UNITED STATES GYPSUM

solid-studless **partitions**

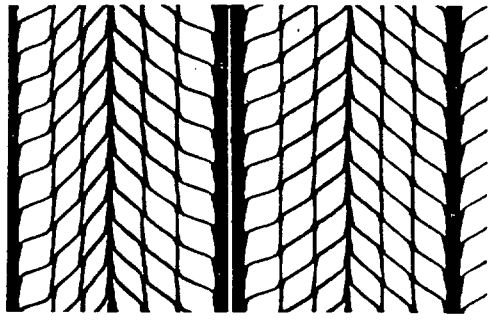
USG* Metal Lath and Plaster

fire rating	description	test no.		sound rating stc	sound rating 9-f avg	relative cost index	comments	folder reference
1 hr.	Studless—Metal Lath & Plaster—solid—⅜" riblath—100:2-100:2 gypsum sand plaster wt 18 width 2"	T-162-OSU	(f)		38		Good performance—adaptable in areas of large volume constr.	
		NBS-503 F20	(s)		db	127		a-1015

description

This partition assembly is an economical monolithic plaster construction, 2", 2¼" or 2½" in thickness, widely recognized for its space-saving features. USG ⅜" Riblath, attached at the floor and ceiling by special runners, contributes vertical rigidity and reinforcement while providing an excellent lightweight plaster base. Nesting and wire tying of ribs on adjacent sheets makes the Riblath a nearly continuous reinforcing membrane which requires temporary bracing only until the partition has been plastered on one side.

The ⅜" Riblath for this assembly is slit and expanded from rust-resisting steel in a herringbone mesh pattern with longitudinal ribs—⅜" V-shaped ribs at 4½" intervals and inverted intermediate 3/16" ribs. The excellent mechanical keying properties and proper distribution of reinforcing provided by this plaster base give assemblies using it good crack resistance and fire resistance (see table, above).



function and utility

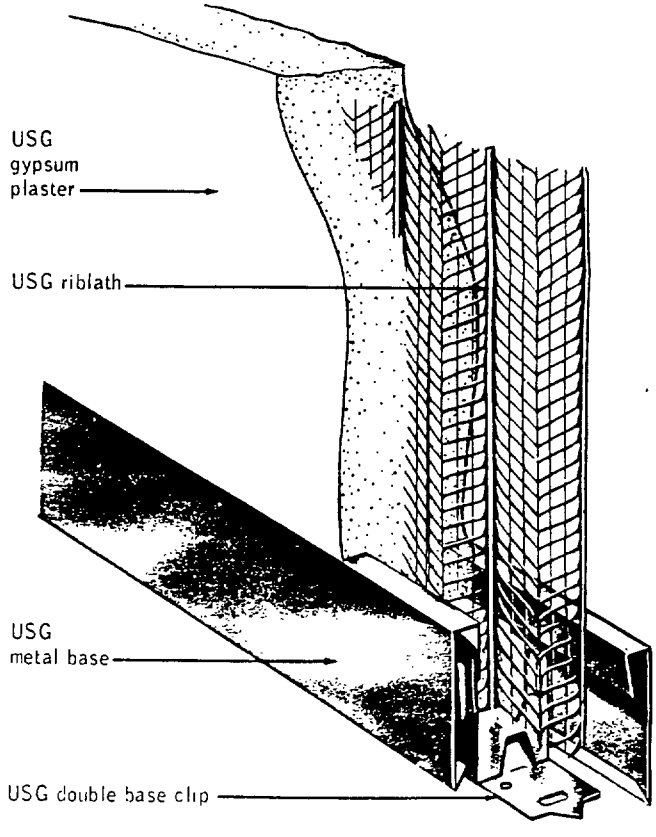
This assembly is ideal for use wherever non-load bearing plastered partitions are desired and particularly where space saving and economy are the most important factors. Its features are:

Economical—solid plaster partitions are accepted as the most economical fire-resistant plaster partition assemblies. The 2" thickness saves space and costly floor area.

Performance—nationally accepted and used in schools, dormitories, apartments and hotels as a functional, economical, space-saving partition construction requiring little maintenance.

Fire Protection—constructed of incombustible components, this assembly has a one-hour fire resistance rating.

Strength—resists high impact loads without discernible cracking. Additional strength and rigidity may be gained by increasing the plaster thickness (see U.S.G. Folder f-1855).

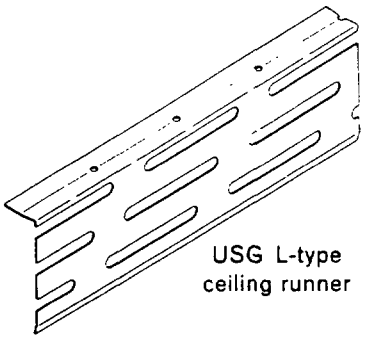


limitations

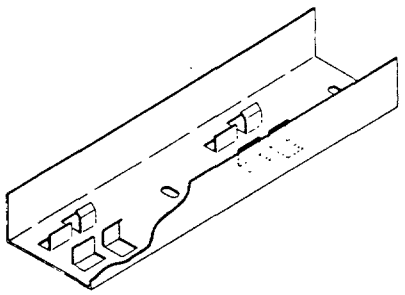
1. A non-load bearing partition.
2. Limiting height is 12'.
3. Any door frames used must be fabricated and anchored to prevent twisting and impact vibrations (see Specifications, page 2).
4. Solid partitions, like all other non-load bearing partition constructions, should be isolated from reinforced concrete framing columns and beams. The partition will not resist stresses transmitted to it by movement or deflection of the structural components of the building.
5. Not recommended for use with flat plate reinforced concrete floor-ceiling constructions, unless isolated from the flat plate.

*T.M. Reg. U.S. Pat. Off.

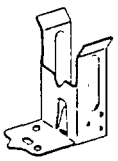
components



USG L-type
ceiling runner



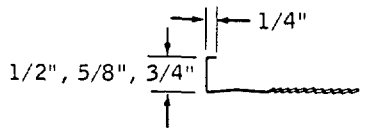
USG floor runner & screed



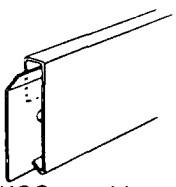
USG
double
base clip

see product catalog f-1865 for full description on accessories & sizes

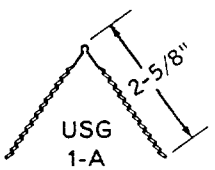
USG casing beads
(expanded or short flange)



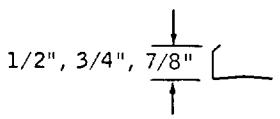
#66 square edge



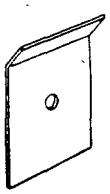
USG metal base
& splice plate



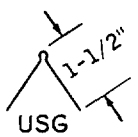
USG
1-A
expanded
corner bead



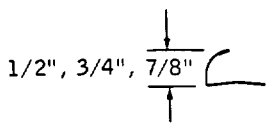
#60 semi-square edge



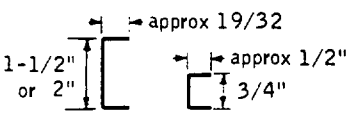
USG metal base
splice plate



USG
4-A
flexible
corner bead

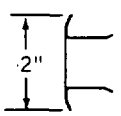


#4 or #138 quarter round



USG
lathing channels

USG
selv-edge
cornerite



USG 2"
partition terminal

specifications

notes to architect

1. *In cold weather, all glazing should be complete and the building must be heated to a minimum of 55°F. Before lathing, ventilation should be provided to carry off excess moisture.*

2. *Steel door frames should be fabricated from 16 gauge metal, minimum, shop primed. The opening at the trim return should be accurately formed to the overall thickness of the partition.*

Base plates, designed with two anchor holes to prevent rotation, should be securely attached to trim returns to dampen door impact vibrations. Floor anchorage should be by two power-driven anchors or equivalent per plate.

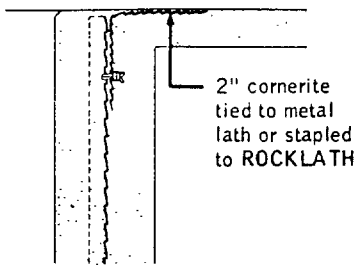
Four jamb anchors should be provided on each jamb, welded to the trim returns (see detail page 3) and wire-tied to the riblath. Separate bracing shall be furnished to keep the frame in alignment.

Grouting of the door is required on all installations. Under no conditions shall the lath and plaster terminate against the trim return of the door frame. If door frame struts are used, they shall not exceed ⅝" in the direction of the partition thickness.

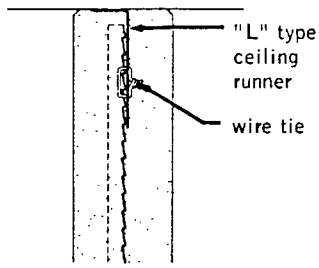
Door closers are recommended on all oversize doors and doors where the weight of the door (including attached hardware) exceeds 50 lbs. (*Specifications continued page 4.*)

details

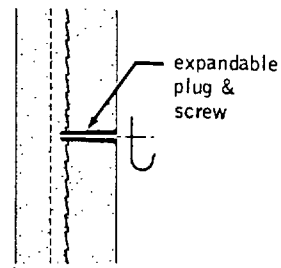
scale: 3" = 1'-0"



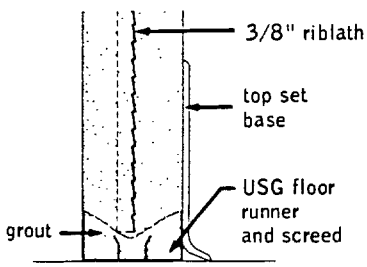
ceiling attachment



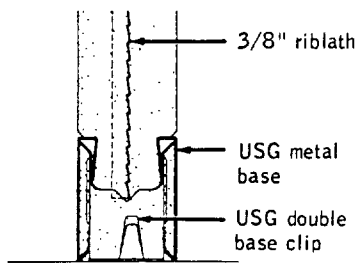
ceiling attachment



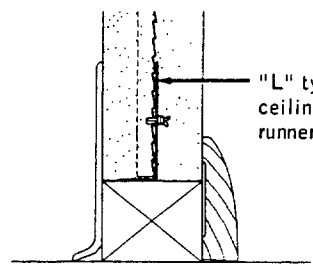
light fixture attachment



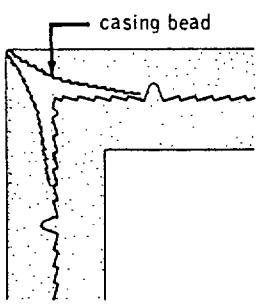
combination base runner & screed



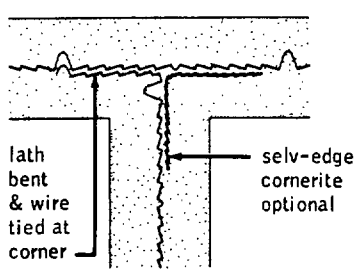
metal base



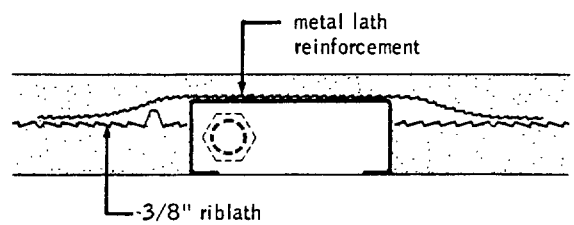
wood base



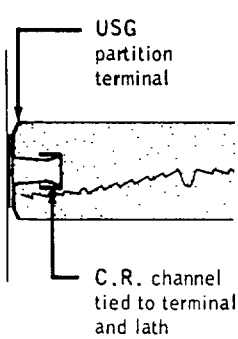
corner



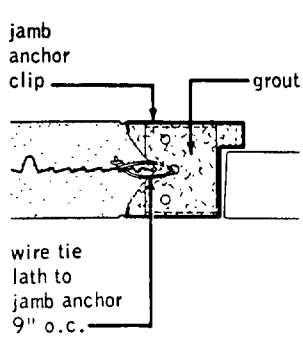
partition intersection



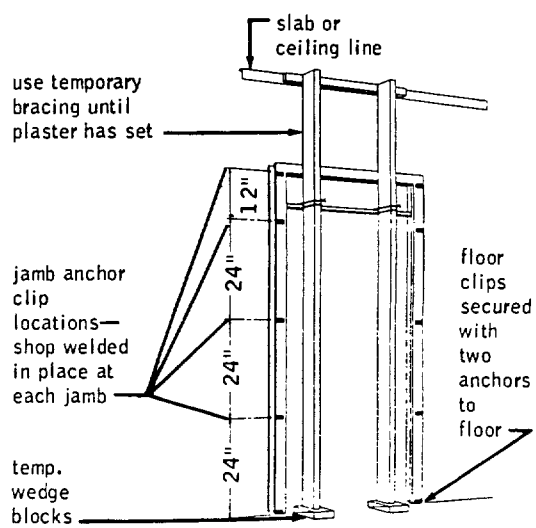
outlet box



wall intersection



metal door jamb



elevation — cross section thru frame

BB009 1152

3. *Lath and plaster surfaces (non-load bearing) will not resist stresses imposed by structural movement, and are subject to dimensional variations due to changes in temperature and humidity. It is recommended that lath and plaster surfaces be isolated from all structural elements, and control joints be specified where:*

a. *a partition abuts any structural element or dissimilar wall or ceiling assembly.*

b. *the partition construction changes within the plane of the partition.*

4. *The minimum thickness of plaster over conduit, pipe and the back of electrical outlets should be ½". The back of all electrical boxes should be reinforced with metal lath.*

5. *Where a plaster surface is flush with metal, metal bucks, metal windows, or metal base, the plaster should be grooved between the two materials.*

6. *Fixture Attachment—Lightweight fixtures and trim shall be installed by drilling set dry plaster to a minimum depth of ¾" and inserting a plastic plug or other expandable anchor for anchorage of attachment screws.*

7. *Ceramic Tile—(Where ceramic tile is required a portland cement-lime plaster shall be applied in scratch and brown coats to ⅝" grounds over metal lath as a base). (Ceramic tile shall be adhesively attached over the finished gypsum plaster in accordance with adhesive manufacturer's specifications.)*

The most expedient way to obtain additional information on fire resistance ratings, sound transmission or details not covered in this publication is to direct inquiries to: UNITED STATES GYPSUM, Architect Service Department, 101 So. Wacker Dr., Chicago, Ill., 60606.

materials

See USG Folder f-1855 for Plaster Specifications.

See USG Folder f-1865 for General Lathing Specifications.

See USG Folder f-1915 for Paint Specifications.

a. USG 3.4 lb. ⅜" Riblath 27" x ceiling height.
b. USG Metal Base—2½" (18) (20) ga.
c. USG Metal Base Splice Plate.
d. USG Double Metal Base Clip.
e. USG Floor Runner and Screed.
f. USG L-Type Ceiling Runner.
g. USG Partition Terminal.
h. USG Corner Bead (specify type from page 2).
i. USG Casing Bead (specify type from page 2).
j. USG Base Screed (specify type from page 2).
k. USG Cold Rolled Channels ¾", 1½", 2".
l. 18 ga. Tie Wire.

erection and plaster base attachment

Floor tracks shall be (USG 2½" Metal Base and Double Base Clips) or (USG Floor Runner and Screed) securely attached 24" o.c. Ceiling runner shall be USG L-Type Ceiling Runner attached 16" o.c. and located so that the USG ⅜" Riblath will be positioned in the center of the partition.

Attachment to concrete shall be with concrete stub nails or power driven anchors; to ceiling grillage with a double strand of 18 gauge tie wire; to plaster or gypsum lath with toggle bolts or staples.

The riblath shall be erected vertically, attached to the floor runner or set in a groove of the grouted metal base and securely wire-tied 8" o.c. to the ceiling runner. Wire-tie the nested edges of sheets 9" o.c. and securely tie the riblath to jamb inserts or door frames. At all interior angles, metal lath shall be formed into the corners and carried out onto the abutting surface, and adequately secured.

Partition terminals and cased openings shall be finished with USG Partition Terminal wire-tied securely in place.

Temporary bracing shall not be less than ¾" C. R. Channels placed horizontally near mid-height of the partition and tied to the riblath 24" o.c. and with 1½" angle braces placed vertically not over 6' o.c. Wedge the vertical braces at top and bottom and tie the horizontal ¾" channel to hold lath in place. Bracing shall remain in place until the brown coat of plaster on the side opposite the bracing has set.

lathing accessories

a. Metal Base shall be 2½" high, (18) (20) gauge, painted. Metal base shall be notched to a neat miter in forming all angles, in continuous runs, ends shall be evenly butted and internally spliced with a splice plate. Base shall be securely held in place by clipping to base clips.

b. USG Partition Terminal shall be provided as detailed and where indicated. Attach with 18-gauge tie wire 6" o.c.

c. Metal Corner Bead (000000) shall be provided on all external plaster corners, and shall be in single lengths where the length of the corner does not exceed standard stock lengths. Fasten securely with wire-ties, etc., spaced not over 8" o.c. stagger in two wings.

d. Casing Bead No. (000000) shall be installed where indicated. Ends shall be accurately cut and mitered and the casing bead shall provide full plaster grounds when securely installed.

e. Base Screed No. (000000) shall be installed 6" above the finish floor, unless otherwise indicated. Set screeds level, true to line, in lengths as long as practical, with joints aligned with a suitable splice. Wire-tie in place.

