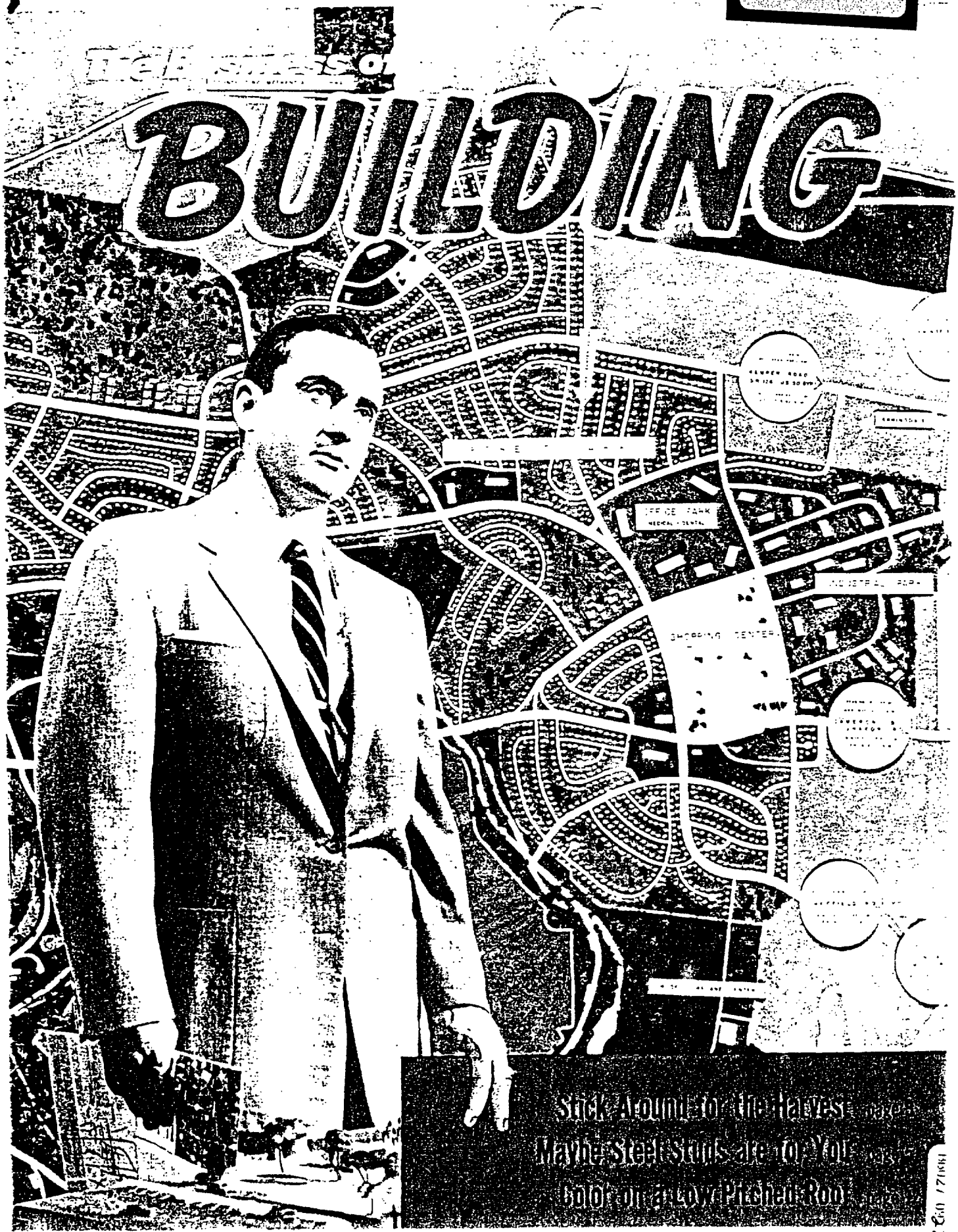
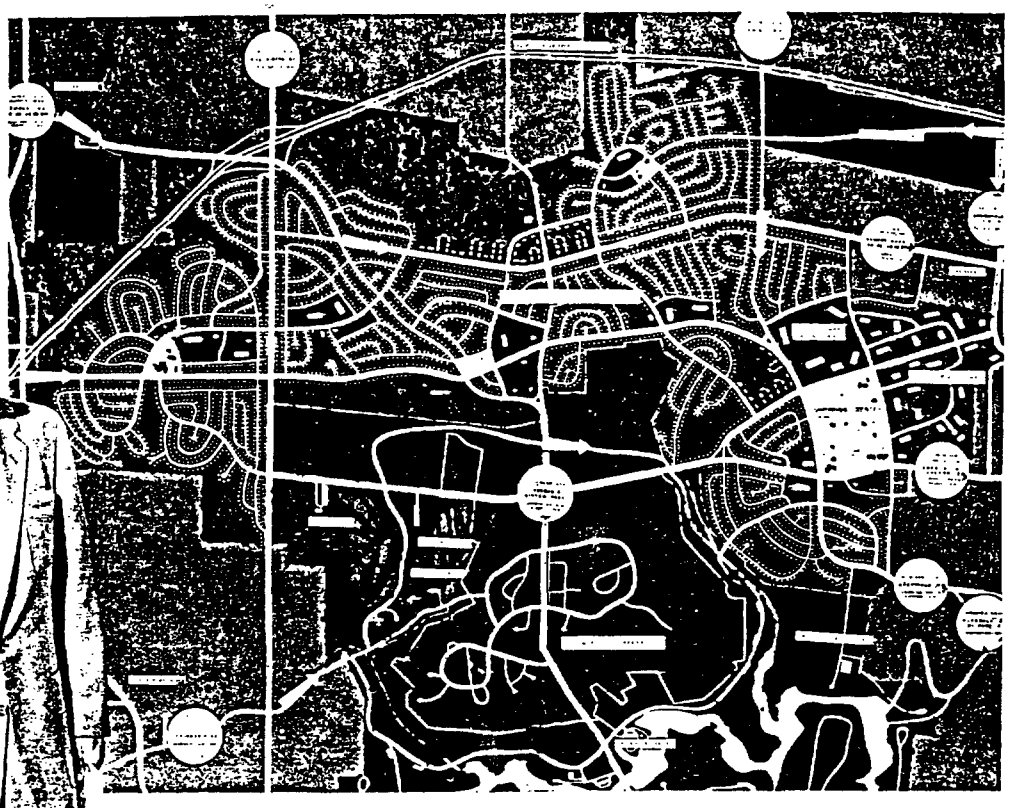
PLAINTIFF'S EXHIBIT

