

PAOLI, PENNSYLVANIA

PLAINTIFF'S EXHIBIT

GP-1116

TO: ALL REGIONAL SALES MANAGERS
ALL AREA SALES MANAGERS
ALL SALESMEN
DISTRIBUTION DIVISION SALES PERSONNEL

General Sales Bulletin #58-66

August 12, 1966

BY: C. E. Abbey:jw *CEA*

CC: R. I. Fredericks, Paoli
K. A. McCaskill, Paoli
M. M. Powers, Paoli

SUBJECT: FIRESTOP

RE: Floor and Ceiling
Assemblies

FILE: Wallboard Manual - Section 5 (C) Firestop

Forwarded herewith is a copy of a two-page folder distributed by the American Plywood Association in their "Concepts" series which are sent to architects all over the country, as well as to a wide distribution to people in the building field. This is identified as No. 112 "Fire Resistive Plywood Floors and Roofs". Please review the material carefully. It summarizes the many floor and ceiling assemblies in which Firestop can be used with plywood. Study each of the six assemblies carefully. Bear in mind that Bestwall's Firestop, 1/2" thick in some cases and 5/8" thick in other cases, can be used where the fire rated board is shown.

Notice Figure 2 shows a mineral acoustical ceiling tile assembly which is not applicable to gypsum board products.

The American Plywood Association is obtaining building code approvals of these various assemblies with their plywood. We have obtained approvals of many of the floor and ceiling assemblies with Firestop. Underwriters' have changed the listing of various approved 1 hour floor and ceiling assemblies which Bestwall has tested in the past with conventional wood finished floor over wood sub-flooring and broadened the approval to include plywood.

Use the No. 112 "Concepts" as a ready reference to sell Firestop in the various floor and ceiling assemblies detailed.

Encl.

SGP 0025666

CONCEPTS



FROM THE AMERICAN PLYWOOD ASSOCIATION / FOR ARCHITECTS / ENGINEERS / BUILDERS

NUMBER 112 FIRE RESISTIVE PLYWOOD FLOORS AND ROOFS

NEW PLYWOOD CONSTRUCTIONS RECEIVE ONE-HOUR FIRE RATINGS

A wider selection of one-hour rated plywood systems is now available to architects and engineers. This means that economical plywood construction can be used in larger commercial buildings. Plywood stressed skin construction is included in these one-hour systems for the first time.

Plywood is now shown in 25 one-hour assemblies in the Underwriters' Laboratories "Building Materials List." Several of these are illustrated on the following pages. Ceilings are the primary variations in the other plywood assemblies listed.

CONSTRUCTIONS RECOGNIZED BY BUILDING CODES

The listing of these plywood assemblies is based on fire tests made at Underwriters' Laboratories in accordance with the Standard Fire Tests for Building Construction (ASTM E119). All major building codes (Uniform Building Code, Basic Building Code, Southern Standard Building Code and National Building Code) accept fire tests made in accordance with these tests.

Many building authorities had already recognized plywood in one-hour rated systems — the tests confirmed the adequacy of these constructions for this rating. The constructions listed provide several choices for designers. Variations are generally permitted, but should be confirmed with local building officials. Designs shown in the "Building Materials List" are referenced to serve as a guide for modifications.

ONE-HOUR CONSTRUCTION PERMITS AREA INCREASES

With one-hour construction, larger buildings may be built with plywood. Since plywood construction is commonly the most economical building method, this can save you money.

Consider a one-story school built outside the fire zone under the requirements of the Uniform Building Code. Where the school was built with one-hour frame walls and a one-hour plywood roof, each building could have an area of 15,700 sq. ft. between fire walls.

The same school built outside the fire zone under the requirements of the Basic Building Code could have the following areas when separated 30 ft. from other buildings. With one-hour frame walls and a plywood roof, maximum area is 15,300 sq. ft. per building. (When each classroom exits directly to the outside, this increases to 45,900 sq. ft.) When of Ordinary type construction with a one-hour plywood roof, maximum area is 20,000 sq. ft. per building. (When each classroom exits directly to the outside, this increases to 60,000 sq. ft.)

PLYWOOD QUALIFIES FOR HEAVY TIMBER ROOF CONSTRUCTION

Heavy timber construction is one of the oldest types of construction used in this country. The excellent fire endurance of this type construction has been demonstrated over a period of many years.

Now 1 $\frac{1}{8}$ " plywood can be used for roofs in the Heavy Timber classification. This makes this type construction even more economical and useful. Plywood's use in this type construction is illustrated on the back page.

SGP 0025667

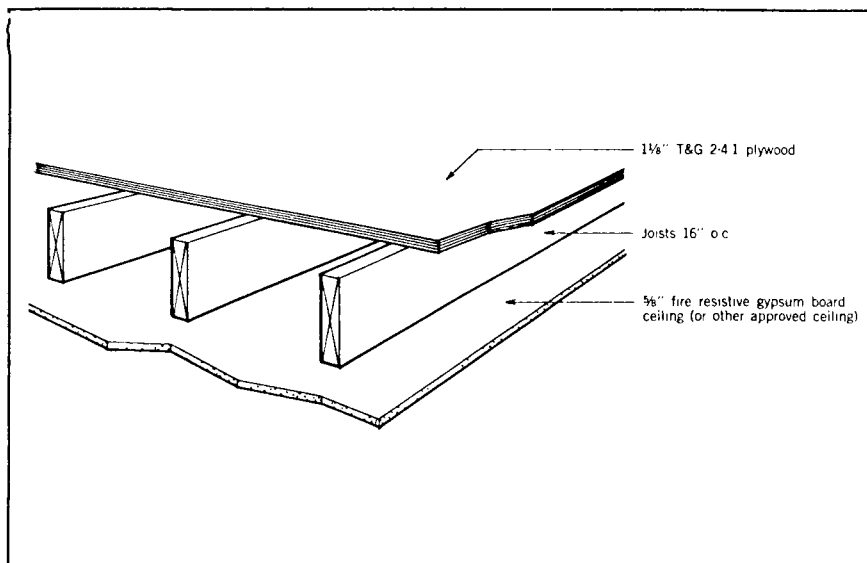


Figure 4. One-hour assembly — 1 $\frac{1}{8}$ " plywood with joists 16" o.c.

