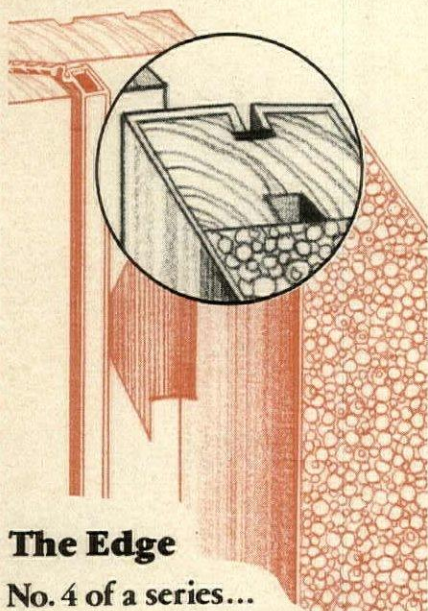
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housing 5/81 **33**

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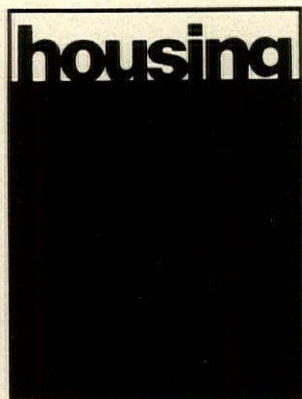
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Helpful . . . It saves time and effort. And best of all, it increases your condo's value. Sure, the "Elevette" is a status symbol. But no other status symbol has ever been this practical.

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For you, the builder, the new gas appliances can mean the difference between a sale and a "Thank you, but I'm just looking."

The new gas appliances. Isn't it time you started building for your future?

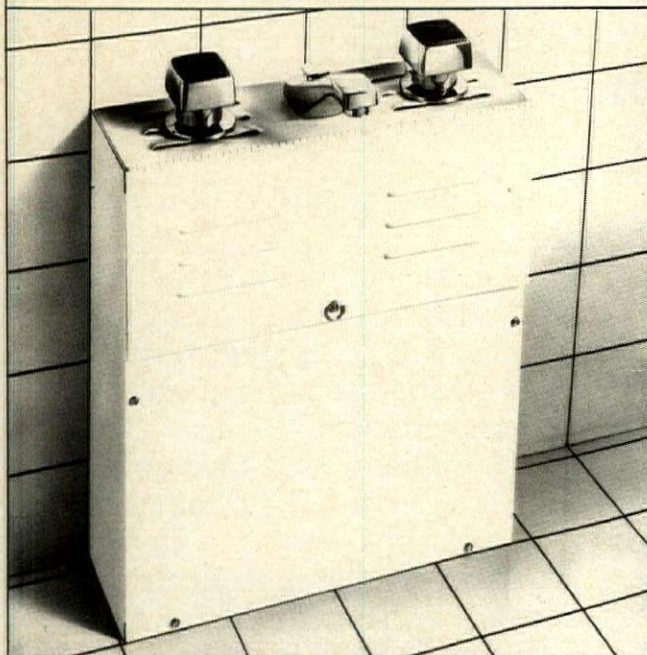
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HOUSE CALLS

Are You Building Smaller



John Shields, sales manager, Capp Homes, Minneapolis, Minn. Yes, we are building smaller houses. Our average selling price is down and our average house size at present is just in excess of 1,600 sq. ft.—slightly smaller than last year.

The trend to smaller housing is primarily due to market conditions of affordability and qualifying. I don't see the trend to smaller houses as anything permanent. We have geared ourselves to a broad cross-section of the buying public. Our strategy has been aimed to some degree to the upscale customer, but we think we satisfy a broad spectrum. Size has become proportionate to the price of the home, which has been down in 1981.

We offer equity loans. If a customer owns an existing house and needs funds to get his project started, we offer a below-rate construction loan. We also offer long-term financing. □

Wilbur F. Coleman, owner, Wilmar Homes, Goshen, Ind. There is definitely a trend toward smaller houses in this area, and the no-frills approach has been coming into vogue for the past five years. There are few items that can be cut in today's homes, and square footage is probably the last area that can be cut.



High interest rates only tell part of the story. There is a trend toward smaller families and the market for new homes with more than two or three bedrooms will continue to decline.

There are probably some design improvements that could be made, but most builders want to stay with designs that have gained acceptance.

Most houses I build are in the 1,800- to 2,500-sq.-ft. category. But I am now building some as small as 900 sq. ft. Even at that size, it is not easy to bring a house to a closing for under \$30,000. □



Robert Booth, owner, Booth Builders, Eros, Ark. As a builder, I think there are many things that can be done to bring down the cost of housing. Most cost reductions, however, result in a reduction of quality. The trend in recent years has been to use the most inexpensive type of construction, both in design and materials, for the single-unit dwelling.

I'm not sure what a "basic" house would look like. Some people call luxuries what others call necessities. A bare-bones house that will pass government inspections may not pass the buyer's expectations. Elimination of certain appliances, such as air conditioners, refrigerators, dishwashers, and stoves can be done, but you may lose customers who want these items.

Most competent and efficient builders have already done away with most of the frills. It's very difficult to generalize about peoples' tastes. □

Houses This Year?

Frank B. Wilsom, manager, Rural Homes Co., Riverview, Fla. We build quality homes, usually on what we call estate-size properties, seldom less than three acres.

But many of the houses we construct today are the no-frills type. In fact, some of the items required by the building code are considered frills by our customers and we have to explain that the law requires items like guard rails and certain size wiring.

More and more customers are asking us to get them weathered in so they can finish the inside themselves, as a family project. Insulation, less wasteful designs, solar water heating, and passive solar can help the customer save money in both the short and long term. Better insulation, for instance, may cost a bit more now but in the long run will save the homeowner money. There is not much the builder can do to bring down the overall cost of construction. □



Gordon Campbell, president, Campbell Homes, Inc., Littleton, Colo. It's an unstable time with interest rates and construction costs, but people accept costs. They'll make the plunge to buy a new home.

I've heard that the bigger builders in town are planning to cut down the average space in new homes. My experience is in the other direction.

I'm building bigger homes than I built last year. My custom homes sell at an average of \$175,000. In that price range buyers are less affected by the economy. They want more things—solar water heaters, intercom systems, security systems, whirlpool bathtubs, and multiple fireplaces. I have two homes under construction now that have four fireplaces each. I'm building the homes bigger and adding every frill they're selling.

I understand, however, that building elsewhere is at a standstill. □

C.R. Mitchell, president, Mitchell Construction, Spanish Fork, Utah. I am constructing more smaller homes now than I did last spring to bring prices down to an affordable level.

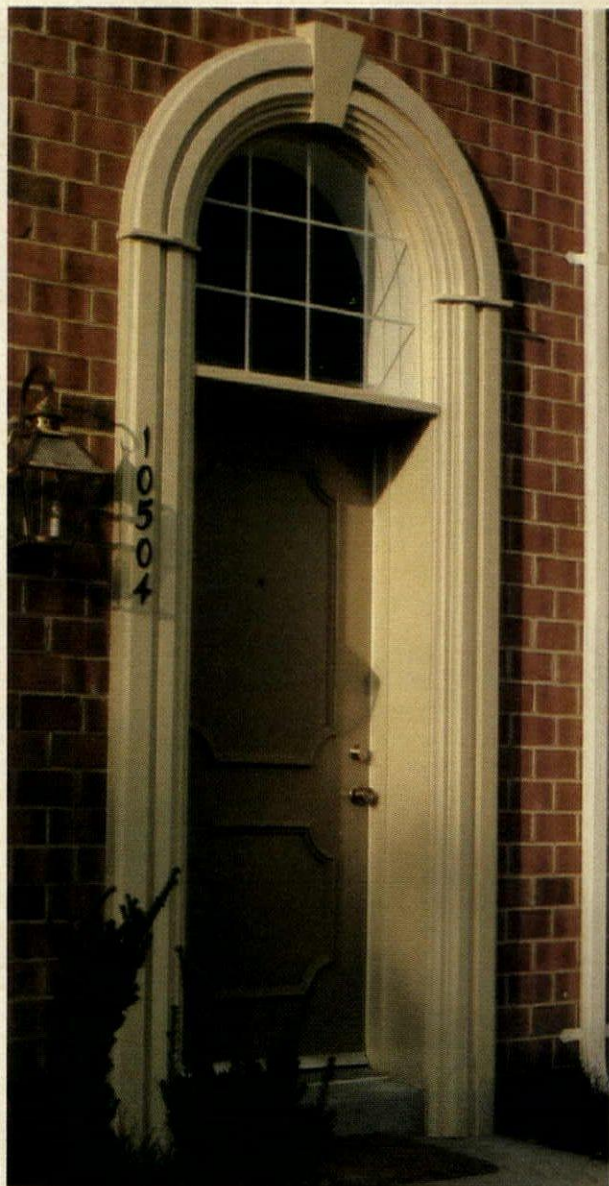
The new homes we are building are made more affordable through innovations. We are constructing quadruplexes instead of single-family structures, and building some cooperatives using designs that make efficient use of building materials.

Actual living space in some of our new homes has been reduced from 1,705 sq. ft. to 1,667 sq. ft. I expect the time will come when young people will settle for about 1,000 sq. ft., with some built-in furniture.

Several years ago I acquired vast acreage on the Spanish Fork flats, and now Utah is in the center of western expansion and development, with a big demand for housing. Spanish Fork is a cosmopolitan city of home lovers. □



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Relocating the Ductwork Saves Energy

A few years ago Monarch Homes of Houston faced an all-to-familiar problem: On the one hand, the local utility and the Veterans Administration's loan guaranty division wanted builders in the Houston area to make their homes more energy efficient. On the other hand, the local market wouldn't pay for energy extras. "Around here, eight out of ten people would rather save the bucks up front," says John Harris, president of the Stafford, Texas-based building company.

The solution? Monarch cut utility bills by following one of the V.A.'s recommendations: They moved the heating and cooling ducts out of the attic and into the living areas, away from the extremes of winter and summer temperatures. They also switched to fiberglass duct board, which transmits less noise than metal.

"We made the move because the V.A. hinted that it might be required in the future," says Harris. "It has always been our policy to meet tomorrow's requirements today." Monarch uses the energy savings program in its marketing. It feels it has also helped its relationship with the V.A.

By switching to the fiberglass board and the rerouted ducting, Monarch achieved three things:

- A more energy-efficient ducting system. One inch of fiberglass board has the same insulating value, R-4.34, as two inches of conventional duct wrap. And rerouting the ducting into the living area keeps it away from blistering summer and freezing winter temperatures.

- A quieter air handling system. "The board absorbs the sound," says Sonja Marstead, staff manager for Johns-Manville's air handling systems department. "It doesn't transmit sound like sheet-metal duct." (J-M manufactures the fiberglass duct board.)

Harris agrees and says he stresses the noise-free feature along with the energy-saving benefits in advertising.

- A selling tool that doesn't add to the price of the house. There are additional framing costs because it is necessary to fur down parts of the ceiling to accommodate the ducting. These costs are offset by the system's efficiency, which makes it possible to reduce the size of the air conditioning unit, usually by 1/2 a ton. The ducting materials themselves cost about the same as conventional, wrapped sheet-metal duct.

Problems. There was one major problem in rerouting the ducting: how to incorporate the furred-down areas

into the house designs, many of which contained cathedral ceilings.

At first Monarch furred down two sides of the cathedral-ceilinged room, one side for the ducting and the other for balance. But they felt that design took away the impact of the vaulted ceiling.

Dave Mangum, vice president of Micher Airco, Monarch's heating and cooling contractors, came up with some ideas to circumvent the problem. If the room is adjacent to a hallway, Mangum installs the ducting in the hall and places a register at the entrance to the room. Where the distance is too great, as in the bathroom below (see plan), he attaches a length of flexible ducting from the main duct and runs it through the attic and down into the room.

Design problems were not the only stumbling blocks Monarch encountered when switching to the system.

"Initially we ran into some problems with superintendents and framers," says Harris. "In some cases, we have to notch the headers because the furred-down area takes away about a foot of ceiling height. Some people thought that was too much trouble and they didn't want to do it. But once they got the hang of it there was no problem."

Field tests. Monarch became convinced of the benefits when it participated in a study conducted by Houston Light and Power. Monarch built one

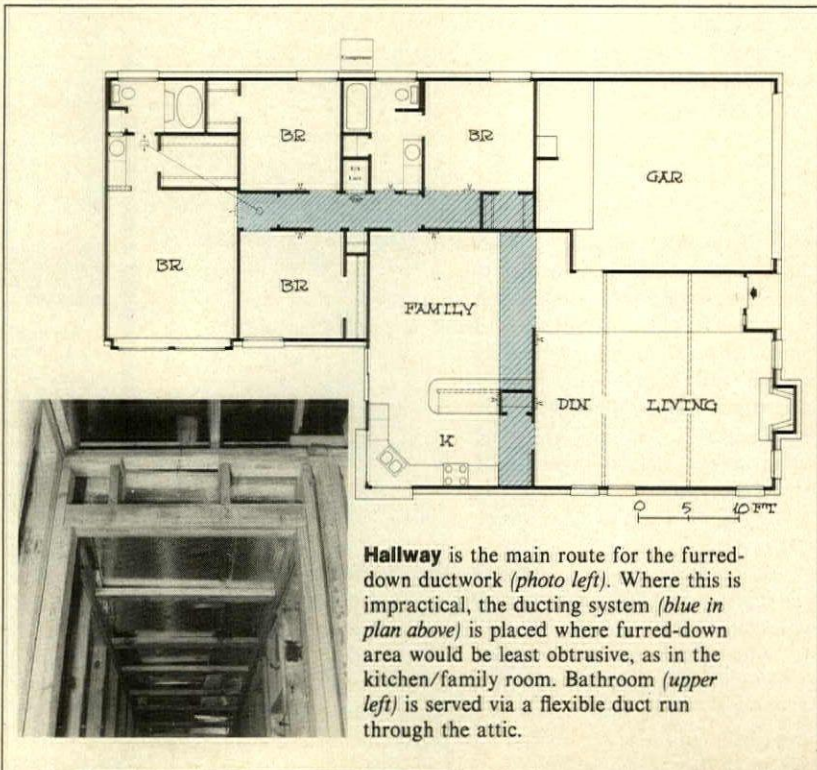
of its traditional models, which were already more energy efficient than the average, and two to the utility specifications. Besides the furred-down ducting, other prescribed features for the all-electric houses included R-34 insulation in the attic and R-22 in the walls, and a high level of infiltration protection. These three homes were compared to a house of similar size but without any energy-saving features.

At the end of what has been described as the coldest January in Houston's history, the utility bill for the all-electric control house was \$150. Monarch's standard model came in at \$105, while the utility-designed houses registered at \$78 and \$79.

Monarch has since run its own set of tests, but Harris cautions they are strictly in-house findings and not substantiated by anyone outside of the company.

For these tests, Monarch built four models that included the furred-down ducting, the extra insulation that has become standard for the company—R-22 in the attic and R-13 in the walls compared to the Houston average of R-19 and R-13 respectively—and used tighter construction techniques. It then tested them against four models that were built the way the company put up houses five years ago.

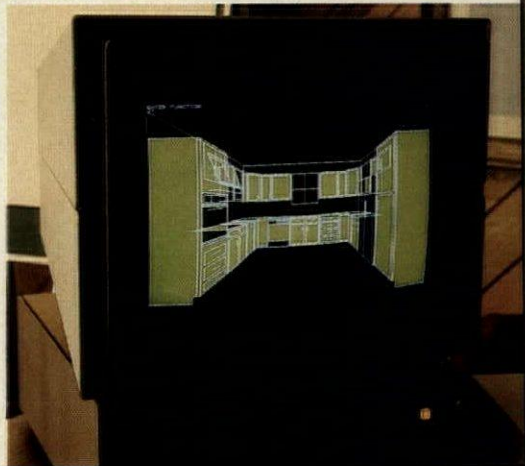
At the end of six months, the newer models saved about 30% in energy costs. —F.J.D.





CDS was developed for Haas dealers and distributors. The designer enters the room's dimensions and the location of obstacles (left). The computer then draws a floor plan, which can be changed by the designer, on the screen. It also displays a color perspective (below). A printer (shown left) produces the final floor plan, perspective and a chart listing the materials, their dimensions and the cost. The system can accommodate other manufacturers' lines.

Cabinet Type: Village Oak								
PART NO.	QTY	HEIGHT	WIDTH	DEPTH	WEIGHT	VOLUME	UNIT COST	TOTAL COST
B-21R	1	34.50	21.00	24.00	50.00	11.40	161.00	161.00
B-24L	1	34.50	24.00	24.00	57.00	12.90	175.00	175.00
DB-24	1	34.50	24.00	24.00	74.00	12.90	251.00	251.00
DISH 24	1	34.13	24.00	25.00	-0-	-0-	-0-	-0-
HOOD 36	1	24.00	36.00	20.25	40.00	12.20	777.00	777.00
O-27	1	83.50	27.00	24.00	115.00	34.80	462.00	462.00
RDLS-36	2	34.50	36.00	36.00	108.00	34.20	255.00	510.00
REFS 36	1	66.25	35.75	30.50	-0-	-0-	-0-	-0-
SB-36	2	34.50	36.00	24.00	132.00	38.40	218.00	436.00
U-2424R	1	83.50	24.00	24.00	115.00	31.10	448.00	448.00
W-1230L	2	30.00	12.00	12.00	40.00	6.00	87.00	174.00
W-1230R	2	30.00	12.00	12.00	40.00	6.00	87.00	174.00
W-2130R	1	30.00	21.00	12.00	34.00	5.20	124.00	124.00
W-2430L	2	30.00	24.00	12.00	72.00	12.00	135.00	270.00
W-2430R	1	30.00	24.00	12.00	36.00	6.00	135.00	135.00
W-3615	1	15.00	36.00	12.00	19.00	4.60	117.00	117.00
WLS2430L	1	30.00	24.00	24.00	49.00	11.30	191.00	191.00
WLS2430R	1	30.00	24.00	24.00	49.00	11.30	191.00	191.00
TOTAL	23				1,030.00	250.30		4,596.00



Designing Kitchens with a Computer

Computers are progressing from time-consuming paperwork jobs, like payroll and inventory control, to the more creative functions of running a building company. Two kitchen cabinet manufacturers and one cabinet distributor recently introduced computer programs that reduce kitchen design time to minutes rather than hours and, at the same time, provide an accurate estimate of the cost.

Each of the programs is different from the others. But all are helpful to anyone who designs and prices kitchens regularly. These systems feature:

- Video display of either the floor plan or elevation during the design process. This allows the builder, remodeler or customer to see the design as it is created and to make instant changes.

- A printout of the finished design, along with a list of cabinets, their

prices and cost of installation. The systems give the designer the ability to compare prices of different cabinet styles among the same or different manufacturers.

Program developers say the new systems will not replace designers; rather they will reduce the time designers spend on drawing and pricing.

Computer Design System. Haas Cabinet Co., Inc., Sellersburg, Ind., developed the CDS for its distributors and dealers. The program includes the Haas line, but Ed Drummond, vice-president of sales and marketing, says dealers can have additional lines programmed into the system. Or, he says, "Because most cabinet designs are the same but differ in price, once the designer comes up with a plan, he can factor in the price differences of another manufacturer's line."

Here's how the CDS works. The

designer records the room's wall dimensions, the location of the refrigerator, doors, windows, and gas and utility connections on a questionnaire that Haas has developed. He then punches the information into the computer and decides on a price range for the kitchen. The computer then develops a design and displays it on the computer terminal in a matter of seconds. If the design turns out to be too costly, or if the computer is unable to come up with a design in the proper price range, the designer can instruct it to use a less expensive line of cabinets.

The display terminal shows the floor plan and, a few seconds later, the perspective of three walls, including ceiling beams, moldings, doors and flooring. Once the operator gets the design he wants, the computer colors in the perspective. *Turn to page 42*



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WEATHER SHIELD

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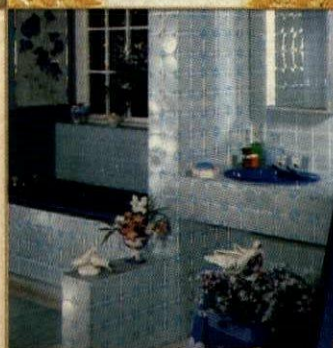
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Company

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State

Zip

The printer then produces the drawings and a materials list that includes the number of cabinets, their size in centimeters, feet, inches or hundredths and the cost. This information can be stored in the computer indefinitely.

Builders and remodelers have to go to a Haas dealer to use the system. Drummond feels that this is to the builder's advantage, because he or she is not required to invest in the computer hardware to obtain a computer-assisted design.

Haas charges its distributors and dealers \$10 per printed layout. The distributors must buy the necessary equipment and hook up to a time-sharing computer in Atlanta.

The charge to customers varies from dealer to dealer, although Drummond believes many of them will provide the service free to good customers.

Graphic 100. Greggson, Inc. of Nashua, N.H., developed the Graphic 100 Kitchen Design by Computer. The system automatically produces a floor plan using any manufacturer's line of cabinets.

The operator feeds the computer the room's dimensions and the size and location of windows, doors and plumbing fixtures. Then it takes into account where appliances such as refrigerators and stoves will be located. With this information, the system displays a floor plan that the company feels is an aid to the designer. The basic computer-generated drawing serves as a guide to a practical kitchen design, the company feels, with the designer's input turning it into a saleable plan.

When the designer decides on a plan, the system prints it along with a chart that gives the catalogue number of the cabinets, their dimensions and the price. The printout also includes a quote on countertops, installation, freight and taxes.

This information can be stored in the computer. Greggson plans on refining the system by offering elevation drawings in the near future.

The manufacturer markets the program as part of a complete computer package. For \$6,950 the company will ship the Apple II plus 48K computer, the necessary disks, a Sanyo 12-in. green screen video monitor, the IDS Paper-Tiger graphic printer and the licensing agreement for the program.

For an extra \$300 a day plus expenses, the company will preload a standard line of cabinets into the system and provide a day's training at the customer's place of business.

Greggson chose the Apple II because it believes it is the most widely serviced small computer in the country, and because it can be used for

other things. "We tell the customer that if he sells ten \$2,000 kitchens, he will have paid for all the equipment and be free to use the Apple to do other things such as payroll, general ledger and inventory," says Hugh Gregg, president of the company.

The Estimator. Steve Cottrell of Cabinetry, Inc., a Riviera distributor in West Palm Beach, Fla., put together The Estimator for pricing and designing kitchens using Riviera's line. However, the system can be expanded to include other manufacturers.

The principal market for the system is kitchen dealers, but, Cottrell says, "We are also getting inquiries from large developers because they do so many job quotes and most of them buy direct from the factory."

Unlike the other two, this is a manual draw program. The operator plugs in the type of cabinet—either base, wall or tall—the number and the dimensions from the plans. The system starts drawing elevations. As the designer adds cabinets, he can change the drawing to suit specific needs.

Once a plan is set, the system prints the design plus a chart that lists the necessary cabinets in the plan, their costs, taxes and installation charges. The basic program breaks down the 13 styles in the Riviera line into six pricing categories and lets the designer see at a glance what the kitchen costs using any style. The lines are listed from the least expensive to the most expensive. The program also includes a standard countertop price.

The Riviera program and hardware, the Apple II, costs between \$6,000 and \$7,000, but Cottrell offers a lease/purchase agreement for about \$300 a month. Additional manufacturers' lines can be programmed into the system for \$250 each.

Cottrell is working on a system that can design a kitchen in a way that is similar to the other two. "But our main goal is to speed up the process," says Cottrell. "The new system won't be completely automatic, where all you do is plug in the room's dimensions. We like the human variable in the process." —FRAN J. DONEGAN

SIZE	+ CONTEM- + PORARY	+ STONINGTON+ + CITIATION + + AQUARIUS + + SANCRIA +	ROANOAKE	+ COACHMAN + + CTRY CLASS + + CTRY SQUIRE+	+ CATHEDRAL + + OAK	+ OAK HILL+ + CHERRY + + HILL +
(5) B24	1035 00	1060 00	1130 00	1255 00	1255 00	1460 00
(1) B33	268 00	283 00	304 00	338 00	338 00	398 00
(1) DISHWASHER	795 00	795 00	795 00	795 00	795 00	795 00
(1) SINK	99 00	99 00	99 00	99 00	99 00	99 00
(1) UC-B1884	369 00	389 00	418 00	455 00	469 00	559 00
(1) W3030	174 00	190 00	208 00	241 00	255 00	288 00
LIST TOTALS	2740 00	2816 00	2954 00	3183 00	3211 00	3599 00
12% DISCOUNT	328 80	337 92	354 48	381 96	385 32	431 88
SUB TOTALS	2411 20	2478 08	2599 52	2801 04	2825 68	3167 12
TOPS 'T-18'	522 00	522 00	522 00	522 00	522 00	522 00
SUB TOTALS	2933 20	3000 08	3121 52	3323 04	3347 68	3689 12
SALES TAX	117 33	120 00	124 84	132 92	133 91	147 56
INSTALLATION	332 27	332 27	332 27	332 27	332 27	332 27
OTHER LABOR	750 00	750 00	750 00	750 00	750 00	750 00
TOTAL PRICE	\$4132 80	\$4202 35	\$4328 65	\$4538 23	\$4563 86	\$4918 95

The Estimator draws elevations (lower portion) and breaks the Riviera line into six categories (chart, above) for comparing prices.



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WALL OVEN COMBO
FROM JENN-AIR**

THIS IS EITHER THE WORK OF A VERY FINE DESIGNER OR A VERY SMART CONTRACTOR.

Finding kitchen components that go together as well as these used to be a job only interior designers could handle.

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Both make an excellent match with our Jenn-Air cooktops.

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1981 WINNERS

Urban in-fill projects took 5 out of 20 awards in the 1981 Homes for Better Living awards program, reflecting a strong demand for in-town housing.

The annual design program resulted in 11 First Honor Awards and nine Awards of Merit this year. Recycled buildings in cities took two First Honor Awards and one Award of Merit. Also, two awards—one First Honor Award and one Award of Merit—went to in-town Section 8 housing.

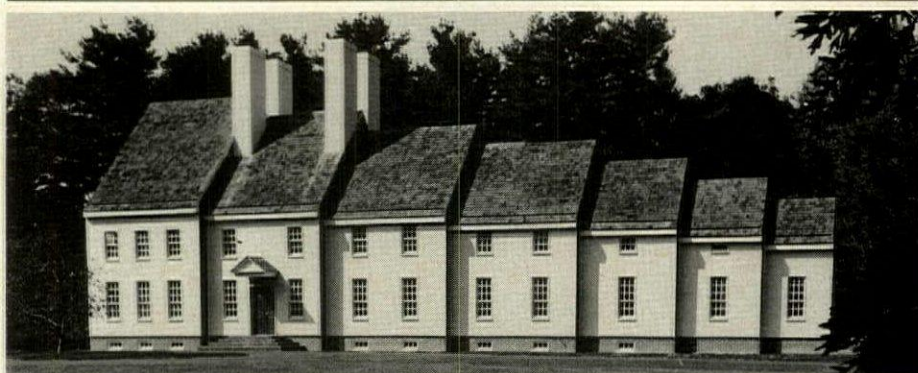
Other First Honor Awards were given to four custom homes and a remodeled turn-of-the-century house.

Awards of Merit were also presented to a merchant-built project, a multifamily for-sale project, two custom houses and one remodeled custom home.

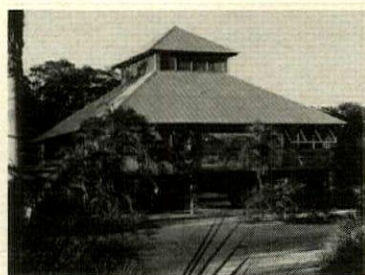
The HFBL program, the oldest design competition devoted solely to housing, is sponsored by the American Institute of Architects in cooperation with HOUSING. Two juries spent two days judging 235 custom houses and 168 production housing entries at AIA headquarters. —S.L.

FIRST HONOR AWARDS

CUSTOM HOUSES



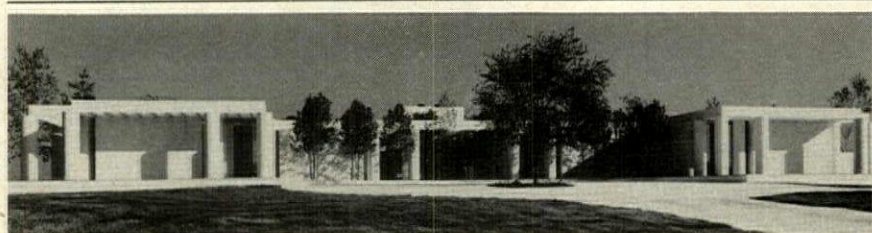
1. Eastern Pa.
Architect: Hugh Newell Jacobsen FAIA
Builder: Withheld



2. Tampa, Fla.
Arch.: Rowe Holmes Associates Archs., Inc.
Builder: Henry M. Butler, Inc.



3. Coatesville, Pa.
Architect: Bohlin Powell Larken Cywinski
Builder: Grant Benham



4. Lexington, Ky.
Architect: Hugh Newell Jacobsen FAIA
Builder: Owner

CUSTOM REMODELING



5. Washington, D.C.
Architect: Hartman-Cox Architects
Builder: E.A. Baker Co.

MULTIFAMILY



6. Portland, Ore.
 Architect: Robert S. Leeb/Architects
 Builder: Silco Construction Co.



7. San Francisco, Calif.
 Architect: Hood Miller Associates
 Builder: Hood Miller Properties



8. Albany, Calif.
 Architect: Edmund Burger
 Builder: Williams & Burrows, Inc.

MULTIFAMILY SUBSIDIZED

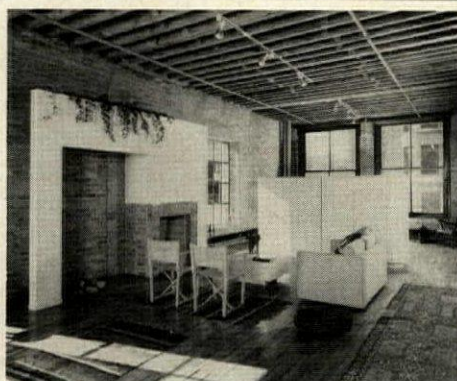


9. Oakland, Calif.
 Architect: Peters, Clayberg & Caulfield
 Builder: W&B Constructors

MULTIFAMILY REHABILITATION



10. Philadelphia, Pa.
 Architect: Baker Rothschild Horn Blyth
 Builder: BRHB Developers



11. Chicago, Ill.
 Architect: Ken Schroeder & Associates
 Builder: Harper Realty

For custom houses, from left: (standing) Barbara Neski FAIA; Don Hisaka AIA, jury chairman; John Field AIA; Linda A. Pinto, associate member AIA; Walter F. Wagner, editor, *Architectural Record*; (seated) Matthew Eric Poe, architectural student; Jefferson Riley AIA



THE JURORS



For production houses, from left: June Vollman, senior editor, HOUSING; Howard J. Backen AIA, jury chairman; James F. Culpepper, associate member AIA; Yvonne Kearney, architectural student; Peter Samton FAIA; Philip Sheridan, builder; Remmert Huygens AIA

AWARDS OF MERIT

CUSTOM HOUSES



12. Omaha, Neb.
Arch.: Bahr Vermeer & Haecker, Archs., Ltd.
Builder: Gary Bowen



13. Santa Clara County, Calif.
Architect: Fisher-Friedman Associates
Builder: Vintage Construction Co.

MERCHANT BUILT



14. Orinda, Calif.
Architect: David C. Boone, Carl Kolbeck
Builder: Boone/McNair

CUSTOM REMODELING

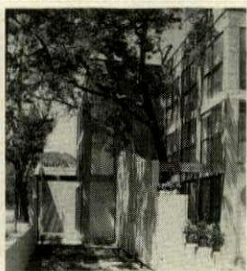


15. Saratoga, Calif.
Architect: Goodwin B. Steinberg Associates
Builder: Wesley Otis

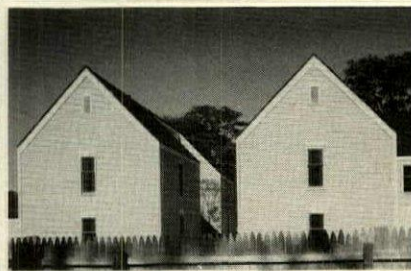
MULTIFAMILY



16. San Francisco, Calif.
Architect: Fisher-Friedman Associates
Builder: Perini Construction

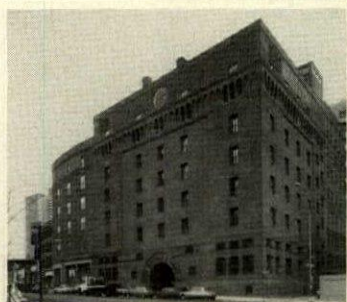


17. Houston, Tex.
Architect: Taft Architects
Builder: Ted Callaway



18. Lake Bluff, Ill.
Architect: Nagle, Hartray & Associates, Ltd.
Builder: A.L. Construction Co.

MULTIFAMILY REHABILITATIONS



19. Brooklyn, N.Y.
Architect: Rothzeit Kaiserman & Thomson, P.C.
Builder: Ben Fishbein



20. Bangor, Me.
Architect: CBT/Childs Bertman Tseckares & Casendino Inc.
Builder: Myerson/Allen & Co.



ThermaSol transforms any tub or shower stall into a full professional steam room. Install compact steam unit under vanity, in a closet, basement, or attic.

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Now you can offer your customers the benefits of a steam bath at less than the cost of a color t.v.

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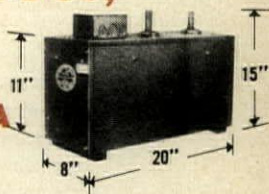


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Carole Eichen Interiors
Fullerton, Calif.

How to master bathroom merchandising

No matter how luxurious a bath looks, it won't help you sell your homes unless it's practical as well. So the first step in successful merchandising is to make sure your bathrooms suit your buyer's needs.

Pretend you're the person you're trying to attract—a single woman, the parents of school-age youngsters or whomever. With that person's lifestyle in mind, "walk" through your model while it's still on paper. You may see problems you've never noticed before, such as a secondary bath that's too cramped to accommodate two children getting ready for school at the same time. Or you may see an opportunity to make a good layout more exciting—e.g. by removing partitions so that a glamorous mirrored dressing area can be seen from the master bedroom.

A sense of touch. Next, you and your interior merchandiser should decide how to outfit the bathroom(s). Budget as much money as you can for fittings, the vanity top and the tub surround. Not only do most prospects inspect these items when touring your model baths, but after they buy a home they'll be touching them every day. So attractive and easy-to-use faucet handles, for example, can continually reinforce the belief that buying from you was a good investment.

It's important to remember that you're making decisions for the buyer that he or she is going to live with for a long time: He can't change a tub surround as readily as he can the color of a bath mat or even the wallpaper.

Neutral territory. For the same reason when thinking about options you should consider the decorating expertise of your buyers, as well as their pocketbooks. Offering many choices may seem like a good selling tool, but it can backfire if your buyers are inexperienced.

Imagine, for example, the poor

novice homebuyer who thinks bright orange tile is a decorator's dream. A year later he or she may be unhappy with the bathroom—and with you, the builder, for permitting such a mistake.

So when it comes to such things as tile, flooring, and fixture colors, it is best to let most first- and second-time buyers select from three or four neutral colors.

These guidelines are, of course, generalizations. But here are some specific professional tips on merchandising baths for different types of buyers:

A bachelor's bath. Chances are that there will be only one bathroom in a unit selling to single first-time buyers. Compartment it so that the owner can reserve a personal grooming space when he has guests.

In the single man's bath shown below, for example, there is a small dressing area with sink that can be completely closed off from the rest of the bath.

Consider the all-purpose nature of the bath when picking a color scheme, too. Neutral tones are best, because the buyer will not feel as free to individualize the bath as he would if it were never shared.

Neutrals are also a wise choice because the first-time buyer has a tight budget: He won't be able to redecorate often if at all. For sales appeal, you can jazz up the bath with brightly colored towels, plants and other accessories.

And don't overspend on outfitting a bath for this market: The first-time buyer's chief concern is that all the necessary fixtures be included,



JOHN BARE

rather than whether they're top-of-the-line or not. Paint-grade cabinetry, a plastic laminate countertop and a fiberglass tub surround are fine.

Don't skimp on mirrors, however. They should be tall enough so that a 6-ft. 4-in. buyer can see himself with room to spare. What's more, mirrors will visually stretch a small bath.

Mom and Dad's bath. A separate master bath is often a new luxury for a family purchasing its second home. Draw attention to the fact that the bath is an extension of the parents' private bedroom. One way to do this is to use the same, or similar, wallcovering in both rooms. And it can be a more-expensive material, such as the grasscloth used in the master bath shown below. These buyers are moving up in the world and they relish a "designer" look.

For this market, light fixtures should be decorative, as well as practical. In the bath below, for example, we used weathered brass lamps with opaline shades. What's more, there is matching weathered brass trim on the shower doors (*not shown*).

Be sure to keep the overall mood of the bath subdued, however. Most second-time buyers don't feel able to duplicate an ultraglamorous bath, and they can't afford to hire a professional to help them.

The high-status bath. You can go all out when you're selling to third- or fourth-time buyers or to luxury buyers of any age.

These prospects have become sure of their tastes over the years, or they can rely on an interior designer for advice.

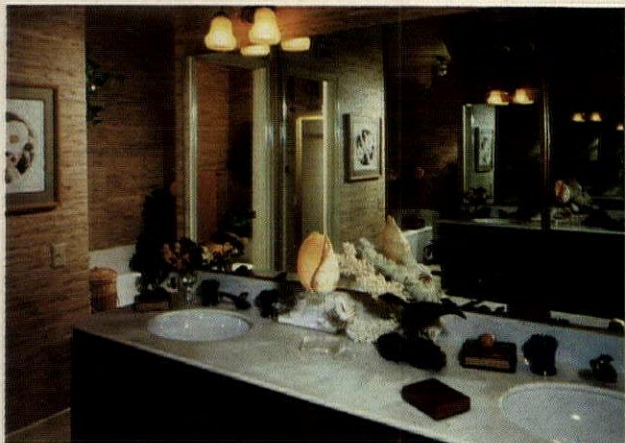
So colors can be strong—navy

blue or burgundy, for example.

And this is one group that should be offered many options. Buyers spending, say, \$300,000 for a home won't be satisfied with less than a beautiful palette of color schemes to choose from.

Neither will they overlook any detail of your model baths. So make a strong impression wherever you can. For example, did you ever consider using fittings with 24-karat gold serpentine handles?

The ultimate for self-indulgent buyers is the mirrored bath. The skylit bath shown below is a good example. Even the shower door is mirrored. And the white tile and tub were chosen for their reflective quality. The result is a glamorous look that will excite sophisticated, affluent prospects.