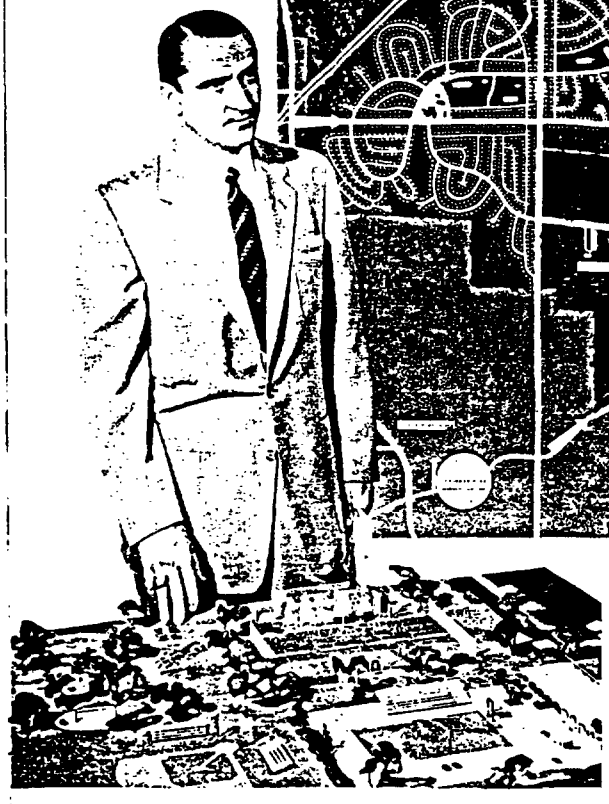
USG-1371

BUILDING





THE GRAND PLAN for the project shows an interesting integration and balance of all living features.



MARVIN WARNER, one of the principals of Warner-Kanter Companies, holds forth on the merits and values of the Forest Park development in hotel-suite headquarters in downtown Cincinnati. Models and drawings of the entire project are displayed to help prospective occupants, city officials and other interested parties visualize the scope and nature of Warner-Kanter planning.

Building houses is like farming: you must

The Business of BUILDING Magazine

a **UNITED STATES GYPSUM** publication serving the construction industry—architect, builder, dealer, journeyman. 300 W. Adams Street, Chicago 6, Illinois.

Elmer H. Johnson, Editor • Richard L. Bullock, Associate Editor • F. W. Goessling, Art Director

Photographs in this issue by Krantzen Studios, Chicago and Hedrich Blessing Studio, Chicago.

THERE IS a fable somewhere about a man who raised a fine goose and sold her for a good price. Soon after, she began to lay golden eggs.

There are true stories everywhere about builders who build a fine tract of houses, sell them for good prices and move on, just as the houses fill with money-spending consumers.

Warner-Kanter followed this pattern several times in several locations. Then they began to contemplate the *extra values* they had created in areas where they had constructed homes—the large numbers of new residents they had attracted to these communities. And they made up their mind that next time, the company was going to realize the full potential profit from what it created. No longer would it abandon a project to other interests just before sustained profits began to pour in.

The new philosophy called for a new type of planning—planning which projected goals over 10 and even 20 years. The new plan called for a "complete" community, planned in entirety before the first spade of soil is turned, to combine facilities that serve all segments of the perfect circle that Americans consider a wholesome and satisfying way of life.

In Forest Park, near Cincinnati, Joseph Kanter and Marvin Warner found the opportunity to develop their idea of an ideal community. This 3700-acre land of promise was originally part of a tract acquired by the Federal Resettlement Administration in 1935 and 1936. The government assembled it after an intensive survey cited it as one of the four best locations in the nation for construction of a complete suburban community. In 1952 the tract was purchased from Federal government interests by the Cincinnati Community Development Company, a non-profit corporation. The search for a suitable developer climaxed with Warner-Kanter Companies most closely meeting the qualifications.

This is no three or five-year building enterprise for Warner-Kanter. Here in Forest Park, Warner-Kanter interests will be involved for decades. Such perspective puts a fresh slant on a builder's entire operation.

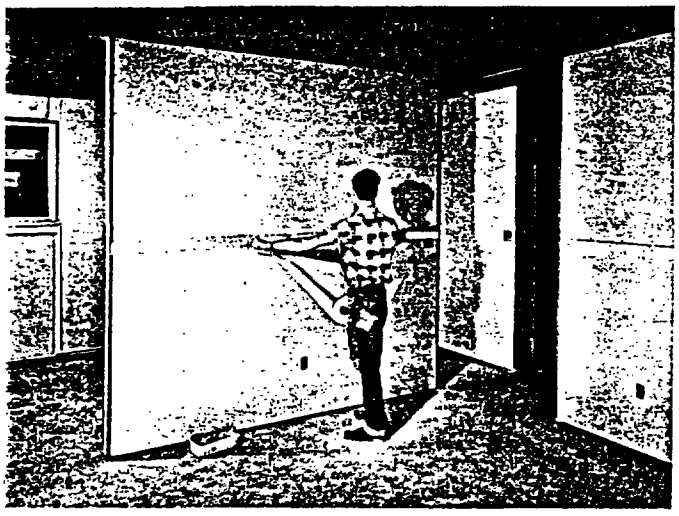
Warner-Kanter cannot afford to repeat here the mistakes that have plunged some of our older neighborhoods into blight. These mistakes are most often conceived as the neighborhood is conceived, and rooted in haphazard growth, without direction or plan; growth where individual advantage is the only consideration. Unhappily, examples of this type of community growth can be witnessed in progress today.

That's why every architect and land planner dreams of an opportunity to plan an entire community—a community of enduring values springing from a single plan or pattern; where each individually owned piece of property contributes to the desirability of the whole, and in turn, draws value from the whole. The goal is a community which utilizes rather than fights the natural terrain on which it is located; and most of all, one which meets people's needs by providing for a life filled with intellectual, recreational and spiritual riches.

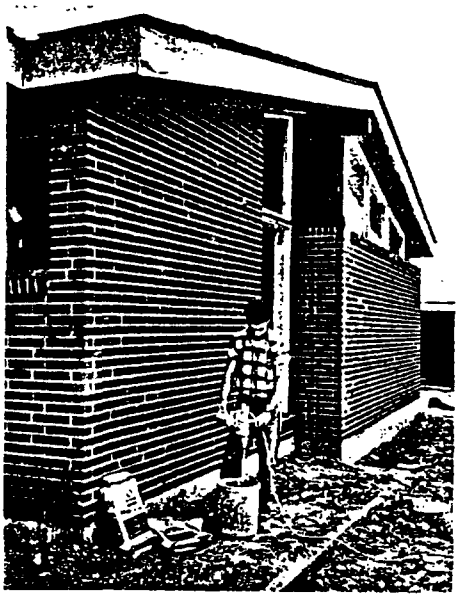
Warner-Kanter laid just such an opportunity into the laps of Vogt, Ivers, Seaman & Associates, a Cincinnati firm of engineers and architects. Justin R. Harzog, original town planner for the site, is a consultant.

Forest Park's assets start with its varied terrain and its location. The area is convenient to industrial centers, is adjacent to a public park with complete recreational facilities, is served by good roads and will be further served by every projected superhighway to enter Cincinnati from the north.