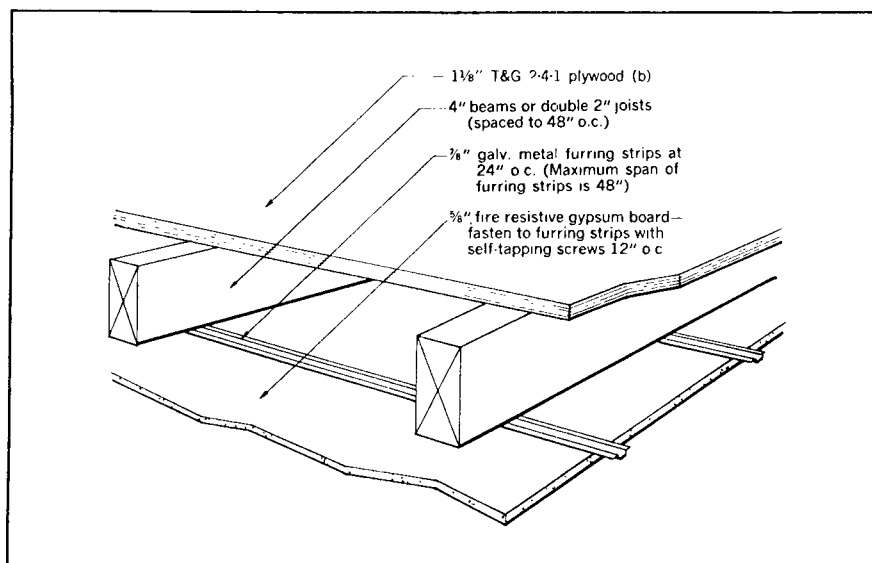


Figure 5. One-hour assembly — 1 $\frac{1}{8}$ " plywood with beams 48" o.c.

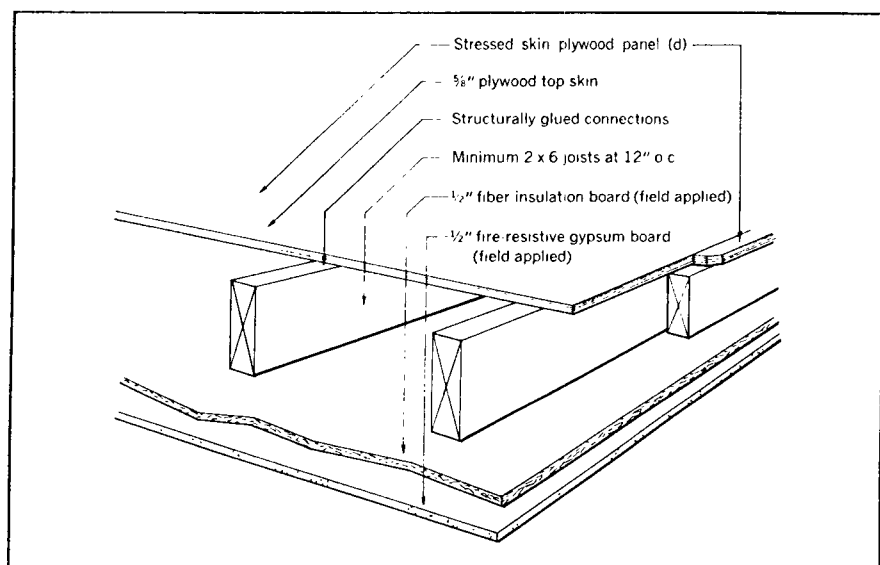


Figure 6. One-hour stressed skin plywood construction.

One-hour floor

2-4-1 is recognized in one-hour constructions because its 1 $\frac{1}{8}$ " thickness is equivalent to other recognized two-layer plywood systems. A gypsum board ceiling is applied directly to the underside of the joists in this system.

One-hour roof

This same construction is recognized for one-hour roofs.

References

ICBO Research Recommendation 1007.9.

One-hour floor

1 $\frac{1}{8}$ " 2-4-1 over beams 48" o.c. and 5/8" fire resistive gypsum board are the basic elements in this one-hour construction. The metal furring strips carry the ceiling across a maximum beam spacing of 48".

One-hour roof

This same system is well suited for one-hour roofs.

References

UL Design* No. 28.

SGP 0025668

One-hour floor

This plywood stressed skin construction is the thinnest one-hour combustible assembly which has passed Underwriters' Laboratories tests. The layers of fiber insulation board and fire-resistive gypsum board are applied in the field.

One-hour roof

This same system is well suited for one-hour roofs.

References

UL Design* No. 47 (to be published in future edition of "Building Materials List.")

MATERIAL REQUIREMENTS

These materials are required in one-hour plywood assemblies. Refer to Underwriter's Laboratories "Building Materials Lists" if additional information is required.

