



DCI Hollow Metal

Technical Data

DCI HOLLOW METAL
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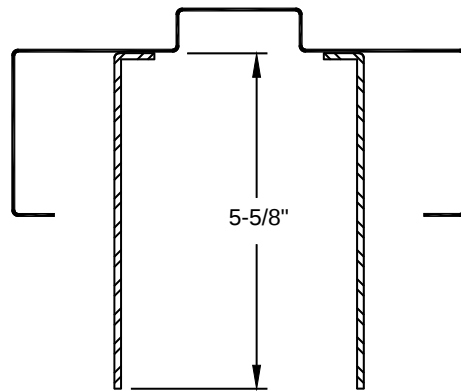
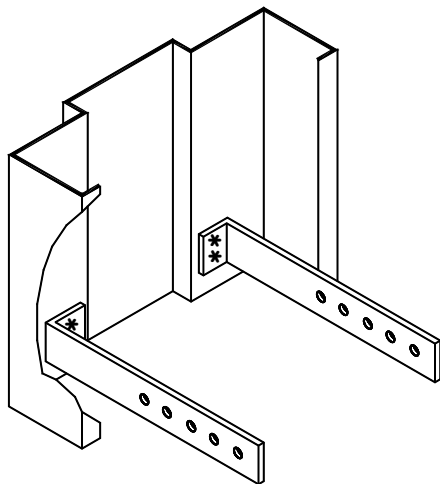
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FIRE RATED:

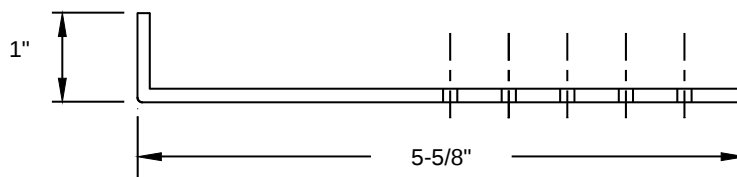
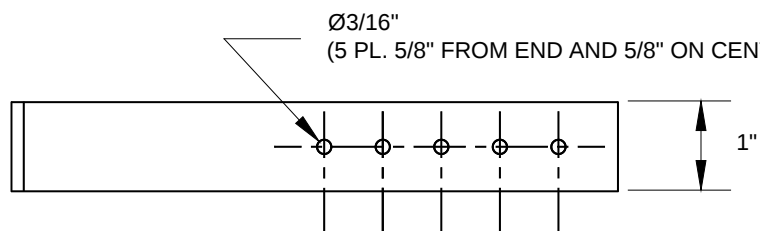
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A1 STANDARD STRAP ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 18
TWO SPOTWELDS PER STRAP

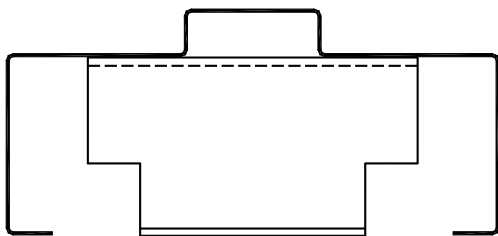


NAILS OR SCREWS FOR WALL ATTACHMENT
NOT INCLUDED

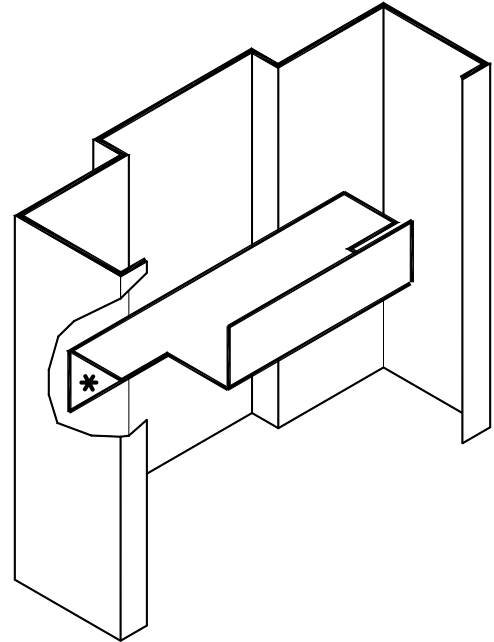


A2 FLUSH METAL STUD ANCHOR

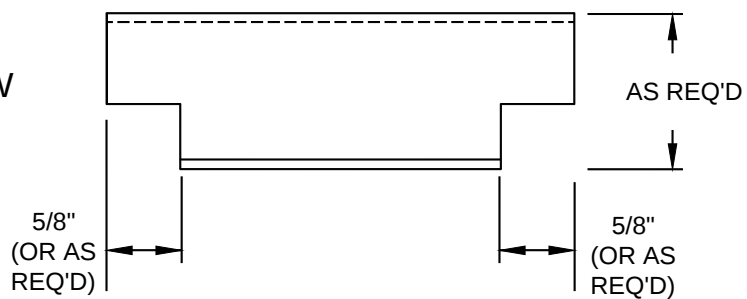
MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOTWELDS PER END