The grand plan includes generous provision for church facilities, land reserved for schools, industrial sites that in



HAND TAPING of joints is simplified with simple accessories which make the operation convenient. Corner bead, finished with joint cement, provides rugged corners.



PERF-A-TAPE JOINT and topping cement are machine mixed for speed and a thorough dispersion.

Stick around for the harvest *continued*

no way detract from the residential areas, and of course, convenient and elaborate shopping facilities.

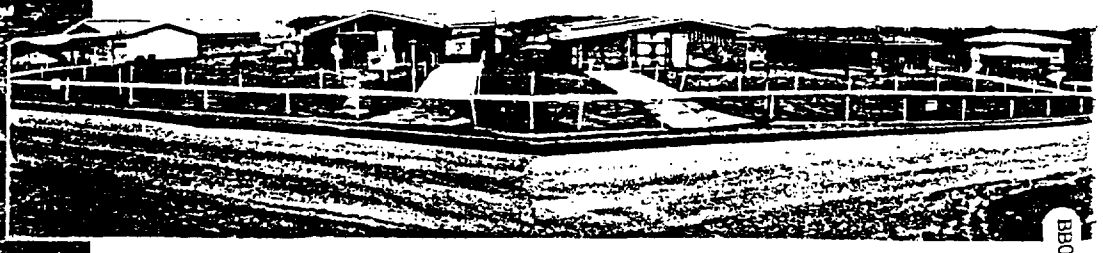
The program for the first year includes construction of 625 houses. A first section contains 110 houses selling from $16,000 to $23.000. Under a general superintendent, the construction phase is organized through four foremen specializing in (1) roads & utilities, (2) concrete work (foundations, driveways, patios), (3) house erection and framing, and (4) interior finish. All sewers and utilities go in under the seven-inch reinforced concrete streets.

With plenty of land on which to sustain its home building activities (10,000 houses are projected), with control of the areas in which commercial and industrial properties will be built, with its own Keystone Savings Association to provide financing and its own Liberty Realty Company as sales agent, Warner-Kanter will indeed continue to own the golden goose as long as it lays its golden eggs.

EXCELLENT COVERAGE and a smooth flat surface are achieved with USG Painters' Alkyd Latex.

FOREST PARK STREETS are built like highways to carry the load of construction trucks and furniture vans and serve the residents for years without need for major repair.

A PANORAMA of Forest Park model houses suggests the variety of contemporary design expressed in the plans.



In view of broad economies

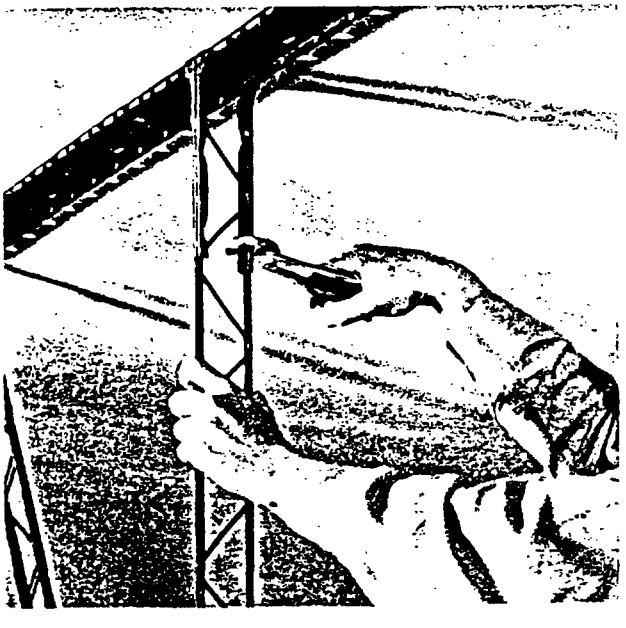
and new partition surfacing techniques

Maybe Steel Studs are for You

ARCHITECT Edward Varney of Phoenix, Ariz., found the key to his need for a permanent-type partition that is so simple to remove that space use is always flexible. It is the open-web TRUSTEEL stud which he specified for a new administration building in Albuquerque for Rocky Mountain Telephone & Telegraph Company.

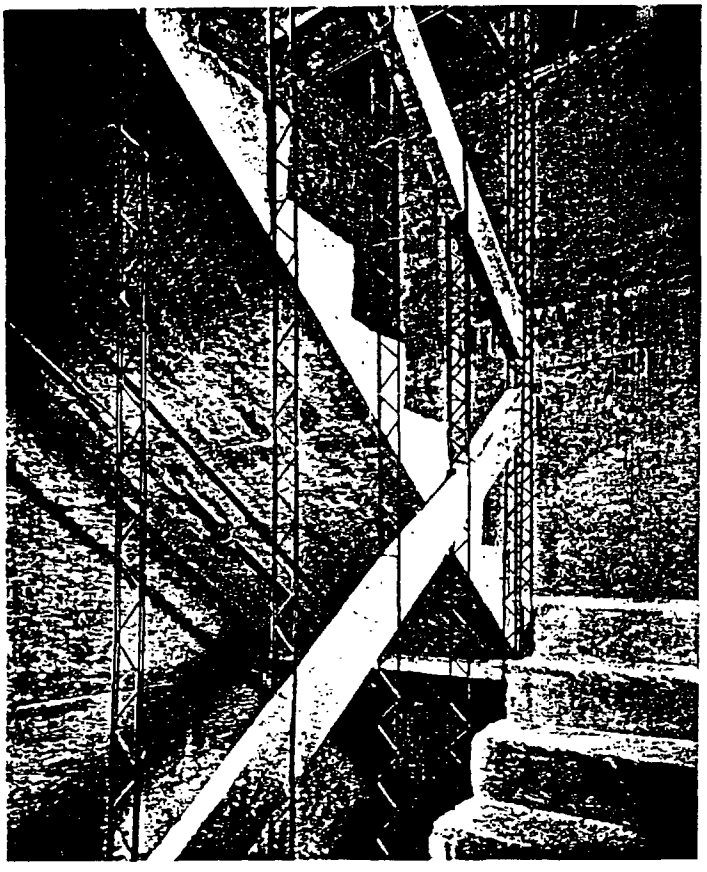
The steel studs are erected in a runner track which is screwed or stub-nailed to the floor and ceiling surfaces. The resulting partition is good for the life of the building, but if desired, it can be disassembled almost as readily as it is erected, without leaving major scars at floor or ceiling where it once had been. This feature is especially useful in office buildings where changing tenant needs require occasional space revisions.