- Subflooring** — Minimum 1/2" DFPA CD with Exterior glue plywood.
- Subfloor-Underlayment** — 1 $\frac{1}{8}$ " tongue-and-groove DFPA 2-4-1 with Exterior glue plywood.
- Underlayment** — 5/8" tongue-and-groove DFPA Underlayment grade plywood.
- Stressed Skin Construction** — 5/8" DFPA CD with Exterior glue plywood glued to minimum 1200 psi 2 x 6's at 12" o.c. Fabricate in accordance with American Plywood Association Fabrication Specification SS-8.

One-hour floor

A conventional plywood floor combines with fire resistive gypsum board in this one-hour rated assembly. Acoustical tile ceilings supported on splines can also be used.

One-hour roof

Most codes do not require the top layer of plywood and building paper when this assembly is used for one-hour roofs.

References

UL Design* No.'s 25, 33, 34, 41
(Gypsum board ceilings.)

UL Design* No.'s 9, 12, 15, 16, 20, 38
(Acoustical tile ceilings.)

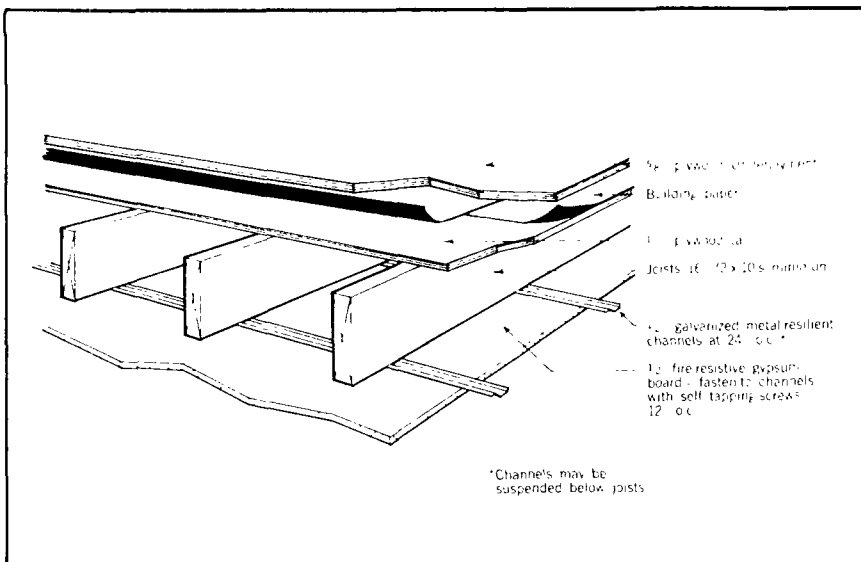


Figure 1. One-hour assembly – resilient channel ceiling system.

One-hour floor

Mineral acoustical ceiling panels are suspended below a conventional plywood floor in this one-hour construction. A T-bar grid suspension system carries the 2' x 4' acoustical panels.

One-hour roof

Most codes do not require the top layer of plywood and building paper when this assembly is used for one-hour roofs.

References

UL Design* No.'s 17, 21, 22, 23, 27,
30, 31, 36, 37, 39.

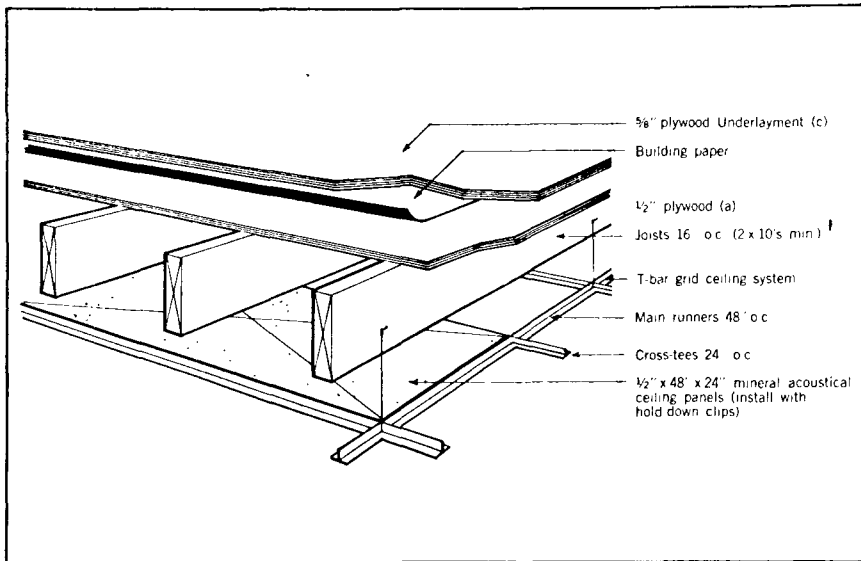


Figure 2. One-hour assembly – T-bar grid ceiling system.

One-hour floor

5/8 inch gypsum board is attached directly to the underneath side of the joists in this construction. Similar constructions with 5/8 inch plywood subflooring and 1/2 inch plywood underlayment have been widely accepted for years because of similarity to other rated systems.

One-hour roof

Most codes do not require the top layer of plywood and building paper when this assembly is used for one-hour roofs.

References

UL Design* No.'s 1, 29, 42. Note:
This construction is also recognized
for 45 min. assembly (UL Design* 1)
and 30 min. assemblies (UL Designs*
1 and 2) with a 1/2 inch or less gypsum
board ceilings.

