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- 2. Townhouses designed to fit on an open, rolling site
- 3. A duplex project designed to complement a local landmark 4. Three-level townhouses that fit both uphill and downhill lots
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WASHINGTON INSIDE

No rebate on excise taxes

Builders who bought appliances before the excise tax bill was signed into law won't get a 5% rebate on their purchases. Reason: The Internal Revenue Service has ruled that builders aren't considered dealers, so no rebate on warehoused stocks of water heaters, dishwashers, refrigerators, freezers, and the like.

One-family military housing

The House has increased the Defense Dept's family housing program for the first time in many years, but it limited the program to single-family units. The committee feared excessive population density if multi-family units were continued.

Housing cabinet lineup

Prior to the passage of cabinet status for housing, top Administration leaders were thinking of combining public housing and urban renewal into a center-city unit and squeezing the suburban-type programs into a planning and grant operation. FHA mortgage operations would logically form the third basic unit.

Renewal-money fight

Rep. Albert Thomas' grab for power over renewal through his appropriations subcommittee is being fought by the Administration, but the vacuum left by Rep. Albert Rains' departure from Congress provides little opportunity to counter Thomas' thrust. Thomas' subcommittee gave the Administration the money it wanted for urban renewal but attached a rider on how much could be spent on new projects.

Senate push for dry lumber

That lumber standards controversy continues to nag government officials. The National Forest Products Assn. (formerly Lumber Manufacturers Assn.) succeeded in attaching a rider to the Senate housing bill that will force FHA to approve 1½" dry lumber if it's technically feasible and it is. A subcommittee of the reorganized American Lumber Standards Committee wants size linked to moisture content.

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FHA land loans seem certain as '65 housing bill nears passage

Congress is ready to send President Johnson a \$6.5-billion omnibus housing bill that will probably end the four-year battle over FHA land-improvement loans.

Homebuilders have split down the middle over whether FHA should be empowered to insure loans to buy and develop subdivisions. Lobbying heat has been diverted to allied issues—rent supplements (likely to pass) and insurance for large new towns (rejected)—so with little public furor both the House and Senate committees have agreed to let FHA insure land-development loans. Their plans are identical, and only a last-minute drive by big-city mayors and housing industry opponents could defeat them.

Ground rules. The bill would create a new Sec. 1001 (or Title X) class of FHA loans for builders and developers to cover the purchase price of land and a variety of improvements such as water and sewer lines, streets, curbs, sidewalks and storm drainage. Buildings could also be financed if used for water supply or sewage disposal or if owned and maintained jointly by lot owners. One exclusion: school buildings. These are the terms:

1. Maximum mortgage amount would be \$12.5 million outstanding on a single undertaking at one time. Loans could not exceed 75% of FHA's valuation of the improved land, or 50% of raw land value plus 90% of improvement costs. Unless the land had been held by the developer for many years, FHA would use the most recent sale price.

2. Length of loan would be seven years at 6% interest (though the FHA commissioner can set a lower rate), and the insurance premium, according to what HHFA Administrator Robert Weaver told Congress, would either be set at $\frac{1}{2}$ % or would vary around that level.

3. Leased land would be insurable if the lease were an existing, renewable 99year lease or if it ran 50 years.

Developers would be required to: 1)

certify their costs, 2) follow local land-use plans, 3) provide full community facilities in subdivisions, 4) provide public water and sewer lines (FHA will approve private or cooperative systems only if rates and terms of resale are controlled) and 5) complete the development work in the shortest reasonable period.

FHA would be asked to take particular pains to encourage small-volume builders and builders of moderate and low-income housing to enter the program.

New-town slant? Some critics complain the \$12.5-million maximum would open the land loans primarily to new-town developers, even though Congress rejected pleas for insurance for "extensive developments." These critics say a developer could handle 2,000 acres with a top loan.

But sources in Congress say the "new towns" would be out because FHA would have trouble justifying a development far removed from an existing city. The House subcommittee plans fall hearings on the new-town idea.

Impact. Opponents of land loans have objected to federal officials meddling in land development on the grounds that FHA insurance will inflate land prices by letting more under-capitalized developers and builders bid for raw land.

Not so, argue Congressmen. "It should enable private developers to provide a more steady supply of improved building sites," contends the House banking committee. "It should also open up cheaper suburban land for well-planned development and help to combat the rapid rise of prices for homebuilding sites."

The committee views land loans as a way for small builders to compete with total-community developers. Its theory: "The small builder could join with other small builders to acquire and jointly develop a site commensurate with their combined needs and capacities for one or more years of home construction."

'Disquieting similarities' with 1929? A quotable phrase blurs differences

William McChesney Martin Jr., Federal Reserve Board Chairman, made headlines by noting what he called "disquieting similarities" between the economic climate of 1965 and 1929.

Housing observers took up the comparisons, but their balanced views were lost in a spate of news stories featuring such "disquieting similarities" as rising mortgage debt. When Real Estate Economist James Downs stressed the contrasts between the two periods in a talk to mortgage bankers, he found to his sorrow that newspaper men "didn't pick up the differences."

Other economists questioned by HOUSE

& HOME say many housing conditions today are so different from those of 1929 that comparisons are almost meaningless.

 Today's mortgages are amortized, carry lower interest and longer terms. In 1929 loans at 8-10% due in a single payment in 7-10 years were common changes.
 Local market statistics are more

timely, letting builders react to changes.

• FHA mortgage insurance was not used in 1929. By paying claims with debentures instead of cash, FHA can spread its risk and losses over long periods. Today's private mortgage insurance companies have larger reserve ratios and stricter control. NEWS

Congress spurs FHA to end discounts on house mortgages

Low-interest rate proponents in the House banking committee have issued their sharpest order to HHFA and FHA in years:

"The committee requests the HHFA to develop a program to discourage the prac-tice of discounts" on FHA-insured mortgages. "If HHFA does not have adequate legislative authority to cope with this problem, the committee requests it to submit recommendations for such new legislative authority as is needed."

Drafter of the barbed-wire language is Rep. Wright Patman, a Texas Democrat bred to the Populist distrust of Eastern bankers. For years he has waged one-man war against the Federal Reserve System and has made sporadic forays against FHA discounts. Now he has assumed chairmanship of the House banking and currency committee, parent of the housing subcommittee, and is putting a borrower's eye on FHA lending practices.

By writing his new demand for an end to FHA discounts into the committee's report on the 1965 housing bill, Patman makes it extremely difficult for FHA to ignore it. Over the years FHA has been unable or unwilling to curb mortgage lenders from exacting discounts from builders and/or homebuyers. The unmistakable order assures the battle will get hotter next year.

The committee's theory is simple: "General economic prosperity [requires] an adequate money supply at reasonable interest



savings which had long prevailed."

"The committee requests the Housing Agency to encourage a reduction . . . such a reduction will bring housing within the financial reach of more families."

Boom for 3%? Another of Patman's pet ideas may find its way into the final housing law-3% loans for Sec. 221d3, college housing, and Sec. 202 housing for elderly persons. The House bill approved this plan but the Senate is still undecided.

Interest on all three programs is now tied to the over-all cost of U.S. Treasury borrowing, plus a service charge. All were scheduled to rise to 4% and 41/8% on July 1, up 1% in four years, and President Johnson and HHFA Administrator Robert Weaver were so discouraged with the rise they proposed phasing out both Sec. 221d3 and Sec. 202.

Patman's committee is adamant that lowinterest loans can do a better job of housing middle-income families. The rising interest has jumped median rents under Sec. 221d3 from \$87 to \$102 monthly.

"This committee is determined that the intended objective of low-interest rates which help produce moderate rentals shall not be frustrated by the erratic fluctuations of an arbitrary interest rate formula."

If the 3% rate does not produce more units. Patman's unit foresees either direct subsidies or Federal Reserve financing.

Beauty conference panelists tangle over buried wiring

BANKING'S PATMAN

Texan on FHA's back

Among other things (see p. 61), the muchheralded White House Conference on Natural Beauty last month focused public attention on overhead power lines.

An underground-utilities panel-one of 14 at the conference-wound up its dis-cussions with these seven recommendations:

1. Utilities should accelerate their efforts to install underground facilities in residential projects.

2. Whenever possible, utilities should consider replacing existing overhead wires with underground cable.

3. Electric power companies should explore joint-use possibilities (common rights of way and open trenches) with gas, water and other utilities.

4. The entire electric industry must intensify its public information program on overhead vs. underground lines.

5. For appearance's sake, the design, construction and routing of overhead lines should be improved.

6. Still greater efforts on research and development are needed.

7. The electric industry should include aesthetic considerations in its long-range planning.

Beauty, but . . . Utilities' spokesmen on the panel said they want to beautify their facilities but pointed out that cost is still a

major factor in deciding how much can be done.

rates." The committee calls FHA's current 51/4 % rate on houses "reasonable" and

adds: "Interest rates are man-made and

Apartment cut? The Patman committee

clearly doesn't view the 51/4 % rate on

apartment loans as "reasonable," however.

differential of 1/2% between the interest

rate on mortgages on multi-family housing

as compared with mortgages on individual homes," says the report. "At the present

time we are not getting the differential and

"For many years, there had been a

as such are controlled by man."

Federal Power Commission Chairman Joseph Swidler emphasized the cost obstacle. He noted that utilities have \$10-billion invested in overhead lines, not counting related community facilities; and to bury all these lines-if it were practicalwould cost more than all other conservation and beautification plans put together.

But, Swidler added, "If the majority of our population wants to get overhead lines out of sight, it becomes an obligation of the industry and the public administrators associated with the industry to work toward this goal."

He said an FPC-created industry advisory committee on underground transmission will report its findings by the end of the year.

Short-run economy? Prof. John Dyckman, chairman of University of California Planning & Development Research Center, took issue with the heavy emphasis on cost: "These arguments use too narrow a cost accounting base, undervalue a variety of social benefits and, even on economic grounds, are excessively short-run in their outlook."

Dyckman urged several economic steps to spur the installation of underground lines. Among them: 1) FHA should "ex-



plicitly recognize underground utilities as a site improvement and a premium to the property for loan purposes; 2) underground lines should be included in the federal community facilities program; 3) states should enact laws to permit assessment districts for long-range financing of utility improvements, including burying of existing lines.

Underground gain. Industry experts suggested some of the problem is already disappearing. Executive Vice President C. L. Wilcox of General Electric forecast 96,000 new underground residential connections in 1965-or nearly 10% of one-family starts. Three years ago only 20,000 homes had buried wires.

Some cities are doing better: Los Angeles officials say 60% of homes built this year will have underground wires-and all new tracts may be poleless by 1970.



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THIS END UP

- SEAS



Break in the building code impasse: two code sponsors thinking merger

An end to the historic coolness between regional building code officials is in the making.

Two of the three organizations which sponsor major proprietary building codes are working out ways to standardize and perhaps consolidate their procedures.

Participants admit candidly the two groups are "looking forward to a merger," although a detailed plan for consolidation is probably years away.

The consolidation talk mushroomed when the board of the International Conference of Building Officials journeyed to St. Louis to meet informally with the board of the Building Officials Conference of America. ICBO, headquartered in Pasadena, sponsors the Uniform Building Code, used by approximately 1,400 Western and Pacific Coast local governments. Chicago-based BOCA sponsors the Basic Building Code, used as the foundation for building codes in about 615 Midwestern and Northeastern cities.

A third proprietary code group, the Southern Building Code Congress, is not joining the consolidation talks.

Starting point. ICBO and BOCA leaders hope to begin by combining such activities as review and research of new building products and materials, consideration of code changes and in-service training for local building inspectors.

Each has appointed five members to a committee to work with Executive Director Paul Baseler of BOCA and Managing Director T. H. Carter of ICBO to work out



One sponsor for one code at last?

physical and staff arrangements. Both boards must later approve the details.

End of an era. This effort ends over a quarter-century of stand-offishness between the two groups. In 1939 BOCA, the older of the two groups, received ICBO's offer for the two to join in promoting and maintaining ICBO's Uniform Code. (See "Who's to blame for the building code mess?" H&H, Jan. '64). BOCA found conditions unacceptable and wrote its own separate building code, and the Southern officials followed suit to begin the building code stalemate.

Willits' prod. Only some new outside force could break the stand-off, and that

LBJ aides back picketing of job sites

Strikes at construction projects—even if they hamper or shut down contractors not involved in the dispute—would become legal if the measure were passed.

Site picketing authority is far more important to homebuilders than repeal of the Taft-Hartley Act's Section 14b, which sanctions right-to-work laws. But site picketing and its resultant strike threat would have scant effect in the 19 right-to-work states* if 14b remained intact, so building crafts joined industrial unions in pushing first for the right-towork repeal.

With hearings on 14b out of the way, Chairman Frank J. Thompson's House Labor sub-committee has moved to the issue of site picketing. The Labor Dept. says the Administration will testify favorably—even though President Johnson has made no formal statement of support.

The bill's principal stumbling block dissolved when the crafts won industrial

union support for the measure, and its chances in a floor vote are now rated as good. The big question is whether Congress can find time for it this session, and that depends on the duration of the floor fight over 14b.

'Devastating.' Presidents Perry Willits of the NAHB and Ira H. Hardin of the Associated General Contractors have organized a national action committee to oppose the bill.

"The economic impact on the industry in terms of lost jobs and hours of employment and increased construction costs due to strikes and picketing could be devastating to the homebuilding industry and to the nation," Willits says.

Minimum wages, overtime. Here are the prospects for labor's other demands.

• Require double pay for overtime worked beyond a 48-hour week: appears too controversial for success this session.

• Direct states to pay jobless benefits amounting to 50% of take-home pay for 26 weeks: little chance this session. force has been Miami Homebuilder Perry Willits, now president of NAHB.

When he was a fledging NAHB national officer in 1962, Willits invited over 50 code officials to sit down and talk—no small concession for groups that had conferred infrequently until then. All accepted, and Willits pressed the point that today's merchant builder operating in more than one jurisdiction is faced with a bewildering multitude of minor code differences —and must meet every one.

This proliferation of differences holds back technical improvement in housing, he suggested (NEWS, Nov. '62).

That meeting began informal meetings between the code groups, leading to this year's talks under ICBO President C. N. Christiansen of Portland, Ore., and BOCA President Albert Bockhaus of Baltimore.

A year ago Willits persuaded ICBO, BOCA and the American Insurance Assn. (formerly the National Board of Fire Underwriters, sponsors of the National Building Code) to join in writing a single code for one- and two-family residences.

One code. Progress on that task has been slower than expected, the collective code leaders learned in St. Louis.

Subcommittees on various parts of the code have settled all major points of difference, but draft of the full code was not distributed at the meeting as expected.

The two boards took action to speed the writing, but a spokesman declined to reveal details. Completion by year-end is expected.

Builders hope to persuade small communities now without building codes but faced with imminent new homebuilding to adopt the unified code package, thereby cutting through the code muddle for many merchant builders.

Labor unions cut wages to win Toronto apartment foothold

They got in by signing a pay schedule that sets apartment building wages 20% below going rates for commercial work. The Toronto Home Builders Assn. fears that the agreement signals a new organizing campaign.

Builders object not so much to union wage rates as to the work restrictions and fringe benefits that attend labor contracts. They have fought off both unionization —through a bloody 58-day organizing strike four years ago (NEWS, Sept. '61) and a Royal Commission's recommendation for new laws to ease the way for unions in Ontario's construction industry (NEWS, May '62).

Pigott Leasehold Ltd., a subsidiary of one of Canada's biggest contractors, Pigott Construction Co., signed the new pact with Toronto's Building & Construction Trades Council. The first job affected is an apartment and townhouse complex for Don Mills Developments Ltd.

Laborers will get \$2.10 an hour compared with the commercial rate of \$2.40. Carpenters will take \$2.70 instead of \$3.43, painters \$2.41 instead of \$3.

^{*} Ala., Ariz., Ark., Fla., Ga., Iowa, Kan., Miss., Neb., Nev., N.C., N. Dak., S.C., S. Dak., Tenn., Tex., Utah, Va. and Wyo.

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Vacancy-plagued builders turn to work-out moratoriums

Last year FHA doubled the number of work-out agreements* with apartment builders to a record 158. The rate of new payment-postponing continued unabated through May, but some ailing apartments worked themselves off the list to keep the total virtually unchanged.

Work-outs have proved "a very highly successful technique for avoiding foreclosure," says C. Franklin Daniels, assistant commissioner for multi-family.

HOUSE & HOME mortgage correspondents report a noticeable increase of conventional lenders turning to workouts.

All lenders, FHA or conventional, want to save the expense of foreclosing an apartment and to avoid the dead hand of bad publicity which could dampen rentals.

Vintage change. The current crop of FHA projects in trouble are one- and twoyear old apartments still on their construction loans. Only two years ago, the typical distressed property was a Sec. 608 project from the early 1950s.

The change reflects a fundamental shift in the apartment market, say observers. The wave of apartment building in 1961 and 1962 drew tenants heavily from older (and somewhat smaller) Sec. 608s.

When that ready reservoir of tenants dried up, many Sec. 608s were refinanced with conventional loans. Today's new

* FHA lets builders postpone principal payments (technically, a modification) or interest as well (a forbearance). Forbearances are used sparing-ly, mostly on renewal apartments.

EXCEPTION IN CLEVELAND

Mortgage lenders have a saying: "You only foreclose when the builder is bleeding the project and there's no other way to stop it."

Last month Equitable Life Assurance Society made just such a charge and forced a major part of Cleveland Builder Marvin M. Helf's apartment empire into bankruptcy.

Equitable foreclosed a \$2 million Helf loan alleging the company "has not applied all advances for the purpose of paying the cost of the improvements [a 13-story apartment on Cleveland's Gold Coast].

Industrial Finance Corp. of Boston promptly sued to recover \$1,973,000 due on two second mortgages. Helf responded by asking a federal court to reorganize 11 of his corporations building or operating apartments in Cleveland, Toledo, Dayton, Canton and Pittsburgh. "Our action was triggered by a lending institution moving in prematurely," he said. "We were forced to preserve our equities."

apartment builders must shoot for special markets-young marrieds, elderly couples, working girls.

Location, location. The most unpredictable market is proving to be for the luxury apartment, and poor locations can make the work-out agreement a long term one. Status-conscious prospects won't pay first-class rents to live near a railroad track, slums or even on the "wrong" side of town.

The only answer to poor location may be successive rent cuts until tenants show up, suggests one lender. To prevent future mistakes, lenders are inspecting locations twice and thrice before approving.

Where overbuilding of luxury units is the problem, works-outs offer a viable solution. FHA let 60 of the 400 apartments it insures in New York City continue under work-out agreements when builders who rushed suites up to beat a new zoning code in 1961 and 1962, ran into crippling vacancies. The glut has been worked off now-with only seven foreclosures.

Management scrutiny. "Nine of ten work-outs are management problems," says Senior Vice President Everett Mattson of T. J. Bettes & Co. of Houston, the nations' largest mortgage banker.

If renting falters, some conventional lenders will force the builder to bring in professional managers during the critical rent-up phase. The tactic may cost 2% to 3% of building cost but, "It's just good business," says one lender. Boston savings banks recently assigned a management company to rent two high-rises when the original builders ran out of money. When they were renting briskly, the buildings were turned back to the builders, without foreclosure.

A special case: co-ops squeezed by condominiums, slow sales

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In San Francisco, 44 tenants of Midtown Park apartments last month sued the builder for \$300,000 they paid on the assumption they were buying equities in co-op apartments. They learned the buildings had been switched to straight rentals through "for rent" signs (see photo).

