GEORGIA-PACIFIC
BESTWALL

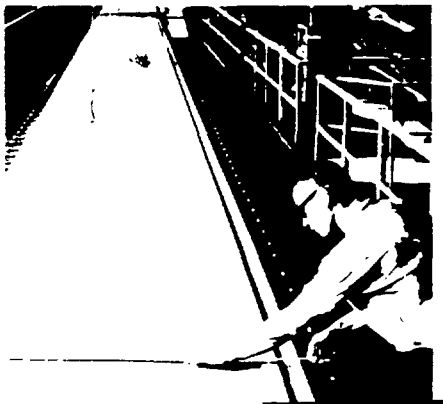
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GYPSUM WALLBOARD

FOR WALL AND CEILING SYSTEMS



- Wallboard Products
- Joint System and Accessory Products
- 1/4" Incombustible Gypsum Sound Deadening Board
- G-P/Eternawall™
- Tile Backer Board
- G-P Bestwall Steel Stud Details
- Technical Data
- Construction Systems
- Ceiling and Floor Assemblies



PLAINTIFF'S EXHIBIT

GP-1509

1 WALLBOARD PRODUCTS

Products	Thickness	Widths	Lengths	Edge	Description
G-P/Bestwall Regular Wallboard	¼" ⅜" ½" ⅝"	4'	6' to 16' in even feet	T, S, B	G-P/Bestwall Regular Gypsum Wallboard is manufactured with Tapered or Square Edges and faced with a strong, cream-colored paper which will accommodate any type of decorative treatment. The back paper, which is gray, is as strong as the face paper. The ½" and ⅝" wallboard with Tapered edges is recommended for single layer application in new construction. Tapered edges are designed to be reinforced with G-P/Bestwall Joint System products which lend itself to a smooth, seamless surface. Square edges are recommended for use where exposed joints are acceptable. The resistance to fire exposure and sound transmission increase with the use of greater board thickness and the number of layers of board used. (See the Technical Data Charts on pp. F/10 thru F/13.)
G-P/Bestwall Firestop®	½" ⅝"	4' (2' on order)	6' to 16' in even feet	T, S, B	G-P/Bestwall Firestop carries a 45 minute to 3 hour fire resistant rating in various wood and steel wall and floor/ceiling assemblies. Unexpanded vermiculite in the core, balances gypsum shrinkage by expanding when exposed to heat, while the textile glass filaments keep the core intact even after its chemically combined water has been released, giving a thermal stabilized core. See pages F/10 thru F/13 for fire resistive ratings obtained by various Firestop assemblies.
G-P/Bestwall ¼" Gypsum Sound Deadening Board	¼"	4'	8'	S	G-P/Bestwall ¼" Incombustible Gypsum Sound Deadening Board meets the requirements of the most sophisticated sound control systems available with the added convenience of being one of the easiest sound control materials to install. It is designed and formulated for high sound transmission loss, structural strength and incombustibility. It has a distinctive green face paper. When applied over 2½" steel studs or 2 x 4 wood studs, one layer of ½" G-P/Bestwall Firestop Type XXX over one layer of ¼" Gypsum Sound Deadening Board gives a 1-hour fire resistive wall and a 45 S.T.C. Refer to the brochure "Sounds Great" for other assemblies with S.T.C. ratings up to 55.
G-P/Bestwall Regular Tile Backer Board	½"	4'	8', 11' 12'	T	This is a water-resistant gypsum product with a light blue face paper, designed for use as a base for the adhesive application of ceramic, metal or plastic tile. The gypsum core consists of incombustible gypsum rock, combined with an emulsion giving high water resistance. This new G-P/Bestwall product is ideal for bathrooms, kitchens, powder rooms and other moisture areas. G-P/Bestwall Tile Backer Board can be erected as easily as wallboard and requires no finishing of joints or nail heads with joint treatment nor further waterproofing under tile applied adhesively unless required by local code.
G-P/Bestwall Firestop Tile Backer Board	⅝"	4'	8', 11' 12'	T	This contains the factory treated water-resistant core and treated face and back paper plus the addition of unexpanded vermiculite and glass fiber reinforcement which gives increased fire protection and strength. Where fire rated assemblies are required in areas subject to moisture, such as partitions between bathrooms and other interior areas, most building codes allow the use of G-P/Bestwall Firestop Tile Backer Board. The use of ⅝" Firestop Tile Backer will give a 1 hour fire rating.
G-P/Bestwall Regular Insulating Wallboard	⅜" ½" ⅝"	4'	6' to 16'	T, S	Regular Insulating Gypsum Wallboard is regular gypsum wallboard, with bright aluminum foil laminated to the back surface. In a single layer application it provides the advantages of regular gypsum wallboard plus having effective insulation and vapor barrier qualities. A separate and continuous vapor barrier automatically ascends on the warm side of the wall when G-P/Bestwall Insulating Gypsum Wallboard is applied. The aluminum foil, facing a ¾" minimum space, reflects 90% of radiant heat, providing insulation qualities equal to ½" of fiberboard insulation (tested by U.S. Bureau of Standards). Panels must be installed with foil side against the studs. To have reflective insulation value, FHA requires the foil to face a minimum air space of ¾".
G-P/Bestwall Firestop Insulating Wallboard	⅝"	4'	6' to 16'	T, S	This is the regular insulating gypsum wallboard with the addition to the core of unexpanded vermiculite and glass fiber content for increased fire protection. Through the proper use of this product desired fire-rated assemblies can be achieved.
G-P/Bestwall Regular Eternawall™— Vinyl Surfaced Wallboard:					
Standard Line	½" (Special order ⅜" & ⅝")	4'	8' (Other lengths available on special order.)	V, S	Colors—Avocado, Gold, Flax, White, Beige, Stucco, Buff, Willow Green, Fawn, Snowdrift White, Alabaster, Tangerine, Cherry, Pecan and American Walnut. This panel has the vinyl surface factory laminated to Regular Gypsum Wallboard. Available in a variety of colors and textures, it provides beauty and utility to commercial, institutional and home interiors. Eternawall is strong and resilient. The solid gypsum core is incombustible. It has a standard flame spread of 30, with a rating of 25 available on special order. Eternawall colors won't fade. The deep linen-textured vinyl surface can be scrubbed without damage to color, texture or design. Because of its ability to take hard wear and to resist stains, Eternawall is ideal for restaurants, hotels, clubs, and hospitals as well as home use. It is also ideally suited for movable partitions.
Decorator Line	½" (Special order ⅜" & ⅝")	4'	8' (Other lengths available on special order.)	V, S	Colors—Available in 15 patterns and over 200 decorator colors. Samples available upon request. The lowest cost for Decorator Line panels is based on a minimum order of 12,000 sq. ft. in one color and pattern. Allow eight weeks lead time. **Note:** "Monolithic" type Eternawall is available in both the standard and decorator colors on special order of 12,000 sq. ft. or more, in one color or pattern. Allow 12 weeks lead time.

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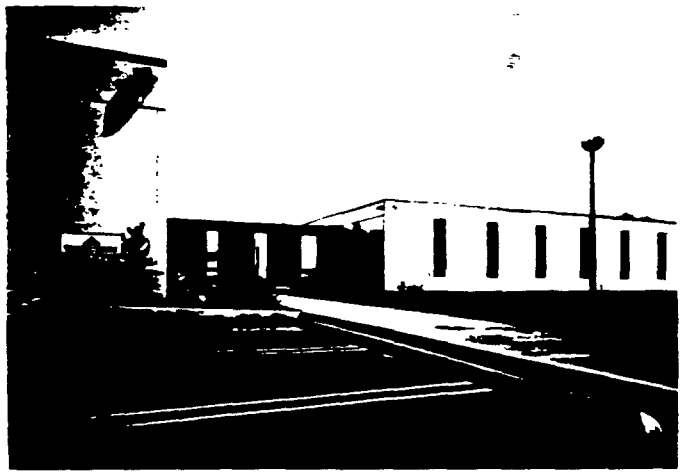
For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Products for Interior Paneling

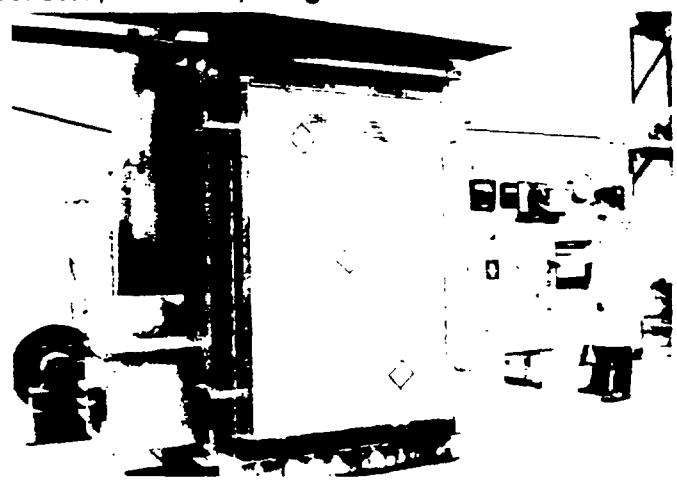
Products	Thickness	Widths	Lengths	Edge	Description
G-P/Bestwall Firestop Eternawall—Vinyl Surfaced Wallboard	½″ ⅝″	4′	8′ (other lengths available on special order.)	V, S	This panel has the vinyl surface factory laminated to a Firestop panel which has unexpanded vermiculite and glass fibers added to the core to give it additional fire resistance. With this technically designed gypsum core, a 1 hour or greater fire rating may be obtained on wall assemblies. Same colors available as with regular Eternawall. Flame spread of 25 available on special order.
G-P/Bestwall Firestop Gypsum Sheathing	½″	2′ and 4′	8′ and 9′	S, T & G	**Treated**—G-P/Bestwall Firestop Gypsum Sheathing consists of incombustible gypsum rock combined with an asphalt emulsion to provide high resistance to water. All G-P/Bestwall Firestop Gypsum Sheathing meets ASTM C79-67, including requirement for water resistance. This eliminates the need for building paper (except where required by local building code). An **untreated** gypsum sheathing is available. The 2′ wide sheathing is made with precision-cut tongue and groove edges to provide a structurally strong and stable wall. "V" tongue and groove edges fit snugly, minimizing wind infiltration. The 4′ wide square edge sheathing, applied vertically, completely eliminates the need for corner bracing. It is designed to meet requirements of FHA Technical Circular 12.
G-P/Bestwall Gypsum Firestop Backer Board	½″ ⅝″	2′ and 4′	8′ to 16′	S, T & G	G-P/Bestwall ⅝″ Firestop Gypsum Backer is used as a backing for decorative surface treatments of acoustical plasters, tile, plywood and various veneers. A single layer application of ⅝″ G-P/Bestwall Firestop Gypsum Backer on both sides of wood or steel framing, enables loadbearing or non-loadbearing wall assemblies to resist temperatures rising to 1700° F. in the ASTM standard time temperature curve for one hour. Firestop Gypsum Backer consists of a gypsum core with unexpanded vermiculite, reinforced with literally miles of high tensile strength glass fibres, firmly bonded to a fibrous gray paper on both sides.
G-P/Bestwall Regular Backer Board	⅜″ ½″ ⅝″	2′ and 4′	8′	S	G-P/Bestwall Gypsum Backer, designed for first or base layers in field lamination of gypsum wallboards, acoustical tile and other compatible materials with adhesives, provides low cost, level surfaces for further decorative treatments. It may be applied over loadbearing or non-loadbearing wood or metal framing with nails, screws or staples.
G-P/Bestwall 1″ Coreboard	1″	2′	Custom cut up to 14′	S, T & G	1″ Gypsum Coreboard is available in two styles. a. A homogenous core with a tongue and grooved joint. b. Two layers of ½″ backer board, laminated. 1″ Gypsum Coreboard is used for the core material in various, all-gypsum partition assemblies.
G-P/Bestwall Grid Board	⅜″	23¾″	23¾″	S	Regular G-P/Bestwall Wallboard is fabricated as an economical, lay-in panel, for suspended ceiling systems. Vinyl covered available on special order.

G-P Wallboard Edges T—Tapered S—Square B—Beveled (Special Order) V—Modified Beveled Edge

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GEORGIA-PACIFIC GYPSUM RESEARCH LABORATORY, Portland, Oregon





THIS IS WHERE NEW PRODUCTS DEVELOP! No matter how great a product is, it still must change to meet the needs of tomorrow. In gypsum, this means better fire control, better sound control and better products that will conform to the higher standards of tomorrow's construction.