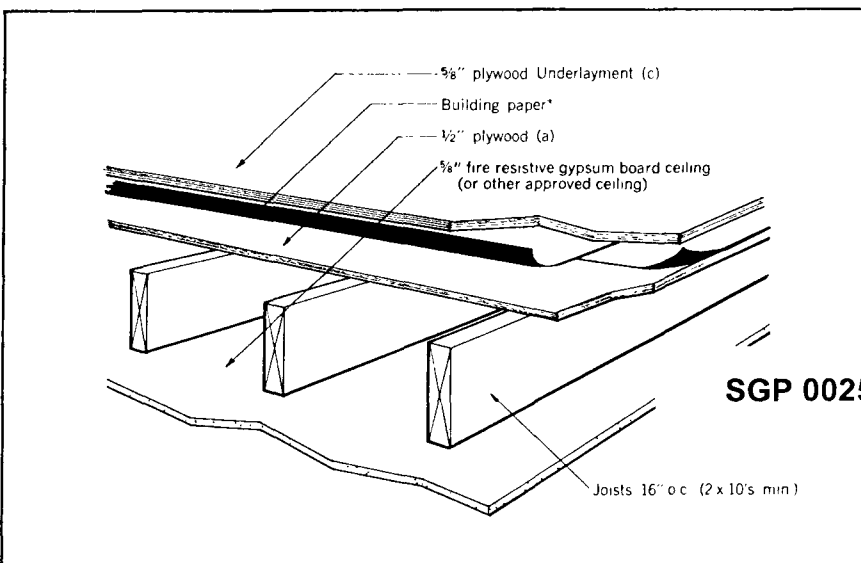


Figure 3. One-hour assembly – ceiling attached directly to joists.

SGP 0025669

HEAVY TIMBER ROOF CONSTRUCTION

Most building codes include a type or classification of construction referred to as "Heavy Timber." In this type of construction, fire resistance is attained with extra thick materials (codes specify minimum thicknesses), construction details, avoidance of concealed spaces, and other factors. Heavy Timber type construction is widely recognized as comparable to one-hour constructions.

Full scale fire tests have shown that $1\frac{1}{8}$ " 2·4·1 plywood provides the same good performance as nominal 2" tongue-and-groove lumber decking. See Figure 7. For this reason $1\frac{1}{8}$ " plywood is rapidly gaining acceptance for Heavy Timber roof construction. The Uniform Building Code recognition of tongue-and-groove 2·4·1 in this application is one example. (Research Recommendation No. 1007.9.)

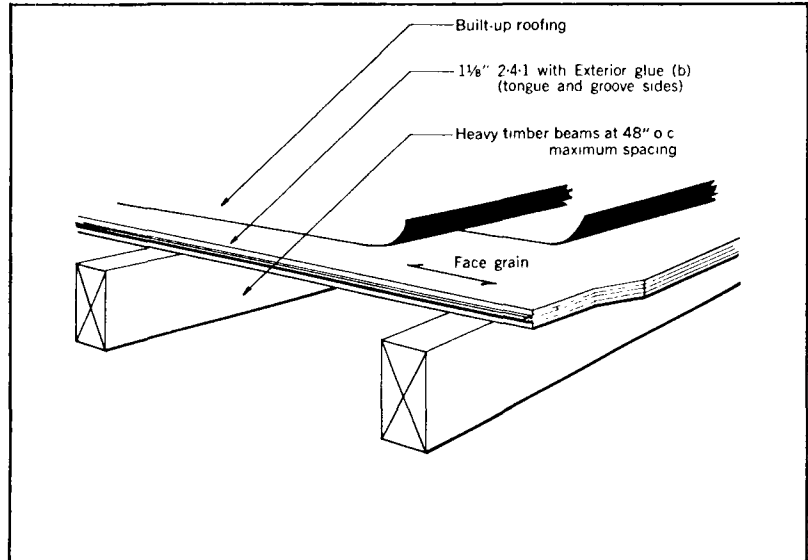


Figure 7. Plywood heavy timber roof construction.

For More Information

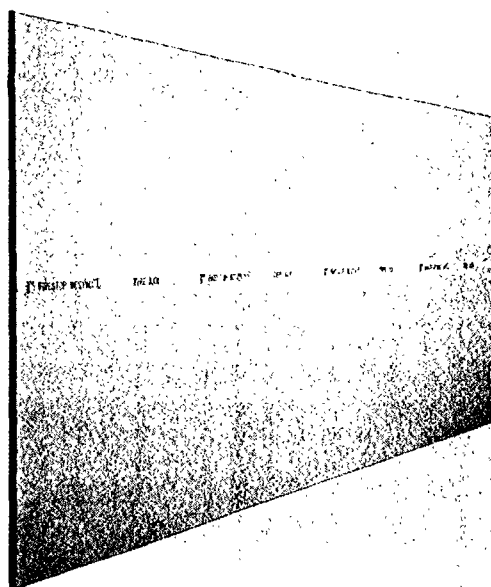
Write American Plywood Association, 1119 A Street, Tacoma, Washington 98401 for Plywood Constructions Systems, Form No. 65-310. This 48-page guide shows how plywood is used for roofs, walls, and floors in commercial and industrial buildings. It is a new publication first released in December, 1965.

SGP 0025670





FIRESTOP TYPE XXX GYPSUM WALLBOARD



Improved Bestwall Firestop is a gypsum wallboard reinforced with specific amounts of incombustible glass fibers and unexpanded vermiculite. Under heat this results in a thermal stabilized core which provides increased fire protection. Now, through greater glass fiber reinforcement, Firestop's fire resistance has been further increased, as shown by the chart on the back of this sheet. The higher glass fiber content also gives increased strength and better nailing qualities.

Bestwall Firestop in various assemblies carries ratings of 45 minutes to 3 hours fire resistance. These ratings meet Building Code requirements for interior wall and ceiling construction in buildings of all types, from wood frame to highly incombustible, and for various occupancies of residential, public, and commercial character.