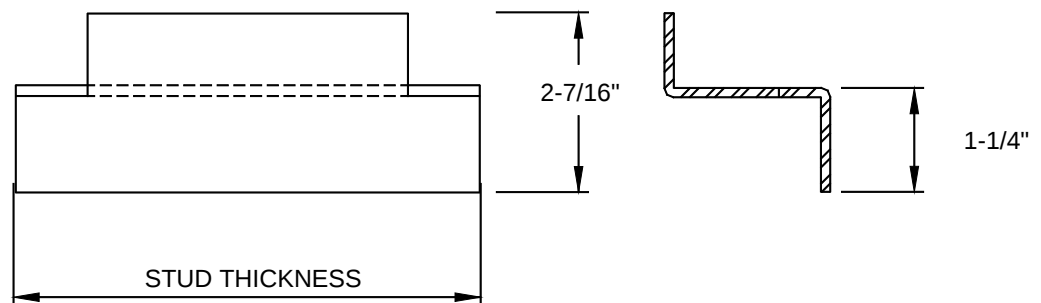
SCREWS USED TO FASTEN TO STUD
NOT INCLUDED



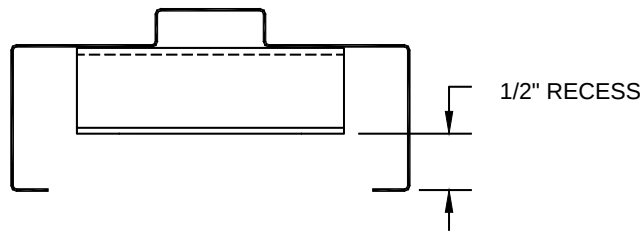
TOP VIEW



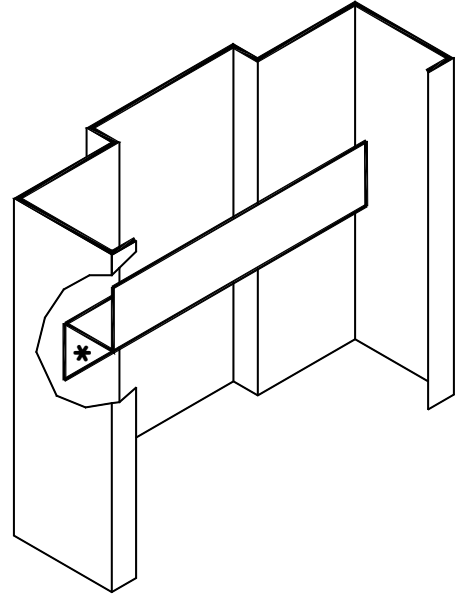
FRONT VIEW



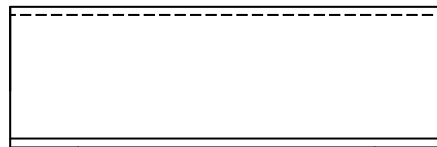
MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOTWELDS PER END



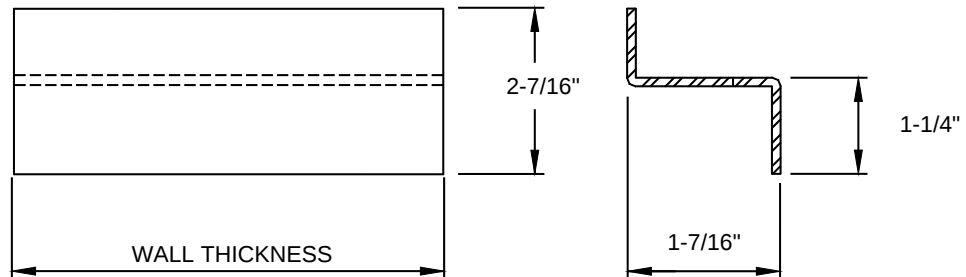
SCREWS USED TO FASTEN TO STUD
ARE NOT INCLUDED