UNITED STATES GYPSUM

partitions

solid-channel stud

USG* Metal Lath and Plaster

fire rating	description	test no.	sound rating stc	sound rating 9-f avg	relative cost index	comments	folder reference
2 hrs.	Chan Stud—Solid Metal Lath & Plaster—¾" cr chan 16" o.c.—3.4# dm met lath—STRUCTO-LITE (Type R) plaster wt 12 width 2½"	UL Des 19-2 hr (f)	N/A		137	2-hr. rating also obtainable with 2" of wood fiber plaster	a-1025
1 hr.	Metal Lath & Plaster—¾" cr chan 16" o.c.—2.5# dm met lath—100:2-100:2 gypsum sand plaster wt 18 width 2"	T-129 MLA OSU (f) NBS-523 F45 (s)		39 db	133	Standard solid partition design	a-1025
wall furring application							
—	¾" C.R. Channels 16" o.c., cross braced, 3.4# diamond mesh metal lath, ⅞" sanded basecoat plaster, lime putty finish coat	—	—	—	203	No vapor barrier; isolation adequate	a-1025

description

This partition assembly is an economical monolithic plaster construction, 2" or more in thickness, widely recognized for its space-saving features. USG Cold Rolled Channels, placed vertically, act as permanent studs and are attached at the floor and ceiling by special runners. USG Metal Lath, slit and expanded from rust-resisting steel, is wire-tied to the studs providing an ideal, lightweight base for economical application of gypsum plasters.

Metal lath for this assembly is available in two types (see Specifications, page 6). The excellent mechanical keying properties and equal distribution of reinforcing provided by this plaster base give these assemblies high fire resistance and acceptable sound transmission loss ratings (see table, above). For greater fire resistance or increased ceiling height, solid partitions thicker than 2" may be used (see table below).

function and utility

This assembly is ideal for use wherever non-load bearing plastered partitions are desired and particularly where space saving and economy are the most important factors. Its features are:

Economical—Solid plaster partitions are accepted as the most economical fire-resistant plaster partitions. The 2" thickness saves space and costly floor area.

Performance—nationally accepted and used in schools, dormitories, apartments and hotels as a functional, economical, space-saving partition construction requiring little maintenance.

Lightweight—In structural design the dead load ranges from 12 to 23 lbs. per sq. ft. depending on type of plaster aggregate and plaster thickness used.

Fire Protection—Constructed of incombustible components, this assembly has established fire resistance ratings of up to two hours (see table above).

Sound Isolation—provides a 39 decibel average sound transmission loss, considered satisfactory for normal requirements within offices, apartments and hotel units.

Strength—Highly resistant to impact damage. Additional strength and rigidity may be gained by increasing the plaster thickness (see U.S.G. Folder f-1855).

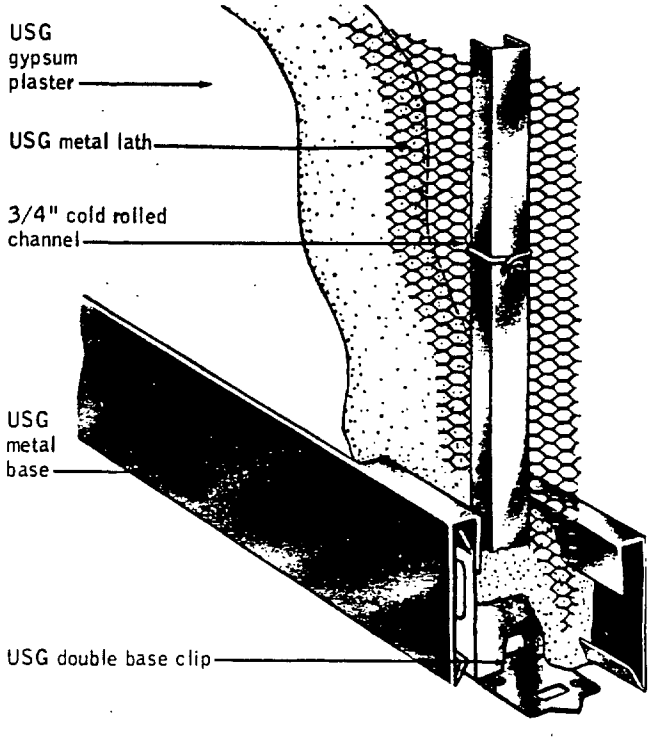
limitations

1. A non-load bearing partition.
2. Limiting height for 2" thickness is 12'. (See table below for limitations of other thicknesses).
3. Door frames must be anchored to prevent twisting and impact vibrations (see Specifications, page 6).
4. Solid partitions, like all other non-load bearing partition constructions, should be isolated from reinforced concrete framing columns and beams. The partition will not resist stresses transmitted to it by movement or deflection of the structural components of the building.
5. Not recommended for use with flat plate reinforced concrete floor-ceiling constructions, unless isolated from the flat plate.

partition thickness—limiting heights

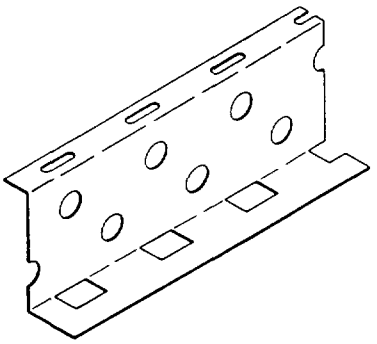
partition construction	thickness	limiting ceiling ht.
¾" Cold Rolled Channels Diamond Mesh Lath & Plaster	2"	12'-0"
¾" Cold Rolled Channels Diamond Mesh Lath & Plaster	2¼"	14'-0"
¾" Cold Rolled Channels Diamond Mesh Lath & Plaster	2½"	16'-0"
1½" Cold Rolled Channels Diamond Mesh Lath & Plaster	2¾"	18'-0"
1½" Cold Rolled Channels Diamond Mesh Lath & Plaster	3"	20'-0"
1½" Cold Rolled Channels Diamond Mesh Lath & Plaster	3½"	22'-0"

NOTE: No limitation on length of this partition for heights under 12'-0". Length between columns, or walls, shall not be greater than 2 times the partition height when the latter exceeds 16'-0"; nor greater than the height when it is 24'-0" or more. Heights over 20'-0" shall have horizontal girts every 6'-0".

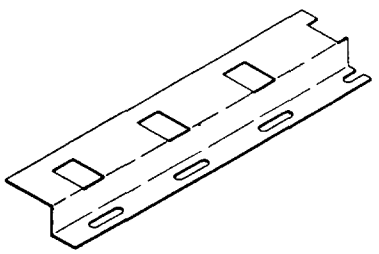


*T.M. Reg. U.S. Pat. Off.

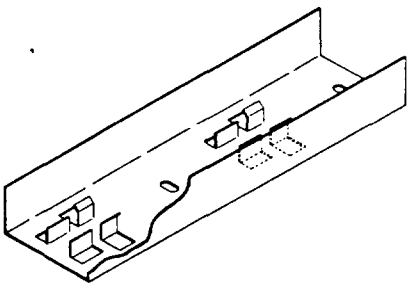
components



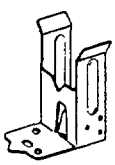
USG Z-type ceiling runner



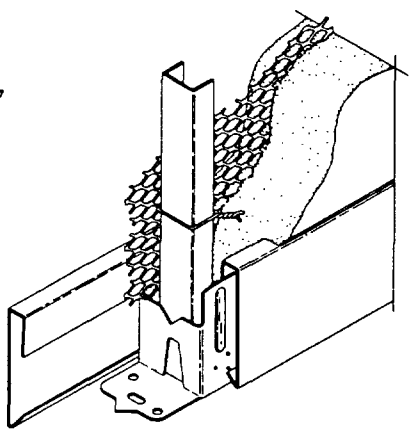
USG Z-type floor runner

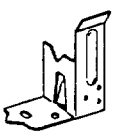


USG floor runner & screed

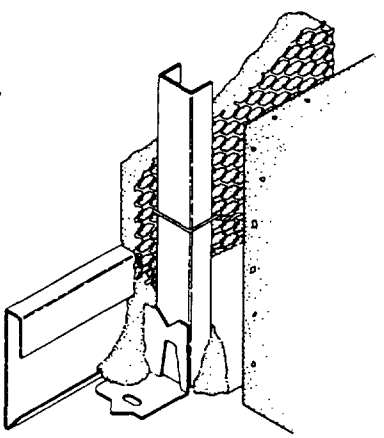


USG double base clip

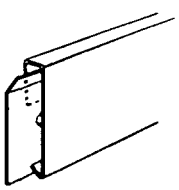




USG single base clip

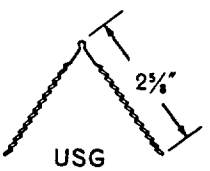


see product catalog f-1865 for full description on accessories & sizes



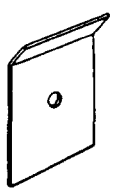
USG metal base & splice plate

USG selv-edge cornerite



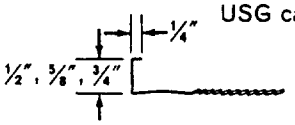
USG 1-A expanded corner bead

USG 4-A flexible corner bead

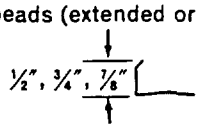


USG metal base splice plate

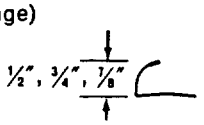
USG casing beads (extended or short flange)



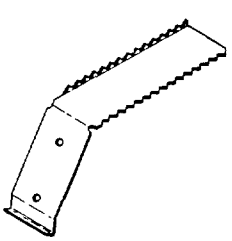
#66 square edge



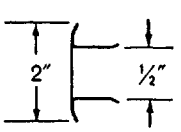
#60 semi-square edge



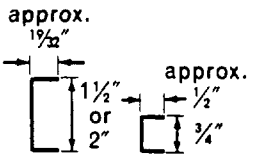
#4 or #138 quarter round



USG adjustable wall furring bracket



USG 2" partition terminal



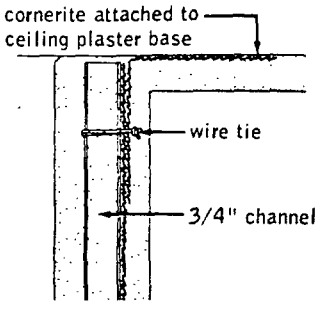
USG cold rolled channels

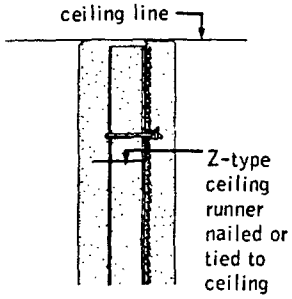
BB009 1735

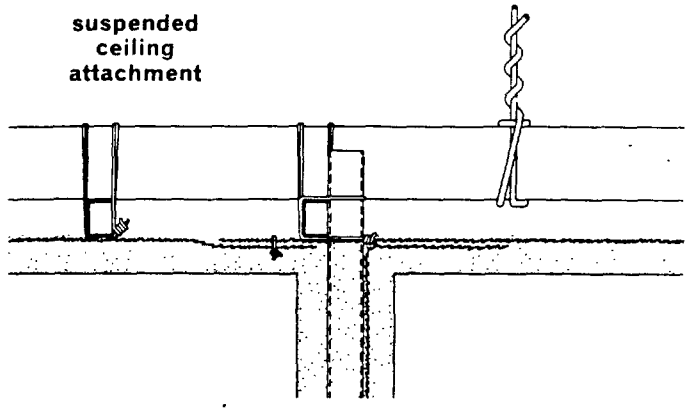
details

scale: 3" = 1'-0"

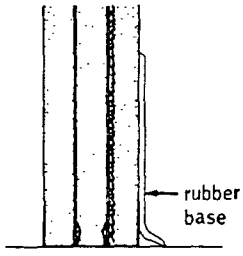
ceiling attachment

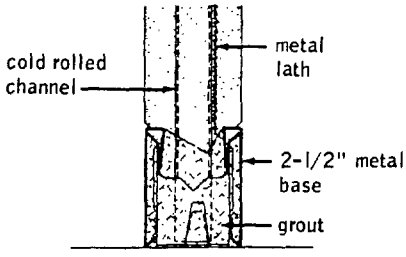


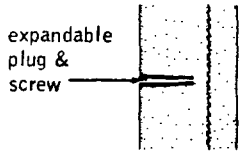




floor attachment

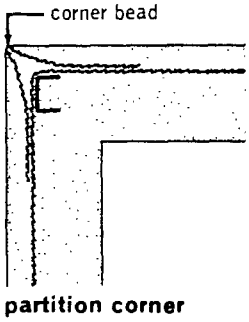




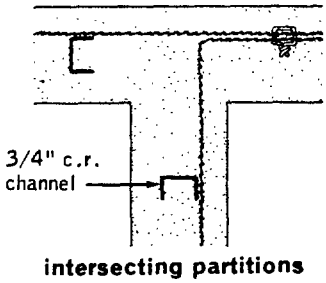


light fixture attachment

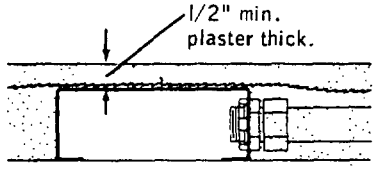
intersecting walls



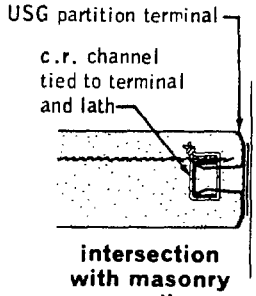
partition corner



intersecting partitions

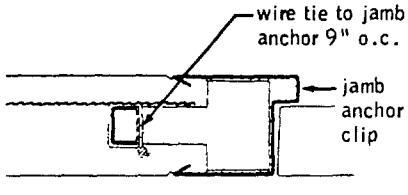


electrical fixture attachment

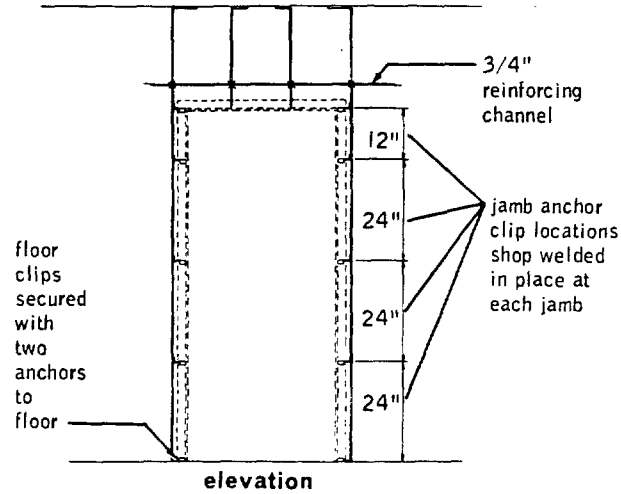


intersection with masonry wall

metal door frame details



jamb



elevation
cross section thru frame

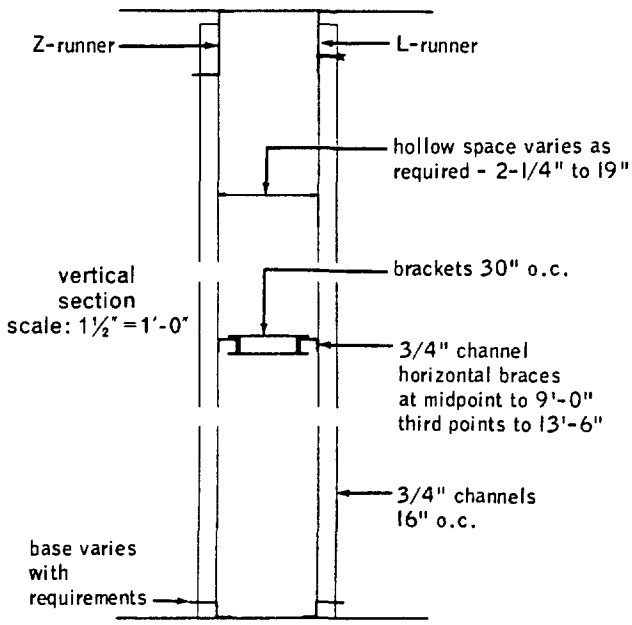
88009 1736

*T.M. Reg. U.S. Pat. Off.

core walls

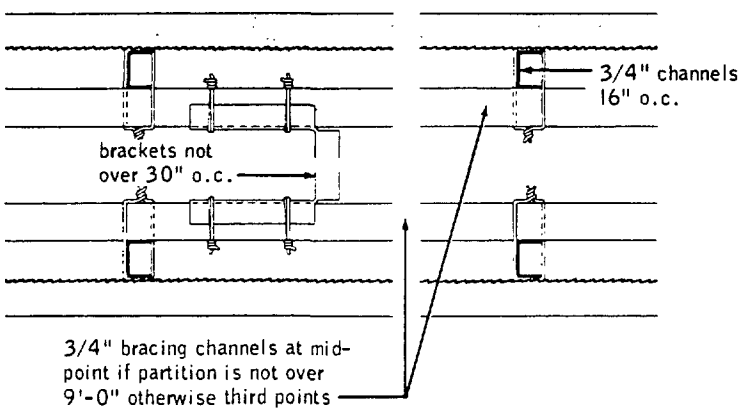
Core walls, as vertical shafts encasing the usual plumbing supply and waste lines, vent ducts and electrical conduits, require more free space than can be provided within the usual partition assembly. The channel stud core wall provides almost unlimited space for mechanical installations within the partition.