Master bath for move-up buyers (above) is stylish, yet subdued. Note his-and-her sinks. Project: Shadow Run, Thousand Oaks, Calif. Builder: Warmington Development Co. Carole Eichen Interiors project director: Sue Schug.

Bath for a single man (left) looks uncluttered. Note the separate dressing area (at right in photo). Project: Millstream, Huntington Beach, Calif. Builder: Schaffer Development Co.



Master bath for luxury-seekers (above) is even mirrored around the tub. For this market, drama is more important than easy maintenance. Project: Villa Vista, San Diego, Calif. Builder: Christiana Co. Carole Eichen Interiors project director: Margo Hazlett.

Master bath for veteran homebuyers (left) features custom touches, such as a ceramic tile countertop which matches tilework around the tub and shower. The tub is oversized, sinks are self-rimming and fixtures are 24-karat gold with porcelain knobs. Buyers won't be scared off by the highly coordinated look of this bath: Many are third- or fourth-time purchasers who can afford to hire an interior designer. Project: Los Lagos, Palm Desert, Calif. Builder: Gentry Construction Co.





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Circle 76

CONSTRUCTION COST GUIDE



This exclusive feature tells what it costs to build the same attached house in 100 cities



The two-story house, shown in plan below, has 1,246 sq. ft. of living area. Its construction is wood frame on slab. It is an interior unit, sharing party walls with houses on both sides. And its quality is "above average," according to the experts who compiled this Cost Guide—the Cost Information Systems Division of the McGraw-Hill Information Systems Co. They broke the house down into 13 elements, also shown below, and then calculated the labor cost, materials cost and the cost per square foot of living area for each element in the 100 markets listed on the next seven pages.

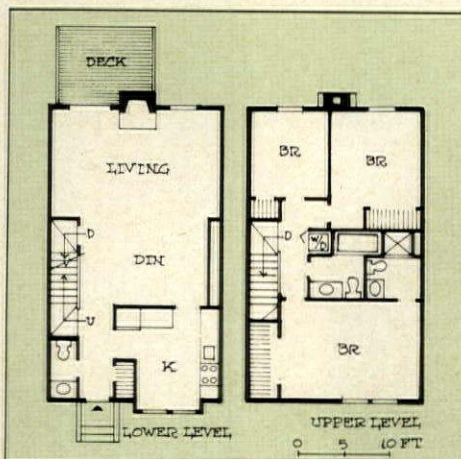
The 100 markets were selected primarily because of their size; 85 are among the most populous SMSAs (Standard Metropolitan Statistical Areas). But geographical distribution was also a factor. All 100 are included in HOUSING's quarterly Housing Demand Index.

A few regional differences in materials and equipment were plugged into the Guide. The McGraw-Hill experts divided the country into five climate zones ranging from the coldest (Zone A) to the warmest (Zone E), and each market in the tables is labeled accordingly (e.g., cold Minneapolis in Zone A, hot Tampa in Zone E). Specs for HVAC, roof insulation and foundations were then altered to suit temperature conditions in each zone. Roof insulation is 9 in. thick in Zone A, for example; 6 in. in B, C and D, and 3½ in. in E. Foundation footings are 4 ft. deep in Zone A, 3 ft. in B, C and D. And in all Zone E markets except Los Angeles, foundation costs are based on the use of monolithic slabs with no footings.

Some of the costs may strike you as high—particularly if you build standard units in any appreciable volume. There are a couple of reasons for this.

First, the figures are based on low-volume construction. So there's no allowance for economies of scale—namely for volume purchasing and the cost-cutting efficiency that comes naturally with repeated production of the same model.

Second, labor costs are based on union scale—even though most builders go the non-union route—because union rates are easier to pin down accurately.



- 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



	ALBANY, NY [B]	ALBUQUERQUE, NM [B]	ALLENTOWN, PA [B]	ATLANTA, GA [C]	AUGUSTA, GA [C]	AUSTIN, TX [E]	BAKERSFIELD, CA [E]	BALTIMORE, MD [C]	BATON ROUGE, LA [C]	BIRMINGHAM, AL [C]	BOISE, ID [B]	BOSTON, MA [B]	BUFFALO, NY [C]
Foundations													
Labor	736	725	745	629	506	306	1,035	707	682	682	745	747	954
Material	511	615	598	590	541	282	673	664	566	558	547	680	603
Sq. ft.	1.00	1.08	1.08	0.98	0.84	0.47	1.37	1.10	1.00	1.00	1.04	1.15	1.25
Floors on grade													
Labor	376	314	386	322	259	373	507	364	323	299	362	379	461
Material	307	385	365	386	359	338	431	443	363	347	351	439	398
Sq. ft.	0.55	0.56	0.60	0.57	0.50	0.57	0.75	0.65	0.55	0.52	0.57	0.66	0.69
Roof System													
Labor	1,871	1,904	1,898	1,596	1,253	1,910	2,590	1,769	1,716	1,709	1,871	1,951	2,489
Material	2,315	2,618	2,607	2,482	2,269	2,270	2,754	2,669	2,420	2,443	2,365	2,802	2,470
Sq. ft.	3.36	3.63	3.62	3.27	2.83	3.35	4.29	3.56	3.32	3.33	3.40	3.81	3.98
Roofing													
Labor	458	394	452	353	244	393	570	388	404	369	433	470	543
Material	506	586	576	545	489	506	637	600	534	538	517	635	541
Sq. ft.	0.77	0.79	0.83	0.72	0.59	0.72	0.97	0.79	0.75	0.73	0.76	0.89	0.87
Exterior walls													
Labor	3,148	3,313	3,376	3,044	2,461	3,303	4,227	3,313	3,047	3,145	3,314	3,415	4,055
Material	3,769	4,364	4,312	4,081	3,700	3,769	4,703	4,446	3,990	4,030	3,874	4,702	4,070
Sq. ft.	5.55	6.16	6.17	5.72	4.94	5.68	7.17	6.23	5.65	5.76	5.77	6.51	6.52
Partitions													
Labor	2,266	2,428	2,382	2,064	1,712	2,453	3,077	2,245	2,200	2,148	2,253	2,364	2,877
Material	2,684	3,073	3,053	2,881	2,631	2,684	3,318	3,152	2,820	2,849	2,745	3,315	2,886
Sq. ft.	3.97	4.41	4.36	3.97	3.49	4.12	5.13	4.33	4.03	4.01	4.01	4.56	4.63
Wall finishes													
Labor	913	856	988	955	667	894	1,152	909	909	934	887	1,109	1,116
Material	361	439	413	396	356	361	457	446	395	401	391	454	402
Sq. ft.	1.02	1.04	1.12	1.08	0.82	1.01	1.29	1.09	1.05	1.07	1.03	1.25	1.22
Floor finishes													
Labor	462	520	496	411	356	529	673	469	476	447	483	500	612
Material	1,571	1,830	1,808	1,701	1,536	1,571	1,980	1,867	1,664	1,681	1,608	1,976	1,698
Sq. ft.	1.63	1.89	1.85	1.70	1.52	1.69	2.13	1.87	1.72	1.71	1.68	1.99	1.85
Ceiling finishes													
Labor	759	813	826	772	574	852	1,010	785	785	784	758	904	984
Material	330	386	382	360	328	330	417	403	350	353	350	414	364
Sq. ft.	0.87	0.96	0.97	0.91	0.72	0.95	1.15	0.95	0.91	0.91	0.89	1.06	1.08
Fixed equipment													
Labor	780	865	818	766	678	901	1,012	805	816	766	796	839	966
Material	4,281	4,848	4,802	4,566	4,207	4,281	5,176	4,935	4,487	4,523	4,368	5,177	4,562
Sq. ft.	4.06	4.59	4.51	4.28	3.92	4.16	4.97	4.61	4.26	4.24	4.14	4.83	4.44
HVAC													
Labor	1,699	1,792	1,819	1,607	1,487	1,792	2,083	1,780	1,699	1,567	1,355	1,991	2,044
Material	1,426	1,663	1,637	1,546	1,390	985	1,246	1,691	1,513	1,528	1,456	1,792	1,539
Sq. ft.	2.51	2.77	2.77	2.53	2.31	2.23	2.67	2.79	2.58	2.48	2.26	3.04	2.88
Plumbing													
Labor	2,828	2,991	3,034	2,684	2,450	3,312	3,903	2,740	2,835	2,619	3,001	3,001	3,210
Material	1,408	1,642	1,621	1,527	1,377	1,408	1,774	1,674	1,494	1,508	1,442	1,776	1,525
Sq. ft.	3.40	3.72	3.74	3.38	3.07	3.79	4.56	3.54	3.47	3.31	3.57	3.83	3.80
Electrical													
Labor	1,352	1,303	1,318	1,418	1,300	1,456	1,688	1,405	1,418	1,149	1,361	1,504	1,640
Material	1,009	1,160	1,151	1,085	990	1,009	1,246	1,181	1,063	1,074	1,034	1,245	1,087
Sq. ft.	1.89	1.98	1.98	2.01	1.84	1.98	2.35	2.08	1.99	1.78	1.92	2.21	2.19
Totals													
Labor	17,648	18,218	18,538	16,621	13,947	18,474	23,527	17,679	17,310	16,618	17,619	19,174	21,951
Material	20,478	23,609	23,325	22,146	20,173	19,794	24,812	24,171	21,659	21,833	21,048	25,407	22,145
Sq. ft.	30.58	33.58	33.60	31.12	27.39	30.72	38.80	33.59	31.28	30.85	31.04	35.79	35.40

	CHARLESTON, SC ^C	CHARLOTTE, NC ^C	CHATTANOOGA, TN ^C	CHICAGO, IL ^B	CINCINNATI, OH ^B	CLEVELAND, OH ^B	COLORADO SPRINGS, CO ^B	COLUMBIA, SC ^C	COLUMBUS, OH ^B	DALLAS-FORT WORTH, TX ^C	DAVENPORT, IA ^B	DAYTON, OH ^B	DENVER, CO ^B	DES MOINES, IA ^B	DETROIT, MI ^B	EL PASO, TX ^D
448	479	681	877	927	981	719	464	771	704	835	795	782	787	985	513	
621	544	562	607	630	708	641	546	623	685	577	585	660	577	679	604	
0.86	0.82	1.00	1.19	1.25	1.36	1.09	0.81	1.12	1.11	1.13	1.11	1.16	1.09	1.34	0.90	
241	244	303	445	457	502	370	231	387	354	404	382	401	378	485	253	
409	351	371	395	415	432	401	356	386	459	366	372	446	368	426	416	
0.52	0.48	0.54	0.67	0.70	0.75	0.62	0.47	0.62	0.65	0.62	0.61	0.68	0.60	0.73	0.54	
126	1,331	1,636	2,235	2,321	2,501	1,821	1,205	1,878	1,769	2,134	2,024	1,951	1,972	2,496	1,373	
558	2,338	2,359	2,541	2,576	2,987	2,712	2,315	2,687	2,758	2,443	2,506	2,662	2,443	2,831	2,426	
2.96	2.94	3.21	3.83	3.93	4.40	3.64	2.83	3.66	3.63	3.67	3.64	3.70	3.54	4.28	3.05	
255	270	405	534	543	587	433	272	455	392	490	478	477	458	583	320	
568	515	512	560	571	690	610	506	603	626	537	549	598	537	645	535	
0.66	0.63	0.74	0.88	0.89	1.02	0.84	0.62	0.85	0.82	0.82	0.82	0.86	0.80	0.99	0.69	
187	2,276	2,888	3,912	3,945	4,192	3,313	2,239	3,480	3,224	3,665	3,451	3,550	3,433	4,245	2,403	
232	3,827	3,837	4,187	4,282	5,069	4,530	3,769	4,491	4,614	4,030	4,119	4,447	4,030	4,776	3,984	
5.15	4.90	5.40	6.50	6.60	7.43	6.29	4.82	6.40	6.29	6.18	6.08	6.42	5.99	7.24	5.13	
579	1,749	2,105	2,719	2,789	2,967	2,278	1,686	2,394	2,240	2,599	2,501	2,418	2,382	3,026	1,787	
996	2,712	2,712	2,968	3,033	3,580	3,203	2,684	3,160	3,256	2,857	2,909	3,129	2,857	3,382	2,810	
3.67	3.58	3.87	4.56	4.67	5.25	4.40	3.51	4.46	4.41	4.38	4.34	4.45	4.20	5.14	3.69	
643	560	864	1,016	1,137	1,261	959	663	1,154	986	1,100	1,105	1,312	1,044	1,333	646	
406	391	364	407	437	491	442	361	443	447	396	402	439	396	485	399	
0.84	0.76	0.99	1.14	1.26	1.41	1.12	0.82	1.28	1.15	1.20	1.21	1.41	1.16	1.46	0.84	
314	364	465	589	595	635	483	367	490	488	534	520	515	499	655	352	
772	1,590	1,597	1,754	1,792	2,146	1,905	1,571	1,885	1,944	1,682	1,717	1,868	1,682	2,017	1,663	
1.67	1.57	1.65	1.88	1.92	2.23	1.92	1.56	1.91	1.95	1.78	1.80	1.91	1.75	2.14	1.62	
532	560	718	892	944	1,036	798	573	905	838	919	890	984	838	1,102	560	
375	339	332	368	386	455	405	330	398	409	360	364	394	360	432	353	
0.73	0.72	0.84	1.01	1.07	1.20	0.97	0.72	1.05	1.00	1.03	1.01	1.11	0.96	1.23	0.73	
632	678	773	934	927	964	832	654	796	818	885	857	858	813	1,013	666	
729	4,330	4,341	4,683	4,770	5,540	5,009	4,281	4,973	5,094	4,526	4,608	4,935	4,526	5,255	4,484	
4.30	4.02	4.10	4.51	4.57	5.22	4.69	3.96	4.63	4.74	4.34	4.39	4.65	4.28	5.03	4.13	
315	1,355	1,619	2,109	2,044	2,018	2,164	1,262	1,938	1,660	1,554	1,660	1,885	1,845	2,270	1,393	
607	1,445	1,444	1,588	1,630	1,946	1,726	1,426	1,708	1,765	1,525	1,560	1,692	1,525	1,833	1,505	
2.35	2.25	2.46	2.97	2.95	3.18	3.12	2.16	2.93	2.75	2.47	2.58	2.87	2.70	3.29	2.33	
189	2,248	2,710	3,313	3,453	3,371	3,606	2,163	3,327	2,765	3,149	3,097	3,163	3,113	3,784	2,319	
591	1,426	1,430	1,573	1,606	1,925	1,708	1,408	1,691	1,741	1,511	1,541	1,674	1,511	1,808	1,491	
3.03	2.95	3.32	3.92	4.06	4.25	4.26	2.87	4.03	3.62	3.74	3.72	3.88	3.71	4.49	3.06	
105	932	1,333	1,672	1,575	1,611	1,687	837	1,265	1,361	1,526	1,442	1,659	1,391	1,770	1,098	
128	1,024	1,026	1,115	1,138	1,340	1,201	1,009	1,193	1,224	1,076	1,095	1,180	1,076	1,267	1,065	
1.79	1.57	1.89	2.24	2.18	2.37	2.32	1.48	1.97	2.07	2.09	2.04	2.28	1.98	2.44	1.74	
2,566	13,046	16,500	21,247	21,657	22,626	19,463	12,616	19,240	17,599	19,794	19,202	19,955	18,953	23,747	13,683	
2,992	20,832	20,887	22,746	23,266	27,309	24,493	20,562	24,241	25,022	21,886	22,327	24,124	21,888	25,836	21,735	
28.53	27.19	30.01	35.30	36.05	40.07	35.28	26.63	34.91	34.19	33.45	33.35	35.38	32.76	39.80	28.45	



	EUGENE-SPRINGFIELD, OR ^B	FLINT, MI ^B	FRESNO, CA ^D	GARY, IN ^B	GRAND RAPIDS, MI ^B	GREENSBORO, NC ^C	GREENVILLE, SC ^C	HARTFORD, CT ^B	HONOLULU, HI ^E	HOUSTON, TX ^D	HUNTSVILLE, AL ^C	INDIANAPOLIS, IN ^B	JACKSON
Foundations													
Labor	836	884	1,102	829	678	416	414	693	343	779	575	786	547
Material	561	637	742	600	600	584	601	615	409	572	543	642	573
Sq. ft.	1.12	1.22	1.48	1.15	1.03	0.80	0.81	1.05	0.60	1.08	0.90	1.15	0.90
Floors on grade													
Labor	428	429	540	429	346	190	210	353	414	386	293	389	258
Material	372	398	452	391	383	378	364	396	492	386	345	396	382
Sq. ft.	0.64	0.66	0.80	0.66	0.59	0.46	0.46	0.60	0.73	0.62	0.51	0.63	0.51
Roof System													
Labor	2,161	2,220	2,933	2,146	1,776	1,040	1,088	1,762	2,149	1,957	1,448	2,088	1,385
Material	2,331	2,715	3,126	2,516	2,537	2,443	2,618	2,611	3,295	2,365	2,347	2,758	2,412
Sq. ft.	3.61	3.96	4.86	3.74	3.46	2.80	2.97	3.51	4.37	3.47	3.05	3.89	3.05
Roofing													
Labor	494	532	561	499	403	254	264	422	516	445	347	466	351
Material	515	609	718	554	565	537	586	582	786	520	508	626	526
Sq. ft.	0.81	0.92	1.03	0.85	0.78	0.63	0.68	0.81	1.04	0.77	0.69	0.88	0.70
Exterior walls													
Labor	3,795	3,922	4,712	3,776	3,118	2,072	2,095	3,222	3,737	3,567	2,585	3,708	2,563
Material	3,832	4,534	5,298	4,149	4,197	4,030	4,364	4,318	5,778	3,864	3,820	4,614	3,952
Sq. ft.	6.12	6.79	8.03	6.36	5.87	4.90	5.18	6.05	7.64	5.96	5.14	6.68	5.23
Partitions													
Labor	2,716	2,817	3,464	2,651	2,263	1,453	1,581	2,203	2,645	2,482	1,915	2,531	1,815
Material	2,704	3,197	3,728	2,936	2,962	2,857	3,073	3,047	4,070	2,737	2,699	3,256	2,798
Sq. ft.	4.35	4.83	5.77	4.48	4.19	3.46	3.74	4.21	5.39	4.19	3.70	4.64	3.70
Wall finishes													
Labor	1,208	1,247	1,290	1,099	959	604	549	1,029	1,164	1,115	770	1,038	749
Material	382	444	539	404	405	396	439	415	576	397	363	447	400
Sq. ft.	1.28	1.36	1.47	1.21	1.09	0.80	0.79	1.16	1.40	1.21	0.91	1.19	0.92
Floor finishes													
Labor	591	603	771	577	465	277	328	455	565	524	384	555	383
Material	1,599	1,907	2,245	1,736	1,756	1,682	1,830	1,807	2,466	1,605	1,589	1,944	1,640
Sq. ft.	1.76	2.01	2.42	1.86	1.78	1.57	1.73	1.82	2.43	1.71	1.58	2.01	1.62
Ceiling finishes													
Labor	998	1,024	1,198	958	784	480	466	798	972	919	652	905	625
Material	339	398	476	364	364	360	386	375	523	342	330	409	356
Sq. ft.	1.07	1.14	1.34	1.06	0.92	0.67	0.68	0.94	1.20	1.01	0.79	1.05	0.79
Fixed equipment													
Labor	955	970	1,157	943	778	583	598	784	923	866	714	895	689
Material	4,345	5,011	5,754	4,648	4,686	4,526	4,848	4,797	6,230	4,363	4,322	5,094	4,436
Sq. ft.	4.25	4.80	5.55	4.49	4.39	4.10	4.37	4.48	5.74	4.20	4.04	4.81	4.11
HVAC													
Labor	2,124	2,097	2,083	2,109	1,780	1,155	1,155	1,646	1,964	1,765	1,527	1,752	1,619
Material	1,447	1,730	2,040	1,573	1,595	1,525	1,663	1,641	1,551	1,458	1,437	1,765	1,485
Sq. ft.	2.87	3.07	3.31	2.96	2.71	2.15	2.26	2.64	2.82	2.59	2.38	2.82	2.49
Plumbing													
Labor	4,120	3,505	4,195	3,330	3,040	1,928	1,928	2,895	3,280	2,870	2,555	3,150	2,710
Material	1,433	1,706	2,012	1,557	1,575	1,511	1,642	1,620	2,209	1,439	1,424	1,741	1,471
Sq. ft.	4.46	4.18	4.98	3.92	3.70	2.76	2.87	3.62	4.41	3.46	3.19	3.93	3.36
Electrical													
Labor	1,797	1,770	1,811	1,539	1,286	1,039	761	1,462	1,729	1,526	1,261	1,403	1,177
Material	1,024	1,202	1,398	1,105	1,116	1,076	1,160	1,150	1,523	1,032	1,021	1,224	1,053
Sq. ft.	2.26	2.39	2.58	2.12	1.93	1.70	1.54	2.10	2.61	2.05	1.83	2.11	1.79
Totals													
Labor	22,223	22,020	25,817	20,885	17,676	11,491	11,437	17,724	20,401	19,201	15,026	19,666	14,871
Material	20,884	24,488	28,528	22,533	22,741	21,905	23,574	23,374	29,908	21,080	20,748	24,916	21,484
Sq. ft.	34.60	37.33	43.62	34.86	32.44	26.80	28.08	32.99	40.38	32.32	28.71	35.79	29.17

JACKSONVILLE, FL [E]
 KANSAS CITY, MO-KS [B]
 KNOXVILLE, TN [B]
 LANSING, MI [B]
 LAS VEGAS, NV [D]
 LEXINGTON, KY [B]
 LITTLE ROCK, AR [C]
 LOS ANGELES, CA [E]
 LOUISVILLE, KY [B]
 MADISON, WI [A]
 MEMPHIS, TN [C]
 MIAMI, FL [E]
 MILWAUKEE, WI [A]
 MINNEAPOLIS, MN [A]
 MOBILE, AL [C]
 NASHVILLE, TN [C]

247	809	576	789	865	723	632	1,043	737	1,013	655	267	1,220	983	638	626
883	568	524	592	558	572	559	668	543	780	560	288	844	915	579	541
1.43	1.11	0.88	1.11	1.14	1.04	0.96	1.37	1.03	1.44	0.98	0.45	1.66	1.52	0.98	0.94
280	404	264	378	427	330	272	521	368	374	321	372	421	358	319	284
847	367	327	377	353	364	360	425	351	362	365	342	359	392	365	368
1.50	0.62	0.47	0.61	0.63	0.56	0.51	0.76	0.58	0.59	0.55	0.57	0.63	0.60	0.55	0.52
224	2,018	1,425	2,024	2,247	1,878	1,613	2,625	1,878	1,915	1,613	1,691	2,227	1,846	1,596	1,596
120	2,423	2,305	2,516	2,420	2,448	2,373	2,754	2,338	2,434	2,376	2,449	2,717	2,888	2,470	2,256
1.92	3.56	2.99	3.64	3.75	3.47	3.20	4.32	3.38	3.49	3.20	3.32	3.97	3.80	3.26	3.09
869	489	335	473	524	436	377	624	447	446	390	409	532	456	360	356
163	534	495	554	534	541	520	637	510	522	523	549	599	645	541	490
1.67	0.82	0.67	0.82	0.85	0.78	0.72	1.01	0.77	0.78	0.73	0.77	0.91	0.88	0.72	0.68
1749	3,680	2,717	3,473	3,853	3,187	2,867	4,564	3,344	3,320	3,022	3,063	3,859	3,197	2,907	2,949
1990	3,995	3,753	4,149	3,990	4,023	3,913	4,703	3,806	3,914	3,884	4,119	4,449	4,776	4,070	3,667
1.01	6.16	5.19	6.12	6.29	5.79	5.44	7.44	5.74	5.81	5.54	5.76	6.67	6.40	5.60	5.31
991	2,438	1,869	2,485	2,698	2,311	2,045	3,156	2,292	2,327	2,069	2,813	2,601	2,261	2,073	2,020
174	2,822	2,670	2,936	2,820	2,840	2,769	3,318	2,711	2,772	2,750	2,909	3,146	3,382	2,886	2,601
1.58	4.22	3.64	4.35	4.43	4.13	3.86	5.20	4.02	4.09	3.87	4.09	4.61	4.53	3.98	3.71
852	1,041	837	1,078	1,096	872	774	1,357	887	989	939	877	1,127	953	883	825
1852	395	361	404	395	402	392	457	363	397	398	402	443	485	402	359
1.97	1.15	0.96	1.19	1.20	1.02	0.94	1.46	1.00	1.11	1.07	1.03	1.26	1.15	1.03	0.95
1426	510	397	530	585	492	417	689	496	476	428	466	540	468	420	426
1438	1,665	1,557	1,736	1,664	1,679	1,626	1,980	1,586	1,623	1,613	1,717	1,867	2,017	1,698	1,521
1.50	1.75	1.57	1.82	1.80	1.74	1.64	2.14	1.67	1.68	1.64	1.74	1.93	1.99	1.70	1.56
1733	852	666	905	944	786	678	1,116	773	798	758	719	916	784	745	704
1807	350	332	364	350	356	350	417	334	353	343	364	398	432	364	320
1.83	0.96	0.80	1.02	1.04	0.92	0.83	1.23	0.89	0.92	0.88	0.87	1.05	0.98	0.89	0.82
1763	849	692	862	931	831	744	1,032	840	800	755	764	871	808	746	746
1998	4,490	4,256	4,648	4,487	4,521	4,409	5,176	4,316	4,404	4,381	4,608	4,936	5,255	4,562	4,176
1.82	4.28	3.97	4.42	4.35	4.30	4.14	4.98	4.14	4.18	4.12	4.31	4.66	4.87	4.26	3.95
1739	1,964	1,539	1,830	1,857	1,857	1,712	2,481	2,083	1,857	1,819	1,845	2,003	1,871	1,765	1,539
1906	1,514	1,410	1,573	1,513	1,519	1,479	1,246	1,440	2,206	1,466	1,087	2,534	2,736	1,539	1,376
1.12	2.79	2.37	2.73	2.70	2.71	2.56	2.99	2.83	3.26	2.64	2.35	3.64	3.70	2.65	2.34
1916	3,290	2,579	3,256	3,805	3,113	2,862	4,145	3,486	3,109	3,191	2,659	3,350	3,142	2,942	2,581
1291	1,495	1,397	1,557	1,494	1,505	1,460	1,774	1,420	1,457	1,447	1,541	1,676	1,808	1,525	1,363
1.38	3.84	3.19	3.86	4.25	3.71	3.47	4.75	3.94	3.66	3.72	3.37	4.03	3.97	3.59	3.17
1291	1,622	1,123	1,464	1,709	1,475	1,241	1,866	1,609	1,388	1,291	1,352	1,607	1,550	1,162	1,236
1937	1,064	1,004	1,105	1,063	1,074	1,043	1,246	1,020	1,042	1,038	1,095	1,180	1,267	1,087	985
1.79	2.16	1.71	2.06	2.22	2.05	1.83	2.50	2.11	1.95	1.87	1.96	2.24	2.26	1.80	1.78
1880	19,966	15,019	19,547	21,541	18,291	16,234	25,219	19,240	18,812	17,251	16,647	21,274	18,677	16,556	15,888
1406	21,682	20,391	22,511	21,641	21,844	21,253	24,801	20,738	22,266	21,144	21,470	25,148	26,998	22,088	20,023
1.52	33.42	28.41	33.75	34.65	32.22	30.10	40.15	32.10	32.96	30.81	30.59	37.26	36.65	31.01	28.82



	NEW BRUNSWICK, NJ [B]	NEW HAVEN, CT [B]	NEW ORLEANS, LA [C]	NEWARK, NJ [B]	NEWPORT NEWS, VA [C]	NORFOLK, VA [C]	OKLAHOMA CITY, OK [C]	OMAHA, NE [B]	ORLANDO, FL [E]	PENSACOLA, FL [E]	PEORIA, IL [B]	PHILADELPHIA, PA [B]	PHOENIX, AZ [B]
Foundations													
Labor	761	782	715	772	549	549	681	651	261	241	893	763	779
Material	582	596	595	592	604	610	558	545	303	272	635	644	612
Sq. ft.	1.08	1.11	1.05	1.09	0.93	0.93	0.99	0.96	0.45	0.41	1.23	1.13	1.12
Floors on grade													
Labor	385	395	361	387	264	264	328	312	327	311	448	396	352
Material	378	372	392	393	404	408	359	351	371	332	400	393	381
Sq. ft.	0.61	0.62	0.60	0.63	0.54	0.54	0.55	0.53	0.56	0.52	0.68	0.63	0.59
Roof System													
Labor	1,934	2,061	1,844	1,934	1,392	1,392	1,709	1,664	1,636	1,518	2,301	1,928	1,864
Material	2,470	2,589	2,443	2,448	2,482	2,506	2,379	2,338	2,339	2,182	2,669	2,791	2,618
Sq. ft.	3.53	3.73	3.44	3.52	3.11	3.13	3.28	3.21	3.19	2.97	3.99	3.79	3.60
Roofing													
Labor	488	469	386	477	281	281	422	377	360	342	532	525	447
Material	544	571	537	541	545	549	527	515	522	477	600	627	586
Sq. ft.	0.83	0.83	0.74	0.82	0.66	0.67	0.76	0.72	0.71	0.66	0.91	0.92	0.83
Exterior Walls													
Labor	3,570	3,510	3,224	3,625	2,634	2,634	3,050	3,838	2,969	2,664	3,931	3,457	3,352
Material	4,067	4,268	4,030	4,023	4,081	4,119	3,908	3,827	3,914	3,612	4,446	4,662	4,364
Sq. ft.	6.13	6.24	5.82	6.14	5.39	5.42	5.58	5.35	5.52	5.04	6.72	6.52	6.19
Partitions													
Labor	2,416	2,524	2,279	2,463	1,866	1,866	2,184	2,075	2,098	2,008	2,737	2,437	2,209
Material	2,876	3,022	2,857	2,840	2,881	2,909	2,758	2,712	2,772	2,572	3,152	3,293	3,073
Sq. ft.	4.25	4.45	4.12	4.26	3.81	3.83	3.97	3.84	3.91	3.68	4.73	4.60	4.24
Wall finishes													
Labor	1,034	1,076	877	1,072	739	739	881	900	799	716	1,137	1,036	911
Material	404	414	396	402	396	402	389	391	397	355	446	456	439
Sq. ft.	1.15	1.20	1.02	1.18	0.91	0.92	1.02	1.04	0.96	0.86	1.27	1.20	1.08
Floor finishes													
Labor	510	536	488	510	378	378	460	421	442	421	576	508	449
Material	1,697	1,787	1,682	1,679	1,701	1,717	1,631	1,590	1,623	1,495	1,867	1,958	1,830
Sq. ft.	1.77	1.86	1.74	1.76	1.67	1.68	1.68	1.61	1.66	1.54	1.96	1.98	1.83
Ceiling finishes													
Labor	864	905	773	876	613	613	733	720	692	626	932	852	745
Material	356	375	360	356	360	364	347	339	353	318	403	417	386
Sq. ft.	0.98	1.03	0.91	0.99	0.78	0.78	0.87	0.85	0.84	0.76	1.07	1.02	0.91
Fixed equipment													
Labor	865	876	816	870	692	692	771	738	756	721	902	835	792
Material	4,559	4,760	4,526	4,521	4,566	4,608	4,414	4,330	4,404	4,119	4,935	5,133	4,848
Sq. ft.	4.35	4.52	4.29	4.33	4.22	4.25	4.16	4.07	4.14	3.88	4.68	4.79	4.53
HVAC													
Labor	2,044	1,871	1,739	2,057	1,434	1,434	1,792	1,660	1,712	1,567	2,229	1,857	1,792
Material	1,542	1,618	1,525	1,519	1,546	1,560	1,476	1,445	1,019	939	1,691	1,777	1,663
Sq. ft.	2.88	2.80	2.62	2.87	2.39	2.40	2.62	2.49	2.19	2.01	3.15	2.92	2.77
Plumbing													
Labor	3,414	2,844	2,899	3,411	2,399	2,399	2,985	2,977	2,850	2,612	3,438	3,090	2,465
Material	1,523	1,603	1,511	1,505	1,527	1,541	1,462	1,426	1,457	1,340	1,674	1,757	1,642
Sq. ft.	3.96	3.57	3.54	3.95	3.15	3.16	3.57	3.53	3.46	3.17	4.10	3.89	3.30
Electrical													
Labor	1,588	1,456	1,348	1,633	1,145	1,145	1,273	1,291	1,261	1,128	1,532	1,384	1,622
Material	1,085	1,137	1,076	1,074	1,085	1,095	1,043	1,024	1,042	968	1,181	1,235	1,160
Sq. ft.	2.15	2.08	1.95	2.17	1.79	1.80	1.86	1.86	1.85	1.68	2.18	2.10	2.23
Totals													
Labor	19,873	19,305	17,749	20,087	14,386	14,386	17,269	16,624	16,163	14,875	21,588	19,068	17,779
Material	22,083	23,112	21,930	21,893	22,178	22,388	21,251	20,833	20,516	18,981	24,099	25,143	23,602
Sq. ft.	33.67	34.04	31.84	33.71	29.35	29.51	30.91	30.06	29.44	27.18	36.67	35.49	33.22

	PITTSBURGH, PA B	PORTLAND, OR B	PROVIDENCE, RI B	RALEIGH, NC C	RICHMOND, VA C	ROCHESTER, NY B	SACRAMENTO, CA D	ST. LOUIS, MO B	SALT LAKE CITY, UT B	SAN ANTONIO, TX E	SAN DIEGO, CA 5	SAN FRANCISCO, CA D	SAN JOSE, CA E	SEATTLE, WA B	SHREVEPORT, LA C	SPOKANE, WA B
79	909	733	428	578	789	1,071	850	759	249	925	1,090	1,083	978	621	922	
80	610	606	588	624	568	635	587	545	300	627	715	675	673	595	572	
25	1.22	1.07	0.82	0.96	1.09	1.37	1.15	1.05	0.44	1.25	1.45	1.41	1.33	0.98	1.20	
47	406	375	208	293	398	526	432	366	305	449	531	512	492	303	477	
46	396	339	364	401	384	407	400	346	364	395	499	439	458	375	366	
72	0.64	0.57	0.46	0.56	0.63	0.75	0.67	0.57	0.54	0.68	0.83	0.76	0.76	0.54	0.68	
214	2,235	1,837	1,088	1,411	2,061	2,757	2,194	1,821	1,561	2,269	2,773	2,773	2,413	1,582	2,413	
791	2,518	2,791	2,532	2,593	2,347	2,668	2,374	2,365	2,314	2,618	2,768	2,734	2,669	2,532	2,448	
02	3.81	3.71	2.91	3.21	3.54	4.35	3.67	3.36	3.11	3.92	4.45	4.42	4.08	3.30	3.90	
641	530	408	235	366	484	643	507	453	373	564	647	618	582	372	559	
627	562	627	560	579	508	598	520	520	520	598	622	627	600	560	541	
94	0.88	0.83	0.64	0.76	0.80	1.00	0.82	0.78	0.72	0.93	1.02	1.00	0.95	0.75	0.88	
903	3,925	3,243	2,078	2,860	3,451	4,686	3,941	3,325	2,680	4,028	4,939	4,736	4,151	2,799	3,942	
662	4,194	4,662	4,189	4,322	3,820	4,447	3,919	3,864	3,864	4,447	4,622	4,662	4,446	4,189	4,023	
87	6.52	6.34	5.03	5.76	5.84	7.33	6.31	5.77	5.25	6.80	7.67	7.54	6.90	5.61	6.39	
679	2,759	2,202	1,490	1,954	2,516	3,323	2,610	2,298	2,044	2,785	3,404	3,316	2,885	2,059	2,830	
293	2,954	3,293	2,967	3,044	2,699	3,130	2,773	2,737	2,737	3,130	3,257	3,293	3,152	2,967	2,840	
79	4.59	4.41	3.58	4.01	4.19	5.18	4.32	4.04	3.84	4.75	5.35	5.30	4.85	4.03	4.55	
180	1,148	959	566	835	1,001	1,596	1,164	924	792	1,289	1,668	1,384	1,259	852	1,170	
456	423	456	400	435	363	449	392	397	397	449	543	456	446	400	402	
31	1.26	1.14	0.78	1.02	1.09	1.64	1.25	1.06	0.95	1.39	1.70	1.48	1.37	1.00	1.26	
585	605	457	300	415	528	730	553	488	435	588	742	735	612	425	606	
958	1,760	1,958	1,756	1,811	1,589	1,865	1,627	1,605	1,605	1,865	1,943	1,958	1,867	1,756	1,679	
204	1.90	1.94	1.65	1.79	1.70	2.08	1.75	1.68	1.64	1.97	2.15	2.16	1.99	1.75	1.83	
957	944	772	494	692	850	1,275	946	772	692	1,038	1,330	1,184	1,010	719	999	
417	371	417	371	382	330	394	350	342	342	394	407	417	403	371	356	
10	1.06	0.95	0.69	0.86	0.95	1.34	1.04	0.89	0.83	1.15	1.39	1.28	1.13	0.87	1.09	
906	962	773	597	713	861	1,095	886	812	757	936	1,136	1,120	977	769	949	
133	4,692	5,133	4,688	4,809	4,322	4,926	4,412	4,363	4,363	4,926	5,091	5,133	4,935	4,688	4,521	
85	4.54	4.74	4.24	4.43	4.16	4.83	4.25	4.15	4.11	4.70	5.00	5.02	4.74	4.38	4.39	
938	2,455	1,830	983	1,660	2,003	2,494	2,097	1,686	1,739	2,642	3,157	2,654	2,494	1,340	1,964	
777	1,599	1,777	1,591	1,647	1,437	1,695	1,411	1,458	1,008	1,176	1,764	1,235	1,691	1,591	1,519	
298	3.25	2.89	2.07	2.65	2.76	3.36	2.87	2.52	2.20	3.06	3.95	3.12	3.36	2.35	2.80	
244	4,106	2,765	2,172	2,755	3,343	4,176	3,192	2,824	2,902	4,157	5,264	4,438	4,159	2,863	4,134	
757	1,578	1,757	1,576	1,624	1,424	1,672	1,463	1,439	1,439	1,672	1,740	1,757	1,674	1,576	1,505	
401	4.56	3.63	3.01	3.51	3.83	4.69	3.74	3.42	3.48	4.68	5.62	4.97	4.68	3.56	4.53	
479	1,841	1,378	916	1,082	1,496	2,054	1,547	1,391	1,255	1,729	2,239	2,064	1,986	1,393	1,642	
235	1,115	1,235	1,116	1,149	1,021	1,180	1,044	1,032	1,032	1,180	1,225	1,235	1,181	1,116	1,074	
218	2.37	2.10	1.63	1.79	2.02	2.60	2.08	1.94	1.82	2.33	2.78	2.65	2.54	2.01	2.18	
952	22,825	17,732	11,555	15,614	19,781	26,426	20,919	17,919	15,784	23,399	28,920	26,617	23,998	16,097	22,607	
232	22,772	25,051	22,698	23,420	20,812	24,066	21,342	21,013	20,285	23,477	25,106	24,621	24,195	22,716	21,846	
706	36.60	34.32	27.51	31.31	32.60	40.52	33.92	31.23	28.95	37.61	43.36	41.11	38.68	31.13	35.68	