TOP VIEW

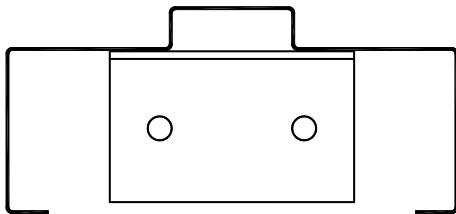


FRONT VIEW

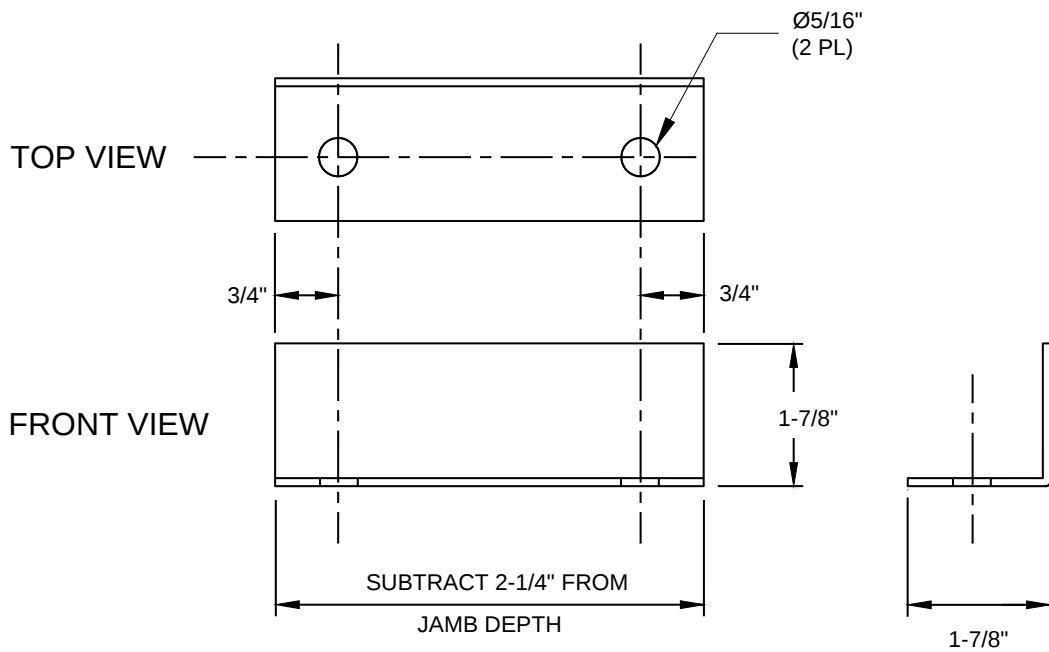
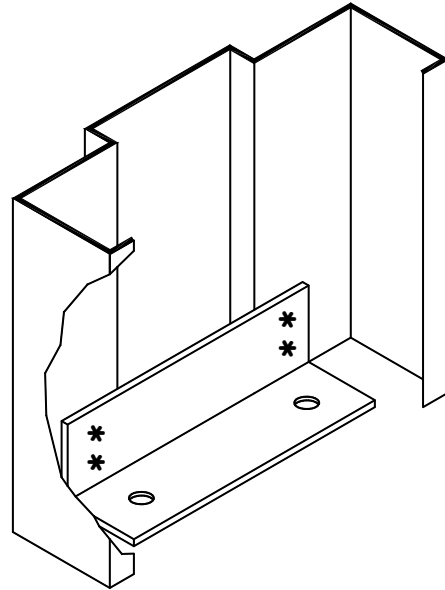


A4 STANDARD BASE ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOTWELDS PER END

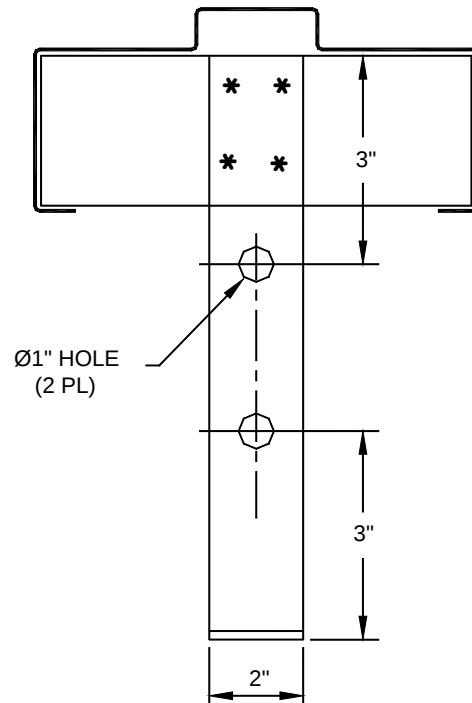
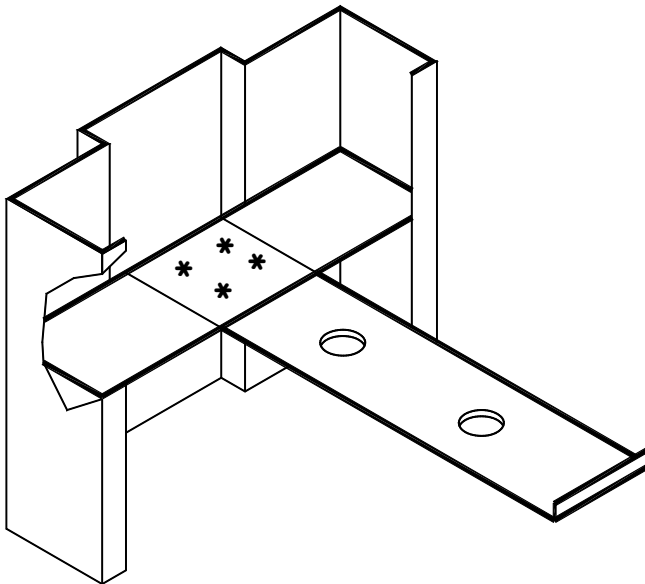