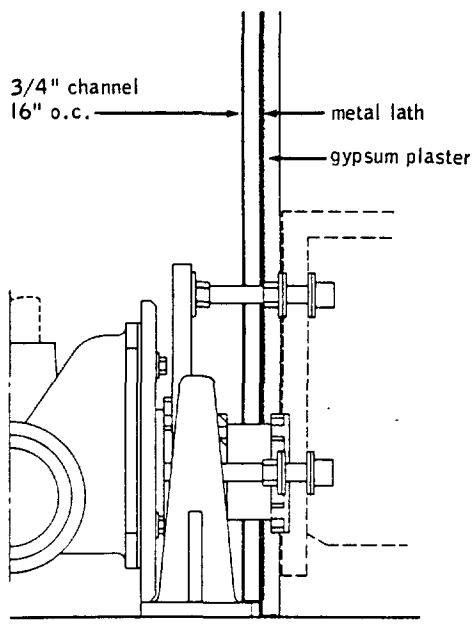
Core walls are easily constructed using channel studs and metal lath, provided proper bracing is used to compensate for the stress skin action of the one side. The non-lathed side of the studs shall be stiffened with ¾" channel horizontal braces spaced vertically at midpoint to 9'-0", third points to 13'-6"; and ¾" channel bracket mid-girts spaced not over 30" o.c. horizontally (see detail).



core wall

horizontal section
scale: 3" = 1'0"





closet carrier

exterior wall furring

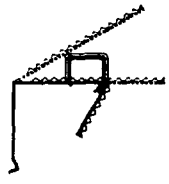
It is recommended that all exterior walls be furred. Asphaltic or bituminous bonding agents are not recommended as a plaster base. Channel studs, metal lath and plaster provide an exterior wall furring system that offers the same space-saving features, economical construction and readily decorated interior wall surface found in the related solid plaster partition.

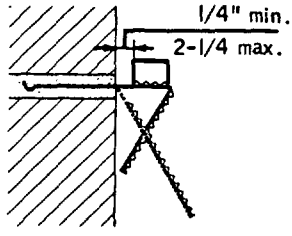
This system consists of three horizontal ¾" channels, located not more than 6" from the floor and ceiling, and one at the midpoint between floor and ceiling attached to the wall with USG Adjustable Wall Furring Brackets not more than 36" o.c. Vertical channels are wire tied to these horizontal members, with spacing determined by the maximum allowable spacing of supports for the type of metal lath used (see below). Metal lath is wire tied on the vertical channels and plastered to ¾" grounds. If height exceeds 10'-0" using ¾" channels, additional horizontal channels are required, spaced not more than 4'-6" o.c.

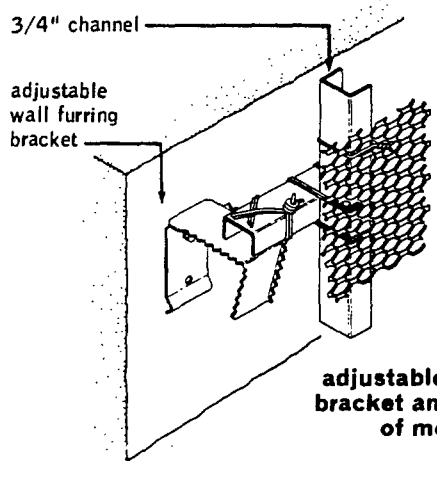
type of lath	weight per sq. yd.	maximum allowable spacing
Diamond Mesh	2.5 lb.	12"
Diamond Mesh	3.4 lb.	16"
⅛" Z-Rib	2.75 lb.	16"
⅛" Z-Rib	3.4 lb.	19"

adjustable wall furring brackets

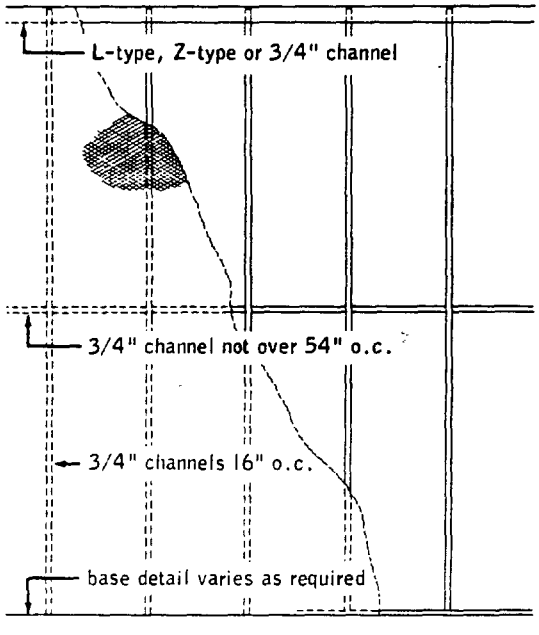
1. Wall furring brackets shall be attached not more than 36" o.c. horizontally and 4'-6" o.c. vertically.
2. After attachement, bend bracket to horizontal position.
3. Wire-tie plumbed channel to bracket ¼" min. (2¼" max.) from wall.
4. Bend excess of bracket down.





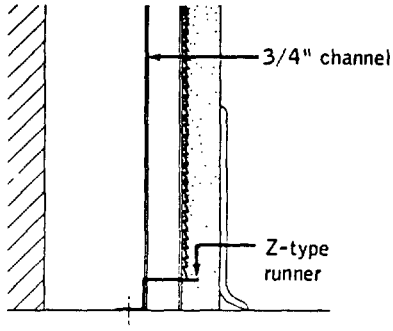


adjustable wall furring bracket and attachment of metal lath



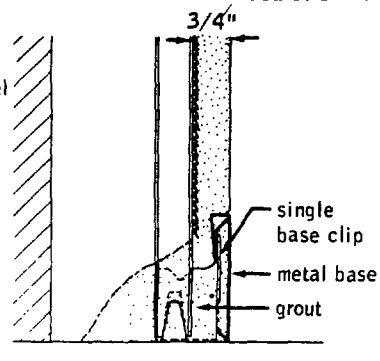
elevation

floor attachment



top set

scale: 3" = 1'-0"



metal

specifications

notes to architect

1. *In cold weather, all glazing should be completed and the building must be heated to a minimum of 55°F. Before lathing, ventilation should be provided to carry off excess moisture.*

2. *Steel door frames should be fabricated from 16 gauge metal, minimum, shop primed. The opening at the trim return should be accurately formed to the overall thickness of the partition.*

Base plates, designed with two anchor holes to prevent rotation, should be securely attached to trim returns to dampen door impact vibrations. Floor anchorage should be by two power-driven anchors or equivalent per plate.

Four jamb anchors should be provided on each jamb, welded to the trim returns. (See detail page 3.)

Steel door frames should be grouted solid with mortar when the scratch coat of plaster is applied. Under no conditions shall the lath and plaster terminate against the trim return of the door frame.

Door closers are recommended on all oversize doors and doors where the weight of the door (including attached hardware) exceeds 50 lbs.

3. *Lath and plaster surfaces (non-load bearing) will not resist stresses imposed by structural movement, and are subject to dimensional variations due to changes in temperature and humidity. It is recommended that lath and plaster surfaces be isolated from all structural elements and control joints be specified where:*

   a. *a partition abuts any structural element or dissimilar wall or ceiling assembly.*

   b. *the partition construction changes within the plane of the partition.*

4. *The minimum thickness of plaster over conduit, pipe and the back of electrical outlets should be ½". The back of all electrical boxes should be reinforced with metal lath.*

5. *Where a plaster surface is flush with metal, metal bucks, metal windows, or metal base, the plaster should be grooved between the two materials.*

6. *Fixture attachment—Lightweight fixtures and trim shall be installed using plastic plugs or other expandable anchors for screw attachment. Heavy fixture attachment is not recommended.*

7. *Ceramic Tile—Where ceramic tile is required, a portland cement-lime plaster shall be applied in scratch and brown coats to ⅝" grounds over metal lath as a base. Metal lath shall be tied to the tile side of the channel studs.*

(Ceramic tile may be adhesively attached over the finished gypsum plaster in accordance with the adhesive manufacturer's specifications.)

The most expedient way to obtain additional information on fire resistance ratings, sound transmission or details not covered in this publication is to direct inquiries to: UNITED STATES GYPSUM, Architect Service Department, 101 S. Wacker Dr., Chicago, Ill. 60606.

materials

See USG Folder f-1855 for Plaster Specifications.

See USG Folder f-1865 for General Lathing Specifications.

See USG Folder f-1915 for Paint Specifications.

All materials herein specified shall be manufactured by the United States Gypsum Company.

a. USG Floor Runner and Screed.

b. USG Metal Base—2½" (18) (20) ga.

c. USG Metal Base Splice Plate.

d. USG Double Metal Base Clip.

e. USG Single Metal Base Clip.

f. USG Z-Type Ceiling Runner.

g. USG Z-Type Floor Runner.

h. USG Partition Terminal.

i. USG Corner Bead (specify type from page 2).

j. USG Casing Bead (specify type from page 2).

k. USG Cold Rolled Channels ¾", 1½", 2".

l. USG Adjustable Wall Furring Bracket.

m. 18 Ga. tie wire.

n. Metal Lath shall be (2.5 lb.) (3.4 lb.) Diamond Mesh, (2.75 lb.) (3.4 lb.) Z-Riblath 27" x 96".

floor and ceiling track erection

Floor and ceiling track shall be of the type and size shown on the plans or as herein specified and shall be aligned accurately according to the partition layout.
Floor tracks shall be (USG 2½" Metal Base and Double Base Clips) (USG 2½" Metal Base and Single Base Clips) securely attached 16" o.c. or (USG Floor Runner and Screed) (USG Z-Type Floor Runner) securely attached 24" o.c.
Attachment to concrete shall be with concrete stub nails or power driven anchors; to ceiling grillage with a double strand of 18 gauge tie wire; to plaster or gypsum lath with toggle bolts or staples.

partition system erection

Studs shall be ¾" C.R. Channel, and the partition thickness two inches unless otherwise noted. Studs shall be spaced not to exceed 16" o.c. and shall be of sufficient length to properly engage the USG Z-Type Ceiling Runner and the USG Floor Runner and Screed, or the USG Double Base Clips. A stud shall be wire tied at each jamb of steel or wood door frames and at openings cased with USG's Partition Terminal.
A horizontal reinforcement shall be used over all openings and shall consist of a ⅜" round rod or a ⅛" by 1¼" flat bar. Saddle tied to each vertical stud, the bar or rod should extend out to the first stud beyond the frame.

channel stud core wall erection

The core wall shall consist of two lath and plaster diaphragms supported by a channel iron grillage.

Runner tracks shall be provided at each face.

Floor runners shall consist of Single Base Clips at 16″ o.c. with 2½″ USG Metal Base Face Plate or the USG Z-Type Floor Runner.

The ceiling tracks shall be USG Z-Type Ceiling Runner.

The double row of ¾″ c.r. channel studs shall be spaced not to exceed 16″ o.c. and shall be of sufficient length to properly engage the floor and ceiling runners.

Aligning ¾″ channels shall be saddle-tied to the inside face at each stud. A pair of aligning channels on partitions 9′-0″ or less at mid-point or at third points not to exceed 4′-0″.

The channel girts shall be tied together by forming brackets of ¾″ channels, spaced 30″ o.c. along the horizontal aligning channels. Legs of the brackets and channels to be nested and securely wire-tied.

channel stud furring system erection

¾″ channel studs shall be erected vertically 16″ o.c. and aligned and secured by:

1. Engaging the Single Base Clip or the Z-Type Floor Runner.
2. Engaging the Z-Type ceiling runner.
3. Saddle tying to horizontal ¾″ channel girts spaced not to exceed 4′-6″ o.c.

The horizontal girts shall be secured to the masonry back-up at 36″ o.c. by saddle tying the channel to serrated leg of USG Adjustable Wall Furring Brackets.

door frame erection

Studs shall be inserted into the steel door frame, nested in the notches of the jamb anchor clips and securely wire tied. A ⅜″ round rod or a ⅛″ x 1¼″ flat bar horizontal reinforcement shall be used over the head of the door, extending out to engage the first stud beyond the frame. The reinforcing shall be securely wire tied at each channel intersection.

plaster base attachment

Metal Lath shall be applied with the long dimension of the sheet across the supports. The ends of all lath shall be lapped not less than 1 inch. If end laps are made between supports, they shall be adequately laced or tied with 18 gauge tie wire. The sides of diamond mesh lath shall be lapped not less than ½ inch. The sides of riblath shall be lapped by nesting outside ribs, and shall be wire tied to every support, and between supports not to exceed 9 inch intervals. All metal lath shall be placed so that the lower sheets overlap the upper sheets. Wherever possible, ends of lath in adjacent courses shall be staggered. Metal lath shall be secured to all supports, with 18 gauge tie wire at intervals not exceeding 6 inches. At all interior angles, metal lath shall be formed into the corners and carried out onto the abutting surface and adequately secured.

lathing accessories

a. Metal Base—2½ inch (18) (20) gauge, painted, shall be notched to a neat miter in forming all angles. In continuous runs ends shall be evenly butted and internally spliced with a splice plate. Metal base shall be securely held in place by engaging the base clips.

b. Metal Corner Bead No. (00000) shall be provided on all exterior plaster corners, and shall be in single lengths where the length of the corner does not exceed standard stock lengths. Fasten securely with wire-ties, spaced not over 8″ o.c.; stagger in two wings.

c. Casing Bead No. (00000) shall be installed where indicated. Ends shall be accurately cut and mitered and the casing bead shall provide full plaster grounds when securely installed. Attach with 18 gauge tie wire 6″ o.c.

d. USG Partition Terminal shall be provided as detailed and where indicated. Attach with 18 gauge tie wire 6″ o.c.

*TRADEMARKS: The following trademarks are owned and/or registered in the U.S. Patent Office by United States Gypsum Company, and are used throughout this catalog to designate particular products manufactured by that company: USG (metal products).

NOTE: Since methods and conditions of application and use are beyond our control, the United States Gypsum Company will not be responsible for failure of its products when not used according to our directions and specifications.

UNITED STATES GYPSUM
THE GREATEST NAME IN BUILDING
GENERAL OFFICES: 101 South Wacker Drive, Chicago, Illinois 60606

UNITED STATES GYPSUM

solid **partitions**

ROCKLATH* and Plaster

PLASTER BASE

fire rating	description	test no.	sound rating stc	sound rating 9-f avg	relative cost index	comments	folder reference
1 hr.	Studless—Solid Gypsum Lath & Plaster—½" long length ROCKLATH—¼" 100:1-100:2 gypsum sand plaster wt 16 width 2"	T-118-OSU (f) NBS-510 F29 (s)		36 db	120	Economical on volume projects where special fitting or cutting is minimum	a-1035
wall furring application							
—	¾" C.R. Channels 16" o.c., cross braced, ½" Insulating ROCKLATH and BRACE-TITE* Clips, ½" sanded base-coat plaster, lime putty finish	—	—	—	185	Isolation adequate; good vapor barrier	a-1035
—	⅜" Long Length Insulating ROCKLATH, supported by ¾" horizontal channels 36" o.c., ¾" sanded basecoat plaster, lime putty finish	—	—	—	203	Limited to 12' ceiling height. Control joints should be used 20' o.c.	a-1035

description

This partition assembly is an economical monolithic plaster construction, 2" or more in thickness, which has been readily accepted for its space-saving features. ½", V-edge, Long Length ROCKLATH plaster base is held vertically by floor and ceiling runners and plastered on both sides. Temporary bracing is required until the assembly has been partially plastered.

function and utility

This assembly is ideal for use wherever non-load bearing plastered partitions are desired and particularly where space-saving and economy are the most important factors. Its features are:

Economical—solid plaster partitions are accepted as the most economical fire-resistant plaster partition assemblies. The 2" thickness saves space and costly floor area. Material costs are less because no studs are required.

Lightweight—In structural design the dead load for 2" solid plaster partitions ranges from 11 to 16 lbs. per sq. ft., depending on the type of plaster aggregate used.

Performance—nationally accepted and used in schools, dormitories, apartments, and hotels as a functional, economical, space-saving partition construction requiring little maintenance.

Fire Protection—Constructed of incombustible components, this assembly has an established fire resistance rating of one hour (see table above).

Strength—A 240 ft.-lb. impact load concentrated at the center of a 2" x 8'-0" x 16'-0" panel failed to cause serious cracking. Additional strength and rigidity may be gained by increasing the plaster thickness (see U.S.G. Folder f-1855).

limitations

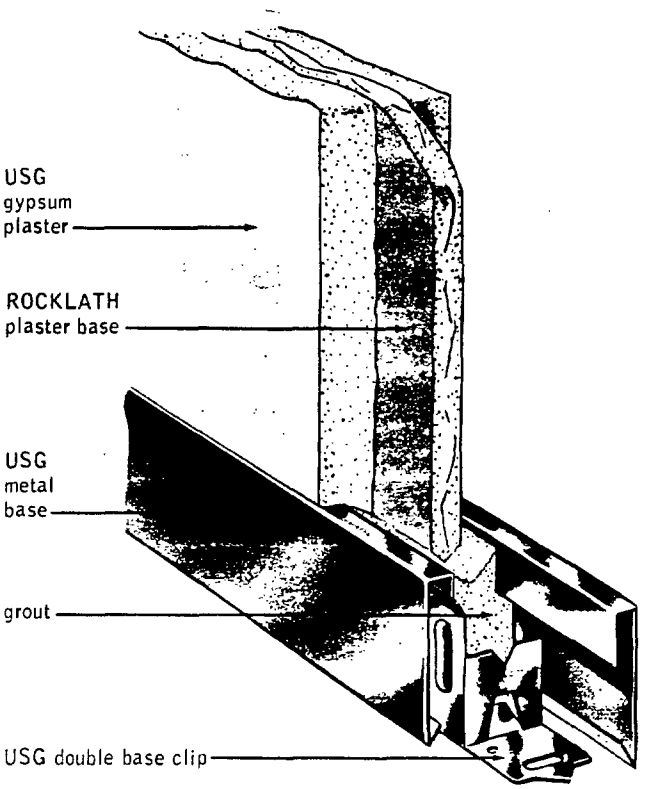
1. A non-load bearing partition.