Versatility extends to the choice of surface treatments which may be used with TRUSSTEEL studs. They serve efficiently as structural members for either a clipped-on ROCKLATH and plaster partition, or for a SHEETROCK gypsum wallboard laminated drywall structure. Sound-transmission

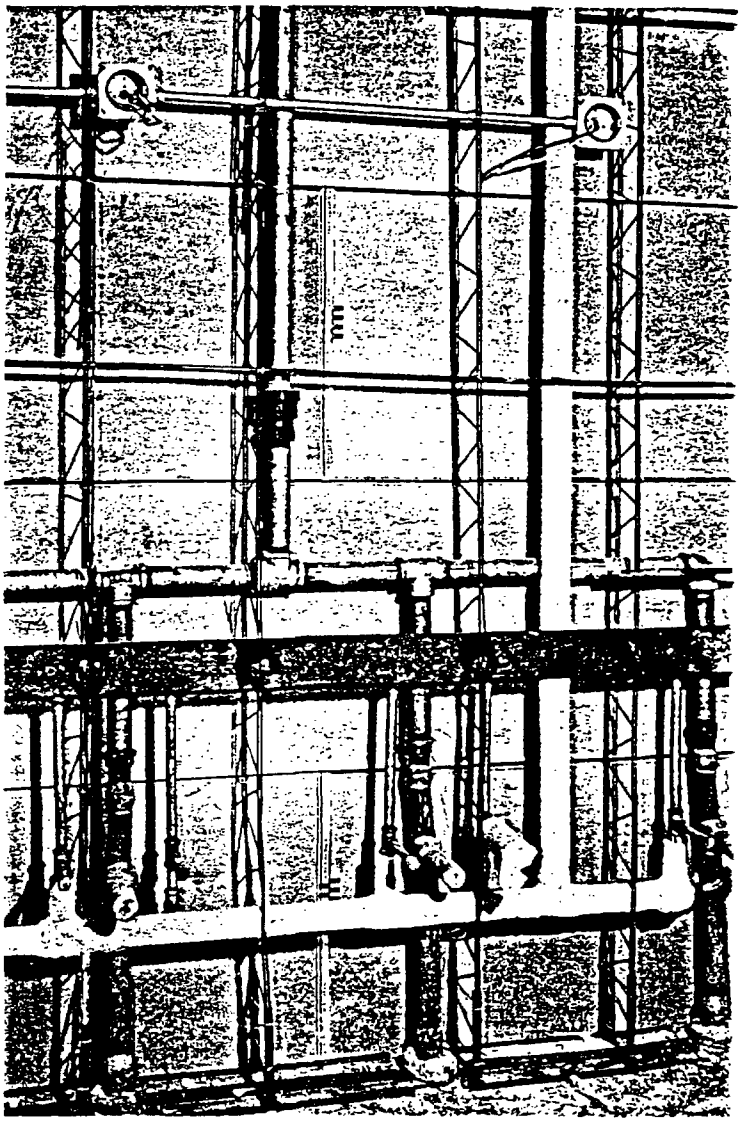


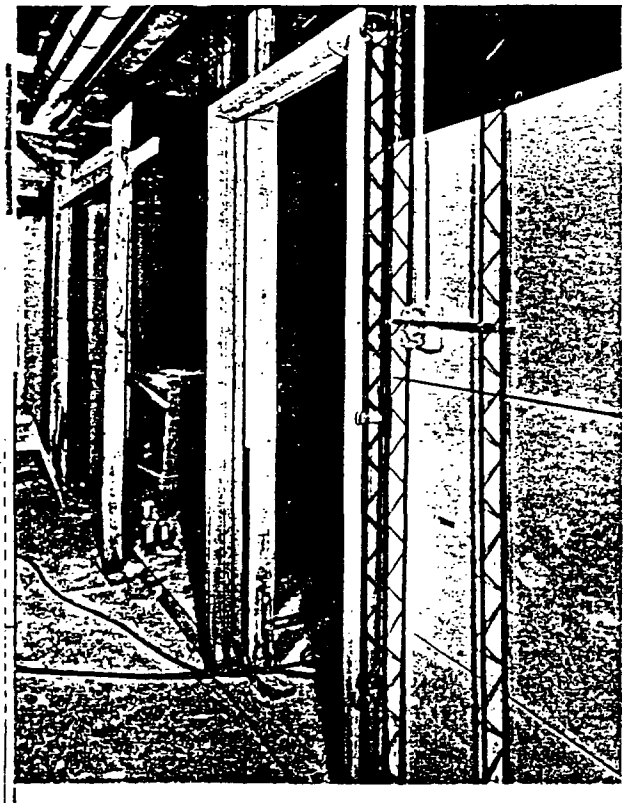
STANDARD STEEL-RUNNER TRACKS are nailed in place along partition lines marked on both the floor and ceiling slabs.

STUD SHOE, which fits between the ceiling or floor and the track, holds the studs in position. The attachment is made firm by crimping the flanges of the shoe around the stud flange wires.



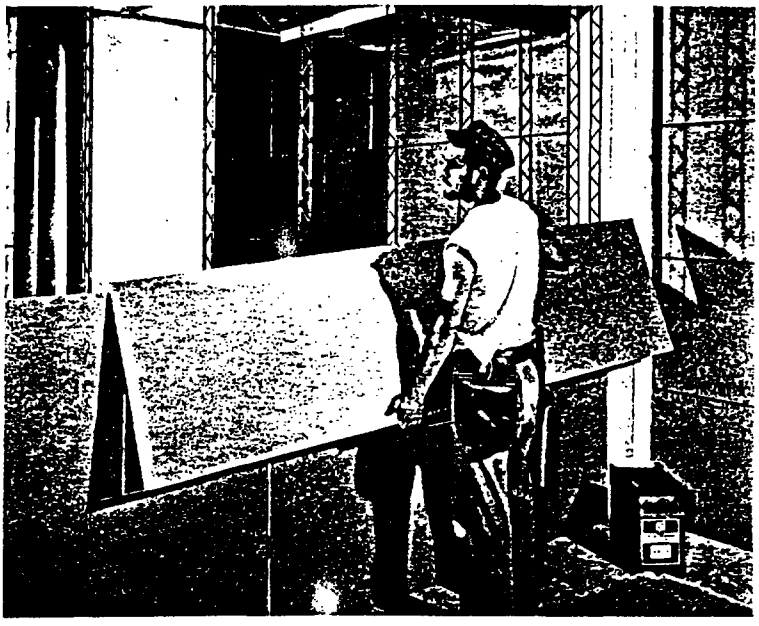
... ADAPTABILITY AND VERSATILITY of the TRUSSTEEL stud are shown in both photographs. In the stair well, the studs have been extended in length by simply wire-splicing a second one to the first, and a 2x6-inch board for attaching handrails has been placed within the stud. In the lavatory, both plumbing and electrical lines have been run by cutting only an occasional web wire. Where pipes are brought through the floor, the runner tract is cut off and started again on the far side without affecting stud spacing.





METAL DOOR BUCKS are anchored to the partition by tying the studs to channel-irons which have been welded to the frames at three different points on each side.

FIRST COURSE of BAXBORD base is placed against studs and locked in place with TRUS-LOK TL-2 starter clips, which also secure the top course.