In Washington, Sen. John Williams (R., Del.) accused FHA of "wholesale" approval of six Florida co-ops costing \$14.5 million, all of which are now in default after only \$116,700 payments on principal.

In New York City, fatherland of co-op housing, a new rival-the condominium apartment-is making inroads in city and suburbs after emigrating East from southern California, Salt Lake City and Denver.

From these indicators, casual observers have concluded the bloom is off co-ops.

Splitting them up. Wrong, argues the Federation of Sec. 213s. These ownerdirectors of Sec. 213 co-ops appear to be winning a four-year fight to change the housing law and hopefully clear up muddled thinking about co-ops generally. The House has agreed to give them their own separate fund for FHA insurance payments.

The co-op owners hope this device will



open the way to cutting their 1/2 % insurance payments by letting them build a substantial insurance reserve with FHA. So far reserves have been drained by the losses of investor-type co-ops.

Their argument: only three co-ops have ever failed after owners took over management, whereas 33 investor-type and sales-type co-ops have gone under-and in the doing given the entire co-op movement a black eye.

Closer look. At the prodding of the Federation and critics like Sen. Williams, FHA brass are taking a closer look at investor co-op sponsors. FHA summarizes the damaging aspects of investor co-ops:

Consumer suspicion is still difficult to overcome in some areas. FHA's biggest cluster of ailing co-ops-ten-centers in the Tampa-St. Petersburg area, largely populated by Midwestern retirees unfamiliar with co-ops. On Florida's east coast, the influx is largely from New York City and co-ops are doing well. Three would-be Miami projects hit a soft market two years ago but current units are doing well except for one near a railroad.

Competition from condominiums may be hurting. FHA men blame no specific foreclosures on condominiums but can trace a drop in the number of co-op projects from 1961 when condominium apartments (in which the occupant holds fee simple title to his individual unit) were legalized for FHA insurance.

Outside New York City, co-ops are most popular for elderly housing.



- A. Rigid Dylite foam core insulates
- B. Internal "kick" strip
- C. Thermal break-ends condensation
- D. Galvanized steel facings
- E. Seal strip on door-not walked on
- F. Adjustable universal sill

Pease Ever/Strait Door Distributors Imperial Components, Inc. St. Charles, Illinois

Components Inc. Hammond, Indiana

Alco-Anderson Lumber Co. Easton, Maryland

O'Connor Lumber Company Westfield, Massachusetts

Walled Lake Mfg. Co. Walled Lake, Michigan

Minnesota Wood Specialties St. Paul Park, Minnesota

SealRite Mfg. Co. Lincoln, Nebraska

Sklar Door New Jersey Corp. Newark, New Jersey

Gerrity Co., Inc. Albany, New York

Whitmer-Jackson Co., Inc. Buffalo 4, New York

Whitmer-Jackson Co., Inc. Rochester, New York

Gerrity Co., Inc. Syracuse, New York

Duke Millwork, Inc. Thornwood, New York

Sam Palevsky Hardware Co. Bedford Heights, Ohio

Whitmer-Jackson Co., Inc. Cleveland, Ohio

Whitmer-Jackson Co., Inc. Massillon, Ohio

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Whitjax, Ltd. Montreal North, P.Q.

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Warp-free • Magnetic weather-stripped
 • No storm door necessary—insulated
 • Adjustable aluminum sill • Class C fire-rated

This is no ordinary door! The Pease Ever-Strait is made of metal — it will never warp. You never get "hung" when you hang an Ever-Strait, because callbacks just never occur. In addition, the Pease Ever-Strait door has a solid compressed Dylite* core and magnetic weatherstripping that completely eliminates the need for a storm door.

The Pease Ever-Strait door costs probably no more than you're paying right now.

There are 26 distinctive, beautiful Ever-Strait exterior door designs. Doors delivered primed and prehung. See nearest distributor listed, or write for free brochure and full details.



*Reg. TM Koppers Co. Patent No. 3,153,817. Other Patents Pending

what every builder should know about Kemper kitchens...



Kemper's Traditional Kitchen in a French Walnut finish

Each month more and more builders are installing Kemper wood kitchen cabinets and Kemper bathroom vanities in their homes. You, too, should seriously consider Kemper cabinets if you have not already done so. Competitive pricing permits you to offer a line of top quality, extremely saleable cabinets at a price lower than you would expect. This keeps you competitive in your market without eating into your profit. Full line of styles and sizes offers you a complete selection. Choose from such popular styled kitchens and vanities as Traditional, Provincial and Colony Line in fruitwood, walnut, and cherry finishes. The industry's finest and toughest finish is yours through a remarkable finishing process that is exclusively Kemper Brothers. Your type of construction, with strength that you, as a builder, will recognize and appreciate. Dependable delivery is assured through our revolving 35,000 cabinet inventory. A furniture quality guarantee is our written promise to you. Kemper is the only kitchen cabinet manufacturer licensed by the National Association of Furniture Mfgrs. to display the NAFM Seal and offer its exclusive warranty. Send for our free, comprehensive, full color kitchen cabinet and bathroom

vanity catalogs. In the meantime, why not talk with your nearby Kemper distributor? He's listed in the Yellow Pages.



Kemper Kitchens are featured at The Better Living Center, New York World's Fair!





KEY HOUSING INDICATORS

		DOLLARS (millions)	% change from '64		(000)	% change from '64
Dodge resid. contracts	Apr. 4 mon.	\$2,139 6,571	+ 7 - 3	Starts, priv. nonfarm Apr. 4 mon		
ENR adv. resid. plans	May 5 mon.		-18 + 7	Starts, ann. rate Apr. Permits, ann. rate Apr.	1,524 1,204	+ 2
ENR adv. apart. plans	5 mon.		-33 + 6	Starts, one-family Apr. 4 mon		+ 15
ENR adv. house plans	May 5 mon	118 847	- 9 +10	Starts, apartments Apr. 4 mor	49.2 155.8	-15 -17

Sources: F. W. Dodge Co., division of McGraw-Hill; Engineering News-Record; Census Bureau; HHFA.

Most U.S. housing rides a boom as a turnaround stirs in the West

A new housing acceleration is firmly established in three-fourths of the U.S., and the hard-hit West Coast is beginning to bounce back.

Housing starts on a seasonal basis edged above 1964's blistering pace in April to 1,524,000 units. Residential contracts scored an all-time record at \$2.1 billion, F. W. Dodge Co., division of McGraw-Hill, reported (*see table*). Dodge's residential building index hit 147, a year's high (*see graph*).

The performance is all the more remarkable because the busy Western region has been in a tailspin for over a year. And hardest hit has been the biggest building state of all, California.

While casual housing observers berated California's lenders for shoveling too much mortgage money at builders, HOUSE & HOME Editor Richard O'Neill, Associate Editor Edwin Rochon and correspondent Barbara Lamb ranged the state in early June.

Their report: California's housing slump has bottomed and promises to rebound.

Divided economists. "We've seen absolute bottom, and we're turning the corner," asserted Vice President and Economist Conrad C. Jamieson of Security First National Bank in Los Angeles. Jamieson says housing starts in the state's southland have plummeted from an annual rate of 233,000 to 123,000 units, and unsold inventory has stopped rising.

"We need approximately 150,000 units per year to take care of basic demand. We're building less than that which means we're going to be able to chew into that excess inventory. From here on we improve," he reasons.

The Bank of America's economist, Harold Buma, is less exuberant. Statewide building contracts in the second quarter should hit a 230,000-unit clip, up from 213,000 to start this year, but Buma expects no significant upturn till mid-1966. "Our basic housing demand is probably 220,000 units a year until 1970," he observes. "We probably won't see the 307,000 of 1963 again for some time—not before some dramatic changes in aerospace growth."

Crucial spenders. Defense spending is critical for California's housing, since highsalaried technicians and executives comprise the biggest buying group.

Gov. Edmund (Pat) Brown boasted to Eastern financial writers that California's first-quarter share of defense spending had soared to 25.8% of the U.S total, ending a skid to 21% in 1964. But economists say the state will do well to get 23% for 1965.

"They're going to have to award contracts in California. We have the technicians and the plants," said Brown. But aerospace employment topped out at 499,-200 jobs in December 1962 and is not expected to rise above April's 441,000 jobs through mid-1966.

Bullish builders. Builders trooping to the Pacific Coast Builders Conference in San Francisco were anything but gloomy.

"The overproduction is being absorbed and should be in reasonable balance within six to 12 months," summed up Former NAHB President David Bohannon of San Mateo. "The last three years have separated the men from the boys and brought a healthier industry."

President Lawrence Weinberg of Larwin Co. agrees with Bohannon and says he expects to boost his 1965 production of 1,500 houses to 1,700 this year. A spot check by one Building Contractors Assn. chapter found builders expect to equal 1964 sales.

12







K-V out-of-sight storage fixtures can lend your kitchen sales a helping hand!

Here's a sure way to make your kitchens more attractive to women and put you ahead of competition: provide these thoughtful little timesaving extras that say *your* kitchen will make their work easier! K-V makes it simple for you, because wastebasket, towel and pan racks are inexpensive, can be quickly installed and are built to last a lifetime. Each glides in and out of cabinets smoothly on frictionless ball bearings. And each has a bright chrome finish for lasting beauty. Before you plan or install your next kitchen, ask your K-V distributor about these convenient fixtures. Or write, and we'll lend a helping hand by sending you a free catalog!



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Grand Rapids, Michigan

Manufacturers of a complete line of quality drawer slides, sliding and folding drawer hardware, closet and kitchen fixtures and Handy Hooks for perforated board

JULY 1965



PAULEY

GOODMAN

CITRON

Nine biggest marketing mistakes today

That topic jammed over 500 builders into a three-hour session at the Pacific Coast Builders Conference last month. Panelists David Stone of Stone & Schulte, Edwin Pauley of Janss Realty, Thomas Richey of S. V. Hunsaker, Lester Goodman of L. C. Major & Assoc. and Joseph Citron of Citron Realty named:

RICHE

1. Lack of specific market research. "If you pay \$1,000 for market research and your project fails, you obviously paid too little. You have to pay enough to be sure your capital risk is covered."

2. Design negligence. "Tastes and design can vary. A careful tour of what's moving well for the competition—with close attention to the details—will pay off."

3. Unrealistic pricing. "In any location at a particular time there is a price class that will move. Prices above and below will not move no matter what."

STONE

4. Not selling the lender. "Selling the lender is just as important as the buyer." 5. No on-site sell. "The model area must create a sense of environment."

6. Advertising without a plan. "An ad campaign must have a theme, consistency, schedules and a budget keyed to sales."

7. Forgetting that markets change. "Some builders are still trying to sell Cinderella houses—a 1958 style."

8. No professional sales management. "Don't throw problems at the buyer. Make the buying decision easy."

9. Neglecting the post-sale sell. "Over one-third of all sales today come from referrals. Your check-up crews should be your most efficient and polite men."

Builders revolt at Realtors' fee increase, begin own selling

When Stamford, Conn., Realtors raised commissions on open listed new houses by 1% to 6% last January 1, 75 builders reacted by organizing the Stamford Residential Builders Assn. President Art Lutz, whose Briar Brae Builders puts up 20 homes a year at \$45,000 to \$60,000, demanded a 1% cutback to 4% instead of a 1% boost.

Lutz and his group have cancelled all open listings. They assessed every builder \$25 a week and printed 17"x21" maps of 35 active direct-sale sites. Fifteen local service stations and restaurants distribute the map free, and the builders advertise in local and New York City papers. The ad copy carefully omits any reference to direct sales.

Builder Mike Vartuli of Vartuli Bros. estimates the rebellion could cost the real estate board's 59 business members nearly \$1 million a year on Stamford's 600 new dwellings.

The builder revolt spread to nearby New Canaan, where President Joe Yates of Historical Homes and Bob Roles of Roles-Young Co. got 32 of the town's 40 builders (annual production: 155 houses) to form a New Canaan Homebuilders Assn. The group has a direct-sale ad campaign ready but has held off pending talks.



new Decorette mirror -cabinet enhances any bathroom decor

An elegant cabinet artfully styled to complement any decorating scheme. Provides mirror-door coupled with convenient hidden storage, a widespread need confirmed by Grote's survey of 1100 of the nation's top builders and architects. 3-dimensional ovaloid inner frame in gold-gleam or silver-sheen with matching outer frame and match-



City

ing gold or silver-flecked trim panel of scratch-resistant plastic laminate. Features Grote's famous stop-hinge permitting either right or left-hand door swing simply by inverting the cabinet. Fits popular 14" x 18" rough opening.

Use alone or in "his and hers" combination as shown at left.

State

American Heritage

Handsome louvered doors, unfinished, with beautiful grains that finish elegantly in wood tones or in colors to match walls or woodwork right on the job. Reversible for either right or left hand door swing. Also fits popular 14" x 18" rough opening.



	JEND FOR COMPLETE	CATALL
_	THE GROTE MANUFACTURING CO. PO Box E766, Madison, Indiana 47250	
2	Please send catalog on new Grote decorator cabinet bathroom cabinets, mirrors, and accessories.	and over 200 at
OF	Name	
	Street	100000

OVER 60 YEARS LEADERSHIP

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HOW WELL DO YOU KNOW YOUR BUILDING?

He's doing 4 operations in 1-

modern homasote FLOOR DECKING

with



Weatherproof, all wood-fibre Homasote Floor Decking eliminates separate cutting, fitting and nailing. Carpet and pad can be installed right over "4-Way"-resilient floor covers need only an additional layer of hardboard or plywood. Write for Bulletin 4-212.

5-072

FOR GARDEN AND LOW-RISE APARTMENTS, MOTELS AND BETTER-QUALITY HOMES

The minute a 2' x 8' panel of "4-Way" Floor Decking is nailed to floor joists you have (1) sub-flooring; (2) underlayment for wall-to-wall carpeting; (3) sound deadening* and (4) weatherproof protection. No separate, costlier operations. Carpet and pad can be installed right over "4-Way." Panels are $1^{11}/_{32}$ " thick, T&G on long edges, termite-protected and rugged. For technical data, engineering test results and names of nearby installations, write to Dept. G-2.

*INR +9 and STC 47 with ceiling of 5%" gypsum on resilient channels and 40 oz. pad and carpet on Homasote Floor Decking. Tested according to FHA #750 and ISO-R-140.



Fred Mikkie Photographers



Ski apartments win tryout on U.S. Forest Service land

And the test in Washington State could open other Forest Service properties to private builders after results are finally evaluated in 1970. The experiment began in 1963. The Forest Service wanted public ski lodges at Crystal Mountain, 68 miles southeast of Seattle. But officials anticipated difficulty in obtaining federal funds. So they let a Seattle physician, Dr. Norman Arcese, and some skiler-businessman friends build 61 furnished apartments, like those shown above, and sell them as condominiums for \$8,900 to \$14,500. The key stipulation: 12 tworoom apartments—20% of all units—were always to be available for public rental at \$20 to \$45 a day. If owners simultaneously occupy more than 49 units, someone must vacate if renters show.

The units sold out, and two similar projects sprang up at Crysal Mountain and nearby White Pass—even though the Forest Service raised the public-priority quota to 50%.

'Quiet House' Parades boom after debut in San Antonio

Sound-conditioning worked so well as the theme of San Antonio's May Parade of Homes that now homebuilder associations in some 15 cities want to adopt the same idea for their own shows. So reports NAHB, which is talking up the idea as a fresh way to merchandise all Parades. The 15 cities include Columbus, Birmingham, Los Angeles, Chicago and Washington, D.C.

The most encouraging part of the San Antonio Parade was the builder cooperation—16 of the 20 houses exceeded the minimum acoustical standards recommended by NAHB. Several builders used every type of sound-control system and device known to the trade, spending up to \$1,000 on acoustics (a minimum job costs about \$600). Visitors were first made aware of the benefits by a lecturer in a demonstration house consisting of identical rooms, one fully sound-treated and the other untouched.

Unlike previous attempts to sell "quiet houses," the San Antonio promotion did not merchandise sound-conditioning as an optional package but offered it as an integral part of the house that enhances both livability and interior appearance. Visitors were asked, however, what they thought of paying a premium for a quieter house. Their answers to a questionnaire are now being processed by NAHB.

This 27" piggyback diazo machine will print 94% of your work for only \$417.*





And that \$417 price tag includes everything you need to produce perfect prints for 1¢ per square foot materials cost. No accessories needed. Now or ever.

And the Blu-Ray piggyback unit is preventative-maintenance engineered. An exclusive that avoids costly downtime and major repairs so well you get a written warranty for a full 12 months. That's the best engineering and the best quality you can get — in a 27" diazo machine that handles 94% of your work. You pay less and get more with Blu-Ray.

 If you must have a 42" diazo machine, we've got one for you. Same story. And only \$467.00. (Lowest priced 42" unit of its kind!)

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Sparkle-Kleen and arrange a FREE demonstration of your Piggyback diazo machine — sold for the lowest price in town. NAME
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Want Lifetime Flooring? Low Cost Maintenance? Moderate Price? Specify Teakwood! Specify Teakwood! Mage the system of the sy

You're probably paying too much for slide-in ranges unless you take these steps:

Choose from the line with four different models to match your budget and your market.



DELUXE MODEL RB-382 is for luxury installations, has Throw-Away Oven Linings, Automatic Surface Unit, Built-In Rotisserie, High-Speed Units, 30" wide.



INTERMEDIATE MODEL RB-342 for middle price ranges has Automatic Oven Timer and Clock, Throw-Away Oven Linings, Multi-Heat Broiling, Automatic Oven Light.



BUDGET MODEL RB-322 is for economy installations, has Throw-Away Oven Linings, Lift-Off Oven Door, Single Dial Bake-Broil Control, Automatic Oven Light.



SPACE-SAVER MODEL RB-121 is just 20" wide. Does big cooking job with Multi-Heat Broiling, Throw-Away Oven Linings, Fast-Heating Surface Units, Appliance Outlet.

2. Choose from the line with options to meet your exact needs.

Choose the line with undercounter dishwasher that matches it inexpensively.



STORAGE DRAWER



PORCELAIN-ON-STEEL PANEL



WOOD PANEL



6-CYCLE DISHWASHER comes in matching colors or matching wood panel may be easily installed. Fourteen table settings, optional wetting agent dispenser.

Or just choose Kelvinator.

Most slide-ins or drop-ins are available in only one or two models. Often they're either "stripped" models unsuitable for deluxe installations, or top-of-the-line models that are too costly for economy installations. Whichever you choose, it's going to cost you in sales or profits. But not with Kelvinator. You can choose from a complete line with Kelvinator. Match the range exactly to your needs. And pick out the optional features you need. Installation's fast and simple. One man can do it in minutes. Four leveling legs make it easy to line up with the countertop. And you get a beautiful built-in installation without wasting expensive countertop or needing a built-up base. So why overpay ? Choose Kelvinator and save !



Division of AMERICAN MOTORS CORPORATION, Detroit, Michigan 48232. Dedicated to Excellence in Rambler Automobiles and Kelvinator Appliances.

Apartment lenders preach a new way to avoid failure: think small

"We have encouraged our institutions to stick mainly to single-family homes and small-scale apartment projects. It is better to have our eggs in a lot of little baskets than in a few big ones."

So said President John Stadtler of the U. S. Savings & Loan League to builders from one of the nation's slowest apartment lending areas, the Pacific Coast.