2. Limiting height is 10'.

3. Door frames must be fabricated and anchored to prevent twisting and impact vibration (see Specifications, page 6).

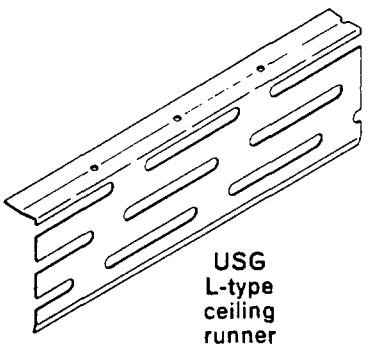
4. Solid lath and plaster partitions, like all other non-load bearing partition constructions, should be isolated from reinforced concrete framing columns and beams. The partition will not resist stresses transmitted to it by movement or deflection of the structural components of the building.

5. Not recommended for use with flat plate reinforced concrete floor-ceiling constructions, unless isolated from the flat plate.



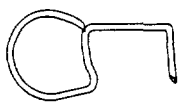
*T.M. Reg. U.S. Pat. Off.

components

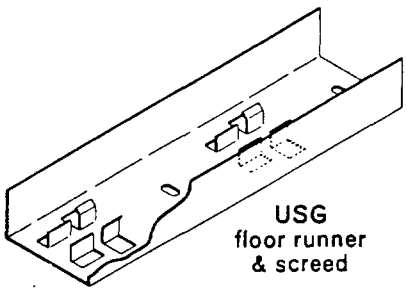


USG L-type ceiling runner

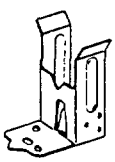
USG ceiling runner clip



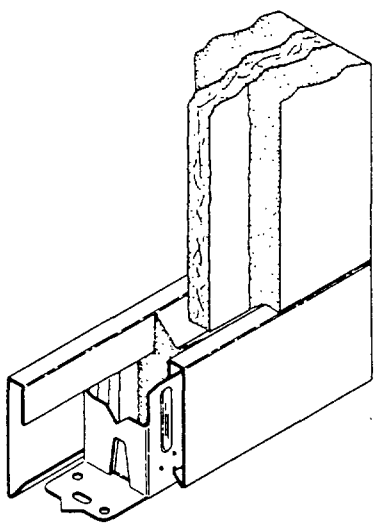
USG bracing clip

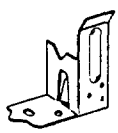


USG floor runner & screed

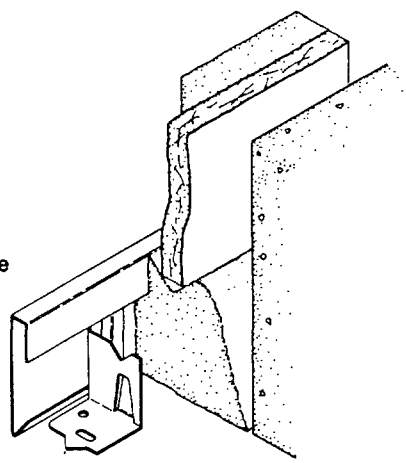


USG double base clip

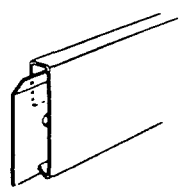




USG single base clip

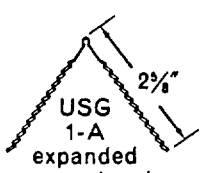


see product catalog f-1865 for full description on accessories & sizes



USG metal base & splice plate

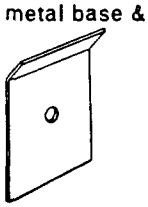
USG selv-edge cornerite



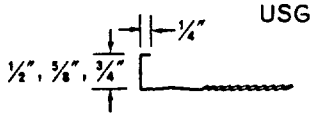
USG 1-A expanded corner bead

USG 4-A flexible corner bead

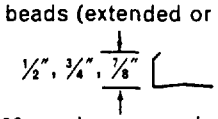
USG casing beads (extended or short flange)



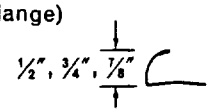
USG metal base splice plate



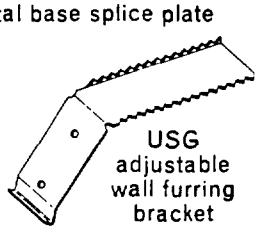
#66 square edge



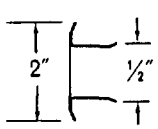
#60 semi-square edge



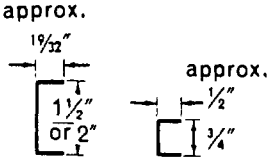
#4 or #138 quarter round



USG adjustable wall furring bracket



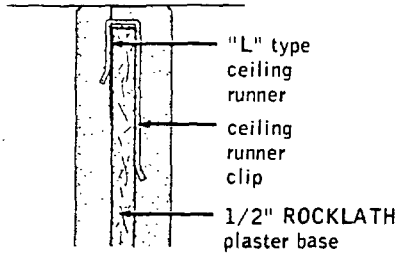
USG 2" partition terminal



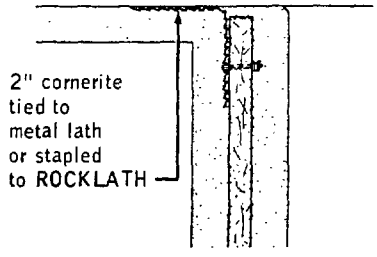
USG cold rolled channels

details

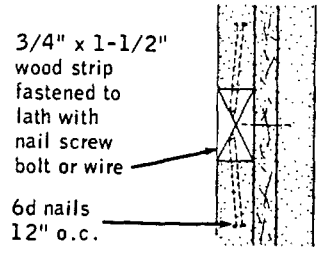
scale: 3" = 1'-0"



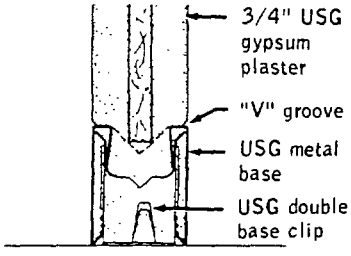
ceiling attachment



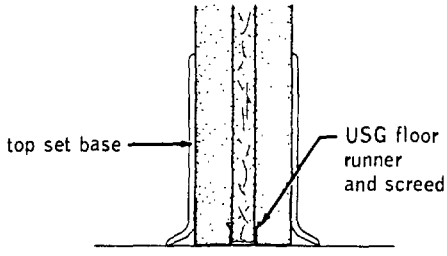
ceiling attachment



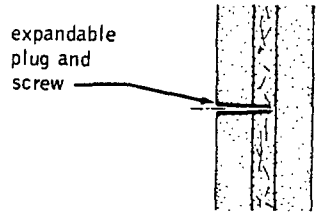
cabinet fixture attachment



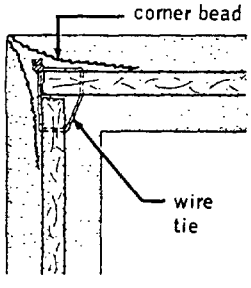
metal base



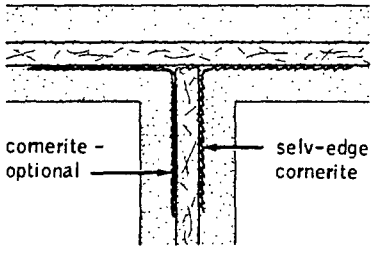
top set base



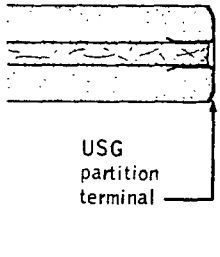
light fixture attachment



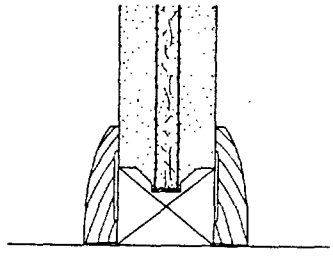
corner



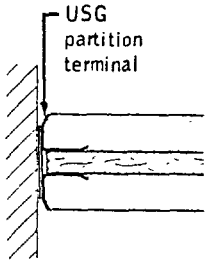
partition intersection



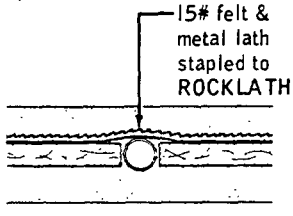
partition terminal



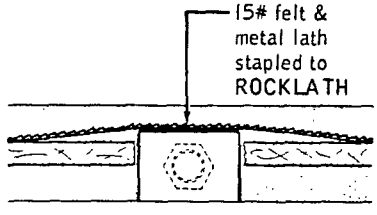
wood base & wood runner



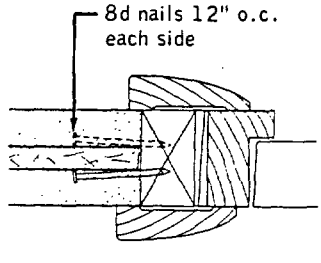
wall intersection



electrical conduit



outlet box



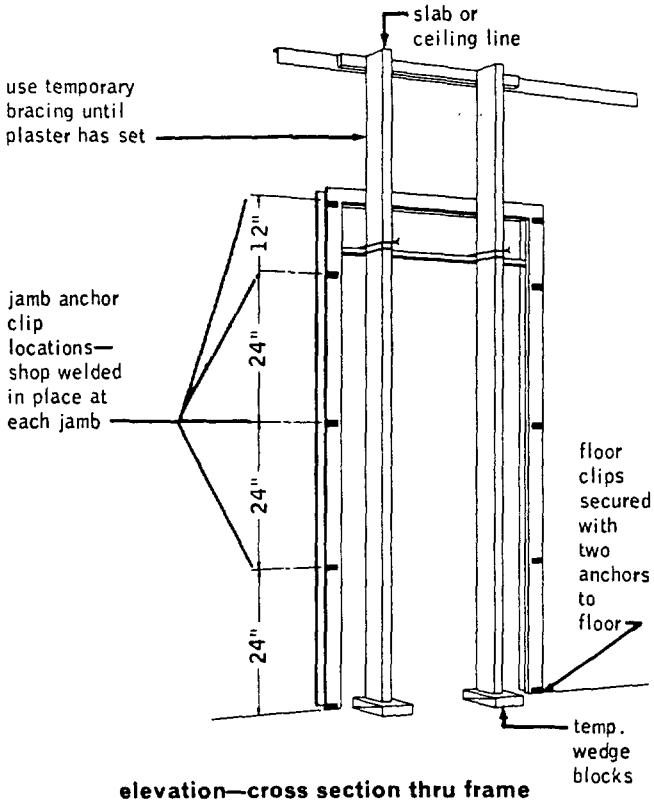
integral wood door frame

88009 1744

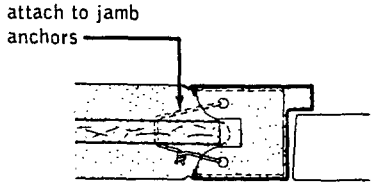
*T.M. Reg. U.S. Pat. Off.

details

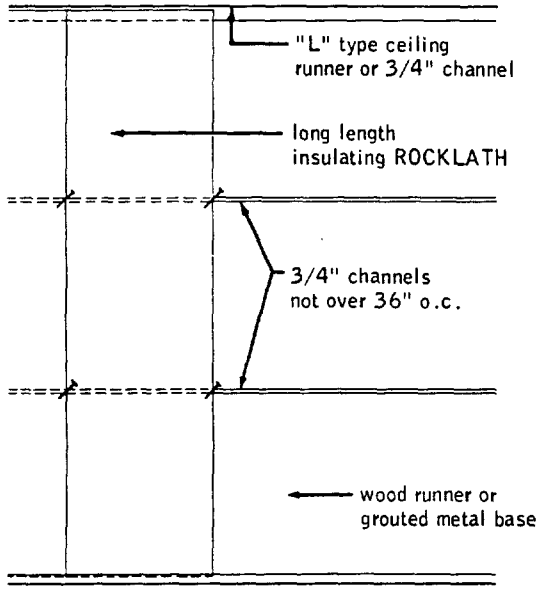
scale: 3″ = 1′-0″



elevation—cross section thru frame



metal door jamb



exterior wall furring

It is recommended that all exterior walls be furred. Asphaltic or bituminous bonding agents are not recommended as a plaster base. ⅜″ square edge Long Length Insulating ROCKLATH and plaster provide structural and economic advantages for special furring conditions.

In this system USG Adjustable Wall Furring Brackets, spaced not more than 36″ o.c. and properly secured to the exterior wall, provide the support for ¾″ channels placed 36″ o.c. horizontally. Long Length Insulating ROCKLATH is attached to the channels by wire ties, and plaster is applied to ¾″ grounds.

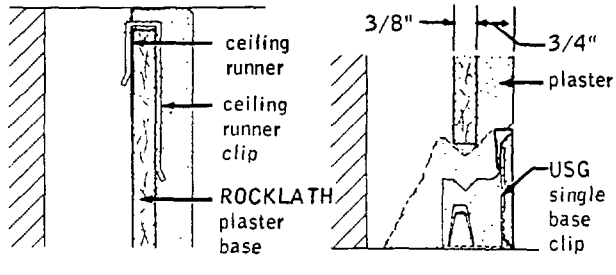
function and utility

The same space-saving features, fire protection and other economies found in the solid ROCKLATH and plaster partition apply to this exterior wall furring system. In addition, when Insulating ROCKLATH Plaster Base is used its features include:

1. Condensation control.
2. Protection of interior wall surface from moisture seepage.
3. Insulation and vapor barrier.
4. A degree of isolation from structural movement.

limitations

1. Long Length Insulating ROCKLATH wall furring is not economical for cut-up wall areas containing a large percentage of openings.
2. Limiting height of Long Length Insulating ROCKLATH Furring System is 12′-0″.

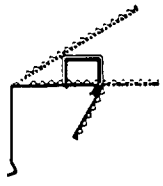


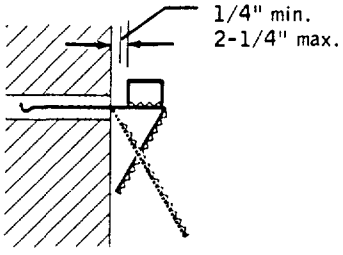
ceiling attachment **floor attachment**

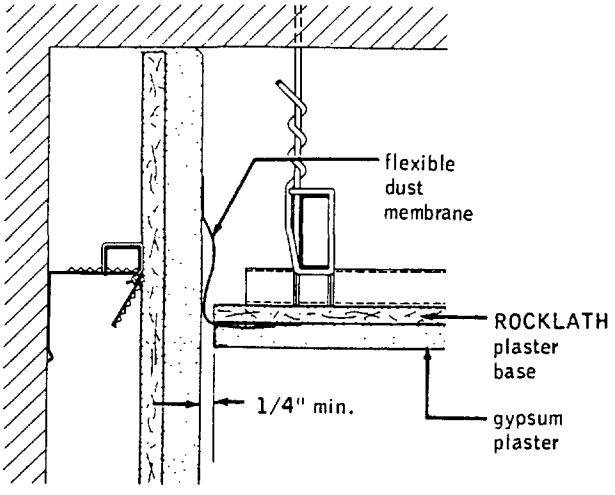
details

adjustable wall furring brackets

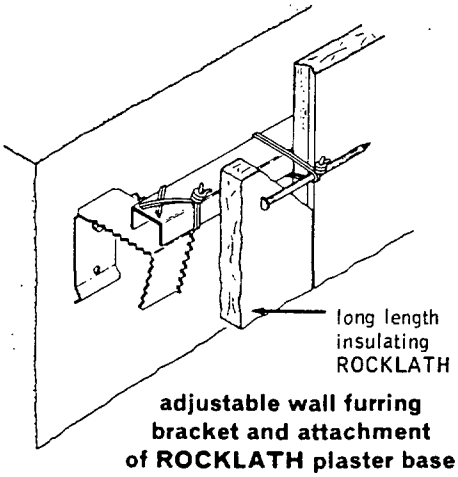
1. Wall furring brackets should be attached not more than 36" o.c. horizontally and vertically.
2. After attachment, bend bracket to horizontal position.
3. Wire-tie plumbed channel to bracket ¼" min. (2¼" max.) from wall.
4. Bend excess of bracket down.