- Extra glass fiber content gives greater protection, additional flexural strength to minimize breakage in handling and installation, and better nailing qualities
- Various assemblies provide 45 minutes to 3 hour fire protection • No joint treatment of any kind is required to obtain fire resistant ratings • One of the lowest cost 2 hour fire resistive incombustible floor and ceiling assemblies available • Large, lightweight panels handle easily
- Official Fire Hazard Classification by U.L. 10-15 Flame-spread • U.L. Label Service Symbol appears on twin mounting tape binding each bundle of two pieces
- 1/2" or 5/8" "Bestwall Firestop Type "XXX" is marked frequently along the center so that Firestop is easy to identify when in place • Lowest weight 5/8" Fire rated board approximately 2250 lbs./1000 sq. ft.

Bestwall Firestop is recommended where fire resistance is desired, and/or for Building Code Requirements of 45 minutes to 3 hours for interior wall and ceiling construction in residential, commercial and public buildings.

Thickness: 1/2", 5/8"

Length: 6' to 16' (in even feet)

Width: 4' (2' on order)

Edges: Tapered or Square (Tongue and Groove backer only)

Packaging: Twin Mounted, end taped

Application: Horizontal application is recommended for new improved Firestop. Start application in upper corner, working across and down. Either cut openings out of full panels or plan joints to occur on the studs nearest the center of the openings. No joint treatment or further surface treatment of any kind is required.

Nails:	Wallboard Thickness	Nail	Spacings Walls Ceilings	
5d—1 3/8" long— 15/64" head—13 1/2 ga.	1/2"	5d Cooler	7"	6"
6d—1 3/8" long— 1/4" head—13 ga.	5/8"	6d Cooler	7"	6"
Drywall Screws	1/2" or 5/8"	Length Varies	12"	

(over)