"We are looking more and more carefully at the apartment projects," added Stadtler, "and particularly those involving a substantial number of units."

His speech has provided new guidelines for investors and builders outside of California too, for a new flurry of foreclosures is turning lenders cautious in several areas (see p. 10). It is also putting a premium on good rental management.

The bad news. Since the peak building month of October 1963, NAHB estimates that apartment starts dropped 25% to an annual rate of 438,000 in April. First quarter permits were off 58% in Dallas, 45% in southern California. First Western s&L of Las Vegas announces it will refuse all loans on new housing in southern Nevada. Western Federal S&L in Denver is refusing apartments.

H&H begins reporting national trading in conventional loans

To keep builders and mortgage lenders abreast of trends in the mortgage market, HOUSE & HOME begins listing conventional loans eligible for purchase by federal s&Ls.

H&H will report activity at the only trading post for these loans, a clearing house listing service maintained by Mortgage Guaranty Insurance Corp. of Milwaukee (NEWS, May). MGIC lets local originators, chiefly mortgage bankers and commercial banks, list for resale loans insured by MGIC (although private insurance is not required). MGIC takes no part in the trading.

CONVENTIONAL LOANS RESALE MARKET

Packages of conventional loans, privately insured by MGIC, available for purchase by S&Ls. Loans are in metropolitan areas, originated by mortgage bankers and commercial bank-ers and listed with Mortgage Guaranty Insurance Co., 600 Marine Plaza, Milwaukee. Address inquiries c/o Jack Ditt-mann. Typical offerings reported the week ending June 11:

Location	Net % Yield to investors*	
California	5.75	
Georgia	5.50	
Hawaii	5.75	
Kansas	5.65	
Michigan	5.50	
	California Georgia Hawaii Kansas	

NEW YORK WHOLESALE MARKET

FHA, VA 51/45

Immediates: 97-971/2 Futures: 97-971/2

FHA, VA condition) VA 51/4 spot loans (On homes of varying age and Immediates: 961/2-971/2

Note: Prices are net based on a servicing fee of 1/2%. Majority of loans being sold today include concessions made by servicing agencies which would be reflected in higher prices. Prices cover out-of-state loans, reported the week ending June 11 by Thomas P. Coogan, president, Housing Securities Inc., New York City.

HOUSE & HOME's mortgage correspondents report that lending has become hesitant in Atlanta and Denver. Says First Vice President M. F. Haight of Oklahoma City's American Mortgage & Investment Co.: "We are overbuilt."

The silver lining. Houston's T. J. Bettes Co., the world's largest mortgage banker, still lends in the so-called distress areas of Dallas and Los Angeles. Executive Vice President Everett Mattson refuses to become concerned about either area. Like Stadtler, he stresses selectivity.

Metropolitan Life, widely rumored refusing California apartment loans, replies: "Not true. We are still lending on good

apartments and buying their mortgages." Says Senior Vice President Frank Cort-

right of Bankers Mortgage of California in San Francisco: "Any builder who knows what he's doing can still get money. Our Henry Doelger, for instance, could borrow anywhere because he offers renters what they want. His apartments stay rented."

The lenders' consensus is that the builder who can rent his apartments-or get a manager to rent them-can still get the loan. Some investors will lend even with four-year rent-up periods (see p. 20).



First FHA 'poor-risk' buyer

Executive Vice President Vince Mazzara of Home Insulation Co., Birmingham builders, hands \$12,-950 deed to Ernest Farley (right) under FHA's program for buyers unable to meet the agency's normal credit standards (News, Jan.). A father of five, Farley went bankrupt after his wife died. He remarried, and Mazzara counseled him on finances for a year. The Kate Maremont Foundation of Chicago is helping FHA test validity of its credit ratings by reinsuring FHA against loss on 500 loans similar to Farley's. Builder Phil Emmer persuaded FHA to test the program nationally with 20 builders after he tried it in Gainesville, Fla. (News, Nov. '63).

HOMEBUILDER'S MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending June 4.

City		1/45 (Sec. 2 unt paid by buil Min. Down ⁴ 30-year Immed.*	lder	FHA 207 Apts. Firm Commitment	Comm. banks, Ins. Cos. 75%	Convention Loan Rat Savings banks, S&Ls 80%		Construction Loan Rates
Atlanta	23/4	1-2	Steady	a	51/2-53/4	53/4-6	6-61/4	6+1
Boston	13/4	par+1-par	Steady	par+1-parb	51/4-51/2	51/4-51/2	51/2b	51/4-6
Chicago	23/4	1/2-11/2	Down 1/2	par-1/2b	51/4-51/2	51/2	53/4-6	51/2-6-+1-11/2
Cleveland	23/4	1-11/2	Steady	a	51/2-53/4	51/2-53/4	6-61/2	53/4-6+1
Dallas	23/4	1/2-11/2	Steady	par	51/4-51/2	53/4	6-61/4	6+1
Denver	23/4	1/2-2	Steady	1-2	51/4-53/4	51/2-6	6-61/2	6+1-2
Detroit	23/4	par-1	Steady	1-11/2	51/4-51/2	51/2-6	53/4-6	6+1/2
Honolulu	23/4	11/2-21/2	Steady	a	53/4-61/2	61/4-7	63/4-73/4	61/2-7+1-3
Houston	23/4	11/2	Steady	a	51/2-6	6	6-61/4	6+1
Los Angeles	23/4	1	Steady	par+1-par+1/2	51/2-6	53/4-6.6	61/4	6-6.6-1-2
Miami	23/4	13/4-2	Steady	1/2-1	51/2-6	53/4	6	6+1/2-1
Newark	13/4	1	Steady	par-1/2	51/2	53/4	53/4-6	6+1
New York	13/4	par	Steady	par+1-par	51/2	53/4	6	53/4-6+1/2-1
Okla. City	23/4	1-2	Steady	a	51/2-53/4	51/2-53/4	6-61/4	6-61/2+1-11/2
Philadelphia	13/4	par	Steady	par-1	51/2-53/4	53/4-6	6	5-6+1
San Fran.	23/4	1-11/2	Steady	par-1	51/2-53/4	53/4-6	6-61/4	61/4-61/2
St. Louis	23/4	1-21/2	Steady	par-1	51/2-6	53/4-6	53/4-61/4	51/2-61/2-1-2
Wash., D.C.	21/4	1	Steady	par	51/2	53/4	66	51/2-53/2-1/2-1

SECONDARY MARKET

FHA	& VA 51/4 %	•		
Money center	Sec. 203b & VA houses Yield to Investor	Trend	Sec. 207 Apts. Yield to Investor	Trend
Boston	5.03-5.17	Up .03	a	a
Chicago	5.00-5.06	Steady	5.12-5.15	Static
New York	5.00-5.12	Firm	5.13-5.15	Steady
San Fran.	5.00b-5.12	Steady	5.14b	Weak

Immediate covers loans for delivery up to three months, ture covers loans for delivery in three to twelve months. Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones. may Quotations refer to houses of typical average local quality with respect to design, location and construction.

3% down on first \$15,000; 10% of next \$5,000; 25% of balance.

Footnotes: a—no activity. b—limited activity. w—for comparable VA loans also. x—FNMA pays $\frac{1}{2}$ point more for loans with 10%. y—discounts quoted are net after seller

βαγς ½% marketing fee and ¼% adjustment for stock calculation of the second stock of the second stock



SLUMP BLOCK IN RUNNING BOND

This stunning traditional home exemplifies the easy elegance of quality concrete masonry. Dimensions of slump block are $3\frac{1}{2}^{x}x^{3}\frac{1}{2}^{x}x^{15}\frac{1}{2}^{x}$, painted off-white. The next time you build, specify O BLOCK masonry—for added firesafety, insulation and sound absorption. You'll be glad you did.

Architect: Kenneth C. Albright

Q BLOCK wall creations

today's smartest way to put quality into every wall! Q BLOCK masonry, as you know, is the new standard of excellence for concrete block established by the National Concrete Masonry Association. Q BLOCK masonry enables you to design and build with new quality and greater confidence. Only NCMA members can make Q BLOCK masonry, and their products are tested at regular intervals by accredited laboratories to assure that Q BLOCK standards are maintained. Write for the name and address of your nearest Q BLOCK producer. Look for this Q BLOCK Certification wherever you specify or purchase concrete block.



NATIONAL CONCRETE MASONRY ASSOCIATION . 2009 14th STREET NORTH, ARLINGTON 1, VIRGINIA

Wall Street finances renewal-apartment builder-on a four-year rent-up schedule

Kansas City Redeveloper Lewis Kitchen last month cemented one of housing's most surprising and significant deals:

He and the century-old investment bank house of Kidder, Peabody & Co. formed CITY RECONSTRUCTION Co. to undertake urban renewal projects costing \$500 million in the next five years. Their first bid: Los Angeles' Bunker Hill project.

Setting up CRC lets Kitchen channel equity cash into renewal without the expense of a public stock offering. Kidder, Peabody has bought 10% of a "several million dollar" issue of CRC preferred stock and sold the remaining 90% to an unidentified insurance company.

As CRC takes on renewal projects, it will set up partnerships including "some of the nation's most prominent families-people who know they will be in the top tax bracket for years" as limited partners, says Vice President Kendall Lutes of Kidder, Peabody. The prototype of this financing was used a year ago when Kidder, Peabody arranged \$2.9 million of equity financing for Kitchen's \$45-million Mansion House apartments in St. Louis. Investors then included former Air Force Secretary James H. Douglas Jr., President and Chairman Harold S. Geneen of International Telephone & Telegraph Co. and President Henry E. Kingman of Franklin Research & Development, records show.

Four-year rent-up. Lutes and Kitchen say investors have accepted a four-year schedule for renting the CRC projectstwice the normal acceptable period in housing. Reason: Kitchen's experience with renting in former slum areas.

The renting timetable: 10% of units occupied the first year, 40% the second, 70% the third and 93% the fourth.

"Naturally we hope to do better," says Lutes. "We will not be scared because these projects are big enough to change a neighborhood."

The investors expect a 10% return on equity at full occupancy. But they are prepared to operate four years without return (except for depreciation) until all units are rented.

Kitchen says the four-year schedule is significant because, for the first time, it lets a redeveloper bridge the long leadtime needed in large projects.

Stephen Moses, Action renewal head for two years, becomes CRC vice president and secretary.

Industry hunt. Developers are drawing new industries into some of the nation's largest new communities.

Formica Corp. signed to build a 300,-000-sq.-ft. plant to employ 500 at SUNSET INTERNATIONAL PETROLEUM'S Sunset/ Whitney Ranch tract near Sacramento.

HOLY CORP. donated 15 acres and is building a \$100,000 plant shell at its Salton City, Calif., for lease to Atlas Plastic Corp.

University Park near Boca Raton, Fla., got its first tenant when Lab Sciences Inc. occupied a 16-acre tract last month in the ARVIDA CORP.-Centex Construction plan.

New financing. The march of common stocks to historic highs in mid-May prompted numerous housing companies to begin efforts to issue securities.

At May's end, ten real estate investment trusts had started to register \$53 million of securities. Mortgage banker George W. Warnecke of New York City registered \$20 million of collateral trust notes for his REALTY COLLATERAL CORP.

But stock prices quickly retreated and Wall Street sources expect many offerings to be delayed or withdrawn. HOUSE & HOME's index of 82 housing stocks fell 5% last month to touch 7.93. All categories fell. The averages:

Apr. 12	2 May 11	June 7
Building 5.21	5.14	5.02
Mortgage banking. 11.40	12.42	12.15
Prefabrication 6.36	6.11	5.60
S&Ls13.36	12.53	11.51
Land development. 6.24	6.13	5.86
Average 8.65	8.42	7.93

Mo.

HOUSING'S STOCK PRICES

COMPANY BUILDING	June 7 Bid/ Close	Chng. From Prev. Mo
		110
 Adler-Built Inc 	30¢	+ 5¢
· Capital Bld. Ind	98¢	- 2¢
Cons Bldg. (Can.)	53/4	- 1/8
 Dev. Corp. Amer 	4	+ 1/4
Dover Const	31/8	-21/8
Edwards Eng	63/4	-21/8
Edwards Inds	13/8	+ 1/4
Eichler Homesh	3	1/2 1/8
First Nat. Rlty.b	2	- 1/8
Frouge	51/8	- 5/8
General Bldrs.b	21/4	- ³ /8
Hawaiian Pac	8	-11/4
Kavanagh-Smith	33/4	+13/4
Kaufman & Bd.b	141/24	+13/8
Lou Lesser Ent.b	51/4	-13/8
Levitt ^b	8	- 1/A
Lusk	11/4	1/8 1/4
Pres, Real. A.b	91/4d	- 1/4
 Sproul Homes 	5	+ 7/8
U.S. Home & Dev	5/8	1/4
Del. E. Webbc	53/8	- 1/2
PREFABRICATION		
Admiral Homes	21/8	+ 5/8
Albee Homes	25/8d	- 3/8
Continental Homes	11/2	a
Gt. Lakes Homes	21/2	1/4
Hilco Homes	3/4	3/8
Iniand Homes ^b	71/8d	-11/4
Madway Mainline	101/2	
Modern Homes	31/8	- 1/2
	33/4	_ 1/8
Natl. Homes A.9	35/8	+ 1/8
Richmond Homes	15/8	- 5/8
Scholz Homes	11/2	+11/4
· Seaboard Homes	73/4	- 3/4
Steel Crest Homes	3	
Swift Homes	3/8	
• Western Shell	203/8	-31/4
Jim Walter ^c • Wright Homes	20%s	
· wright nomes	656	a
S&Ls		
American Fin	141/4	- 1/2
Brentwood	61/2	1/4
Calif. Fin.c	47/8	
 Columbia 	5	-1
Empire Fin	113/4	—î
Equitable S&L	201/8	-21/8
Far West Fin.c	133/4	3/8
Fin. Fed.c	235/8	-23/4

June 7 Bid/ Close COMPANY First Fin. West...... First Lincoln Fin..... 71/4 181/2 First Surety First West Fin.c..... Gibraitar Fin.c 47/8 81/4 201/4 Gibraltar Fin.^c Great West. Fin.^c..... Great West. Fin.^c..... Hawthorne Fin. Lytton Fin.^c San Diego Imp.^c.... Trans-Cst. Inv. Trans Wrld. Fin.^c.... Union Fin. United Fin. Cal.^c..... Wesco Fin.^c 101/8 71/4 121/8 33/4 61/4 103/8 65/8 93/4 16 MORTGAGE BANKING Advance 81/4 • Amer. Mort. Ins. 194/2 Associated Mtg. 85/ad Charter 17/8 Colwell 141/2 Cont. Mtg. Inv. 251/4 • Cont. Mtg. Ins. 81/2 • FNMA 857/6 First Mtg. Inv. 16 • Kissell Mtg.b 53/4 MGIC 253/4 MGIC 253/4 -21/2 • Mortg. Assoc. + 7/8 LAND DEVELOPMENT All-State Prop.b • American Land Am. Rity. & Pet.b.... Arvida 3 10 1/8 1/2 13/8 31/4 55/8 +

A champ regains his crown: Levitt sales top \$60 million

If there was any doubt about which publicly held homebuilding company was the largest in sales, the Levitt & Sons report for the year closing February 28 ended it. President William J. Levitt announced a gross of \$60 million in sales of houses and land-up 46% from 1964.

Net after taxes jumped to \$2.6 million (85¢ per share)—up 221/2% from last year's \$2.1 million (70¢ per share).

The four-year growth in sales (from \$31 million in 1962) has been marked by a shift to a decentralized series of subdivisions-one of only 314 houses (see p. 44) — in four states plus projects in Puerto Rico, France and Spain. Other reports:

Company	Period ending			Net (000)	
Admiral Homes	Feb. 28	2,717	- 2	154	352
American Fin	Dec. 31	7,159	30	1,748	8
Associated Mtg	Mar. 31ª	4,275	36	378	34
Consolidated Bldg.	Feb. 28	26,462	-21	2,610	18
Consolidated Homes		2,001		102	NA
Continental Mtg. Inv	. Mar. 31	5.273	41	2,619	35
Develop, Corp. Am.	Dec. 31	6,030	30	20	-78
First Mtg. Inv	Jan. 31			1,151	21
Frouge Corp.	Dec. 31*	3,686	59	37	
General Builders	Dec. 31	10,985	30	126	-15
Hodgson Houses	Feb. 28	5,533	12	101	58
Jim Walter		72,196	- 3	2,091	- 4
Lusk	Dec. 30*				
Realty Equities	Dec. 31	9,824	9	234	-20
Southeastern Mtg. In			n	516	
Sproul Homes	Jan. 31	19,824	-31	50	-100
Sunset Internat'l .	Feb. 28	12,405	- 9	2,474	20
United Imp. & Inv.			76		
Wright Homes		1,857	28	61	

a—six month report. L—loss in previous year. n—new company. NA—not available. g—gain in previous year. News continued on p. 24

From		June 7	Chng.
Prev. Mo.	COMPANY	Bid/ Close	From Prev. Mo.
	Atlantic Imp	181/2d	3
-21/4	Canaveral Intl.b		- 1/8
1/4	Cnristiana 0.º	47/8	- 1/8
3/4	Coral Ridge Prop	23/4	+ 1/2
	Cousins Props	123/4	-1
- 1/2	Crawford	31/4	+ 1/4
- 1/4	Deltona Corp.b	131/2	- 1/2
-15/B	• Disc Inc.	25/8d	
1/4	Fla. Paim-Aire	2	- 3/8
- 1/2	Forest City Ent.b	5 ^d	- 1/8
+ 1/4	Garden Land	55/8	- 1/4
- 7/8	Gen. Develb	43/4	- 3/4
-13/8	Guif American ^b	73/8	
7/8	Holly Corp.b	13	- 1'a
-21/2	Horizon Land	13/4d	- 1/2
	Laguna Nig. A.h		- 1/2
	 Laguna Nig. B.^h 	43/8	- 3/4
	Lake Arrowhead	81/4	- 1/2
3/8	Macco Rity	81/8	1/8
a	· Major Rity	38¢	+2c
+ 3/4	McCulloch Oilb	97/8	3/8
- 7/8	So. Rity. & Util.b	11/2	
- 1/4	Sunset Int. Pet.o	7	- 3/4
-1	a—stock newly adde	d to ta	able. b
- 1/B	closing price ASE.		
+ 1/8	NYSE. d—not traded g—closing price MSE		
10000	a crossing brind more	in ciu	and buice

g—closing price MSE. h—closing price PSCE. — —not included in averages Sources: New York Hanseatic Corp., Cairdner & Co., National Assn. of Secur-ities Dealers, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange. Listings include only companies which derive a major part of their income from housing activity and are actively traded. housing activity and are actively traded.

SHORT-TERM BUSINESS LOAN RATES

Percent interest and (net change) in year		7 other Northern	11 Southern
LOAN SIZE (000)	New York City	& Eastern cities	& Western cities
\$1-10	5.62 (04)	5.85 (+.04)	6.02 (+.11)
\$10-100	5.36 (03)	5.55 (+.01)	5.68 (+.06)
\$100-200	5.10 (+.04)	5.26 (+.02)	5.36 (+.05)
\$200 & over	4.62 (04)	4.85 (03)	4.99 (09)
we describe the second second second second second	and the second sec		

Source: Federal Reserve Board, March, 1965.