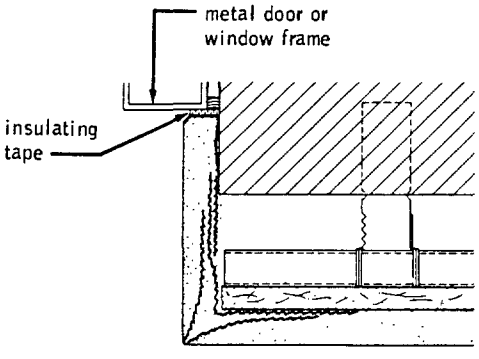




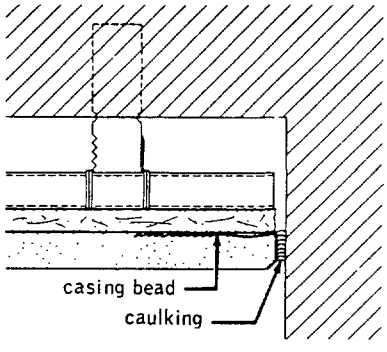
ceiling isolation at furred wall



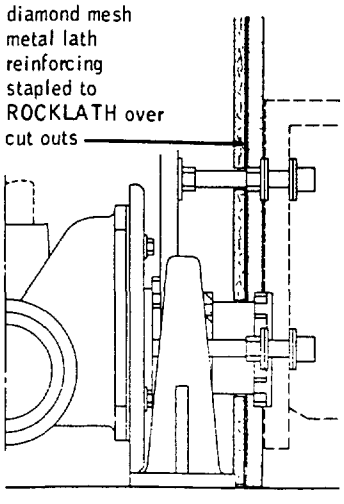
adjustable wall furring bracket and attachment of ROCKLATH plaster base



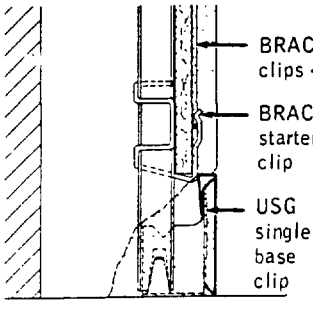
jamb section at metal door or window



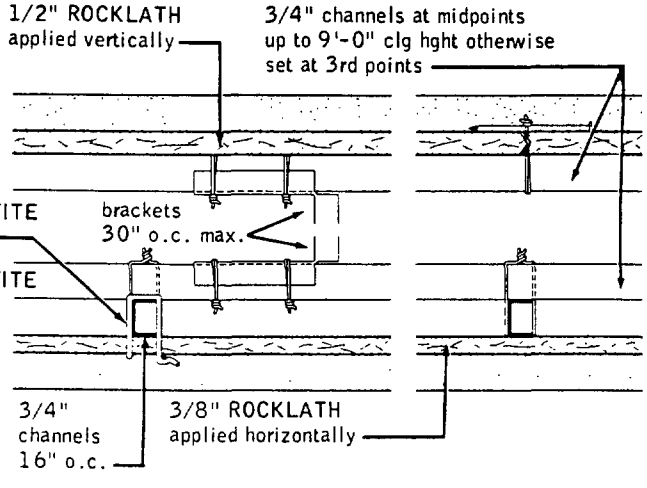
column or wall isolation



detail at typical closet carrier



metal base



core wall horizontal section

88009 1746

*T.M. Reg. U.S. Pat. Off.

specifications

notes to architect

1. *In cold weather, all glazing should be complete and the building must be heated to a minimum of 55°F. Before lathing, ventilation should be provided to carry off excess moisture.*

2. *Steel door frames should be fabricated from 16 gauge metal, minimum, shop primed. The opening at the trim return should be accurately formed to the overall thickness of the partition.*

Base plates, designed with two anchor holes to prevent rotation, should be securely attached to trim returns to dampen door impact vibrations. Floor anchorage should be by two power-driven anchors or equivalent per plate.

Four jamb anchors should be provided on each jamb, welded to the trim returns (see detail page 4) and wire-tied to the ROCKLATH. Separate bracing shall be furnished to keep the frame in alignment.

Grouting of the door frame is required on all installations. The grout shall be raked out to allow the lath and plaster to be inserted into the frame. Under no conditions shall the lath and plaster terminate against the trim return of the door frame.

If door frame struts are used, they shall not exceed ⅝" in the direction of the partition thickness.

Door closers are recommended on all oversize doors and doors where the weight of the door (including attached hardware) exceeds 50 lbs.

3. *Lath and plaster surfaces (non-load bearing) will not resist stresses imposed by structural movement, and are subject to dimensional variations due to changes in temperature and humidity. It is recommended that lath and plaster surfaces be isolated from all structural elements, and control joints be specified where:*

   a. *a partition abuts any structural element or dissimilar wall or ceiling assembly.*

   b. *the partition construction changes within the plane of the partition.*

4. *Holes cut in a thin lath and plaster membrane, such as door frames, borrowed lights, etc., cause a concentration of stresses in the plaster. The use of cornerite, striplath and self-furring diamond mesh lath is recommended at the weakened area to distribute concentrated stresses.*

5. *The minimum thickness of plaster over the back of electrical outlets should be ½": over electrical conduits or cables a full ⅜" thickness of base coat plaster. Accordingly the maximum size for conduit and pipe should be 1"; switch boxes and convenience outlets should not exceed 1½" in depth including plaster ring. The back of all electrical boxes conduit and cables should be covered with 15 lb. felt under metal lath fastened to the ROCKLATH.*

6. *Where a plaster surface is flush with metal, metal bucks, metal windows, or metal base, the plaster should be grooved between the two materials.*

7. *On all fire-rated partitions, all metal base assemblies should be filled with a grout of gypsum plaster.*

8. **Fixture Attachment**—*Lightweight fixtures and trim shall be installed by drilling set dry plaster to a minimum depth of ¾" and inserting a plastic plug or other expandable anchor for anchorage of attachment screws.*

Cabinet and shelving grounds shall consist of ¾" (actual dimension) by 1½" wood strips, having 6d (minimum) coated nails driven ⅝" into both edges at not over 12" o.c., attached to the ROCKLATH by nailing, wire tying or bolting.

9. *This partition is not recommended for use where the unplastered face of the gypsum lath is not protected from wetting or high humidity such as behind a preset bath tub. The USG Metal Lath, Channel Stud and Plaster partition is recommended for use in such areas (see USG Folder a-1025).*

10. **Ceramic Tile**—(*Where ceramic tile is required over ROCKLATH, self-furring diamond mesh metal lath shall be stapled over the ROCKLATH plaster base with staples spaced approximately 8" o.c., horizontally and vertically, and portland cement-lime plaster shall be applied in scratch and brown coats to ⅝" grounds over lath as a base for the ceramic tile). (Ceramic tile shall be adhesively attached over the finished gypsum plaster in accordance with adhesive manufacturer's specifications.)*

11. *To retain maximum sound isolation, the integrity of the partition should not be voided by openings such as electrical outlets, medicine cabinets, vents, etc., that create sound leaks. Use sand aggregate only, do not use lightweight aggregates.*

The most expedient way to obtain additional information on fire resistance ratings, sound transmission or details not covered in this publication is to direct inquiries to: UNITED STATES GYPSUM, Architect Service Department, 101 S. Wacker Dr., Chicago, Ill., 60606.

materials

See USG Folder f-1855 for Plaster Specifications.

See USG Folder f-1865 for General Lathing Specifications.

See USG Folder f-1915 for Paint Specifications.

All materials herein specified shall be manufactured by the United States Gypsum Company.

a. ROCKLATH Plaster Base shall be (½", V-edge, Long Length ROCKLATH for solid partition) (⅜" square edge, Long Length Insulating ROCKLATH for exterior wall furring).

b. USG Metal Base—2½" (18) (20) ga.

c. USG Metal Base Splice Plate.

d. USG Double Metal Base Clip.

e. USG Single Metal Base Clip.

f. USG Floor Runner and Screed.

g. USG L-Type Ceiling Runner.

h. USG Ceiling Runner Clips.

i. USG Partition Terminal.

j. USG Selv-edge Cornerite (2" x 2") (3" x 3").

k. USG 4" Striplath.

l. USG Self-Furring Junior Diamond Mesh Metal Lath.

m. USG Corner Bead (specify type from page 2).

n. USG Casing Bead (specify type from page 2).

o. USG Base Screed (specify type from page 2).

p. USG Cold Rolled Channels ¾", 1½", 2".

q. USG Bracing Clips.

r. 18 Ga. tie wire.

s. USG Adjustable Wall Furring Bracket.

t. BRACE-TITE* Field Clip BT-1 (for wall furring).

u. BRACE-TITE Starter Clip BT-1 (for wall furring).

v. USG Z-Type Ceiling Runner (for wall furring).

BB009 1747

*T.M. Reg. U.S. Pat. Off.

partition erection and plaster base attachment

Floor tracks shall be (USG 2½" Metal Base and Double Base Clips) or (USG Floor Runner and Screed) securely attached 24" o.c. Ceiling runner shall be USG L-Type Ceiling Runner attached 16" o.c. and located so that the ROCKLATH will be positioned in the center of the partition.

Attachment to concrete shall be with concrete stub nails or power driven anchors; to ceiling grillage with a double strand of 18 gauge tie wire; to plaster or gypsum lath with toggle bolts or staples.

The ½" Long Length ROCKLATH shall be cut in length to allow ¼" minimum and 1¼" maximum top clearance at the ceiling. Erect vertically with the V-joint edges brought into close contact with the adjacent edge. Attach ROCKLATH to the floor runner or set in a groove of the grouted metal base and securely clip to the ceiling runner with two USG Ceiling Runner Clips per board. Wire-tie the ROCKLATH securely to the jamb inserts or door frames. ROCKLATH having cut vertical edges shall be used only at the ends of partitions or at door frames and not in the central portion of the partition.

Temporary bracing shall be not less than ¾" C.R. channels placed horizontally and 1½" angle stiffener placed vertically. For partitions up to 8'-6" high one horizontal brace is placed near mid-height of the partition. For partitions over 8'-6" high two horizontal braces at third points shall be used. Vertical stiffeners placed not over 6' o.c. shall be used on partitions over 6' in length. The horizontal channel shall extend the full length of the partition and be fastened with USG Bracing Clip or securely wire-tied at the center of the lath and the ends of the channel. Wedge the vertical stiffeners at top and bottom and securely wire-tie to horizontal bracing. Bracing shall remain in place until the brown coat of plaster on the side opposite the bracing has set.

Grounds shall be set to provide ¾" minimum thickness, including 1/16" finish.

wall furring erection and plaster base attachment

Floor tracks shall be (USG Floor Runner and Screed attached 24" o.c.) or (USG 2½" Metal Base and Single Base Clips attached 24" o.c., grouted and grooved).

USG L-Type Ceiling Runner shall be attached 16" o.c. to the construction above as required, plumbed up from the floor runner, or a furring channel shall be installed 6" from top as specified below.

USG Adjustable Wall Furring Brackets, with serrated edges up, shall be attached to the masonry walls not over 4" from columns or other abutting construction and not over 36" o.c. horizontally and vertically, and as required above and below windows, using (one 2" cut nail in mortar joints of brick clay tile, or cement block or in the field of lightweight aggregate blocks) (⅜" concrete stub nails or power-driven nails or other suitable fasteners in monolithic concrete). Fastenings shall be driven through top hole of bracket. Furring channels shall be laid horizontally on the furring brackets with the legs down, plumbed to a line with the ceiling runner and base, and wire tied to the bracket with a double strand of 18-gauge tie wire. Excess bracket length shall be bent down.

⅜" Long Length Insulating ROCKLATH shall be applied with the long edges vertically and butted lightly, with the foil facing the furred space. The bottom of the lath shall be set in the groove provided in the base grout or wood runner. The top of the lath shall be wire tied over a nail at the edges to each intermediate horizontal channel. ROCKLATH shall be cut and fit to allow slight clearance around window frames. 4" Striplath shall be applied over the full length of all ROCKLATH joints above and below windows.

Grounds shall be set to provide ¾" minimum plaster thickness, including 1/16" finish.

lathing accessories

a. Metal Base 2½ inch, (18) (20) gauge, painted, shall be notched to a neat miter in forming all angles. In continuous runs, ends shall be evenly butted and internally spliced with a splice plate. Base shall be securely held in place by engaging the base clips.

b. Cornerite (2" x 2") (3" x 3") shall be installed in all interior plaster angles. Staple at the edges.

c. Metal Corner Bead No. (000000) shall be provided on all external plaster corners, and shall be in single lengths where the length of the corner does not exceed standard stock lengths. Fasten securely with galvanized staples, etc., spaced not over 8" o.c.; stagger in two wings.

d. Casing Bead No. (000000) shall be installed where indicated. Ends shall be accurately cut and mitered and the casing bead shall provide full plaster grounds when securely installed.

e. Reinforcing—Install a strip of self-furring diamond mesh lath over joints between dissimilar plaster bases. At all openings, reinforce the corners attaching a 12" x 24" piece of self-furring diamond mesh lath diagonally across the corners.

f. USG Partition Terminals shall be installed at partition terminals and cased openings where indicated on the drawings. Staple or wire-tie securely in place.

*TRADEMARKS: The following trademarks are owned and/or registered in the U.S. Patent Office by United States Gypsum Company, and are used throughout this catalog to designate particular products manufactured by that company: USG (metal products); ROCKLATH (plaster base); BRACE-TITE (lathing system).

NOTE: Since methods and conditions of application and use are beyond our control, the United States Gypsum Company will not be responsible for failure of its products when not used according to our directions and specifications.

UNITED STATES GYPSUM

partitions

USG* 2" Solid Gypsum Drywall

1045

fire rating	description	test no.	sound rating stc	sound rating 9-f avg	relative cost index	comments	folder reference
2 hrs.	Solid Drywall—⅝" SHEETROCK FIRECODE gypsum wallbd faces ea side over 1" USG gypsum corebd—face layers lamin & screw att—joints stag & unfin—¾"x1¼" angle runners horiz at flr clg & qtr points wt 10 width 2¼"	UL Des 21-2 hr (f)	N/A		111	Only 2-hr. drywall vent shaft design	a-1045

description

In this non-load bearing partition assembly SHEETROCK* Gypsum Wallboard face layers are job-laminated to both sides of USG Coreboard. The Coreboard, a 1" thick fireproof gypsum core encased in strong gray liner paper on both sides and long edges, is 24" wide and mill-fabricated to standard lengths. Integrally formed "V" T & G edges facilitate accurate alignment of the coreboard during erection to metal floor and ceiling runners. The partition when completed with the PERF-A-TAPE* Joint System and DUR-A-BEAD* Corner Reinforcement is ideally suited for vent shaft construction requiring a 2-hour fire resistance rating.

SHEETROCK for this assembly is ½" or ⅝" thick and available in two types (see Specifications page 5). SHEETROCK FIRECODE* Gypsum Wallboards have a specially formulated core containing special mineral materials that generally obtain higher fire resistance ratings than with plain SHEETROCK wallboard (see table above).

function and utility

Fire Resistant—Constructed of incombustible components (except when wood runners are used), the system has obtained fire endurance and hose stream ratings of 2 hours.

Versatile—Adaptable for use in virtually every type of new construction or alteration work for permanent space division. In remodeling or modernization, normal work proceeds with a minimum of disturbance because these job-erected partitions are quickly and easily installed.

Easily Decorated—A highly suitable base for any decorative treatment—paint, wallpaper, fabrics or plastic films.

Economical—Erects faster than most other types of partitions. Utilizes low-cost materials and a minimum number of components. In addition, the 2" thickness saves space and costly floor area.

limitations

1. Non-load-bearing.

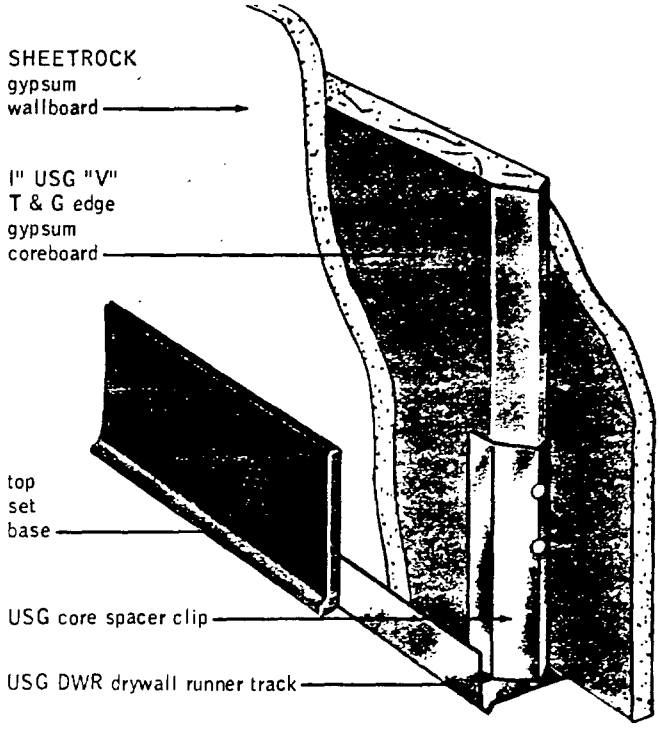
2. Limiting height: (Based on partitions with complete perimeter restraint and no openings. Where openings occur in short runs, consider limiting height as that corresponding to "over 18 ft." width between restraints.)

width between restraints	2" solid partition	2¼" solid partition (1)
Up to 12′	12′	14′
12′ to 18′	11′	13′
Over 18′	10′	12′

(1) When ¼" SHEETROCK Wallboard used as face layers.

3. Partition should not be used where exposed to abnormal moisture or excessively high humidity or temperature.

4. Installation of electrical services is difficult.

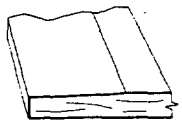


A.I.A. File No. 20-B-2.1

*T.M. Reg. U.S. Pat. Off.