2 JOINT SYSTEM PRODUCTS



G-P/Bestwall — Triple Duty Joint Compound

G-P/Bestwall Triple Duty Wallboard Joint Compound is a vinyl multi-purpose joint system product. A single bag offers taping, topping and texturing. It can be used for all coats in the reinforcing and concealing of joints in gypsum wallboard construction. The binder in Triple Duty, being a vinyl, gives this product a wet life of 30 to 60 days duration. This allows pre-mixing in large quantities prior to application. Triple Duty can be applied using standard hand or mechanical tools. There is low shrinkage and it is easily sanded. When the application is completed, the surface is ready for priming and decoration as desired with no further preparation necessary. **Coverage:** 60 lbs. per 1,000 sq. ft. (12-50 lbs. per 1,000 sq. ft. when used as a texturing material.)

Lb. Package—25 and 50

G-P/Bestwall — Bedding, Topping Compound

G-P/Bestwall Joint System products are designed to conceal joints and nail heads and "surface-weld" wallboard panels together. Properly used, these products assure smooth, seamless appearance of walls and ceilings, with joints as strong as the wallboard itself.

Bedding Compound — Designed to provide maximum adhesion of tape to the joints. It spreads smoothly and may be hand or machine applied. **Coverage:** 15 lbs. per 1,000 sq. ft. (Used in conjunction with 45 lbs. of Bestwall Topping Compound.)

Topping Compound — Used for finishing taped joints and spotting nail heads. Sanding is unnecessary if carefully applied. It is long working with low shrinkage. **Coverage:** 45 lbs. per 1,000 sq. ft. (Over 15 lbs. of Bestwall Bedding Compound.)

Lb. Package—25

G-P/Bestwall — Ready Mix Joint Compound

Ready Mix Joint Compound is an easy-working material for the filling of joints, and embedding the joint reinforcing tape in gypsum wallboard construction. Furnished in cans and cartons ready to use, this stable, all-purpose compound is also excellent for use in covering nail heads and forming interior and exterior angles. Ready Mix Joint Compound assures a standard mixture for uniform workability throughout the job. It has a long wet life and will not spoil even when the container is left opened. Ready Mix Joint Compound is completely compatible with the G-P/Bestwall 1-Day Wallboard Joint Compound and may be used for the topping coat over G-P/Bestwall 1-Day Wallboard Joint Compound. Ready Mix Joint Compound produces an excellent surface for any type of decoration. For best results, the surface should be primed before being decorated.

Package—1 and 5 gal. cans, 4 gal. cartons

G-P/Bestwall — All Purpose Joint Compound

G-P/Bestwall All Purpose Joint Compound is used for bedding tape, topping, corner bead, nail spotting and texturing. When taping be sure the compound under the tape, and the first coat over the tape is thoroughly dry before applying the next coat over the joints. When used for texturing, for best results, apply a vinyl primer to the entire area before texturing. The texture may be applied with a roller, sponge, brush or other suitable implement depending on the type of configuration desired. **Coverage:** 60 lbs. per 1,000 sq. ft.

Lb. Package—25; 18 lbs. with 250′ tape

G-P/Bestwall — One Day

G-P/Bestwall 1-Day Wallboard Joint Compound makes possible the taping and finishing of all wallboard joints within a single day. It is used for all coats preceding the final coat. The compound, a "setting" material, rather than the conventional drying type material, is formulated to set and harden in 2½ to 3 hours. When hardened, G-P/Bestwall 1-Day Wallboard Joint Compound **will not shrink.** This solves a major problem of wallboard installation, by eliminating days of heating unfinished homes and buildings, time lost traveling to and from jobs, and long delays while waiting for conventional materials to dry and harden. And because there is no shrinkage, quantity of compound and number of coast applied, may be reduced. For best results, use a primer sealer over surface before painting or texturing.

Lb. Package—25

G-P/Bestwall — Laminating Compound

G-P/Bestwall Laminating Compound is an exclusive product formulated to assure adhesion between sheets of wallboard. It is a casein base dry powder product, requiring addition of water only. Easy to mix and easy to apply, it forms a permanent, positive bond. G-P/Bestwall Laminating Compound has been proven effective through many years of actual field use. **Coverage:** Approx. 35 lbs. per 1,000 sq. ft.

Lb. Package—25

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 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Products for Interior Paneling."



G-P/Bestwall — Grabit

G-P/Bestwall Grabit is an adhesive which permits direct attachment of gypsum wallboard to masonry walls. It may be used on poured concrete, cinder block or concrete block walls which are reasonably straight and true and are free from surface treatment, decorations, or protrusions. Grabit may be used on exterior walls which are above grade level without waterproofing. Grabit can be used to adhere gypsum wallboard to polystyrene insulation material.
Adhesion is secure and permanent, with no need for furring strips or fasteners. After being mixed with water as directed. Grabit can be applied with blade or caulking gun. Only four 1" ribbons are needed for each 4' wide wallboard panel. The adhesive fills in all normal irregularities in the masonry. In 3 to 4 hours, Grabit sets hard, and joint taping and finishing operations may then be started. This adhesive may be used wherever there is need to attach gypsum wallboard to masonry walls: in homes, apartments, hotels, offices, and plants. **Coverage:** Up to ¼ lb. per sq. ft. depending on roughness of base surface.

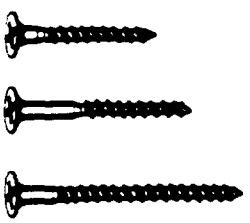
Lb. Package — 50



G-P/Bestwall — Texturing Materials

G-P/Bestwall Bestex A, B, C and D are texture materials designed to produce various texture finishes over drywall construction.
Bestex A—contains no aggregate and can be used for both hand and spray application to produce textures such as stipple, swirl, spatter and orange peel finishes.
Bestex B—contains a small amount of aggregate and produces medium coarse textures such as sand finishes.
Bestex C—contains a large amount of aggregate and is used for coarse textures such as simulated acoustic finishes.
Bestex D—a texture with coarse aggregate for simulated acoustic ceilings.
B, C and D textures are for spray application only. All three textures produce hard surfaced, white, decorative finishes that have excellent light reflective qualities and hiding power. If desired, Bestex textures can be painted with latex or vinyl paint. **Coverage:** Bestex A-12-50 lbs. per 1,000 sq. ft. depending upon texture. Bestex B, C and D Finishes approx. 300 to 500 sq. ft.

Lb. Package — Bestex A 25 lb., Bestex B, C, D, 40 lb.



G-P/Bestwall — Drywall Screws

G-P/Bestwall Drywall screws are now available in a variety of sizes for every type of wallboard application. These screws are designed especially for drywall construction whether it be gypsum to gypsum, gypsum wallboard to metal or gypsum wallboard to wood framing. The special patented bugle head screws used when attaching wallboard, reduces the possibility of damaging the paper and produces a uniform depression for proper and easier spotting. The self-tapping quality of the screws effect rapid application when attaching wallboard to metal studs.

SPECIFICATIONS FOR WALLBOARD JOINT TREATMENT

Scope

All walls and ceiling surfaces are included. Furnish all labor and material necessary to reinforce and conceal joints between gypsum wallboards and cover nailheads in a first-class workmanship manner.

Materials

1. One-Material Treatment—G-P/Bestwall Joint System Compound Triple Duty Joint Compound, or G-P/Bestwall Ready Mix Joint Compound. Used for bedding and for spotting nailheads.

2. Two-Material Treatment—Apply G-P/Bestwall Wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix Joint Compound, One Day Wallboard Joint Compound or Bedding Compound, and embed tape leaving uniform thickness of material under tape. Cover nail or screw heads in field of board at each application of material in joints.

(If joints are irregular or have wide cracks in some places and boards are not in same plane apply G-P/Bestwall Wallboard Joint Compound, Triple Duty Joint Compound, G-P/Bestwall Bedding Compound to taper edge joints, end joints and nail heads. Shear off surplus leaving no material on high edges. Allow 12 hours drying before taping, leaving uniform depth of taper for uniform shrinkage of joint finishes over and under tapes.)

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Jointwork

When compound has dried completely, cover taped joints with Wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix or Topping Compound. (When 1-Day Wallboard Joint Compound is used, the taped joint can be covered as soon as initial coat is set and before it is dry.) Shear off surplus leaving uniform coverage over tape with edges well feathered.

When preceding coats are completely dry (where 1-Day is used it is only necessary for it to be hardened, not completely dry) cover joints second time with Wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix Joint Compound, or Topping Compound. Shear off surplus leaving smooth, well feathered joint.

For best results and more uniform suction for decoration apply skim coat of wallboard Joint Compound, Triple Duty Joint Compound, Ready Mix Joint Compound or Topping Compound over entire surface shearing off excess material tightly.

3 ¼" INCOMBUSTIBLE GYPSUM SOUND DEADENING BOARD

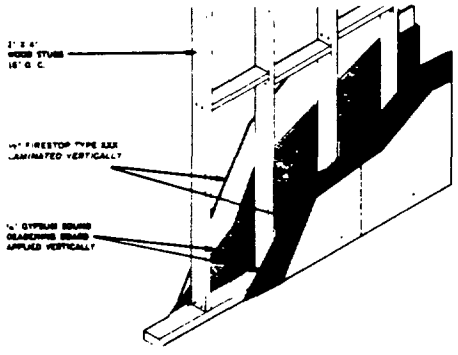
Bestwall Gypsum Sound Deadening Board meets the requirements of the most sophisticated sound control systems available with the added convenience of being one of the easiest sound control materials to install.

Only ¼" in thickness, Bestwall Gypsum Sound Deadening Board is specially designed and formulated for high sound transmission loss, not to mention its contribution towards the structural strength and fire resistance of a construction.

¼" Gypsum Sound Deadening Board has been sound tested in several assemblies with excellent results. Below are examples of the significant results. Others are listed under Technical Data, pages 10 through 13.

For test data on other wall assemblies, write for the brochure "Sounds Great"

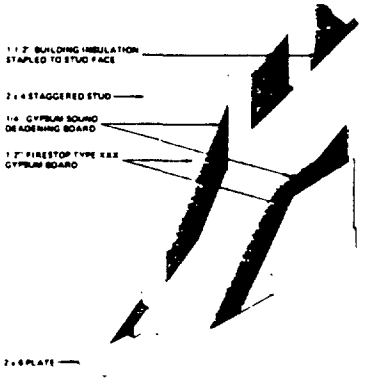
WOOD STUD PARTITION
STC 45
FIRE RATING
1 Hr. Combustible
Test UL No. 30



SOUND TEST DATA
Test No.: BW-27FT
Date: July 6, 1967
Conducted By: Geiger & Hamme, Inc.
Test Partition: Height: 9'
Width: 14' ½"
Thickness: 5⅜"
Weight: 7.60 lbs./sq. ft.
Sound Transmission Class 45
9 Frequency Average 43.1
11 Frequency Average 45.6

1. Nail 2" x 4" wood studs 16" o.c. to 2" x 4" wood plates at the floor and ceiling.
2. Apply a single layer of ¼" Bestwall Gypsum Sound Deadening Board vertically to both sides and secure with 5d-c.c. nails spaced 12" at studs and plates. Joints should be staggered.
3. Apply a single layer of ½" Bestwall Firestop Type XXX wallboard or Firestop Eternawall vertically to both sides, over the ¼" Gypsum Sound Deadening Board, by strip laminating with G-P Bestwall Laminating Compound. Vertical joints of the ½" Firestop should fall between the wood studs and should be nailed at top and bottom plates using 4d coated nails spaced 6" o.c.
4. Tape and finish in the approved manner

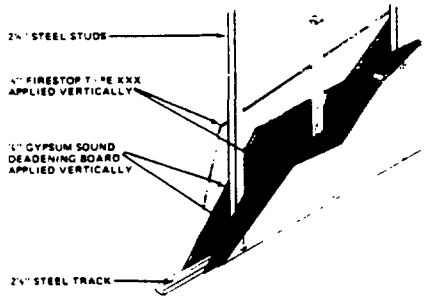
STAGGERED WOOD STUD PARTITION
STC 52 (with insulation)
STC 47 (no insulation)
FIRE RATING
1 Hr. Combustible (Est)



SOUND TEST DATA
Test No.: BW-29ST (no insulation)
Test No.: BW-30ST (with insulation)
Dates: March 29, 1968-April 5, 1968
Conducted By: Geiger & Hamme, Inc.
Test Partition:
Height: 9' 0" Weight
Width: 14' ½" 8.79 lbs./sq. ft.—(no insulation)
Thickness: 7⅛" 8.92 lbs./sq. ft.—(with insulation)
Sound Transmission Class 47 (no insul.)
Sound Transmission Class 52 (with insul.)
9 Frequency Average 43.6 (no insul.)
9 Frequency Average 47.7 (with insul.)
11 Frequency Average 45.2 (no insul.)
11 Frequency Average 48.9 (with insul.)