ANCHOR BOLTS FOR FLOOR
ATTACHMENT NOT INCLUDED

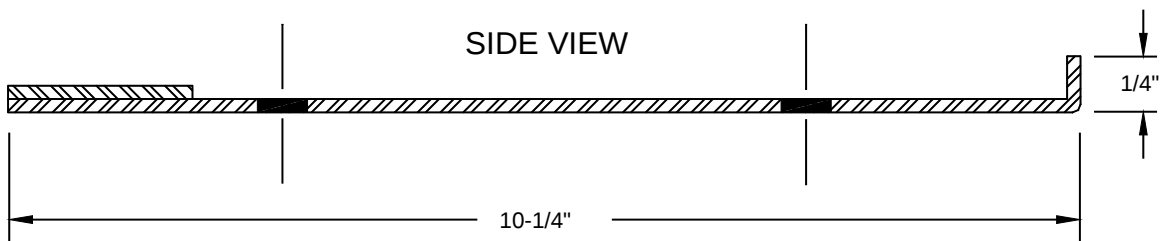
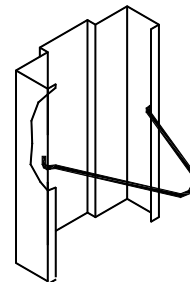


A5 MASONRY "TEE" ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 16
WELDED: (4) SPOTWELDS
THIS ANCHOR SHIPS LOOSE



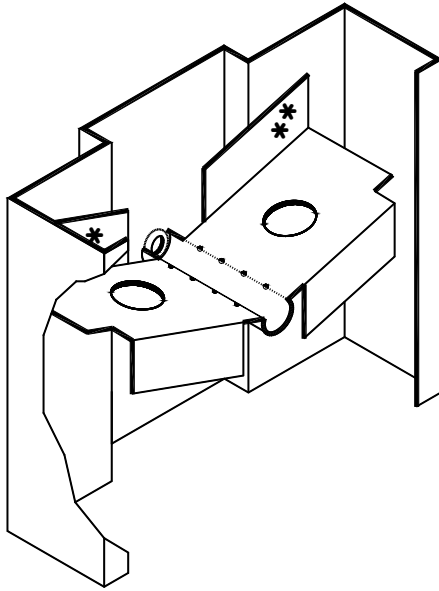
ALTERNATE
A6 ANCHOR
3/16" DIA
WIRE ANCHOR



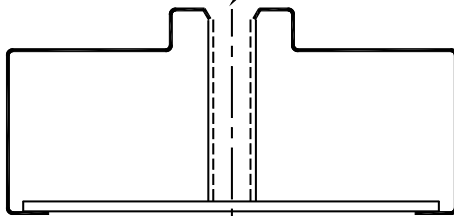
A7B "BUTTERFLY ANCHOR"

18 GAUGE - 2 SPOT WELDS PER SIDE

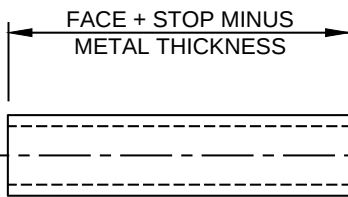
STANDARD FOR JAMBS WITH 2" FACES
AND UNDER 9" JAMB DEPTH