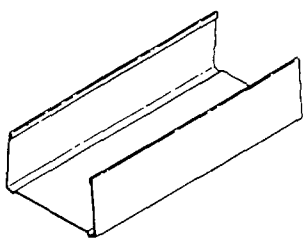
components

1" "V" edged
T & G coreboard

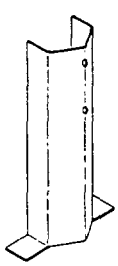


tapered edge SHEETROCK
gypsum wallboard

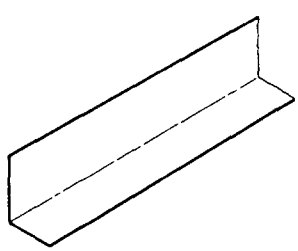
see product catalogs f-1875 & f-1885
for full description on accessories & sizes



DWR—218 runner track

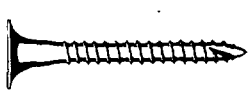


USG core spacer clip

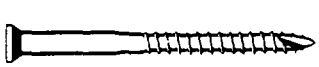


metal angle runners

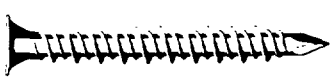
1¼" USG drywall screw—type W—bugle head



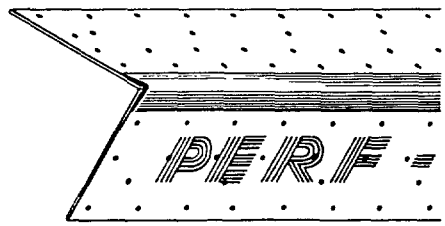
1¼" USG drywall screw—type S—bugle head

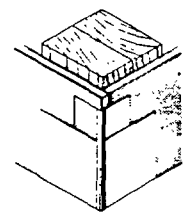


1⅝" USG drywall screw—type S—trim head

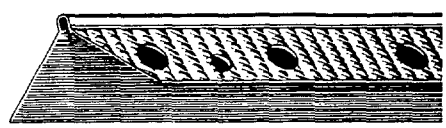


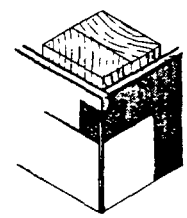
1⅝" USG drywall screw—type G—bugle head



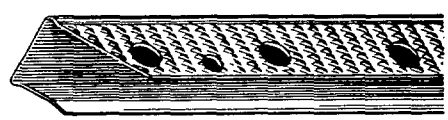


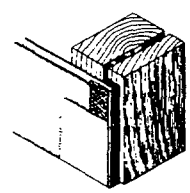
no. 100 PERF-A-BEAD



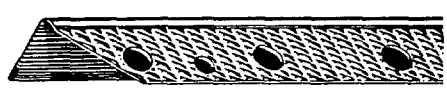


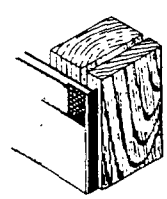
DUR-A-BEAD corner reinforcement



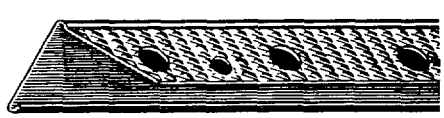


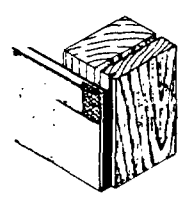
no. 200-A USG metal trim



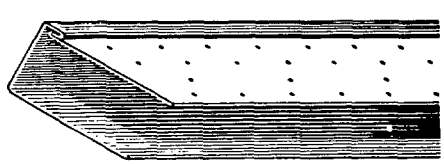


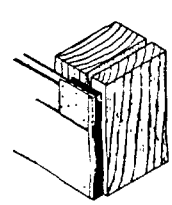
no. 200-B USG metal trim



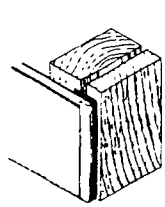


no. 200-C USG metal trim





PERF-A-TRIM



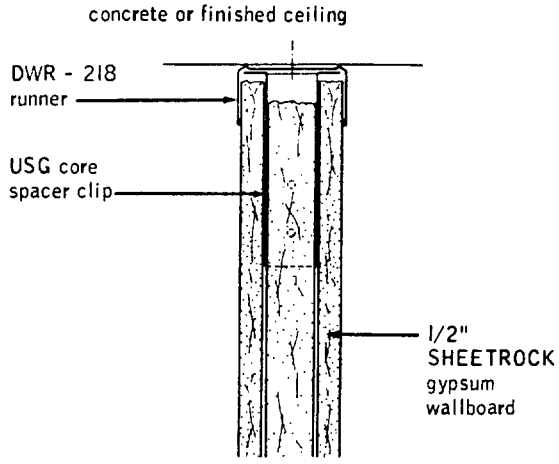
USG metal trim

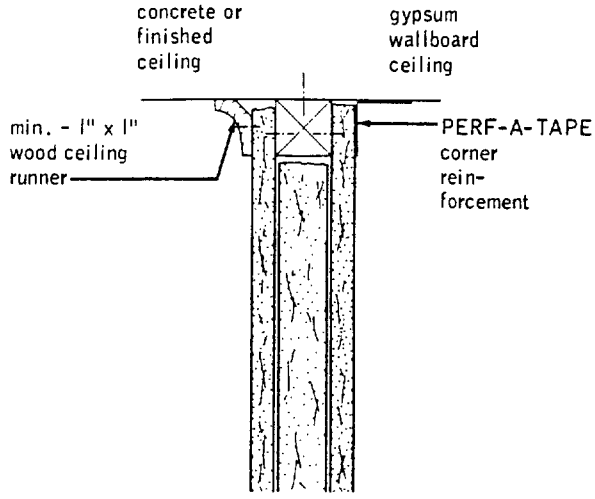
88009 1751

details

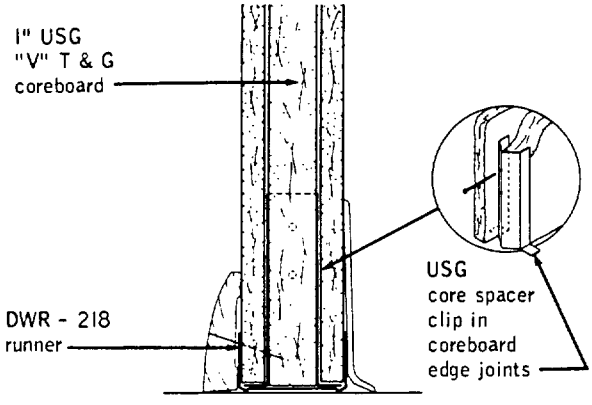
scale: 3" = 1'-0"

ceiling attachments

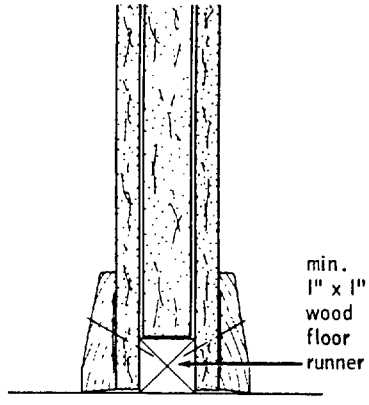




floor attachment & base

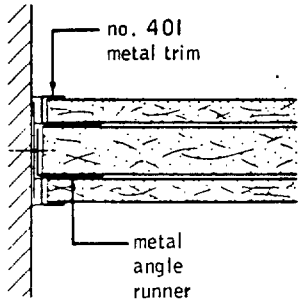


wood runner **top set base**

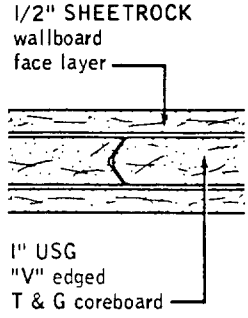


wood base

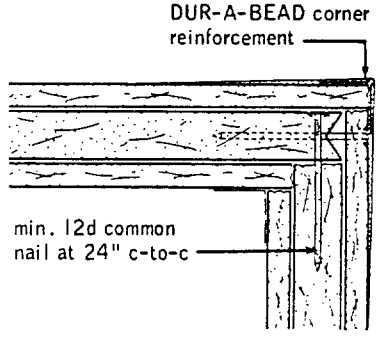
wall plan sections



partition intersection



coreboard edge joint

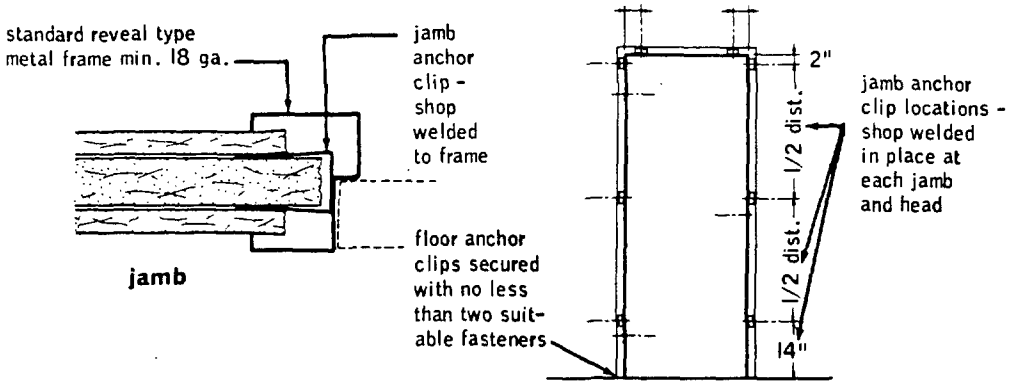


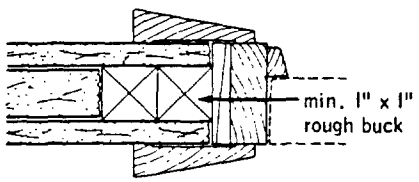
corner

details

scale: 3" = 1'-0"

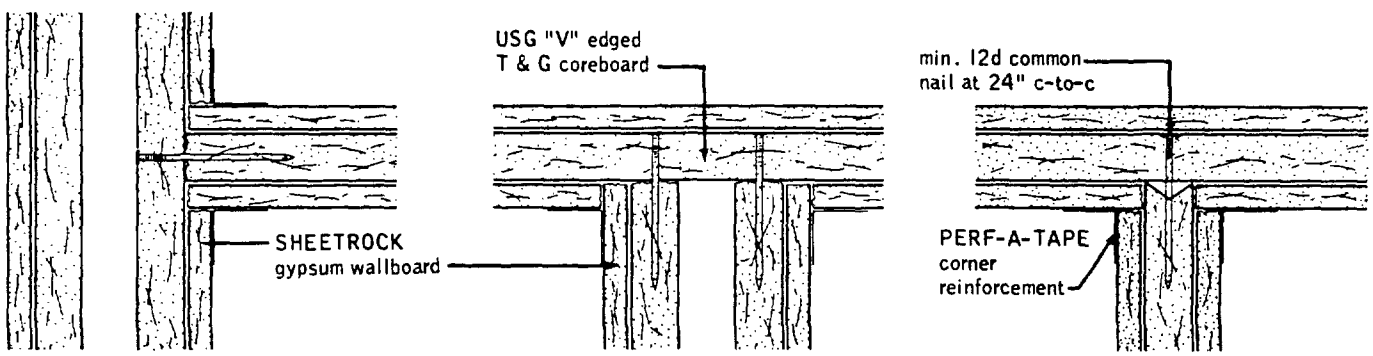
metal door frame





wood door frame

intersecting walls

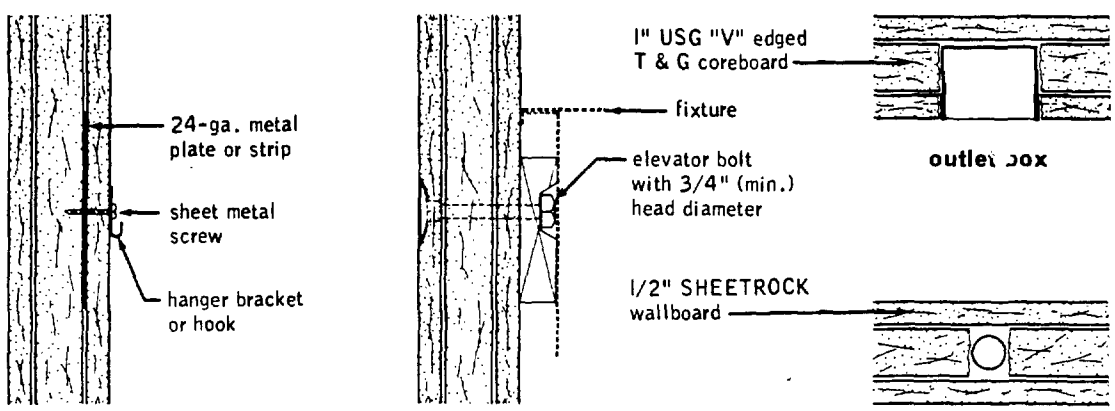


double solid & 2" solid

double solid

partition intersection

fixture attachment



light

heavy

conduit

specifications

notes to architect

1. *Metal door and borrowed light frames should be formed from 18-ga. steel minimum, shop primed. The opening between the trim returns should be accurately formed to the overall thickness of the partition.*

Floor anchor plates should be 14-ga. steel minimum, designed with two anchor holes to prevent rotation and welded to trim flanges to dampen door impact vibrations. Floor anchorage should be by two power-driven anchors or equivalent per plate. Jamb anchor clips should be formed of 18-ga. steel minimum, and welded in the jamb and head. (See details page 4.)

Door frame struts should be 1" x ¼" hot rolled steel bar stock. Where struts are not used, temporary bracing should be used to level and plumb frame until partition is erected.

All metal door and borrowed light frames should be spot grouted at the location of jamb anchor clips, after coreboard is installed. The grout should be raked out to allow the wallboard to be inserted into the frame. Under no conditions should the wallboard terminate against the trim return of the door frame.

Where wood door or borrowed light frames are required, the nominal 1" x 1" wood runner detailed for floor and ceiling runners should be used for the rough buck. In the case of door frames, the jamb section of the rough buck may serve as a strut and should extend from floor to ceiling and be securely toe-nailed to runners.

Door closers and bumpers are required on all doors where the weight of the door (including attached hardware) exceeds 50 lbs.

2. *Non-load bearing drywall partitions will not resist stresses imposed by structural movement, and are subject to dimensional variations due to changes in temperature and humidity. It is recommended that wallboard surfaces be isolated from all structural elements by control joints or other means where:*

   a. *A partition abuts any structural element or dissimilar wall or ceiling assembly.*

   b. *The partition construction changes within the plane of the partition.*

In long partition runs, control joints should be provided no more than 30' o.c. Door frames extending from floor to ceiling are recommended as control joints. For doors less than ceiling height, control joints extending from both corners of the frame to the ceiling may be used.

3. *Holes cut in a thin wallboard membrane such as door frames, borrowed lights, etc., cause a concentration of stresses in the wallboard. The use of additional reinforcement is recommended at the weakened area to resist and distribute concentrated stresses where, in the judgment of the architect, for reasons of economy or design, a control joint is not otherwise specified.*

4. **Electrical Fixtures**—*The depth of electrical boxes should not exceed 1½".*

5. **Ceramic Tile**—*SHEETROCK W/R Gypsum Wallboard is recommended as a base for the adhesive application of ceramic, metal and plastic tile.*

The most expedient way to obtain additional information on fire resistance ratings, sound transmission or details not covered in this publication is to direct inquiries to: UNITED STATES GYPSUM, Architect Service Department, 101 So. Wacker Dr., Chicago, Ill. 60606.

erection and lamination

All partitions shall be aligned accurately according to the partition layout.

Floor and ceiling runner tracks shall be securely attached:

1. **To Concrete Slabs**—Using concrete stub nails or power driven anchors, spaced not to exceed 24" o.c.

2. **To Wood Framing**—Use suitable fasteners spaced not to exceed 24" o.c.

3. **To Suspended Ceilings**—Toggle or staple, spaced not to exceed 24" o.c.

Cut coreboard to fit accurately between floor and ceiling runners and install vertically with tongue edge leading. Insert core spacer clip in floor and ceiling runner and nail clip to coreboard panel. Erect succeeding panels using the same procedure.

At partition intersections, coreboards shall be nailed together with 10d nails spaced 24" o.c. Panels shall be inserted in jamb anchor clips at all door frames, borrowed light frames and partition terminals and spot grouted at the clip locations.

Face boards shall be cut to full floor-to-ceiling height. Apply laminating adhesive to back of face layers and laminate in place using moderate pressure to insure adequate bond. Offset face panel joints at least 3" from coreboard joints. Screw face layer to coreboard at vertical joints and at horizontal center of faceboard with USG 1⅝" Type "G" Screws spaced along vertical third points.

Coreboards and face boards shall be cut neatly to fit around all outlets and switch boxes. Suitable fastener anchorage shall be provided as required for the attachment of shelves and cabinets.

Work done by this contractor shall be coordinated properly with that to be done by other trades.

general conditions

In cold weather and during the period of laminating the gypsum boards and finishing the joints, temperatures within the building shall be maintained uniformly within the range of 55° to 70°F. Adequate ventilation shall also be provided to eliminate excessive moisture within the building during this same period.

All materials, as specified below, shall be delivered to the job in their original, unopened containers or bundles; stored in a place providing protection from damage and exposure to the elements.

The installation and application of all materials shall be in accordance with the latest printed directions or specifications of United States Gypsum Company.

materials

See USG Folder f-1885 for PERF-A-TAPE Joint System Specifications.

See USG Folder f-1875 for information on Wallboard System Components.

See USG Folder f-1915 for Paint Specifications.

All materials herein specified shall be manufactured by the United States Gypsum Company, unless otherwise indicated.

a. Coreboard—1″ thick, 24″ wide, USG "V" T & G edge Gypsum Coreboard, lengths as required.

b. Faceboards—(½″) (⅝″) thick, 48″ wide, (Tapered Edge SHEETROCK Wallboard) (SHEETROCK FIRECODE) lengths as required.

c. Laminating Adhesive—PERF-A-TAPE Joint Compound (embedding type) or USG Laminating Adhesive.

d. Joint Treatment—PERF-A-TAPE Joint System.

e. Fasteners—(specify type from page 2).

f. USG Metal Trim (specify type from page 2).

g. USG Corner Bead—DUR-A-BEAD, PERF-A-BEAD* (specify type from page 2).

h. USG DWR-218 Runner.

i. USG Core Spacer Clip.

j. Metal Angle Runners—1⅜″ x 1″ x 22 ga.

wallboard accessories

a. PERF-A-TAPE Joint System shall be used on all face board joints and internal angles formed by the intersections of walls and ceilings.

b. Laminating Adhesive shall be USG PERF-A-TAPE Joint Compound (embedding type) mixed according to manufacturer's directions or USG Laminating Adhesive spread to provide adhesive beads ½″ high x 5/16″ wide at the base and spaced 4½″ o.c.

c. Metal Corner Bead No. (000000) shall be securely installed at all external corners, and shall be in single lengths where the length of the corner does not exceed standard stock lengths. At least two coats of joint compound shall be applied over beads and each coat feathered out onto panel faces.

d. Metal Trim No. (000000) shall be securely installed where indicated. Finish with PERF-A-TAPE Joint Compound, as required.

e. Fasteners shall be as shown on drawings or as herein specified. Fasteners shall be driven no less than ⅜″ from ends or edges of wallboard to provide uniform dimple not over 1/32″ deep. Spot exposed fastener dimples on face layers with at least three coats of joint compound, feathered and sanded smooth.

f. Control Joints shall be provided in the face layer as indicated and shall consist of two pieces of Metal Trim back-to-back.