1. Nail 2" x 4" wood studs staggered 8" o.c. on opposite sides of 2" x 6" wood plates.
2. Apply single layer of ½" Bestwall Gypsum Sound Deadening Board vertically to both sides, joints offset 8" on opposite sides by nailing with 4d nails 12" o.c. at studs and plates.
3. Apply a single layer of ½" Bestwall Firestop Type XXX wallboard vertically to both sides over the ¼" Bestwall Gypsum Sound Deadening Board by strip laminating 16" o.c. with Laminating Compound. Vertical joints of ½" Bestwall Firestop Type XXX should fall between the wood studs on each side and should be nailed at top and bottom plates with 5d nails 6" o.c.
4. Tape and finish in the approved manner.
5. On Test BW30ST with STC 52, 1½" insulation is applied in stud cavity with vapor barrier stapled to stud face.

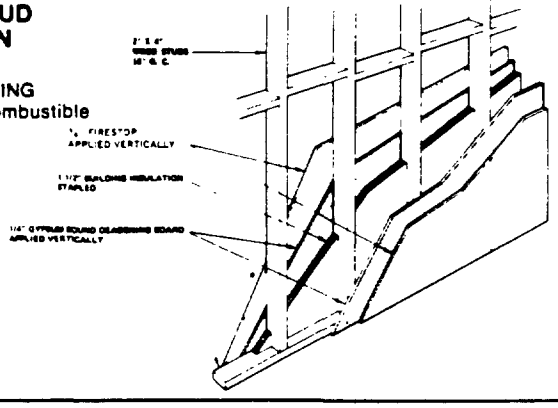
METAL STUD PARTITION
STC 45
1 Hr. Incombustible #T3854
1 Hr. Incombustible UL No. 32



SOUND TEST DATA
Test No.: BW-16FT
Dated: July 21-28, 1966
Conducted By: Geiger & Hamme, Inc.
Test Partition: Height: 9'
Width: 14' ½"
Thickness: 4"
Weight: 7 lbs./sq. ft.
Sound Transmission Class 45
9 Frequency Average 44.3
11 Frequency Average 46.9

1. Set Bestwall 2½" steel studs 24" o.c. into Bestwall 2½" floor and ceiling track.
2. Apply ¼" Bestwall Gypsum Sound Deadening Board vertically to both sides of partition and secure with Bestwall 1" Type S drywall screws spaced 12" o.c. Stagger joints.
3. Apply ½" Bestwall Firestop "Type XXX or Firestop Eternawall" vertically both sides, joints staggered to the ¼" board using 1¼" Type S drywall screws 12" o.c. at the joints and 24" o.c. in the field.
Alternate Method—1 Hour Incombustible U.L. No. 32: The face layer of ½" Firestop Type XXX or ½" Firestop Eternawall may be strip laminated without fasteners except at the top and bottom track. Use 1⅜" Type S screws spaced 8" o.c. at top and bottom track.
4. Tape and finish in the approved manner.

WOOD STUD PARTITION
STC 50
FIRE RATING
1 Hr. Combustible



SOUND TEST DATA
Test No.: BW-35ST
Dated: April 3, 1969
Conducted By: Geiger & Hamme, Inc.
Test Partition:
Height: 9' Weight:
Width: 14' ½" 8.6 lbs./sq. ft.
Thickness: 5⅜"
Sound Transmission Class 50

1. Nail 2" x 4" wood studs 16" o.c. to 2" x 4" wood plates at floor and ceiling.
2. Staple 1½" thick economy Fiberglass batts to studs.
3. Apply single layer of ¼" G-P/Bestwall Gypsum Sound Deadening Board vertically to both sides and secure with 4d. nails spaced 12" o.c. at studs and plates. Joints to be staggered on opposite sides.
4. Apply a single layer of ⅝" G-P/Bestwall Firestop Type X wallboard or Firestop Eternawall vertically to both sides over the ¼" G-P/Bestwall Gypsum Sound Deadening Board by strip lamination 16" o.c. with G-P Laminating Compound. Compound is 2" inward from wallboard edge. Vertical joints of ⅝" should be offset 24" from ¼" board joints. Nail top and bottom plates with 6d nails 6" o.c.

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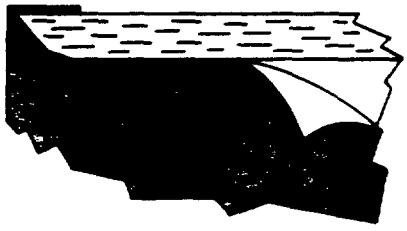
 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Products for Interior Paneling"

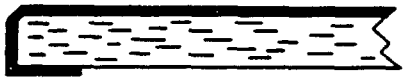
4 ETERNAWALL

VINYL SURFACED GYPSUM WALLBOARD

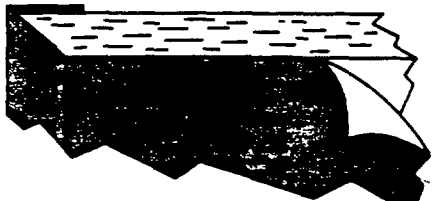


Edge and Joint Treatment





BEVELED EDGE





SQUARE EDGE

Technical Data

1. Scope. This specification covers a high quality washable vinyl sheeting intended for use as wall-surfacing material.
2. Thickness. (Unsupported vinyl) .008".
3. Weight. 1.00 oz./sq. ft.
4. Composition. A vinyl compound of Polyvinyl Chloride resin combined with plasticizers, pigments and stabilizers to produce a durable, resistant surface.
5. Abrasion Resistance. (ASTM D1044—500 cycles, CS-17 wheels)
   a. Maximum weight loss—50 milligrams;
   b. Print wear off—no loss of print.
6. Accelerated Light Aging. (Fadeometer—ASTM 120 hours exposure). No appreciable discoloration or stiffening.
7. Washability. Good: no effect on the surface or stiffening when cleaned with mild or common household cleaners.
8. Panel. Thickness ¼", ⅜", ½", ⅝" Regular Gypsum Wallboard, ½" and ⅝" Firestop Gypsum Wallboard. Sizes: 4' x 7' to 4' x 16' in one foot increments. Special lengths on request. Special size (length and width) Eternawall partition board available on special order basis.
9. Fire Hazard Classification. ½" and ⅝" wallboard consisting of a gypsum core, surfaced on both sides with paper or with a vinyl facing on one side.

	Without Vinyl Facing	With Unsupported Vinyl Facing	With Supported (Fabric Backed) Vinyl Facing
Flame Spread	15	30	25
Fuel Contributed	15	10	10
Smoke Developed	0	60	40

SOURCE: Underwriters' Laboratories, Inc., Building Materials List, January, 1969.

Specifications

All vinyl surfaced gypsum wallboard indicated on the drawings shall be Georgia-Pacific Eternawall™ as manufactured by the Gypsum Division of Georgia-Pacific Corporation. The panel construction shall consist of an 8 mil unsupported vinyl sheeting of wall surfacing grade factory laminated to G-P Regular or Firestop™ Gypsum Wallboard. The long panel edges shall be (beveled, square) and completely wrapped with vinyl. The colors and patterns shall be as selected from the Standard (or Decorator) Line of Eternawall.

SGP 0022868

Application

Demountable wall systems are installed by using any of the appropriate or approved color-matched moldings. To laminate to existing wall surfaces, use G-P Laminating Compound and secure panels mechanically at top and bottom plates. Panels may be applied with adhesive directly to metal studs, wood framing or furring strips. For application directly to masonry walls, use G-P Gract Masonry Adhesive.

WATER RESISTANT WALLBOARD

G-P/Bestwall Tile Backer Board is a water-resistant gypsum product with a light blue face paper, designed for use as a base for the adhesive application of ceramic, metal or plastic tile. The gypsum core consists of incombustible gypsum rock, combined with an emulsion giving high water resistance. This new G-P/Bestwall product is ideal for bathrooms, kitchens, powder rooms and all high moisture areas.

For fire rated partitions between bathrooms or interior areas subject to moisture use ⅝" Firestop Tile Backer proven by Underwriter's Laboratories in a 1-Hour assembly over wood studs.

The raw edges of Tile Backer Board (end joints, cut edges, cut-outs) are to be caulked with an approved waterproof non-hardening caulking compound. As an alternate to caulking, G-P can provide a special 2½" wide self-adhering vinyl tape to place over edges and cut-outs.

1. Scope of work

A. G-P/Bestwall Tile Backer Board shall be applied, as a base for (ceramic) (metal) (plastic) tile, to all wall areas where such tile serves as the finished decorative surface (and/or water barrier).

B. The contractor shall supply all tools, materials, and labor necessary and required to complete all work included in this section.

C. Adequate blocking for (tub) (prefabricated receptor) (sub pan) etc., is covered in section on Framing.

D. All materials shall be new, and used in strict accordance with the manufacturer's directions.

2. Materials

A. ½" thick G-P/Bestwall Tile Backer Board, manufactured by Georgia-Pacific Gypsum Division.

B. G-P/Bestwall Vinyl Tile Backer Board Tape, marketed by Georgia-Pacific Gypsum Division.

C. GWB =54 1¼" ring shank nails or equal.

D. Screws, if used as an alternate method of fastening, shall be 1" long drywall screws.

E. Temporary strip or shim of wood or a specially designed permanent metal section.

3. Workmanship

A. All framing members shall be rigidly fastened, plumb, and true.

B. Installation of (tub) (prefabricated receptor) (sub pan) shall have been completed prior to erection of Tile Backer Board.

C. Studs shall be furred out as necessary, around (tub) (prefabricated receptor) (sub pan) so that the face of the water resistant wallboard, when installed, shall be flush with the upper lip of the (tub) (prefabricated receptor) (sub pan).

D. Tile Backer Board shall be applied horizontally so as to minimize butt joints with paper bound edge along edge of (tub) (prefabricated receptor) (sub pan).

E. The contractor shall use a temporary strip or shim between the edge of Tile Backer Board and the lip of the (tub) (prefabricated receptor) (sub pan). When the temporary strip or shim is removed, a clearance of ¼" shall exist between the edge of the Tile Backer Board and the lip of the (tub) (prefabricated receptor) (sub pan). A metal section especially designed for this purpose may be attached to the framing before the Tile Backer Board is erected.

F. Tile Backer Board shall be fastened to side walls with nails spaced 8" o.c. Where side walls are to be faced with ceramic tile thicker than ¼", nails shall be spaced 4" o.c.

G. Tile Backer Board shall be fastened to ceilings with nails spaced 7" o.c. (adhesive application of tile to wallboard ceilings is not recommended).

H. If adhesive nail-on application is used as an alternate method of fastening, the contractor shall use not less than 2 nails per board width per support.

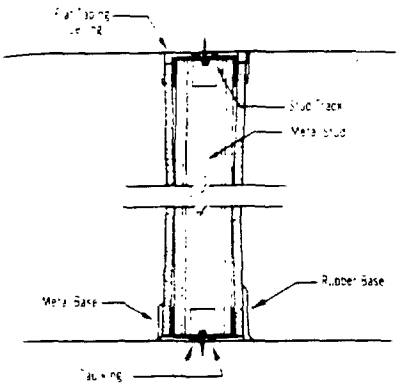
I. Vinyl tape, if used, shall not be applied to side walls and ceilings above the tile line. Tile Backer Board above the tile line shall receive standard joint treatment. This area shall be primed and painted as other painted areas.