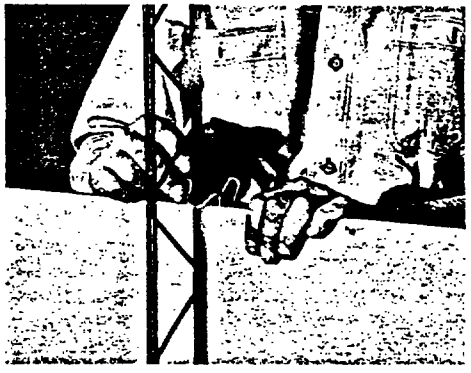
EASY-TO-HANDLE BAXBORD panels are set in the upper flanges of the butterfly-shaped TL-1 clip which holds the preceding course in place. Notice that joints are allowed to fall between the studs.

Steel Studs *continued*

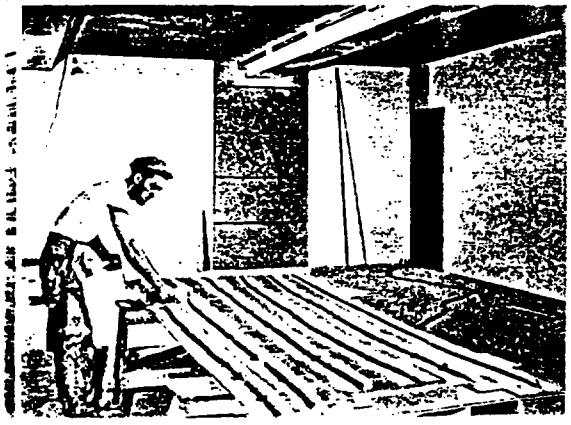
loss and fire ratings are excellent, and the freedom with which the electrical and plumbing trades can run their lines through the open webbing of the studs is a major economy.

For his Rocky Mountain T & T building in Albuquerque, Architect Varney specified a drywall partition consisting of ⅝-inch BAXBORD gypsum backing board TRUS-LOK clipped to TRUSSTEEL studs as a base layer for adhering a finished surface of ⅜-inch SHEETROCK gypsum wallboard. All of the components are standard and manufactured in quantity. The partition weighs about seven pounds per square foot.

Supervising Architect Gordon Ferguson of Albuquerque has been especially impressed with the close control over job

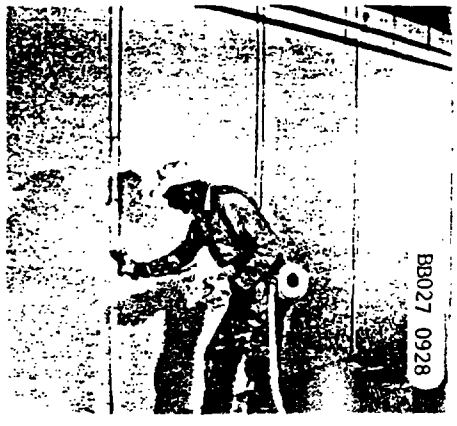


AFTER CUTTING FACE BOARD to size, the applicator then coats the back with ribbons of PERF-A-TAPE embedding cement spaced approximately seven inches apart.



NINE-FOOT HIGH PANEL of SHEETROCK wallboard is set in place easily by one man, who then taps the face lightly with the 2x4 to assure the uniformity of the bond to the BAXBORD base layer.

TAPING THE VERTICAL JOINTS with PERF-A-TAPE joint reinforcement is done as soon as the adhesive between layers has had an opportunity to "take up."



ROCKY MOUNTAIN TELEPHONE & TELEGRAPH COMPANY'S new TRUSSTEEL stud partition office building under construction in Albuquerque, N.M.

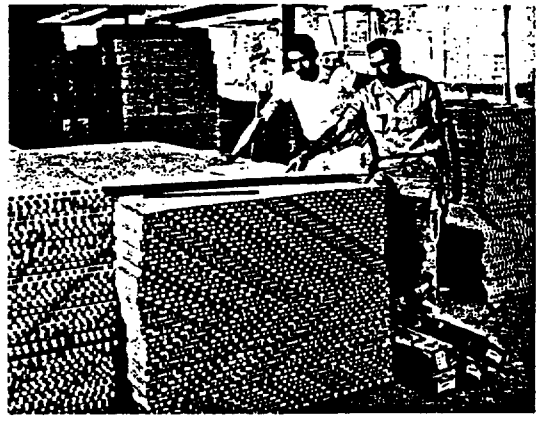
ARCHITECT GORDON FERGUSON said the per-foot cost of the partitions will reflect only a portion of the savings realized by its use.

GEORGE VAN CLEVE, head of Southwest Dri-Wall Co., plans the day's work with his brother John, on the right. Van Cleve says the application of wallboard to the steel studs is faster than double-wall work done on wood studs.

Steel Studs *continued*

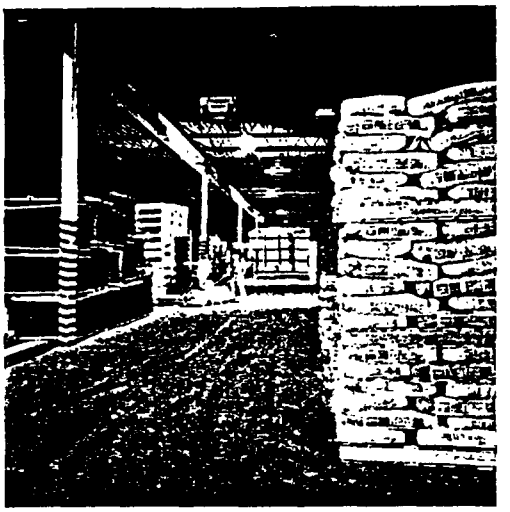
schedules which he feels the partition has made possible. He also commented favorably about the economies achieved in partition erection itself and among the pipe trades working in the structure.

The TRUSSTEEL stud drywall partition, as erected here, offers a Sound-transmission-loss rating of 45 decibels, a 45-minute fire rating, and a flame-spread rating of 15 or less. TRUSSTEEL brand studs are all wire, thus leaving maximum free space for utilities. They are available in 2½, 3½, 4 and 6-inch widths.



THE TRUSSTEEL STUD SYSTEM works equally well with a plaster facing. The ROCKLATH plaster base is clipped to the studs in the same manner as the BAXBORD base.

FACIAL SAGEBRUSH is worn in observance of Albuquerque's 250th anniversary, and is not a distinguishing trademark of Southwest Dri-Wall Company, whose crews are the subjects of these pictures.



A SINGLE COURSE OF SUPPORTING COLUMNS is all that restricts a floor that measures roughly 204x130 feet. Engineer B. W. Lorrance comments that "every motion in a warehouse costs money". Note that daily sweeping is mechanized.

SMALL PICK-UP ORDERS of many types of plaster are filled from drums which are usually kept filled from the occasional broken bags that are part of every warehouse operation. Metal bead is stored on an A-frame, sorted and identified by type and length.