	SPRINGFIELD, MA ^B	STOCKTON, CA ^D	SYRACUSE, NY ^B	TACOMA, WA ^B	TAMPA, FL ^E	TOLEDO, OH ^B	TUCSON, AZ ^D	TULSA, OK ^C	WASHINGTON, DC ^C	WICHITA, KS ^C	WILMINGTON, DE ^B	WORCESTER, MA ^B	YOUNGSTOWN, OH ^B
Foundations													
Labor	739	1,035	763	873	261	1,043	800	679	757	623	754	722	877
Material	563	639	588	594	308	673	670	535	634	524	513	579	584
Sq. ft.	1.04	1.34	1.08	1.18	0.46	1.38	1.18	0.97	1.12	0.92	1.02	1.04	1.17
Floors on grade													
Labor	379	510	385	428	327	526	398	345	369	338	358	340	435
Material	357	404	365	374	379	428	456	340	374	329	341	371	369
Sq. ft.	0.59	0.73	0.60	0.64	0.57	0.77	0.69	0.55	0.60	0.54	0.56	0.57	0.65
Roof system													
Labor	1,898	2,676	1,951	2,134	1,636	2,685	2,024	1,691	1,878	1,576	2,004	1,844	2,229
Material	2,419	2,715	2,537	2,541	2,339	2,792	2,687	2,341	2,802	2,295	2,183	2,470	2,506
Sq. ft.	3.46	4.33	3.60	3.75	3.19	4.40	3.78	3.24	3.76	3.11	3.36	3.46	3.80
Roofing													
Labor	450	569	490	510	360	621	490	414	434	371	464	419	506
Material	530	610	565	560	522	631	603	512	635	500	472	544	549
Sq. ft.	0.79	0.95	0.85	0.86	0.71	1.00	0.88	0.74	0.86	0.70	0.75	0.77	0.85
Exterior walls													
Labor	3,303	4,480	3,339	3,686	2,979	4,532	3,515	3,115	3,373	2,932	3,468	3,381	3,854
Material	3,989	4,536	4,197	4,187	3,914	4,694	4,491	3,840	4,702	3,734	3,556	4,067	4,119
Sq. ft.	5.85	7.24	6.05	6.32	5.53	7.40	6.43	5.58	6.48	5.35	5.64	5.98	6.40
Partitions													
Labor	2,347	3,230	2,363	2,586	2,098	3,213	2,493	2,129	2,327	2,042	2,453	2,296	2,689
Material	2,825	3,205	2,962	2,968	2,772	3,311	3,160	2,720	3,315	2,657	2,511	2,876	2,909
Sq. ft.	4.15	5.16	4.27	4.46	3.91	5.24	4.54	3.89	4.53	3.77	3.98	4.15	4.49
Wall finishes													
Labor	924	1,303	991	1,095	837	1,346	982	965	1,079	874	920	1,103	1,198
Material	401	452	405	407	397	481	443	387	454	357	343	404	402
Sq. ft.	1.06	1.41	1.12	1.21	0.99	1.47	1.14	1.09	1.23	0.99	1.01	1.21	1.28
Floor finishes													
Labor	485	692	494	540	442	693	513	453	492	419	534	492	560
Material	1,658	1,904	1,756	1,754	1,623	1,980	1,885	1,592	1,976	1,555	1,475	1,697	1,717
Sq. ft.	1.72	2.08	1.81	1.84	1.66	2.15	1.92	1.64	1.98	1.58	1.61	1.76	1.83
Ceiling finishes													
Labor	772	1,118	826	890	704	1,130	850	772	864	692	826	892	959
Material	356	407	364	368	353	421	398	347	414	328	306	356	364
Sq. ft.	0.91	1.22	0.96	1.01	0.85	1.24	1.00	0.90	1.03	0.82	0.91	1.00	1.06
Fixed equipment													
Labor	791	1,033	827	874	756	1,025	879	765	804	725	877	817	893
Material	4,476	5,013	4,686	4,683	4,404	5,179	4,973	4,335	5,177	4,248	4,069	4,559	4,608
Sq. ft.	4.23	4.85	4.42	4.46	4.14	4.98	4.70	4.09	4.80	3.99	3.97	4.31	4.41
HVAC													
Labor	1,634	2,548	1,673	2,203	1,712	2,296	2,083	1,765	1,712	1,673	2,031	1,607	1,926
Material	1,508	1,729	1,595	1,588	1,019	1,799	1,708	1,443	1,792	1,412	1,339	1,542	1,560
Sq. ft.	2.52	3.43	2.62	3.04	2.19	3.29	3.04	2.57	2.81	2.48	2.70	2.53	2.80
Plumbing													
Labor	2,812	4,190	2,942	3,717	2,850	3,830	3,491	2,942	2,818	2,884	3,352	2,727	3,210
Material	1,489	1,707	1,575	1,573	1,457	1,774	1,691	1,428	1,776	1,393	1,320	1,523	1,541
Sq. ft.	3.45	4.73	3.63	4.25	3.46	4.50	4.16	3.51	3.69	3.43	3.75	3.41	3.81
Electrical													
Labor	1,270	1,671	1,455	1,665	1,261	1,584	1,719	1,333	1,318	1,278	1,472	1,322	1,504
Material	1,064	1,203	1,116	1,115	1,042	1,245	1,193	1,024	1,245	999	951	1,085	1,095
Sq. ft.	1.87	2.31	2.06	2.23	1.85	2.27	2.34	1.89	2.06	1.83	1.94	1.93	2.09
Totals													
Labor	17,804	25,055	18,499	21,201	16,228	24,524	20,237	17,368	18,225	16,427	19,513	17,962	20,840
Material	21,635	24,524	22,711	22,712	20,529	25,408	24,358	20,844	25,296	20,331	19,379	22,073	22,323
Sq. ft.	31.64	39.78	33.07	35.25	29.51	40.09	35.80	30.66	34.95	29.51	31.20	32.12	34.64



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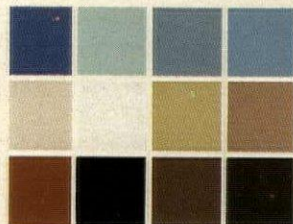
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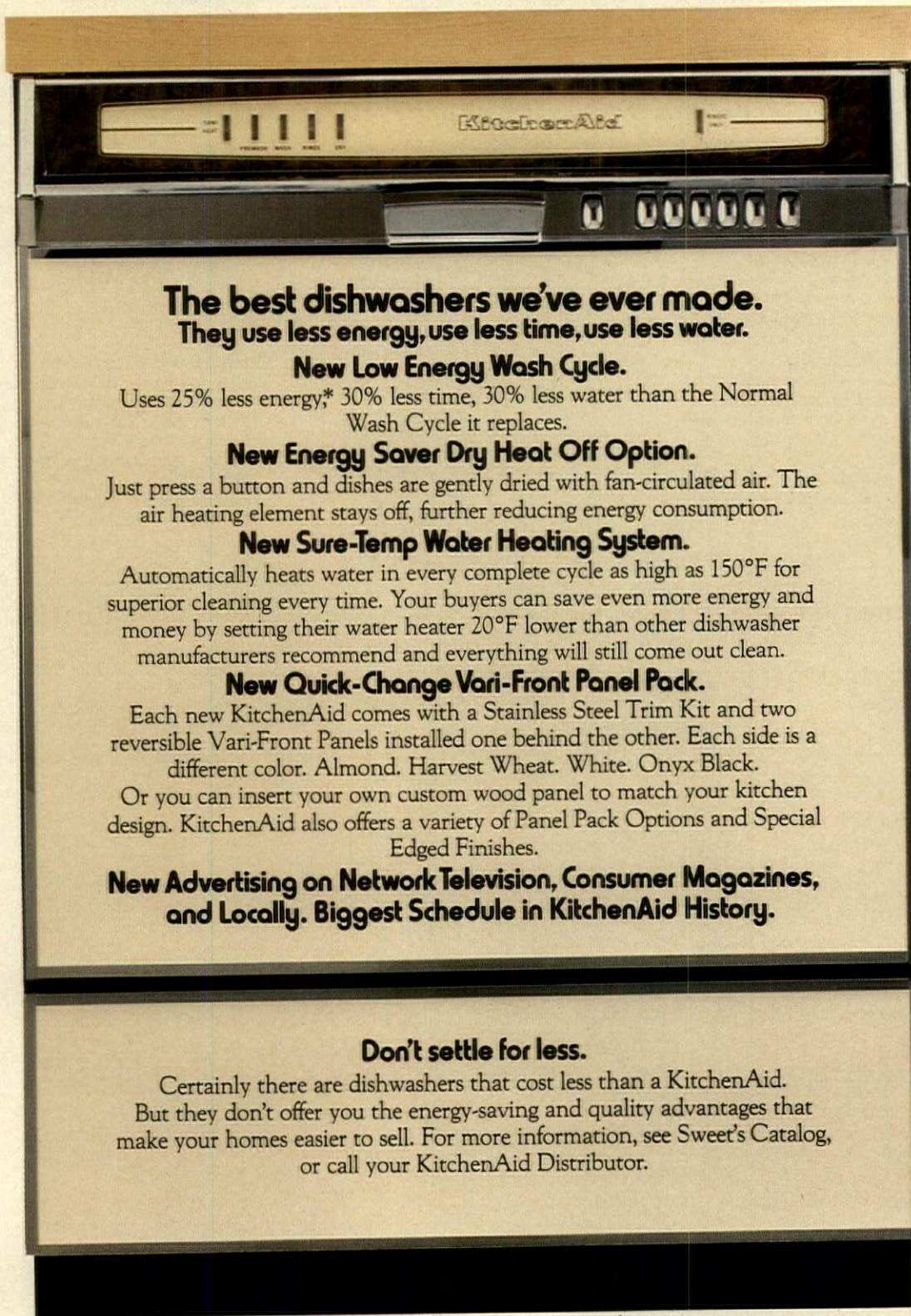
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Entrance hall from residence in Corona del Mar, Calif. See pp. 66 and 67.

Selling The High-End Market

G

ood times and bad, there's always a market—albeit a thin one—for luxury houses. Many are custom homes in the purest sense: designed by an architect to suit a particular family's lifestyle. Many more are one-of-a-kind spec houses or part of high-end developments. All have many elements in common, however, for the best of the spec or production houses take their cue from custom homes.

What do luxury buyers want? First of all, location. So it's often necessary to fit a house to a specific site. To enhance and embrace a one-of-a-kind view for example.

They also demand a sense of graciousness, which involves everything from the scale of the rooms to the way details are handled.

For some examples, turn the page. You'll find ideas from homes—both one-of-a-kind and production—that appeal to these critical buyers.

Give Them a Sense of Spaciousness — and It's Not Square Footage that Counts

Many luxury buyers no longer want 5,000 sq. ft and more. But they want space that's apportioned well and enhanced by volume, light and openness.

There's a real sense of luxury when extra space is given to such private areas as the dressing room shown at right. Note how the room is further expanded with built-ins, mirrors and light color.

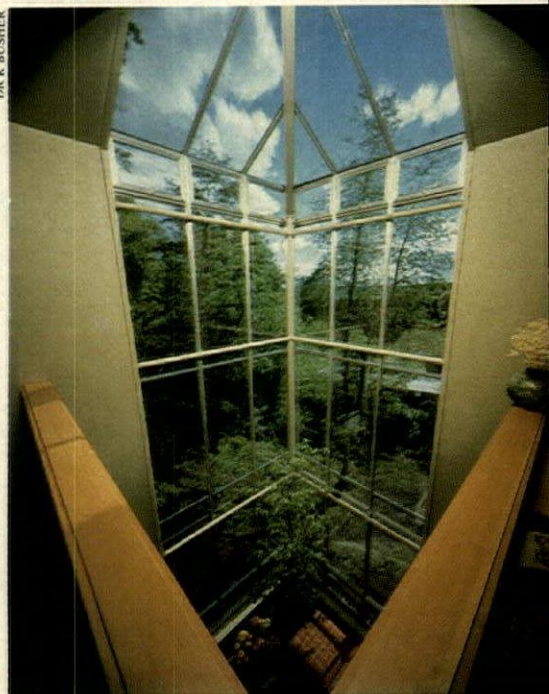
And, of course, a certain grandeur is necessary in the public areas, for this market likes to entertain graciously. The living room shown on top of the facing page, for example, from a replica of a Spanish-colonial home, could accommodate a crowd or an intimate gathering equally well. Note the scale of the 17th Century Dutch painting on the wall: Another requirement of luxury buyers is space enough to display collections of art, Oriental rugs and other collectibles.

The contemporary living room shown (*facing page bottom left*) and the family room (*bottom right*) illustrate the space-expanding effects of light—both from skylights and oversized windows. The openness allows different areas to borrow visual space from one another, and the built-ins reduce clutter or—as in the family room shown—dramatize the volume by drawing the eye upward. As a result, the spaces seem larger.

The soaring living room window shown at near right is in a house that's just 25 ft. square. But here again the effects of light and volume and the openness of the loft above multiply the space and create a sense of drama that appeals to high-end buyers.



Dressing room from residence in Greenwich, Conn. Architect: Alfredo De Vido Assoc., Interior designer: Marlys Hann, N.Y.



Living room (seen from left) from residence in Kenmore, Washington. Architect: Jay Fulton, Seattle.



Living room from residence in Newport Beach, Calif. Architect: Rolly Pulaski, Newport Beach. Interior designer: Jan Cassle, Balboa.



Living room from residence in Westport, Conn. Architect: Abraham Rothenberg, New York.

©PAUL WARCHOL/ISTO

Family room from spec house in Alamo, Calif. Builder: Sunset Development Co., Livermore, Calif. Interior designer: The Inside Story, Palo Alto.



CHENYEN LEE

Give Them a Feeling of Graciousness that Shows in Every Detail

Such a feeling of graciousness is expected in the public areas—witness the entries and stairways shown here. But gracious living is not just for show: It's important that it also be evident in private areas, such as the baths shown on the facing page. Nor does it necessarily mean formality, witness the contrast between the two baths pictured.

It's the entries that set the tone for a house, and here you should do everything possible to make them indeed gracious. Allot plenty of space to the entry area out of doors, where the approaching visitor should experience a sense of arrival as various indicators—textured walks, steps, gates, planters, roof overhangs, etc.—signal he is leaving the public sphere and entering a private one. And also allot generous space indoors, so the entry does not intrude on the living areas. It should not be closed off, however; rather, for the greatest impact, it should have a long view—to a window on the far side of the house or to a skylight or stairway that draws the eye upward.

In the entry to the Tudor manor (*above right*), the approaching visitor passes planters, leaded glass windows and carved beams that set the stage for a most unusual house. Once inside the massive double doors (*see p. 63*), a graceful curved stairway carries the eye upward to a stained glass skylight.

The two small photos at right show the entry, both inside and out, of a house built on a tight city lot. Notice the stained glass window and doors. An unusual feature of this entry: three electronically operated skylights (shown closed in photo).



Entry to residence in Corona del Mar, Calif. Builder/Designer Thomas Kilcoyne. Interior designer: Lois Harding, Orange.



Entry from outside (*left*) and inside (*right*) to spec home in Westwood, Calif. Architect: Christopher Ralph, Malibu. Builder: Richard Casey, Malibu.

Entry to patio home at Los Lagos, Indian Wells, Calif. Developers: The Gentry Company and Gibson Development Co., San Diego. Interior designer: Carole Eichen, Fullerton.



BOYD/CONN

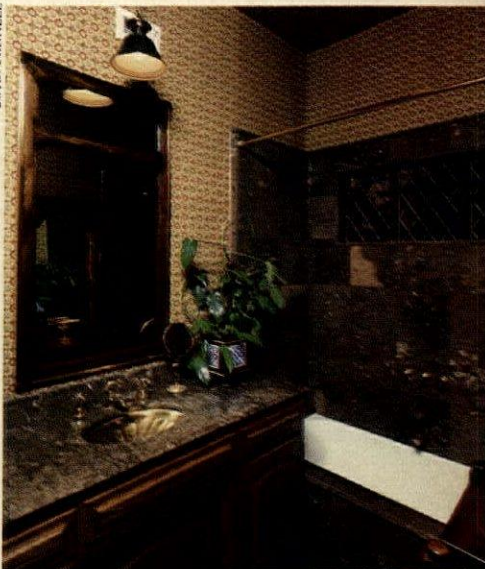
bill porch

ROBB MIL



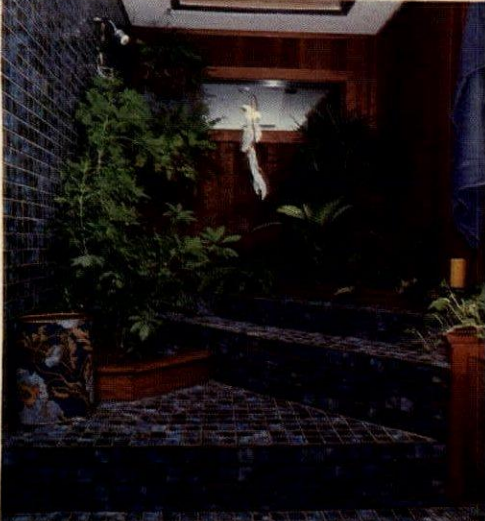
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Guest bath from residence in Corona del Mar, Calif. See also pp. 63 and 66.

PHIL DAVIS



Master bath from patio home in Atlanta. Architect: Paton Baray Lewis. Developer: Weeks Davis & Assoc., Atlanta.

Entry (behind stairway) to single-family detached house at Los Tesoros, Orange, Calif. Developer: Ponderosa Homes. Interior designer: Color Design Art, Santa Monica, Calif.

Give Them a Chance to Show Their Individuality

Some high-end buyers prefer the exotic and try to recreate scenes from their travels—witness the rooms from the Tudor manor and the Spanish-colonial home shown on the previous pages. Others consider themselves trendsetters and opt for the coolly contemporary, as shown here. And indeed, clean, contemporary settings offer a perfect foil for art, Oriental rugs and other collections.

They also offer an opportunity to use non-traditional materials—the stainless steel fireplace shown at top, for example—and colors—the bright kitchen shown below.

Again, openness is an important design element, as is evident in the houses shown here and on the facing page. Or, where some room definition is desirable, a half-wall may be built, as in the living room above and the dining area below.

Perhaps the ultimate in openness is allowing the structural members of the house to show. In the living room at top, the wood trusses become design elements as the ceiling sweeps upward. And in the house at right below, it is the tie beams that become design elements.

In these servantless days, one more item must be considered in building for the high-end market: convenience. This is particularly true in kitchens, such as the one shown above. Notice the high ceiling—almost 10 ft. high—in scale with the rest of the house. This makes possible the cabinet arrangement, with sliding windows above and below, to provide ventilation and to open the room to a view. The cooktop is on the counter behind the island, and the wall cabinets (all custom-made) have been built deeper and higher so that the range hood could be concealed in them. Finally, notice the real butcher block counters and the vegetable sink in the island—both there for convenience.



Living room from residence in Laguna, Calif. Architect: Bert Tarayao, Corona Del Mar.



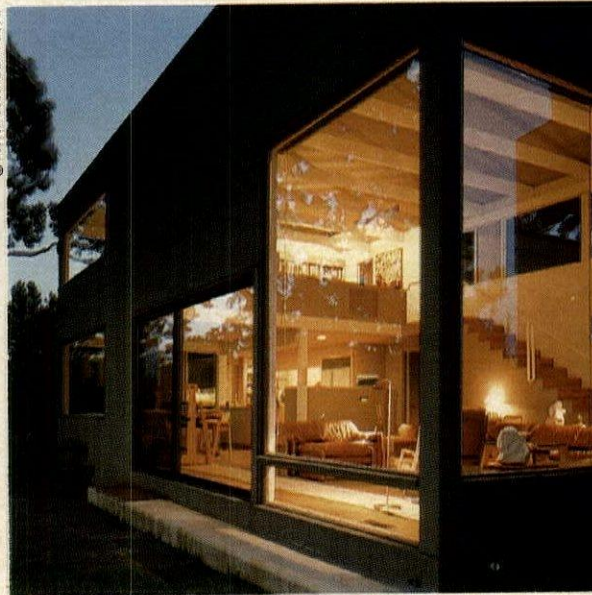
Kitchen from residence in Wayland, Mass. Architect: William Grindereing, Boston.



Kitchen from residence in Greenwich, Conn. (see also pp. 64 and 71).



Dining area from residence in Bridgehampton, N.Y. Architect: Ulrich Franzen.



Residence in Mamaroneck, N.Y. Architect: Keith Kroeger, New York.

Give Them Light and — the Ultimate Amenity — Views

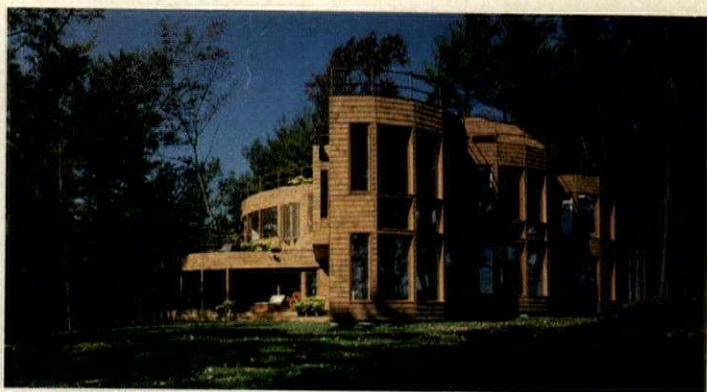
This house—built on spec by an architect—provides the ultimate in light and views, for it was designed for a bluff overlooking a scenic river.

The architect felt that flat glass would have diminished the view because the mullions would have interfered, and so he designed these large, curved shapes, reminiscent of the bay windows in old Boston townhouses.

In addition to views, the large windows, which face southeast, offer some solar heating benefits. An oversize return duct and fan have been installed to recirculate the warm air. Cooling is not a problem in summer because of the many shade trees. Also, the two smaller windows on either side of each bay open, as do the skylights above. Thus breezes from the river can cool the house.

This is possible in part because the ground floor is completely open. The edge of a kitchen counter can be seen in the dining room photo at right (*see p. 81 for a view of the kitchen*); the living room is behind the fireplace, and that room, in turn, is open to the family room (behind the porch in the photo above).

An interesting note: the house was designed with a professional couple with at most one child in mind. And indeed it was bought by a professional couple with no children. And even though it is quite large—4,200 sq. ft.—with three bedrooms and a study, the buyers are planning a 2,000-sq.-ft. addition.



Residence in Carlisle, Mass. Architect/builder: Charles Rolando, Boston.



PHOTOS: STEVE ROSENTHAL



Give Them a Bit of Luxury—Something to Show 'They've Made It'

A sense of luxury may come from something as simple as the fireplaces shown at right or as elaborate as the enclosed swimming pools shown on the facing page.

The kitchen is an excellent place to convey this sense of luxury (see *"A room as pretty as any in the house,"* pp. 86-87), as is the bath. Notice the two baths shown on the facing page: one has a luxurious feeling because of the materials used—genuine marble and ceramic tile—the other because of the large space allotted and the unusual back-to-back double vanity. Needless to say, no matter what materials and fixtures are used in such a bath, they must all be top-of-the-line.

Lavish use of wood is another way to convey a sense of luxury, as in the Denver living room shown below right (see also *"The Wood Look: How to Make It Work,"* pp. 106-111). Here the natural materials used create a casual but nonetheless luxurious feeling.

For the high-end market, mere inclusion of a fireplace isn't enough: It must be something special. Two approaches: the unusual sculptured shapes of the two fireplaces shown above and the expensively traditional look of the third. Notice the carved mantle and the marble facing.

For a certain type of buyer—a type that's becoming more and more numerous in these health-conscious days—the ultimate in luxury is an enclosed swimming pool. A spectacular example from California is shown on the facing page. But notice also the smaller photo: a Connecticut house designed for empty nesters with an indoor pool as focal point. Which serves to emphasize the most important consideration in building for luxury buyers: They're used to having everything—clothes, cars, vacations, etc.—custom-made or customized. And that goes for their homes, too.

ROBB MILLER



Living room from patio home at Los Lagos. See also p. 66.

ROBB MILLER



Living room from patio home at Los Lagos. See also p. 66.

JIM WILLIAMS JR.



Living room from attached one-of-a-kind home at Caruth Homeplace, Dallas. Developer: Jim Williams Jr.

LAURIE RUBIN



Living room from single-family-detached home in Country Manor, Denver. Developer: Kurowski Development Co. Interior designer: The Childs/Dreyfus Group, Chicago.

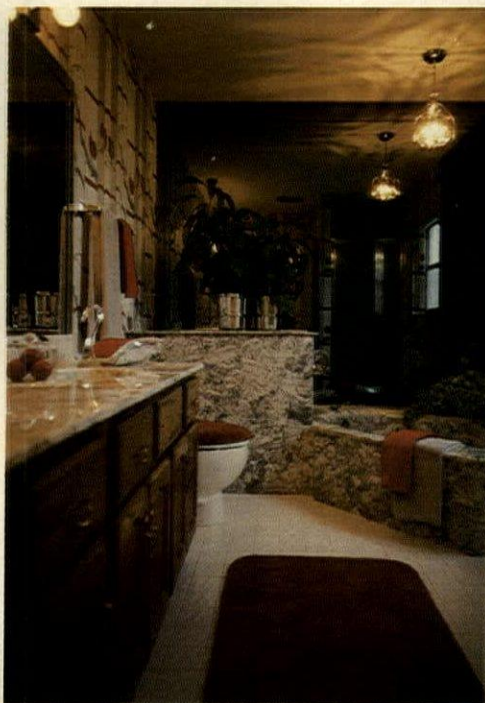


Swimming pool from custom home in Laguna, Calif. See also p. 68.



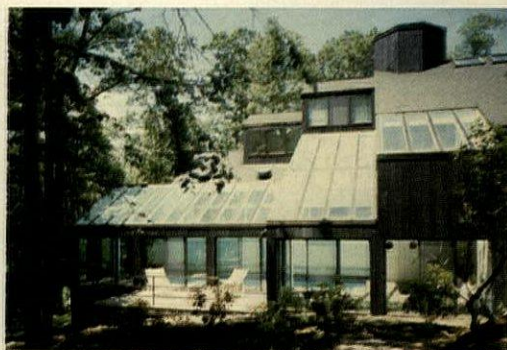
GARCIA CARMER ASSOC.

Master bath from single-family-detached home at Los Tesoros. See also p. 67.



JIM DUNCAN

Master bath from single-family-detached home at Deer Creek, Deerfield Beach, Fla. Developer: KLR Builders, Inc.




JEREMIAH BRAGSTAD

Swimming pool from custom house in Greenwich, Conn. See also pp. 64 and 68.

A New Strategy for

CONDO CONVERSIONS



Five Steps That Turn Tenants Into Buyers

With today's high interest rates, the profitability of condo conversions hinges critically on the converter's ability to get in and out of a project fast. The faster the sellout, the bigger the converter's bottom line. And the quickest way of getting in and out, converters are finding, is to persuade a higher percentage of a building's existing tenants to buy.

"A few years ago we used to shoot for a 20% level of internal conversions," says Bill Becker, a real estate consultant based in Teaneck, N.J. "Today, we're going for 40%."

This higher rate of internal conversions means lower interim financing costs for condo converters. It also means lower marketing and advertising costs—often as low as half what the costs would be in selling to outside buyers.

So it's no surprise that the converters who were satisfied with a 20% level of internal conversion a few years ago are now shooting for 40%. And 40% is attainable with the right approach. Here are the five most important steps toward achieving that goal.

—WALTER L. UPDEGRAVE

1 PICK THE RIGHT BUILDING

"A good rental building doesn't necessarily make a good conversion prospect," says Bill Becker, president of The William E. Becker Organization, a real estate marketing firm in Teaneck, N.J. In fact, Becker estimates that only about 10% of all apartment projects would make good condominium conversions. The key is to make sure your prospective property is part of that 10%. This decision must take into account a number of factors, the most important of which are: the location of the building; the profile of existing tenants; the building's track record as a rental property; and, its condition and appearance.

Location. The building needn't be located in or near a major urban area, although this is where conversions are usually established. Conversions can and do take place in small cities and their surrounding areas. The important thing is selecting an area that has both a tight rental market and an active homebuying market. A solid employment base and a high number of household formations are also good signs. When considering whether a location is right for a condo conversion, here are positive and negative factors to look for:

Positive:

- Tight rental market: low vacancy rates are good, waiting lists are even better
- High construction costs for new homes and new condos
- Good transportation facilities: near major highways and close to public transportation
- Good proximity to schools, recreation facilities, employment centers and shopping areas
- Healthy resale market: resales should command top price and property values should be escalating
- Limited supply of active projects, both new homes and condos
- Low number of "notices of intent" to convert filed with local government
- Active sales at whatever projects are on the market
- High migration into the area
- High percentage of service-related employment, 75% or more

Negative:

- Restrictive laws or moratoria governing condo conversions
- High vacancy rates at rental projects
- Active resistance in the area to multi-family housing
- High percentage of blue-collar employment
- Low new construction costs
- Slow resale market
- High existing inventory of new single-family housing or condos

Tenant profile. You should check existing tenants to see if the property can generate the number of internal conversions you'll need to make the project most profitable. Here are some things to look at:

Age. Older tenants are less likely to buy than younger ones. A U.S. League of Savings Associa-

tions study of condominium buyers found the nationwide median age of buyers was 39 years. In large cities, the median was 35 years; in small- and medium-sized cities the median age for buyers was 44 and 45 years respectively.

Income. A high percentage of lower-income tenants will make it difficult to get a high percentage of internal conversions. In states and cities that require a minimum percentage of tenants to approve the conversion, the project might be a no-go.

Track record. You should examine the building's history as a rental project to see if the property is a good conversion candidate. Three important factors to look at are:

Turnover. A high turnover could indicate a problem with the property itself—improper maintenance, inadequate facilities, etc.—or a problem with the area—a transient population not given to home ownership.

Vacancy rates. As with turnover, high vacancy rates could point to a problem peculiar to the property or to the area. A quick check with the experience of other rentals in the area should pinpoint whether the building itself is the cause for high turnover and high vacancy.

Current Leases. The key here is to have enough leases expire to get the conversion going, but not so many that the rent roll is seriously cut. Becker says the ideal situation is one where about half the leases expire within six months of announcing the conversion. Then, Becker says, a tenant who doesn't buy should be allowed to remain in the building on a month-to-month basis until his unit is sold.

The building itself. According to an annual study performed by Edward N. Kelley, who operates a property development firm in Highland Park, Ill., tenants value the overall appearance of a building above everything except location. When it comes to buying a specific building for conversion—or converting a property you already own—here are the factors to consider:

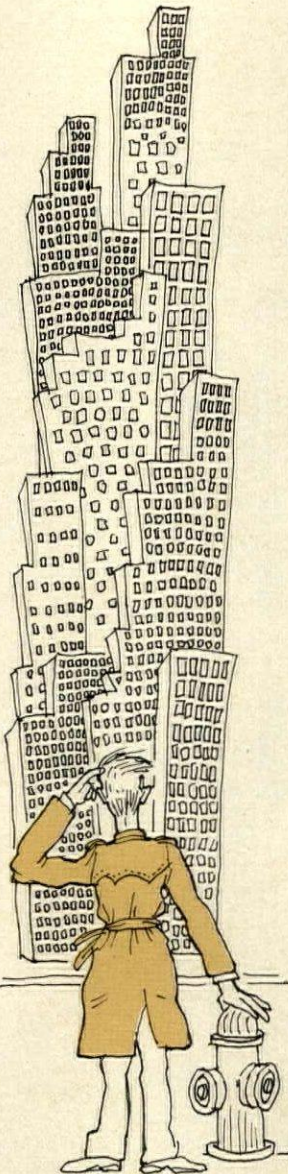
Physical condition. "A conversion is not a rehab," warns Becker. In short, a converter should only make cosmetic improvements. If an engineer's report suggests major structural, electrical or plumbing work for a building, the property is probably not a conversion candidate. The kinds of cosmetic changes consultants like Becker and Kelley recommend are:

Exterior: Paint exterior where possible; re-seal parking lots and paint new lines for spaces; erect new sign at building's entrance; replace or add to existing landscaping.

Interior: Refurbish all common areas, lobby in particular; lay new carpet in corridors; paint walls; install new light fixtures, door knockers and/or peepholes; fix up elevator cabs.

The units: Clean, paint and carpet units; install new flooring and appliances—range, oven, dishwasher, refrigerator; replace worn and shabby bathroom fixtures, otherwise clean them; grout and caulk tile work in bathroom.

Unit mix. The right mixture of studios, one-, two- and three-bedroom apartments, will vary



ILLUSTRATIONS: AL HERING

from market to market. In a retiree market like Miami, notes Craig Studnicky, JPS Associates, Miami, Fla., two-bedroom units and two-bedroom with den apartments are popular. In urban areas, smaller units are in higher demand. As a general guide, Becker suggests this unit mix: 60% two-bedroom, 25% studio and one-bedroom, the remaining 15% three-bedroom. For major urban areas, Becker says go with up to 40% studios and one-bedroom units, 10% three-bedroom and the rest two-bedroom units. As for size, studios can be as small as 500 sq. ft., one-bedrooms 800 sq. ft., two bedrooms 1,100 sq. ft., and three bedrooms 1,300 sq. ft.

A caveat: If the building's location, physical condition and previous tenant history have combined to give the property a bad image—the wrong people live there, management is unresponsive, and it's on the wrong side of town—you will have to decide if that image problem can be overcome. Often it can, but more time and higher marketing costs should be budgeted for converting a building that has a negative image.

2 PRICE UNITS TO SELL TENANTS

Pricing condo conversion units is a tricky ordeal. The aim is to hit a price low enough to attract existing tenants and get the conversion moving, but not so low that you wind up giving away potential profits. Another consideration: In areas where conversions are competing with newly constructed condos, the conversions must generally come in somewhere between 20% and 30% below the price of the new units.

A final important factor in pricing is that existing residents see the price not so much in terms of the overall price tag, but in terms of monthly cost—specifically how monthly carrying costs compare to their present rents.

Here are a few rules of thumb converters sometimes use to determine quickly if a project is viable or not:

Rental multiplier. One fast way to roughly price units is to multiply the rental unit's monthly rent by a multiple. Becker suggests a multiple of 125, but this can go to 140 or higher depending upon the location and amenity level of the building and the condition of the housing market in the area. Becker stresses that the rent figure to be used in this computation is the current market rent plus the next planned increase. For instance: A unit rents for \$250, but comparable units in the area go for \$280. Use the \$280 rent and add next year's increase, say \$20. The \$300 figure multiplied by 125, and then by 140, yields a price range of \$37,500 to \$42,000. This range is the starting point from which tenant discounts are set.

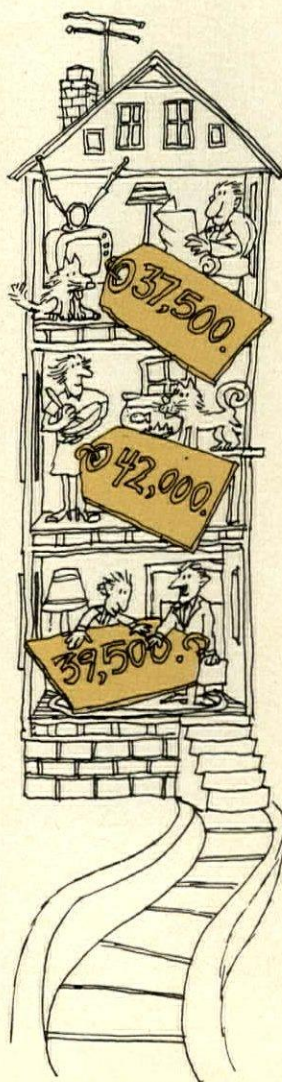
Cost approach. Another handy rule of thumb is to figure what price an average unit would have to fetch based on the cost of acquiring and converting the building. Here you estimate total costs for the building, divide by the number of units and divide again by 70%. Ed Kelley refers to this as the 70/30 rule. For this calculation, Kelley

includes the following costs: acquisition, all legal and organizational expenses; sales, marketing, and administrative expenses; closing costs and loan reservation fees; operating losses, discounts and warranty expenses; and cost of upgrading the building. What the 70/30 rule basically says is that total costs shouldn't exceed 70% of the estimated gross sales.

Carrying costs vs. rent. Once you've arrived at a rough unit price, compare it to the rents tenants are currently paying. This can be done as follows:

Assume a tax bracket appropriate for tenants in the building and figure the monthly carrying costs—principal, interest, taxes, insurance, and condo fee—*net of tax savings* on an 80% mortgage. Your internal conversion rate should be higher if this figure and existing rents are not too far apart. For a prime urban location, Ed Kelley says the carrying costs can be 60% higher than rents without undermining internal conversions. If the urban location is less than prime, they shouldn't exceed rents by more than 50%. For prime suburban locations, Kelley says carrying costs shouldn't exceed rent by more than 30%, and not by more than 20% for secondary suburban locations.

None of these rules is ironclad. But once a converter gets outside these boundaries, the project should have something extra going for it in the way of location, amenities, or reputation. One final note: While an average price-per-unit can help make the decision as to whether a project is go or no-go, final pricing should be highly specialized. Same-sized units on the same floor have differences and should be priced differently. One might be closer to the elevator; another has a



UPDATE:

Anti-Conversion Laws

Below is a roundup of prohibitions and restrictions on condo conversion for 14 states and the District of Columbia. Local restrictions, too numerous to list here, may also apply.

Arizona: Converter must notify tenants of conversion at least 120 days in advance of termination of tenancy. Tenant gets exclusive right to purchase his unit for a 30-day period.

California: Law requires that tenant get 120 days' notice of intention to convert. Tenant has exclusive right to purchase his unit on terms and conditions at least as favorable as those offered to public. Over 20 communities and some counties have adopted some form of conversion ordinance in addition to the state law.

Colorado: A 90-day written notice of conversion is required. Tenancy cannot be terminated before existing lease expires, except with consent of tenant.