She'd want Moe Light in her library

A Moe Light styling adds a touch of royalty to dining rooms and living rooms too ... gives modern day queens something special to remember about your homes. For more ways to add extra appeal with lighting, write to Moe Light, Thomas Industries Inc., 7 207 E. Broadway, Louisville, Ky.

Circle 32 on Reader Service Card



interest sparker! Yes, she's very interested in becoming a

part of this new world of effortless elegance. And you will be, too! After kitchens like this one, featuring G-E Textolite® laminated plastic cabinet and wall surfacing, become your silent sales clinchers. G-E Textolite is highly resistant to stains, scratches and heat up to 275°F. Available in both satin and no-glare textured finishes. 20 New Patterns now avail-

able will make you the trend-setter in your market.





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Firm		
Street		
City	State (please print)	Code

NEWS



BUILDER SCHULTE Search out the angles

BUILDER ERVIN Coffee was served

Two builders turn bad news into good publicity for themselves

In fact, the two—Charles C. Ervin of Charlotte, N.C., and Joseph H. Schulte of Toledo seek out local controversy, then leap into the fray with positive action that so far has brought them nothing but favorable headlines. Items:

· Stirred by national concern over natural beauty (see p. 6), residents of a developing Charlotte community demanded more parks. One landowner donated seven acres. Ervin promptly donated 22 adjoining acres. Result: his gift got top-headline treatment on the local news page of The Charlotte Observer (circ. 170,917). What's more, Ervin got rid of \$2,000-an-acre flood land that was too expensive to fill for houses and will now be able to sell homes with a park in their backyards.

• When white owners picketed his headquarters to protest expansion of a Negro subdivision last December, Ervin offered the pickets coffee from a silver service, invited them inside to confer. He won sympathetic pictures in the paper (*see photo*) and is now extending the subdivision.

• When other builders began fighting an ordinance requiring sidewalks, Ervin announced that all his future tracts would have sidewalks. The ordinance passed.

• When a Toledo school principal complained that modern homes have no clearly defined study areas for children, Builder Schulte persuaded him to organize a dinner seminar for all other principals in the area. Result: designs for 15 study areas which Schulte immediately incorporated into Inverness Village, his new \$7-million development.

• When the city council decided to require trees on all homesites, the Toledo Association of Home Builders threatened to sue. But Schulte invited councilmen to his office and told them he would put in more trees if he could find them and get financing to move them. Result: Toledo's helicopter-borne traffic police began searching out trees for him on public land, again with full notice in the press. A bank is financing the tree moving.

Schulte, who learned public relations as a director of Henry J. Kaiser's housing division, is constantly on the lookout for promising conflicts. An obscure account of a local Parent-Teachers Assn. meeting gave him the tip for his home study seminar.

Ervin, 41, takes time from his healthy business—he has built 600 homes annually for a dozen years and builds 30% of Charlotte's new homes—to visit the city rooms of Charlotte's two newspapers and chat with reporters. He keeps stories exclusive for each paper, releases news items for Sunday papers to avoid competing with weekday news.

BUILDERS: I. D. Robbins, who was first into New York's mayoratly campaign (News, May), is also the first out. He withdrew in favor of Republican Congressman John V. Lindsay, a later starter.

Herbert Praver steps up to senior vice president of Levitt & Sons, where he will coordinate the company's seven divisions.

Robert E. Huff becomes director of residential development for Columbia, the 15,000-acre city James Rouse's Community Research & Development is building near Baltimore. He ran General Development's Port Charlotte.

PRODUCERS: President Gene C. Brewer succeeds S. W. Antoville as chief executive of U.S. Plywood Co. Antoville, who'll retire in March 1966, continues as chairman.

Vice President Marvin Greenwood of Celotex Corp. is the new president of the Gypsum Assn. whose 13 member companies make gypsum products.

Circle 33 on Reader Service Card





In summer, heat radiation is still at work—and the metal frames that made rooms colder in winter make rooms hotter in summer.

Of course, air conditioning can keep any house cool at a price. But here again, the cost of air conditioning a home with metal windows *has* to be higher than a home with ponderosa pine windows if all other factors are equal.

Get the undiluted truth on condensation.





Wood windows are a matter of good taste, too.

Today's creative architects and builders are constantly searching for new dimensions in home design.

This calls for imagination and insight. It also requires a nearly infinite variety of window styles and designs for them to choose from.

Beautiful ponderosa pine wood windows offer this variety. Stock ponderosa pine windows are readily available in every type, every style and every size imaginable.

Is it any wonder that more architects, more builders and more home buyers are insisting on the natural beauty and practicality of wood windows?

Of course there are still some people who take windows for granted. But you can change all this and profit from it, too. Trouble-free windows make quicker, happier sales.

Just point out that windows are 30 to 70% of the exterior of a home. Explain that choosing the right window is much, much more than a simple matter of cost or practicality. It's also a matter of good taste.

And good taste says just one thing: a fine home just has to have wood windows.



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For a garden apartment in the suburbs...

HILLTOP APARTMENTS, Baltimore, Maryland, use York air conditioning systems, including Borg-Warner furnaces, to assure year-round comfort. Builders, Gorn Brothers.

you can depend on YORK AIR

When you plan air conditioning for any type of apartment building or project, you can depend on York for advanced equipment that will assure yearround comfort for occupants—with an absolute minimum of call-backs for service and maintenance.

In a garden-type apartment project, for example, York Flex-O-Metic air conditioning systems provide a cooling coil and an outside heat exhaust section. Teamed with a Borg-Warner oil or gasfired furnace, it gives you a compact package that is easy to install and that assures dependable performance in every season of the year. Advanced Flex-O-Metic features for builders include precharged tubing and Quick-connect couplings that cut your labor costs. Air-cooled design means no pumps or water towers are required. And York's advanced Cooling Maze coil design assures faster cooling, improved dehumidification.

Ask your York Authorized Dealer about competitively priced Flex-O-Metic systems for apartments and homes. Or write York Corporation, subsidiary of Borg-Warner Corporation, York, Pennsylvania. In Canada, contact National-Shipley Ltd., Rexdale Boulevard, Rexdale, Ontario.

BUSINESS IN THE MAKING

HOUSE & HOME presents locations, sponsors, architects and estimated costs of representative new projects costing over \$500,000 as gathered by Engineering News-Record and F. W. Dodge Co., division of McGraw-Hill Inc. to alert builders, lenders and contractors to new business.

ALABAMA_HOMEWOOD: 55 houses, \$1.1 million. Builder: Art Rice Realty. MONTGOMERY: 62 houses, \$800,000. Builder: Alan Land Corp.

ARKANSAS_BENTONVILLE: 100 townhouses and community facilities, \$10 million. Sponsor: Bella Vista Village. Plans: Fay Jones, Fayettville.

CALIFORNIA-CHULA VISTA: Apartments, \$2 million. Sponsor: Robert Miles, Frank Ferreira, George Owen & Glenn Grout. DANVILLE: Planned unit development including houses, condominium apartments and shopping center, \$26 million. Sponsor: The Filper Corp. Plans: Leon Rimov 8 Assocs., Berkeley. LAJOLLA: Apartment, \$1 million. Sponsor: Directors Financial Corp., Los Angeles. Plans: Adrian Wilson & Assocs., Los Angeles. OAKLAND: Apartment development, \$6 million. Sponsor: Hiller-Bothin-Weldwood Structures, San Leandro. Plans: Callister & Payne, Tiburon.

COLORADO-COLORADO SPRINGS: Condominium apartment, \$3 million, c/o Jerry Wagner. Plans: Roger A. Reeves & Assocs., Denver. DENVER: Condominium apartment, \$5 million. Sponsor: Polo Club Inc. and J. W. Skinner & Assoc. Architect: Roland A. Wilson & Assocs.

CONNECTICUT_BRISTOL: Garden apartments, \$1 million. Sponsor: Carabetta Enterprises, Meriden. Plans: John M. Pacelle, Southington, MANS-FIELD: 20 garden apartments, \$800,000. Sponsor: University Estates, Rockville. Norwalk: Apartments, \$500,000. Architect: William H. Blum.

FLORIDA_JACKSONVILLE: 23 garden apartments and swimming pool, \$1.2 million. Sponsor: John C. Staninger. Plans: Frank D. Schumer. ORLAN-DO: 12 garden apartments, \$4 million. Sponsor: Robinson Co., Silver Spring, Md. Plans: R. J. Schwinn, Silver Spring, Md.

HAWAII_HONOLULU: Apartments and swimming pool, \$4 million. Sponsor: Kahala Hilton Hotel. Plans: Killingsworth, Brady & Assocs., Long Beach, Calif. KAILUA: Apartment, \$1.5 million. Architect: Howard Cook, Honolulu.

ILLINOIS_ARLINGTON HEIGHTS: 200 houses, \$4.6 million. Builder: George Wallach & Assocs., Oak Park. ROCKFORD: Apartment, \$1.6 million. Architect: Smity & Stephens, Westchester.

MARYLAND_DISTRICT HEIGHTS: Garden Apartments, \$1.1 million. Sponsor: Borges & Borges, Arlington, Va. Plans: Sherwin Glass, Washington, D.C. GAITHERSBURG: 104 houses, \$1.5 million. Builder: W. Evans Buchanan, Rockville. Plans: John D'Epangnier, Silver Spring. JOPPATOWNE: 60 houses, \$1.2 million. Sponsor: Panitz & Co. Plans: Donald B. Ratcliffe, Baltimore. ROCKVILLE: 26 houses, \$702,000. Builder: Manor Builders, Washington, D.C. Plans: Horowitz & Seigel, Silver Spring.

MASSACHUSETTS_EVERETT: Apartment, \$750-000. Architect: John G. Danielson, Lexington. SPRINGFIELD: Garden apartments, \$780,000. Architects: Harsen & Johns, Tenafly, N.J. SUNDER-LAND: Apartment, \$500,000. Sponsor: Everett Pomeroy, Suffield, Conn.

Business continued on p. 41

TWO GREAT NEW **POPE & TALBOT** PLYWOOD SIDINGS

for homes and commercial buildings

Builders using Pope & Talbot Ruff.Cut and No-Check sidings get new beauty at low material and labor costs of panelized application plus minimum grain-raise and weather-checking. Both sidings are available factory-stained or primed, or unfinished.

RUFF•**CUT**, with faces of Douglas Fir, Western red cedar or Philippine mahogany, has a bandsaw-textured face. Available in plain panels, Channel Groove (reverse board-and-batten), Texture 1-11 (grooved 2", 4", or 8" o.c.), Kerf Groove (with grooves 1/8" wide and 1/16" deep spaced 4" or 8" o.c.), and random Vee-Groove. Groove.

NO-CHECK is a Douglas Fir panel. The face is stress-relieved by thin vertical striations .080 inch deep on 1/4" centers. This stops surface checks and prolongs paint life. Available in plain panels, Tex-ture 1-11, and Channel Groove.

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STANDARD SIZES

4 feet by 6', 7', 8', 9', and 10'. Thicknesses: 1/4", 11/32", 3/8", 1/2", 5/8", and 3/4". Other sizes to order.

OTHER POPE & TALBOT SPECIALTY PLYWOODS

include primed or unprimed Texture 1-11, Channel Groove and Vee-Groove in Fir and Cedar, or with face veneer of Philippine ma-hogany. If your dealer doesn't stock Pope & Talbot items, write for additional information and the name of nearest outlet.



In weatherstripping a nickel still buys a lot



For about a nickel more per door or window, you can give your customers Poly-Pile.* And look what this means to them (and you) ... No sticking in bot weather. Poly-Pile has a low coefficient of friction. No plasticizers to migrate. No deformation in cold weather. Poly-Pile doesn't take a set when cold. Stays soft and flexible. No deterioration from use. Tests show it outwears conventional weatherstrips 5 to 1. No gaps, no cracks, no rattles, no leakage. Poly-Pile has a thick pile that conforms to every surface, follows every irregularity, presents millions of polypropylene fibers as a thick barrier to infiltration of cold, dirt, water. Substantial heat savings are assured, about 9.5%. No water absorption, no mildewing, no rotting. Poly-Pile is silicone treated so moisture can't affect it. These are the things your customers expect when you tell them doors and windows have been weatherstripped. Why not avoid complaints? Invest a nickel more and give them the added values of Poly-Pile, by Schlegel.

*Poly-Pile is a trademark of The Schlegel Manufacturing Company



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Leigh steel Full-Vu doors are offered in industry's widest selection of bi-fold door styles. A door to match any decor. All feature famous Leigh Full-Vu door construction for ease of installation, foolproof operation. Write for Bulletin 348-L.

Circle 13 on Reader Service Card.



Patented Leigh roof ventilator in aluminum or galvanized steel. Roof proved, weather proved on thousands upon thousands of homes. One piece base, "Rol-Lock" collar, special baffle, 8-mesh screen. Ask for this ventilator by name - the Leigh 405.

Circle 17 on Reader Service Card.

Suspended ceiling system for kitchens, bathrooms, foyers. And soon, all through the house! Leigh offers grid hardware and a full assortment of 2' x 2' and 2' x 4' light diffusing or opaque panels. Ideal for new construction or remodeling. Ceiling illustrated at left is formed of new Leigh domeshaped panels. Crisp lines. White. Light diffusing and exceptionally strong. Easy to install. And economical — a Leigh ceiling often eliminates cost of other ceiling cover, eliminates cost of expensive light fixtures. The savings are considerable! In fact, one of the most economical ceilings you can install is the combination of Leigh grid hardware and the exclusive Leighfoam opaque panels - perfect for remodeling large residential or nonresidential rooms. For complete information on the full line of Leigh suspended ceiling materials, write for Bulletin 391-L. Circle 11 on Reader Service Card.



Leigh Glo-vent range hood offered in one ducted and two duct-free models. Has modern rectangular lines. A front that lights up eliminates the problem of color coordination. Powerful ventilating performance with an 8-inch nine-bladed mixed flow fan in scroll housing. Famous G.E. Unitized motor. Push button, pre-wired control panel. Made in the four popular sizes - with industry's highest quality appliance finish. The economy duct-free model includes can of Leigh filterspray and refreshable hexachlorophene-coated filter. Write for Bulletin No. 353-L.

Circle 12 on Reader Service Card.



Built-in automatic toaster fits in wall stud space. America's newest kitchen built-in - swings out for toasting, swings back in for storage. Takes no cabinet space, no counter space. Helps sell kitchens. U.L. approved. Write for Leigh Bulletin 365-L.





Adjustable closet shelves and rods cost less installed than wood shelving. No sawing, no fitting, no sanding, no finishing. Made by Leigh of prefinished steel in full range of sizes. For all closets and off-wall storage shelves. Write for Bulletin 371-L

Circle 16 on Reader Service Card.



Leigh vinyl Full-Vu doors are

covered in Desert-white automo-

tive type vinyl. Amazingly dur-

able! Choice of padded Provincial

style or economical laminated

flush. For closets. Or storage walls.

Steel frame. Silent operation.

Circle 14 on Reader Service Card.

Write for Bulletin 372-L.

Air Control perimeter diffuser has one-piece, high-impact polystyrene face. Can't rust, chip, or peel. Made only by Leigh. Available from your heating contractor. Ask him for Air Control brand registers. Bulletin 321-AC shows Air Control line.

Circle 18 on Reader Service Card.



Call your supplier or write for more information.



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WHAT THE LEADERS ARE BUILDING



BR

BR





NEW MODEL combines low line of a ranch with roominess of a 11/2 story. House has 1,937 sq. ft. of area plus garage, sells for \$26,500. Trees and shrubs are included in package price.

CENTRAL ENTRY PLAN has two bedrooms on the upper level, a 24' master bedroom on the first floor. Alternate layout adds fourth bedroom, makes master bedroom 10' shorter.





UPDATED MODEL is a revision of an earlier Levitt ranch. Most obvious exterior change: a two-car instead of a one-car garage. House will sell for \$25,500, including fireplace.

REVISED PLAN, right, adds fourth bedroom, moves two baths and master bedroom across hall. New layout has 1,896 sq. ft., plus garage, and is slightly larger than old model, left.

One new and one updated model highlight Bill Levitt's newest subdivision

The two models, shown above, plus two others carried over from a previous line, are part of Lakeridge, Levitt's newest subdivision outside Matawan, N.J.

Lakeridge is not only Levitt's newest community, it is also his smallest and most

expensive to date. On 207 acres bordering a small lake, he is building 314 houses in a country club community. Prices of the four models will range from \$25,500 to more than \$30,000, including central air conditioning and paneled family rooms.

Lots will be 1/3 acre or more.

Forty-five acres will be devoted to recreational facilities including boating, skating, courts for tennis and volleyball, a swimming pool, a lake-front promenade and picnic area in the wooded greenbelt.

Letters start on p. 50

Just the most efficient electric condensing unit in the industry.

Janitrol's 52 Series electric condenser is easy to hide in the bushes. Efficient upflow design not only gives you more cooling capacity in less space, it directs hot exhaust air up and away from growing things. It's easy to hide on a rooftop, too. Or nestle it up snug on a slab against the house-zero clearance needed for back and sides. Or bank several in a row, for big system cooling at small unit cost.

Janitrol planned it that way-to make air conditioning easy no matter what the need. As part of the original specs-or as quick-convert add on. For individual homes or complete shopping centers, offices and factories.

Janitrol also made servicing easy, with front-opening service panels. And made servicing almost obsolete with quality craftsmanship. Made cabinets durable and weather resistant. And gave them special acoustical treatment for extra guietness of operation.

So with Janitrol 52 Series electric condensers, when something goes on in the bushes, you probably won't hear it. And neither will your customers.

Janitrol gives you five basic models to choose from ... 3, 4, 5, 71/2 and 10 ton, plus the broadest line of air handling equipment in the industry. Before you start your next

job, get at least one estimate from your Janitrol dealer. He's in the Yellow Pages. Janitrol gives you more to work with.

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Marketing issue

H&H: After looking at your marketing issue [May] for just a few minutes, I recognized that here was a real "meat and potatoes" course that had to be circulated through all our ranks, including the field superintendents who make these ideas shape up.

STEVEN L. FORTUNATO Luigi Fortunato Inc. Wilmington

H&H: May is one of the best issues you people have done. It is filled with wonderful ideas and information.

STUART JAFFE, secretary Harlan Lee—Byron Lasky Co. Sherman Oaks, Calif.

H&H: An outstanding issue. So much so that I would like to mail the section on "How to sell buyers who don't have to buy" and perhaps the Round Table as well to the members of the Sales Managers' Club. This should be must reading for them.

JOHN C. POLLACK, director of marketing NAHB

Washington

H&H: I have read the issue with absolute disgust and occasional nausea. Your "21 tested ways to get the name on the dotted line" is indeed "the moment of truth."

Our building industry will some day discover the all-too-obvious fact that if as much inventive effort were applied to the improvement of the environment it creates for its consumers as is now spent on extracting the largest profit from them, the products would have little need of the shady sales techniques your article deems necessary today.

RICHARD S. CLARK, architect Belvedere, Calif.

H&H: This issue should be required reading for everyone in the industry, whether builder, banker or supplier. I was particularly impressed by the marketing Round Table.

FRED JACKSON, senior vice president The Dime Savings Bank of Brooklyn Brooklyn

H&H: Congratulations on the thoughtful editorial "Why is everything booming more than housing?"

In talking to many builders at the NAHB director's meeting in Washington, it was good to learn that this editorial had been widely read and discussed by industry leaders.

As you may know, there is growing agree-

ment at NAHB that for impact on the homebuying public the group should adopt a single theme or concept each year. This would be introduced at the Chicago convention and then carried to the chapter level throughout the country.