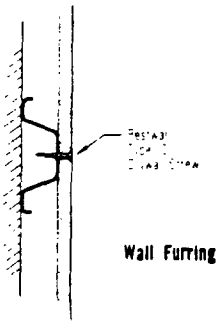


SGP 0022869

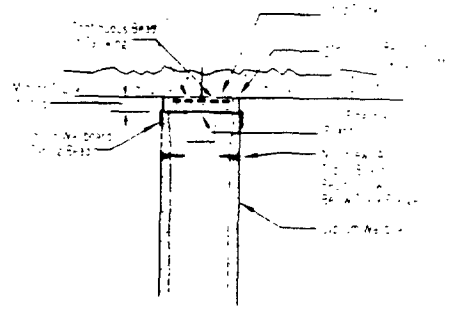
6 STEEL STUD DETAILS



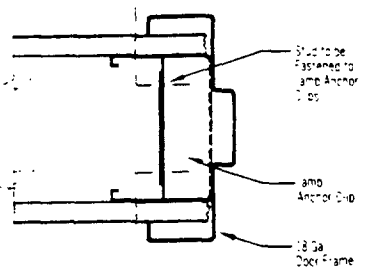
Partition Section Metal



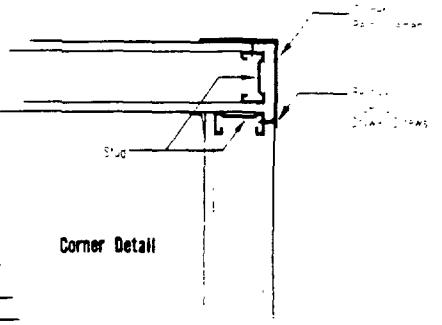
Wall Furring Detail



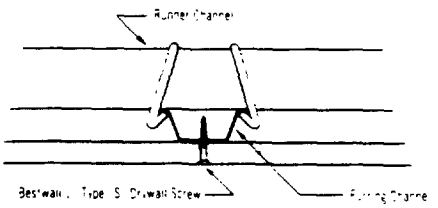
A suggested alternate detail to be used where building movement is anticipated to the extent that the non load bearing partition will be loaded and relief is needed. There are other acceptable methods.



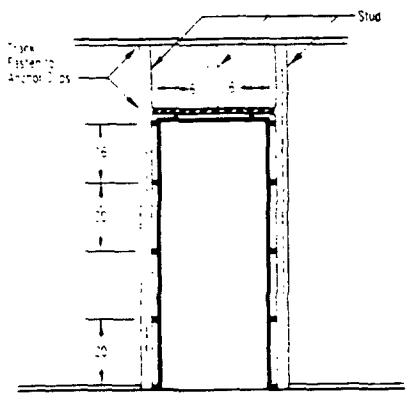
Door Details



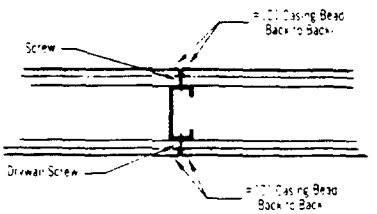
Corner Detail



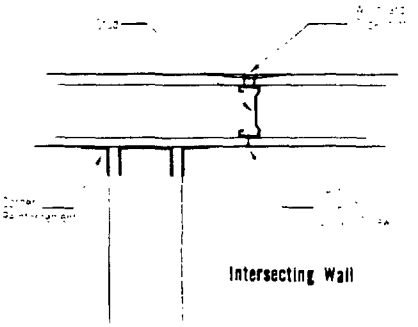
Ceiling Furring Detail



Elevation



A suggested relief joint for long runs of partitions to be provided at 40 ft. maximum centers.



Intersecting Wall

SGP 0022870

GYPSUM WALLBOARD CONSTRUCTION WALLS AND COLUMNS

STUD SIZE	THICKNESS	WEIGHT LB/SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS 125	250	500	1000	2000	4000	STC	SOUND TRANS. CHAR. 9 FREQ. AVG. 2	SPEECH PRIVACY RANGE 3	TEST REF.	FIRE RESIST. RATING 4	TEST REF.	MODEL BUILDING CODE APPROVALS 5
NAILABLE STEEL STUDS (Loadbearing 3⅝"—24" o.c.)																
3⅝"	4⅛"	6.5	⅝" Bestwall Firestop, 1 layer each side	—	—	—	—	—	—	47	44	—	—	1 Hr.	T-209	ABC
SCREW TYPE STEEL STUDS (Non-loadbearing 1⅝"—2½"—3⅝"—24" o.c.)																
1⅝"	2⅛"	5.2	⅝" Bestwall Firestop, one layer each side	25	29	35	35	40	41	44	43	33	36	44	35	36	—	TL-62-72	1 Hr.	T-2316	ABC
1⅝"	2⅛"	0.0	⅝" Bestwall Firestop, plus 1½" fiber glass insulation in stud space	21	32	36	43	49	53	55	53	43	44	49	44	42	50	OR-64-81	1 Hr.	EST	——
1⅝"	3⅛"	8.4	⅝" Bestwall Firestop, 1 layer one side, 1½" fiber glass insulation in stud space, 1 layer ⅝" Bestwall Firestop over 1" core board other side	30	38	43	49	51	54	55	54	51	50	53	52	47	52	OR-64-61	1½ Hr.	EST	——
1⅝"	3⅛"	7.2	⅝" Bestwall Firestop, one layer, other side two layers, 1½" fiber glass insulation in stud space	29	37	40	46	51	54	57	54	46	48	53	48	46	52	OR-64-80	1½ Hr.	EST	——
2½"	3½"	—	½" Bestwall, one layer each side	14	23	24	30	34	40	47	50	48	38	41	35	33	42	OR-65-2	45 Min.	EST	——
2½"	3½"	4.3	½" Bestwall Firestop, one layer each side, 2" fiber glass insulation in stud space	18	26	33	40	47	52	56	55	55	45	45	41	41	55	OR-66-5	1 Hr	EST	——
2½"	3⅛"	—	⅝" Bestwall Firestop, one layer each side vinyl covered (Eternawall)	14	19	23	30	33	39	45	45	45	40	42	35	33	41	OR-64-65	1 Hr.	T-2898	AB—
2½"	3⅛"	—	⅝" Bestwall Firestop, one layer each side	24	23	28	34	40	44	49	49	40	39	45	39	—	—	OR-63-1	1 Hr.	T-2069	A——
2½"	4"	6.3	½" Bestwall Firestop, one layer, other side two layers, plus 2" fiber glass insulation in stud space	25	33	40	46	52	57	60	60	59	52	52	48	47	57	OR-66-6	1½ Hr.	EST	——
2½"	4"	7.0	½" Bestwall Firestop, one layer laminated over ¼" gypsum sound deadening board, both sides screw attached	28.8	29.1	35.8	38.9	45.6	49.4	52.1	57.5	61.4	60.5	57.2	45	44.3	54.4	BW-16-FT	1 Hr.	UL32	——
2½"	4"	7.12	½" Bestwall Firestop, laminated one layer over ¼" gypsum sound deadening board, screw attached, both sides, plus 2" fiber glass friction fit in stud space	33	32	42	48	54	53	54	59	63	62	59	50	48.7	57.5	BW-17-FT	1 Hr.	UL32	——
2½"	4⅛"	8.12	⅝" Bestwall Firestop, one layer laminated over ⅛" gypsum sound deadening board, both sides, screw attached, plus 2" fiber glass friction fit in stud space	32	39	44	48	55	55	57	60	63	62	60	54	50.2	58.7	BW-18-FT	1 Hr.	UL32	——
2½"	4½"	8.0	½" Bestwall Firestop, two layers each side (for sound—add 2" fiber glass insulation in stud space).	24	38	45	49	54	54	51	56	55	53	55	47	45	54.3	BW-12-FT	2 Hrs.	T-3218	ABC
2½"	4⅛"	7.5	⅝" Bestwall Firestop, one layer, other side—two layers	28.5	28	32	36.5	43	47.5	51	51.5	44	45	50	43	40	46	OR-63-2	1½ Hr.	EST	——

WARRANTY:
The assemblies covered above have been developed with due regard to practical construction methods. However, since the Bestwall Gypsum Division does not have any prior knowledge of a specific building design and its construction or the methods of application used with their products, no warranty of performance is made. All of the test results have been obtained under laboratory testing conditions where controlled environment reduces variables to a minimum. In the field, such laboratory conditions are not always met, since many other variables are introduced. Laboratory results may exceed results of field tests, but the laboratory tests under controlled conditions are the only logical way to compare the performance of different assemblies. The Bestwall Gypsum Division of the Georgia-Pacific Corporation makes no warranty that the performance of assemblies in the field will have a performance equal to or better than that developed in the test.

SGP 0022871

 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Products for Interior Paneling."

STUD SIZE	THICKNESS	WEIGHT LB/SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS												SOUND TRANS. CHAR.			FIRE RESIST.		MODEL BUILDING CODE APPROVALS
				125		250		500		1000		2000		4000		STC 1	9 FREQ. AVG. 2	SPEECH PRIVACY RANGE 3	TEST REF.	RATING 4	TEST REF.	
SCREW TYPE STEEL STUDS (Non-loadbearing 2½"—3⅝"—24" o.c.) Cont'd.																					
2½"	5"	10.4	⅝" Bestwall Firestop, two layers, both sides	—	—	—	—	—	—	—	—	—	—	—	—	46	—	—	EST	2 Hrs.	T-2557	AB—
3⅛"	4⅝"	6.0	⅝" Bestwall Firestop, one layer each side	20 5		26		31		37		41.5		46		50	50.5	42	40	48	42	38	45	OR-63-11	1 Hr	T 2016	ABC
3⅛"	5⅛"	8.0	⅝" Bestwall Firestop, one layer, other side two layers	24		25		33		40		46		49		52	51	44	45	50	43	40	48	OR-64-32	1½ Hr	EST	——
3⅛"	5⅛"	8.0	⅝" Bestwall Firestop, one layer, other side two layers, plus 3" fiber glass insulation in stud space	31		37		45		49		52		55		57	55	50	48	51	50	47	53	OR-64-51	1½ Hr.	T-3126	AB—
3⅛"	5⅛"	5.75	⅝" Bestwall Firestop, one layer, other side, one layer over ½" Bestwall sound deadening board	24		26		34		40		47		51		55	55	48	47	53	44	42	50	OR-65-10	1 Hr	EST	——
3⅛"	5⅛"	—	⅝" Bestwall Firestop, one layer over ½" Bestwall sound deadening board, both sides	28		32		39		46		52		56		57	60	55	55	59	49	47	56	OR-65-11	1 Hr	EST	——
3⅛"	6⅛"	11 0	⅝" Bestwall Firestop, two layers each side	28		29		36		44		48		52		55	53	47	51	55	47	44	51	OR-64-52	2 Hrs.	EST	——
3⅛"	6⅛"	11.1	⅝" Bestwall Firestop, two layers, both sides, plus 1½" fiber glass insulation in stud space	36		41		49		51		53		55		56	55	50	52	55	52	50	54	OR-64-50	2 Hrs	EST	——
3⅛"	6⅛"	10 4	⅝" Bestwall Firestop, two layers, (face layer —Eternawall)	31		37		45		49		52		55		57	55	50	48	51	50	47 4	—	—	2 Hrs	T-2406	ABC
SLIP JOINT AT CEILING (2½"—24" o.c.) (Non-loadbearing) — ½" x 12" Gypsum spacers fastened on Quarter points)																					
2½"	3½"	4 3	½" Bestwall Firestop, one layer each side, 2" fiber glass insulation in stud space	18		25		33		39		46		50		53	53	52	43	44	40	40	50	OR-66-7	1 Hr	EST	——
2½"	3½"	3.8	½" Bestwall, one layer each side	15		21		26		32		35		42		47	49	46	39	43	37	34	43	OR-65-1	45 Min	EST	——
METAL STUD (or double row metal studs) Non-loadbearing, 1⅝"—24" o.c.																					
1⅝"	7½"	6.69	½" Bestwall Firestop, laminated 1 layer over ¼" Gypsum Sound Deadening Board; both sides.	30	—	35	—	45	—	54	—	55	—	60		47	44.3	53	BW-33ST	1 Hr EST	—	A ——
1⅝"	7½"	6 84	½" Bestwall Firestop, laminated 1 layer over ¼" Gypsum Sound Deadening Board; both sides, 1½" insulation.	33	—	41	—	50	—	56	—	56	—	61		52	47 9	55	BW-34ST	1 Hr. EST	—	A ——
SEMI-SOLID GYPSUM PARTITIONS (Non-loadbearing 1" x 6"—2½" x 3"—¾" x 6" Laminated Gypsum Ribs—24" o.c.)																					
	BESTWALL HUMMER "B"																				
1"x6"	2⅛"	7.2	⅝" Bestwall Firestop, one layer each side.	21		17		27		34		36		40		39	43	36	36	39	35	32	38 3	BW-8-FT	1 Hr	UL 10	ABC
2½"x3"	4⅛"	7.2	⅝" Bestwall Firestop, one layer, other side, one layer screwed to resilient channels. Plus 2" fiber glass insul. in stud space.	28		39		43		47		50		54		58	57	53	53	57	51	48	54	OR-65-19	1 Hr	EST	——
2½"x3"	4⅛"	7.9	⅝" Bestwall Firestop, one layer over ½" Bestwall S.D. Board—both sides.	28		36		43		46		50		54		58	59	58	57	59	51	48	56	OR-64-57	1 Hr	T-3128	AB—
	BESTWALL HUMMER "C"																				
¾"x6"	2⅛"	7.8	⅝" Bestwall, two layers each side.	23		23		31		36		36		38		39	39	36	36	41	37	34	37	TL-60-131	1 Hr	T-1276	ABC
SOLID GYPSUM BOARD PARTITIONS (Non-loadbearing)																					
	2"	8 1	½" Bestwall, one layer each side, 1" Coreboard	—	—	—	—	—	—	—	—	—	—	—	—	37	—	—	G.A.	2 Hrs	G A	——
	2"	8.1	½" Bestwall Firestop, one layer each side, 1" Coreboard	—	—	—	—	—	—	—	—	—	—	—	—	39	—	—	G.A.	2 Hrs.	G A	——
	2⅛"	9.1	⅝" Bestwall Firestop, one layer each side, 1" Coreboard	—	—	—	—	—	—	—	—	—	—	—	—	36	—	—	G.A.	2 Hrs	EST	——