SGP 0025671



GEORGIA-PACIFIC / BESTWALL GYPSUM DIVISION

FIRE RESISTANCE RATINGS POSSIBLE WITH BESTWALL FIRESTOP

CONSTRUCTION	THICK- NESS	WEIGHT LB./SQ. FT.	WALL SURFACE	FIRE RESISTANCE RATING	TEST REF.	MODEL BLDG. CODE APPROVALS
PARTITIONS						
2" x 4" Wood Studs— 16" O.C. Load bearing except when noted "N"	4 3/4"	5.2	3/4" Bestwall Firestop, Both sides	30 Min	EST.	B*, C
	4 3/4"	5.9	1/2" Bestwall Firestop, Both sides	1 Hr	U.L. #1	A, B, C
	4 3/4"	6.0	1/2" Bestwall Firestop, Both sides, with Mineral Wool in stud space	1 Hr	BMS #2	—
	5 1/2"	—	3/4" Bestwall Firestop, 2 layers both sides	1 Hr	U.L. #6	—
	4 3/4"	7.0	3/4" Bestwall Firestop, Both sides	1 Hr	U.L. #5	A, B, C
	5 1/2"	9.5	3/4" Bestwall Firestop, 1 layer one side, 2 layers other side	1 1/2 Hr	EST	—
	6 1/4"	12.0	3/4" Bestwall Firestop, 2 layers each side	2 Hr	T 194	A, B, C
	5 3/4"	8.5	3/4" Bestwall Firestop, over 1/2" sound deadening board both sides	1 Hr	T 3006	A, B, C*
	5 3/4"	13.4	3/4" Bestwall Firestop, 2 layers each side staggered studs	2 Hr	EST	—
(N)	5 3/4"	5.4	3/4" Bestwall Firestop, 1 layer nailed one side, 1 layer on resilient furring other side	1 Hr	EST	—
	5 3/4"	6.0	3/4" Bestwall Firestop, 1 layer nailed one side, 1 layer on resilient furring other side plus fiber glass insulation in stud space	1 Hr	T 3127	A, B, C*
	6"	8.1	3/4" Bestwall Firestop, 2 layers one side, 1 layer on resilient furring other side	1 1/2 Hr	EST	—
	5 3/4"	7.96	1/2" Bestwall Firestop, 1 layer over Gypsum Sound Deadening Board, both sides	1 Hr	EST	—
F. R. W. S.						
A. W. P. I.						
2" x 4" Wood Studs— 24" O.C. (N)	4 3/4"	—	3/4" Bestwall Firestop, Both sides	1 Hr	F. P. LAB	A, B, C*
2" x 3" Wood Studs— 24" O.C. (N)	3 3/4"	—	3/4" Bestwall Firestop, Both sides	1 Hr	UNIV. OF CALIF.	—
Naillable Steel Stud: Load Bearing	4 3/4"	6.5	3/4" Bestwall Firestop, 1 layer each side	1 Hr	T-209	A, B, C*
	6 1/4"	11.0	3/4" Bestwall Firestop, 2 layers each side	2 Hr	EST	—
Screw Type Steel Stud: Non Load Bearing						
1 1/2" 24" O.C.	2 3/4"	5.4	3/4" Bestwall Firestop, 1 layer each side	1 Hr	T 2316	A, B, C*
3 3/4" 24" O.C.	4 3/4"	6.0	3/4" Bestwall Firestop, 1 layer each side	1 Hr	T 2016	A, B, C
2 1/2" 24" O.C.	4"	4.1	1/2" Bestwall Firestop over 7/16" Noise Stop Board one side, 1/2" Bestwall Firestop other side, fiber glass insulation in stud space	1 Hr	T 3500	—
2 1/2" 24" O.C.	3 3/4"	—	3/4" Bestwall Firestop, 1 layer each side, face layer Eternawall (movable partition)	1 Hr	T 2898	A, B, C*
3 3/4" 24" O.C.	5 1/2"	8.0	3/4" Bestwall Firestop, 1 layer one side, 2 layers other side	1 1/2 Hr	EST	—
3 3/4" 24" O.C.	5 1/2"	8.0	3/4" Bestwall Firestop, 1 layer one side, fiber glass insulation in stud space, 2 layers other side	1 1/2 Hr	T 3126	A, B, C*
1 1/2" 24" O.C.	3 3/4"	8.4	3/4" Bestwall Firestop, 1 layer one side, fiber glass insulation in stud space, 1 layer 3/4" Bestwall Firestop over 1" core board other side	1 1/2 Hr	EST	—
2 1/2" 24" O.C.	3 3/4"	—	3/4" Bestwall Firestop, 1 layer each side	1 Hr	T 2069	A, C*
2 1/2" 24" O.C.	5"	10.4	3/4" Bestwall Firestop, 2 layers each side	2 Hr	T 2557	A, B, C*
2 1/2" 24" O.C.	4 1/2"	8.0	1/2" Bestwall Firestop, 2 layers each side	2 Hr	T 3218	A, B*, C*
2 1/2" 24" O.C.	4"	7.0	1/2" Bestwall Firestop, one layer over 1/4" Bestwall Gypsum Sound Deadening Board, both sides (no adhesive)	1 Hr	T 3854	—
3 3/4" 24" O.C.	6 1/4"	10.4	3/4" Bestwall Firestop, 2 layers each side, Eternawall face layer (movable partition)	2 Hr	T 2406	A, B, C
3 3/4" 24" O.C.	6 1/4"	11.0	3/4" Bestwall Firestop, 2 layers each side	2 Hr	EST	—
3 3/4" 24" O.C.	6"	8.8	3/4" Bestwall Firestop, 2 layers one side, 1 layer over 1/2" fiber glass board other side	1 1/2 Hr	EST	—
3 3/4" 24" O.C.	6 1/4"	11.1	3/4" Bestwall Firestop, 2 layers each side, fiber glass insulation in stud space	2 Hr	EST	—
Metal Faced						
Non Load Bearing						
Steel Faced Wall						
Elwin G. Smith & Co. Inc.	—	—	1/2" Bestwall Firestop, 4 layers	2 Hr	U.L. #12	B
Steel Faced Wall						
(Walcon Corp.)	—	—	1/2" Bestwall Firestop, 4 layers	2 Hr	U.L. #10	B
Aluminum & Steel Unit Part						
(R.C. Mahon Co.)	—	—	1/2" Bestwall Firestop, 5 layers	2 Hr	U.L. #9	B
(R.C. Mahon Co.)	—	—	1/2" Bestwall Firestop, 4 layers	2 Hr	U.L. #5	B
(R.C. Mahon Co.)	—	—	1/2" Bestwall Firestop, 2 layers each side	3 Hr	U.L. #6	B
(R.C. Mahon Co.)	—	—	1/2" Bestwall Firestop, 5 layers	3 Hr	U.L. #7	B
Steel Faced Wall						
(H.H. Robertson Co.)	5 1/2" Nom.	—	1/2" Bestwall Firestop, 2 layers each side	2 Hr	U.L. #8	B
(H.H. Robertson Co.)	5 1/2" Nom.	—	1/2" Bestwall Firestop, 4 layers	2 Hr	U.L. #25	—
(H.H. Robertson Co.)	5 1/2" Nom.	—	1/2" Bestwall Firestop, 4 layers	2 Hr	U.L. #22	—
(H.H. Robertson Co.)	6 1/4" Nom.	—	1/2" Bestwall Firestop, 4 layers with 1 layer 3/4" Bestwall Firestop	3 Hr	U.L. #9	—
Semi-Solid						
Gypsum Stud	2 1/2"	7.2	Bestwall Hammer System "B"	1 Hr	U.L. #10	A, B, C
Non Load Bearing	4 3/4"	7.9	3/4" Bestwall Firestop, 1 layer each side 1" x 6" Rib 24" O.C.	1 Hr	T 3128	A, B, C*
			3/4" Bestwall Firestop over 1/2" Sound Deadening Board each side of 2 1/2" x 3" Gypsum Rib 24" O.C.	1 Hr	EST	—
Solid Gypsum Board	2 1/4"	9.1	3/4" Bestwall Firestop each side 1" Core Board	2 Hr	EST	—
Double Solid Gypsum Board	6"	9.5	3/4" Bestwall over 1/2" Bestwall Firestop, each side 1" ribs	1 1/2 Hr	U.L. #7	A*, B*
	4"	13.4	3/4" Bestwall Firestop, 2 layers each side 1" Rib	2 Hr	U.L. #5	A, B, C
	5"	13.4	3/4" Bestwall Firestop, 2 layers each side 1" Rib	3 Hr	U.L. #5	A, B, C
EXTERIOR WALL:						
S.E. Galv. Panels	5"	—	3/4" Bestwall Firestop, 1 layer each side 1 1/4" x 6" Gypsum Rib with exterior Stran Wall (S.E. Panel)	1 Hr	T 3039	—
2" x 4" Wood Studs— 16" O.C.	5"	—	Interior, 3/4" Bestwall Firestop Exterior 1/2" gypsum sheathing and wood siding or other	1 Hr	T 99	—
	—	—	Interior 3/4" Firestop, 2 layers Exterior 1/2" Bestwall Gypsum Sheathing 2" x 8" T & G and 4" brick wall	2 Hr	BMS 191 192	—
	—	—	Interior 3/4" Firestop, 2 layers Exterior 1/2" Bestwall Gypsum Sheathing 2" x 8" T & G and 4" brick wall	2 Hr	U.L. #23	—
FLOOR & CEILING						
Wood Joists 16" O.C.	Ceiling	11.4	1/2" Bestwall Firestop	45 Min	U.L. #1	A, B, C
Finished floor on rough subfloor		13.0	1/2" Bestwall Firestop	1 Hr	U.L. #46	A, B*, C*
or 1/2" 3/4" Plywood		13.0	1/2" Bestwall Firestop applied to resilient metal furring 24" O.C.	1 Hr	U.L. #33	A, B, C
		12.0	3/4" Bestwall Firestop	1 Hr	U.L. #1	A, B
		16.0	3/4" Bestwall Firestop, 2 layers with resilient furring channel 24" O.C. between layers	2 Hr	U.L. #217	A, B, C*
Pre-Fab Floor						
Panel with Stringers Spaced 12" O.C.	—	6.5	1/2" Bestwall Firestop, 1 layer, over 1/2" Sound Deadening Board	1 Hr	U.L. #47	—
Steel Bar Joists 24" O.C.						
2" Concrete Floor on Metal lath centering	Ceiling	34.2	3/4" Bestwall Firestop nailed or screwed to metal furring 16" O.C.	1 Hr	U.L. #2	A, B, C
		32.0	3/4" Bestwall Firestop, metal furring 24" O.C.	1 Hr	U.L. #19	A*, C*
		33.9	1/2" Bestwall Firestop, metal furring 24" O.C.	1 1/2 Hr	U.L. #17	A*, B*, C
		34.1	3/4" Bestwall Firestop, metal furring 24" O.C.	1 1/2 Hr	U.L. #13	A*, B*, C
		36.4	3/4" Bestwall Firestop, metal furring 24" O.C.	2 Hr	U.L. #259	—
With 2 1/2" Concrete Floor		38.5	1/2" Bestwall Firestop, metal furring 24" O.C.	2 Hr	U.L. #237	A*, B*, C*
		39.3	3/4" Bestwall Firestop, metal furring 24" O.C.	2 Hr	U.L. #69	A, B, C
		38.0	3/4" Bestwall Firestop "120" ceiling tile, metal grid 24" O.C.	2 Hr	U.L. #208	A, B, C
			3/4" Bestwall Firestop "120" ceiling tile, metal grid 24" O.C.	2 Hr	T 2104	A, B, C
STEEL COLUMN						
Fire Proofing			3/4" Bestwall Firestop, 1 layer	1 Hr	EST	A, B, C
			3/4" Bestwall Firestop, 2 layers	2 Hr	U.L. #8	A, B, C
			3/4" Bestwall Firestop, 3 layers	3 Hr	U.L. #18	A, B, C*
			3/4" Bestwall Firestop, 4 layers	4 Hr	U.L. #26	A, B, C*
Beam Protection			3/4" Bestwall Firestop, 2 layers	1 Hr	U.L.	—