> GORDON J. LAWLER, vice president Daniel J. Edelman & Assoc. Chicago

H&H: Your editorial may be the most significant ever to appear in a housing magazine. Here's why:

I usually get my clients to close a minimum of one out of 20 model home visitors (some do better). Applying your figure of 40 million visitors a year, our industry could right now do two million units a year if we merely sold as well as we already know how.

And it's not hard to look ahead to the five-million-home year. Second homes will account for some of the increase. Fewer years between trading up will account for more. Natural population increase will help, too. But most of it will come from better selling and marketing.

KELLY SNOW Kelly Snow Sales Development Huntington Beach, Calif.

H&H: An excellent issue. I certainly enjoyed every minute of reading time.

JOHN R. JENSEN, vice president Bankers Mortgage Company of California San Francisco

H&H: Really a fine job and a most informative issue.

> GEORGE SAMPSON, public relations George Sampson & Assoc. Los Angeles

Hysteria

H&H: I read with disgust the article entitled "Operation Hysteria" [NEWS, Apr.].

If Builder Holstein is typical, God help both the housing industry and the unfortunate buyers! The purchase of a home represents the largest single investment the average person makes in a lifetime, and to allow any individual to sell houses via mass hysteria is indicative of the lowest conduct.

RICHARD E. VOGEL, landscape architect Philadelphia

Gulf American's profits

H&H: Your good intentions as evidenced by the digest treatment of Gulf American's improved cash flow [May] are most appreciated.



Unfortunately, our gratitude must be tempered because of your writer's lack of understanding of the difference between cash flow and profit. This led to the most harmful ending of his first paragraph: "...and the company lost \$6 million."

Such a statement quoted as fact by a publication of your stature could seriously affect the market price of Gulf American stock to the financial detriment of its stockholders.

The facts are that in the period you reported [1963] a \$6 million loss, Gulf American actually earned \$6,565,961 after taxes on sales of \$68,877,784.

LEONARD ROSEN, chairman of the board Gulf American Land Corp. Miami, Fla.

Reader Rosen is right. There was no loss of \$6 million. Under deadline pressure—and not because of lack of understanding—H&H reported negative cash flow as a loss.—ED.

Who should get the profit?

H&H: Your editorial [Apr.] says that over and above a reasonable profit on the house, the builder should get a piece of the action developed by occupancy of the house.

If a builder can make a reasonable profit from his activities as a builder, why should he attempt to cut into the reasonable profits of others who are specialists in their fields? If these specialized fields seem to develop excess profits from the builder's activities, perhaps, as in the case of subcontractors, any savings obtained by bargaining should be passed along to the consumer.

There is also the possibility that even though the builder considers himself the prime mover, the people who finance him, for example, might think otherwise—and at some point might be tempted to exert pressure to get a piece of *his* action.

THOMAS A. NELLIGAN Realty Exchange Savannah

Private mortgage insurers

H&H: We read with disbelief your article entitled, "How they boom: private FHAS rival the original as aid to new-house sales" [NEWS, May], which purports to list private mortgage insurers in the U.S. Since many of our 3,500 or more stockholders are officers or directors of s&LS, banks, real estate companies, building contractors or otherwise interested in H&H I am sure they will be aghast at the thought that Excel Mortgage Insurance Corp. is conspicuously noticeable by its absence from this article.

> WALTER A. NEWPORT JR., attorney Newport, Wine & Schebler Davenport, Iowa

H&H intended no offense in listing only companies that have registered their stock with the federal Securities & Exchange Commission a select group which Excel joined last month (NEWS, June).—ED.

Erratum

H&H's May issue reported the price of a house in El Dorado Hills by Architects Anshen & Allen as \$46,950. The correct price is \$26,950.

House & Home

July 1965

EDITORIAL

Urban ugliness: good intentions won't correct it any more than appealing to reason will stop a dog fight

Last month more than 1,000 leaders in design, government and business gathered for two days in Washington to discuss suburbia, cities, junk yards, landscape, utilities and the like. This White House Conference on Natural Beauty was praiseworthy. A nation concerned about the aesthetics of its manmade environment is a nation that might build great cities for its flourishing civilization.

But the conference was much like a convocation of clergymen agreeing that sin was bad. Sin *is* bad, but what else is new? Well, there is a lot that the conference should have talked about. In the next four decades the housing and light construction industry will design, build and rehabilitate almost 90% of our total man-made environment, and a lot of it may be ugly. Yet our industry was barely represented at the conference. There were a few people whose pleas for environmental design and intelligent zoning were simply lost in the hubub.

Almost predictably, the conferees wrung their hands, wailed a bit and brought forth a cosmetic job for America rather than a cure for ugliness and chaos. Moving junk yards back from highways, eliminating bill boards on federally aided highways and planting trees and flowers are excellent gestures, but they are only gestures. They will not stop the spread of ugliness, only mitigate it.

Most of the conterence was devoted to the same old wheezes we've heard for years. Politicians aired the time-worn palliatives that beautincation has to be done at the local level and education is the biggest part of the answer. Designers and behaviorists parroted the current group of myths—problems like leisure time, conformity, moluing society, aimtessnes of youth and the tedium of suburbia. The concept of the conference inspired some to pledge the planting of trees and tulips; it got others to pledge manure for fertilizer and yet others to skin dive for rubbish on river bottoms—tasks laudable in concept but futile in execution.

Few conferees recognized the real root of ugliness in America. One of those wno did was Edmund Bacon, executive director of the Philadelphia Planning Commission. He suggested that President Jonnson call for a massive reappraisal by municipal governments of all their policies and programs that affect the urban scene. He should have suggested that the reppraisal be done by and for whole metropolitan areas.

Congestion, unsigntliness, land crowding, blight and unending ribbons of traffic are by-products of unplanned growth in our metropolitan areas. The trouble is that most metropolitan areas are relatively powerless to correct them. For instance, the New York metropolitan area can do virtually nothing about the hundreds of square miles of urban and suburban mess within 50 miles of Times Square because there are 509 different zoning commissions in that area, few of which will have anything to do with one another. Their parochialism effectively prevents any possibility of ordered metropolitan area growth in New York and insures the ugliness that such a crazy-quilt of jurisdictions creates.

Even worse than the multiplicity and single-mindedness of zoning commissions is the fact, asserts one planner, that you can buy any zoning you want in half the towns and cities of America. This is not necessarily bribery, but you can get almost any zoning you want if you have the right connections and the right lawyer.

In other words, zoning as it is practiced today in the U.S. is largely a farce, and the untrammeled land use which the farce permits is clearly the root of ugliness in America.

Urban and suburban ugliness can only be controlled by regional development commissions—commissions that can view the parts and pieces of whole metropolitan areas in relationship to each other, plan for future open spaces, develop the proper relationship of commercial and residential land and control signs, junk yards, roads and landscaping.

For such commissions to work effectively, subdivision regulations (platting and design) and zoning regulations (use and bulk) must be treated as part of the same function within a single zoning and planning agency. They are now treated as separate and distinct functions in state statutes and local ordinances. This seriously inhibits good design and land use because each agency sees different sets of problems in any new design. (NAHB's model enabling act for planned residential development is aimed directly at the coupling of subdivision and zoning regulations within one agency.)

Asking the American public to accept regional commissions, rather than their local friends (and enemies) on the old zoning board, is asking a lot. But businessmen and the public cannot create a better environment without accepting such a social discipline. Metropolitan area planning and control, now practiced only in Nashville and Miami, Fla., is an extremely unpopular concept because it does away with local home rule in all the satellite communities of a metropolitan area.

However, the American people have a clear responsibility: they are the customers and the trustees of an environment. Only they can say whether we will have beautiful metropolitan areas or ugly ones. Beautiful cities of the past were beautiful because the customers and trustees of those old environments were a powerful few princes and prelates. Today in a democracy the man in the street has the power and responsibility for deciding what his environment will be like and he will only underwrite a good one if he knows what has brought him our ugly one. Areawide zoning and planning must replace myopic home-rule zoning and planning. —RICHARD W. O'NEILL



14 award-winning apartments and townhouses

Individually, they were judged the best of 77 multi-family entries in the tenth annual Homes for Better Living program (sponsored by the American Institute of Architects, HOUSE & HOME and *The American Home*). Collectively, they are both a heartening indication of the current high level of apartment and townhouse design and an important source of clues to the current state of the market. A comparison of this year's award winners with those of previous years points up these trends:

There are more small apartment projects. Only four of the 14 winners include more than 100 units; the rest have two dozen or less, and one project has only five.

There are more projects on difficult land. The majority of the winning designs represent solutions to hilly sites—some of them extremely steep. This fact, coupled with the trend to smallness, suggests that builders and investors are finding the multi-family market profitable enough to justify projects in small, hitherto bypassed areas that were unfeasible in yesterday's market.

There is greater emphasis on privacy, particularly in suburban and urban projects where the patio townhouse has apparently become the rule rather than the exception.

And perhaps the most encouraging aspect of this year's group of winners is the correlation they show between design excellence and financial success. All the rental projects are fully occupied, and the two townhouse projects offered for sale were sold out soon after they were opened.

To see why these award-winning apartments and townkouses fared so well, begin at right.



THE JUDGES (1 to r): Standing, James P. Gallagher, senior editor, HOUSE & HOME; Claude Oakland, AIA; George Hugh Tsuruoka, AIA. Seated: Alan C. Borg, building editor, *The American Home*; John L. Schmidt, AIA, U.S. Savings & Loan League; Matt Jetton, Sunstate Builders Inc. and Earl Swensson, AIA.

LOW SILHOUETTE gives stepped-down buildings the look of three separate hillside houses.



OUTDOOR LIVING AREAS include decks off upper levels and walled patios between units.



PATIO has wood-deck platform with cut-out sections to permit planting on ground below.







A five-unit project that steps down a steep, wooded hillside

The units are arranged in three buildings which are terraced down the slope (section, right) and connected by high patio walls. The two lower buildings contain 2 twostory apartments, and the top building has a one-story apartment with a recreation area below.

This unusual step-down layout offers three advantages: 1. It gives the project houselike scale and helps the buildings to blend into the heavily wooded land (see cover). 2. It is compact without being crowded-important be-

cause two more buildings will be built on the one-acre site. 3. It gives each apartment a view. And to enhance this

asset, the two-story plans are inverted (drawing, right) to put living areas on the top levels and bedrooms below. Cost of the project to date, not including land, has been

\$55,000. Rentals range from \$175 to \$195.

Award of Merit. Architect: Frank Laulainen, AIA, & Assoc. Builder: Frans A. Laulainen. Location: Los Gatos, Calif.



SECTION





STAGGERED SETBACKS AND ELEVATIONS let rows of townhouses follow the natural topography of the rolling 68-acre site.

Townhouses designed to fit on an open, rolling site

In fact, the very excellence of the site—part of a former golf course—created a design problem: how to open each townhouse to the park-like surroundings and still keep it reasonably private.

The solution was to group the 98 units in four clusters (*land plan, below*) with parking facilities and entrances in the center. Living rooms and master bedrooms, all with glass walls, face outwards from the clusters, and finned end walls and patio fences provide both visual and auditory privacy.

Four floor plans (*right*) are offered at rentals ranging from \$285 to \$385. Average per-unit cost was \$30,000 The townhouses are part of a 68-acre project that will eventually include 1,100 rental units.

Award of Merit. Architects: Richard C. Stauffer, Collins-Kronstadt & Assoc. Landscape architect: Lewis Clarke, AILA. Builder: Community Research & Development Corp. Location: Baltimore.





GARDEN

DININ

KIT

LIVING

LOWER LEVEL



UPPER LEVEL

THREE BEDROOM

0 5 10 15 FT



THREE BEDROOM

Photos: Winants Bros.





RUSTIC GATEHOUSE emphasizes privacy of community, which is enclosed by an 8' fence.



FRONT ELEVATIONS face into parking areas. Fencing creates dining patios outside kitchens.

REAR ELEVATIONS face open land. Straight fences provide privacy without blocking view.

Barton-Gillet



KIT GARDEN

KI

DINING h

LIVING

ARDEN

Co g

TOMES TEAST



BR

BR

UPPER LEVEL

TWO-BEDROOM UNIT

LOWER LEVEL

TWO-BEDROOM UNIT



~



TERRACED SITE and ground-hugging silhouette make duplex apartment building, left, inconspicuous compared with old church at right.





PARTLY ROOFED DECK provides outdoor living areas for duplex building with living rooms (*plan*, *right*) that face downhill on the sloping site.

A duplex project designed to complement a local landmark

A 100-year-old church adjoins the ³/₄-acre site (*photo, top* and land plan, left), and great care was taken to keep the eight apartments from overshadowing it. Specifically:

Units were grouped in four duplexes so buildings would be in scale with, and slightly smaller than, the church.

Pilched roof sections were added to the otherwise flat roofs to echo the elevations of the church.

Wood shingles were used for roofing and siding to avoid conflict with the church's white painted walls.

Terraced sites were cut into the hillside to keep the duplexes low. These sites also permit sheltered patios on the uphill side of the buildings (*photo*, *above*) or over-hanging decks on the downhill side (*photo*, *left*).

Rentals are from \$185 to \$200. Cost: \$25,000 per unit. Award of Merit. Architects: Fischer-Friedman Assoc., AIA, Robert J. Geering. Landscape architect: Anthony M. Guzzardo. Builder: Parker A. Archer. Location: Tiburon, Calif.




DOWNHILL MODEL, seen here from back of the site, has partly excavated basement.



CLERESTORY WINDOWS (also shown in photo at right) light bedroom hallway.



RECESSED LOWER LEVEL of townhouses has sheltered entry, carport. Deck, right, opens off dining room.



Three-level townhouses that fit both uphill and downhill lots

Key to this hillside flexibility is a bottom level whose front wall is always on grade. On downhill sites (*photos, above*) a basement is added, and on uphill sites the first floor is set into the hill and becomes a partial basement.

The second or living level (*plan*, *left*) is also affected by siting. On downhill lots the living room is literally in the trees, 16 ft. above the ground (*photo*, *top left*), and a wood deck provides outdoor living space. On uphill lots the living room opens to grade—an arrangement much preferred by families with small children. Two-house groupings (*land plan*, *below*) were dictated by zoning which permits duplexes but not row houses.

Construction is frame on upper levels, and siding is vertical t&g redwood. Prices of the ten 1,750-sq.-ft. houses range from \$32,500 to \$35,000. Average building cost, not including land, was \$27,000.

Award of Merit. Architect: F. R. R. Drury. Builder: Academy Construction Co. Location: Pittsburgh.



LIVING ROOM of downhill model opens to a deck which runs across rear of house. Stairway in right foreground leads down to the entry level.



CURVED FACADE has cantilevered balconies, overhanging roof and fin walls for privacy between units. Building at right has indoor parking on lower level.

Kent Op

A hillside apartment project that curves to fit the land

ZO BOFT

SITE & FLOOR PLAN

10

The curving design provided two advantages:

1. It simplified land development. Part of the site is shaped like an amphitheater, and conventional straight-line design would have meant heavy excavating.

H

2. It gave the project strong identity. The curved portion borders the entrance drive (*photo and plan, above*), so it's the first thing a visitor or prospective tenant sees.

Townhouse units, with two bedrooms and a bath on the second floor, were built into the curved building. The rectangular buildings (*right in plan*) include 6 one-floor apartments, and the lower level of one building has indoor parking for 17 cars. Construction is frame covered with plaster and stucco to give a one-hour fire rating.

All units rent for \$250. Construction cost, excluding land and fees, was \$12.50 per sq. ft.

Honorable Mention. Architect: Raymond Kappe. Builder: C & C Development Co. Location: North Hollywood, Calif.

RAILED WALKWAY serves townhouse units. Two-story glass wall is made possible by stopping the second floor 4 ft. short of the front wall.



MAIN ENTRANCE is wide enough to be inviting, still maintains privacy. Two-story wall surrounds project.



HIGH-WALLED PATIO is isolated from inner court. Door in far corner is main entrance to apartment.



UPPER LEVEL









INNER COURT, one of two in project, serves as both entrance mall and community area. Brick walls and high partitions shelter surrounding patios.

A midtown apartment project that turns inward for privacy

Despite its difficult location-one-third of a city acre bounded by a major street, an alley and existing buildings -this ten-unit project provides a surprising number of amenities. Items:

Every unit has a 200-sq.-ft. patio opening off the living room and completely walled for privacy.

Every unit opens to one of two large entrance courts (photo, above and plan, bottom left).

Underground parking, reached by a ramp on one edge of the lot, accommodates 11 cars, and an on-grade carport at one corner provides space for four more.

The townhouse-type apartments have 1,100 sq. ft. of space, including two bedrooms and 11/2 baths, and rent for \$175 to \$200. Cost was \$156,000, not including land or land development.

Honorable Mention. Architects: Carl Maston, Edward R. Niles. Landscape architect: Emmet L. Wemple. Builder: Nello Tiberio. Location: Gardena, Calif.

continued



PAVED COURT is focal point of four-building cluster. Concrete and ground cover keep maintenance low. Area below raised roof, center, is entryway.



REAR BALCONIES (*below*) overlook wooded slope. Steep land lets basement open to grade.



A hillside project designed as a group of tight clusters

This siting plan (*below*) keeps the buildings close together, so the drop in grade from one side of a cluster to the other is never more than one full story. And the clusters also provide the project's key design element: a series of paved and landscaped courts (*photo*, *above*) which serve as both entry areas and small communal centers.

Although there are 120 units on only six acres, there is no feeling of crowding. Reason: tight grouping of the buildings made it possible to leave the steep, heavily wooded perimeter of the site untouched, and units overlook this area as well as the center courts.

Two types of apartments (*plans, left*) were built into the project: one-floor units, with one or two bedrooms, and townhouses. Rentals are from \$125 to \$155, and the average per-unit cost was \$9,500.

Honorable Mention. Architect: Don M. Hisaka & Assoc. Builder: Snider Building Corp. Location: Brecksville, Ohio.



C. W. Acker





FRONT ELEVATIONS are broken up by setbacks, party walls and deep second-floor windows.



Suburban townhouses laid out in rows for a wide, shallow site

G W Anderson

The row house-usually a mid-city phenomenon dictated by long city blocks-fills a different role in this project: making efficient use of a wide section of hillside land with a short but steep slope. One entire line of these units is sited so that basements open to grade on the downhill side (photo, below).

Care was taken to avoid the monotony that characterizes many urban row houses. Setbacks were staggered by as much as half the buildings' depth. At the rear, fin walls jut out to increase the privacy of patios and, in hillside units, of main-level balconies. And mansard roofs give the houses a wide, ground-hugging look.

One-, two- and three-bedroom units rent for \$135 to \$225. Average construction cost was \$12,500, exclusive of land and architects' fees.

Honorable Mention. Architect: W. Byron Ireland & Assoc. Landscape architect: E. Bruce Baetjer. Builder: Multicon. Location: Towson, Md.

REAR ELEVATIONS of downhill models have extended masonry walls that create private patios.





OLD-WORLD LOOK of new apartments is created by simple facade, arched wall openings and wood gates. Large trees were saved throughout project.

Photos: Rondal Partridge



INTERIOR COURT, shown here from second-floor balcony, opens off first-floor living area.