Scientific warehousing

is a competitive

head start for a dealer

When Service means Sales

A GROWING SALES volume in a declining market is the remarkable achievement of Rio Grande Co., a Denver plaster and masonry supply house.

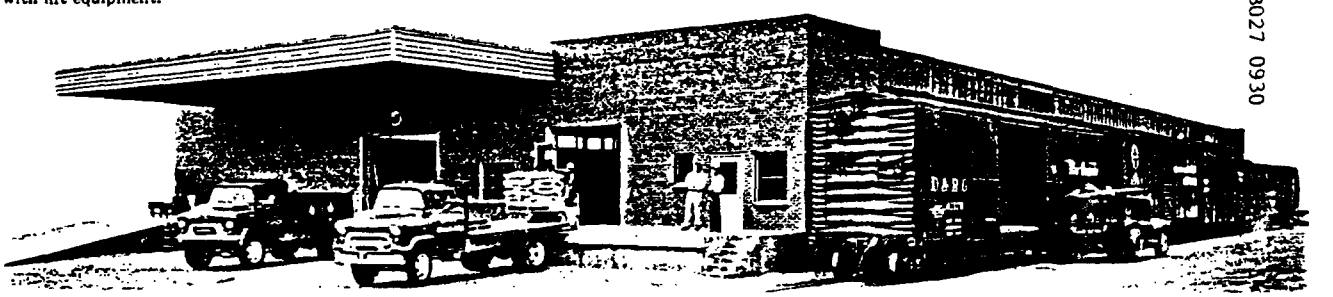
Don Peterson, an officer of Rio Grande, credits much of this success to the company's new, scientific warehouse. "Since most material dealers offer comparable lines, business success is built on service and complete stocks. Our new warehouse facilities have improved our performance and competitive position. Furthermore, our overhead has been proportionately reduced." Peterson explained.

The addition of a new warehouse was not simply a matter of creating more storage space to handle a larger volume. From the beginning it was planned to be a silent servant.

At the very outset Rio Grande sought expert advice from the U.S. Gypsum Customer Service Department and was coached by them on mechanized and palletized handling of materials. The methods they learned were immediately put into practice in the old warehouse. Then architectural engineer B. W. Lorrance, a warehouse specialist, designed a new structure for the Rio Grande Co. which capitalized on the new handling systems.

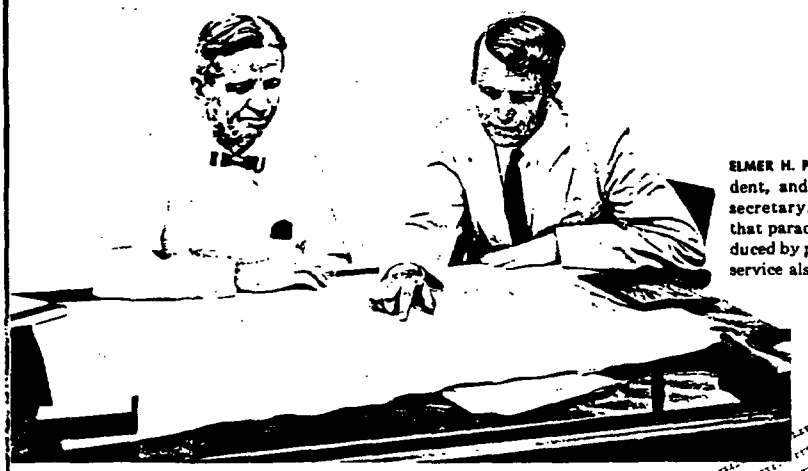
Though the new building covers 25,000 square feet, or five times as much as the original warehouse, it is operated by a crew of the same number—three men. Thanks to the speed of mechanical handling, an average of 175 truck loads of material are dispatched daily from the new building. And, the original warehouse continues to operate at capacity with a one-man crew.

WAREHOUSE DESIGN allows trucks to be loaded at the main dock or from railroad cars. In both cases, the loading is done with lift equipment.



Service means Sales

continued

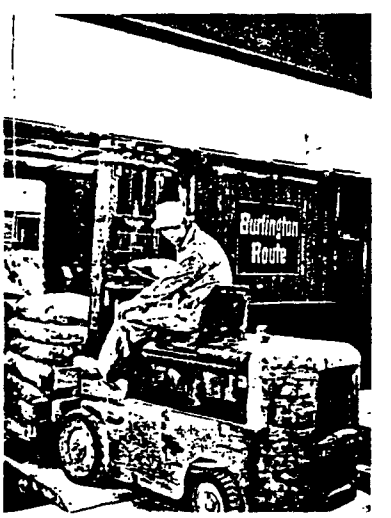


ELMER H. PETERSON, Rio Grande president, and his son Don, Rio Grande secretary. Young Peterson explains that paradoxically "when costs are reduced by planning and mechanization, service also improves."

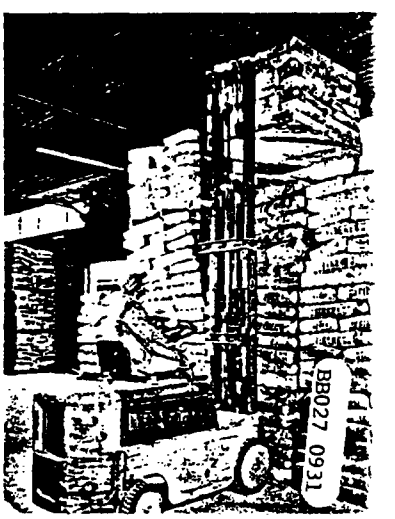
THOROUGH PLANNING makes Rio Grande's yard layout efficient despite its vast three-square-block expanse. Warehouse A handles small orders and pick-ups, and Warehouse B is used for stockpiling and filling large-volume deliveries. An intercom system connects all points of the yard, and traffic is controlled from the dispatcher's office by the scales. Notice that from both rail spurs cars may be unloaded into either trucks or warehouses.

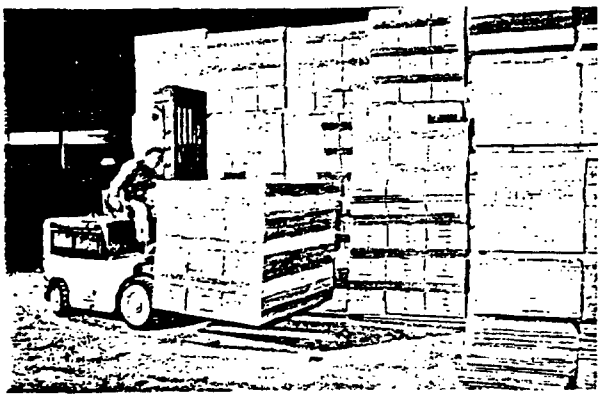
PROMPT DELIVERY is made possible by Rio Grande's fleet of trucks, maintained by its own mechanics. The firm's management feels this type of maintenance pays for itself: some trucks have served 27 years and are still in good order.