Fire Hazard Classification—Official Underwriters' Tests
1/2" and 3/4" Bestwall Firestop, 10 15 (LABELED)

For all 45 min. and 1 hour ratings 3/4" plywood (underlayment grade, T86) over building paper, over 1/2" structural interior plywood (with exterior glue grade—CD) may be used over the wood joists with other ceilings as detailed

LABEL SERVICE SYMBOL FOR 1/2" BESTWALL FIRESTOP

**FIRE HAZARD
CLASSIFICATION**
Flame Spread 15
Fuel Contributed 15
Smoke Developed 0



FLOOR AND CEILING
Design No. 2 30 Min
Design No. 1 45 Min
Design No. 33 1 Hr
Design No. 46 1 Hr
Design No. 17 1 1/2 Hr
Design No. 237 2 Hr

**FIRE RESISTANCE CLASSIFICATION
WALLS AND PARTITIONS**
Design No. 1 45 Min
Design No. 4 1 Hr
Design No. 5 2 Hr
Design No. 8 2 Hr
Design No. 9 2 Hr
Design No. 10 2 Hr

LABEL SERVICE SYMBOL FOR 5/8" BESTWALL FIRESTOP

**FIRE HAZARD
CLASSIFICATION**
Flame Spread 15
Fuel Contributed 15
Smoke Developed 0



FLOOR AND CEILING
Design No. 69 2 Hr
Design No. 217 2 Hr
Design No. 13 1 1/2 Hr
Design No. 2 1 Hr
Design No. 1 1 Hr
Design No. 259 2 Hr

**FIRE RESISTANCE CLASSIFICATION
WALLS AND PARTITIONS**
Design No. 18 3 Hr
Design No. 217 2 Hr
Design No. 26 4 Hr

The Label Service symbol of Underwriters' Laboratories, Inc., which appears on the twin mounting tape, binding each bundle of two pieces, is the method provided by Underwriters' Laboratories, Inc., to identify gypsum wallboard which has been produced under the Label Service. And especially important to architects and building inspectors, the front of each sheet is marked "1/2" or "5/8" Bestwall Firestop Type X" so that it's easy to identify when in place