Patio townhouses that blend into an old residential neighborhood

They represent an artful combination of traditional styling and contemporary living. Street facades (*photo, above*) are simple and unobtrusive, with hand-made sand brick used for both siding and patio walls. Sliding glass doors open living rooms to patios, but the wall openings are topped with low arches which, seen over the tops of patio walls, are reminiscent of early Spanish design. And while parking facilities are ample, they were placed behind the buildings and in a basement garage.

The project's 24 units are in two building groups (*site plan*, *below*). Biggest of the apartments are three-bedroom units (*plans*, *left*) with over 1,700 sq. ft. of area and an indoor court (*photo*, *left*); all others have two bedrooms. Rentals are from \$225 to \$325, and average per-unit cost was \$16,000.

Honorable Mention. Architect: Chris Carson. Landscape architect: James Keeter. Builder: John H. Lapham II. Location: San Antonio.





SIMPLE, SEVERE LINES characterize both garden walls and buildings. Project is in an urban renewal area but was developed and built by private capital.

Garden townhouses that bring outdoor living into the city

The site, in an urban-renewal area, is only 19,700 sq. ft. $(100' \times 197')$. Yet it includes not only eight 1,900-sq.-ft. townhouses and parking space for eight cars but also a 400-sq.-ft. courtyard with each unit.

The private courts open off living rooms (bottom photo) and are enclosed by masonry walls that are high enough (9') to keep passersby on the sidewalk (top photo) from seeing into second-floor windows.

Priced at \$32,000, the two-level houses have three or four bedrooms (*plan*, *right*) and full baths on both levels. Construction is entirely of masonry, with the second floor and roof made of 22'-wide reinforced concrete slabs. Vertical steel tubes serve both as mullions for the first- and second-floor window walls and as ducts for a warm-air window defrosting system.

Honorable Mention. Architects: Y. C. Wong, R. Ogden Hannaford & Assoc. Builder: Nick Gaglione & Son. Location: Chicago.

Photos: Hedrich Blessing







UPPER LEVEL



SPACIOUS GARDEN adjoins living room. Lower-level floor is four steps below garden level.

continued



MANSARD ROOF, broken by glass gable ends, helps reduce scale of six-unit building. Mexican adobe brick was used for walls, cedar shakes for roof.

L-shaped patio townhouses designed for a tight city site

The L-shaped plans are the biggest single reason why the project looks and feels far more open than its actual density -17 units, plus parking, on less than three quarters of an acre. Aesthetically, the "L" breaks up the facades of the three buildings and creates the impression of several small houses (photo, above). And from a living point of view, it provides space for small but unusually private patios (right), which are spaced so that no two are adjacent.

The patio is the focal point of each floor plan (below). Both dining and living rooms face into it through glass walls as do both bedrooms on the second floor. And the master bedroom floor stops short of the wall to give the living room a two-story glass wall.

All houses in the 17-unit project rent for \$225. Construction cost was \$11,500 per unit.

Honorable Mention. Architect: Craycroft-Lacy & Assoc. Builder: Dick Sikes Construction Co. Location: Dallas.



PRIVATE PATIO is created by L-shaped plan. Living room, rear, has two-story glass wall.



LOWER LEVEL



UPPER LEVEL







SIMPLE FACADE is dominated by mansard roof, jutting dormer frames. Wood fences screen patios.

Townhouses in a block pattern that separates automobiles and people

Cars are restricted to the perimeter of the block, where there are 86 parking spaces serving the 42 units. Buildings are just far enough from the curb to permit a narrow sidewalk, thus opening a maximum of community and recreation space in the center of the block (*site plan, below*). Houses adjoining a putting green have patios on the street side (*photo, above*); others have inside-block patios.

Rentals for the two-bedroom townhouses are from \$160 to \$170. Construction cost was \$13,180 per unit.

Honorable Mention. Architect: W. Byron Ireland & Assoc. Builder: Irving Schottenstein. Location: Worthington, Ohio.





FOUR-UNIT BUILDING has reinforced concrete walls. Two units open off entry door at right.

A low-rent public housing project for a half-block city site

Twenty-four apartments, designed for people over 65, are grouped in six one-story buildings. The site plan (*below*) spaces them far enough apart to provide courts and gardening areas and still leaves room on the one-acre site for two off-street parking lots.

Construction is masonry—reinforced concrete walls with an exposed aggregate finish. Utilities are piped in from an adjacent PHA project. Rentals range from \$30 to \$40. Construction cost: \$9,200 per unit.

Honorable Mention. Architects: Elizabeth and Winston Close, AIA. Builder: Johnson, Drake & Piper, Location: Minneapolis.





LAVISH LANDSCAPING includes stone retaining walls to preserve large existing trees. Land contours were left undisturbed, and all utilities are underground.



A large apartment project with a small-neighborhood feeling

Its 219 units are grouped into six communities of varying sizes—most of them centered around features like common greens and recreation areas (*land plan, left*). Roads were held to a minimum; buildings within neighborhoods were linked by a network of paved walks (*photo, above*); and wooded areas on the south and west sides of the site were left undeveloped as play areas for children.

Density—less than 11 units per acre—is surprisingly low for a medium-rental project. Only about one-third of the 241/2-acre site was used for buildings and parking; the rest was given over to community recreation and green areas.

Apartments include one-, two- and three-bedroom units of both one-floor and townhouse types, and rentals range from \$150 to \$325.

Honorable Mention. Architect: Welton Becket & Assoc. Landscape architect: Douglas Baylis. Builder: Stolte Inc. Location: San Rafael, Calif. Photos: Joshua Freiwald



TENNIS COURTS are part of recreation center. Slatted fences shelter patios of nearby apartments.



EXTERIOR MATERIALS include cedar shingles and redwood trim. Low fixtures illuminate walks.



PAVED COURT with fountain and pool creates a focus for one of the project's neighborhoods.



RECREATION BUILDING includes community dining room, lounge, gymnasium and sauna baths.







Marketing expert







Utility foreman

Road superintendent

He builds only 15 houses a year, but all these specialists (and others, too) work for him

How this small builder reaps the benefits of a

Robert L. Gragg, 33, is a small San Antonio builder whose sales were \$400,000 last year. But unlike most small builders, he is backed by a team of experts.

His lots are planned by a civil engineer, his utilities installations directed by an experienced foreman, his road construction supervised by a field superintendent. His marketing campaign is guided by a marketing expert. His salesmen are trained by a sales specialist. And his homes appear in a brochure designed by a public relations specialist.

But that's not all. Gragg can also offer buyers membership in a private club-including a pool supervised by a recreation director-and a monthly newspaper with

news of their subdivisions.

Finally, his paper work is lightened by a secretary who expedites most of his dealings with FHA, VA and local agencies.

Gragg gets all this help because he operates within a unique builder-developer setup pioneered by H. B. Zachry Properties (subsidiary of H. B. Zachry Inc., a heavy contractor).

When Gragg and other builders buy lots in six projects and two large communities developed by Zachry, they tie into a program that frees them to concentrate on two essentials: building houses and dealing directly with buyers.

This kind of help has given Gragg and small builders like him new strength in a

market once dominated by large tract builders. Last year alone the 60 builders who worked with Zachry made 430 salesabout 33% of all house sales in San Antonio over \$16,000. Gragg himself expects to climb from 15 sales to 25 this year.

Every year since 1959, Gragg has tied in with special promotions run by Zachry Vice President Jim Uptmore (on the phone, above). These programs draw thousands of buyers to builders' models and generate from 60 to 140 sales. In addition, Uptmore pays 50% of the cost of any additional advertising by any builder in a Zachry project.

To join a Zachry operation, builders pay 10% down on lots they option and a $6\frac{1}{2}$ %



Sales specialist



Public relations expert



Recreational director

big operation

interest charge on the balance. When they're ready to build, they pay in full.

Gragg now holds options on 17 lots in Colonies North, a fast-selling subdivision in The Colonies, an 800-acre Zachry community. This summer Gragg plans to enter a model home in a special "modern living" promotion (*story*, *at right*), which will cost him \$400.

Of it all, says Gragg: "I don't think I could get a better deal anywhere else in the market. There are other developers in San Antonio, but they don't help you sell the way Zachry does. Zachry's marketing help makes all the difference in the world."

To see how Zachry provides this help, start reading at right.

Key idea: the small builder sacrifices a little control for a lot of big-time marketing help

Bob Gragg and the 59 other builders agree to these Zachry ground rules:

1. Build on the lots they option within six months or return them to Zachry, which keeps a waiting list of other builders ready to take the lots.

2. Submit their plans to Zachry's staff for approval. In this way Zachry insures a desirable variety of house styles in its subdivisions and maintains a high level of quality.

3. Avoid head-on competition with each other in both price and house style. Says Uptmore: "We try to induce our builders to maintain their own sub-market specialties."

4. Crack down on any salesman who uses unfair tactics like misrepresenting the product or what comes with the house. Uptmore has had to dismiss two salesmen for these offenses.

5. Keep their models adequately staffed and open until 9 P.M. during special promotions.

In return for following these ground rules, Zachry provides expensive and carefully planned marketing programs tailored to the particular needs of each subdivision. Best example of these programs is Zachry's plan for the fast-selling Colonies North subdivision. This year, Sales Expert Fred (Buddy) Burns has budgeted \$70,000 for Colonies North, based on a forecast of 350 sales. He allocates this fund four ways:

1. Special promotion: \$40,000. In January he spent half of this amount on a four-week parade of ten houses with a "Women's World" theme. The houses featured rooms with special appeals to women, which were determined from a survey by a national shelter magazine. In August he'll spend the remaining \$20,000 on another special parade built around household convenience. Ten builders participate in each parade, and each builder contributes \$400, raising the total budget for the parade to \$24,000. Not all this money is spent during the four-week promotion: some of it is allocated to follow-up advertising after the promotions end.

2. **Public relations:** \$10,000. Burns uses this money for landscaping contests, a special Easter promotion, barbecue parties, Christmas parties, \$700 for gift photographs for buyers and \$2,000 for a bro-

chure on the local school board.

3. Builder programs: \$10,000. This fund is spent on a) six overnight trips (three builders on each trip) to other builders' subdivisions to study marketing techniques; b) a fishing trip for his most promising builders; and c) an awards program for his top builders. Says Burns, "It's good psychology to reward builders who turn in the best sales records. Nine builders, out of the 89 that have worked with us, have taken most of these awards, and they've built 80% of the houses in Zachry subdivisions."

4. Sales training and incentives: \$10,-000. About half of this amount is allocated to special incentives for salesmen: vacation trips, a television set, or a fur coat and a combination slide projector and tape recorder for salesmen who like to make in-home presentations. If sales hit 350 this year, Burns promises a champagne party for salesmen.

Training sessions are run once a week for builders and their salesmen. It's not a required course, but says Burns, "We noticed that when builders keep their salesmen away, their sales fall off." The sessions include training aids and books. Among Burn's favorite sales texts are: Salesmanship, by Alfred Gross and Five Steps of Selling, by Perry Whiting.

A final feature in the marketing program (and under a separate budget) is an occasional test-house program to show builders where untapped markets lie. Zachry was the first builder in his own subdivision to build a two-story house, a tri-level house and a house that omitted a living room in favor of an over-sized family room.

This comprehensive marketing program has produced remarkable results for Zachry Properties. Last year its lot sales doubled, and its profits rose by more than 7%.

Zachry has drawn immitators to San Antonio but none has been able to duplicate its winning formula. Says Builder Gragg: "Sometimes I consider building outside a Zachry subdivision. But when I look around, I find there really is no other place to build, so I come back."

In other areas other forms of team marketing are helping small builders. For some examples turn the page.

Basic decision for small builders: independence vs. teamwork with big builders and developers

More and more small builders are facing up to that question because they find themselves in the center of a growing conflict between two equally strong market trends.

One trend—increasing buyer resistance to big-tract housing—favors small builders. Today's buyers are demanding smaller neighborhoods with a greater variety of housing types. And they want builders to make custom changes in standard models. The very nature of small builders' operations helps them satisfy this demand. But many big builders have been unable to develop the flexibility to deal with it. What's more, large builders and developers face a growing scarcity of large land parcels close to metropolitan markets.

The other trend—increasing buyer insistence on community amenities—favors large organizations.

Only the large operator can provide recreation facilities, cluster plans and planned development that promises insulation from neighborhood change.

One result of the conflict of these forces is the rise of so-called medium-sized builders. But more and more builders and developers are recognizing the value of three different solutions:

1. Big developers are inviting small builders into joint projects that capitalize on both marketing forces.

The developers provide the planning, the finished lots and—most important—a package of services which help the small builders in their role as retailers. Land developers are, as a result, moving toward a position taken long ago by home manufacturers who learned they had to provide their dealers with a package of services to help them sell.

Developers differ, however, in the number of services they provide, as these examples show:

At Janss-Conejo, a 10,000-acre development in the Conejo Valley north of Los Angeles, the Janss Corp. conducts a sophisticated promotion campaign for the four builders in the project. The campaign is financed through a joint fund—ranging from \$100,000 to \$200,000 a year—to which the builders contribute according to anticipated dollar volume.

Developer Dale Bellamah opened a 332lot development in Albuquerque last year by inviting 23 builders to participate in a four-week "cavalcade" of model homes. Bellamah provided the advertising and greeted the thousands of people who came to the subdivision with red carpets, clowns and brochures. Participating builders (the number has since grown to 32) financed the campaign with their purchase of lots at \$3,400 each. They were required to keep their model open for 90 days and to do their own selling.

Though many builders complained that the promotion clogged their models with lookers rather than buyers, the project is almost two-thirds sold out. Bellamah was pleased enough with the sales to open a similar program for seven builders in a Las Cruces subdivision.

• In San Antonio, Zachry Properties (see p. 78) has carried the joint operation two important steps further by providing a continuing advertising campaign and by offering a sales training program.

• Near Washington, D.C.—at Tantallon, a 668-acre residential community on the Potomac—builders do no selling. Their sole job is custom building. Selling along with land development and promotion is handled for them at a central sales office, replete with hostesses. Builders pay a 5% fee when their houses are sold—2% to the developer and 3% to a broker who actually makes the sales.

• A similar three-way team—developer builder and realty broker—operates at Peacock Gap, a luxury development northwest of San Rafael, Calif. The developer, The Draper Companies, works closely with the builders in designing their homes. The realty firm, Fox & Carskadon, handles promotion and sales for a 6% fee.

2. A few large builders, hindered by buyer resistance to large tracts, are decentralizing their operations.

Best known example is Bill Levitt who stopped concentrating on large tracts three years ago and began smaller projects on Long Island and Puerto Rico, northern New Jersey and Maryland. Significant result: Levitt's sales in the year ending last February hit a record \$60 million (*see* p. 20).

On a much smaller scale, Dayton Builder Don Huber cut his own overhead by onethird four years ago by decentralizing the supervision of three subdivisions.

Previously the projects were controlled by a central office and supplied from Huber's Camden, Ohio, prefab plant. Now they are run by project managers who are encouraged to function as independent builders with full control of building and customizing. They don't have to buy from Huber's prefab plant (though they confess they can't find anything more economical), and are each allotted 5% of the company's promotion budget to spend as they please. But they must follow company personnel policies and leave all accounting to the main office.

Huber's managers are paid a salary (\$175 to \$225 a week) plus 10% of all profits generated by their projects. (Central office overhead is levied against them on the basis of sales volume). In practice, this income formula works out to about one-third commission and two-thirds salary.

3. Some small builders are gaining the benefits of bigness by teaming up on projects that no one of them could handle alone.

Two examples of this small-builder teamwork are working well in New Jersey. In one, at Washington Township, Builder Bud Peskin and Dough Goodwin share the development and promotion of their subdivision. They sell from two separate models but share a third. The builder who sells a buyer from the shared model builds the house and keeps the profit.

Not far away, in Cherry Hill, six builders (paired in three individual companies) split the cost of developing and promoting a 333-acre project called Willowdale. This team was brought together by Builder Art Stein, who considered his own operation too small to handle the tract alone.

Stein reports that joint promotion, including advertising, produces savings (the builders contribute equally to the ad budget regardless of how many house sales they forecast). But he doubts there are any sizable savings in purchasing materials and dealing with subcontractors. Appliance manufacturers may be more inclined to advance promotional assistance to the group than to an individual builder, and some subcontractors may have lowered their bids to get into the project. But often the participating builders find they can make better deals by negotiating independently with suppliers and subs.

The builders find there is an advantage in mixing their houses within new sections of the development—instead of apportioning one street to one builder and another street to another. But this intermixing requires all three builders to keep pace so no lots are skipped. If a builder falls behind, tensions can mount.

Design file/fireplaces

If you walked through hundreds of houses with a camera, you'd be able to photograph scores of useful design ideas. Trouble is you probably don't have the time. So in this Design File we've done your walking and picture taking for you. What's more, we've added drawings of significant details. This month the subject is fireplaces (no longer simply a luxury extra in most built-for-sale houses), and starting below you'll find 13 of them in a wide variety of forms and materials. In the works: other Design Files on such subjects as entries, stairways, balconies and bridges, decks and patios and window treatments.



CHINK-LAID STONE FRAMED IN STEEL

Deep-raked mortar joints between the courses of native stone give this chimney breast the appearance of drylaid stonework. Steel-angle trapezoids, flanked by plastered walls, frame both the stone panel and the fireplace opening. Architect Richard Dorman, who designed the merchant-built house, specified a choice of native stone or more formal looking brown-slate horizontal strips.





continued



WAIST-HIGH CONCRETE BLOCK TOPPED BY A WINDOW WALL

Indoors and outdoors flow together because the U of the fireplace wall is only 3' high, and the view into the garden is almost unimpeded. A free-hanging, roof-mounted hood is black iron. Architect: Homer Delawie.





MARBLE FACING FOR A TOUCH OF LUXURY

This treatment turns a simple masonry fireplace into a rich living-room adornment. Slabs of floor-toceiling marble flank the chimney and project 6" beyond the matching marble breast. The fireplace contrasts with glass and plaster walls and with a concrete divider between the room and the entry hall. Architect: Henry H. Hester.





PIGGYBACK FIREPLACE ON CONCRETE STILTS

This is one of two fireplaces that are hung between concrete piers reaching 40' down to the foundation. The solution was dictated by a steep site and a local code requirement that chimneys be carried in masonry to the ground. Concrete lintels are high-temperature cement; chimneys are prefabricated. Architect: Joseph Esherick & Assoc.



Design file/fireplaces

BRICK

4-12" O STL TUBE 3-1/2" 0 BARS -----

14"x 3"x 18" ST'L PLATE 1/2" \$BOLTS TO STUE RESAWN STAINED REDWOOD

3/4"×12" MARBLE SUBROUND

INTEGRALLY COLORED CONC.

SECTION THROUGH

FIREBRICK

1-6



MARBLE FRAMES A SIMPLE WALL OPENING

Recessed into a paneled redwood wall, this fireplace opening is neatly emphasized by its $\frac{3}{4}$ " x 12" white marble surround. Concrete hearth is cantilevered. Architect: Knowlton Fernald.





CIRCULAR DESIGN CREATES AN UNUSUAL EFFECT

Both the face and the hearth of this brick fireplace are circular, with perimeter courses angled inward to draw the eye to the opening. Above the roof, the chimney is shingled. Architect: John Morgan Payne.



EXPOSED FLUE FOR A GLASS GABLE END

The chimney breast, between brick piers, is 4'8" high. Above it a window and the glass gable end frame the flue (photo, right). Architect: Fisher-Friedman Assoc.