SGP 0022872

Gypsum Wallboard Construction, Walls and Columns (Cont.)

STUD SIZE	THICKNESS	WEIGHT LB/SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS: 125	250	500	1000	2000	4000	SOUND TRANS. CHAR.: STC	9 FREQ. AVG.	SPEECH PRIVACY RANGE	TEST REF.	FIRE RESIST: RATING	TEST REF	MODEL BUILDING CODE APPROVALS
				1	2	3	4	5	6							
DOUBLE SOLID GYPSUM BOARD PARTITIONS (Non-loadbearing)																
	4"	13.4	½" Bestwall Firestop, 2 layers each side, 1" Rib Coreboard	29 5	31	34.5	37	38	36.5	35	—	42	—	51.5	35	37	—	TR-57-42	2 Hrs	U L 7	ABC
	5"	13.4	½" Bestwall Firestop, 2 layers each side, 1 Rib Coreboard	32	34	37.5	39 5	39.5	38	38.5	—	46 5	—	54	—	40	—	TR-57-43	3 Hrs	U L 5	ABC
	6"	9.5	⅜ Bestwall over ⅜ Bestwall Firestop each side 1 Coreboard	—	—	—	—	—	—	—	—	—	—	—	—	—	—	OR-64-39	1½ Hrs.	U L	——
	6"	13	½ Bestwall over 1 Coreboard each side of 3 air space	31	36	41	47	49	49	49	47	51	56	60	47	46	52	OR-64-39	2 Hrs	T-2575	ABC
TRIPLE SOLID GYPSUM BOARD PARTITIONS (Non-loadbearing)																
	6"	17	½" Bestwall, 1 layer over 1" Coreboard both sides 3" air space with 1" Coreboard centered in air space	29	34	40	45	47	50	54	55	59	60	60	51	46	54	OR-64-58	3 Hrs	EST	——
	6"	17.2	½" Bestwall, 1 layer over 1" Coreboard each side of 3" air space with 1" Coreboard centered in air space and fiber glass insulation in space on 1 side	36	45	49	53	55	56	56	58	60	62	63	58	53	58	OR-64-59	3 Hrs	EST	——
PARTITIONS, METAL FACED (Non-loadbearing)																
	ELWIN G. SMITH AND CO. INC.		½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 12	—B—
	WALCON CORP.		½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs.	U L 10	—B—
	R. C. MAHON CO.		½" Bestwall Firestop, five layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 9	—B—
			½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 5	—B—
			½" Bestwall Firestop, 2 layers, each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	U L 9	—B—
			½" Bestwall Firestop, five layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	U L 7	—B—
	H. H. ROBERTSON CO.		½" Bestwall Firestop, 2 layers, each side	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 8	—B—
			½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 25	——
			½" Bestwall Firestop, four layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 22	——
			½", ⅜" Bestwall Firestop, four layers, ½" F/S, and one layer ⅜" F/S	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	U L 9	——
STEEL COLUMN FIREPROOFING																
			½" Bestwall, 2 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	G A	——
			½" Bestwall, 3 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1½ Hr	G A	——
			⅝" Bestwall Firestop, 1 layer	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr	EST	AB—
			⅝" Bestwall Firestop, 2 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs	U L 8	ABC
			⅝" Bestwall Firestop, 3 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3 Hrs	U L 18	ABC
			⅝" Bestwall Firestop, 4 layers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4 Hrs	U L 26	AB—
PARTITIONS (Wood studs 2" x 4"—16" o.c. using ¼" Gypsum Sound Deadening Board)																
2"x4"	5⅛"	7.96	½" Bestwall Firestop, one layer strip laminated over ½" Gypsum Sounddeadening board, both sides	23	—	39	—	43	—	49	—	59	—	54	45	43.1	52.3	BW27-FT	1 Hr.	U L 30	A——
2"x4"	5⅛"	8.3	⅝" Bestwall Firestop, 1 layer over ½" Gypsum Sound Deadening Board; both sides, laminated.	23	—	39	—	44	—	50	—	52	—	57	47	42.9	50	BW-28ST	1 Hr	U L 30	A——
2"x4"	5⅛"	8.7	⅝" Bestwall Firestop Type X, one layer strip laminated, over ½" Gypsum Sound Deadening Board, both sides, 1½" insulation.	27	—	38	—	48	—	51	—	53	—	56	50	—	—	BW-35	1 Hr.	U L	——
2"x4"	7⅛"	8.79	½" Bestwall Firestop, 1 layer over ½" Gypsum Sound Deadening Board; both sides laminated, staggered studs.	30	—	34	—	45	—	52	—	53	—	56	47	43.4	51	BW-29ST	1 Hr	EST	A——
2"x4"	7⅛"	8.92	½" Bestwall Firestop, 1 layer laminated over ½" Gypsum Sound Deadening Board, both sides, 1½" insulation, staggered studs.	34	—	42	—	49	—	54	—	55	—	60	52	48	54	BW-30ST	1 Hr	EST	A——
2"x4"	10¼"	9.14	½" Bestwall Firestop, 1 layer laminated over ¼" Gypsum Sound Deadening Board, both sides double studs.	31	—	38	—	46	—	52	—	56	—	59	50	44.6	53	BW-31ST	1 Hr	EST	A——
2"x4"	10¼"	9.29	½" Bestwall Firestop, 1 layer laminated over ¼" Gypsum Sound Deadening Board; both sides, 1½" insulation, double studs.	39	—	44	—	52	—	56	—	58	—	61	55	48.9	56	BW-32ST	1 Hr	EST	A——

 For rated fire resistive construction use G-P/Bestwall gypsum products with G-P Paneling. See "Georgia-Pacific Products for Interior Paneling

SGP 0022873

STUD SIZE	THICKNESS	WEIGHT LB/SQ. FT.	WALL SURFACE	SOUND TRANSMISSION CHARACTERISTICS — INDIVIDUAL FREQUENCIES—CPS 125	250	500	1000	2000	4000	STC	SOUND TRANS. CHAR. — 9 FREQ. AVG.	SPEECH PRIVACY RANGE	TEST REF.	FIRE RESIST. — RATING	TEST REF.	MODEL BUILDING CODE APPROVALS
				1	2	3	4	5	6	1	2	3		4		5
PARTITIONS (wood studs 2" x 4"— 16" o.c. Loadbearing except when noted—"N")																
2"x4"	4⅛"	5.2	⅛" Bestwall, both sides	—	—	—	—	—	—	31	—	—	EST	25 Min.	EST	A B C
2"x4"	4⅛"	5.9	½" Bestwall both sides	22	23	28	32	33	41	44	—	46	—	39	—	—	—	BS-234	40 Min.	EST	A B C
2"x4"	4⅛"	6.0	½" Bestwall both sides with Mineral Wool in stud space	—	—	—	—	—	—	—	—	—	—	—	39	—	—	EST	1 Hr.	BMS-92	A B
				—	—	—	—	—	—	—	—	—	—	—							
2"x4"	4⅛"	5.9	½" Bestwall Firestop, both sides	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			—
				—	—	—	—	—	—	—	—	—	—	—	32	—	—	EST	45 Min.	U.L. 1	— B C
2"x4"	4⅞"	7.0	⅝" Bestwall Firestop, both sides	22	16	29	31	33	38	41	41.5	36	36.5	45	34	32	38	OR-64-8	1 Hr.	U.L. 5	A B C
2"x4"	4⅛"	7.0	⅝" Bestwall Firestop, tile backer board, both sides	22	16	27	31	33	38	41	41.5	36	36.5	45	34	32	38	OR-64-8	1 Hr.	U.L. 5	A B C
2"x4"	5⅛"	8.2	⅝" Bestwall, 2 layers, both sides	27	24	31	35	40	42	46	—	53	—	48	—	38	—	BS-225	1 Hr.	G.A.	A — —
2"x4"	5½"	9.5	⅝" Bestwall Firestop, one layer, other side two layers	23.5	19.5	33	34.5	36	40	43	45	40	40	47	37	35	41	CR-64-11	1½ Hr.	EST	—
2"x4"	5⅜"	6.3	⅝" Bestwall Firestop, 1 layer nailed one side 1 layer on resilient furring other side	29.5	28	33	41	45	48.5	52	52.5	44	41	51	44	41	48	OR-64-7	1 Hr.	T-3127	A B C
2"x4"	5⅜"	6.4	⅝" Bestwall Firestop, 1 layer nailed one side 1 layer on resilient furring other side plus fiber glass insulation in stud space	33.5	35	43	50.5	51	54	55	55	54	47.5	53	50	48	53	OR-64-53	1 Hr.	T-3127	A B C
2"x4"	5⅛"	9.9	⅝" Bestwall, 2 layers both sides	—	—	—	—	—	—	—	—	—	—	—	39	39	39	NBS	1½ Hr.	G.A.	A — —
2"x4"	7⅛"	11.0	⅝" Bestwall, 2 layers both sides, staggered studs	42	40	39	40	45	42	45	—	41	—	53	43	43	—	OR-00-0	1½ Hrs.	—	—
2"x4"	5⅛"	8.5	⅝" Bestwall Firestop, over ½" Bestwall Sound Deadening Board both sides	25	30	38	43	47	52	57	58	55	54	59	46	45	54	OR-64-73	1 Hr.	T-3006	A B C
2"x4"	8⅛"	13.4	⅝" Bestwall Firestop, 2 layers each side staggered studs	41	41	41	43	46	48	49	—	41	—	54	45	45	—	BS-244	2 Hrs.	EST	—
2"x4"	6"	8.8	⅝" Bestwall Firestop, 2 layers one side, 1 layer on resilient furring other side	32.5	32	38	44.5	49	52.5	55	56.5	49	45	54	48	45	51	OR-64-15	1½ Hrs.	EST	—
2"x4"	6⅛"	12.0	⅝" Bestwall Firestop, 2 layers each side	26.5	22	36	37	42	43.5	48	49.5	45	44.5	51	41	39	46	OR-64-12	2 Hrs.	T-194	A B C
2"x4"	8⅛"	12.7	¼" Firestop, 2 layers each side, staggered studs	30	—	40	—	44	—	51	—	48	—	57	47	—	—	TL-69-210	2 Hrs.	UL	A B C
FIRE RETARDANT WOOD STUDS (2" x 4"—24" o.c. 2" x 3"—24" o.c.—Non-loadbearing)																
2"x4"	*4⅛"		⅝" Bestwall Firestop, one layer each side	—	—	—	—	—	—	—	—	—	—	—	34	—	—	EST	1 Hr.	F P LA 13	A B —
2"x4"	†3⅜"		⅝" Bestwall Firestop, one layer each side	—	—	—	—	—	—	—	—	—	—	—	32	—	—	EST	1 Hr.	Univ of Calif	—
EXTERIOR WALLS (Wood Studs 2" x 4"—16" o.c. Loadbearing)																
	5"		⅝" Bestwall Firestop, (Interior) one layer ½" Gypsum Shtg., and wood siding or other (Exterior)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 Hr.	T-99 BMS-191-192	—
	5⅝"		⅝" Bestwall Firestop, two layers (Interior) ½" Gypsum Shtg., 2' x 8' T&G and 4" Brick wall (Exterior)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 Hrs.	U L. 23	—

NOTE: This table is a summary only, based on tests at Underwriters' Laboratories, National Bureau of Standards, University of California, Ohio State University, Geiger and Hammes, Riverbank Laboratories and/or Ohio Research Corporation sponsored by the Bestwall Gypsum Division, Gypsum Association, or others. The fire rating, weight and sound characteristics are based on a combination of specific details as tested and published.