Connecticut: Converter must give tenants at least 180 days' notice of intent

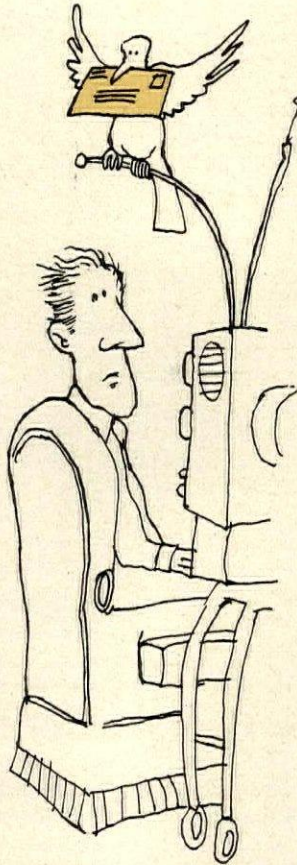
better view. There is always something to hang a price differential on, and the converter should do this as much as possible. Buyers prefer choices, and offering different prices is a good way to let them exercise that preference.

3 NOTIFY THE TENANTS

Laws governing the length of notice that must be given to tenants of intent to convert vary from state to state and even city to city within the same state (see box, below). Still, because initial tenant reaction to the conversion announcement is crucial to the internal conversion rate, the converter should always have a plan for breaking the news to tenants in a way that will allay fears and present the conversion in the best light. The reason: Bad publicity and organized tenant resistance can turn what should be a quick, smooth process into a sticky legal and media battle. Also, a mass exodus from the building would cut the rent roll, hurt cash flow and result in higher financing costs for the conversion. Here is how the conversion should be announced:

Owner's letter. If you're converting a building you've just bought from another owner, a letter from that owner should announce the sale of the building and the new owner's intent to convert it to condominium. If possible, this should be sent out prior to filing the condominium documents. In states where this isn't possible, the letter should go out the day of or day after filing.

The letter should be brief and appear on the owner's letterhead. It should be written, however, by the converter, or under his guidance. The letter



should assure the tenants of the fine reputation of the converter, allude to plans to renovate the building, and assure the tenants the conversion represents an excellent opportunity for them to enjoy the benefits of home ownership.

Converter's letter. This letter follows the owner's letter by a day or two. In addition to also announcing the plan to convert the building to condominium, the converter's letter should:

Assure tenants you, the converter, understand the shock, anxiety and even dismay the tenants are feeling. Ask for the opportunity to talk with them and dispel those feelings.

Dispel fears of eviction. Tell the tenants how long they'll have to make up their minds to buy and how long they can stay in their apartments. In most cases this is a matter of state or local law.

Tell residents they will get a substantial price advantage over the public should they choose to buy. Don't go into specific prices.

Point out how condominium prices have risen in recent years. Note that instead of throwing away rent, residents can be building up equity.

Note that there are substantial tax advantages to condo ownership. Ask tenants to come in and find out about those benefits.

Tell them you plan to renovate the building and the units, making the property even more attractive and a better investment. Again, don't go into specifics in this letter.

Tell them you hope they will buy, that you want them to stay on as owners. Also tell them you have a financial package that will help them do so.

Let them know the next step, whether it's a salesman dropping by with a packet of information—price sheets, renovation plans, financing

to convert. During first 90 days of this period, tenant has exclusive right to purchase his unit. Tenant has right to remain on premises until existing lease expires. In some cases converter must provide non-purchasing tenants with relocation information and relocation assistance payments.

Washington, D.C.: Converter must get approval of over 50% of tenants to convert. Tenants' association has right of first refusal to buy building. Tenants 62 years old and over with income under \$30,000 a year get life tenancy.

Florida: Tenants in building over six months get 270 days' notice of conversion, others 180 days'. Tenants on premises over six months get 45-day right of refusal to purchase unit. Converter may give these tenants one month's rent in exchange for reducing occupancy from 270 to 180 days.

Illinois: Tenant gets 120 days' notice of intent to convert and right of first refusal during that period.

Maryland: Converter must give tenant 180 days' notice of intent to convert. Lease may be extended for 180 days on the same terms or terminated on 30 days' notice. If building is more than five years old, prospective buyers must be shown property reports and a projected operating budget.

Massachusetts: There is no state law governing conversions, although cities may adopt regulations. Boston, for instance, requires converters to give tenants a one-year notice of conversion. This is extended to two years for certain low-income elderly and handicapped tenants.

Michigan: State law has a two-step process. First, converter files non-binding reservation of purchase for building to test potential conversion market. Second, converter requests permit to sell conversions. Tenants get 120 days' notice before sales can begin. The elderly and handicapped are assured at least one-year tenancy after notice.

New Jersey: Converter must give 60 days' notice of intent to convert and, after that period, may serve a three-year notice of intent to institute eviction proceedings. Tenants get right of first refusal for 90 days after converter gives notice of intent to convert. Courts can authorize up to five one-year stays of eviction at the end of the three-year period until the tenant has been offered a "reasonable opportunity" to examine and rent "comparable housing."

New York: A complex state law differs for rent-controlled and rent-stabilized apartments in regard to notices of eviction, continued occupancy and other issues. New York City and suburbs have a variety of laws, generally providing for 35% tenant approval for conversion and lifetime tenancy for persons 62 years of age or older whose annual incomes are under \$30,000. A converter may choose to convert with 15% approval of tenants, but the converter may not evict tenants under this process.

Pennsylvania: Law requires one-year notice of intent to convert and six-month right of first refusal for tenants. Public hearings must be held at least 30 days before a notice of conversion. A two-year lease extension is allowed for certain elderly and disabled tenants.

Texas: State law requires only that a declaration of condominium conversion be filed at the county clerk's office.

Virginia: Converter must give tenant 180 days' notice to vacate premises. Tenant gets right of first refusal during that same 180-day period. Law may require that developers provide relocation assistance.

For a complete report on current and pending legislation affecting condo conversion in most states and many cities, write:

National Multi Housing Council
1800 "M" Street
Suite 285-N
Washington, D.C. 20036

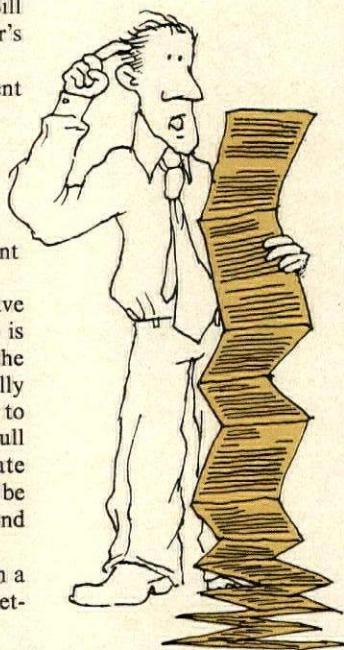
opportunities—or, in the case of a large project, a second mailing with this information enclosed.

Resident's package. So residents are ready to talk to salesmen about buying units, the converter should follow up his letter with a package of information giving details on the conversion. The package should be in the tenants' hands, says Bill Becker, no later than a week after the converter's letter arrives. The package should include:

- Floor plans of all units (in case a resident wishes to purchase a unit other than his own)
- Price list for all units
- Condo association budget and fees
- Financing programs available
- Rent-versus-buy analysis
- Agreement of sale and reservation agreement
- Reply card to set up an appointment

Meeting the tenants. After the tenants have been given their resident package, the next step is to meet with them to answer questions and get the sales process moving. The first meeting usually doesn't close many sales, but serves as a way to invite residents into the sales office for a full presentation. There are two widely disparate schools of thought on how this meeting should be handled. There's the "group meeting" school and the "person-to-person" school.

Group meeting. This may be the only choice in a large project. Some converters like a group meet-



ing because it gets a lot of questions out of the way in one fell swoop. Other converters say organized tenant resistance is the last thing a converter needs, and getting the tenants together in a large group breeds resistance. Group meetings, says Becker, work well with a younger crowd, especially when done in an informal setting—a wine and cheese party, for instance. Still, Mike Brenneman, a Washington, D.C. converter, warns those taking the group approach that "you'd better be able to think on your feet and perform well under pressure."

Person to person. The advantage of a personal meeting is that a salesman can slant the pitch to the prospect. Disadvantage is that it requires a large sales staff. Becker recommends this approach in small buildings or when dealing with middle-aged and older buyers.

The "Influentials." In almost every building there is a small group of people the other residents look up to as leaders. Becker calls people in this small group "influentials." He recommends going to the influentials with a preview of the resident package to get their reaction before taking it to the residents at large. This is done on an individual basis and no earlier than two days before the conversion announcement. If you can get a commitment from an influential, it often helps sell other tenants in the building.

The Tax Angle on Condo Conversions



By Vern Hoven

Can a landlord convert his own building and still claim a capital gain?

Yes, the owner of a rental project can convert his property to condominium status without losing capital gains treatment on the income he or she gets from selling the converted units. To see how this is done, and how such an owner-converter increases the after-tax income by doing the conversion, take a look at the following example:

The facts. Assume you own an apartment building purchased 20 years ago for \$1,200,000 on which you've accumulated depreciation of \$600,000. Also, assume you can sell the building to a buyer for \$2,400,000 (Option 1), or convert it on your own at a cost of \$600,000 and sell the converted units for \$3,600,000 (Option 2). Let's examine both options.

Option 1. Since you've held the property for more than a year, your income from the sale would be taxed as a long-term capital gain. Whether you sell to a

converter or to an owner who will operate the building as a rental will not affect your tax bill. Certain pre-sale activity which suggests you prepared the building specifically for sale to a converter—installing individual metering where it previously didn't exist; doing conversion market studies—could taint the sale and jeopardize capital gains treatment. Such activity aside, the sale results in a capital gain.

Option 2. If you convert the building yourself, you will most likely forfeit capital gains treatment. True, you operated the property as a rental for 20 years. True, the appreciation of the building during that time normally constitutes a long-term capital gain. But the Internal Revenue Service has ruled that the appropriate time to characterize whether a property is held "primarily for sale" or for "investment" is *at the time of sale*. In this case, when you sell the conversion units, you are holding the building "primarily for sale." The 20-year history of the building as a rental becomes, in the eyes of the IRS, irrelevant, and your income is taxed as ordinary income.

Options 1 and 2 in the tables (*facing page*) show how this affects after-tax income. Note that even though gross

sales are higher in Option 2—\$3,600,000 vs. \$2,400,000—after-tax income for Option 2 is \$240,000 *less* than that for Option 1.

Saving the capital gain. There is a way for the owner to do the conversion and still receive capital gains treatment: You form a corporation which issues its own stock in at least partial exchange for your property. This sale/exchange is made at the fair market value of the property. This way, you, the owner, get capital gains treatment on the sale of the building to the corporation. The corporation does the conversion and claims ordinary income on the difference between its purchase price—what you sold it for—and the gross sales.

By going this route, you combine the capital gain from the sale to the corporation with your share (you hold shares in the corporation) of the corporation's gain, which is taxed as ordinary income. Option 3 in the table shows this results in an after-tax gain of \$2,479,500—higher than either Option 1 or 2.

Important caveat. In order to use the "sale of rental property to your own corporation" plan described in Option 3, the owner-seller must hold *less than 80%* of the corporation's stock after the

4 MARKET TO CREATE URGENCY

The aim here is to create an atmosphere that will make indecisive tenants want to buy. If your tenants flee the premises, it may indicate you are injecting too much urgency.

A good sales climate is created by: One, showing residents they are in the unique position of being able to buy at a much lower price than the public; two, convincing them that if they don't take advantage of the opportunity there are plenty of people outside the building who will—even at a higher price. Here's how this is done.

Discounts. Offer tenants anywhere from 10% to 15% discounts on unit prices for a limited period of time. At a conversion in Birmingham, Ala., the converter offered a \$3,000 discount on one-bedroom units that sold for \$29,000 to \$31,900, a \$4,000 to \$5,000 discount on two-bedroom units selling for \$41,900 to \$49,900, and a \$5,000 to \$6,000 break on three-bedrooms priced between \$48,900 and \$50,900. The discounts were offered for 30 days.

Sliding scale. Offer a 15% discount to those who buy within the first two weeks of the announcement. Drop that to 10% for the next two weeks, then to 7% for a week, and finally to 4% for a week.



Cash bonuses. Offer a cash bonus to tenants who buy within a specific period of time after the announcement. Or offer it to the first 10, 20 or 30 who buy. Cash bonuses can also be set up on a sliding scale and they can be used along with discounts. The bonuses needn't be paid in a lump sum. They can be paid on a monthly basis over a year or they can be applied against closing costs or the sales price at closing.

Priority waiting list. Even during the time when tenants have exclusive right to purchase, the converter should be advertising to the public by offering places on a priority waiting list. A person on the list gets first crack at the units when the sales open up to the public. This way, you get a jump on sales to the public and put pressure on tenants at the same time. So the list represents truly interested buyers, most converters require a refundable deposit ranging anywhere from a few hundred to a thousand dollars. To build up this waiting list, the converter might offer a break on the price, but the discount should not bring the price equal to the resident's price. The priority waiting list program should also be offered for a limited time period.

Follow up with tenants. Keep the pressure on. Remind the tenants they've got to make a choice and time is running out. Remind them of cut-off dates for discounts. Keep them posted on the

sale/exchange of the property. If he holds 80% or more of the stock, no gain is recognized in the exchange and the corporation must use the same basis—\$600,000, which is the original purchase price minus accumulated depreciation—in figuring its taxable gain that the owner used in Option 2. In short, the corpo-

ration would be in the same situation as you were in Option 2.

Owners of rental properties who are considering this option as a way to do a conversion and preserve capital gain treatment should ask an accountant or tax attorney for advice. Besides the 80% rule, there are other factors far too com-

plex to address here which, if not accounted for, could result in forfeiting the capital gain treatment the owner-converter is seeking.

Vern Hoven, C.P.A., is a founding partner in the public accounting firm Hoven, Vervick & Amrine, P.C., Missoula, Mont. He writes and speaks frequently on real estate tax issues.

	Option 1	Option 2	Option 3	
	Sale to converter or rental operator	Self-conversion	Sale to corporation	Corporate converter
Gross sales price	\$2,400,000	\$3,600,000	\$2,400,000	\$3,600,000
Cost of improvements	—0—	—600,000	—0—	—600,000
Net sales price	2,400,000	3,000,000	2,400,000	3,000,000
Adjusted basis*	—600,000	—600,000	—600,000	—2,400,000
Total gain	1,800,000	2,400,000	1,800,000	600,000
60% capital gain deduction	—1,080,000	Not eligible	1,080,000	Not eligible
Taxable gain	720,000	2,400,000	720,000	600,000
Effective tax bracket	×50%	×50%	×50%	×26.75%**
Tax due	360,000	1,200,000	360,000	160,500
Total net cash to be received	2,400,000	3,000,000	2,400,000	600,000
Less: tax due	360,000	1,200,000	360,000	160,500
After tax income	\$2,040,000	\$1,800,000	\$2,040,000	\$ 439,500
Total after-tax income				
As individual	2,040,000	1,800,000	2,040,000	
As corporation	—0—	—0—	439,500	
Total dollars (after tax)	\$2,040,000	\$ 1,800,000	\$2,479,500	

*Original purchase price minus accumulated depreciation **Effective corporate tax bracket

progress of the priority waiting list program. The converter is allowed to show models of converted units to outsiders during this period in most cases. He should take advantage of this. It lets the tenants see the outside interest in the building.

Handling problems. This is a time when bad publicity and tenant resistance can cause the most damage. If not handled properly, they can slow the momentum that should build as the conversion begins. Here are a few suggestions:

- Avoid meeting complainants in groups. Problems are best handled on a one-to-one basis at this point in the conversion
- Get grievances in writing. Often this reduces the number and fervor of complaints and it does away with the arguing back and forth oral confrontations produce
- If the tenant group has a lawyer, he wants to let them know he's earning his fee. That means he'll be in to see you regardless of whether he has any real grounds for dispute. Sometimes it's a good idea to have a few "bones" ready to throw him—concessions you are already prepared to make. That way he looks good, you look good, and tenants are mollified

5 SELL THE PROJECT WITH SPEED

With the internal marketing program under way to woo tenants and a priority waiting list ad campaign bringing in outsiders, the sales effort can begin.

Conversions tend to bring in a wider variety of buyers than new homes. Condos draw buyers looking for starter housing; people priced out of the new home market; investors who view condos as a real estate investment; and, of course, the tenants who were there when the building was converted. The sales effort must cater to the sometimes diverse needs of all these groups. Here are the important elements to the sales effort.

Furnished models. Most converters prefer to use furnished models whenever possible because models show the units to the best advantage. If possible, furnish a model for the different types of units being offered. If the project isn't large enough to warrant that much of an expenditure, try to select two or three models that typify the mix and furnish those. The expense for furnishing models in most conversions usually falls somewhere between 1/2% and 3/4% of gross sales.

A caveat: Models should present the unit exactly as the buyer will get it. Don't use them as a starting point for adding options, the way models are used in new homes. When dealing with existing structures, options cause too many complications and eat up the converter's profit margin.

The sales office. Even projects too small to merit models should have a well-designed sales office. Which means the office should be more than a place to greet prospects and sign contracts. If the project has a theme or a certain image, the sales office should carry this theme or image through. The drawing on this page details what an effective sales office should include.



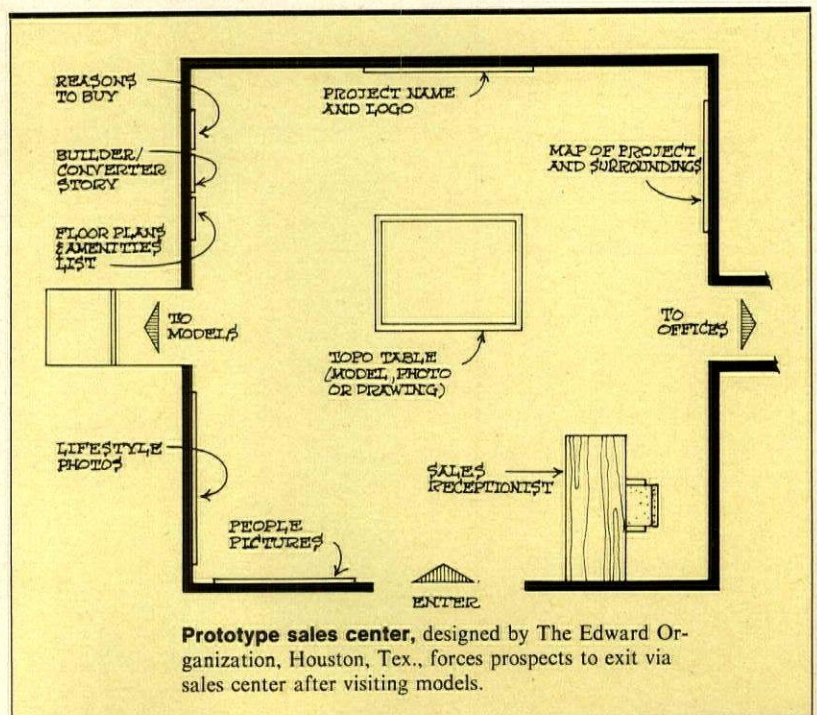
Incentive for salespeople. The compensation system should keep salespeople on their toes. Straight salary usually doesn't do this. A salary plus bonus plan can work, but not if the payment of the bonus is too far off from the time of the sale. This distorts the connection between performance and reward in the salesperson's mind.

Many conversion consultants recommend giving salespeople a bonus with each unit sale, or a bonus on each sale after a certain quota of sales has been met. Straight commission is a good motivator for top-flight salespeople, but the project must generate a high enough volume for this kind of compensation to be effective.

In addition to whatever compensation plan is chosen, other incentives such as prizes, special bonuses, contests, holiday trips, etc., can help spur sales. Some converters offer a unit to salespeople at the residents' price after a certain number of units are sold. This should be offered on the condition it can't be resold until all or most other units in the conversion have been sold.

Tailored pitch. Different prospects look for different things in conversions. Existing residents compare carrying costs to current rents. Outsiders might compare the conversion price tag to that for new housing. Other buyers are interested in how condo prices are appreciating.

Salespeople should tailor the selling pitch to the particular needs of each prospect. And to do this they should have the proper materials and graphics, namely: tables showing the buyer's carrying cost net of tax savings for different tax brackets; a schedule that shows how much rent a tenant will have paid over a given amount of time versus how much equity he could build up should he purchase; data on price appreciation of condominium units over recent years.



Prototype sales center, designed by The Edward Organization, Houston, Tex., forces prospects to exit via sales center after visiting models.


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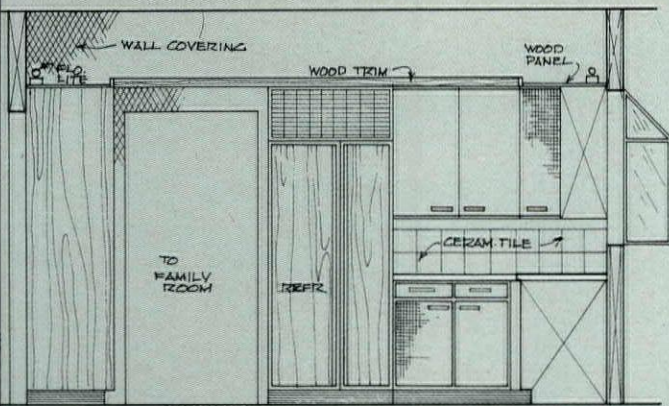


Idea Kitchens from the Rockies: High in Style and Function

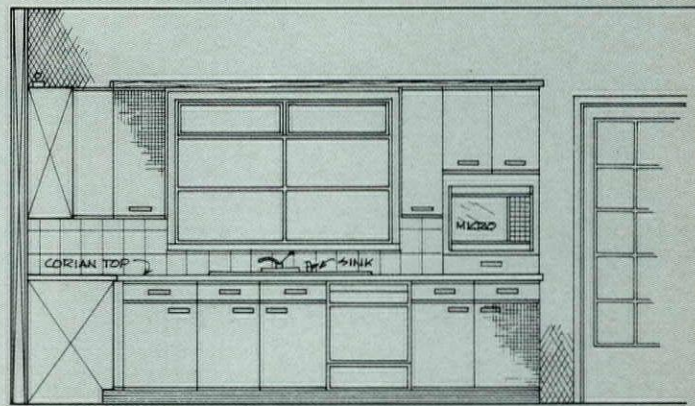
Bill Kline believes in showrooms. For 17 years, Kitchens by Kline has been operating amid the art galleries and specialty shops of a posh Denver shopping mall. "There's nothing in these stores people need," Kline says, "but affluent women spend their afternoons here. We get a lot of strollers who come in just to look—and when they want new kitchens, they come back here."

Kline's showroom is designed to project the same stylish image as his neighbors. "Sometimes we really do find noseprints on the windows in the morning." His 15 displays—a mix of full kitchens and vignettes—are complete and accessorized. Like "The Garden Kitchen" display seen above, each has tables set, appliances in place and cabinets and drawers filled. "We don't skimp on accessories," says Kline. "Our customers are used to having nice things, and these accent pieces help them relate the kitchens to their own homes."

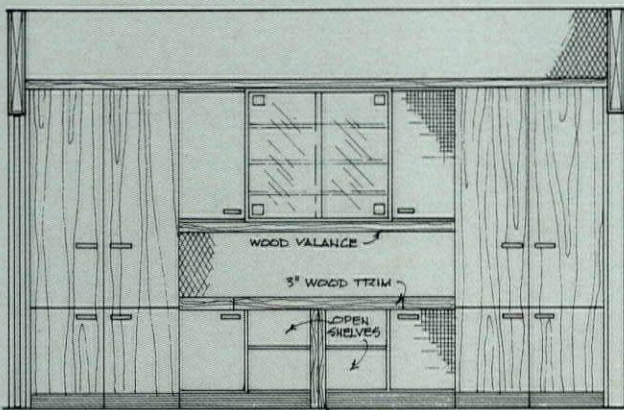
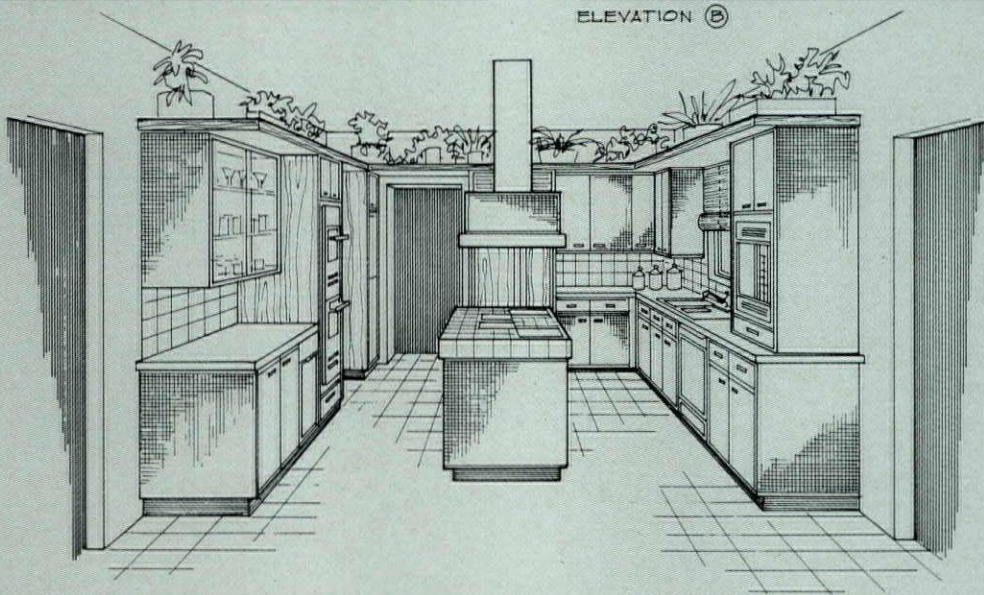
But basics are not ignored. Besides Kline, a Certified Kitchen Designer who's been a kitchen specialist for 30 years, there are four staff designers and four design consultants in the firm. Robert G. Redd, one of the design consultants, took on our assignment: Redesign three different kitchens from builder plans to suit specific markets. You'll see the results on the following six pages, plus an actual remodeling (*pages 92-93*) that shows Kitchens by Kline's real-life blending of creativity and convenience in the mile-high city.



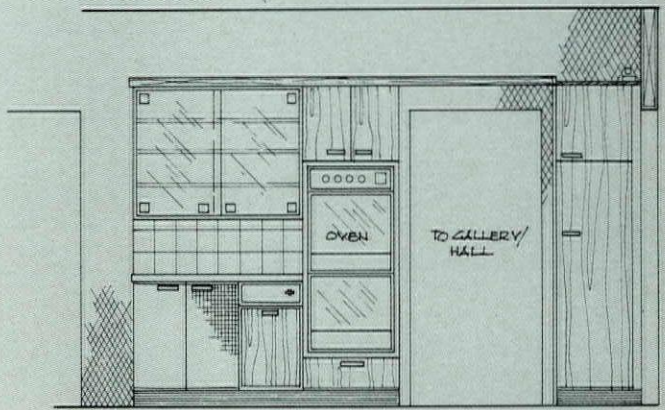
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D

Pretty as Any in the House

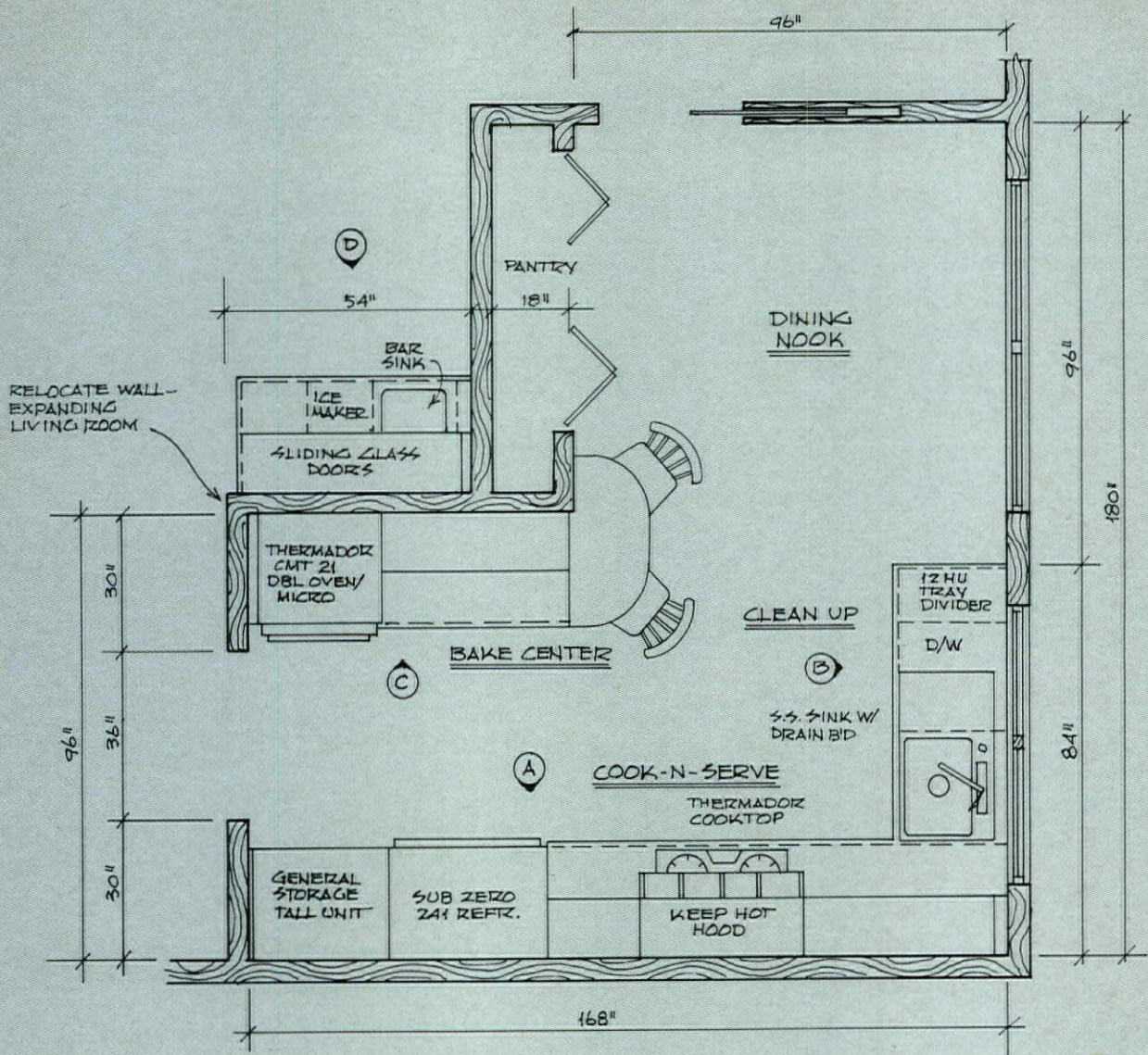
ized, you do not see in any of these plans the kind of personalized requests a customer might make," Redd notes. "But everything here is high-end, to indicate the kind of equipment gourmet cooks want." Those choices include a double sink with drainboard for cleaning vegetables, and both microwave and conventional ovens (see Drawing D).

He's "added lots of storage features,"

in the cooking and eating areas, where the pantry was incorporated into a unified storage wall (see Drawing C). Kitchens by Kline is receiving many requests for the kind of glass-front cabinets shown here, (because gourmet cooks everywhere like to show off their attractive utensils), although greenhouse windows are not too popular in the Rocky Mountain climate.

An attached table is more space-

efficient here, Redd thinks, and adds to the visual airiness. The contemporary-style Rutt cabinets (see rendering at right center) are laminated in Belgian linen with "Melamine" protective coating—"a great new texture look," he feels. And Redd expanded doorway openings "to enhance the sense of spaciousness, but also because no one need hide this kitchen. Now it's as pretty as any room in the house."



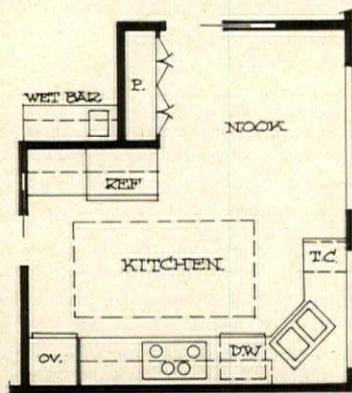
TOTAL PRICE: \$14,887.00

Cabinetry: St. Charles steel cabinets with "Kent" style wood doors.

Countertops: Suncraft's custom countertop with Bevel-Edge™ molding

Appliances:
 Cooktop: Thermador TMH 35
 Oven/Microwave: Thermador CMT 21

Refrigerator: Sub-Zero 241RFD
 Sink: Elkay ILR 4321 with Elkay LK 2401 faucet
 Disposer: Waste King SS5000
 Dishwasher: KitchenAid KDS-19
 Hood: 36" Thermador "Keep Hot" range hood with "Trade-Wind" ventilator



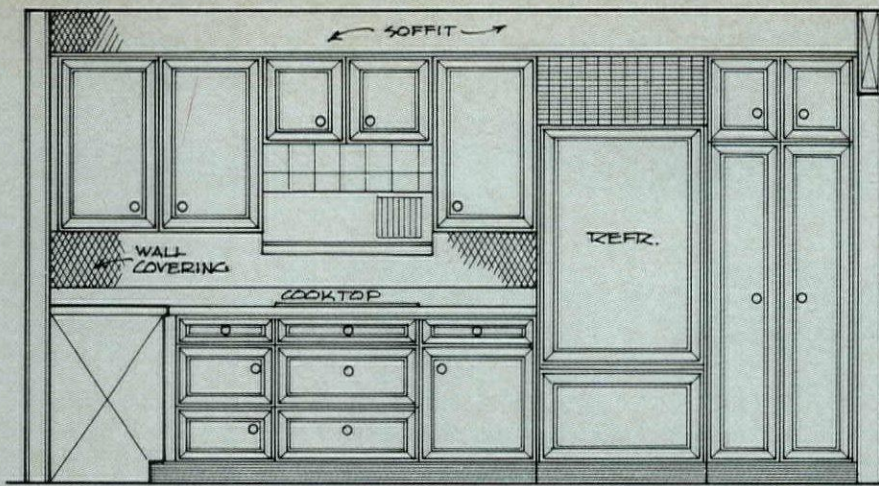
For Empty Nesters: Easy-Care

The condo kitchen at left is too large, Bill Redd thinks: It has wasted floor space that means extra steps every time the cook goes from sink to vegetable crisper. "And it's as common for us to see kitchens that are too big in this way as it is for us to find kitchens that are too small," he adds.

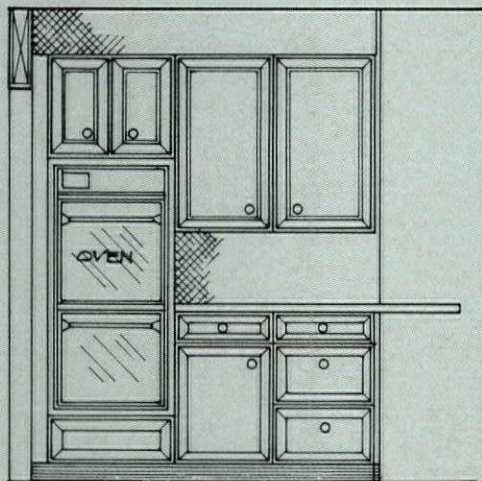
By moving in one short wall (see plan above), he saved those steps, gained space for a counter "for empty nesters

to have a cup of coffee or serve a snack to grandchildren," added storage in the pantry and around the wet bar in the living room (see Drawing D).

Much of the design reasoning here comes from experience that Kitchens by Kline has had in planning condo kitchens in the resort towns of Vail and Aspen, Colo., and even the Casper, Wyo., ski area 300 miles north of Denver. "We've found that empty



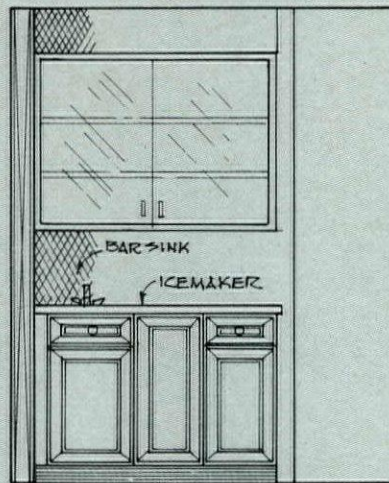
ELEVATION (A)



ELEVATION (C)



ELEVATION (B)



ELEVATION (D)

Convenience, with a Bonus Baking Center

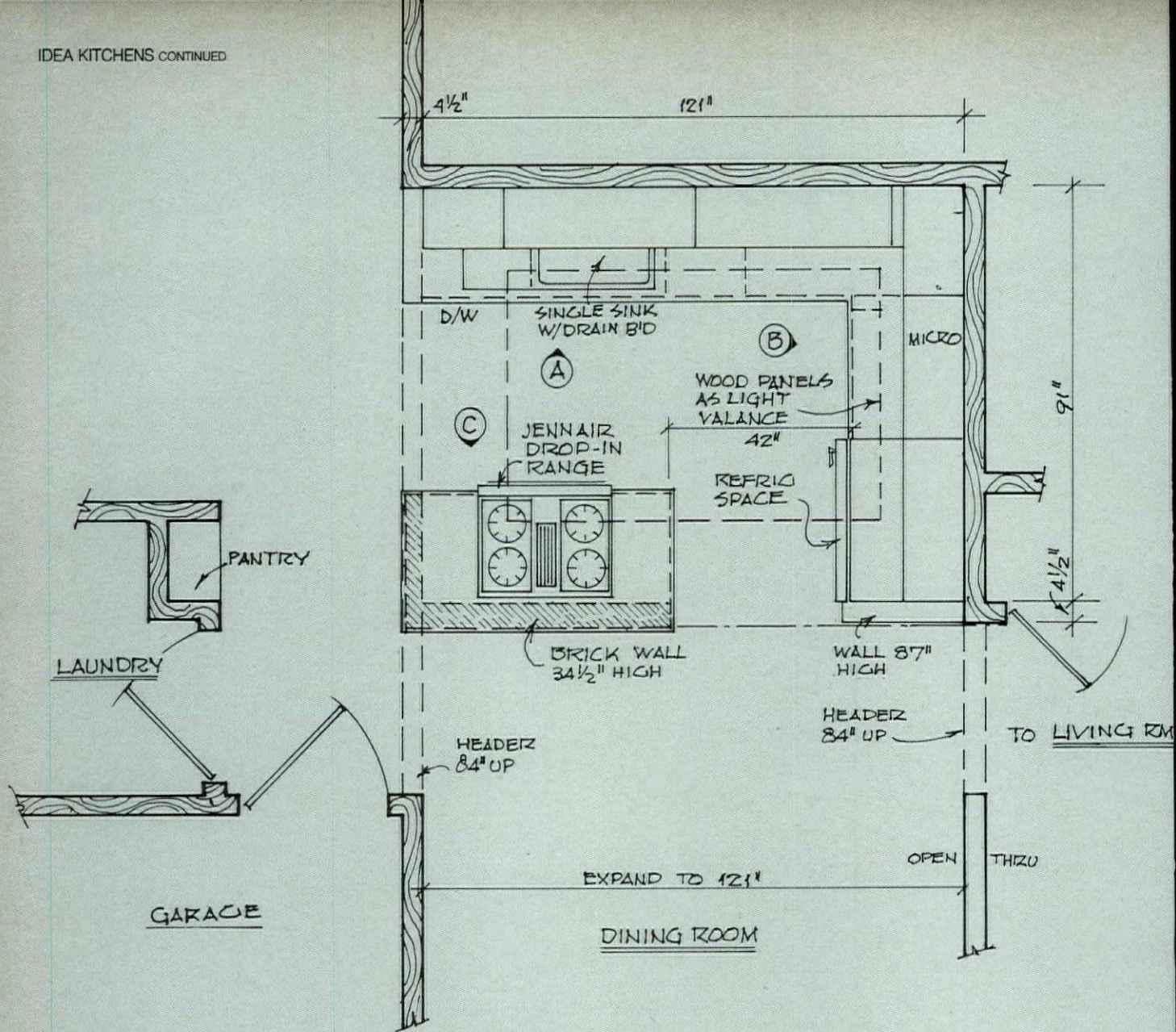
nesters may not cook often," Redd says, "but when they do, they cook up a storm. This kitchen is loaded with convenience for such an adult couple. They want top-quality appliances and such features as the baking center. It gives set-down space beside the oven, doesn't require day-to-day care, yet is there when wanted." (See Drawing C.)

