

**DIRE
SHEE**

SHEETROCK^{*} and PERF-A-TAPE^{*} Joint System

PLAINTIFF'S EXHIBIT

USG-1580

SHEETROCK Gypsum Wallboard is versatile, fireproof and durable.

There are very few limitations when you build or remodel with SHEETROCK. Horizontal application of SHEETROCK Wallboard (long edges at right angles to framing members) is recommended because it usually reduces the lineal footage of joints to be concealed and this method provides a convenient working height for joint finishing. For explanation of conditions when vertical application may be more advantageous, see diagrams, below.

TOOLS NEEDED

1. A sharp cutting knife
2. Keyhole saw
3. Straight edge
4. Rule or measuring tape and pencil
5. Carpenters hammer (Plastic head for Woodgrain finish)
6. 4 or 5 inch application knife
7. Mixing bucket and 4' long 1" x 2" stirring paddle
8. Breadpan
9. Sanding block

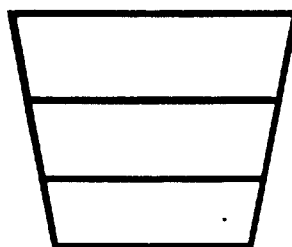
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PLAN THE JOB

CEILING APPLICATION



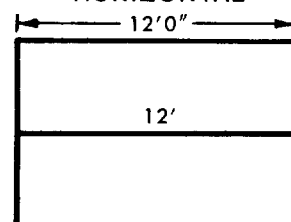
VERTICAL



HORIZONTAL

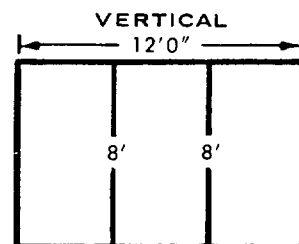
Apply panels horizontally (perpendicular to joists) or vertically (parallel to joists) whichever method will result in fewest joints, using longest lengths of board obtainable. Butt joints, if any, should be staggered.

WALL APPLICATION HORIZONTAL



12'0" LINEAL FT. OF JOINTS

Always use longest lengths of SHEETROCK Wallboard obtainable. Span whole wall from corner to corner if possible. Stagger end joints. Most walls in today's homes are 8'0" to 8'2" from floor to ceiling. This is an ideal situation for horizontal application of SHEETROCK Wallboard since this method reduces lineal footage of joints to be treated (see diagrams). In horizontal application waste pieces are used to fill space at bottom of walls, if required. This area is covered with baseboard.



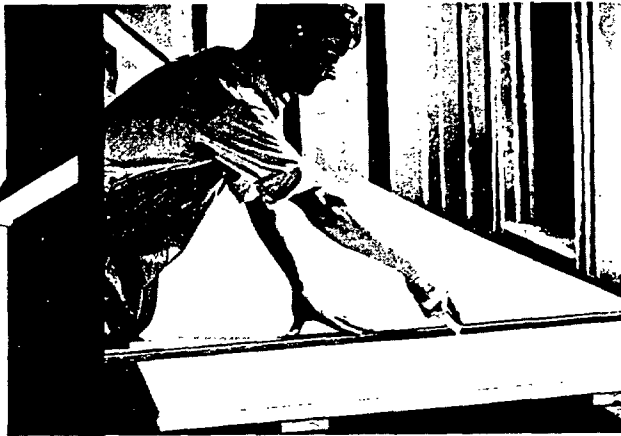
16'0" LINEAL FT. OF JOINTS

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APPLYING REGULAR SHEETROCK WALLBOARD



1. ALIGNMENT—Check studs and joists for alignment. Straighten or replace those out of alignment.



2. SCORING—Score the ivory colored paper on the face of the board with a sharp knife, using a straight edge as a guide.



3. CUTTING—Break the core of the SHEETROCK Wallboard by snapping away from the scored paper side. Complete the cutting by running the knife through the back paper from above or below.