*T.M. Reg. U.S. Pat. Off.

TRADEMARKS: The following trademarks are owned and/or registered in the U.S. Patent Office by United States Gypsum Company, and are used throughout this catalog to designate particular products manufactured by that company: USG (metal products, gypsum coreboard, adhesives); SHEETROCK, FIRECODE (gypsum wallboard); PERF-A-TAPE (joint treatment); DUR-A-BEAD and PERF-A-BEAD (corner reinforcement).

NOTE: Since methods and conditions of application and use are beyond our control, the United States Gypsum Company will not be responsible for failure of its products when not used according to our directions and specifications.

A-1045

UNITED STATES GYPSUM

UNITED STATES GYPSUM
THE GREATEST NAME IN BUILDING
GENERAL OFFICES: 101 South Wacker Drive, Chicago, Illinois 60606

UNITED STATES GYPSUM

resilient attachment

partitions

Masonry and Plaster

fire rating	description	test no.	sound rating stc	sound rating 9-f avg	relative cost index	comments	folder reference
3 hrs. est	Gypsum Tile & Plaster—3" hol PYROBAR—R-5 resil clips—⅜" ROCKLATH pl base—½" gypsum sand plaster one side & opp side ⅝" direct wt 24 width 4⅞"	TL-60-127	(s) 52		178	Excellent fire resistance—reduces sound leaks & flanking paths	a-1155
3 hrs. est	Gypsum Tile & Plaster—3" hol PYROBAR—#500 resil clips—¾" cr chan & 3.4# dm met lath—¾" gypsum sand plaster one side & opp side ⅝" direct wt 27 width 5¼"	NBS-313	(s)	46 db est	195		a-1155
wall furring application							
—	R-5 Resilient Clips 16" o.c., Insulating ROCKLATH and BRIDJOINT* Clips, ½" sanded basecoat plaster, lime putty finish	—	—	—	141	Resiliency of the R-5 Clip will reduce the transfer of structural stresses to surface membrane	a-1155

description

In these fire-resistant assemblies, ROCKLATH* Plaster Base or USG* Metal Lath and plaster wall facings are resiliently furred from PYROBAR* Gypsum Partition Tile or other masonry surface with special USG Resilient Clips. These clips improve sound transmission loss and make this partition highly suitable for party walls. The clips also greatly reduce the possibility of movement, vibration and thermal shock being transmitted from the masonry base to the plaster surface. The resilient clips may be attached to concrete block, clay or brick masonry to provide a resiliently floated, easily decorated lath and plaster surface for these types of masonry.

In the resilient attachment of ROCKLATH over masonry, the ROCKLATH is horizontally applied with end joints staggered and secured by USG R-5 Resilient Clips. These clips are spaced not more than 16" o.c. horizontally and vertically, furring the ROCKLATH ½" from the masonry.

Metal lath may be resiliently furred from masonry surfaces with USG #500 Resilient Clips spaced 16" on center. ¾" channel spaced 16" o.c. is wire tied to the clips and metal lath is tied to the channels.

Pre-cast into a hollow core unit 12"x30", PYROBAR tile is easily laid-up with gypsum mortar to form a lightweight, highly fire-resistant non-load bearing masonry wall. It is available in three thicknesses, and may be plastered on one side, with a resiliently attached lath and plaster facing on the other. The finished partition has very good sound isolation and fire resistance ratings (see table above).

function and utility

Fireproof—PYROBAR Partition Tile provides the greatest fire protection per inch thickness of any commercial partition assembly—3 hours for 3" hollow PYROBAR, plastered one side, resilient lath and plaster on other side (see table above).

Lightweight—Reduces dead load. PYROBAR Partition Tile is 30% to 50% lighter than commonly used masonry units.

Sound Isolation—Very good sound isolation at a low cost (see table above).

Economical—Ease of maintenance and tenant renovations continue to make PYROBAR a leading office building partition construction.

limitations

1. A non-load bearing partition.

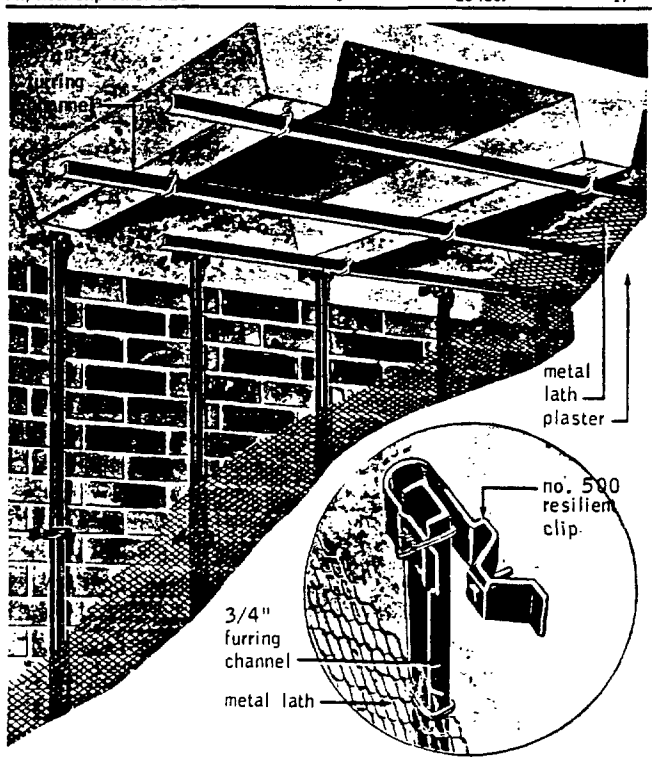
2. Portland cement and lime mortars do not bond satisfactorily to PYROBAR Partition Tile. Self-furring metal lath attached to PYROBAR is required to support a portland cement plaster.

3. PYROBAR, like other masonry plaster bases, is subject to volume change due to fluctuations in temperature and humidity. Control joints should be provided to relieve these stresses (see Specifications).

4. PYROBAR is not recommended for a masonry back-up of exterior wall construction.

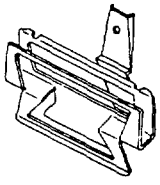
technical data

PYROBAR unit description	thickness	wt.-psf.	limiting height
3" Hollow, Plaster 1 side, M/L-Pl., Res. Clip other side	5¼"	27 lbs.	13'
4" Hollow, Plaster 1 side, M/L-Pl., Res. Clip other side	6¼"	30 lbs.	17'
3" Hollow, Plaster 1 side, R/L-Pl., Res. Clip other side	5"	25 lbs.	13'
4" Hollow, Plaster 1 side, R/L-Pl., Res. Clip other side	6"	28 lbs.	17'

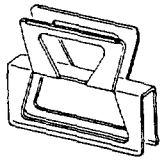


*T.M. Reg. U.S. Pat. Off.

components

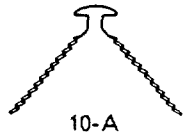


resilient clip R-5

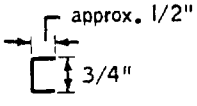


BRIDJOINT clip B-1

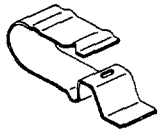
5-A
bull nose
corner bead



10-A
bull nose
expanded flange
corner bead

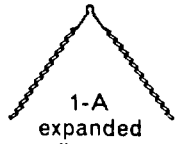


USG cold rolled channel



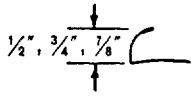
resilient clip No. 500

4-A
flexible
corner bead

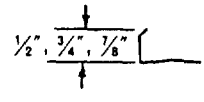


1-A
expanded
flange
corner bead

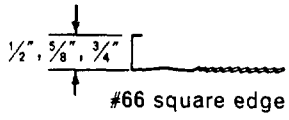
USG casing beads (expanded or short flange)



#4 or #138 quarter round

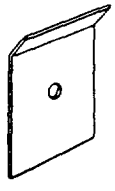


#60 semi-square

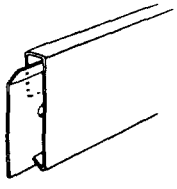


#66 square edge

USG masonry
base clip

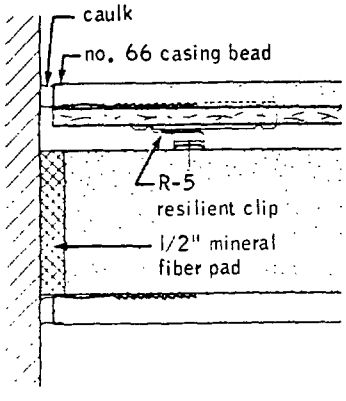


USG metal base
splice plate

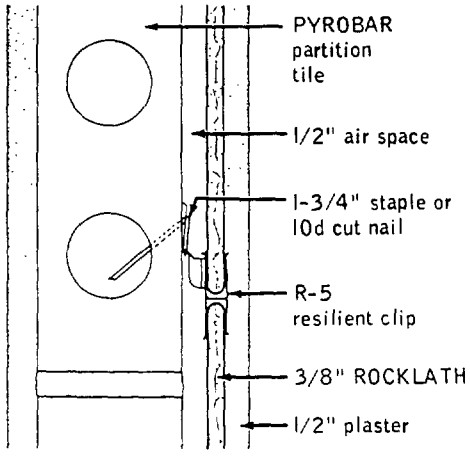


USG metal base
& splice plate

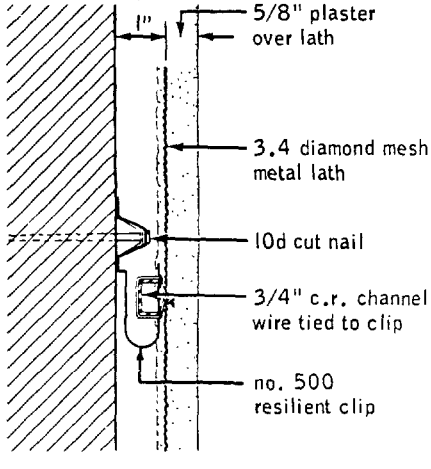
see product catalog f-1865 for full description on accessories & sizes



partition wall intersection



cross section wall elev. resilient ROCKLATH plaster base



wall-plan view resilient metal lath

BB009 1759

specifications

notes to architect

1. *Please refer to USG Folder a-1165 on PYROBAR Partitions for notes and details on door and borrowed light frames, control joints, ceramic base and tile attachment or direct attachment of plaster to PYROBAR Partition Tile.*

2. *In cold weather, all glazing should be complete and the building must be heated to a minimum of 55°F. Before lathing, ventilation should be provided to carry off excess moisture.*

3. *Door and borrowed light openings are not recommended when this partition is used as a party wall, since the sound control characteristics will be reduced. If required, details for door and borrowed light frames may be found in USG Folder a-1165.*

4. *Lath and plaster surfaces (non-load bearing) will not resist stresses imposed by structural movement, and are subject to dimensional variations due to changes in temperature and humidity. It is recommended that lath and plaster surfaces be isolated from all structural elements and control joints be specified where:*

   a. *a partition abuts any structural element or dissimilar wall or ceiling assembly.*

   b. *the partition construction changes within the plane of the partition.*

In long partition runs, control joints should be provided no more than 20' o.c.

For column isolation apply a 15 lb. asphalt felt across the face of the structural members to prevent bonding of the plaster to the column or beam and then use 3.4 lb. self-furring diamond mesh lath across the asphalt felt, securely stapled to the PYROBAR (see detail, USG Folder a-1165).

5. *Holes cut in a thin lath and plaster membrane cause a concentration of stresses in the plaster. The use of additional reinforcement is recommended at the weakened area to resist concentrated stresses where, in the judgment of the architect, for reasons of economy or design, a control joint is not otherwise specified.*

6. *Where a plaster surface is flush with metal, metal bucks, metal windows, or metal base, the plaster should be grooved between the two materials.*

7. *Fixture attachment—Only lightweight fixtures should be attached to the resilient face of the partition by drilling set dry plaster to a minimum depth of ¾" and inserting a plastic plug or other expandable anchor for anchorage of attachment screws. Lightweight fixtures (shelves, cabinets, chalkboards, etc.) may be attached on the non-resilient face with a ⅝" wood nailer strip or USG 8-A Picture Mould which has been secured to the PYROBAR Partition Tile. Medium weight fixtures may be secured with ⅜" steel bolts through the tile, using 2" steel washers on both sides of tile. Heavy fixtures should be attached to self-supporting hangers (see details, USG Folder a-1165).*

8. *To retain maximum sound isolation, the integrity of the partition should not be voided by openings such as electrical outlets, medicine cabinets, vents, etc. that create sound leaks. The use of caulking to seal all cut-outs and to seal all intersections with the adjoining structure is recommended.*

The most expedient way to obtain additional information on fire resistance ratings, sound transmission or details not covered in this publication is to direct inquiries to: UNITED STATES GYPSUM, Architect Service Department, 101 S. Wacker Dr., Chicago, Ill. 60606.

materials

See USG Folder f-1855 for Plaster Specifications.

See USG Folder f-1865 for General Lathing Specifications.

See USG Folder f-1915 for Paint Specifications.

All materials herein specified shall be manufactured by the United States Gypsum Company, unless otherwise indicated.

a. PYROBAR Gypsum Partition Tile shall be (3") (4") (6") (solid) (hollow).

b. RED TOP* Partition Tile Cement.

c. Clean, sharp sand, complying with ASTM C35 (not available from U.S.G.).

d. USG Metal Base—2½" (18)(20) ga.

e. USG Metal Base Splice Plate.

f. USG Stud Base Clip.

g. USG Selv-edge Cornerite (2"x2") (3"x3").

h. USG Striplath.

i. USG Self-Furring Junior Diamond Mesh Metal Lath.

j. USG Corner Bead (specify type from page 2).

k. USG Casing Bead (specify type from page 2).

l. USG Control Joint.

m. USG ¾" Cold Rolled Channels.

n. USG Resilient Clip R-5.

o. USG Resilient Clip No. 500.

p. USG BRIDJOINT* Clip B-1.

q. ROCKLATH Plaster Base shall be (⅜"x16"x48") (⅜"x16"x 96") Regular or Perforated.

r. Metal Lath shall be 3.4 lb. Diamond Mesh 27"x96".

s. 18 Ga. Tie Wire.

partition erection

All mortar shall be mixed in proportions of 1 part Partition Tile Cement to 3 parts sand, by weight. Mortar shall not be retempered.

After door frames are erected and rough plumbing and wiring are in place, the first course shall be laid with core holes horizontal by bedding mortar to a true and straight line according to partition layout as shown on plans. Succeeding courses shall be laid to a line in ½" thick full mortar beds iniformly level in each course. Vertical joints shall be staggered and head joints shall be filled with ½" of mortar. Cut all joints flush. Use of broken tile shall be kept to a minimum. Chinks and crevices shall be slushed full with mortar.

Lintels shall be formed as shown in the plans. Partitions shall be well anchored to intersecting masonry walls 12½" o.c. vertically with corrugated wall ties or 16d or 20d cut nails imbedded in mortar joints.

Wedge partition tightly at ceiling with skew cut tile corners every third tile. Joints between tile and ceiling shall be slushed full with mortar.

PYROBAR shall not be chased or cut out more than half its thickness for conduit or other piping. Metal lath shall be placed flush over the chase and secured in place.

*T.M. Reg. U.S. Pat. Off.

plaster base attachment

resilient metal lath

Securely attach the USG #500 Resilient Furring Clip to the face of the PYROBAR Partition using an angular driven 1¾" staple or a 10d cut nail. Cut nails, if used, shall be driven only into the solid part of the partition and not into the core holes. Clips to be spaced not to exceed 16" o.c. both ways. ¾" cold rolled channels shall be erected vertically, the legs of the channel nested into the grooves on the inner face of each clip and saddle tied with a double strand of 18 ga. tie wire.

Metal lath shall be applied with the long dimension of the sheet across the supports. The ends of all lath shall be lapped not less than 1". If end laps are made between supports they shall be adequately tied with 18 ga. tie wire. The sides of diamond mesh lath shall be lapped not less than ½".

Wherever possible, end of lath in adjacent courses shall be staggered.

Metal lath shall be secured to all supports at intervals not exceeding 6".

At all interior angles, metal lath shall be formed into the corners and carried out into the abutting surface, and adequately secured.

resilient ROCKLATH

USG R-5 Resilient Clips shall be securely attached to the PYROBAR tile with an angular driven 1¾" fence staple with one leg penetrating the PYROBAR and the other bridging the attachment flange of the clip.

The clips shall be spaced at a maximum of 16" o.c. and at each lath end joint.

ROCKLATH Plaster Base shall be applied face out with the long dimension at right angles to the framing members. All joints shall be butted together and the lath shall be accurately cut and neatly fitted around all electrical outlets, openings, etc.

Succeeding courses of ROCKLATH Plaster Base shall be similarly applied with end joints staggered.

At the floor and ceiling line shim out the ROCKLATH using a narrow piece of ROCKLATH and nail in place.

lathing accessories

a. Metal Base 2½", (18)(20) ga., painted, shall be notched to a neat miter in forming all angles. Base Clips, spaced 12" to 16" o.c. shall be wire tied in place. In continuous runs, ends of metal base shall be evenly butted and internally spliced with a splice plate. Base shall be securely held in place by engaging the base clips.

b. Cornerite (2"x2") (3"x3") shall be installed in all interior plaster angles. Staple at the edges (required only for ROCKLATH Plaster Base).

c. Metal Corner Bead No. (000000) shall be provided on all external plaster corners, and shall be in single lengths where the length of the corner does not exceed standard stock lengths. Fasten securely with wire-ties or galvanized staples, spaced not over 8" o.c.; stagger in two wings.

d. Casing Bead No. (000000) shall be installed where indicated. Ends shall be accurately cut and mitered and the casing bead shall provide full plaster grounds when securely installed. Wire-tie or staple in place.

e. Reinforcing—Install a strip of self-furring diamond mesh lath over joints between dissimilar plaster bases. At all openings, reinforce the corners attaching a 12"x24" piece of self-furring diamond mesh lath diagonally across the corners (required only for ROCKLATH Plaster Base).