FIRE HAZARD CLASSIFICATION: Official Underwriters' Tests. ½" and ⅝" Bestwall Firestop, 10-15 (Labeled); ⅛", ½", and ⅝" Bestwall, 10-15 (Not Labeled). More complete listings and details are available.

Inconsistencies in test results are due to tests over a period of many years and variations in laboratory facilities.

1. STC under sound characteristics is Sound Transmission Class.
2. 9 Frequency Average, the average decibel loss using nine of the eleven frequencies 125 to 4000 CPS range (Minus—1400 and 2800 Frq.)
3. Speech Privacy Range, the average decibel loss using six frequencies—500 to 2800 CPS range.
4. Official Underwriters' Tests have proven joint finishing is not required for the rating in assemblies of Firestop.
5. Under "Model Building Code Approvals" (A) refers to International Conference of Building Officials; (B) refers to Southern Building Code Congress; (C) refers to Building Officials Conference of America. Additional approvals requested.

WARRANTY:

The assemblies covered above have been developed with due regard to practical construction methods. However, since the Bestwall Gypsum Division does not have any prior knowledge of a specific building design and its construction or the methods of application used with their products, no warranty of performance is made. All of the test results have been obtained under laboratory testing conditions where controlled environment reduces variables to a minimum. In the field, such laboratory conditions are not always met, since many other variables are introduced. Laboratory results may exceed results of field tests, but the laboratory tests under controlled conditions are the only logical way to compare the performance of different assemblies. The Bestwall Gypsum Division of the Georgia-Pacific Corporation makes no warranty that the performance of assemblies in the field will have a performance equal to or better than that developed in the test.

SGP 0022874

Another system of drywall construction consists of the absence of wood or metal studs, either of which has its particular fire resistance deficiency value. In the following four systems (partially explained below) the common factor in each is that they are all constructed (except for floor ceiling runners) entirely of some form of gypsum incombustible material.

2" Solid Laminated—(Non-Load Bearing)—A 1" gypsum core board with a ½" gypsum laminated to each side; no air space at all, a 2" solid wall. Has a 2 hour fire rating, economical to buy and construct, a 35 decibel STC, creates smooth monolithic walls and creates extra usable floor space.

Materials: All gypsum wallboards, metal runners and accessories, laminating compound and joint system products used shall be furnished by the G-P/Bestwall Gypsum Division. Gypsum wallboard ½" thick Regular or Firestop, 4' wide x ceiling height, tapered edge, 1" coreboard 2' wide x ceiling height (homogenous or laminated) T&G edge.

Floor and Ceiling Runners: 1" x 1⅝" wood runner or 1" x 1½" roll formed 24 gauge galvanized sheet steel "L" or "U" shaped runner.

Fasteners: Nails 1½" long finishing nails. Screws 1" or 1¼" long G-P/Bestwall Type "S" drywall screws, 1¼" or 1¾" Type "G" drywall screws.

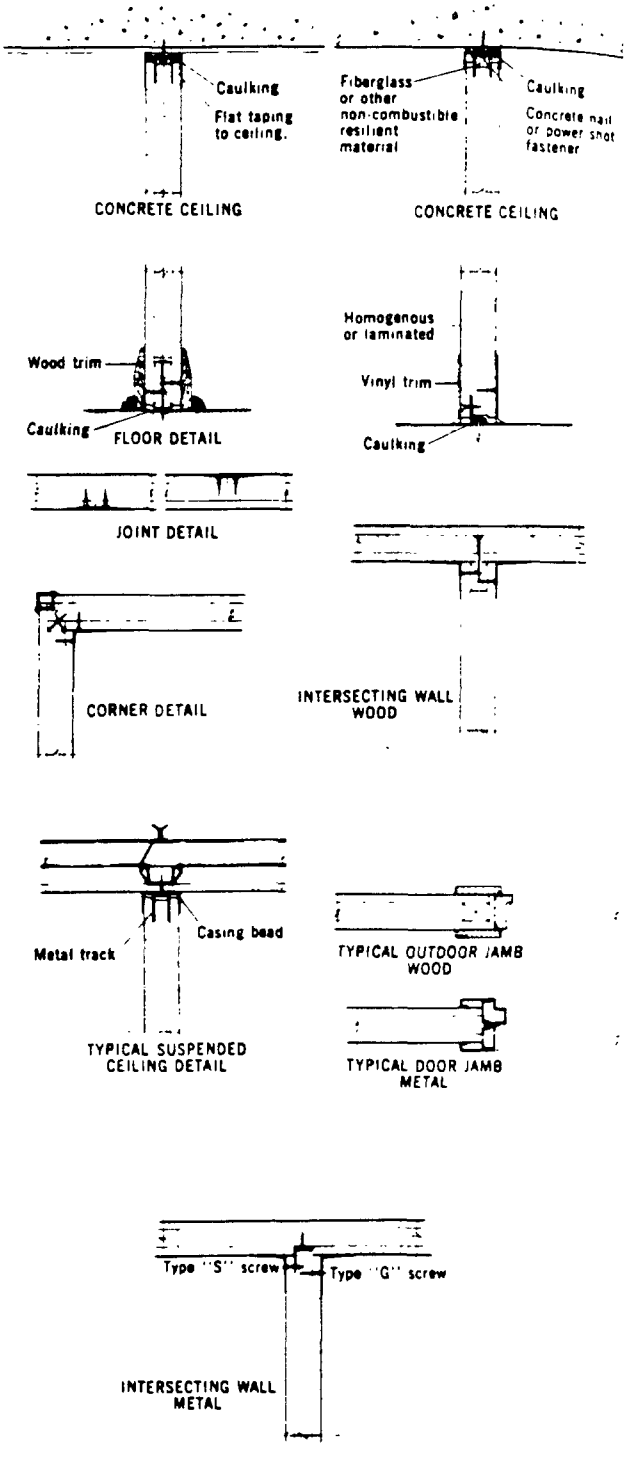
Application: Ceiling and floor track shall be aligned and anchored securely with suitable fasteners at a maximum of 24" o.c. Position 1" G-P/Bestwall coreboard (vertically) into ceiling and floor track fasten 24" o.c. and fasten with 1¼" long Type "S" Drywall screw. Apply G-P/Bestwall Laminating Compound to both sides of the 1" coreboard or the backs of the face wallboards. Use either a comb type spreader, or a mechanical tool designed for applying laminating compound. Notches should be 3/16" deep x 3/16" wide and spaced ¾" o.c. Position the face layers of wallboard and fasten along vertical edges and down middle of 4' wide board. Fasten with 1¾" Type "G" Drywall screws spaced at not over 24" o.c. in field—8" o.c. at top and bottom runner, maintain ⅜" space from edges and end of panel Drive screws slightly below the face without breaking face paper. Vertical joints of face boards shall be staggered a minimum of 6" from the vertical joints of coreboard. Vertical joints of the face boards shall be staggered from the vertical joints on the opposite side of the wall. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edge of the 1" coreboard and the top edge of the face boards to allow for building movements (see detail).

NOTE: Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of the metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with G-P/Bestwall Bedding and Topping Compound. Nail or screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with joint compound. The top edge of Wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P/Bestwall Metal Casing Bead over top edge of the face boards (see detail).

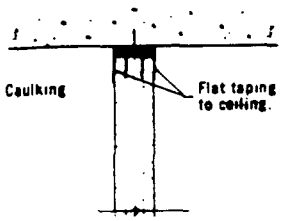
NOTE: This assembly with one layer ½" G-P/Bestwall Regular Gypsum Wallboard each side has a 2-hour fire resistive rating and a 9 FREQ. Av. of 37 db; for additional fire resistive ratings and sound transmission characteristics, see Page F/11.

2" SOLID LAMINATED GYPSUM WALLBOARD

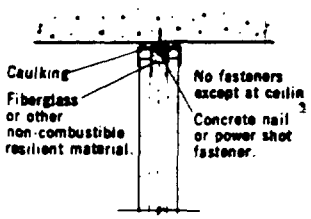


SGP 0022875

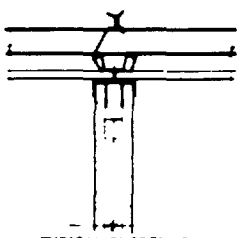
2¼" SEMI-SOLID LAMINATED GYPSUM WALLBOARD

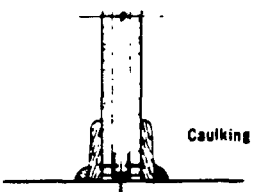


CONCRETE CEILING

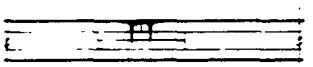


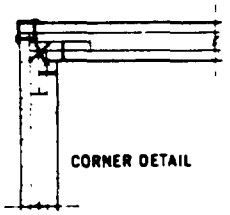
CONCRETE CEILING ALTERNATE DETAIL FASTENING PARTITION TO CONCRETE CEILING PROVIDING SLIP JOINT.

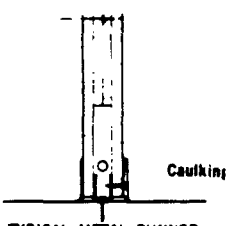

TYPICAL SUSPENDED CEILING DETAIL



TYPICAL METAL RUNNER WITH FULL LENGTH RIB

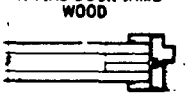

JOINT DETAIL


CORNER DETAIL



TYPICAL METAL RUNNER WITH VINYL OR METAL BASE


TYPICAL DOOR JAMB WOOD


TYPICAL DOOR JAMB METAL

2¼" Semi-Solid Laminated—(Non-Load Bearing)—A center vertical rib (or stud) composed of 2 layers of gypsum laminated, (1" x 6" rib, 24 o.c.) is the base upon which ⅝" gypsum wallboards are laminated to each side. This leaves intermittent 1" dead spaces for wiring. Has a 1 hour fire rating, simplicity of installation saves money, a 30 decibel STC, creates smooth walls and provides extra floor space.

Materials: All gypsum wallboards, gypsum ribs, metal runners and accessories, laminating compound, joint system products used shall be furnished by the G-P/Bestwall Gypsum Division. Gypsum wallboard ½" or ⅝" thick Regular or Firestop 4' wide x ceiling height tapered edge-gypsum ribs consist of two layers of ½ gypsum wallboard, factory laminated 1" thick x 6" wide —other rib thicknesses available as detailed by partition thickness. Gypsum ribs may be cut ½" or 5" short of ceiling height.

Floor and Ceiling Runners: 1" x ⅝" wood runner or 1" x 1½" roll formed 24 gauge galvanized sheet steel "L" and "U" shaped runners.

Fasteners: Nails—1½" long finishing nails. Screws—1" or 1¼" long Type "S" Drywall screws—1½" or 1⅝" long Type "G" Drywall Screws.

Installation: Ceiling and floor runners shall be aligned and anchored securely with suitable fasteners at a maximum of 24" o.c. Position gypsum ribs into the ceiling and floor runners and laminate one layer of ⅝" G-P/Bestwall Firestop both sides of the assembly and fasten. Fasten with 1⅝" Type "G" Drywall screws spaced 12" o.c. in field and 8" o.c. at top and bottom runner. Drive screws slightly below the surface without breaking the face paper and maintain ⅜" space from vertical edges and ends of panel. Vertical joints of the face boards are centered over the gypsum ribs, stagger the vertical joints from vertical joints of the opposite of the wall 24" o.c. Where walls are erected under a concrete floor slab, a ½" slip joint is recommended between the slab and the top edge of the gypsum rib and face boards to allow for building movement (see detail).