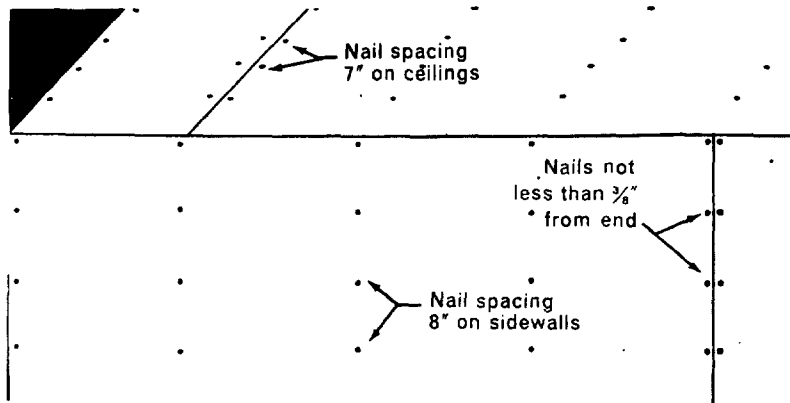
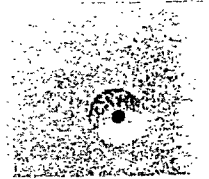
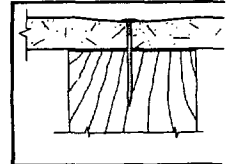
4. SANDING—Smooth the cut edges with coarse sandpaper wrapped around a block of wood, a rasp, or trim with cutting knife.



5. BOWED OR WARPED STUDS—Such studs may be straightened by sawing the hollow sides at the middle of the bow and driving a wedge into the saw kerf until the stud is in line. Reinforce by nailing 1" x 4" wood strips on each side of the cut.



6. DIMPLING—Nails should not be countersunk nor should the surface of the paper be broken. Drive nails home leaving a slight "dimple." Fill latter with PERF-A-TAPE Cement.



7. NAILS AND SPACING— $\frac{1}{4}$ " and $\frac{3}{8}$ " thickness, 1 $\frac{1}{4}$ " GWB-54 annular ring; $\frac{1}{2}$ " thickness, 1 $\frac{1}{4}$ " GWB-54 annular ring or; $\frac{3}{8}$ " thickness, 1 $\frac{1}{4}$ " annular ring GWB-54 type nail. Nails should be not less than $\frac{3}{8}$ " from the edges and ends, and spaced 7" apart on ceilings and 8" on walls. During nailing, board should be pressed firmly against studs and joists.



8. CUTOUTS—Openings for electrical switches and outlets can be made with a keyhole saw. To locate the exact position, hold SHEETROCK panel in place. Then using a wood block to protect the board, tap around the outlet with a hammer. The indentation on the back of the board is your guide for cutting.



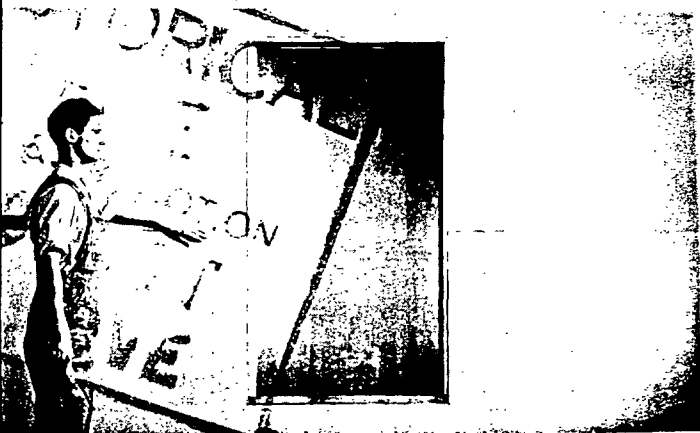
9. CEILINGS GO UP FIRST—Usually two men work on a ceiling, nailing from center of panel, towards ends and edges with nails 7" apart.



10. WHEN HORIZONTAL CONSTRUCTION is used the dry wall panel is applied first and butted against the ceiling. Over openings, end joints should be on studs. Where possible span the entire wall. End joints should be staggered. If Insulating SHEETROCK Wallboard is used, apply foil side to framing.



11. VERTICAL APPLICATION should be used when ceiling height is over 8'2", or where this method results in less waste or joint treatment. Boards should be accurately cut to fit, and should not be forced into place.



12. WINDOWS in new construction, can be cut out after SHEETROCK Wallboard is applied. Where sash is already in place, make cutouts before application.



13. RESURFACING OLD WALLS AND CEILINGS—Remove all loose and poorly bonded plaster. Voids must be brought into a reasonably continuous plane with the wall surfaces by nailing SHEETROCK Wallboard in place, cut to fit and shimmed as required. Nail through SHEETROCK Wallboard and existing old surface into studs and joists with 6d cooler type nail spaced 7" on ceilings, 8" on sidewalls.



14. FURRING OLD WALLS AND CEILINGS—SHEETROCK Wallboard is nailed to 1" x 3" furring strips if necessary, shimmed out to a true even plane with wood shingles, spaced 16" o.c. and board applied parallel to strips with end joints staggered. Board is nailed 7" o.c. on ceilings, 8" o.c. on sidewalls with nails recommended for wallboard type and thickness used.