UNITED STATES GYPSUM
THE GREATEST NAME IN BUILDING
GENERAL OFFICES: 101 South Wacker Drive, Chicago, Illinois 60606

BH009 1761

UNITED STATES GYPSUM

resilient attachment

partitions

Masonry and Plaster

fire rating	description	test no.		sound rating stc	sound rating 9-f avg	relative cost index	comments	folder reference
3 hrs. est	Gypsum Tile & Plaster—3″ hol PYROBAR—R-5 resil clips—⅛″ ROCKLATH pl base—½″ gypsum sand plaster one side & opp side ⅞″ direct wt 24 width 4⅞″	TL-60-127	(s)	52		178	Excellent fire resistance—reduces sound leaks & flanking paths	a-1155
3 hrs. est	Gypsum Tile & Plaster—3″ hol PYROBAR—#500 resil clips—¾″ cr chan & 3.4# dm met lath—¾″ gypsum sand plaster one side & opp side ⅞″ direct wt 27 width 5¼″	NBS-313	(s)		46 db est	195		a-1155
wall furring application								
—	R-5 Resilient Clips 16″ o.c., Insulating ROCKLATH and BRIDJOINT* Clips, ½″ sanded basecoat plaster, lime putty finish	—		—	—	141	Resiliency of the R-5 Clip will reduce the transfer of structural stresses to surface membrane	a-1155

description

In these fire-resistant assemblies, ROCKLATH* Plaster Base or USG* Metal Lath and plaster wall facings are resiliently furred from PYROBAR* Gypsum Partition Tile or other masonry surface with special USG Resilient Clips. These clips improve sound transmission loss and make this partition highly suitable for party walls. The clips also greatly reduce the possibility of movement, vibration and thermal shock being transmitted from the masonry base to the plaster surface. The resilient clips may be attached to concrete block, clay or brick masonry to provide a resiliently floated, easily decorated lath and plaster surface for these types of masonry.

In the resilient attachment of ROCKLATH over masonry, the ROCKLATH is horizontally applied with end joints staggered and secured by USG R-5 Resilient Clips. These clips are spaced not more than 16″ o.c. horizontally and vertically, furring the ROCKLATH ½″ from the masonry.

Metal lath may be resiliently furred from masonry surfaces with USG #500 Resilient Clips spaced 16″ on center. ¾″ channel spaced 16″ o.c. is wire tied to the clips and metal lath is tied to the channels.

Pre-cast into a hollow core unit 12″x30″, PYROBAR tile is easily laid-up with gypsum mortar to form a lightweight, highly fire-resistant non-load bearing masonry wall. It is available in three thicknesses, and may be plastered on one side, with a resiliently attached lath and plaster facing on the other. The finished partition has very good sound isolation and fire resistance ratings (see table above).

function and utility

Fireproof—PYROBAR Partition Tile provides the greatest fire protection per inch thickness of any commercial partition assembly—3 hours for 3″ hollow PYROBAR, plastered one side, resilient lath and plaster on other side (see table above).

Lightweight—Reduces dead load. PYROBAR Partition Tile is 30% to 50% lighter than commonly used masonry units.

Sound Isolation—Very good sound isolation at a low cost (see table above).

Economical—Ease of maintenance and tenant renovations continue to make PYROBAR a leading office building partition construction.

limitations

1. A non-load bearing partition.

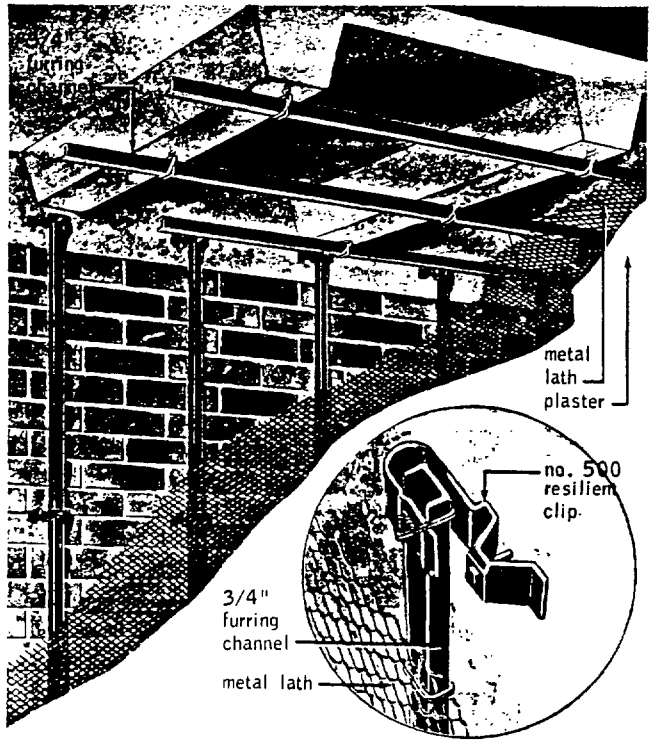
2. Portland cement and lime mortars do not bond satisfactorily to PYROBAR Partition Tile. Self-furring metal lath attached to PYROBAR is required to support a portland cement plaster.

3. PYROBAR, like other masonry plaster bases, is subject to volume change due to fluctuations in temperature and humidity. Control joints should be provided to relieve these stresses (see Specifications).

4. PYROBAR is not recommended for a masonry back-up of exterior wall construction.

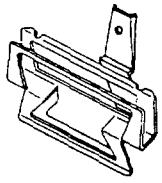
technical data

PYROBAR unit description	thickness	wt.-psf.	limiting height
3″ Hollow, Plaster 1 side, M/L-Pl., Res. Clip other side	5¼″	27 lbs.	13′
4″ Hollow, Plaster 1 side, M/L-Pl., Res. Clip other side	6¼″	30 lbs.	17′
3″ Hollow, Plaster 1 side, R/L-Pl., Res. Clip other side	5″	25 lbs.	13′
4″ Hollow, Plaster 1 side, R/L-Pl., Res. Clip other side	6″	28 lbs.	17′

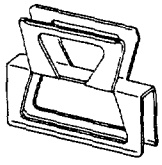


*T.M. Reg. U.S. Pat. Off.

components

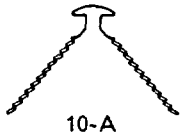


resilient clip R-5

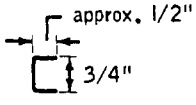


BRIDJOINT clip B-1

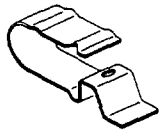
5-A
bull nose
corner bead



10-A
bull nose
expanded flange
corner bead

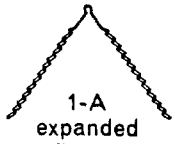


USG cold rolled channel



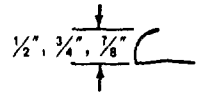
resilient clip No. 500

4-A
flexible
corner bead

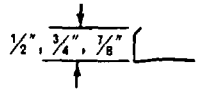


1-A
expanded
flange
corner bead

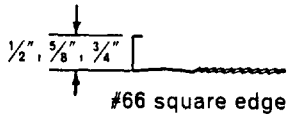
USG casing beads (expanded or short flange)



#4 or #138 quarter round

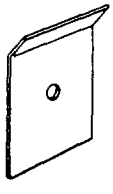


#60 semi-square

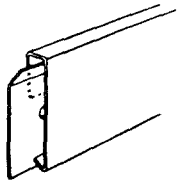


#66 square edge

USG masonry
base clip

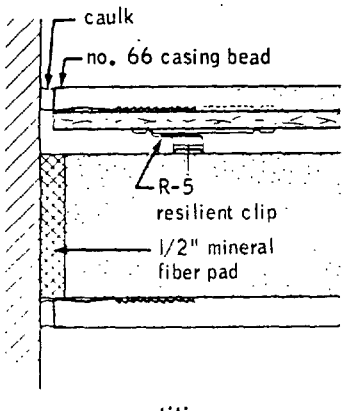


USG metal base
splice plate

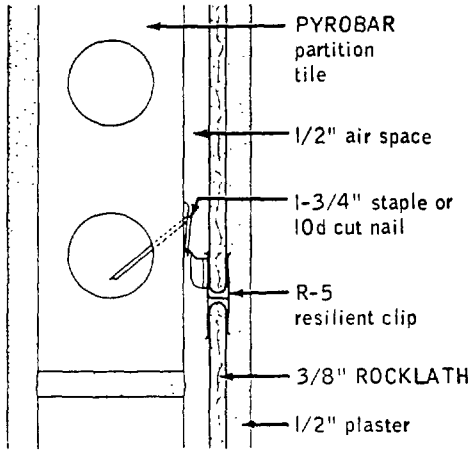


USG metal base
& splice plate

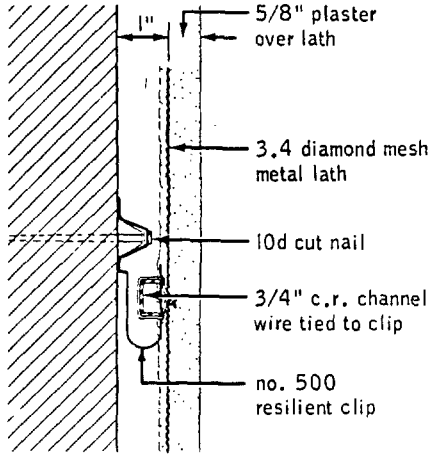
see product catalog f-1865 for full description on accessories & sizes



**partition
wall
intersection**



**cross section wall elev.
resilient ROCKLATH plaster base**



**wall-plan view
resilient metal lath**

BB009 1183

specifications

notes to architect

1. *Please refer to USG Folder a-1165 on PYROBAR Partitions for notes and details on door and borrowed light frames, control joints, ceramic base and tile attachment or direct attachment of plaster to PYROBAR Partition Tile.*

2. *In cold weather, all glazing should be complete and the building must be heated to a minimum of 55°F. Before lathing, ventilation should be provided to carry off excess moisture.*

3. *Door and borrowed light openings are not recommended when this partition is used as a party wall, since the sound control characteristics will be reduced. If required, details for door and borrowed light frames may be found in USG Folder a-1165.*

4. *Lath and plaster surfaces (non-load bearing) will not resist stresses imposed by structural movement, and are subject to dimensional variations due to changes in temperature and humidity. It is recommended that lath and plaster surfaces be isolated from all structural elements and control joints be specified where:*

   a. *a partition abuts any structural element or dissimilar wall or ceiling assembly.*

   b. *the partition construction changes within the plane of the partition.*

In long partition runs, control joints should be provided no more than 20' o.c.

For column isolation apply a 15 lb. asphalt felt across the face of the structural members to prevent bonding of the plaster to the column or beam and then use 3.4 lb. self-furring diamond mesh lath across the asphalt felt, securely stapled to the PYROBAR (see detail, USG Folder a-1165).

5. *Holes cut in a thin lath and plaster membrane cause a concentration of stresses in the plaster. The use of additional reinforcement is recommended at the weakened area to resist concentrated stresses where, in the judgment of the architect, for reasons of economy or design, a control joint is not otherwise specified.*

6. *Where a plaster surface is flush with metal, metal bucks, metal windows, or metal base, the plaster should be grooved between the two materials.*

7. *Fixture attachment—Only lightweight fixtures should be attached to the resilient face of the partition by drilling set dry plaster to a minimum depth of ¾" and inserting a plastic plug or other expandable anchor for anchorage of attachment screws. Lightweight fixtures (shelves, cabinets, chalkboards, etc.) may be attached on the non-resilient face with a ⅝" wood nailer strip or USG 8-A Picture Mould which has been secured to the PYROBAR Partition Tile. Medium weight fixtures may be secured with ⅜" steel bolts through the tile, using 2" steel washers on both sides of tile. Heavy fixtures should be attached to self-supporting hangers (see details, USG Folder a-1165).*

8. *To retain maximum sound isolation, the integrity of the partition should not be voided by openings such as electrical outlets, medicine cabinets, vents, etc. that create sound leaks. The use of caulking to seal all cut-outs and to seal all intersections with the adjoining structure is recommended.*

The most expedient way to obtain additional information on fire resistance ratings, sound transmission or details not covered in this publication is to direct inquiries to: UNITED STATES GYPSUM, Architect Service Department, 101 S. Wacker Dr., Chicago, Ill. 60606.

materials

See USG Folder f-1855 for Plaster Specifications.

See USG Folder f-1865 for General Lathing Specifications.

See USG Folder f-1915 for Paint Specifications.

All materials herein specified shall be manufactured by the United States Gypsum Company, unless otherwise indicated.

a. PYROBAR Gypsum Partition Tile shall be (3") (4") (6") (solid) (hollow).

b. RED TOP* Partition Tile Cement.

c. Clean, sharp sand, complying with ASTM C35 (not available from U.S.G.).

d. USG Metal Base—2½" (18)(20) ga.

e. USG Metal Base Splice Plate.

f. USG Stud Base Clip.

g. USG Selv-edge Cornerite (2"x2") (3"x3").

h. USG Striplath.

i. USG Self-Furring Junior Diamond Mesh Metal Lath.

j. USG Corner Bead (specify type from page 2).

k. USG Casing Bead (specify type from page 2).

l. USG Control Joint.

m. USG ¾" Cold Rolled Channels.

n. USG Resilient Clip R-5.

o. USG Resilient Clip No. 500.

p. USG BRIDJOINT* Clip B-1.

q. ROCKLATH Plaster Base shall be (⅜"x16"x48") (⅜"x16"x 96") Regular or Perforated.

r. Metal Lath shall be 3.4 lb. Diamond Mesh 27"x96".

s. 18 Ga. Tie Wire.

partition erection

All mortar shall be mixed in proportions of 1 part Partition Tile Cement to 3 parts sand, by weight. Mortar shall not be retempered.

After door frames are erected and rough plumbing and wiring are in place, the first course shall be laid with core holes horizontal by bedding mortar to a true and straight line according to partition layout as shown on plans. Succeeding courses shall be laid to a line in ½" thick full mortar beds iniformly level in each course. Vertical joints shall be staggered and head joints shall be filled with ½" of mortar. Cut all joints flush. Use of broken tile shall be kept to a minimum. Chinks and crevices shall be slushed full with mortar.

Lintels shall be formed as shown in the plans. Partitions shall be well anchored to intersecting masonry walls 12½" o.c. vertically with corrugated wall ties or 16d or 20d cut nails imbedded in mortar joints.

Wedge partition tightly at ceiling with skew cut tile corners every third tile. Joints between tile and ceiling shall be slushed full with mortar.

PYROBAR shall not be chased or cut out more than half its thickness for conduit or other piping. Metal lath shall be placed flush over the chase and secured in place.

*T.M. Reg. U.S. Pat. Off.

plaster base attachment

resilient metal lath

Securely attach the USG #500 Resilient Furring Clip to the face of the PYROBAR Partition using an angular driven 1¾" staple or a 10d cut nail. Cut nails, if used, shall be driven only into the solid part of the partition and not into the core holes. Clips to be spaced not to exceed 16" o.c. both ways. ¾" cold rolled channels shall be erected vertically, the legs of the channel nested into the grooves on the inner face of each clip and saddle tied with a double strand of 18 ga. tie wire.

Metal lath shall be applied with the long dimension of the sheet across the supports. The ends of all lath shall be lapped not less than 1". If end laps are made between supports they shall be adequately tied with 18 ga. tie wire. The sides of diamond mesh lath shall be lapped not less than ½".

Wherever possible, end of lath in adjacent courses shall be staggered.

Metal lath shall be secured to all supports at intervals not exceeding 6".

At all interior angles, metal lath shall be formed into the corners and carried out into the abutting surface, and adequately secured.

resilient ROCKLATH

USG R-5 Resilient Clips shall be securely attached to the PYROBAR tile with an angular driven 1¾" fence staple with one leg penetrating the PYROBAR and the other bridging the attachment flange of the clip.

The clips shall be spaced at a maximum of 16" o.c. and at each lath end joint.

ROCKLATH Plaster Base shall be applied face out with the long dimension at right angles to the framing members. All joints shall be butted together and the lath shall be accurately cut and neatly fitted around all electrical outlets, openings, etc.

Succeeding courses of ROCKLATH Plaster Base shall be similarly applied with end joints staggered.

At the floor and ceiling line shim out the ROCKLATH using a narrow piece of ROCKLATH and nail in place.

lathing accessories

a. Metal Base 2½", (18)(20) ga., painted, shall be notched to a neat miter in forming all angles. Base Clips, spaced 12" to 16" o.c. shall be wire tied in place. In continuous runs, ends of metal base shall be evenly butted and internally spliced with a splice plate. Base shall be securely held in place by engaging the base clips.

b. Cornerite (2"x2") (3"x3") shall be installed in all interior plaster angles. Staple at the edges (required only for ROCKLATH Plaster Base).

c. Metal Corner Bead No. (000000) shall be provided on all external plaster corners, and shall be in single lengths where the length of the corner does not exceed standard stock lengths. Fasten securely with wire-ties or galvanized staples, spaced not over 8" o.c.; stagger in two wings.

d. Casing Bead No. (000000) shall be installed where indicated. Ends shall be accurately cut and mitered and the casing bead shall provide full plaster grounds when securely installed. Wire-tie or staple in place.

e. Reinforcing—Install a strip of self-furring diamond mesh lath over joints between dissimilar plaster bases. At all openings, reinforce the corners attaching a 12"x24" piece of self-furring diamond mesh lath diagonally across the corners (required only for ROCKLATH Plaster Base).