He moved the sink "because most people with corner sinks really have

negative feelings about them. "We've done several remodelings where one of the main goals was to get rid of a corner sink." And he's included one of the firm's most popular items: Thermador's Tradewinds Keep-Hot Oven. "I have one in my own home," adds boss Bill Kline, "and once you have one, it's hard to live without it." (See Drawing A.)

The St. Charles steel kitchens are

"what we sell the most of. They don't warp or twist, have built-in lights and adjustable shelves. Someone can change color just by changing doors and drawers—I'd guess we do one of these kinds of updating every other month or so, and we recently did one for a woman whose cabinets were 27 years old. Or you can give them an entirely different look by using wood doors, as we chose for this plan."



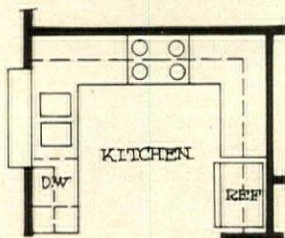
TOTAL PRICE: \$6,844.15

Cabinetry: St. Charles "Bellaire" cabinetry countertop contemporary style

Countertops: Suncraft's custom with Bevel-Edge™ molding

Appliances:
Range: Jenn-Air #88370 De Luxe drop-in

Microwave oven: Panasonic NE-7830
Refrigerator: Not included
Sink: Elkay ILR 4321L with Elkay LK 2401 faucet
Disposer: KitchenAid KWE200
Dishwasher: KitchenAid KDP-19



For the Small-Family Kitchen:

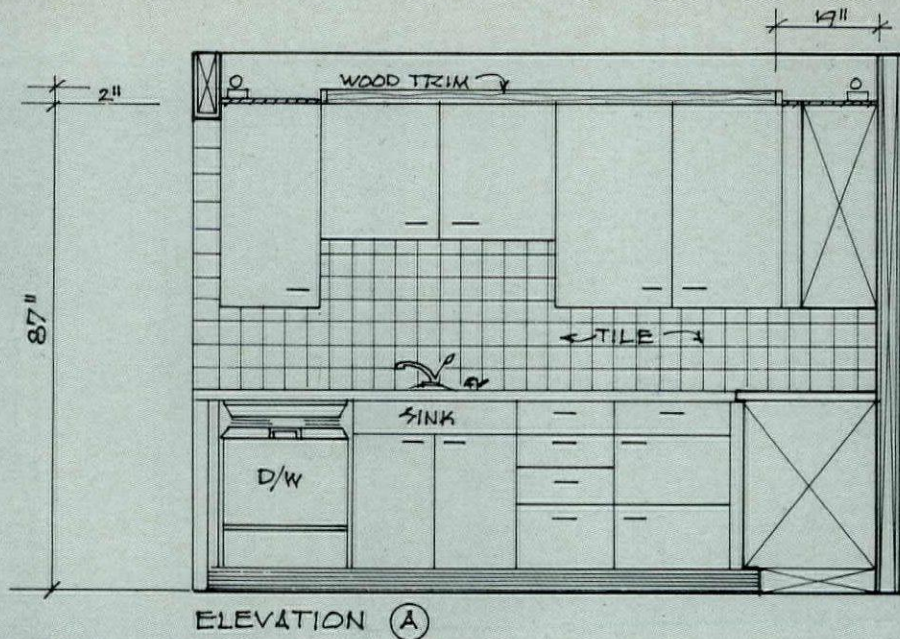
The original plan (left) was a ship-shape U with good work triangle. But by modifying it into an L with an island (see plan above), Redd increased working counterspace for food preparation—and gave the small room some big-kitchen glamor.

The new cooktop island also allows one member of the family to man the range while another prepares vegetables or salad, without banging elbows.

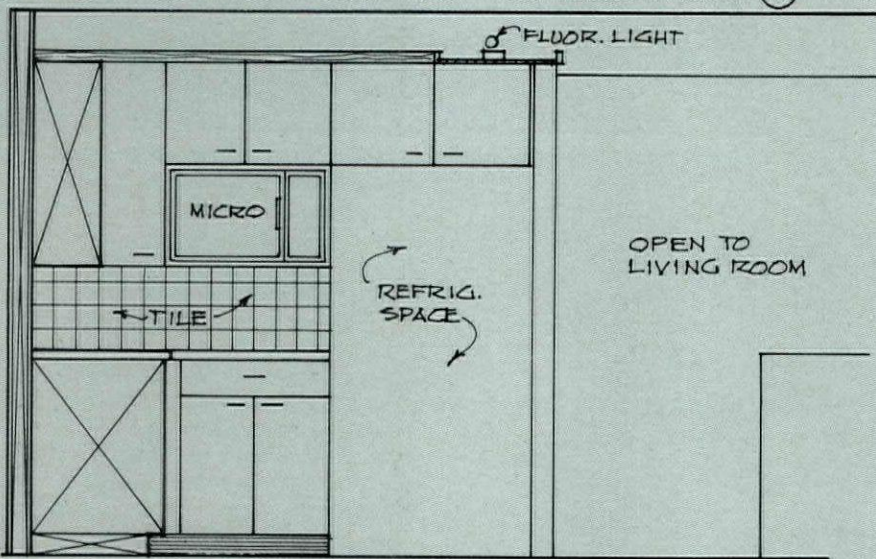
The 42 inches of space around the island is "not ideal," Redd points out, "but it is adequate."

Secondary storage was moved to a small pantry in the hall, and he suggests opening through a wall between living and dining rooms, so all areas have more feeling of spaciousness.

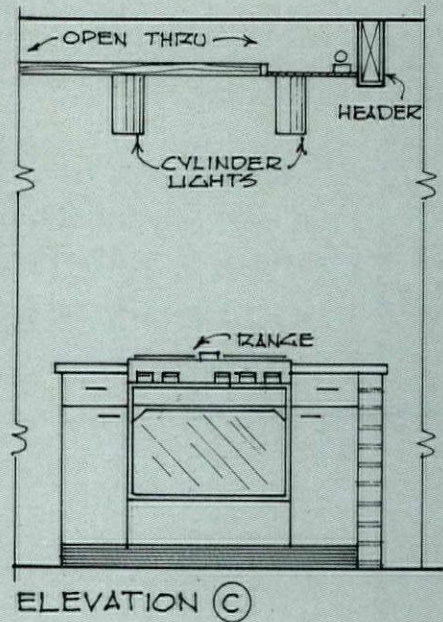
For both visual appeal and practicality, Redd would tile the kitchen walls (see Drawing A) and use a brick



ELEVATION (A)



ELEVATION (B)



ELEVATION (C)

More Preparation Space

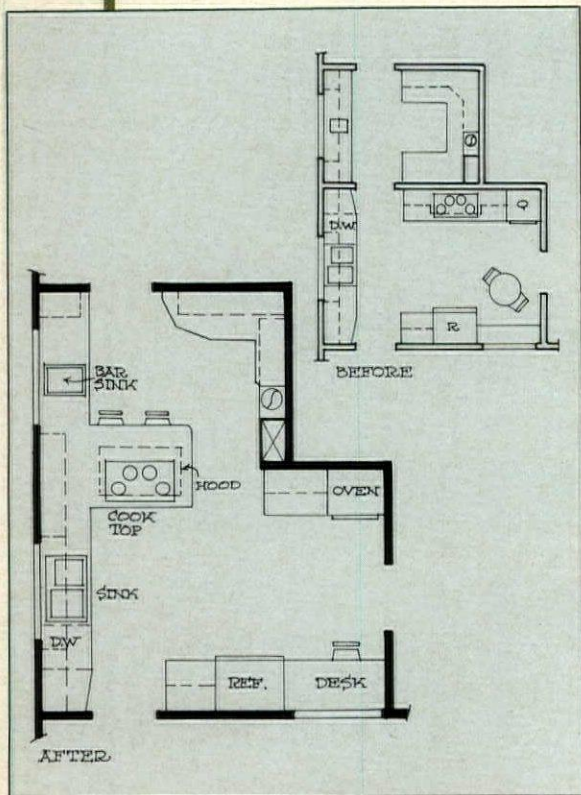
half-wall around the island. "Brick is a wonderful texture for kitchens. We are getting a lot of requests for it."

Other space-savers in this kitchen: a single sink with drainboard; a Jenn-Air drop-in range with convection oven. "And since we don't need a hood," he adds, we have a nice open feeling around the island (see Drawing C). Cabinets are installed flush to give more access to interiors.

He added a microwave oven (see Drawing B) but did not choose a refrigerator. "I probably would not do so with real clients. We carry some appliances but don't push any particular lines. We use—and recommend—only those models that are especially geared to our kitchens. I don't think people with such a small kitchen would want a built-in refrigerator, our usual choice, so I would try to help them

determine needs, then let them shop for the free-standing model they like."

The firm follows much the same pattern in wallcoverings and flooring. The showroom includes a special "color scheme room," featuring displays of ceramic tile, floor coverings and wallpapers in colors and styles chosen by the designers as best suited to their kitchens and cabinetry designs.



For an Old Denver Home, a Kitchen Long on Flair and Convenience

In this remodeling in an old Denver home, Kitchens by Kline combined a butler's pantry and totally outmoded kitchen (left) into a modern cooking center (above). As seen in the plans (upper left), the basic shell remained the same, after the wall between the two rooms was eliminated. Because the new space still forms a natural L, the primary work areas are kitchen space, with cabinets for extra storage in the corner where the butler once ruled. Pot hooks are both decorative and practical on the wall by the cooktop. The cabinets, by St. Charles (Kline's primary line, although he now handles two others), have doors of natural ash, with vertical slat detailing to counteract eye flow on the long wall. "The wood look is popular in Denver," Kline notes, "and these clients had an especially strong feeling for it."

Kline's Success Strategy: Make the

Unless potential customers specifically mention past customers, Bill Kline finds it hard to pinpoint just what brings people to Kitchens by Kline.

"I'd guess referrals could account for up to 80% of our jobs, but so many people just say 'I heard about your work.' We advertise regularly in several newspapers and on two radio stations. One 6 a.m. FM long-hair music program—has proved very successful.

"About eight years ago, the fellow who does the show came in and said if we'd give him a try for a month, we'd never leave. He was right—it seems the affluent people we're trying to reach do listen to him. We had some immediate results—and we're still advertising on that show three or four days a week. Also, of course, this location really does bring people in."

Kitchens by Kline sells about 160

kitchens a year, with 60-70% of the total in remodelings and the rest in new kitchens for custom houses.

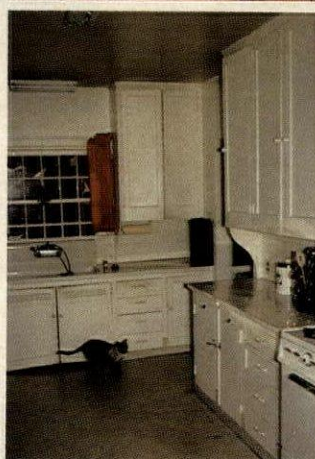
"Many kitchens total upwards of \$20,000," Kline says, "but we also have many jobs that are just cabinet updates, so our average is around \$14-15,000." And despite the recession, through mid-April, dollar volume was about \$100,000 ahead of last year.

Potential customers are charged a

PHOTOS: BILL KLINE



A cooktop peninsula (above) proved the solution for several design problems: It divides the room into two food preparation areas; it visually breaks the runway effect of the long wall without chopping it up or hampering movement from one work center to another; it gives the owners a cooktop with access from three sides, plus an informal dining area, in space where an island was not possible. With the auxiliary workspace set off from the main sink, a second sink was almost mandatory. The designers replaced the old sink in the butler's pantry (left) with a bar sink that could serve for cocktail-mixing or rinsing salad greens or vegetables.



The new kitchen (above) glows with its new look and new cooking convenience. But the owners insisted on retaining one touch of the old—their wood floor (left), which was carefully preserved and refinished to harmonize with the new. Kline's staff works hard to prepare customers for the mess of such a major remodeling. Besides discussing the problem, they send out two booklets, the first called "Our Craftsmen Are Coming" and the second, a condensed version called "Demolition Day," timed to arrive shortly before the dust starts flying. "If you warn people what a horrible experience this can be," says Kline, "then it's never as bad as they expect. That makes for happier customers."

FOR DETAILS, SEE PRODUCT INFORMATION INDEX

Customers Relate to the Designs

\$350 design fee, applied toward purchases. "Before we draw anything, though we will discuss possibilities or visit a home for preliminary interviews and measuring before that."

For large or difficult projects, Kline may ask several designers to do plans, and he frequently shows several plans (with perspectives) at the first design presentation meeting.

"We can usually give an accurate

estimate then for the project, but naturally, we find out in the beginning if they want a Mercedes or a Volkswagen. If they have to replace everything but flinch at a figure of \$10,000, we know we can't do much, since the appliances could run \$4-\$5,000. In new construction, cabinets alone may cost about \$8,000."

Kline asks for 50% of the estimated total when the contract is signed, 40%

when the cabinets and equipment are delivered and 10% when the job is completed. Contracts are signed when the final plan is shown at the second design presentation. "If there has been a lot of revision, such as using part of one plan and part of another, we also prepare a new set of perspectives. We feel these are very important because they help people visualize just how their new kitchens will look."



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REMODELING

Bring **OLD BATHS** Back to Life



No one feels comfortable in a room that is claustrophobic and hard to move around in. But that's exactly what many old bathrooms are—including all of those shown.

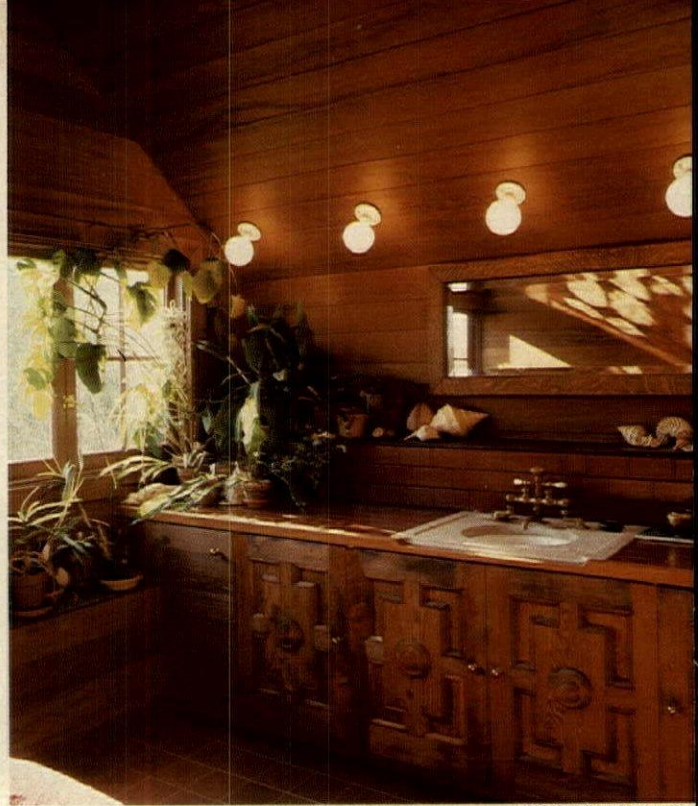
The plans for these rooms were outmoded, the spaces dark and cramped. Fixtures were arranged to suit the space rather than for convenience.

Each remodeler recognized that his primary task was to create openness, giving the room air and the user breathing space. Their solutions fell into three categories: 1) to physically enlarge the room; 2) to add windows or skylights; 3) to compartmentalize the space, creating separate areas for separate activities.

The result: bathrooms like the one at left—not only far more open and attractive than the old, but also more convenient and functional.

—JENNIFER A. WAGNER

JOSHUA FREIHALD



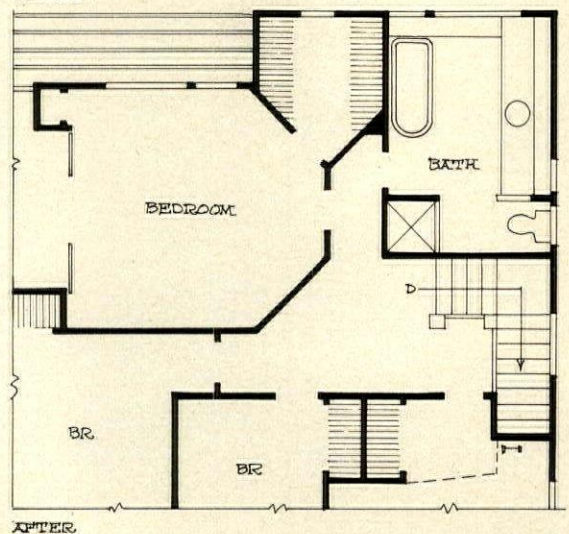
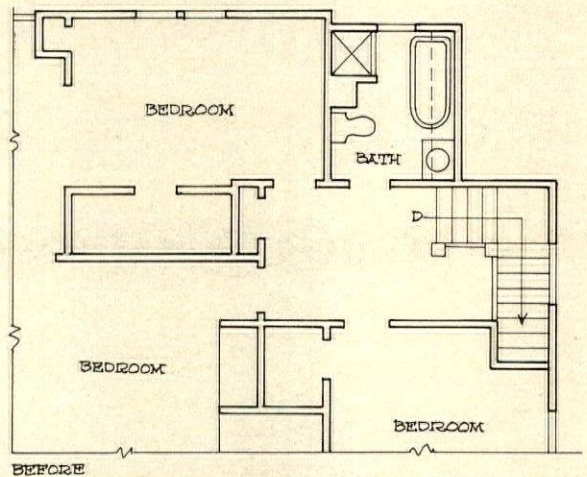
PHOTOS: JOSHUA FREIWALD

Eliminating Cramped Spaces with 'Structural Gymnastics'

"If you don't have room to go out, go up. That really helps relieve a cramped feeling," says architect/builder William Remick of Piedmont, Calif. In this job, Remick had the room to do both—and thereby expanded a dark, 50-sq.-ft. bathroom into an elegant, sunlit room twice that size. By eliminating the attic, Remick could raise the ceiling, achieving a lofty, cathedral effect. Operable skylights and vents dissipate heat and steam, as well as accentuate the volume. Remick also knocked out the far wall, adding about 6 ft. to the master bedroom and bath, and giving the master bedroom a larger closet.

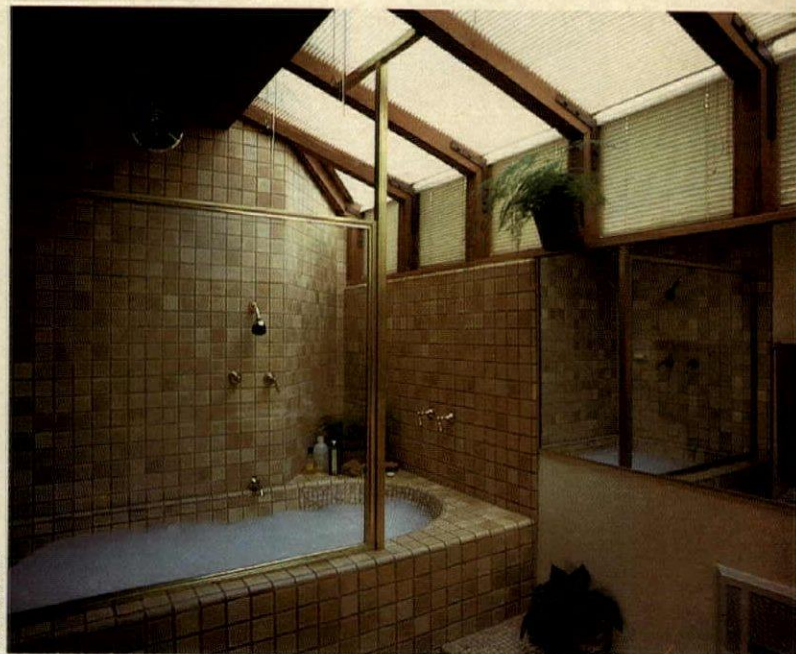
Fixtures were rearranged to compartmentalize the space, providing privacy and comfortable elbow room for each activity. Notice in particular that the water closet is set behind an arched opening (*photo above left*), for nearly total privacy. And where did all the plumbing go? It's hidden in the tiled plant shelf (*photo above right*).

The clients wanted a Victorian-style bathroom in keeping with their old, shingled house. They also wanted the remodeled bath to incorporate some old pieces they had collected: stained glass panels (*see photo preceding page and above*), a marble sink and old brass fixtures. Remick provided the complementary background: rich-toned, sealed redwoods, quarry tile on the floor, and a dark burgundy tile for the counter and backsplash.





GEORGE LYONS



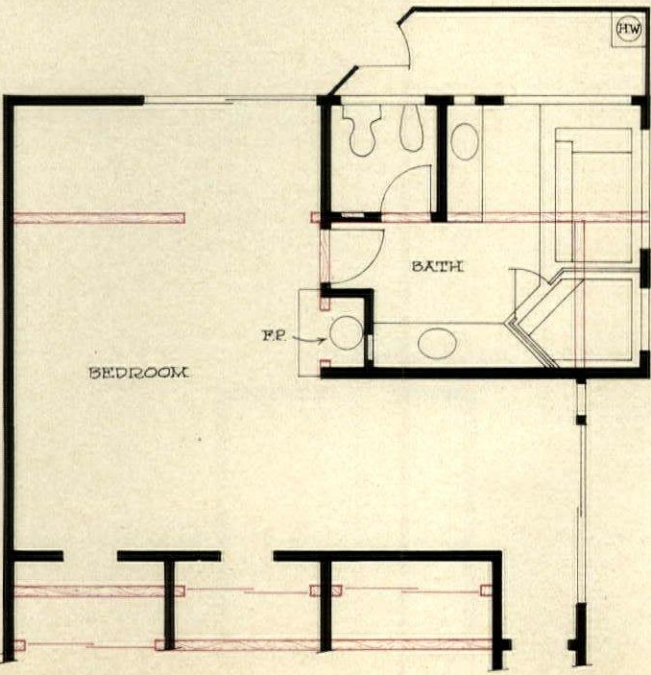
VIC TOMASTAN

Remodeling for the His-and-Her Facility

Architect Brion Jeanette of Newport Beach, Calif. notes that one of his most frequent requests is for separate his-and-her areas in a single bath—and this remodeled bath is a prime example.

By pushing the entire wall out 6 ft., Jeanette nearly doubled the size of the room to about 130 sq. ft. He then designed the “his” area—including a basin and a shower—and the “her” area—with a second basin and whirlpool bath—so that the room could easily be used by two persons without getting in each other’s way.

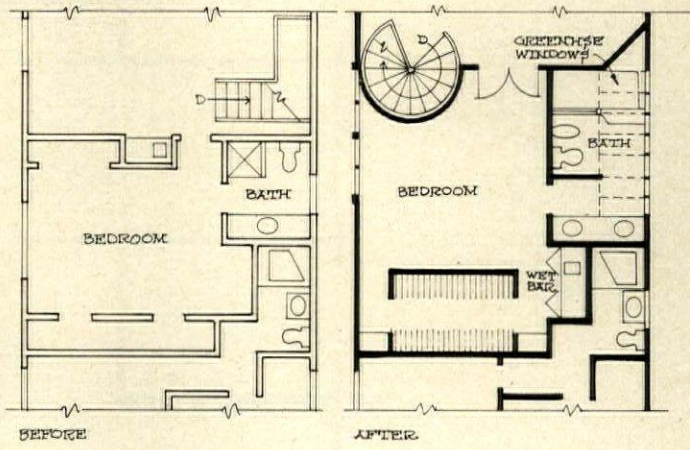
Other features: the abundant glass looking out to a landscaped patio, and skylights, which “explode the ceiling,” says Jeanette, to give the room volume.



Introducing Light into a Bath—without Losing Privacy

This time architect Brion Jeanette wanted to create as much window as possible in a dark, cramped bathroom to make a smaller space feel transparent. But the house itself is on a small lot—and the neighbors are only 6 ft. away. So rather than opening up glass walls, he built in a high, knuckled skylight (see photo) that let light pour in without leaving the bather feeling exposed.

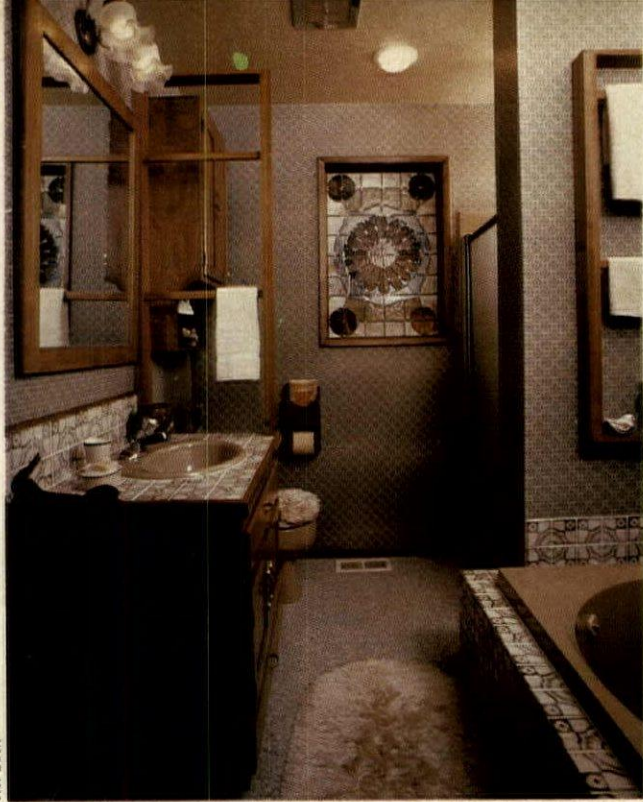
Jeanette then relocated an existing stairwell, installing in its place the tiled tub seen in the photo. This opened up the floor space considerably from its original 50 sq. ft. to about 100 sq. ft. He also compartmentalized the bathroom, so that “when you want to feel private, you can,” even when someone else is in the room.



WILLIAM B. REMICK



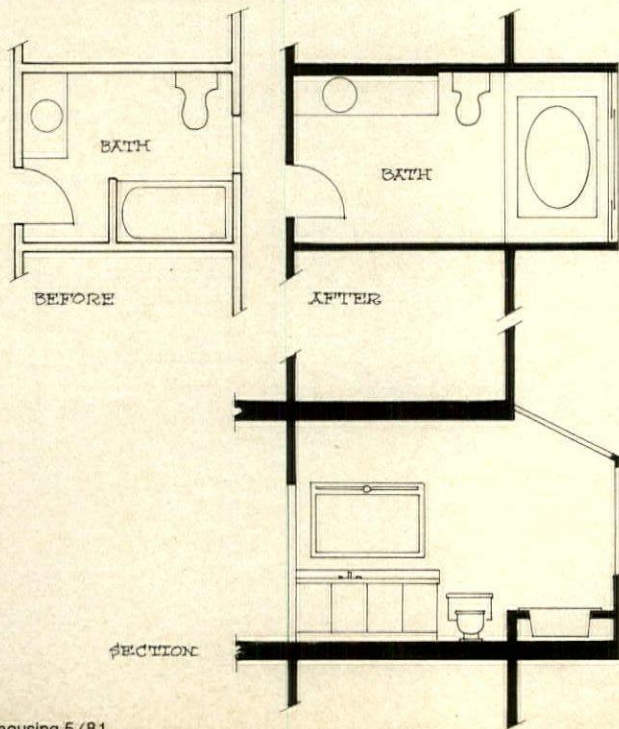
PAT BURT



Transforming a Standard Bath into a Spacious Solarium

This is another remodeling by architect/builder William Remick (see pp. 97-98). But in this job, unlike the first one shown, there was nowhere to go *but* out. So Remick simply cantilevered about 6 ft. out over a ground-floor patio (see cross-section below). "It is basically a greenhouse addition," he observes, adding that the framing of the house lent itself to this solution, since no exterior bracing was necessary. Also, the plumbing and waste lines were in the right place.

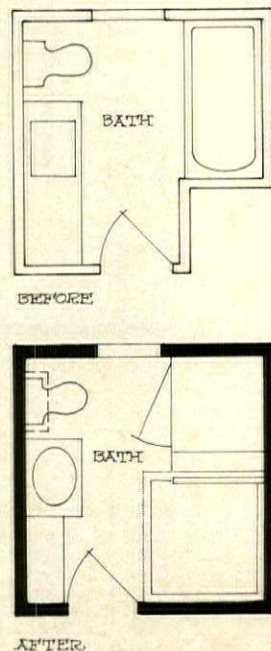
The client, a decorator, wanted to maintain the character of the rest of the house, built in 1887. So brass faucets and showerhead were picked up from a salvage yard, and used along with modern fixtures and tiled surfaces to get the old-fashioned look she wanted.

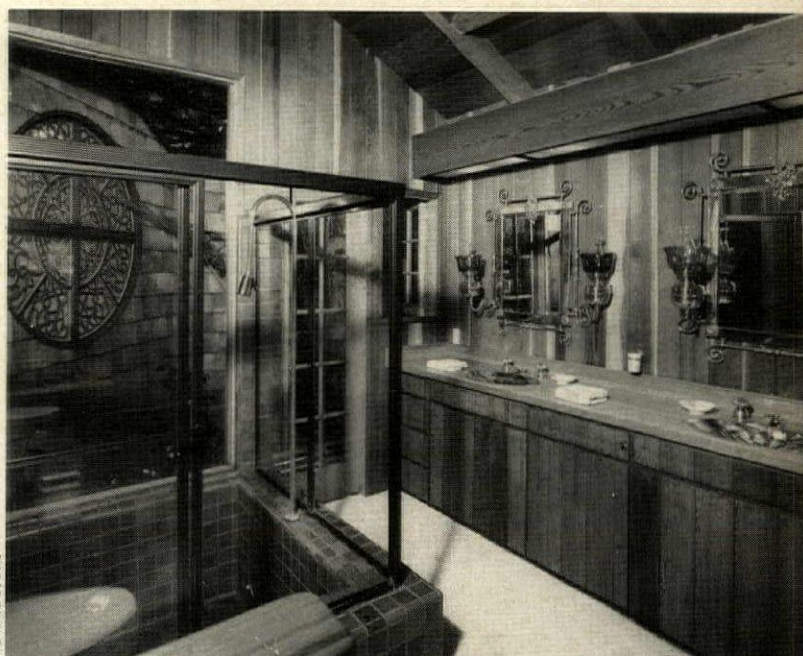
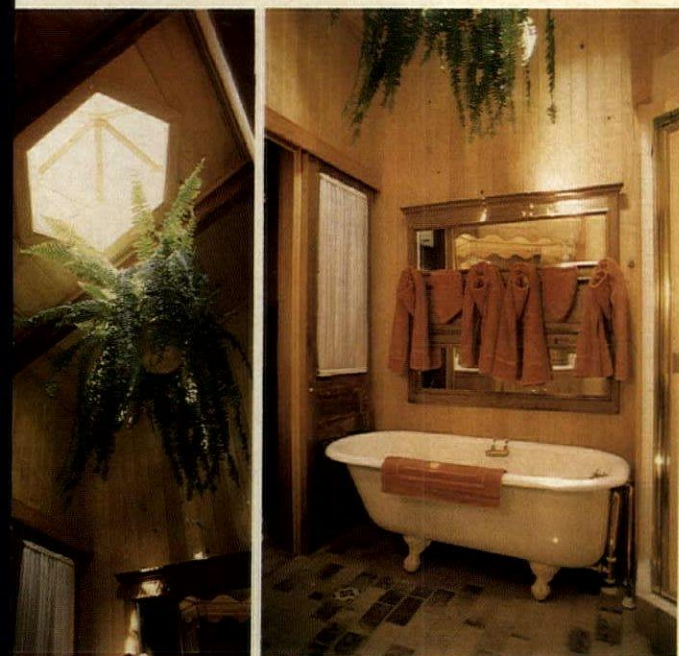


Hiding Storage Space in a Tight Mini-Spa

The clients wanted an open luxury spa built into the existing space. They were elderly, and so they also asked for a seat on which to dry off. And finally, they wanted more storage space. Designer Leo Ickovic's first reaction: "It was like being asked the impossible."

His final plan fulfilled all requirements—although he had to work with tolerances as tight as $\frac{1}{8}$ ". The solution: The linen closet outside the existing bath became a round soaking tub; the old tub, a roomy shower. And the seat was built across from the tub. Only the water closet remained where it was. The storage space solution: Shelving was built in three places—beneath the seat, above the water closet—and in the vanity, which also features a tilt-out drawer beneath the basin.





GEORGE LYONS

Recreating a Victorian-Style Bath for a Modern Resort

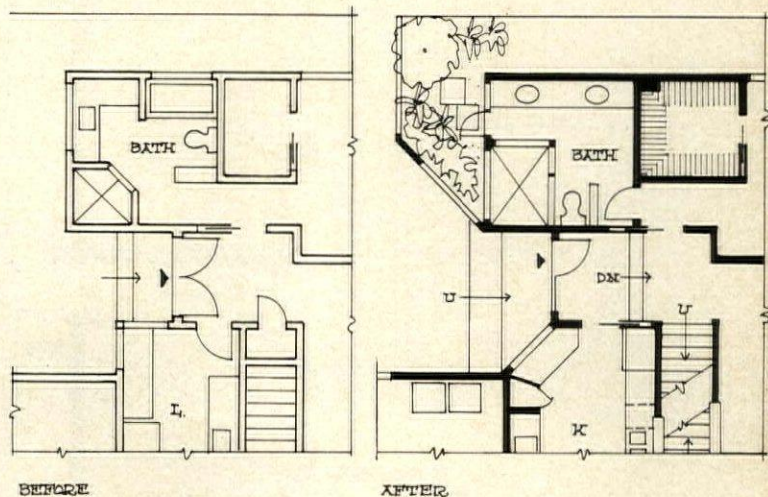
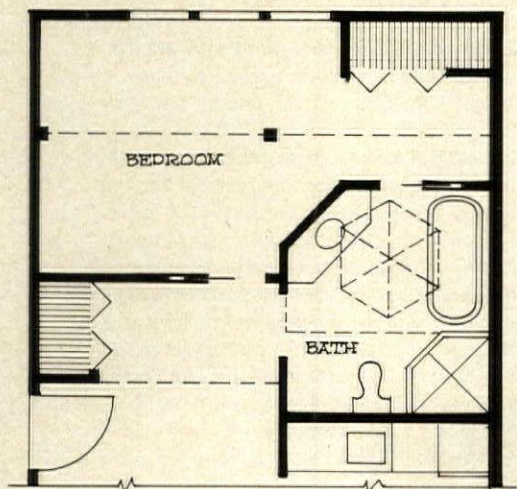
It's in the first of five units to be remodeled in the Driftwood Inn Resort, constructed in the 1930's in Vero Beach, Fla. The old plan was tiny, the room itself delapidated, with broken tiles and plumbing that had to be completely redone. Its one asset: a high ceiling, which construction coordinator Tom Collins vaulted and opened up with a skylight to add volume. Collins also expanded floor space from 30 to 65 sq. ft.

Since the rest of the remodeled suite features furniture from the turn of the century, freelance decorators Debbie Gooch and Dale McGee tried to maintain that look. Hence the antique claw-foot tub, the oak-framed mirror and antique door—all bought at antique shops or salvaged.

Extending Floor Space by Using an Exterior Courtyard

This north-facing bathroom was very dark, with almost no windows. But it bordered on an entry court which architect Brion Jeanette realized he could take advantage of. French doors now open out to a private, enclosed patio, essentially extending the bathroom area. The pump for the whirlpool is buried here. Skylights and the plate glass behind the whirlpool draw sunlight.

Jeanette worked the entire bath in redwood, with rosewood cabinets and brass hardware, to provide a rich and subtle background for the owner's stained glass panels (see photo above) and ornate mirror. Above the mirror is a 12'-long soffited incandescent fixture to prevent glare and to enhance the wood and brass tones.





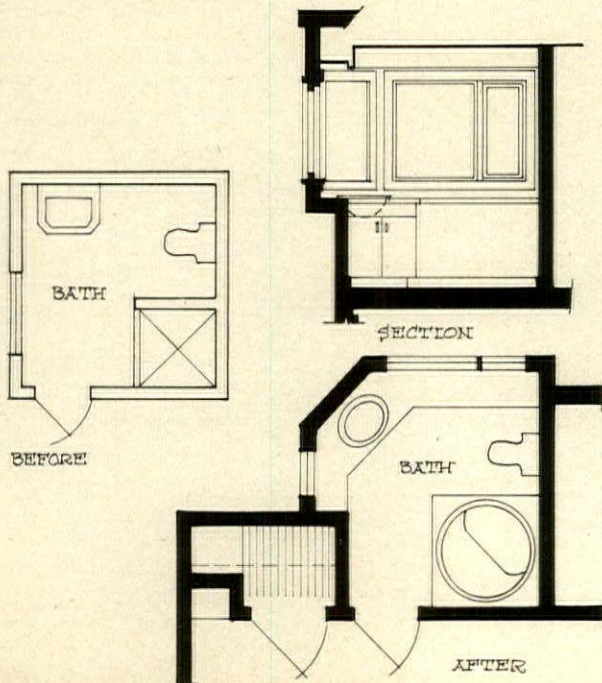
WILLIAM B. REMICK

Turning a 'Super-Tight' Space into an Open Guest Bath

"The bath was a total ruin," explains architect/builder William Remick. "It was full of dry rot, and the floor was actually falling away." It was also tiny: only 6 ft. square.