BESTWALL'S

IMPROVED

FIRESTOP

1/2" THICK

All Its

1- and 2-HOUR RATINGS

plus the old

45-MINUTE

on walls or ceilings

for BOCA requirements

PROVEN BY OFFICIAL FIRE TESTS

at

OHIO STATE UNIVERSITY

ENGINEERING EXPERIMENT STATION

and

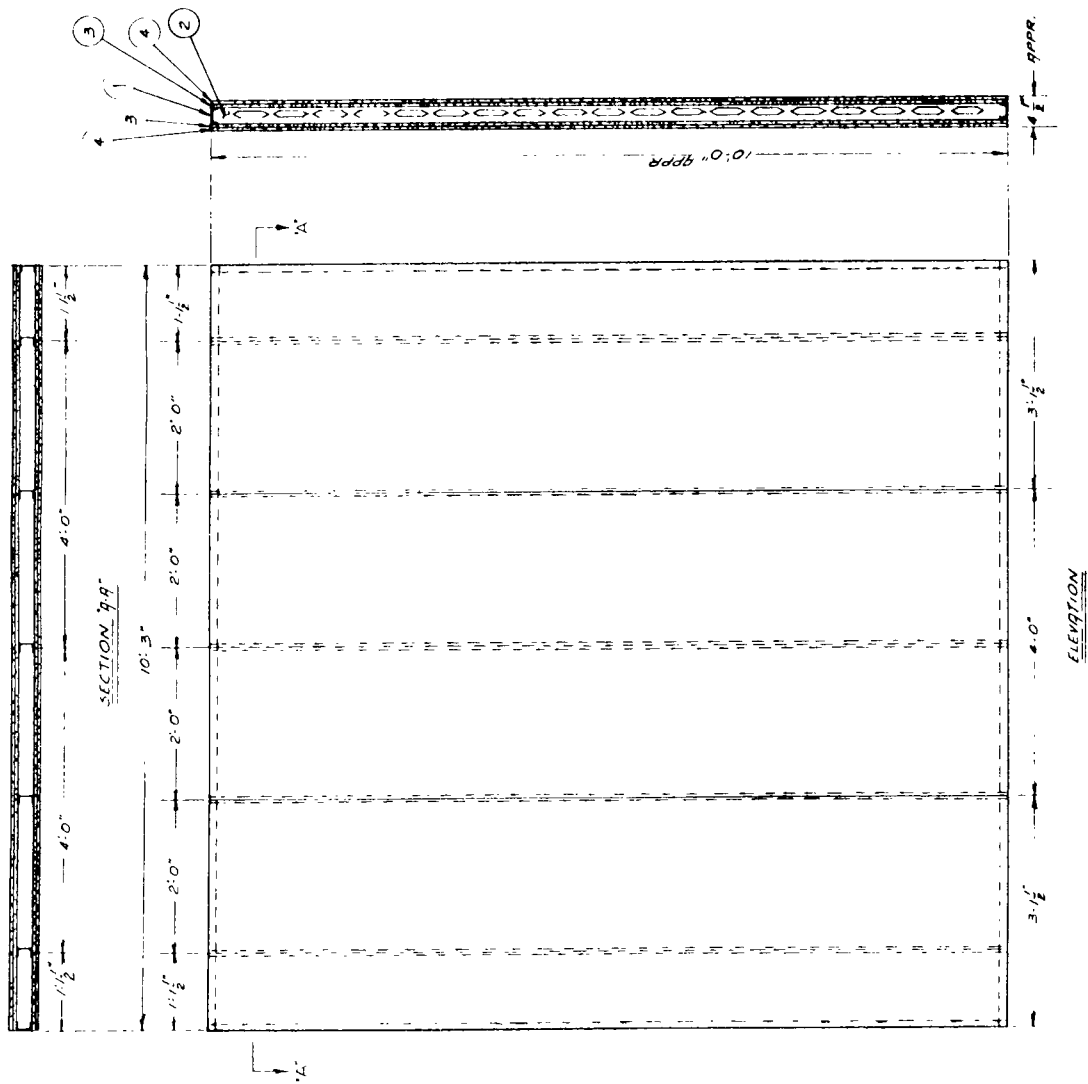
UNDERWRITERS' LABORATORY

SGP 0025673



GEORGIA-PACIFIC / GYPSUM DIVISION

COMMONWEALTH BUILDING, PORTLAND, OREGON 97204



- ① STUD : DOWN DW 40 (2 1/8") STEEL STUDS 24" O.C
- ② TRACER : DOWN D3 100 (3/8") STEEL STUD TRACER
- ③ BOARD : 1/2" FIRESTOP BESTWALL GYP BD (VERTICAL) 1 1/4" G DRILLWALL SCREWS 12" O.C 91 TOWNS AND TRACER AND THIRD PYS IN CENTER STUD. 1/2" FIRESTOP BESTWALL GYP BD (VERTICAL) 1 1/4" G DRILLWALL SCREWS 12" O.C 91 TOWNS AND TRACER AND 10" O.C CENTER STUD AND LAMINATED WITH 4" STRIPS, 2" FROM EDGES AND 4" OFF CENTER WITH BESTWALL LIGHTWEIGHT CPD. JOINTS TAPED & FINISHED WITH BESTWALL JOINT SYSTEM
- ④ BOARD : 1/2" FIRESTOP BESTWALL GYP BD (VERTICAL) 1 1/4" G DRILLWALL SCREWS 12" O.C 91 TOWNS AND TRACER AND 10" O.C CENTER STUD AND LAMINATED WITH 4" STRIPS, 2" FROM EDGES AND 4" OFF CENTER WITH BESTWALL LIGHTWEIGHT CPD. JOINTS TAPED & FINISHED WITH BESTWALL JOINT SYSTEM

OSU NO. T-3218 5-13-65
2 HR INCOMBUSTIBLE

Georgia-Pacific Corporation Portland, Oregon	
NON-BEARING STEEL STUD PARTITION	
TWO LAYERS 1/2" FIRE STOP	
BESTWALL GYP BOARD	RD 200
DATE: 5-13-65	DESIGN: ~
DRAWN BY: TCB:BT	DRAW NO: T-134
TP	

2 HOURS INCOMBUSTIBLE NON-LOAD BEARING