JULY 1965

continued



TERRA COTTA FLUE TILE IS LEFT EXPOSED

Concentric cylinders of tile—1'3" and 1'9" in diameter and separated by 3" of insulation form this chimney. Above the roof, a third flue encircles both. Architect: Richard Maier.



A FREE-FLOATING, SCULPTURAL OPENING IN A PLAIN WALL

The moldable quality of plaster was used to create this bas-relief fireplace in an otherwise unadorned two-story high wall. The hearth slab is formed reinforced concrete. Architects: Tryon & Foy.



3-1"

14.2





SLIM WINDOWS FLANK A SIMPLE BRICK WALL

As fireplaces go, this one is hardly out of the ordinary. But it's dramatized by the slender, ll'-high windows on both sides. Architect: Hugh Newell Jacobsen.



Design file/fireplaces



FOCAL POINT FOR A SUNKEN LIVING ROOM

Heat from the triangular steel hood radiates onto both sides of the conversation area. The diamond - shaped chimney shroud also encloses a bathroom vent stack. Bonus: the bath is warmed by the back of the fireplace. Architect: Donald B. Head.





A TWO-WAY FIREPLACE SEPARATES TWO ROOMS

It opens to both the living and dining areas in the copyrighted plan for a merchantbuilt house (to be published by H&H in September). A second fireplace, directly below this one, has the usual one-way opening. Architects: Keyes, Lethbridge & Condon.





TWO HEARTHS IN A SPLIT-LEVEL CHIMNEY

In a native-stone wall, separate fireplaces are provided on both levels of this house. Massive concrete lintels were cast in place. Architect: Euine Fay Jones.





FRAMING CREW of Gran Construction Co., carpentry subcontractor, titts up a wall section. House will be closed-in in about seven days.

Who should handle this job—your crew or a

If your own crew is keeping framing costs under 10% of house price, if you don't have labor problems and if nobody complains about your workmanship, you can ignore the question. But if you are a smallvolume builder trying to build a betterthan-average one-of-a-kind house, you probably fall short on at least one of those counts—and you may be throwing money away by carrying your own carpenters.

That's why 50 small-volume builders in Fairfield County, Conn., have turned over the job to a subcontractor—Gran Construction Co. of Stamford. By giving all their carpentry to this framing and trim specialist, they have freed themselves from the typical small builder's worst carpentry labor problems. Specifically:

They are freed from unproductive labor. Keeping a crew productive full-time is impossible without a steady work flow. Lags between jobs force the builder to think up make-work for men who are getting high carpenters' wages.

They are freed from carpentry supervision. Building a dependable crew and using it efficiently takes constant observation. Unless the builder can afford a construction superintendant, the job is his—to add to his other titles of market researcher, land buyer, sales manager, etc.

They are freed from scheduling. Job control calls for daily—even hourly checking at the site by the builder who bosses his own crew. He gets involved in dozens of nonprofit decisions.

They are freed from personnel problems. Finding good men is one problem, keeping them happy is another. This takes cash good wages, bonuses, profit sharing. If the money isn't available, the crew is weak in skills, and slow.

By subbing their carpentry to a specialist, these builders get top workmen they



H&H staff

subcontractor?

could never afford full-time. They get guaranteed workmanship (the sub handles the callbacks). And they get automatic cost control because all framing and trim costs are reduced to a number on a bill.

If a builder goes to Gran looking for a bargain, he's in for a shock. Gran is one of the highest-priced carpentry contractors around. But if he is looking for dependable performance and freedom from future headaches, he will be well satisfied. If he is skeptical, he can 1) look at Gran's last job, 2) note how busy Gran is (the company has to turn down jobs) and 3) observe that all Gran's new business comes through referrals.

How did Gran get such a following? By specializing in just two kinds of work framing and trimming—and by running one of the tightest and best organized shops in the trade. For the details, begin at right.

Compare your carpenters with this subcontractor and see what a difference specialization can make

The two partners who run Gran Construction Co., Hjalmar Sodergran and Carl Granskog, do virtually nothing else but oversee their 11 framing crews and 15 trimmers.

Labor is the company's only source of income because, like most carpentry contractors, Gran leaves materials-purchasing to the builder. It is the crews' speed that determines Gran's profit margin on each job (as well as its annual gross) and the crews' workmanship that determines Gran's referral rate among potential buildercustomers. So, not surprisingly, the company's entire operation is aimed at getting fast, top-quality work out of its carpenters.

Gran's specialists are the product of training, good bosses and money

In Gran's book, an unskilled man with promise is preferable to a veteran with old habits; the former adapts to Gran's job system without resistance because he knows no other. Hence Gran has had an apprentice program since the two partners started in business in 1958. Their present 60-man force is largely young carpenters who have learned the trade exclusively under their tutelage.

Each man is worked into the type of job for which he is best fitted. Gran needs two kinds of specialists: framers and trimmers. A novice framer can be pulling his own weight in a couple of months, but an apprentice trimmer must usually be trained for a year. With this kind of investment at stake, Gran can't afford to make quick judgments. Weeks are spent trying a new man on different jobs and noting his natural abilities and preferences.

Gran always looks for potential foremen. Good lead men are the chief reason Gran's 11 four-man framing crews (the 15 trimmers work individually except on apartment jobs) can start a new job and carry it forward for two or three days before either of the partners sees it. The only way Gran can get this caliber of supervision is to constantly watch crews for prospects and to be ready to make still another long-term investment in manpower development.

Money is the big incentive in making crews both dependable and fast. Every man gets a wage higher than union scale (Gran runs a union shop), and whenever a lead man brings in a job ahead of schedule or makes up for a delay (usually due to weather) he gets a cash bonus. Finally, Gran is planning to add a third kind of incentive to its 14,000-a-week payroll: profit sharing.

Guaranteed performance—not price is Gran's strongest sales point

In fact, the company is probably the highest-priced carpentry sub in the area, yet it has more potential work than it can handle. Here's why:

Every job is backed up with free service for the length of the builder's own guarantee. Gran has to be certain of its men and their workmanship because it takes the burden of callbacks off the builder's back completely. (There is one risk, however, that Gran refuses to take—bad lumber. The company won't work for a builder who buys an inferior grade.)

Construction methods are aimed at producing a faultless job. Instead of cutting lumber with a portable saw, Gran moves a radial bench saw (it owns 11) to each job. Object: end cuts that are precisely square, rafter cuts that are accurate and consistent. All doors are job-hung because prehung doors can't be fitted snugly enough to the frame to suit Gran. All trim miter joints are glued.

High quality is combined with high speed. A builder can usually get one of Gran's crews to his job on two- or threeday notice and have the average (for Fairfield County, that is) 3,000-sq.-ft. house framed and sheathed in seven days, Gran prefers short notice. It will not schedule a job more than ten days in advance because any later date is bound to be thrown off by at least one of the variables-excavators, masons, deliveries, weather-that traditionally delay construction. Gran's regular customers are so accustomed to fast service that they often call one of the partners at night and ask for a crew to start work in the morning.

Estimating advice is part of the package. For new builders, Gran helps to select grades of lumber and to figure lumber takeoffs. For experienced builders it will suggest simplifying plan or construction details. Sometimes the advice saves materials, sometimes labor—but either way, it always saves money.

Price is the least discussed part of the job. Regular customers often put Gran on the job without even asking the price. If a prospective builder-customer comes look-



PARTNERS Carl Sodergran, left and Hjalmar Granskog started Gran Construction in 1958.

ing for a low price, he is quickly referred to one of the sub's several competitors. Gran is selling service—no headaches for the builder—which can represent a much bigger saving (during construction and afterward) than the difference between high and low bids.

No schedules on paper—the nature of the business won't permit it

To stay flexible enough to take on scattered custom jobs on two or three day's notice, all Gran's scheduling is verbal. The company has no office, and the majority of labor assignments and job orders are arranged by phone from the partners' homes between 7 and 10 o'clock at night (old customers say the only way to reach them is to call them at home at 4 o'clock in the morning).

This apparently casual system has an important advantage: all scheduling gets reviewed every 24 hours. With a completion rate of at least a house a day, Gran would have a difficult time keeping a formal written schedule.

This flexible scheduling protects both the builder and the sub from unavoidable delays. Gran's profits depend on a fulltime work load for its highly paid crews, so it can't be deterred by bad weather and scheduling failures caused by other subcontractors. Gran can move its framing crews off a job (to closed-in jobs or service work) and back again on overnight notice. Doubled-up crews are a frequently used way to keep crews busy during short job delays and also a way to make up for delays.

Another scheduling help—balancing custom-house work with projects. By carrying a certain amount of apartment and tract-house work—jobs that are done in phases—Gran always has a few fixed schedules it can rely on in the midst of erratic odd-lot assignments. Gran, whose men work throughout the New England winter, also has a solution to areawide homebuilding lulls: it builds spec houses of its own (about six to eight a year) whenever things get slow.

Key management rule: don't let supervision inflate overhead

Here's how Gran keeps its overhead at a minimum:

All supervising is done in the field. The closest Gran comes to having an office staff is employing two part-time bookkeepers. One partner serves as roving superintendant, driving a hundred miles a day, and the other doubles as roving super and stand-in lead man.

Full job responsibility is delegated to the lead men. The high foreman-to-workman ratio (1 to 3) makes the crews independent of central supervision and obviates the need for an office staff and a formal chain of command. The lead men take charge of calling for materials after the initial delivery is made (Gran likes to have a telephone at the job site so they can call the lumberyard directly) and keep track of their crews' hours.

A two-way radio and a dispatcher are the only additional overhead items Gran will consider. The company is not being deliberately backward; it has tried several methods of formal job scheduling and dropped them all. After eight years the partners have found it best—and most profitable—to stick with their original management policy of "on-site supervision by us and by men we can trust."



SIMPLE SYSTEM starts with plates on subfloor. Studs are toenailed and tilted up.



PRECISE CUTS-for tight fits and true alignment-are made by radial-arm saw.



LOW-COST AIDS like this scrap-lumber sheathing holder help keep down overhead.

Conventional framing, with its unlimited flexibility, is best for Gran's operation

Flexibility is essential because the majority of Gran's jobs are one-of-a-kind houses and because plans are often handsketched, half complete and subject to daily revision. So Gran has standardized on a construction method that makes only one concession to prefabrication—precut studs are used on 50% of the jobs.

Old-fashioned though it may seem, Gran's on-site system is fast, efficient and above all, simple. Bottom plates are laid out and nailed, and top plates are laid out over them (*above*, *left*). The framers then nail studs to top plates, tilt up the sections and toe-nail studs to the bottom plates. Sheathing is nailed on afterward (because some building inspectors want to count toe nails before they're covered). Portable power saws are used for cutting off sheathing overlap, but framing cuts are made with a bench saw (*center*).

Gran has only \$15,000 invested in equipment, and most of it is in power saws and several miles of electrical extension cords. Every tool Gran owns can be carried in a car. Materials-handling equipment for apartments is leased.

To make up for lack of power at the site (a frequent source of delay) Gran owns several generators. But their limited capacity often means cutting down on the number of saws used, so Gran often won't tackle a job until permanent power is brought in.



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Watch "The Celebrity Game," Thursdays, CBS-TV



Latest no-paint wall: plywood coated with gravel

An epoxy bonds the aggregate (about ¼" thick) to the plywood, seals it against moisture—and promises no maintenance for the life of the house. The new siding —it looks something like stucco—cost Builder Alan Brockbank of Salt Lake City



about 24e a sq. ft. when he used it recently on factory-finished wall sections (*above*) for 36 contemporary houses like the one at left.

Color and texture are varied by using different aggregates. Exposed nail heads are no problem—they blend into the rough surface—and joints are covered with contrasting battens (in this case, redwood).

Brockbank has also used the same gravel-coated sheets as a finished roof on his prefab plant. The epoxy, named Hycon and made and applied by Hodges Chemical Co. of California, has the same chemical matrix as Hypalon, the roof membrane introduced a few years ago.



New house furnace stores up heat in rechargeable cells

It can be charged during off-peak early morning hours (at lower rates) and will run 20 years without inspections. So says Philadelphia Electric Co., which is testing 11 of the compact (55"x48"x41") units each with six cells—in private homes.

The cells contain salts which are heated to melting (900° F) by an electric element and take up to 20 hours to cool with power off. A blower draws heated air off the cells and exhausts it at a constant 155° F inte the supply duct (*diagram, above*).



Steel bents form a traditional-looking house

Object: to depart from the contemporary look common to most steel-framed houses without departing from their big construction advantage—speed. Steel Homes (Ti-



buron, Calif.), which designed the system exclusively for resort and recreation houses on hillsides, framed its first 1,700-sq.-ft. model (*photos, above and left*) in three hours and claims it can build the steel-andwood package for under \$10 a sq. ft.

Each bent consists of three pre-welded segments—one at each level—that are placed one on top of the other by crane and bolted together. Stressed-skin floor and roof panels are clipped between the 8" and 10" I-beam members and joined by epoxy and lag screws.



Prefabbed steel wall system works with any floor plan

Easy-to-handle panels—4'x8' and 133 lbs. —are the first reason for the system's flexibility. The second: it is for exterior walls only. Rheem Mfg. Co. (Huntington Park, Calif.), which has just introduced the partial package on a custom basis to builders in the West and Southwest, bills it as a time-saver. Example: the outer walls of Rheem's first model—53 solid panels, 11 with windows or doors—took four men four hours to unload and erect.

The ribbed panels (of 22-gauge galvanized steel) are $3\frac{1}{2}$ " thick, come with $\frac{3}{8}$ " gypsum-board backing and 1" glass-fiber insulation and are finished with an asbestos-textured paint applied at the site. They are bolted directly to the slab.

News products start on p. 103

Interior materials



Acoustical ceiling has concealed steel runners which support fiberglas panels. Facing is a decorative white embossed vinyl film reinforced with glass-fiber scrim. fabric. This ceiling was used in several of the houses in San Antonio's recent parade of homes (*see p. 00*). Owens-Corning, Toledo. (*Circle 201 on Reader Service card*)



Woodgrain panels are vinylsurfaced to resist scuffs and stains. Gypsum panel core is fireproof. Durason line comes in Modern Walnut (light), Heritage Walnut (medium) and Presidential Walnut (dark). National Gypsum, New York City. Circle 206 on Reader Service card



Divider wall systems are made from modular sections of DecoraDoors with grillework inserts. Any length is available and dividers are 6'8" or 8' high. A typical system with accessories, retails for about \$40. Panelboard Mfg., Newark, N.J.

Circle 207 on Reader Service card



Vinyl wall covering, called Flat Cut Walnut, is available in five natural wood-finish tones including Blonde and Oil Walnut. The pattern is a 54" fabric-backed vinyl. Retail price: 10¢ a sq. ft. McCordi Corp., Mamaroneck, N.Y.

Circle 202 on Reader Service card



Acoustical ceiling tiles are white-on-white with an embossed design. Four patterns are available and one is offered with goldon-white coloring. All tiles have washable surfaces and are flame resistant. Certain-teed Prods., Ardmore, Pa.

Circle 205 on Reader Service card



Vinyl-surfaced wallboard is available in five colors in a fabric-weave pattern (*above*) or walnut-grain design. According to the manufacturer, the wallboard is scuff, stain and fade resistant and can be cleaned with a sponge. Celotex Corp., Chicago.

Circle 203 on Reader Service card



Glass-fiber panels are translucent but look like natural wood. The panels are available in flat and ribbed designs, both with smooth surfaces. According to the manufacturer, Ridgewood is weather resistant and shatterproof. Alsynite, San Diego. *Circle 204 on Reader Service card*



Hardwood wall has 16" plank effect. By cutting 4x8 sheets of paneling and then backing the pieces with another thickness of plywood, folding doors can be made to match walls. Georgia-Pacific, Portland, Ore. (*Circle 208 on Reader Service card*)

NEW PRODUCTS start on p. 103

Heating and cooling.

Heat pump has redesigned compressor motor that has proven 98% reliable in field tests, according to the manufacturer. A five-year warranty, 24hour service and free semiannual inspections are included. Units are designed for all climates and are offered with capacities from two to ten tons. General Electric, Louisville, Ky. *Circle 237 on Reader Service card*

Air conditioner-heater has a forced air furnace, upflow cooling coil, factory-sealed refrigerant tubing, remote compressorcondenser unit and heating and cooling thermostat. Day & Night, City of Industry, Calif.

Circle 238 on Reader Service card

Baseboard heater has factory installed support brackets and damper control brackets. Also included is a Silent Slide system that prevents noise created by expansion and contraction. Aqua-Heat, Roselle, N.J.

Circle 239 on Reader Service card

Heating-cooling units come in $2\frac{1}{2}$ and 3 ton capacities and can be installed outdoors or on rooftops. The heating unit is available for either natural or propane gas; cooling is electric. Carrier, Syracuse.

Circle 240 on Reader Service card

Electric air conditioner has capacities of 25,000 Btus for cooling and 26,000 Btus for heating. Unneeded refrigerant can be stored during heating cycle and is automatically released for cooling. Coleman, Wichita.

Circle 241 on Reader Service card

Total home comfort system provides warm air, hydronic heating, domestic hot water, cooling, air filtration, odor control and humidification. Thermo-Dynamics, Schuykill Haven, Pa. *Circle 242 on Reader Service card*

Gas boilers are available in six sizes. According to the manufacturer, units are economical and provide rapid absorption of heat because of high offset finned water tubes and increased heating surface. Peerless, Boyertown, Pa.

Circle 243 on Reader Service card

Fan-coil air conditioners for apartments are available in seven vertical and four horizontal models. Several types of accessories are available for both types. Acme Inds., Jackson, Mich. *Circle 244 on Reader Service card*



Gas fired boilers for hot water heating systems are available in three types for baseboard radiation, radiant panel and convection radiation. All models have automatic pilots that burn up air-borne lint particles. Bryant Mfg., Indianapolis.





Hydronic boiler has modulating gas control and a Hydronic Balancer that maintains proper flow rate, prevents spot steaming, cycling and noise, says the manufacturer. A ten-year guarantee is included with the boilers. A. O. Smith, Kankakee, III. *Circle 247 on Reader Service card*



Glass-fiber duct can bend 180° without loss of efficiency, according to the manufacturer. Material is approximately 25% lighter than galvanized duct. Glass-Flex may be used at temperatures to 250° F. Glass Insulation, Los Angeles. (*Circle 246 on Reader Service card*)



Compact unit heater can be installed under cabinet kickspace, leaving only the 8"x4" grille visible. Unit provides warm air at floor level. No painting or cleaning is necessary, says the manufacturer. Beacon-Morris Corp., Boston. (*Circle 248 on Reader Service card*)



Air handling units have a horizontal shape. Internal components can be serviced through a side panel. Coils for hot or chilled water and steam are optional. Three models all with epoxy enamel finish are available. Typhoon, Brooklyn, N.Y. Circle 249 on Reader Service card



Baseboard panel is 7%" high and 2 11/16" deep. According to the manufacturer, the unit is easily installed because most components snap into place. The exterior of the panel has a white prime coat. American-Standard, New York City.

Circle 250 on Reader Service card



Perimeter floor diffuser has a metalescent finish to blend with any type of floor covering. Unit also has short-fin construction, hold-down tabs and locked volume setting. Price: \$1.98 to \$2.58 depending upon size. Leigh Prods., Coopersville, Mich. *Circle 251 on Reader Service card*



"CONCRETE STREETS NOT ONLY SELL HOMES, THEY MAKE CONSTRUCTION GO EASIER!"