To gain space, Remick pushed the wall out one foot, staying under the roof overhang to avoid reroofing. He then added large casement windows to bring in light and to open up views to a landscaped backyard. Finally, he ran a long, tiled counter around three sides of the room.

Remick then replaced water closet and sink with new fixtures, and installed a soaking tub instead of the old shower. "The only real problems were manipulating the plumbing underneath to get at the tub—and getting rid of all the dry rot," he says.



Some Tips from the Pros

"These are the kinds of things," says architect Brion Jeanette, "that you learn only after a year of hard knocks."

1. Locate toilets and other fixtures away from living areas so that the noise from the pipes cannot be heard. Another aid here: insulate pipes. This will save energy costs too.

2. When you install skylights, keep the size down. "If they're too big you could start cooking the tops of people's heads off." Make the skylights operable, if possible. This will eliminate steam and heat buildup.

3. Don't order colored fixtures from more than one manufacturer. You may be unpleasantly surprised when you open the boxes—and find they don't match.

4. Give thought to towel placement; make sure you have an easy-to-reach wall space available for towel racks.

5. Use water-saving fixtures, if possible. "There's really no need to use up 7 or 8 gallons each time you flush." A number of manufacturers now offer such units as water-saving water closets and shower heads.

Architect/builder William Remick has one important rule: In a small bathroom, keep the palette simple. "I find that if you don't mix too many materials, the room feels more spacious. Otherwise, it becomes cluttered."

Remick also offers some tips on managing a successful remodeling business. He works with a crew of 10 persons—which he expands to as many as 20 in heavy periods—and maintains strict control over each job. He also builds only what he has designed.

1. Deliver what you promise. Make sure you have a stable and reliable crew *before* you start. Nothing will be more deadly to your reputation than inconvenienced and dissatisfied clients.

2. Be realistic when you estimate construction time and costs. Estimate high. "Then if you come out 2% under your estimate, you'll be a hero."

3. Get decisions from clients at the beginning, and make them aware that the construction process is sequential. Warn them that a change of mind on even the simplest material could mean a delay of several weeks.

4. Keep your clients as comfortable as possible. If you're remodeling kitchens and baths, set up an alternate *working* room for them. When you infringe upon their personal spaces, says Remick, people can get unhappy very quickly, even though that's what they hired you for. "You really have to do a lot of hand-holding."

5. A final tip: "Try to do what people want done—and do it well."

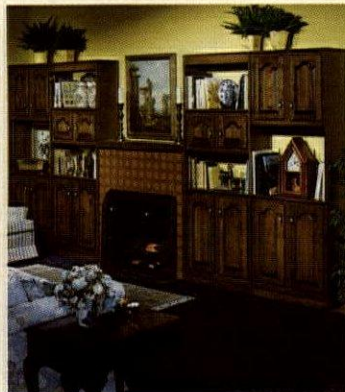
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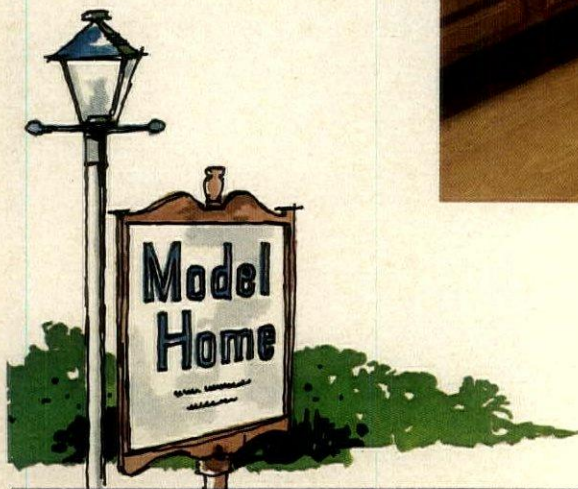
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The Wood Look

How to Make It Work

In the last few years there's been a surge of interest in wood for walls and ceilings of kitchens and baths—and even for tub surrounds and showers.

The reasons for this trend aren't hard to make out. One is the warm, natural beauty of the material. Another is the promise of long life and low maintenance. A third, and perhaps most important, is the increased popularity of open floor plans: Without walls to separate kitchen from living areas, "kitchen-only" surface treatments are visually jarring. The same holds true for retreat-like baths in sybaritic master suites.

But using wood in kitchens and baths can cause headaches for the unwary builder or remodeler: Special handling is required. Here are some of the things you should consider before specifying wood for these high-humidity areas.

What kind? Kiln-dried redwood, cypress, cedar and teak are the best bets, according to John King of the American Wood Council; in other words, the same durable species often used in exterior or marine applications.

Heartwood grades of redwood are recommended for areas exposed to continuous moisture, such as the tub surround or shower. Sapwood-containing grades work well in other parts of the bath, however, and in the kitchen.

Other varieties—oak and pine, for example—can be used if they're properly protected.

Finishes. Polyurethane is a good choice for wood exposed directly to water. That's the finish used on the oak tub apron shown on our cover.

In fact, the California Redwood Association recommends several coats of polyurethane or alkyd resin varnish for redwood used in any area of the kitchen or bath—two coats applied to all sides and edges before paneling is put up and two or three more after it's in place.

"These are really the only finishes that provide adequate protection," says California Redwood's Keith Kersell.

But there are drawbacks, too. "When you coat wood with enough polyurethane to use it in the shower, it doesn't feel like wood anymore," says Doug Loth of Simpson Timber. "It's plasticized."

So if your buyers desire the feel of

wood as well as the look of it, you may want to suggest that they choose another material for the shower and other splash-prone areas.

Or you could follow the lead of Architect Barry Sugerman, who designed the teak tub deck shown at right: It was hand-rubbed with linseed oil, just as teak on a boat might be.

Or you may opt for no special finish at all—if your buyer is prepared for the result.

"In one case, the clients wanted the rustic, water-stained look they'd seen in saunas in Finland," says Fred Haaker of The Kohler Co.'s Product Installation Services Dept. "So they installed uncoated redwood in the shower."

For surfaces not directly exposed to water, you may want to investigate the various bleaching oils available, such as those used in exterior applications. The waterside kitchen pictured on page 111 shows how pine treated with a bleaching oil will appear. Such compounds are also appropriate for cedar.

Installation. "The wood will expand and contract because of varying degrees of heat and humidity," points out Simpson Timber's Loth. "So it should be fastened with corrosion-resistant nails—stainless steel, aluminum or hot-dipped galvanized—rather than with mastic."

"Snug, but not too tight," is the way Kersell of the California Redwood Association describes how boards generally should be fitted. The American Wood Council's King has more specific recommendations for the tub surround.

"Paneling shouldn't be run tight into the corner," he says. "You should leave ¼ in. to ½ in.—a gap which can be covered with trim. Or the boards can be butted tight at the corner, if expansion space is provided at the outer edge."

A caulking compound should be applied between the boards and at all joints.

"It doesn't pay to skimp on sealants," says King, "especially since there are clear silicones available which don't detract from the wood's appearance."

And don't neglect to use a vapor barrier behind the wood, such as a piece of 6 mil polyethylene.

For the tub surround, where leakage,

as well as condensation, can occur, King suggests wrapping polyethylene under the tub. "Any water reaching the plastic will run down below the tub and sit there until it evaporates," he says. "This should work well because the amount of such leakage will be very small."

To prevent condensation problems, kitchens and baths should also be properly vented, of course. The glass-walled bath shown on page 109 shows how a fan can be installed between exposed wood joists. (For more details on ventilation and vapor barriers, see "How to Avoid Condensation Problems," HOUSING, April, p. 78.)

Access to plumbing. Ripping out paneling around a tub or shower in order to investigate a plumbing problem won't please you or your buyers—especially since any replacement wood may not match the original.

So create a removable access panel by fastening wood to a sheet of marine plywood instead of directly to the studs.

This is particularly important if you're installing a whirlpool tub.

"We suggest removable panels front and back," says Kohler's Haaker. "The front panel allows for working on drains, shower fittings, etc. The back panel allows for servicing the whirlpool motor. Both can be screwed in place."

This is an easy matter when the tub is freestanding. The baths at right and on page 108 show tub boxes which could be designed with removable sections.

Buyer education. Whenever wood is used in a kitchen or bath, you should make sure your buyers understand how to live with it. You should make a point of telling them that wood used on horizontal surfaces around the tub should be wiped dry. Even a polyurethane finish won't fully protect wood if water is allowed to puddle on it repeatedly. And you should tell them that sunlight and the passage of time will alter the wood's color. But don't suggest that this is a drawback: Rather, take your cue from Architect Alfredo De Vido, designer of the bath which appears on our cover.

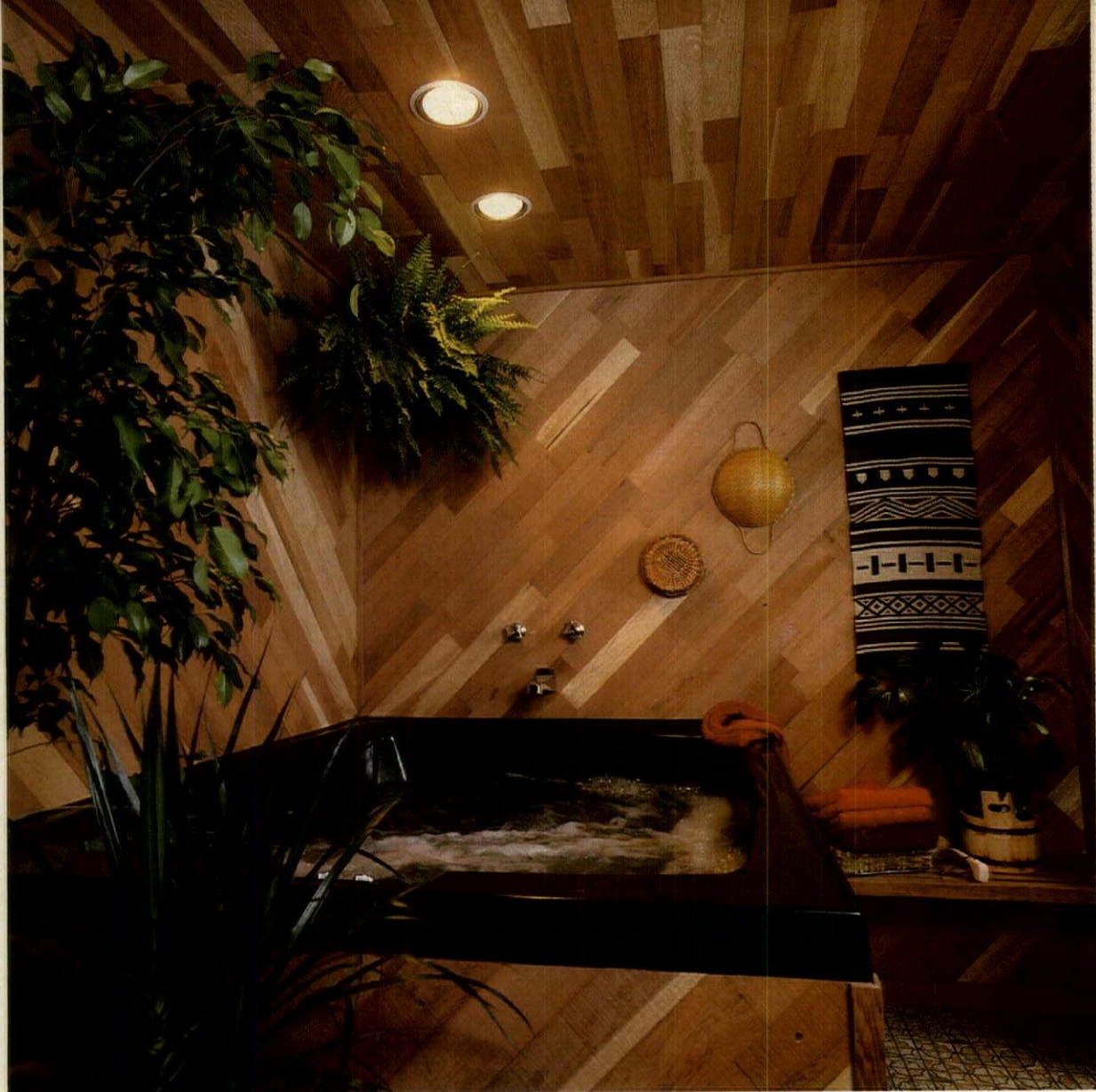
"The way wood ages beautifully is part of its appeal," he says, "Plastic is never better than when you take it out of the store." —BARBARA BEHRENS GERS



DAN FORER

Teak tub deck and wainscoting lend elegance to a master bath with rustic-looking cedar ceiling and beams. The teak has a hand-rubbed linseed oil finish, which will need to be renewed from time to time, much as in marine applica-

tions. This bath is in character with the rest of the house, which was built with post-and-beam construction and features exposed cedar throughout. Shower wall, however, is tiled. Architect: Barry Sugarman, North Miami, Fla.



Windowless bath (*above*) gets a visual lift from diagonally applied redwood paneling. The whirlpool bath—and an adjoining sauna—occupy previously unfinished basement space. (The area had been used only for storing ski equipment and other family odds and ends.) The rough-textured paneling is nailed to furring strips installed over a concrete wall. This basement retreat is in a Pacific Northwest residence for a family of five.

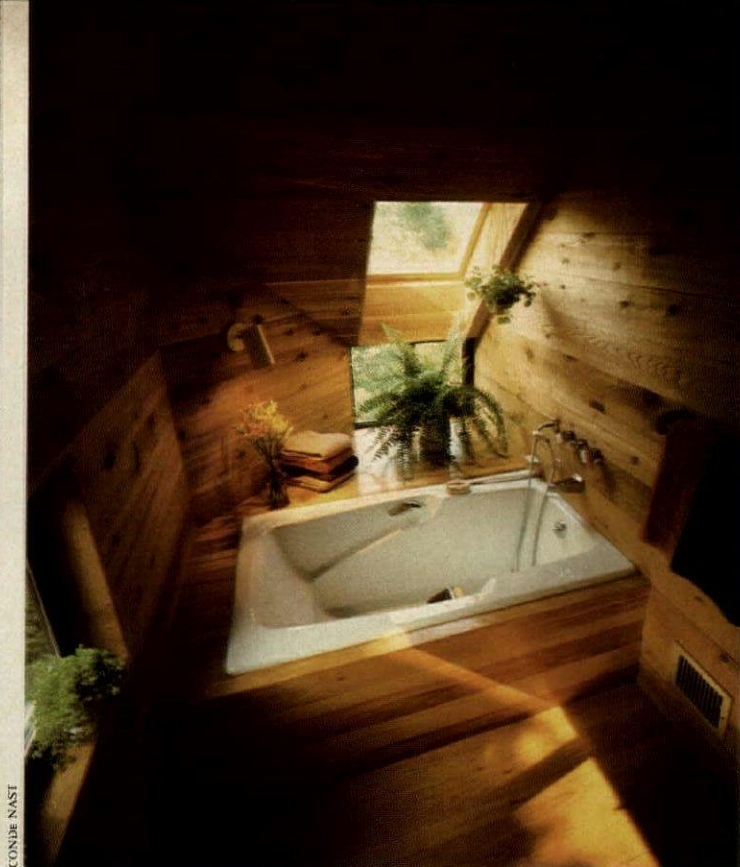


Skylit master bath (*left*) has walls and ceilings of clear all-heart redwood. For visual variety, the redwood boards are used horizontally, vertically and diagonally. The tub apron, with step-up and shelf, is likewise redwood—a splash-prone application where multiple coats of polyurethane or alkyd resin finishes are recommended. The bath is in a Colorado custom home designed by Architect Robert Sutter of Fort Collins.

TED EBBEN



Redwood and tile transform a utilitarian area into a luxurious extension of the adjoining master bedroom (on other side of tiled two-way fireplace in the photo above). Redwood is also used elsewhere in the master suite and on other walls of this California custom home designed by Architect Barry Berkus, Santa Barbara, Calif.



CONDE NAST

Glass-walled bath (below) fools the eye: Resawn redwood boards are used both on the bathroom wall and for a garden fence, so the bath seems as if it's outdoors. Redwood finish: a standard semi-transparent stain. The shower wall is tiled. Exposed joists are Douglas fir. Architect/builder: Ron Goldman, Malibu, Calif.

Oak tub apron (above) is polyurethane-coated. Even so, the wood will discolor if water is allowed to puddle on it. Sunlight will darken the cedar used on walls and ceilings of the tub niche—a natural aging process which enhances the wood's beauty, according to Architect Alfredo De Vido, who designed the bath for a suburban New York home.



GLEN ALLISON



Country kitchen (*above*) is the gathering place for a family with five sons. Traffic will be heavy, and the oak floor may show some wear in spite of a durable urethane finish. Redwood was used on walls and ceil-

ings to create a warm, inviting look that sets this social center apart from the rest of the California custom home, which has conventional white-painted walls. A smooth-surface redwood was chosen to

make cleaning easier. Note the skylight over the maple-topped island: The redwood frame around it was custom-designed. Cabinets are oak. Architect: Barry Berkus, Santa Barbara, Calif.



CONDE NAST



DAN FORER

Skylit kitchen (*above*) has walls and ceilings of rough-sawn cedar. Because of the strong sunlight, the cedar will eventually darken. And the cedar wall behind the stove will probably be marked by grease, etc. Neither of these color changes is undesirable, if the homeowner appreciates the patina of aging wood. Moreover, the cedar will require little maintenance over the years. This well-lit kitchen is in a Southampton, N.Y. custom home by Architect Alfredo De Vido, New York City.

Solarium kitchen (*below*) blends fir, spruce and birch. Exposed joists and window framing are fir. (Note that there's no header where skylight and vertical glass meet. Instead, the sloping glass overlaps lower panes by 3 in.) Spruce sheathing on the ceiling is stained to match fir joists. Conscientious use of the exhaust fan over cooktop and barbecue should prevent the wood from being discolored by smoke. Birch cabinets are custom-made. Architect/builder: Ron Goldman, Malibu, Calif.

Waterside kitchen (*above*) has pine ceiling and laminated pine beams, as do most of the rooms in this Florida custom home. The pine was treated with a bleaching oil containing creosote, as it would be in an exterior application. However, according to Architect Barry Sugarman, this finish was used primarily to tone down the yellow color of the wood. Since the kitchen ceiling is high, smokey or grease-laden air should dissipate before affecting the pine (there's no barbecue).



BOB KOHN



GLEN ALLISON



How to Use Natural Light

Window planning, design, and placement are the keys to good looks and lower heating costs.

Natural light in kitchens and baths remains a high-priority item for homeshoppers and remodeling prospects. But utilizing good natural light requires more than putting glass over a hole in the wall or ceiling—and poorly designed, improperly installed, or badly located windows may account for up to 25% of the heat or cool air loss in a house.

Here are some guidelines to help you with window planning:

- In moderate or cold climates, south-facing windows result in less heat loss—and lower costs. These windows receive more direct sunlight in winter, when the sun is lower, and less sun in summer.

- Kitchens and family rooms of young families will have more daytime use and need more southern exposures.

- To reduce unwanted solar heat gains, use roof overhangs, awnings, sun screens, and movable shutters. Such exterior shading devices “can reduce summer heat by 50% or more,” says Albert F. Lutz Jr., market manager of residential construction for PPG Industries’ Flat Glass Division.

- Sealed insulating glass, storm windows, and similar products can increase thermal resistance. But research by the National Bureau of Standards has shown that in moderate climates, double-glazing reduces energy costs “only slightly” for south-facing windows.

- A moderate-size window can provide daylight to about 10 to 15 ft. into a room. This can affect lighting and cooling costs, because incandescent lights give off heat.

- Obviously, tall, vertical windows, skylights, and windows located high on the wall let in more light than narrow horizontal ones.

- Interior window coverings can help to reduce heat loss, but generally are not heavy enough in kitchens and baths to be effective.

- Light and views can be shared—by opening interior rooms to spaces with good light.

Two-story glass wall dramatizes an eating area in a 200-sq.-ft. addition (left) and throws natural light throughout this renovated kitchen and the balcony guest room and home office above. “Luckily,” says architect Clifford A. Cooper of Litchfield, Conn., “the old service wing kitchen that was here already faced to the south/southwest.” The builder: Durst Brothers, Harwinton, Conn.



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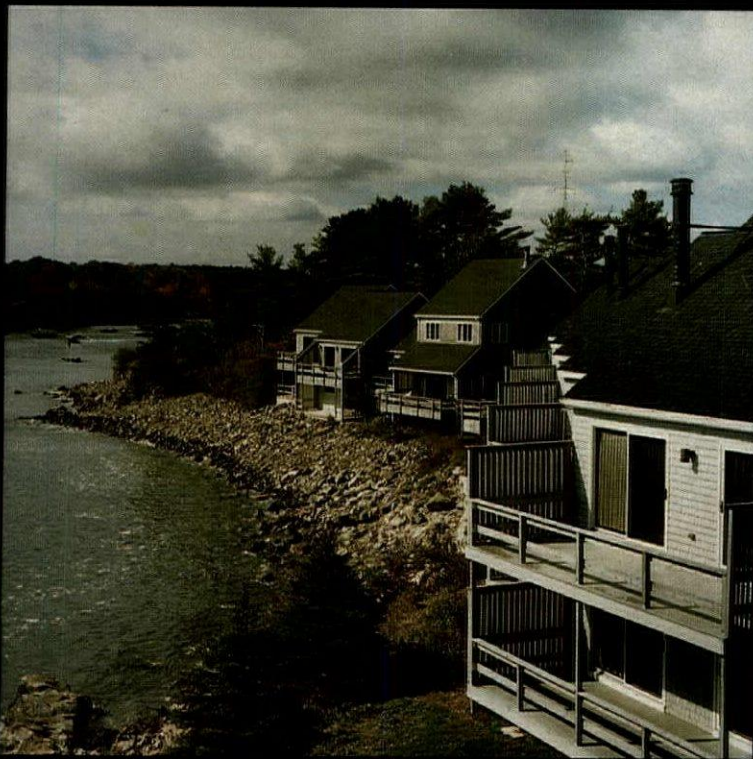
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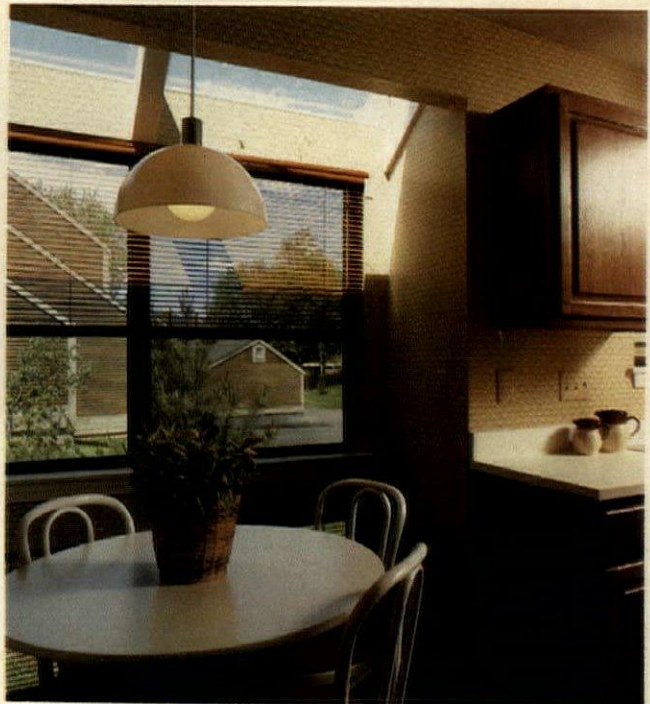
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Greenhouse window (*above*) wings back over ceramic tile counter to heighten light for the cook and her plants. The kitchen is in a 2,261-sq.-ft. model in Avco's Rancho Bernardo, San Diego. Architects: MLA Architects, Irvine, Calif. Interiors: Erickson & Associates, Alhambra, Calif.



ROBERT PERRON

Greenhouse window stretches out beyond counter (*below*) to collect sunlight and help visually expand space in 2,072-sq.-ft. model in Clipper Cove at Harbor Bay Isle, Alameda, Calif. Pass-through enhances open feeling. Builder: Dividend Development Corp. Architects: Oakley & Associates. Both are of Santa Clara, Calif.

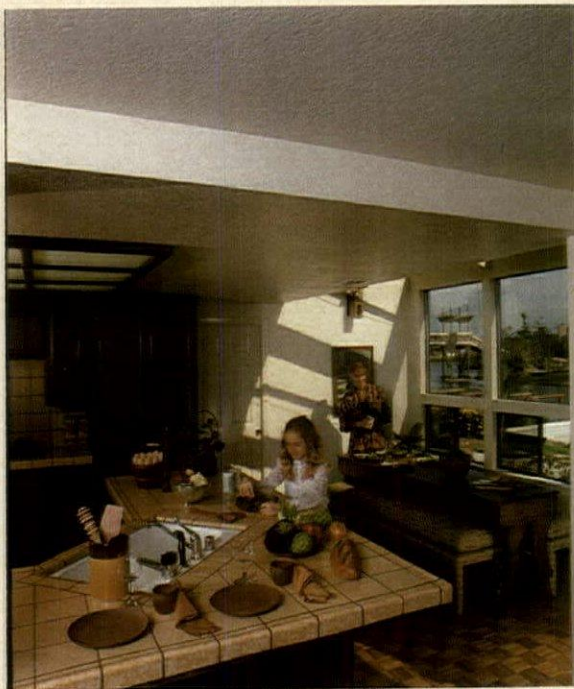
Greenhouse-style window pairs with blinds (*above*) to offer light and breakfast area privacy in 1,758-sq.-ft. townhouse in The Village at Glen Lochen, Glastonbury, Conn. Builder: Village Associates; general partner: Nolan Kerschner, Norwalk, Conn. Architect: Zane Yost, Bridgeport. Interiors: Dorothy Karg, Westport.



BARREAU ENGH

NATURAL LIGHT: KITCHENS

BARBEAU ENGH



Solarium-style nook (above) opens up the whole kitchen to light and lagoon views in a 2,388-sq.-ft. model in Clipper Cove. Informal dining counter opens the kitchen to the family room, with the sink looking out through family room sliders. Prices in this Dividend Development community (see preceding page) run from \$168,500 to \$257,500.



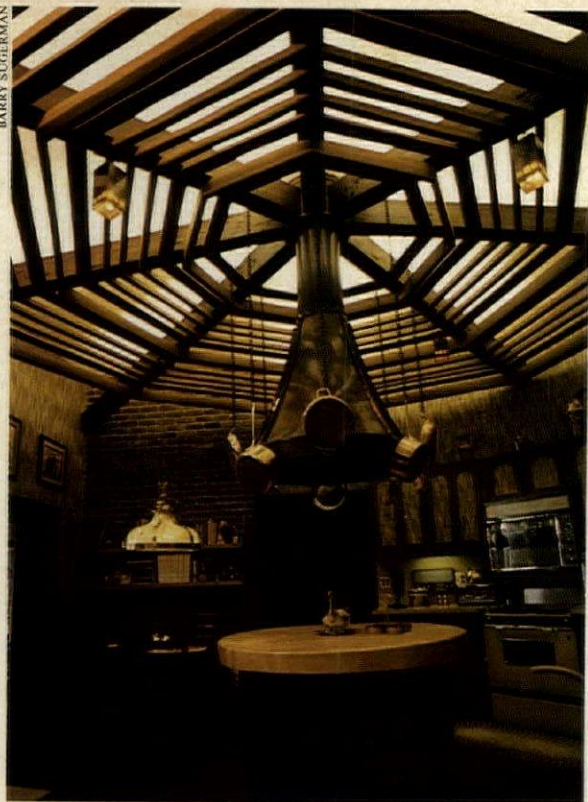
Wall of sliders (above) creates true indoor/outdoor feeling in a streamlined kitchen in a southern California luxury patio home. Note the louver-style exterior shading device: It cuts glare and solar heat gain and echoes decorative shutter motif. Builder: Avco Community Developers, San Diego. Architect: Dale Naegle, La Jolla. Interiors: Quinn Robertson Design, Tustin, Calif.

Addition of a 3-ft. by 14-ft. double-glazed greenhouse window area (below), supported by pier footings, helped turn a dated Pennsylvania kitchen into a place "guests don't want to leave." Renovation by Burwin, Pa., designer Jack Mazur also took in space once lost to a hall and closet. Counter heights are varied "according to use" and the sink is set in an island with roomy storage drawers to put deep pots close to the main food preparation area.



ED SOPKO

BARRY SUGERMAN



Cedar slats, in a trellis-like arrangement (*above*) designed by Miami architect Barry Sugarman, help control light and glare but maintain visual impact of spoke-beamed skylight. Victor Cribb was contractor for this Florida updating that included new wood doors on cabinets and removing old barbecue from brick-faced island.

NATURAL LIGHT: KITCHENS



ELLIOTT BEATT

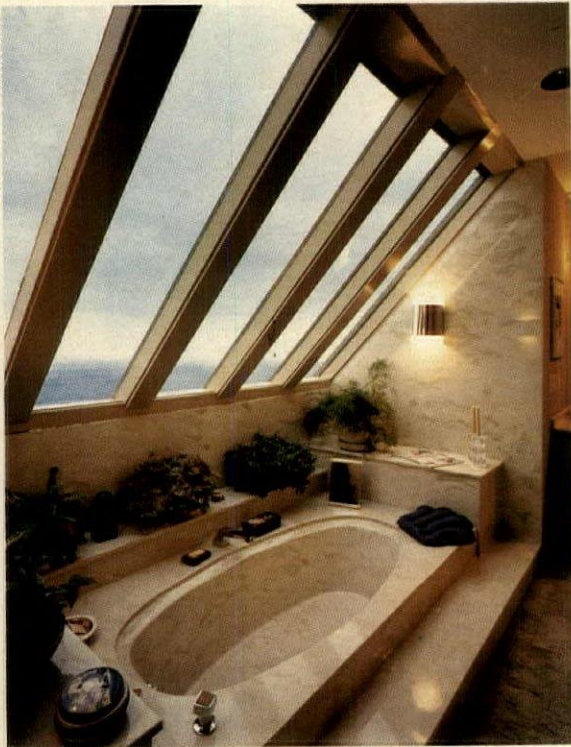
Tilted windows (*above*) provided a solution to a problem: A stable courtyard dating from 1850 provided space to add a kitchen, but Georgetown codes kept Washington, D.C., designer Jeffrey E. Gilbert from putting any windows in walls on the property line. So he glazed inward, giving the room a view of the sky and treetops. Interior design by Thomas Pheasant of Washington.

South-facing skylight and shallow window near the ceiling brighten cedar-topped kitchen (*below*) in a suburban New York house by architect Alfredo De Vido of New York City. Back wall is on the diagonal to allow views of the outdoors, but not the neighbors. This family center has many work areas so that grandparents, parents and children can all cook at the same time. Harry Prince, North Babylon, N.Y., was the builder.

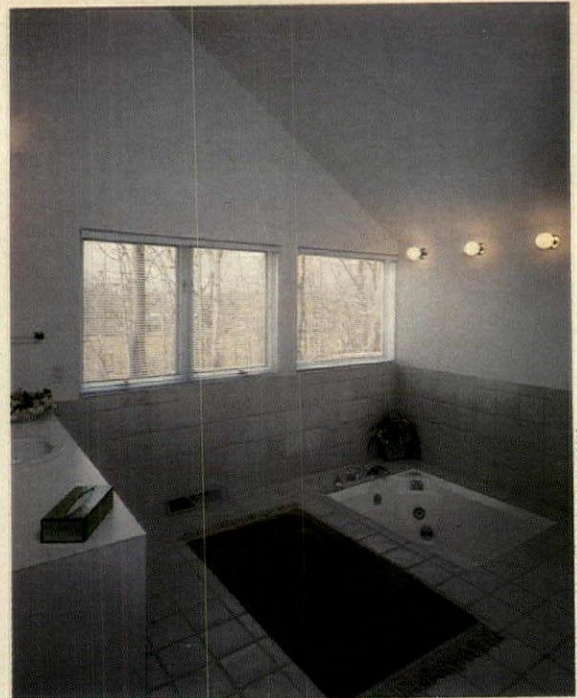


PAUL WARCHOL/ISTO PHOTOGRAPHERS

OTTO BAITZ



Dramatic tub area (above) is in a two-bath master suite of a house by architect Ted Smith of Derthick & Henley, Chattanooga. Windows, which are double-glazed and tinted against the Southern sun, light entire bath. Builder: Gene Rogers Construction Co., Dalton, Ga. Interior design: Karen League of Jova, Daniels, Busby of Atlanta.



PAUL WARCHOL/ISTO PHOTOGRAPHICS

Master bath (above) shares the spatial drama of house's soaring ceilings, but all southern exposures were designed to give major living areas a view of Long Island Sound. Architect Abraham Rothenberg of Horowitz/Rothenberg of Westport, Conn., and New York City opted to orient bath to light from the west and leave wall solid on the north side of the sunken tub.

Interplay of glass and mirrors makes light and air seem to flow in from the deck and out through the bath (below) designed by The Evans Group of Winter Park, Fla., for Baywood Design & Construction Co. Bath with free-standing tub is in a 2,223-sq.-ft. house selling for about \$215,000 in Waterbridge, Winter Park. Interiors: Design Spectrum, also of Winter Park.

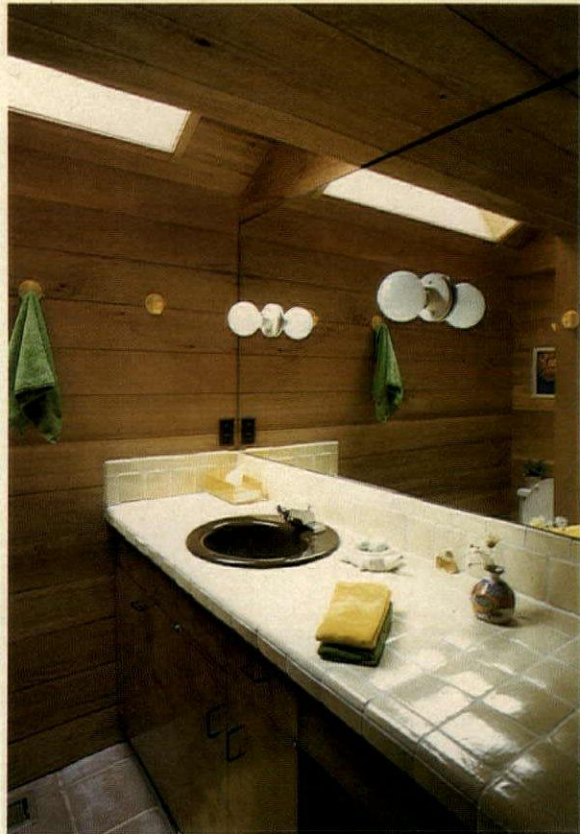


BOB BRAUN

BOB VAN NOY



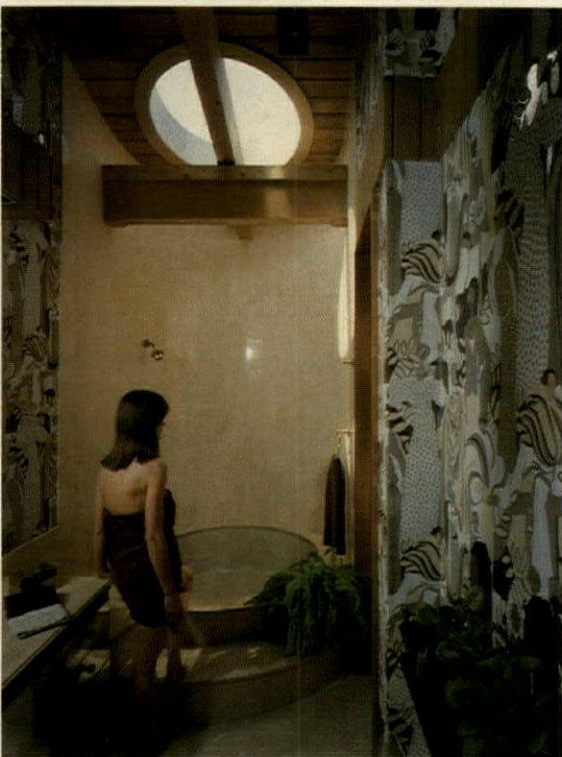
Solar-efficient skylight (above) uses sandwich-type construction with plastic top and bottom to light redwood planter and walk-in shower. Tiled shower has three sets of fixtures, (not shown) including unit "for feet and dogs," in a house by architect Lewis Bishop, Preszler-Bishop, Lodi, Calif. Builder: Leland E. Burns, Woodbridge.



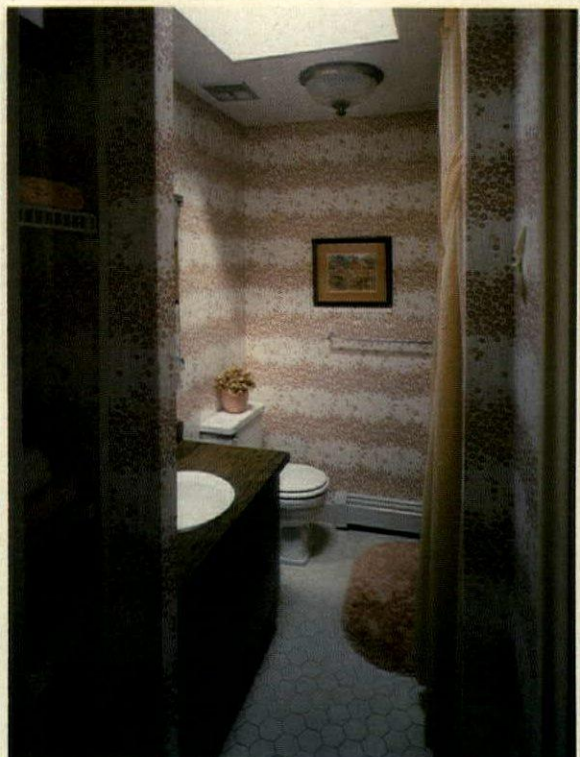
BILL MARIS

Sloping, cedar-framed skylight (above) handsomely illuminates a master bath close to the front entrance of a Waccabuc, N.Y., house by New York City architect Alfredo De Vido. Light-toned ceramic tile and generous vanity mirror maximize sun's rays on cedar-faced walls, which were left without window openings to provide privacy.

DAN FORNER



Circular skylight (above) becomes an important design element in Florida house by Miami architect Barry Sugarman. Pine beam is centered on the opening to cast interesting shadows over the circular tub all day long.



MARC NEUHOF

Traditional skylight (above) brightens a flowery bath in 2,270-sq.-ft. model selling for \$122,500 in Riverview at College Point, N.Y. Builders: Theodore and Harold Schorr. Interior: Norman Harvey of Farmingdale, N.Y.