Simple steps to reinforce and conceal **SHEETROCK** Wallboard joints with **PERF-A-TAPE** joint system

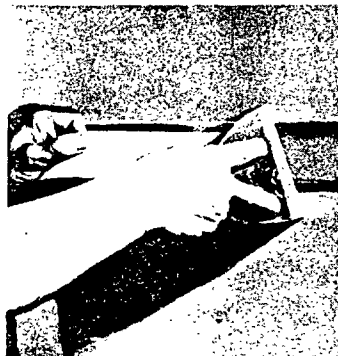
Available in bags containing 250 lineal feet of tape and 18 lbs. of compound, and boxes containing 60 lineal feet of tape plus $4\frac{1}{2}$ lbs. of compound. Compound only, available in 5 lb. and 25 lb. bags.



To reinforce and conceal joints use a 4 or 5 inch wide application knife, mixing bucket, bread pan and PERF-A-TAPE Joint System. (See page 6 for quantities required.)



(A) Mix compound according to directions in the package. Butter the compound into the channel formed by the tapered edges of SHEETROCK, filling channel evenly and fully.



(B) Center PERF-A-TAPE reinforcement and force it into taper with knife held at convenient angle to board. Draw along joint to remove excess compound. Leave sufficient compound under tape for proper bond.



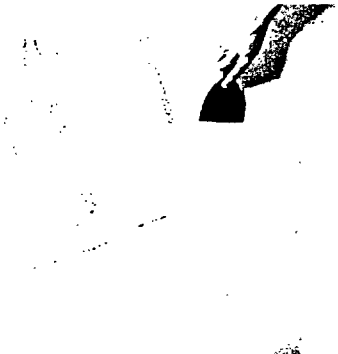
(C) Cover the tape with a thin layer of compound to fill taper flush with face of board. Allow to dry. At this time nail heads should be spotted with first covering coat of compound. (See illustration below.)



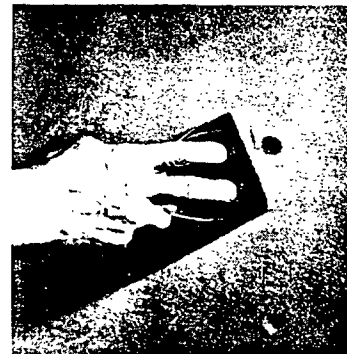
(D) After the first coat has dried (usually next day) smooth with sandpaper. Then cover with second coat, feathering edges of cement at least two inches beyond first coat. Allow to dry.



(E) Sand lightly, then apply a third "finishing" coat level with field of board. This coat should be feathered out at least two inches beyond second coat. After drying, light sanding may be necessary.



(F) Over end joints, application is the same as for tapered edge joint treatment except that the finishing coats of PERF-A-TAPE joint compound must be feathered out approximately 12" on each side of the tape.



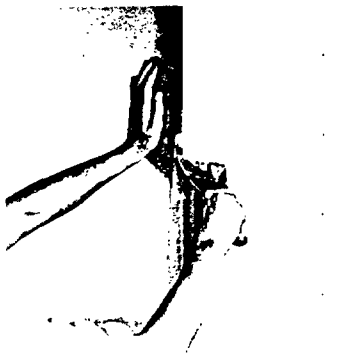
(G) Spotting nail heads. Draw a broad knife across nails. If there is a metallic ring, drive nail home, leaving a dimple in face paper. Fill this depression with compound to level of wall surface. For best results, 3 such fillings are required.



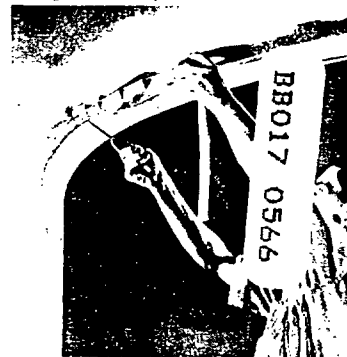
(H) Inside Corner application. Fold tape along center crease. Butter both sides of corner with compound and apply tape. Apply second and third coats the same as to a flat joint.



(I) For best outside corner application, use DUR-A-BEAD* Metal Corner Reinforcement. Apply with gypsum wallboard nails spaced 3" apart, using metal bead as a screed, cover both flanges with PERF-A-TAPE joint compound. Two coats are usually required.



(J) Optional outside corner application. Butter both sides of corner with compound. The PERF-A-TAPE is folded along center crease and embedded in compound. Then apply second and third coats of compound.



(K) Curved edge application. Crease tape in center. Cut in from edge applied to wall as far as crease to make tape flexible, (scissor cuts are about $\frac{1}{4}$ " apart). Embed and apply second and third finishing coats.