NOTE: Before attaching metal runners at ceiling, floor and intersection of walls at columns, a bead of caulking should be applied in back of the metal runners for better resistance to sound transmission.

Joints: All joints should be taped and finished with G-P/Bestwall Bedding and Topping Compound. Screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Corner Bead and finished with joint compound. The top edge of wallboard at the ceiling angle adjacent to a concrete floor slab shall be finished with flat tape and joint compound or a G-P/Bestwall Metal Casing Bead over top edge of the face boards. (See detail).

NOTE: ½" thick face board may be used for a 2" thick partition. Other depth ribs may be used for thicker partitions.

NOTE: When gypsum ribs cut 5" short of ceiling height are used, position and fasten one face layer gypsum wallboard, position 1" x 6" wide gypsum rib, and apply laminating compound and fasten with 1½" long G-P/Bestwall Type "G" Drywall Screws.

NOTE: This assembly with one layer ⅝" G-P/Bestwall Firestop Gypsum Wallboard each side has a 1-hour fire resistive rating and an STC of 35. For additional fire resistive ratings and sound transmission characteristics, see Page F/11.

OTHER LAMINATED SYSTEMS

Double Solid Laminated—(Non-Load Bearing)—Consists of laminating ½" gypsum wallboard to a 1" tongue and groove coreboard homogenous or laminated on each side of a 3" air space. There is absolutely no connection over the air space except at the jambs. Has a 2 hour fire rating, greater strength than standard frame or thin solid wall, a 47 decibel STC and smooth wall surface.

Triple Solid Laminated—(Non-Load Bearing)—The center piece is a 1" gypsum core panel running the height and length of wall, on one side of which is dead space the other side is filled with fiberglass insulation. Outer section of wall (on both sides) is a ½" wallboard laminated to 1" coreboard (this gives a 1½" wall on both sides of center section). This gives a three hour fire rating, a 57 decibel STC and smooth monolithic walls.

SGP 0022876

There are many different kinds of construction systems and all are based on the requirements of your particular building installation. Basically, the main considerations are usually: **Fire Resistance, Sound Transmission, Relative Strength of the Installation, Dimensional Restrictions** and lastly **Economy.**

GP/Bestwall has many different materials which can be used individually or collectively. The following pages will give you a brief selection of systems and their advantages. However, no matter which system is used there are some very basic installations considerations to keep in mind.

After the wall and floor and ceiling constructions have been selected, it is important that they be installed properly. The following precautions should be taken during installation to avoid situations or conditions which will detract from the sound control properties of the assembly:

Avoid connecting plenum chambers, ducts, vents, etc. These permit the unrestricted flow of sound. Corrective measures are to make partitions full height, and use ducts lined with absorbent material.

Materials: All gypsum wallboards, metal runners and accessories, joint system products used, shall be G-P/Bestwall Gypsum Wallboard ⅜", ½" or ⅝" thick Regular or Firestop, 4' wide x ceiling height for vertical application or up to 16' long for horizontal application, tapered edge.

Framing: Prior to the gypsum board application, all framing members should be true and firmly nailed in a plane surface. Provide double studs at all corners. Both inside and outside intersections are formed by extending one edge of a panel over the other edge in a flush position and covering with tape and joint treatment. In single ply installation, all ends and joints of gypsum wallboard shall occur over framing members, except that this is not required for treated joints at right angles to framing members.

Application: Gypsum wallboard may be applied horizontally or vertically to 2" x 4" wood studs with nails or screws. (Alternate method-stud adhesive may be applied to studs before applying gypsum wallboard.) The gypsum wallboard shall be attached with GWB-54 annular ring nails ¼" head, .098" Dia. ASTM-C380—1¼"-1⅜" long or with 1¼" long G-P/Bestwall Type "W" drywall screws, 1" long G-P/Bestwall type "S" Drywall screws.

SINGLE PLY GYPSUM WALLBOARD MAXIMUM FRAMING SPACING

Wallboard Thickness	Application
⅜" sidewalls	Horizontal or Vertical 16" o.c.
½" sidewalls	Horizontal or Vertical 24" o.c.
⅝" sidewalls	Horizontal or Vertical 24" o.c.

NAILING OR SCREW SPACING FOR SINGLE-PLY GYPSUM WALLBOARD

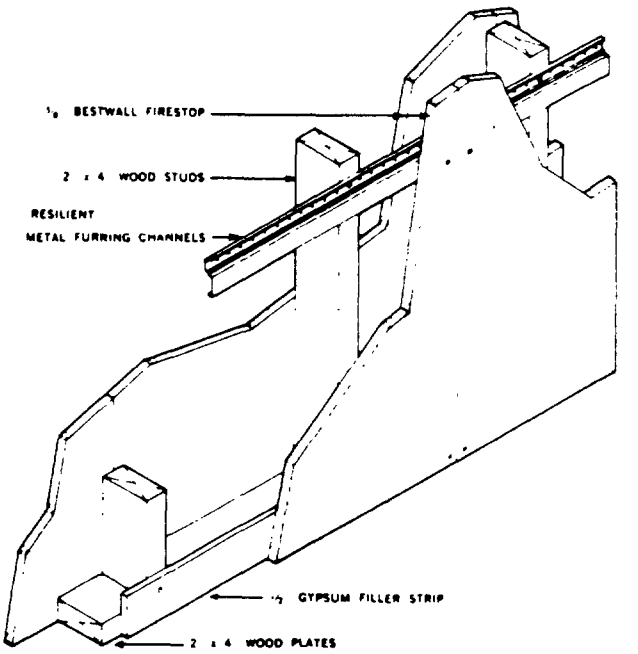
(Framing 16" o.c.)

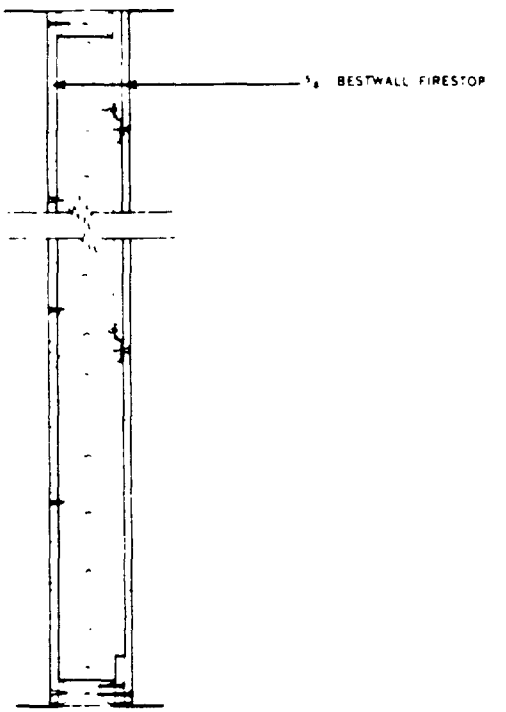
Wallboard Thickness	Single Nailing	Double Nailing
⅜" sidewalls	8" o.c. Max.	12" o.c. Max.
½" sidewalls	8" o.c. Max.	12" o.c. Max.
⅝" sidewalls	8" o.c. Max.	12" o.c. Max.

Wallboard Thickness	Framing 16" o.c. Screw Spacing	Framing 24" o..c Screw Spacing
⅜" sidewalls	16" o.c. Max.	—
½" sidewalls	16" o.c. Max.	12" o.c. Max.
⅝" sidewalls	16" o.c. Max.	12" o.c. Max.

NOTE: Nails or screws should be driven not less than ⅜" from edges or ends of panels. While fasteners are being driven, the wallboard shall be held in firm contact with the underlying supports. Preferably, application of fasteners should proceed from the central portion of the wallboard to the ends and edge. Dimple nails or screws without breaking the face paper. **Joints:** All joints should be taped and finished with tape and joint compound, nail or screw heads should be finished with bedding and topping compound. Exterior angles are covered with G-P/Bestwall Metal Casing Beads and finished with joint compound.

WOOD STUD GYPSUM WALLBOARD PARTITION





SGP 0022877

TECHNICAL DATA-FIRE RATINGS WITH FIREPROOF GYPSUM WALLBOARD

WEIGHT LB./SQ. FT.	SURFACE	SOUND RATING	SOUND RATING TEST REF.	FIRE RESISTANCE RATING	FIRE RESISTANCE TEST REF.	MODEL BUILDING CODE APPROVAL (A)
FLOOR AND CEILING: Wood Joists 16" o.c. finished floor on rough sub-floor, except as noted.						
—	⅜" Bestwall, 1 layer	—	—	15 min.	—	A B C
11.4	½" Bestwall, 1 layer	—	—	25 min.	—	A B C
11.4	½" Bestwall Firestop, 1 layer	—	—	45 min.	U.L. No. 1	A B
12.0	⅝" Bestwall Firestop, 1 layer	STC 38/INR —16 (Est.)		1 hr.	U.L. No. 1	A B
16.0	⅝" Bestwall Firestop, 1 layer nailed; 2nd layer ⅝" Firestop applied to resilient furring channel 24" o.c. between layers	—	—	2 hr.	U.L. No. 217	A B C
13.0	½" Bestwall Firestop, 1 layer nailed	—	—	1 hr.	U.L. No. 46	A B C
13.0	½" Bestwall Firestop applied to resilient metal furring 24" o.c.	STC 47	TL64-155	1 hr.	U.L. No. 33	A B C
—	⅜" Bestwall, 2 layers	—	—	30 min.	—	— — —
—	½" Bestwall, 2 layers	—	—	1 hr.	—	— — —
—	½" Bestwall Firestop, 1 layer, laminated and nailed to ¼" Bestwall Gypsum Sound Deadening Board, with floor of ⅜" CD plywood, ½" particleboard underlayment, carpet and pad	STC 41 INR+25	BW-2MT	1 hr.	Est.	A
—	⅜" Bestwall Firestop, 1 layer laminated and nailed to ¼" Bestwall Gypsum Sound Deadening Board with floor of ⅜" CD plywood, ½" particleboard underlayment, carpet and pad	STC 42 INR+25	(Est.)	1 hr.	Est.	A B C
PREFABRICATED FLOOR PANELS spaced 12" o.c. — Combustible						
6.5	½" Bestwall Firestop, one layer over ½" sound deadening board (direct attached)			1 hr.	U.L. No. 47	A — —
2" CONCRETE FLOOR ON METAL LATH over Steel Bar Joists 24" o.c. — Incombustible						
34.2	⅝" Bestwall Firestop nailed or screwed to metal furring 16" o.c.			1 hr.	U.L. No. 2	A B C
34.2	⅝" Bestwall Firestop Backer, nailed or screwed to metal furring 16" o.c.			1 hr.	U.L. No. 2	A B C
32.0	⅝" Bestwall Firestop, 1 layer, metal furring 24" o.c.			1 hr.	U.L. No. 19	A B C
33.9	½" Bestwall Firestop, metal furring 24" o.c.			1½ hr.	U.L. No. 17	A B C
34.1	⅝" Bestwall Firestop, metal furring 24" o.c.			1¼ hr.	U.L. No. 13	A B C
36.4	⅝" Bestwall Firestop, metal furring 24" o.c.			2 hr.	U.L. No. 259	A—
—	⅝" Bestwall Firestop metal deck			2 hr.	U.L. File R4024-12	——
2½" CONCRETE FLOOR ON METAL LATH over Steel Bar Joists, 24" o.c. — Incombustible						
38.5	½" Bestwall Firestop, metal furring 24" o.c.			2 hr.	U.L. No. 237	A B C
39.3	⅝" Bestwall Firestop, metal furring 24" o.c.			2 hr.	U.L. No. 69	A B C
38.0	⅝" Bestwall Firestop 2 x 2 ft. lay-in, metal grid			2 hr.	U.L. No. 208	A B C
BEAM PROTECTION						
	⅝" Bestwall Firestop, two layers			2 hr.	U.L. No. 254, 255	— — —

SOUND CHARACTERISTICS—References: Geiger and Hamme, Inc.; Riverbank Labs.

(A) UNDER MODEL BUILDING CODE APPROVALS.