Idea Notebook Special Effects for the Bath

Bathroom design that stops prospects in their tracks is what we're talking about. Especially master bath design. As HOUSING's Home Shopper Study showed, master suites run a close second to kitchens when it comes to making or breaking the sale. For 12 prospect-stopping ideas, study the next four pages.



Recessing a low-silhouette toilet and cornering the vanity (above) gain valuable counter space in a paneled bath. And there's lots of room for storing towels and other clean-up accessories in the expanses of under-counter cabinets. The combination of cerulean blue fixtures, rough-sawn southern pine paneling and slate quarry tile floor suggests a bath that would be especially at home in a waterfront community.



Split-level design provides narrow bath (above) with a suggestion of compartmentalization--separate areas for bathing and wash-up--without the claustrophobic feeling that partitioning would bring. Another idea for defining areas in so small a room: different tile shapes.



Over-the-tub cabinets (left) offer a rather offbeat way to store infrequently used items such as extra toothbrushes for guests, bandages for emergencies, etc. More handy storage space is provided in matching vanity/dressing table and over-the-toilet cabinet and shelves.

Easy maintenance plus glamour is the hallmark of a European-style bath (right). Laminated drop-in cabinetry--it can be moved if desired--is styled like contemporary furniture, and is fitted to accommodate toiletries usually left exposed. There are drains below the wood mesh custom flooring; hence the "open" shower shown in the foreground at right.



Accent tiles, interspersed among complementary solid color units--as in the tub/shower area above--contribute a custom note to otherwise standard baths. Used as borders, accent tiles focus attention on other features like the niche and wall-to-wall mirroring.

Super luxury, personified by built-in seating, a skylight and sculptured niches, is the hallmark (right) of a master bath in a remodeling by architect Barry Sugarman of N. Miami (HOUSING, April). G.C.: Quirino Construction Co. Interior: Sugarman/Newman, both N. Miami.

For details see Product Information Index



DAN FORER



Integral storage space--especially niches like the one shown above--is becoming standard in bathrooms today (see previous page and photo below). This big change from the old days, when bath accessories were stored out of sight, reflects new concepts of towels being decorative as well as utilitarian.



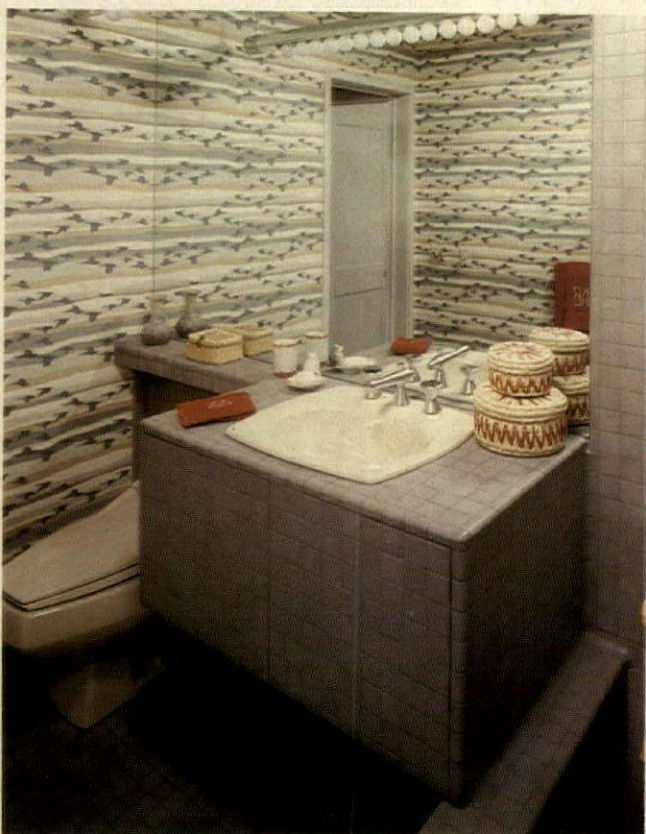
Under-the-eaves bathroom (above) is a lounge as well. A comfortable, skylighted window seat, accented by a built-in planter and bookshelves, beckons as an attractive hideaway. The cool green-and-white color scheme works especially well in hot weather locations; and the ceiling fan would be welcome too.



A recessed tub (left) draws attention to the twin storage walls, which provide enough shelf space in this bath for displaying collectibles as well as stacking linen and towels. This is a high-ceilinged room; and the application of wood diagonally on the walls helps emphasize that desirable feature. It also draws the eye upward to the over-the-tub window.



For details, see
Product Information
Index



Hidden storage--it's behind a tiled door in the cantilevered vanity--is the secret of the small bath above. Another smart idea when space is limited: extending the vanity as a shelf over the low-silhouette toilet.

Optical illusion: What appear to be wood-framed mirrors atop vanity in bath at right actually are doors hiding medicine cabinets. Architect: Barry Sugarman, N. Miami.

His-and-her bathroom (above) provides a luxurious setting for bathing and dressing. The wrap-around counter sits atop spacious drawers and cabinets. And the twin sinks are far enough apart to give two occupants plenty of elbow room. Architect: Margaret Courtney, West Covina, Calif. Builder: Delbert Morgan, Glendora, Calif. Tile painter: Barbara Vantries Beall Studio, Torrance, Calif.



GENE GROSSIOLZ

Here's a Down-to-Earth Kitchen for the Handicapped

A kitchen for the handicapped that works just as well for the rest of the family doesn't necessarily need a complex design or fancy equipment. Case in point: the kitchen shown on these two pages—a first-prize winner in a design competition sponsored by the American Institute of Kitchen Dealers.

The remodeling was done by Michael A. Lucci, CKD, of Lucci Kitchen Centers Inc., Aliquippa, Pa., for a couple; the husband uses an electric scooter-type wheelchair.* The remodeling was made easier by the type of wheelchair used, for it was possible to install cabinets and appliances at standard heights.

Essentially, the room was divided into five areas:

1. A cooking zone ("A" in plan): This area includes a freestanding oven/range installed at a 45° angle so that the scooter can be parked alongside it (see photo top left, facing page). A microwave oven was installed beneath, rather than above, a food-preparation counter.

2. A clean-up zone ("B" in plan). Besides a dishwasher and a compactor, this zone includes a double-bowl corner sink (see photo, top right, facing page). This arrangement was chosen so the husband, who is able to stand for brief periods, can pull himself up by holding on to the sink.

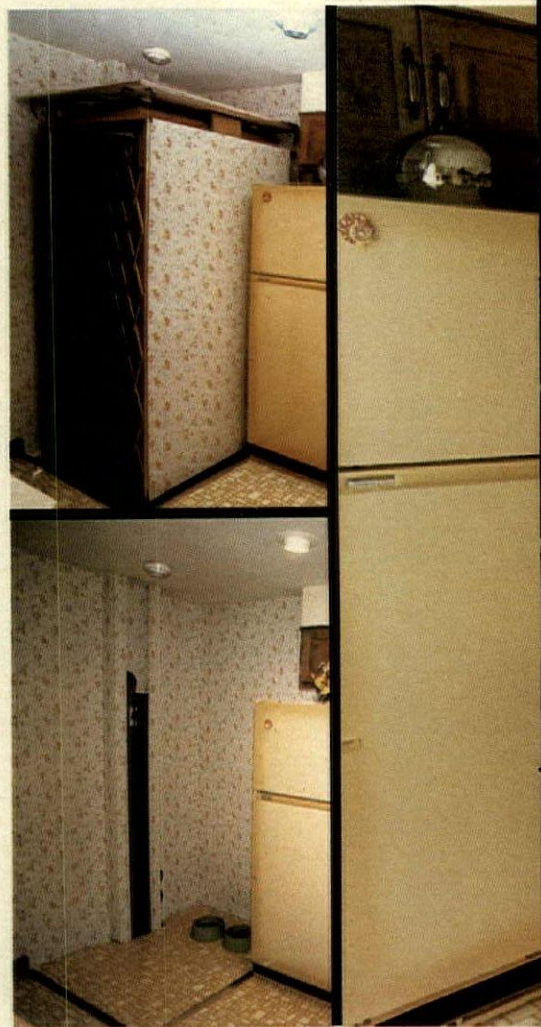
3. An eating zone ("D" in plan). The key item here is a snack bar, set on a pedestal base at a height that just clears the scooter's handle bars.

4. A storage zone ("C" in plan). A ceiling-to-countertop pantry, whose lower shelves can be reached from the scooter, is included here. Also, the base cabinet beneath the pantry was equipped with sliding shelves.

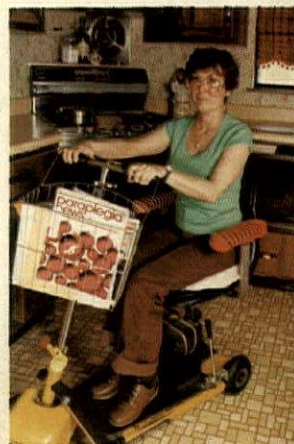
5. A traffic zone ("E" in plan). This entry and exit area was left unobstructed to prevent accidents and to accommodate the scooter. In addition, a small elevator replaces a former stairway to provide access to a lower-level laundry room.

The elevator roof is overlaid with the same kind of floor-covering used on the kitchen floor (see photos, top and bottom, at right.) Thus, the elevator roof becomes an integral part of the floor whenever the elevator is lowered. Also, a telephone, installed in the elevator, provides contact with the outside world should the elevator stall between floors. —STEPHEN LEVIN

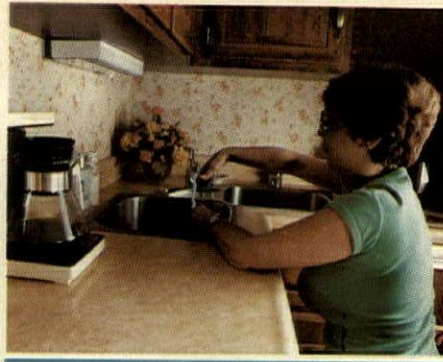
*In the photographs shown on these two pages, the wife served as the model.



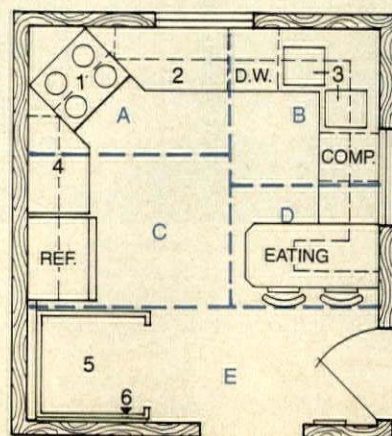
Elevator, shown above in raised and lowered positions, is finished on its side and roof to blend with the room's decor. Open floor plan (facing page, bottom) leaves plenty of room for scooter-type wheelchair (right) to navigate. Since the wheelchair seat swivels 180°, most kitchen activities can be performed while seated.



Corner oven/range is 30" wide and installed at a 45° angle so that the scooter can be parked alongside it. An adjacent window (see photo below) provides natural light for the food-preparation counter.



Corner sink, set at a standard height of 36", can be used while sitting or standing, as can dishwasher to its left.



Features key

1. 30" gas range, installed in corner at 45° angle
2. Microwave oven, installed below counter
3. Double-bowl corner sink
4. Wall-mounted pantry and base cabinet with sliding shelves
5. Elevator to lower-level laundry room
6. Telephone in elevator, for emergencies

Zone key

- A. Cooking zone
- B. Cleaning zone
- C. Storage zone
- D. Eating zone
- E. Traffic zone

0 5FT

Talk Starters

Here are two ways of adding an element of surprise to your kitchens and bathrooms: Use distinctive shapes or splashes of color in unusual places. You can start with some of these products—the hexagonal lav, the curved cabinetry and the colorful sinks.

Also shown: attention-getting amenities, such as a portable Jacuzzi® which can be used year-round, indoors or out, and the two wine storage systems catering to the growing interest in wines.

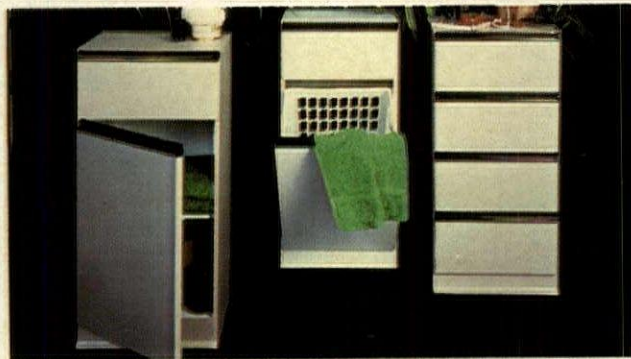
And take a look at the following pages to find possible accompaniments to the Talk Starters shown here. You'll find lighting fixtures, a variety of surface treatments and the latest in kitchen and bath equipment.

—JENNIFER A. WAGNER

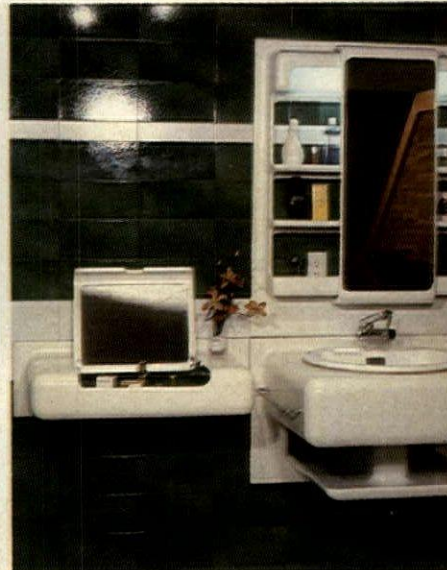


Portable whirlpool, the Cambio™, plugs into any 110v circuit and can be moved if desired. Jacuzzi Whirlpool Bath. *Circle 200 on reader service card*

Cast-iron "Hexsign" lavatory (left) is offered in most of the manufacturer's decorator colors. Kohler. *Circle 201 on reader service card*



Modular bath cabinetry from two manufacturers offers a variety of storage features. For more on the Allibert collection above, *circle 202 on reader service card*. For information on the "Serie Gronda" shown at right, from Hastings Tile & Il Bagno. *Circle 203 on reader service card*

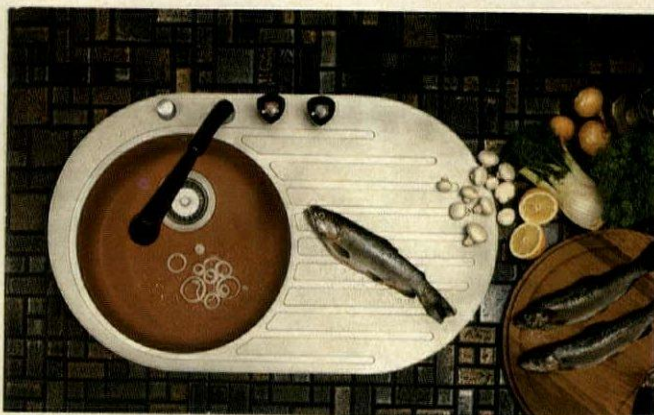




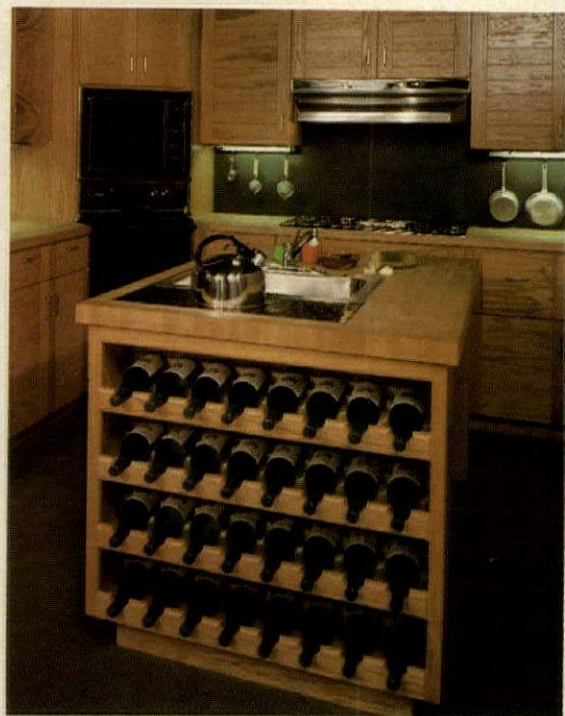
"La Cave" wine storage unit protects wines from damaging effects of heat, light and humidity. Unit holds up to 200 bottles. La Maison Ebery. Circle 204 on reader service card

La Culinaire™ (right) features two bowls with a fire-orange porcelain finish; five other bright solid-color finishes are offered. Jensen-Thorsen. Circle 206 on reader service card

Single-bowl sink with built-in drainboard (below) also comes in a rectangular shape. A two-bowl model is available. Atag. Circle 207 on reader service card



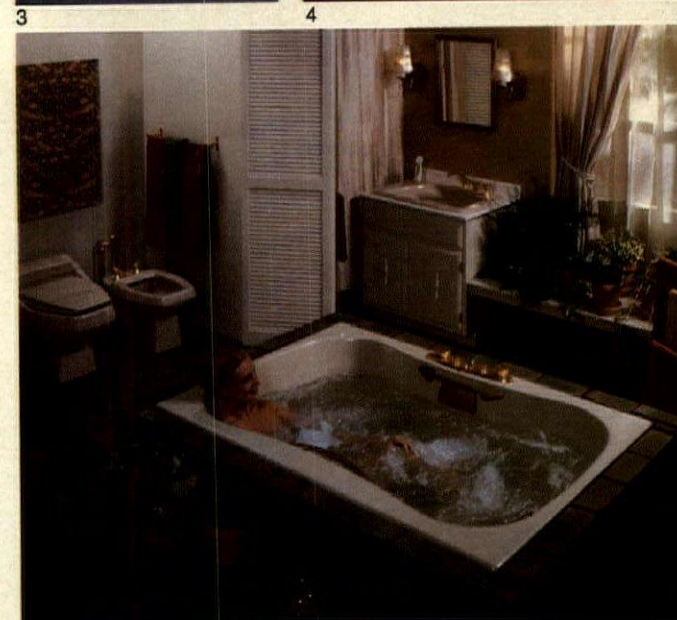
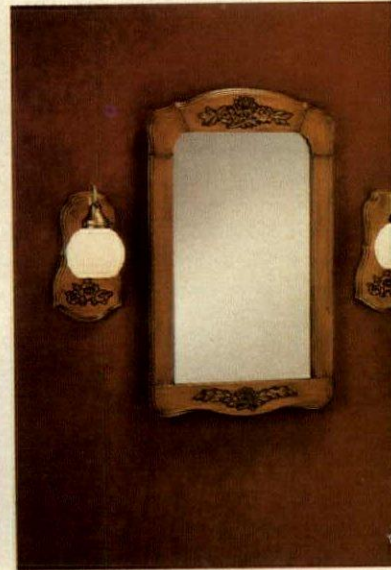
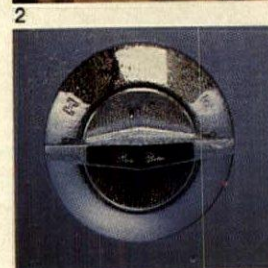
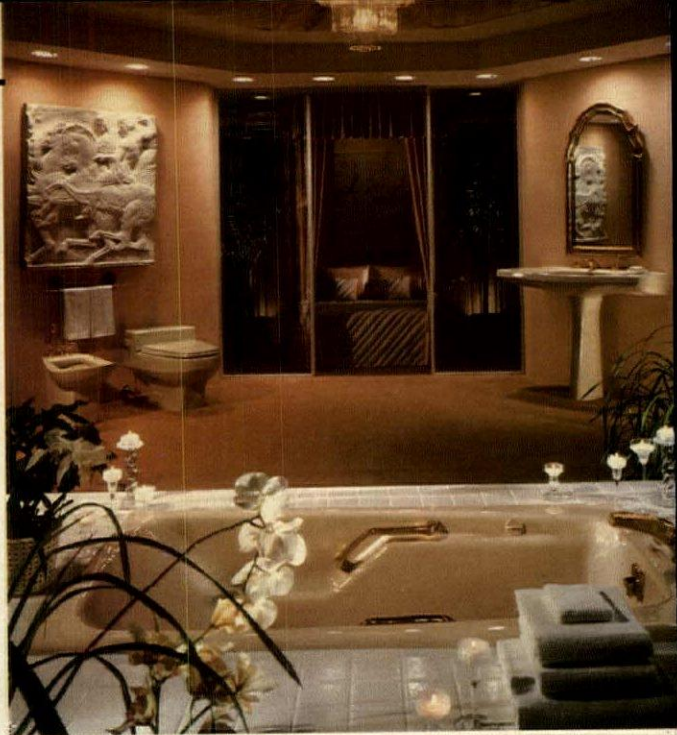
Contoured corner cabinet provides an unusual, under-the-sink hideaway for waste disposal. The European cabinetry has a reed-green matte surface framed with dark oak trim. Also available: curved end units. Poggenpohl. Circle 208 on reader service card



Built-in wine rack in the island above is only one of the storage accessories available from this manufacturer, which specializes in custom kitchen design. Oak cabinetry shown features door panels from the "Old Town" collection. Krown Kitchens. Circle 205 on reader service card

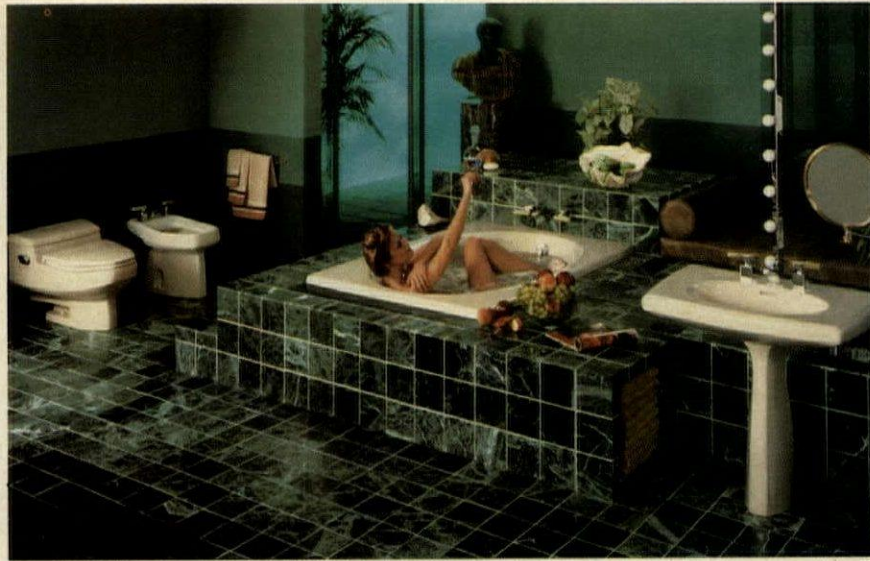
PRODUCTS/BATHROOMS

- 1. Sculptured-look bath collection** in tuscan tan includes the "Continental" bathtub, "Patrician" water closet, "Valencia" bidet and "Charlene" pedestal lavatory. All fittings—including 3-valve bidet fitting, grab bars, tub filler and lavatory widespread faucet—are from the gold-plated "Crescendo" line. Eljer. *Circle 248 on reader service card*
- 2. Chrome-plated shower control** is constructed of Allied Chemical's Capron® nylon with a Crownplate II® chrome finish. The nylon injected into the handle makes the unit resistant to corrosion and wear, and allows it to accept a variety of decorative finishes. Mixet. *Circle 249 on reader service card*
- 3. The Bodyguard™ mixing valve**, with single-lever control, maintains a preselected water temperature despite pressure changes. There are no moving parts or washers, eliminating mineral deposit problems. Two units can be installed back-to-back. Price Pfister. *Circle 250 on reader service card*
- 4. "Dutch Provincial" medicine cabinet** has a floral pattern carved into the textured fruitwood frame. Recessed cabinet has two adjustable shelves. Matching lights are available, as shown. Overall size is 18"×29 1/4". Monarch Metal Products. *Circle 251 on reader service card*
- 5. The Infinity™ whirlpool**, measuring 5'×42"×20", can accommodate two persons. Made of reinforced acrylic, the contoured fixture has four adjustable jets, safety grip handles and an electronic timer. Controls are easy to reach. Available in a wide variety of colors. Kohler. *Circle 254 on reader service card*
- 6. Vista-Glide™ tub/shower enclosure** has textured-finish, tempered safety glass that is available clear or in a tinted shade. The frame is aluminum. Kinkead. *Circle 253 on reader service card*
- 7. White bath fixtures** shown—including one-piece toilet, bidet, 5' whirlpool bath and pedestal lavatory, are from the "Roma" collection. Matching fittings, also from this line, are shown in green onyx. American-Standard. *Circle 252 on reader service card*
- 8. Two-handle faucet**, with a sculptured look, has an antique-brass finish. The handles are charcoal-tinted acrylic. Also available from this manufacturer are single-handle and widespread models in a variety of finishes, including two gold tones. Moen. *Circle 255 on reader service card*
- 9. Valley II® washerless faucets** are available with chrome or antique brass finishes. The cast-brass spout is 9 1/2" long. Standard spacing: 6" to 16". Acrylic handles come either clear or tinted. U.S. Brass. *Circle 256 on reader service card*
- 10. Sculptured bath fixtures**, from the Aretussa Series by Cesame of Italy, are made of molded, vitreous china. Shown here is one of six styles offered. Ten colors are available. Europa Bath Boutique. *Circle 257 on reader service card*
- 11. The Avanza™ whirlpool**, shown built into a raised platform, has six directionally adjustable jets. Tub is made of molded acrylic, and measures 6'×5'6"×30". Control console is easy to reach. Jacuzzi Whirlpool Bath. *Circle 258 on reader service card*
- 12. Low-silhouette, one-piece water closet** is made of blended PVC and urethane foam, but looks like vitreous china. The toilet unit weighs only 29 lbs., but can withstand a load of 3,000 lbs. Unit uses less than 3 1/2 gal. per flush. Available in a variety of colors. Delta Faucet. *Circle 259 on reader service card*





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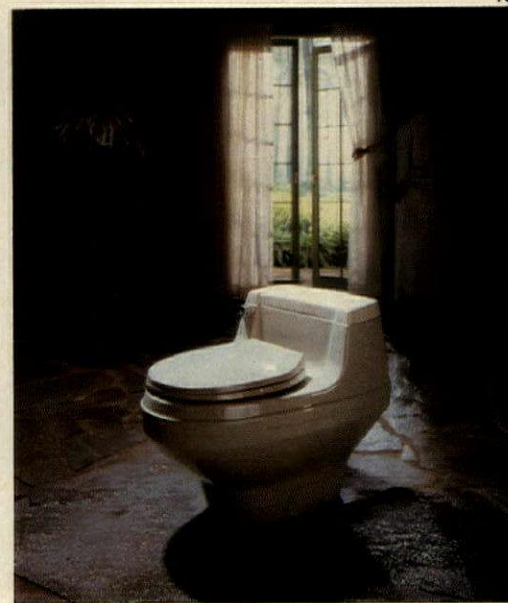
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12

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ELJER

WallaceMurray

Circle 130 on reader service card



Three-panel mural called "Yellow Voile and White Palm Beach," is one of 13 in the "Resting On The Wind" collection. Silkscreened landscape is eight ft. high and comes in four colorways. Jack Denst. Circle 222 on reader service card



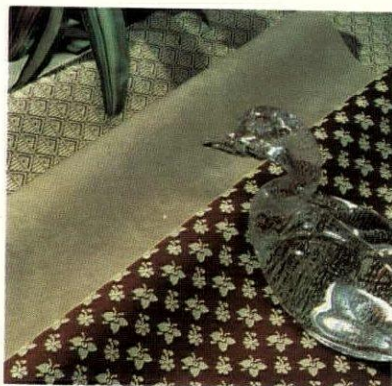
"Iris Gardens" vinyl wallcovering (above) is prepaste, washable and strippable. Floral-design paper is part of the "Fashion Gardens" collection. GTR. Circle 226 on reader service card



"Homespun Stripe" vinyl-clad paneling (above) is constructed of 1/4"-thick hardboard, surfaced with a textured vinyl that looks like woven fabric. Abitibi-Price. Circle 223 on reader service card



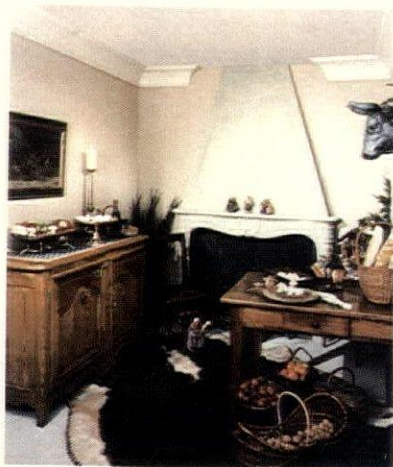
"Fountain Bleu" vinyl wallcovering (above), pretrimmed 27" wide, is prepaste, peelable and scrubbable. Four colorways are available. Imperial Wallcoverings. Circle 224 on reader service card



Coordinated vinyl wallcovering (above), two prints and a leather-look material, are called "Folklore," "Pony Express" and "Diamond Line" (right to left). WallTex. Circle 227 on reader service card



Prefinished hardboard paneling, from the "WestWoods" series, looks like streaked redwood planks. Woodgrain design is printed onto 1/4"-thick hardboard. Available in 25 "Central Zone" states. Masonite. Circle 225 on reader service card



Hand-cast "French Provincial" mantel is made of lightweight resilient polymer that can be nailed or drilled. Approximate dimensions are 42 1/4" x 63 1/4". Available primed or with a stained look. Focal Point. Circle 228 on reader service card

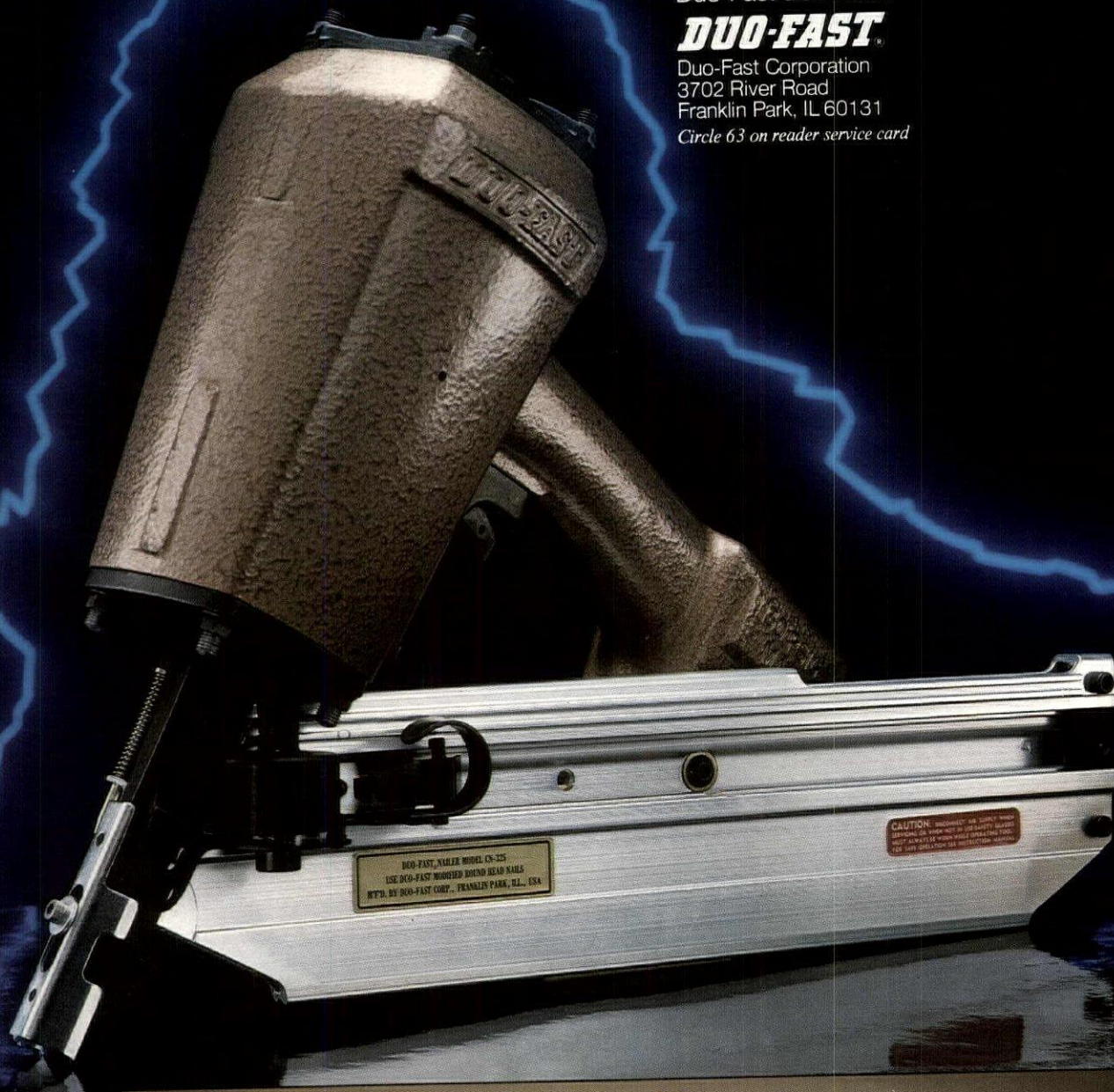
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PRODUCTS/CABINETRY

1. **"Classic" cabinetry line** is constructed of solid cherrywood with brass hardware. Base cabinets feature self-closing drawers. Options include: a wine rack; spice storage and leaded glass doors. Wood-Hu Kitchens. *Circle 281 on reader service card*

2. **"Country Manor" oak vanity**, shown with a white finish, features flat-panel doors and brass hardware. The interior is constructed with oak-colored "Aristex" laminate. Drawers feature a side-glide system. Vanity is also available in a light golden wood tone; this model features matching toe kick. AristOKraft. *Circle 282 on reader service card*

3. **Contemporary-style "Act III" cabinetry** is part of the "New World Concept" series. Units have solid wood doors framed with metal molding. Doors come in cherry (shown), oak or maple. A choice of brass or chrome trim is offered. Rich Maid Kitchens. *Circle 283 on reader service card*

4. **"Misty White" cabinet finish**, new from the manufacturer, is shown on a traditional-style "Cathedral Oak" vanity. Finish, which is hand-worked into the wood to enhance the grain design, is available on all the manufacturer's cabinet lines. Riviera Kitchens. *Circle 291 on reader service card*

5. **Golden oak "Yardley" cabinets** are fitted with adjustable shelving and wire baskets in various sizes and shapes that makes storage organization easy. Self-closing doors are rectangular flat panels with a solid oak frame. Options include: leaded-glass door insert and range hood. Excel. *Circle 284 on reader service card*

6. **"Cathedral" cabinet** is part of the "Bath Concept" line, specially designed for small bathrooms. The cabinetry offers storage space for towels and toiletries, and features a drop-down door that can serve as a counter. The "Bath Concept" line is available in a variety of woods including pine, pecan, oak and cherry. Quaker Maid. *Circle 285 on reader service card*

7. **"Knottingham" cabinetry** is constructed with solid oak frames. A line of specialty features, such as revolving shelving in base and wall units, chopping block, metal bread box, microwave oven cabinet and dishwasher cabinet, are also available. Yorktowne Cabinets. *Circle 286 on reader service card*

8. **Bath vanity** from the "Richmond Hill" cabinetry line has doors with double cathedral arches. Face frames and doors are made of solid oak, stained a honey tone. One-piece countertop, including bowl and backsplash, is made of cultured marble. The vanity is available in six different widths and three depths. Belwood. *Circle 287 on reader service card*

9. **"Potomac" cabinetry** features doors with recessed paneling. Units are finished in a light oak tone. Eight styles of brass-finish hardware, which includes wraparound self-closing hinges, are offered. Accessories include hutch, bookcase, pantry and desk. American Woodmark Corp. *Circle 288 on reader service card*

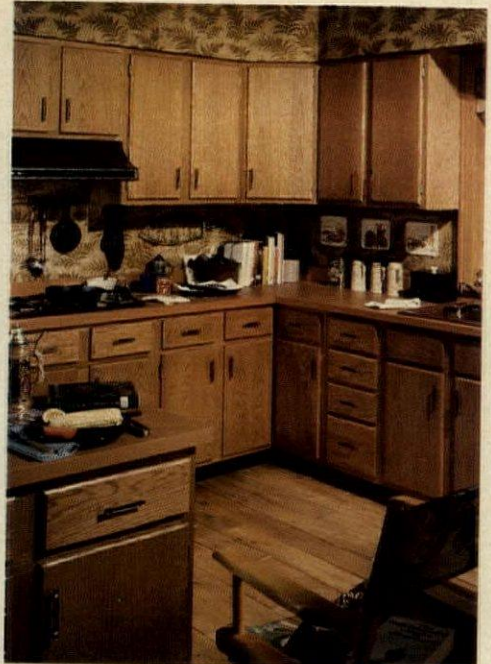
10. **"Cosmos II" line of cabinetry** offers "no-frame" construction for more interior space. Cabinets are made of composition board with a laminated finish. Features include revolving shelves, wire storage baskets, wide drawers and a wide range of accessories. Xey. *Circle 289 on reader service card*

11. **Bath cabinetry**, from the "Legacy" line, is shown in oak stained a light brown. Cabinetry, also available in cherry, features recessed-panel doors with exposed pegs. Rutt Custom Kitchens. *Circle 290 on reader service card*