ONLY 55 MINUTES are required to unload a carload of bagged plaster with a fork truck. While two men are stacking 24 bags on a pallet, the fork truck may have moved the preceding pallet the entire length of the warehouse, and returned.



VERTICAL SPACE can be used to expand capacity when fork trucks are available. Instead of the average 4-foot stack, Rio Grande piles palletized plaster 12 feet high.





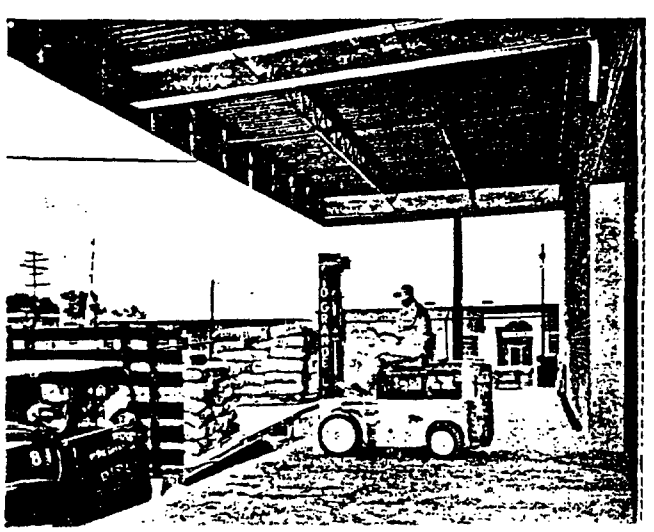
ROCKLATH PLASTER BASE, which is shipped in units separated by dunnage, requires only one hour of a driver's time to unload a carload. Before, a two-man crew needed an entire day.

PYROBAR GYPSUM TILE is stored in pallets. Ralph Surratt, warehouse foreman shown above, says mechanical handling has cut both handling time and breakage. Palletizing also speeds inventory checks.

UNWIELDY CHANNEL-IRON is easily handled mechanically, when received pre-tied in bundles of 20 pieces. Rio Grande also makes use of the side-wall space in its new warehouse for the stacking of metal bead.

ORIGINAL STORE is now used as office space, and the adjoining warehouse is devoted almost exclusively to the handling of small pick-up orders. Use of mechanical equipment has made it possible for a single man to maintain the warehouse and load the contractors' cars or trucks at the curbside.

DRIVER LABOR is reduced, too, because motorized material handlers load a flat-bed truck in a matter of minutes.



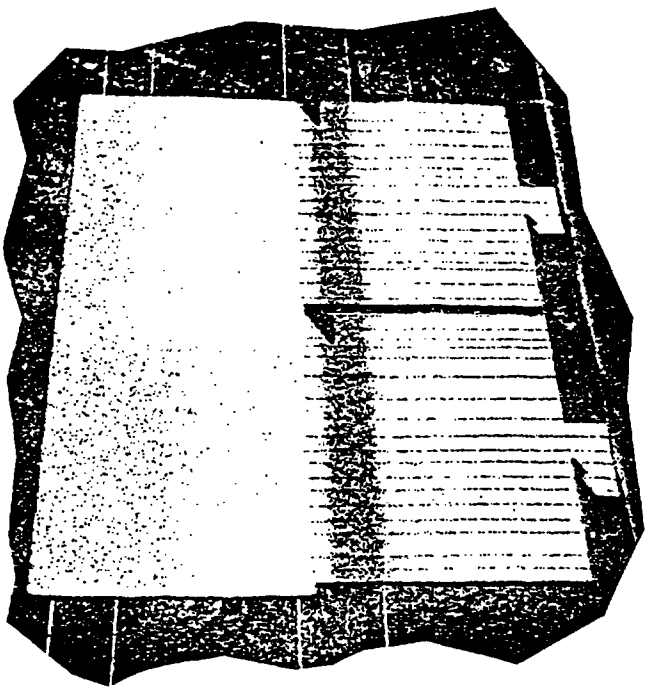
CONFERENCE AND PLAN ROOM, complete with coffee, rolls and easy chairs, is another of the many services offered by Rio Grande to its contractor customers who are preparing bids on forthcoming jobs.

U. S. G. Research

develops a new shingle

to put colorful

Beauty on a Low-Pitched Roof



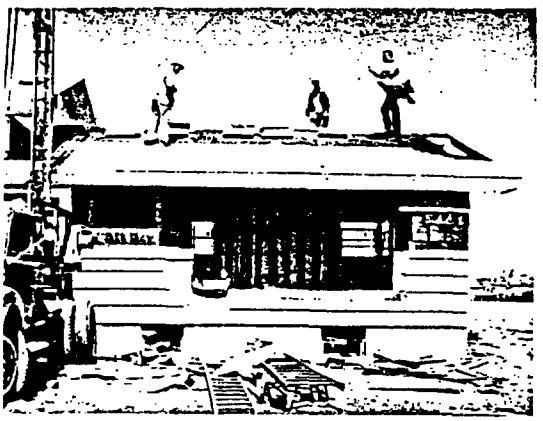
AN IMPERIAL-LOCK SHINGLE with the Shadow-Accent line. At a distance, the darkened band of color gives greater strength to the horizontal lines, and appears to be shadow from a much thicker butt.

ONLY THREE NAILS are required to hold each shingle in place, thanks to the strong locks on the tab ends. Note placement of the nails at the center point in the shingles. There are no nails at the top corners.

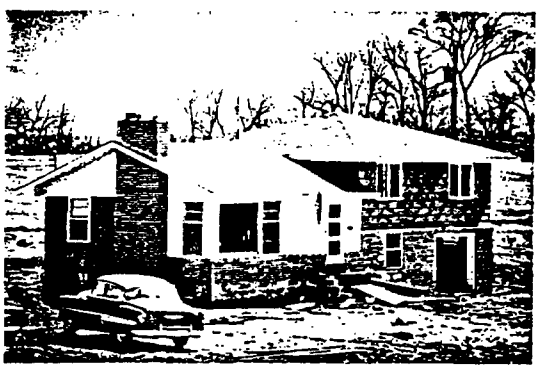
PROBLEMS of wind and water, which often exclude the popular square-tab shingle from use on low-pitch roofs, have been conquered by the new USG IMPERIAL-LOCK shingle. Awarded a Class C Underwriters' rating, it has also proved itself weather-worthy in resisting hurricane strength wind tests of 100 mph without damage. The 215-pound square-butt IMPERIAL-LOCK also offers the beauty of shadow-accent or regular color treatment. There are eight colors from which to choose.

Designed for new construction or reroofing jobs of any pitch from 2 in 12 up, the IMPERIAL-LOCK requires about the same application time as the standard thick-butt shingle. According to Minneapolis roofing contractor Russell Porter, "The little extra time spent in locking the tabs is more than gained back in the reduced nailing required." The IMPERIAL-LOCK needs only 225 nails a square, compared to 480 for regular three-tab shingles. Three nails per shingle hold the shingle firmly in place with the aid of the tab locks.