A—Refers to international Conference of Building Officials.
B—Refers to Southern Building Code Congress.
C—Refers to Building Officials Conference of America.
Additional Approvals Requested.

NOTE 1. This table is a summary only, based on tests at Underwriters' Laboratories, National Bureau of Standards, University of California, Ohio State University, sponsored by the G-P/Bestwall Gypsum Division, Gypsum Association, or others. The fire rating, weights and sound characteristics are based on a combination of specific details as tested and published.

COMBUSTIBLE ASSEMBLIES

NOTE 2. For all 45 minute and 1 hour ratings ⅝" structural interior plywood underlayment grade, over building paper, over ½" structural interior plywood with exterior glue C-D grade may be used over the wood joists with ceilings as detailed.

INCOMBUSTIBLE ASSEMBLIES

NOTE 3. Ceilings for all 1 hour, 1½ hour and 2 hour incombustible floor and ceiling construction assemblies with 2" or 2½" concrete floor on metal lath over steel bar joints, unless otherwise specified, may be direct attached or suspended.

WARRANTY:

The assemblies covered have been developed with due regard to practical construction methods. However, since the G-P/Bestwall Gypsum Division does not have any prior knowledge of a specific building design and its construction or the methods of application used with their products, no warranty of performance is made. All of the test results have been obtained under laboratory testing conditions where controlled environment reduces variables to a minimum. In the field, such laboratory conditions are not always met, since many other variables are introduced. Laboratory results may exceed results of field tests, but the laboratory tests under controlled conditions are the only logical way to compare the performance of different assemblies. The Bestwall Gypsum Division of the G-P Corporation makes no warranty that the performance of assemblies in the field will have a performance equal to or better than that developed in the test.

SGP 0022878

Firestop® Gypsum Backer

LENGTH—6' to 16'. THICKNESS—⅝", ½".

WIDTH—2', 4'. EDGES—Tongue-and-Groove; Square.

G-P/Bestwall Firestop Gypsum Backer, with glass fiber reinforcement is used as a backing for decorative surface treatments of acoustical plasters, tile, plywood and various veneers. A single layer application of G-P/Bestwall Firestop Gypsum Backer on both sides of wood or steel framing, enables load bearing or non-load bearing walls, floors and ceiling assemblies to resist temperatures rising to 1700° F. in a standard time temperature curve for one hour.

Official Sound Transmission Tests of various assemblies allow possible floor and ceiling assemblies with superior ratings Sound Transmission.

G-P/Bestwall Firestop is listed by Underwriters and carries the UL Label for 45 minutes, 1, 2, and 3 hour Fire Resistance in various Designs and with a Fire Hazard Classification of 10-15.

FIRESTOP®ON RESILIENT METAL FURRING

ONE HOUR FIRE RATING TEST DATA

Test No.: TL 64-155
Dated: February 7, 1964
CONDUCTED BY: Riverbank Acoustical Laboratories.
TEST PARTITION—
WEIGHT 13.0 lbs./sq. ft.
Sound Transmission Class—47 db.
9 Frequency Average—44 db.
Speech Interference Zone—49 db.

FIRE RESISTANCE TEST DATA

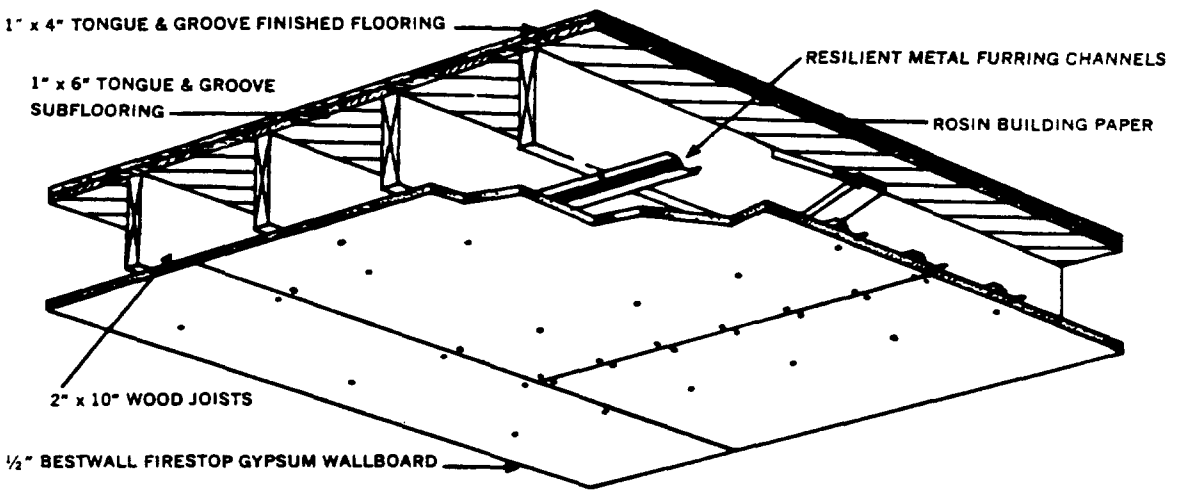
Test No.: U.L. Design No. 33
Dated: January 24, 1964
Conducted By: Underwriters' Laboratories Inc.

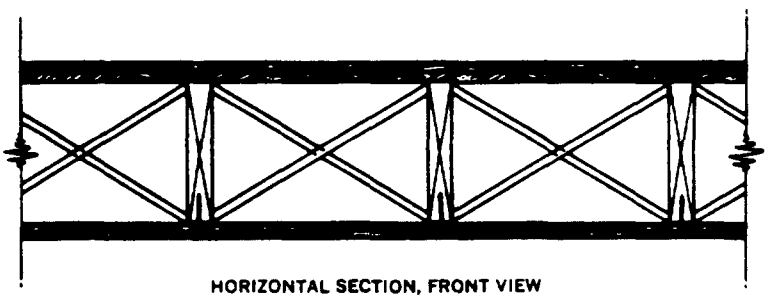
MATERIALS USED

1. 2" x 10" wood joists.
2. Rosin building paper.
3. 1" x 6" tongue and groove subflooring.
4. 1" x 4" tongue and groove finished flooring.
5. Donn DG-8 Resilient Channels.
6. ½" G-P/Bestwall Firestop Gypsum Wallboard.
7. 1" G-P/Bestwall Type S Drywall Screws and 8d nails.

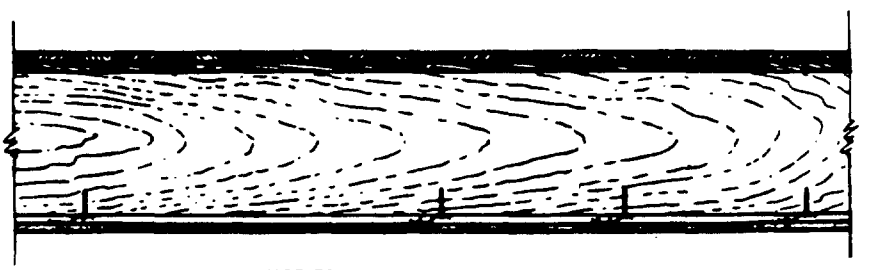
APPLICATION DETAILS

1. Fasten resilient channels on the under side of wood joists 16" o.c., perpendicular to joists and spaced 24" o.c. with an additional short section at the wallboard joint.
2. Attach ½" G-P/Bestwall Firestop with the long panel edge at right angle to the resilient channels, with end joints staggered.
3. Taped joints not required to obtain fire rating.





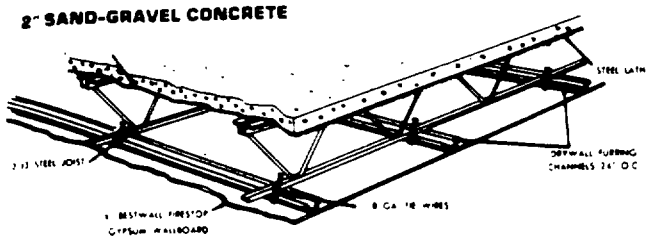
HORIZONTAL SECTION, FRONT VIEW



HORIZONTAL SECTION, SIDE VIEW

SGP 0022879

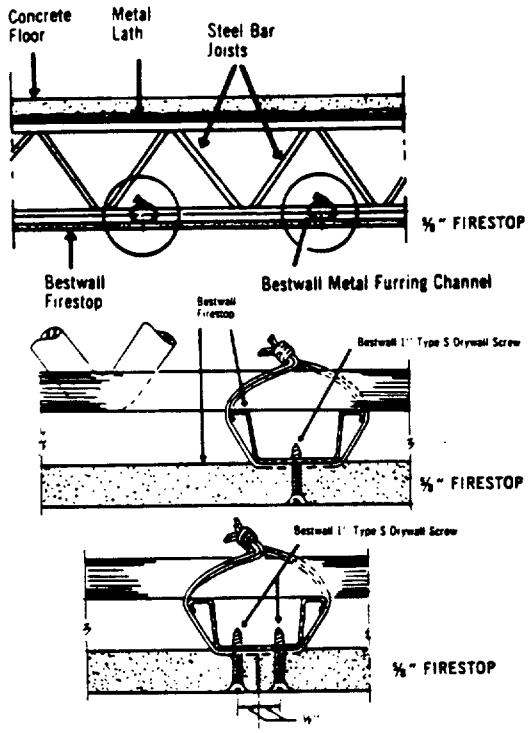
5/8" FIRESTOP®– 2 HR. RATING –INCOMBUSTIBLE



UL Design 259–2 Hr. (with 2" concrete)

G-P/Bestwall produces lighter weight board and better fire resistance! New 5/8" Firestop Gypsum Wallboard reinforced with glass fibers covers all ratings listed by Underwriters' Laboratories for the 5/8" thick material. This means that G-P/Bestwall 5/8" fire-rated board can be used in all kinds of wall, floor and ceiling assemblies.

The 10% reduction in weight can result in savings in labor and materials in multiple story construction. See your nearest G-P/Bestwall distribution center or write G-P/Bestwall Gypsum Division for further information.



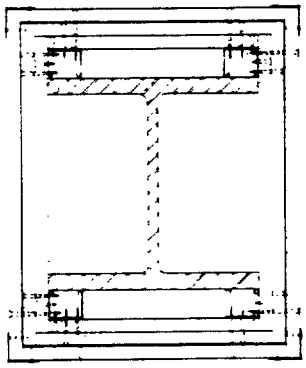
COLUMN FIREPROOFING

Fireproofing with G-P/Bestwall Firestop Gypsum Wallboard provides a fast, efficient and economical method of protecting steel columns. Fire resistant assemblies of two, three and four hours are obtainable depending upon the number of layers of 5/8" or 1/2" G-P/Bestwall Firestop used. These layers are held in place by a combination of screws and metal studs. The two, three and four hour fire rated assemblies of Firestop have passed Official Fire Tests conducted by the Underwriters' Laboratories.

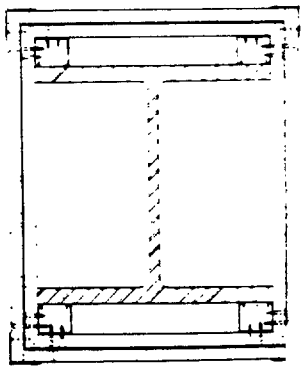
Fire Resistance—4 hour fire resistive protection for steel columns can be obtained with four layers of 5/8" G-P/Bestwall Firestop Type X. 3 hour fire resistive protection can be obtained with three layers and 2 hour fire resistive protection can be obtained with two layers of 5/8" Firestop Type X. Where necessary 1 hour of fire protection can be obtained with two layers of 1/2" G-P/Bestwall Gypsum Wallboard and 1 1/2 hour protection with 3 layers of G-P/Bestwall Gypsum Wallboard.

Lighter—As compared to other types of fireproofing, a dead load saving of from 50 to 75% can be realized with G-P/Bestwall Firestop Column Fireproofing.

Speed of Erection—G-P/Bestwall Firestop Gypsum Wallboard can be installed quickly and easily when used for column fireproofing following G-P/Bestwall details. Minimum amount of the wire and adhesives are used.



ILLUSTRATION—THREE-HOUR fire rated steel column assembly with 5/8" G-P/Bestwall Firestop.



SGP 0022880

ILLUSTRATION—TWO-HOUR fire rated steel column assembly with 5/8" G-P/Bestwall Firestop.

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SGP 0022881

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