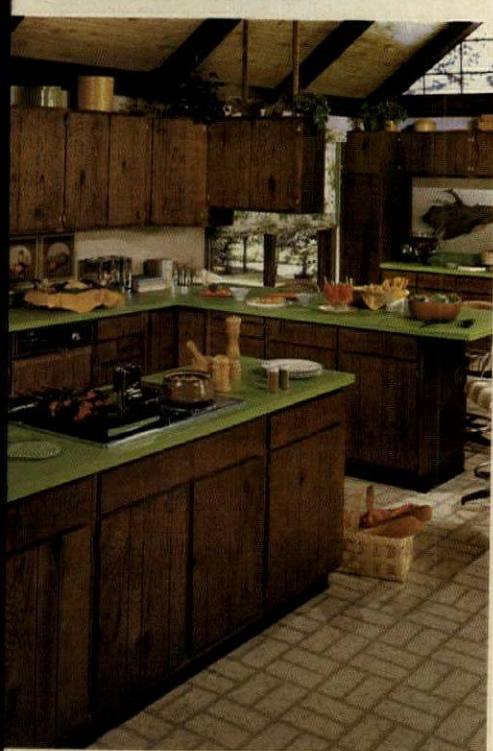




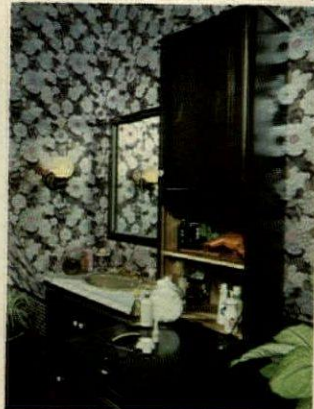
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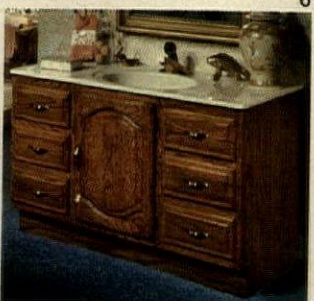
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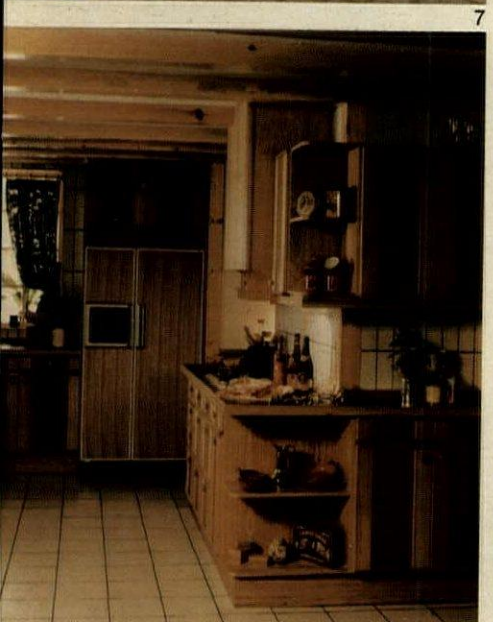
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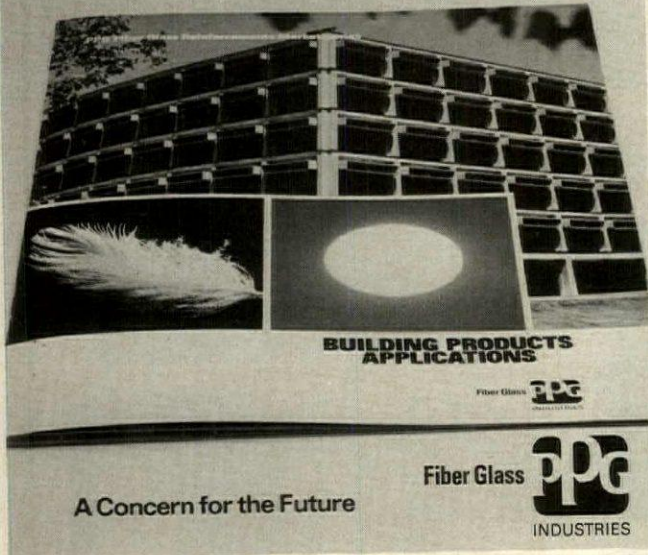
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11

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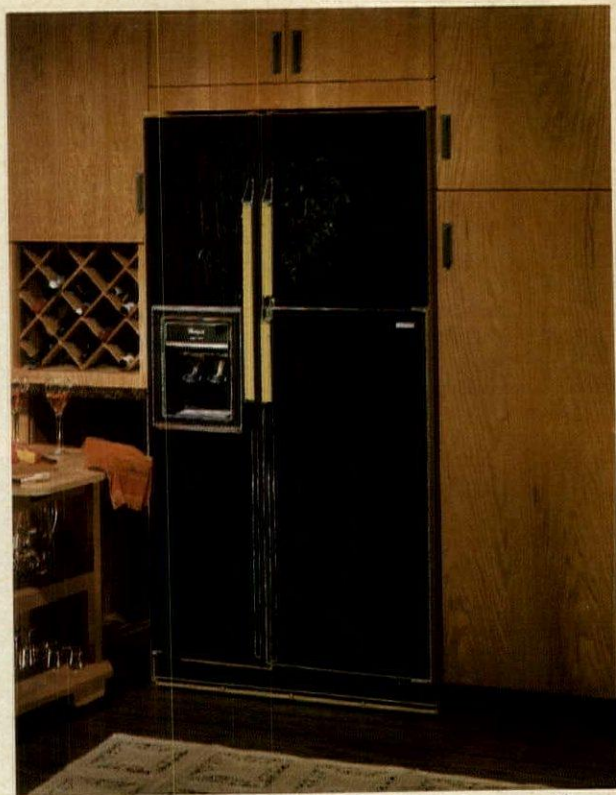


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Circle 140 on reader service card

PRODUCTS/KITCHEN EQUIPMENT



Double-door refrigerator, shown built into Coppes cabinetry, features a Serva-Door® "door-within-a-door" for easy access to frequently used foods. Whirlpool. Circle 225 on reader service card



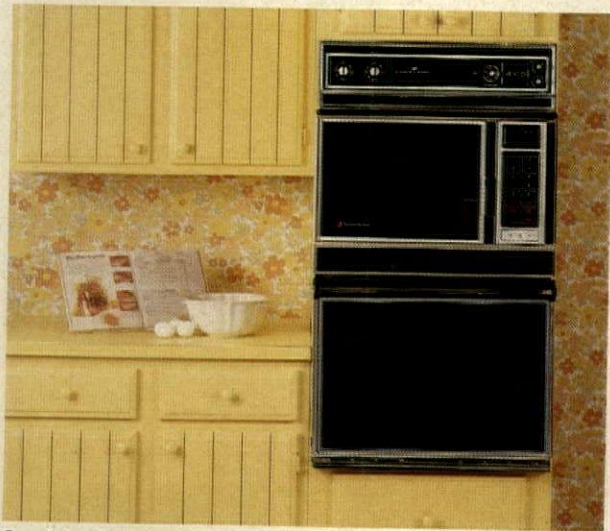
"The MVP" microwave has a two-speed ventilating system that replaces over-the-range hoods. Thermostat will automatically activate fan to vent excessive heat from range underneath. Built-in unit is 30" wide. Magic Chef. Circle 226 on reader service card



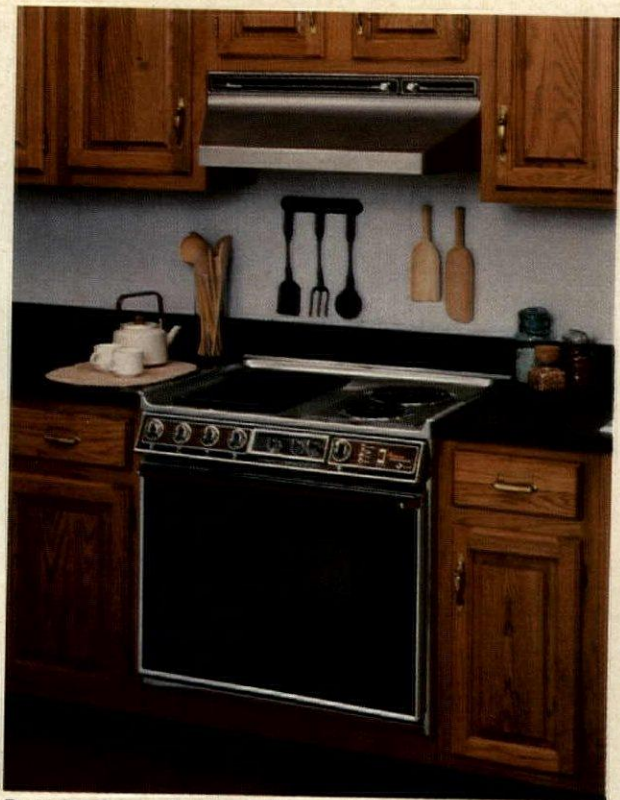
Pilotless gas range, 30" wide, features a self-cleaning oven/broiler. Unit also has a digital clock and lighted backguard. Tappan. Circle 227 on reader service card



Ventilating system provides a 25"×16"×19" space designed to accommodate a microwave oven as shown at left or other appliance. Ventilator has two blowers rated at 400cfm, and can be vented to outdoors or installed duct-free. Dacor. *Circle 223 on reader service card*



Combination double oven includes a microwave and a conventional, self-cleaning lower oven. Unit is 27" wide. O'Keefe & Merritt. *Circle 224 on reader service card*



Drop-in range, with five cooking modules, features a self-cleaning oven with two baking modes, including one for slow, crockery-style cooking. Amana. *Circle 222 on reader service card*

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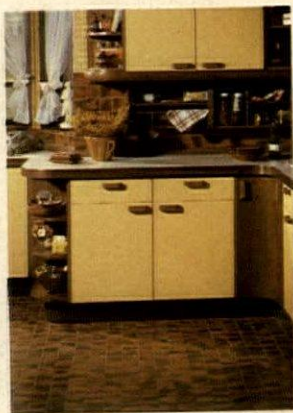
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"Spring Garden" vinyl flooring is part of the manufacturer's Lustrecon® collection. Available in 6- and 12-ft. widths. Mannington Mills. *Circle 242 on reader service card*

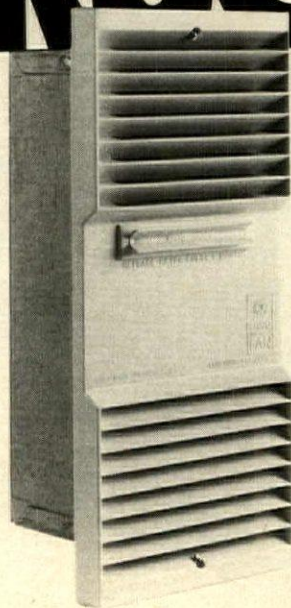


Decorative ceramic tiles, in an earthtone colorway, are shown above installed on both the floor and the wall. Durable tiles resist stains, acid and heat. Piemme. *Circle 245 on reader service card*



Glazed ceramic tile (right) is suitable for both floors and walls. Tiles, from the Keram-Atelier series, are available in cognac, as shown, or in havanna brown. Amsterdam Corp. *Circle 246 on reader service card*

SAVE ON CONSTRUCTION COSTS



WITH THE GOOD-AIR CA190 DUCTLESS FAN

Save up to \$50 in construction costs per bath. No ductwork, no outside venting and no roof caps.

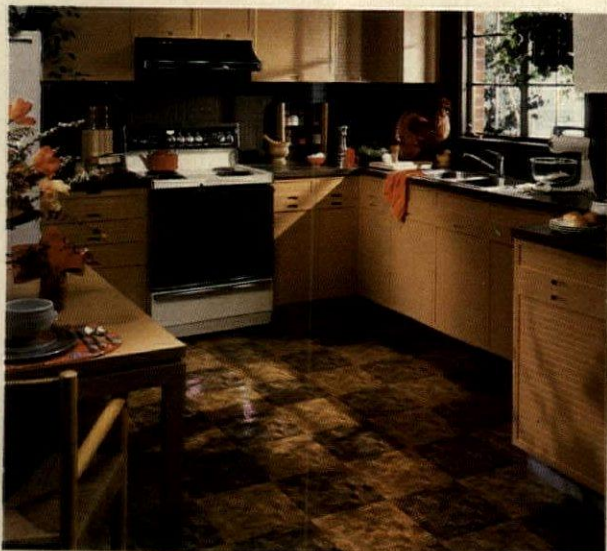
The CA190® Ductless Fan with its patented dual filter air treatment system recirculates, cleans, filters and deodorizes indoor air. Easy to install, it's already proven in hundreds of thousands of apartments and hotel installations. The CA190 Ductless Fan is code-approved, UL listed and meets the National Sanitation Foundation's C-10 criteria.

Start cutting construction costs today. Make the switch from conventional exhaust systems to the CA190 Ductless Fan and pocket the savings.



From the Good-Air People
Rush-Hampton Industries, Inc.
 3000 Industrial Park
 Longwood, Florida 32750
 305/834-3000

Sheet vinyl flooring (right), called "Paraiso Marble," is from the GAFSTAR 4800 series. Flooring comes in five colorways: grotto blue, almond beige, green mist, coral cloud, and maple sugar. GAF. Circle 243 on reader service card



"Ashby Square" vinyl flooring, with a parquet design, has a butcher-block look. Easy-to-install, 12" square tiles are self-adhering. Armstrong. Circle 244 on reader service card



Resilient vinyl flooring is stencilled with a tile design. "Royal Gallery," from the "Ultraflor" line, comes in almond and delft blue. Congoleum. Circle 247 on reader service card

SAVE ON ENERGY COSTS

WITH THE GOOD-AIR CA190 DUCTLESS FAN

Save your customers as much as \$100 a year in energy costs.

With a conventional exhaust system, expensively heated and cooled air is blown outside. With a CA190® Ductless Fan, the air is kept inside.

The CA190 Ductless Fan is easy to install. No ductwork, no outside venting and no roof caps.

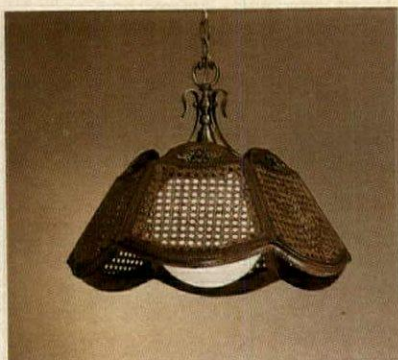
A patented dual filter air treatment system recirculates, cleans, filters and deodorizes the air. That can save your customers as much as \$100 in energy costs per year. And as energy costs soar, so will the savings.

The CA190 Ductless Fan. It's one of the simplest energy saving features you can sell.



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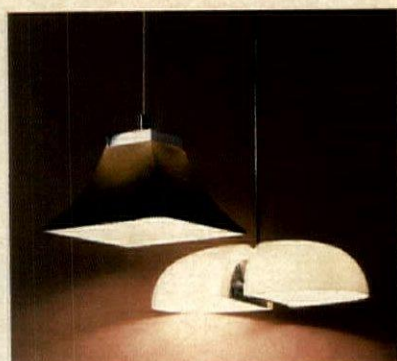
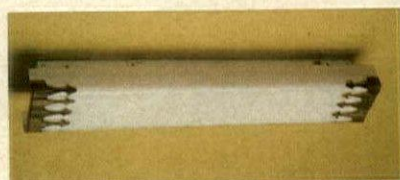




Chain-hung fixture has a shade constructed of antique-finish wood with cane inserts and brass accents. The unit is from the manufacturer's "Chelsea" line; matching accessories are available. Thomas. *Circle 271 on reader service card*

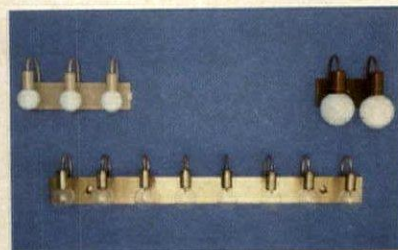
Spherical fixture (right), designed for spot- and flood-lighting areas requiring a high level of illumination, mounts into the manufacturer's track. Steel housing also comes with metal finish. NuTone/Sterling. *Circle 272 on reader service card*

Two-lamp wall light (below), designed for use in bathrooms and kitchens, has a milk-white acrylic diffuser with decorative oak trim. Fixture accepts 15w to 40w lamps. All hardware is concealed. Lithonia. *Circle 274 on reader service card*

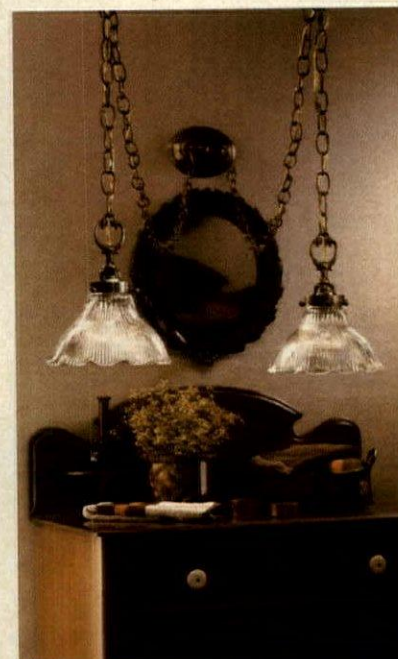


"The Olympic" and "La Residenz" fixtures (above left and right) are recommended for accessory kitchen lighting. The contemporary fixtures have shades in white or tobacco, and all trim is chrome. Koch & Lowy. *Circle 275 on reader service card*

Globe-bulb fixtures are available in a number of models, as shown below. These can be ordered in lengths up to 96". Available finishes include polished chrome, brass and 16 solid colors. Melolite. *Circle 276 on reader service card*



"Power-Trac" lighting is offered with white lampholders as shown, or with units in aluminum, bronze, brass, matte black and other finishes. Curved track sections are also available. Halo Div. of McGraw-Edison. *Circle 273 on reader service card*



Double-swag fixture has an old-fashioned gas light design. The shades are made of clear, prismatic, fluted glass, and the brass trim has an antique finish. Unit is 7" in diameter, 8½" high and comes with a six-ft. chain. Two candelabra bulbs may be up to 60w. Progress Lighting. *Circle 277 on reader service card*



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Manfield, Ohio 44901



"MillPlank" paneling comes in 4' x 8' sheets with beveled grooves spaced 12" apart. A variety of wood veneers are offered, including coffee oak, ginger birch, peppercorn birch (shown), russet cedar and blue pine. Georgia-Pacific. Circle 292 on reader service card



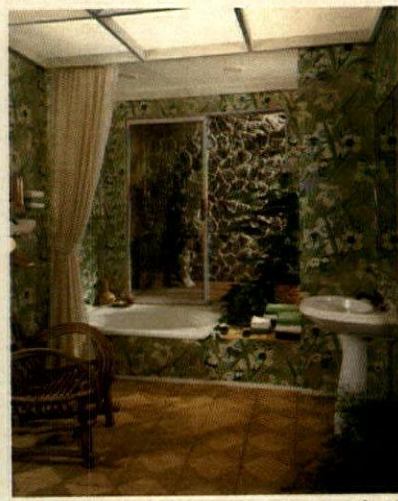
Kiln-fired Brickettes® are 1/2" thick and suitable for interior or exterior use. Two or three-sided corners are available. Bricks are offered in 11 colors including: regatta red and hacienda white. Modern Methods. Circle 296 on reader service card



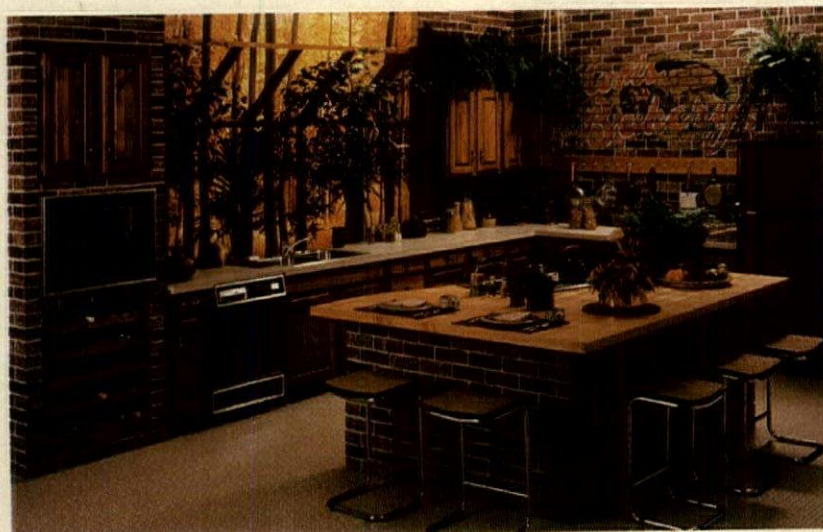
"Wildflower Park" wallcovering, made of vinyl-backed fabric, is available in three colors. Strippable wallcovering comes in 27"-wide rolls. General Tire. Circle 293 on reader service card



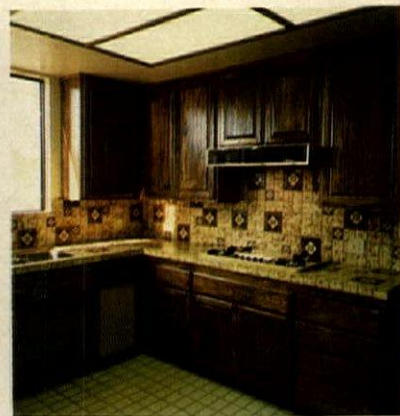
"Najade" ceramic tiles, with water-lily designs, are available with a green or brown pattern. Tiles measure 8" x 10". Floor tiles come unpatterned. Villeroy & Boch. Circle 294 on reader service card



"Caribe" wallcovering is one of 17 designs in the "Something For Everyone" collection. Screen-printed floral pattern is available in three color ways. Albert Van Luit. Circle 297 on reader service card



"Z-Brick" veneer is a 3/16"-thick brick made of all-mineral material. Facing material is fireproof and comes in individual units. Colors include gold, red, gray and white. Z-Brick. Circle 295 on reader service card



Decorative ceramic tiles, shown above installed on the countertops and walls, are from the "Valencia II" series, with accent tiles from the "Cachet" line. "Valencia" tiles come in a wide variety of sizes and shapes, and in 12 basic colors. Latco. Circle 298 on reader service card

When they say "washerless"... plumbers who demand heavyweight cast brass quality install Gerber.

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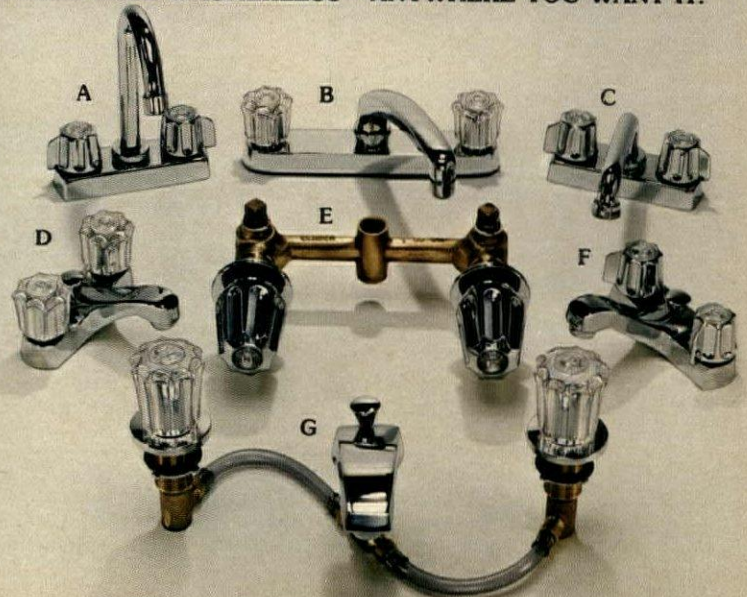
THE NEW GERBER WASHERLESS CARTRIDGE:

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- G—Washerless Widespread Lavatory Faucet



80217
These faucets also available with Compression Stem-and-Bonnet.
Circle 147 on reader service card

SPECIAL-NEEDS KITCHENS

Pages 85-93

Page 92-93: "Craftsman" cabinets with ash doors, St. Charles Manufacturing Co.; built-in refrigerator, Sub-Zero Freezer Co.; hood over peninsula, Vent-A-Hood.

OLD BATHS

Pages 97-102

Page 97: Sink, tub and brass fixtures; all supplied by the owner.

Page 98—Left: Toilet, hidden behind arched entrance; American Standard. Paneling is constructed of 1 x 6, clear, all-heart redwood lumber. The 6' x 6' quarry tiles for floor; American Olean Tile Co. Burgundy countertop tile; Franciscan Ceramics. Cabinetry was built on-site by the architect.

Page 99—Right: Tub and wall tiles, "Valencia Series"; Latco. "Rochelle" toilet, not shown; Kohler. "Luxor" basin; American Standard. Faucets; Artistic Brass. Aluminum blinds for skylights; Levolor. **Left:** European mosaic tile from Italy. Fixtures; American Standard. Faucets; Artistic Brass. Bathtub; Jacuzzi®.

Page 100—Left: Blue tile around tub and on the floor and walls; Latco. Cabinets of paint-grade birch. "Aqualung" sink, "Concord" toilet and "Ultratub" whirlpool; all American Standard. **Right:** Tile around the tub and on the countertop; Dallas Tile. Japanese-style soaking tub and two-piece shower; Dura Glass. Lavatory and water closet; Kohler. Sheet vinyl flooring; Armstrong. Cabinets; custom-made by the Neil Kelly Co.

Page 101—Left: Skylight and cypress paneling constructed by Collins Products Inc., Ocean City, Md. Antique mirror supplied by Antique Designs, Vero Beach, Fla. The tub, fixtures and door were salvaged. **Right:** Ceramic tile around tub; Latco. Sink fixtures; Artistic Brass. The cabinets are constructed of rosewood.

Page 102: Ceramic tile; Latco. Fittings; Water Colors. "Concord" toilet, fiberglass soaking tub; both American Standard.

THE WOOD LOOK

Pages 106-111

Page 107: Tub; Kohler. Paddle fan; Hunter. Floors; Italian marble.

Page 108—Top: Redwood paneling; "La-Honda" by Simpson Timber. Bathtub; Jacuzzi. **Bottom:** Tub; Kohler. Quarry tile flooring; Structural Stoneware. Skylight; Regal Plastics. Blinds; Pella.

Page 109—Top left: Tile; Diastone. Tub; American Standard. **Top right and Cover:** Tub; Kohler. **Bottom:** "Biscayne" tile; Structural Stoneware. Tub; American Standard. Fittings; "Olympic" by Brad-

ley. Exhaust fan; Tradewinds. Birch cabinet; custom-made.

Page 110: Oak cabinets; custom-made by Tom McClure, Santa Barbara, Calif.

Page 111—Top left: Italian machine-made tile flooring; supplier, Louis Goldey. Appliances; General Electric. Cedar cabinets; custom-made. **Bottom:** Handmade Mexican tile from Elon Tile. Floor; standard brick pavers. Cooktop; Chambers. Barbecue; "Char-Glow" by Thermador/Waste King. Trash compactor; Whirlpool. Sink; American Standard. Fittings; Bradley. Birch cabinets; custom-made. **Top right:** Cabinets; custom-made by Kitchen Originals, Miami, Fla. Italian tile for floor supplied by D&B Tile Distributors, Miami. Cooktop; Frigidaire. Undercounter oven; Thermador.

NATURAL LIGHT

Page 114-119

Page 115—Upper left: "Tuscany" ceramic tile on counter; American Olean Tile Co., a National Gypsum Co. **Upper right:** "Connoisseur" self-cleaning double oven/range and sound-insulated dishwasher; all Whirlpool. Laminate countertops; Formica. **Bottom:** Dishwasher; General Electric. Countertops made of ceramic tile.

Page 116—Bottom: Double-glazed greenhouse window; Thermopane. Range; Jenn-Air. Built-in refrigerator; General Electric. Wood flooring protected with urethane finish. Cabinets and island; custom-designed by Jack Mazur.

Page 117—Upper right: Tile and surround of man-made marble; double-glazed, tinted windows.

Page 119—Upper left: Skylight over redwood planter; Solartron. Tile on floor and walls of walk-in shower with three sets of fixtures (not shown); Heath Ceramic Tile. **Upper right:** Wall and ceiling of cedar; vanity faced with Mexican tile. **Lower left:** Trim and wood beam of pine treated with Cabot's 0-241 Bleaching Oil. Wall around circular tub; travertine marble.

IDEA NOTEBOOK

Pages 120-123

Page 120—Top left: "Lady Vanity" lavatory, with shampoo spray arm and white acrylic handles; "Pompton" low-silhouette toilet; "Guardian" bathtub with safety grip handles and slip-resistant bottom; all in cerulean blue; Kohler. **Top right:** Ceramic tiles, Vencuzel. **Bottom:** "Clari-on" contemporary-style cabinetry, including vanity with pull-out hamper; Quaker Maid. Bathroom fixtures; Kohler.

Page 121—Top: Vanity, countertop and wall-mount cabinets, all in quartz; Poggenpohl. **Bottom right:** Bathtub; Jacuzzi. Light fixtures; Habitat.

Page 122—Top left: "Tilche" lavatory and toilet; American Standard. **Top right:** Ceramic floor tile, green and white wall and counter tiles; all Mid-State Tile Co.

Page 123—Top: Cabinetry; Pelletier Cabinets, Upland, Calif. Brass fixtures; Artistic Brass, Los Angeles. Lavatories; American Standard. Tiles; Latco. **Left:** Ceramic tiles, in dawn gray; American Olean. Lavatory; Kohler. **Bottom:** Medicine cabinets; custom-designed by Barry Sugerman, AIA. Lavatory; Kohler. Lights; Lightolier.

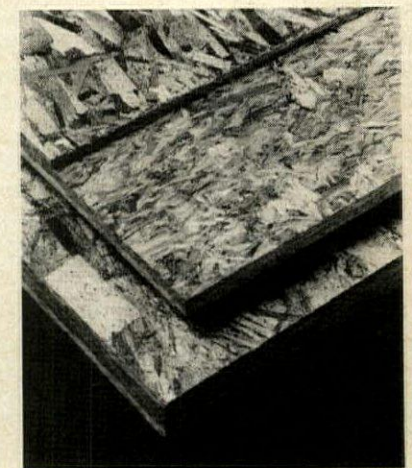
KITCHEN FOR HANDICAPPED

Pages 124-125

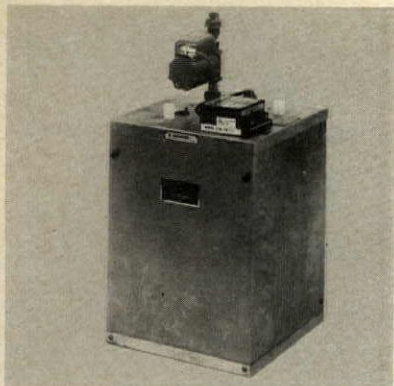
Pages 124 and 125—Top left: Oven, 30' wide gas model; Roper. **Top right:** Double-bowl corner sink; Elkay. **Center:** Cabinetry, valencia raised-panel style finished in colonial cherry; Lucci Cabinets, through Cabinet Systems Inc., Louistown, Pa. Countertops, pattern #722 in beige rawhide; Formica. Vinyl floorcovering, pattern #4031; Mannington. Dishwasher and compactor, models KDS18 and KDS100 respectively; KitchenAid. "Elevette" elevator; Incliner Co. of America. Wallpaper, "Some Like it Small" from the "Elegant Collection"; Comark Plastics. Microwave oven; Litton. Intercom; NuTone. Recessed lighting; Progress Lighting.

CORRECTION

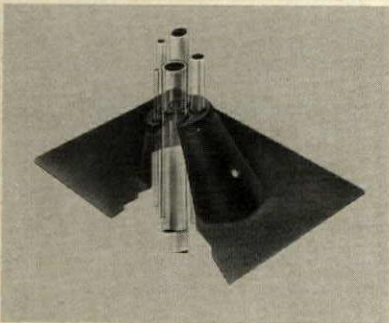
Potlatch Corp.'s structural panel, called "oriented strand board," was incorrectly described on page 86 in the March issue. Here is the correct data: Structural panel, developed as an alternative to plywood for light construction, is made of aspen flakes bonded with phenolic resin. "Oriented strand board" can be used in room decks, sidewalls and single-layer floors.



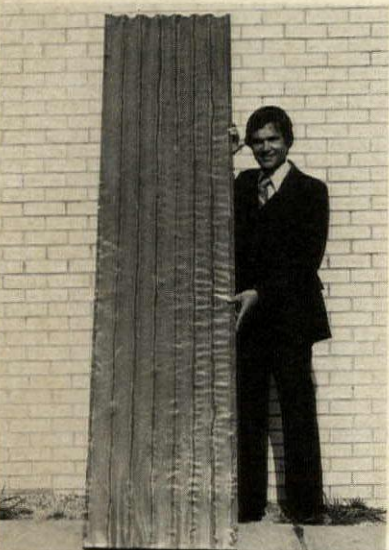
Also on this page, the captions describing the "TJI" joist from Trus Joist and the "W" web joist from ACE, labeled numbers 6 and 7, were reversed. We apologize for any confusion caused by these errors.



Heat exchanger module is adaptable to new or existing solar drain-back hot water systems with up to nine panels. Self-contained "JL" unit comes with solar pump circulator, controls, integral plumbing and wiring. Dell Solar Industries. *Circle 239 on reader service card*



Solar roof flashing has four openings each of which accepts pipes of four sizes, from 3/8" to 1". Leakproof flashing, suitable for roofs with angles up to 45°, is resistant to weather, sun and salt. No mastic is required in installation. Specialty Products. *Circle 240 on reader service card*

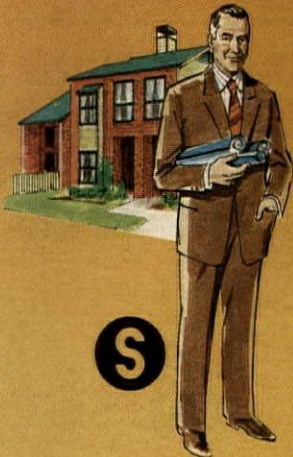


Solar collector (above) is constructed of a petrochemical-based material that has been heretofore used only as a collector insulation material. The collector panels, which measure 2' x 8', are designed for an air-type system. Bensun Solar Corp. *Circle 241 on reader service card*

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housing 5/81 151

Creating a custom look

It takes some imagination—and often some money. If you're looking for ideas to make your houses "special," you'll find some in the publications below.

Handcarved, top-of-the-line **wood doors** are given top billing in this 18-page publication. Over 30 styles for entries and interiors are shown in four-color photographs. The construction process is described step-by-step. Also featured are the many etched and leaded glass sidelights available. Specifications and selector guides for glass, exterior and interior doors and Victorian-style folding panels are included. International Wood Products. *Circle 300 on reader service card*

Elegant **entry doors** are the subject of a 16-page booklet. Color photographs illustrate a range of wood doors and the leaded or etched glass panels and inserts available. Each series is described. Also shown are thermal doors, sidelights and optional wood grilles. Simpson Timber. *Circle 301 on reader service card*

A 36-page catalog displays the manufacturer's full line of **flooring products**, which include solid vinyl tile, no-wax tile, reinforced vinyl tile and asphalt tile; together they represent a wide variety of colors and patterns. Vinyl wall-base accessories are also shown. Kentile Floors. *Circle 302 on reader service card*

An eight-page brochure describes and illustrates this manufacturer's line of Chickasaw Brand solid-wood **plank flooring**. Color photographs display the lines of flooring available in a number of suggested parquet patterns. Memphis Hardwood Flooring. *Circle 303 on reader service card*

Also available from this manufacturer: a four-color flyer introducing a pre-finished **solid-wood paneling** in random widths. The installation of this antique-finish pecan paneling is described. Memphis Hardwood Flooring. *Circle 304 on reader service card*

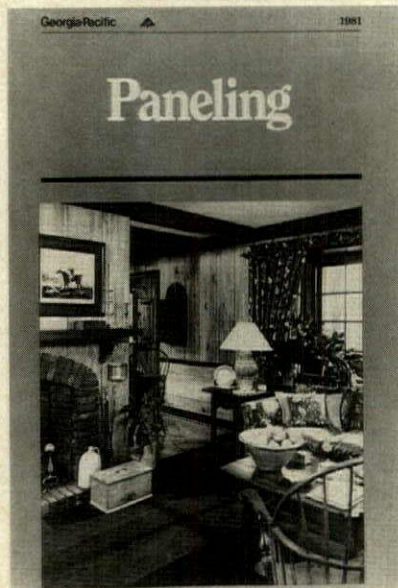
Spiral and circular wood stairs are featured in an eight-page brochure. Included are product descriptions, stair plans, a discussion of material, wood and glue, stair details, and specifications. Applications are shown in color. Ericson Stair Co. *Circle 308 on reader service card*

The full range of this manufacturer's **ceramic tiles** is the subject of a 1981 catalog. The 36-page booklet provides descriptions of eight lines of glazed tile, matching trim and bathroom accessories, and two pregrouted tile systems. Photos show various applications, including a number of ceramic mosaics, which are available in a wide variety of standard and custom patterns and colors. Architectural specifications are included. Also described: related products and the manufacturer's services. American Olean. *Circle 307 on reader service card*

A 1981 catalog displays this manufacturer's line of **hardwood- and softwood-veneer paneling** (see photo below). Four-color photographs show 20 product lines in various patterns and colors for homes, offices and commercial interiors. Also included: information on factory-applied finishes, product specifications, installation and maintenance suggestions. Georgia-Pacific. *Circle 305 on reader service card*

The **Profilewood paneling system** is introduced in an eight-page booklet. The four-color publication shows and describes how the system is installed with galvanized clips rather than with nails, eliminating hammer dents and splitting, and allowing the paneling to expand and contract without buckling. Specifications and technical data are included. Ostermann & Scheiwe USA. *Circle 306 on reader service card*

Top-of-the-line **kitchen cabinetry** is introduced in a 34-page booklet. Many color photos and copy describe several styles, from modern to traditional. Storage features and accessories are shown. Key Corp. of America. *Circle 310 on reader service card*



Custom-built kitchen cabinets are the subject of a six-page foldout. Four-color photographs show available cabinetry lines and some of the convenience features offered, such as wine racks, cutting board, storage racks and sink cabinet accessories. The choice of color finishes on the oak and poplar lines is shown. Schmidt Cabinet Co. *Circle 309 on reader service card*

Mirrored doors are the subject of a six-page foldout. Eleven styles—including sliders, bifolds and wardrobe doors—are shown in four-color photos. Product features are listed, and cross-sections show how the doors are constructed. Contractors Wardrobe. *Circle 311 on reader service card*

"A Designer's Notebook of Mirror Ideas" is a 16-page publication to show the many ways **mirrors** can be used. Presented are nine residential applications and five commercial applications using mirrors in a non-traditional way. Copy is provided by various interior designers. The four-color publication is available for \$1.00 from the National Assn. of Mirror Manufacturers, 5101 Wisconsin Ave, Suite 504, Washington, D.C. 20016

For the truly opulent home: A flyer describes the **HMS Media Room™**, a custom-designed, large-screen television system that is, according to the manufacturer, "carefully integrated into the home" to create an "optimal viewing environment" as well as an area to serve as a center for home computers and other electronic equipment. Copy describes how the manufacturer works with the homebuilder to insure proper installation and space utilization. Home Media Systems. *Circle 314 on reader service card*

A 1981 catalog displays the range of **acrylic whirlpool spas** available. Six models are highlighted with schematics, four-color photographs, specifications and a full product description that includes information on the filter/heater system, piping and optional features. Jacuzzi Whirlpool Bath. *Circle 312 on reader service card*

A six-page foldout and flyer introduce Solaris® **hollow glass blocks**, which are used to construct complete walls or decorative facades. The publications describe product features—which include thermal and acoustical insulation, control of light transmission and glare. Pictured is the full line of blocks, offered in clear, amber and grey glass. Bienenfeld Industries. *Circle 316 on reader service card*