Says builder JACK KEPLER, Kepler & Clark, Ltd., Downers Grove, Illinois



"We like concrete streets because we can transport construction equipment to the building site much sooner. Public officials tell us that they like them because they require so little maintenance over a long span of years."

Builders everywhere will tell you paving streets with concrete is good business. Home buyers are impressed with the modern, progressive look that concrete streets give a neighborhood. More and more, concrete streets are becoming a deciding factor in the choice of new homes.

The trend to concrete streets can be expected to continue. In 1964 alone, over 30 million sq. yd. of concrete streets were installed in American cities and towns of every size.

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PPG makes the glass that makes the difference



Exterior materials



Glass-fiber panels are shatterproof and translucent. Panels are available in 4, 5, 6, 8 and 10 ounce psf weights. Suggested uses include: partitions, carports, fencing, windbreakers and balcony dividers. Barclite Corp., Bronx, N.Y. (*Circle 209 on Reader Service card*)



Vinyl siding won't chip, peel, or blister and doesn't need paint, according to the manufacturer. Siding is .040-gauge white rigid vinyl clapboards that clip into backer boards. System is guaranteed for 20 years. Monsanto, St. Louis. (*Circle 210 on Reader Service card*)



Prefinished siding has a redwood appearance protected by clear film with a low gloss. Siding has a five-year guarantee covering blistering, peeling, cracking and flaking. A high-gloss finish is also available. Union Lumber, San Francisco.





Vitreous tiles are impervious to weathering, according to the manufacturer. Tiles come in shades of gold, brass and silver. Mesh-mounted sheets are 12" x 12" available in large or small quantities. Lacto Prods., Los Angeles.

Circle 212 on Reader Service card

NEW PRODUCTS

start on p. 103





Masonry wall is produced by a cast-in-place concrete process. The single-layer wall has the appearance and texture of Norman brick on both sides. The manufacturer says Stout Brick is economical, fireproof and weatherproof. Stout-Bilt, Chicago.

Circle 213 on Reader Service card

Laminated glass is a sandwich of two pieces of glass and a layer of plastic. Glass is available in clear, green-tinted heat-absorbing and bronze-tinted glare-reducing types in plate or sheet glass. American Saint Gobain, Kingsport, Tenn.

Circle 214 on Reader Service card



Non-woven surfacing wall, called Pellomac, will prevent hairline, wind and other cracks in newly plastered walls, according to the manufacturer. It will also prevent cracks showing through new paint on old walls. Pellon, New York City, (Circle 215 on Reader Service card)



Aluminum siding in 8" panels has a white grained finish. The siding is made of high strength aluminum alloy and is coated twice with a polyvinyl finish. The manufacturer offers a 30-year guarantee. Crown Aluminum, Pittsburgh.

Circle 216 on Reader Service card

Fig. ciding is amilable in hori

Fir siding is available in horizontal lap (*above*) and panels. Siding is saw-textured and comes in natural and factory primed finishes. Horizontal lap is offered in three widths and two lengths. Panels are 4' wide. Evans Prods., Portland, Ore. Circle 217 on Reader Service card

New products continued on p. 108

Make your windows a selling point with these stars

No storm windows to put up, take down, wash or store

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The PPG TwiNDow® stars make your windows visible—remind home-buying prospects of the advantages of wood windows glazed with PPG TwiNDow Insulating Glass.

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Circle 63 on Reader Service Card



Tools and equipment



Light tractor-crawler has a torque converter, one-hand power shift and power shuttle, turning and steering. Attachments include a 4,500lb. capacity loader, a 14' backhoe, ripper, guards, winches and others. J. I. Case, Racine, Wis. (Circle 218 on Reader Service card)



Tilt-top trailer has a 6,000-lb. load capacity. According to the manufacturer, model G has an extra-low between-the-wheels platform and a better suspension. The line includes five other models. Fisher/Biddle, Milwaukee. (*Circle 219 on Reader Service card*)



Construction crane is truckmounted and fully hydraulic. Spira-Matic rotates 365° and has four moving parts. The section boom has an 8' extension and a 32' sheave height. Capacity is five tons at 4' radius. Baker Equipment, Richmond, Va. *Circle 220 on Reader Service card*



Truss press clips on both sides simultaneously so truss needn't be turned over. Operating on 110 volt current, the unit can be used on or off the site. Aluminum jaw has an 8" throat allowing usage on most truss types. Panel-Clip, Farmington, Mich. *Circle 221 on Reader Service card*

NEW PRODUCTS start on p. 103





Monorail hoist, designed to raise bricks, blocks, mortar and similar materials, lifts up to 1,000 lbs. Unit deposits load inside the edge of the floor or scaffold. Engine can be removed for storage. Hauck Construction Prods., Teterboro, N.J.

Circle 222 on Reader Service card

Airless spray unit is portable and operates on 115 volt current. An explosion-proof electric motor, hydraulic pump, reciprocating liquid motor and a displacement pump are included. The all-steel cabinet is 26" wide. Gray Co., Minneapolis. Circle 223 on Reader Service card



Tractor-mounted backhoe has one hydraulic circuit for the swing and stabilizers and another for the bucket, dipperstick and boom cylinders. The 14' unit has controls at the operator's sides. International Harvester, Chicago. (Circle 224 on Reader Service card)



Front loader has four-wheel drive. The bucket is 3/4 cu. yds., and unit has a 3,000-lb. lift capacity. Engine is gasoline with diesel power optional. Loader can operate in deep mud, sand, snow and rough terrains. Balmar Tractor, Baltimore. Circle 225 on Reader Service card



Hydraulic excavator can dig stone and frozen ground or soft mud, clay and swampland, according to the manufacturer. Accessory "floating plates," 8'9" in diameter, permit operation in soft areas and shallow water. Broyt, Rockford, Ill. Circle 226 on Reader Service card

New products continued on p. 110

(FHA Processing Unit Cost Controls

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Aluminum foil tape for sealing aluminum-backed ducts and applying duct insulation is waterproof and vaporproof. The hightack, rubber-based adhesive is protected by an easy-release liner. Tape is 3" wide. Arno Adhesive Tapes, Michigan City, Ind. Circle 227 on Reader Service card



Door chime with hand-grained finish comes in Antique Walnut or Blond Elm. Front door chimes have 4 or 8 notes; rear door models have one note. A different tone is available for a third door. Retail price: \$32.95. NuTone, Cincinnati. Circle 228 on Reader Service card



Channel shaped glass, in lengths up to 20', can be cut on the job. According to the manufacturer, Profilite can be used without cross bars and is exceptionally strong because of channel shaped section. Mississippi Glass, St. Louis. (Circle 229 on Reader Service card)



Two-way radio has increased receiver sensitivity of 0.3 microvolts for UHF channels. According to the manufacturer, unit provides more effective communication in areas with dead spots or noisy reception. General Electric, Lynchburg, Va.

Circle 230 on Reader Service card



Masonry anchor bolts are 1/s" thick and fit in a standard mortar joint. A variety of sizes is available for solid 8" and 4" caps, off-set caps, two core block and setting plates on concrete slabs. Construction Research Corp., Chicago.

Circle 231 on Reader Service card

NEW PRODUCTS start on p. 103



Truss and joist hanger has a pair of teeth at the top which, when tapped with a hammer, hold unit in place for final securing with nails. A chevron design at the hanger's base acts as a locater. Sanford Prods., Pompano Beach, Fla.

Circle 232 on Reader Service card



Sump pumps are available in both submersible and upright models with capacities up to 4,000 G.P.H. Pumps are made of an acrylic material impervious to water and have stainless steel shafts and anodized columns. ITT Marlow, Midland Park, N.J. *Circle 233 on Reader Service card*



Door answering system is available in two models, one for existing homes and one for new-house installation. Transistorized units can also be used as a two-station home intercom. Cost: under \$30. Emerson Electric, St. Louis. (*Circle 234 on Reader Service card*)



Closet shelves and rods of steel eliminate fitting, sanding and finishing operations. Rods are bright plated. Line includes adjustable shelves and rods, available separately, and adjustable linen closet shelves. Leigh Prods., Coopersville, Mich. *Circle 235 on Reader Service card*



Convertible jet pumps come in $\frac{1}{3}$ to $\frac{1}{2}$ hp models for shallow wells and for conversion to deep well use to 130'. Capacities to 1,900 G.P.H. for shallow well operation and to 1,650 G.P.H. for deep wells are available. Sta-Rite Prods., Delavan, Wis. *Circle 236 on Reader Service card*

New literature starts on p. 120



Olympic Solid Color Stains can do anything paint can do.

(Except crack, peel, or blister.)

Don't ever make the mistake of thinking that paint doesn't have its place. It does. Used over plasterboard, concrete, stone, metal or what-have-you, paint is dandy stuff.

But when it comes to wood, nothing does a better job than



Olympic Solid Color Stain. Take the word of R. N. Bodinus of Bodinus Homes, La Habra, Calif. He says, "In the past we used paints that were very soft to get the look we desired. These look good at first, but weathered very rapidly. We changed to Olympic Stain to get the natural wood look we wanted, plus durability. Since then, the customer acceptance has been tremendous and the look of the houses with Olympic Stain has been beautiful."

"As time goes by, the houses look better and better with the Olympic Stain, compared to the deterioration and looks of the paint surfaces."

The reason for Olympic's high performance? Olympic Stain soaks in. Unlike paint it doesn't hide the texture or form a film. Olympic penetrates — actually becomes part of the wood. So it can't crack, peel or blister. But, it can look better years longer. And that's exactly what it does. We guarantee it.

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Designable, buildable and salable: Red Cedar Shingles and Handsplit Shakes



When D. J. Hawley recently built his Bayview Estates subdivision on precious San Francisco Bay waterfront in Alameda, his most expensive model (4 bedroom, 3 bath, bayside) sold for \$33,450. Prospects were so impressed they bought nearly 100 homes in two months. The secret : an architect who designed each pair of homes into a compact duplex that looks like a luxury single-family dwelling. Notice the imaginative way in which the design/application flexibility of red cedar shingles and handsplit shakes was utilized on roofs and sidewalls. Further, the builder could talk practicality as well as appearance: red cedar shingles and handsplit shakes resist moisture, shrug off storm winds, insulate against the passage of heat and last for decades on end. If you'd like more information, please write the Red Cedar Shingle & Handsplit Shake Bureau, 5510 White Bldg., Seattle, Wash. 98101. (In Canada: 1477 West Pender St., Vancouver 5, B.C.)





Architect David T. Johnson conceived 17 different exterior elevations for the 170-home Bayview Estates. These included the popular shingled mansard French contemporary interpretation (upper left), a shingle roof Polynesian model (upper right), the Pacifica model with shingle roof (above), and the Brittany model with shake roof (lower right). Each unit of a duplex offers 3 to 4 bedrooms, 2 to 3 baths. Street scene (lower left) shows how individualism was retained in close quarters. All shingles are Certigrade No. 1, 16" long, set 5" to the weather on the roof and 5" to the weather on sidewalls. Certi-Split shakes are handsplit/resawn (24" x 34" x 14") set 10" to the weather.



Any of these labels on a bundle or carton of red cedar shingles or shakes is your guarantee of *graded* quality. Cuts waste of material and lost time on the job. More than 250 mills subscribe to our standards in order to use these labels. And our inspectors run constant quality checks both at the mills and jobsites. These labels are good profit insurance. Demand them.



Here's how G-E Central Air Conditioners solved the problem of even cooling in the multi-room apartments of Robert Schmertz



"Our apartments, which range up to 1,000 sq. ft. and have as many as four rooms, are laid out so that we prefer $1\frac{1}{2}$ - and 2-ton G-E Central Systems to give us even distribution of cooling through ductwork at a low operating cost," says Bob Schmertz of Leisure Village, Lakewood, N.J.



"Because some folks feel the heat more than others, they appreciate the fact that with individual central systems, each apartment has its own separate climate control.

"Of course," Mr. Schmertz says, "we chose G.E. in the first place because we know G.E. makes the most reliable products. And with G.E.'s top engineering design, we can count on the most dependable equipment. We're selling well, thanks in great part to G.E." Quiet, low-cost G-E Zoneline Air Conditioners solved Ben Cogen's Sherwood Park Apartments cooling problems



"G-E Zoneline through-the-wall air conditioners are amazingly quiet, and their low-installation costs fit our needs perfectly," says Ben Cogen, owner of handsome, new low-rise apartments in Lima, Ohio. "Zonelines are attractive, too, both on the exterior and the interior."



"Our apartments are laid out so that a single G-E Zoneline can air condition our three-room suites, and two G-E throughthe-wall units take care of our larger four-room apartments. Each tenant can control the temperature in his own apartment. If repairs are needed, it requires shutting down just one unit, and it slides out of its through-the-wall case in seconds. Actually, we're so satisfied with G-E Zonelines, we're putting 40 more in our new apartments."

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120

NEW LITERATURE

For copies of free literature, circle the indicated number on the Reader Service card, page 97.

AIR CONTROL BOOSTER. 6-page bulletin shows and describes the pump. A capacity chart and specifications are included. ITT Bell & Gossett, Morton Grove, Ill. (Circle 301 on Reader Service card)

DUCT HEATERS. 8-page catalog covers design, applications, dimensions and prices of electric heaters. Specifications and ordering instructions are given. General Electric, Schenectady. (Circle 302 on Reader Service card)

WATERTIGHT CONCRETE. 6-page publication discusses the requirements for watertight concrete. Design and specifications are given. Master Builders, Cleveland, Ohio. (*Circle 303 on Reader Service card*)

METAL DOORS. 4-page brochure describes adaptability of doors to a variety of hardware applications. Chart-form information and drawings included. Amweld, Niles, Ohio. (*Circle 304 on Reader Service card*)

ARCHITECTURAL SEALANTS. 12-page catalog gives uses, descriptions and limitations of 24 products. Photographs of recent applications also shown. Presstite, St. Louis. (*Circle 305 on Reader Service card*)

HOISTS AND BODIES. Specification brochure gives buying information and describes models available. Paul Hardeman Inc., Bowling Green, Ohio. (Circle 306 on Reader Service card)

STEEL WALL SYSTEM. 6-page brochure gives test data by two research laboratories about insulating properties of the walls. Stran-Steel, Houston. (Circle 307 on Reader Service card)

FIREPLACES. 82-page design book has photographs, details and specifications for building fireplaces and barbecues for all seasons. For copy: send \$1.50 to Majestic Co., Huntington, Ind., 46750.

METAL LATHING AND FURRING. 16-page technical bulletin describes and gives specifications for each type of metal lath and plaster assembly. Metal Lath Assn, Cleveland, Ohio. (*Circle 308 on Reader Service card*)

LIGHTING FIXTURES. 4-page product bulletin shows and describes 23 chandeliers, pendants and pulldowns. Del-Val, Willow Grove, Pa. (Circle 309 on Reader Service card)

CERAMIC TILES. 2-page booklet shows and discusses complete line of glazed tile, ceramic mosaics and Murray quarry. Design applications are discussed. Choice of 136 colors shown. American Olean Tile, Lansdale, Pa. (*Circle 310 on Reader Service card*)

ATTIC VENTILATION. 6-page brochure discusses advantages of ventilating system and costs of installation. Warranty included is shown. Home Comfort Prods., Princeville, Ill. (Circle 311 on Reader Service card)

OVENS AND RANGES. Two 6-page brochures describe and show ovens and surface burners available for gas and electric power. Chambers, Cleburne, Tex. (*Circle 312 on Reader Service card*)

HARDWARE. 16-page catalog pictures and discusses sliding and folding door hardware. A price list is included. McKinney Sales Co., Scranton. (Circle 313 on Reader Service card)

GLASS MASONRY. 12-page booklet shows typical installations and types of masonry available. Charts and details included. Owens-Illinois, Toledo. (*Circle 314 on Reader Service card*)

PNEUMATIC HAMMERS. Specification sheet gives information about weight, dimensions, air consumption, piston strokes and types of hammers available. Timber Engineering, Washington, D.C. (Circle 316 on Reader Service card)

New literature continued on p. 129.



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A patterned patio that's casually continental—The livability you design into your homes can be followed right out the window to provide exciting new outdoor living enjoyment. A concrete-paved patio can take any shape, any form. Here, the mellow tones of a Spanish courtyard are matched in colors and textures quickly and easily achieved in long-lasting concrete for a lifetime of pleasure.













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NEW LITERATURE

starts on p. 120

SHELF ROOM DIVIDER. Specification sheet gives sizes and finishes of room-divider kits and explains assembly process. Panelboard Mfg., Newark. (*Circle 315 on Reader Service card*)

RECESSED LIGHTING. 6-page catalog describes fixtures available and shows 39 frames offered. Chart gives information on footcandle performance. Markstone, Chicago. (*Circle 317 on Reader Service card*)

PANELS. 16-page brochure describes veneers available, matching process and panel construction. Sizeing, specifications and finishing also discussed. Eggers Plywood, Two Rivers, Wis. (Circle 318 on Reader Service card)

PLYWOOD. 4-page specification sheet includes short-form and long-form specifications for any plywood construction use. Information is divided into sections by type. American Plywood Assn., Tacoma, Wash. (Circle 319 on Reader Service card)

KITCHEN CABINETS. 12-page catalog shows styles and finishes available. Kemper, Richmond, Ind. (Circle 320 on Reader Service card)

CONSTRUCTION MATERIALS. 136-page handbook discusses selection estimation and use of caulks, sealants, floor materials, admixtures, adhesives and other materials. Dewey and Almy, Cambridge, Mass. (*Circle 321 on Reader Service card*)

SOUND CONTROL. 20-page booklet gives sound and fire resistance data, lists of materials and applications details of wall systems. Bestwall Gypsum, Paoli, Pa. (Circle 322 on Reader Service card)

BOILERS. 16-page bulletin describes forceddraft package boilers for gas, light oil or combination gas-light-oil firing. Ratings and dimensions included. American-Standard, New York City. (Circle 323 on Reader Service card)

FLOOR AND WALL CORK. 8-page catalog shows and describes vinyl and cork tile, tackboard and cork wall coverings. Available patterns and colors are illustrated. Dodge Cork Co., Lancaster, Pa. (Circle 324 on Reader Service card)

ELECTRIC HEAT. 6-page brochure discusses operation of radiant panel system and shows available models. GarWood Inds., Ypsilanti, Mich. (*Circle 325 on Reader Service card*)

FOLDING DOORS. Brochure illustrates and gives specifications for three lines of doors that may also be used as room dividers. New Castle Prods., New Castle, Ind. (*Circle 326 on Reader Service card*)

WOOD FENCES. 8-page idea booklet has 36 full-color photographs showing various fence installations. Western Wood Prods., Portland, Ore. (*Circle 327 on Reader Service card*)

THERMAL SHRINKAGE. 6-page monograph explains the effects of thermal shrinkage on builtup roofing. Data and suggestions to reduce premature failings of these roofs is included. For copy: send 10ϕ to The Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

KITCHEN PLANNING. 12-page booklet gives standards for space planning and counter arrangement. Size of residence is provided for. Small Homes Council-Building Research Council, Urbana, III. (Circle 330 on Reader Service card)

STEEL CONSTRUCTION. Six fact sheets give data on steel siding, doors, gutters and down-spouts, ductwork and plumbing fixtures. American Iron & Steel Institute, New York City. (Circle 331 on Reader Service card)

CEDAR SHAKES. 4-page folder shows and describes designs of panels. Hand-split shakes also included. Shakertown, Cleveland, Ohio. (Circle 332 on Reader Service card)



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