The IMPERIAL-LOCK shingle appeals to house buyers, too. Irregular spacing of vertical lines gives the shingles the appearance of wood shakes, and the asphalt and mineral-granule composition assures extra fire resistance.



HEAVY WINDS FAILED to dislodge the newly applied IMPERIAL-LOCK shingles though it almost blew the workmen off the roof.



DURABLE BEAUTY is achieved with IMPERIAL-LOCK shingles on the roof of this home in suburban Wells Wood, south of Minneapolis.

ROOFERS WORK from left to right horizontally across the roof in applying the IMPERIAL-LOCK shingles. One man places and locks the shingles, and is followed down the course by the nailer.

TAB LOCKS SLIP IN QUICKLY. The left-hand lock is started first. It slips into its final position when the right-hand tab is hooked into place.

BD027 0934

Newest built-in sales feature for Builders' houses may well be "The Comfort of Quiet." Figures show that

Sound Control is Coming Home

LET'S BE honest about acoustical treatment in homes. Small residential rooms with heavy carpeting, abundant draperies and much soft upholstery just don't need additional sound-absorbent material.

But changes in residential design have brought changes in acoustical conditions within homes. All-over carpeting is giving way to small scatter rugs. Heavy draperies are the exception rather than the rule. Sound-reflective glass areas have increased. Rooms are more open, one to another, and noise-making household appliances are multiplying.

As one pundit put it, "Having taken the rug from the floor, it's time to put it on the ceiling." That means new demands for acoustical material—a new concept of residential sound control.

Sound Control Helps Sell Houses

In this market, those who build houses for sale find prospective customers shopping for extra values before they commit themselves to a purchase. A ceiling of acoustical tile is a sales advantage from the moment a prospect steps into the house. One who has been making the rounds of empty "open houses" for sale, instinctively senses something different when he enters one that is acoustically treated. The element of sound control is intangible but is immediately desirable. It offers the customer quiet—a restful, peaceful state of being that is associated with happy home life.

The benefits of sound control are well known to prospective home buyers. They have experienced them in their office, in their store, at their favorite dining spot, in theaters, hospitals, churches, wherever the public gathers. Always it has been a pleasant experience. To find these benefits offered in

RANDOM PERFORATIONS present a textured rather than regimented pattern for a ceiling surface. QUIETONE fiber acoustical tile is available random perforated as well as perforated.

BRILLIANT WHITE of HI-LITE acoustical plaster combines a cheerful lightness with audio-comfort in this living area.

REMARKABLY EVEN TEXTURE is achieved when AUDICOTE acoustical plaster is sprayed on. The system is economical and flexible.

THE FAMILY ROOM is one of the first places for acoustical treatment. QUIETONE perforated acoustical tile compensates for sound reflective floor and wall surfaces here.

WHEN A BEDROOM is also a playroom it is especially desirable to modify the noise level with acoustical ceiling treatment. This is economical fiber tile, easily installed.

STAIRWAYS AND CORRIDORS which are quieted with acoustical tile or plaster, discourage loud noise, but are not intended to prevent the passage of sound from room to room.

a home available for sale is another appeal to tip the scales of their preference toward the builder who anticipates their comfort in his homes.

Where should acoustical tile be installed in a home? The eager beaver will put it throughout. Those of more moderate taste will start with an all-purpose room, activities or family room. Next they move into the kitchen-laundry where noise-making appliances need to be hushed. Hallways, especially those with hard-surfaced, easily cleaned floors are on the list, with bedrooms at the very end.

Two principal methods are used to achieve sound control in residences. There are several types of acoustical plaster which do a splendid job and provide an interesting surface appearance, and there are acoustical tiles to be adhered to a gypsum lath or wallboard base, or stapled to wood stripping.

Acoustical Plaster

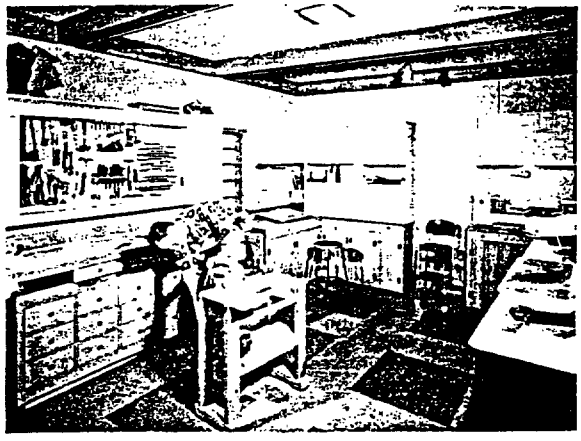
An extremely even and handsome texture is achieved by spraying on AUDICOTE acoustical plaster. Because of its consistent beauty this relatively new material is being specified by leading architects on many types of jobs. Its light reflection rating is .58 and its noise reduction coefficient rates .55 when machine-textured, or .60 if hand-darbied. It may also be stipple-perforated.

An exceptionally white acoustical ceiling is achieved with HI-LITE acoustical plaster. It has .75 light reflection value, coupled with a .60 noise reduction coefficient. This material must be hand-applied over a gypsum or portland cement basecoat and provides a stippled or stipple-perforated finished surface. Tests have shown that the stipple-perforated surface may be painted as many as four times without appreciable loss in sound-quieting efficiency. Because it is basically a lime product it can be used in areas of high humidity, such as bath or shower room areas.

Standard of the industry for many years, and still a favorite, is SABINITE acoustical plaster which will work to either a trowel or float finish. For either surface the noise reduction coefficient is .60.

Acoustical Tile

Perforated or random-perforated QUIETONE fiber tile is visually a more obvious sales feature and has a noise reduction coefficient of .60 to .70, depending on the tile thickness selected and the method used to mount it. It has a factory-painted surface and high light-reflection. It may be cleaned several times with wallpaper cleaner, and painted without injuring its acoustical properties if paint does not bridge the perforations. It can be stapled to strips, or adhered.



A HOME WORK SHOP is made more pleasant when reverberation of noise is controlled with acoustical tile, as it is here.

The trend in residential sound control has been from a few installations in costly homes to a multitude of installations in more modest dwellings. Some builders are going to find that the "comfort of quiet" is the next big sales appeal item in selling the houses they build.

NEITHER acoustical plaster nor acoustical tile of any kind has special merit as a barrier to prevent sound from traveling through partitions or ceilings to adjoining rooms. The principal function of each is to absorb sound originating within a room and reduce that portion of sound that is created by reflection from walls and ceilings, thus adding volume to the original sound source.

A barrier to the passage of sound through walls or ceilings is achieved most effectively by making such surfaces somewhat resilient. The most economical and popular way is to erect gypsum lath with resilient clips. Thus, when finished, the spring-like clips absorb the shock of sound waves from the plastered surface without transmitting much of it through the studs to the opposite partition face.