PREP FOR Ø3/8" BOLT
STANDARD

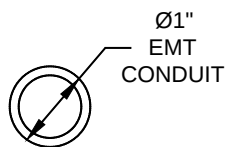


ANCHOR BOLTS NOT INCLUDED

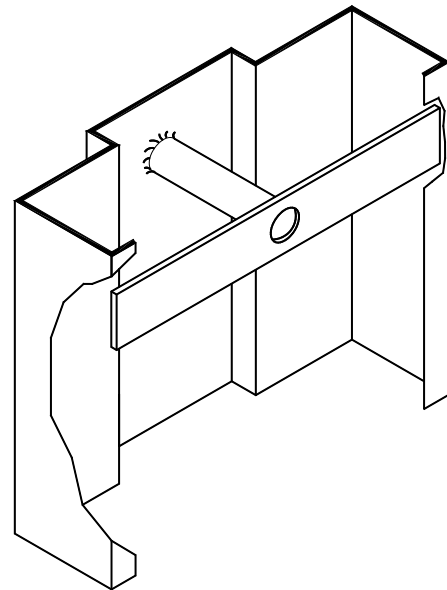


FACE + STOP MINUS
METAL THICKNESS

PIPE SLEEVE



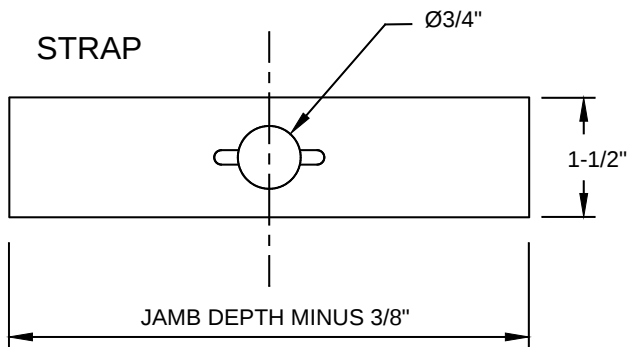
Ø1"
EMT
CONDUIT



A7P ALTERNATE ANCHOR "PIPE AND STRAP"

16 GAUGE - 2 TACK WELDS PER END

STANDARD ONLY FOR JAMBS WITH CUSTOM
FACES AND PROFILES



STRAP

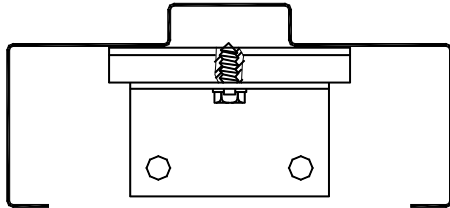
Ø3/4"

1-1/2"

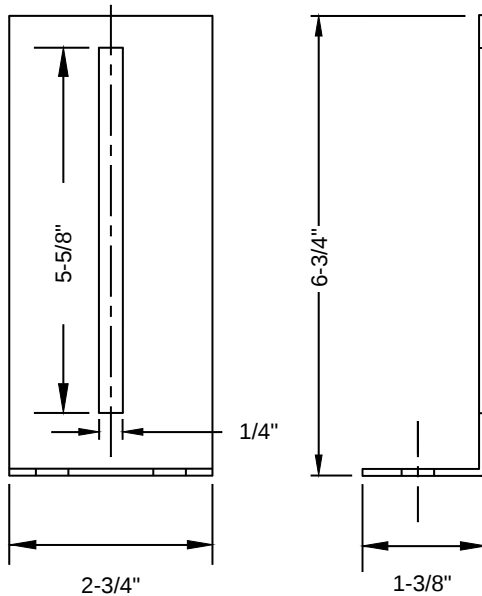
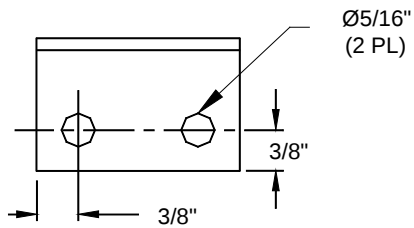
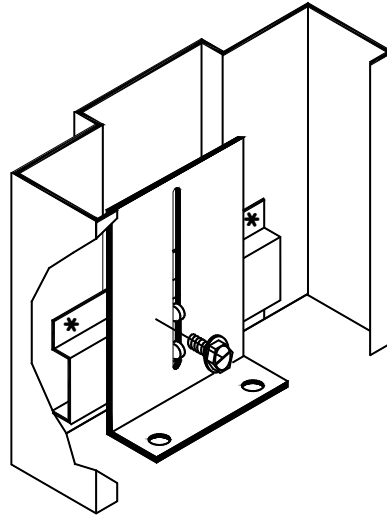
JAMB DEPTH MINUS 3/8"

A8 ADJUSTABLE BASE ANCHOR

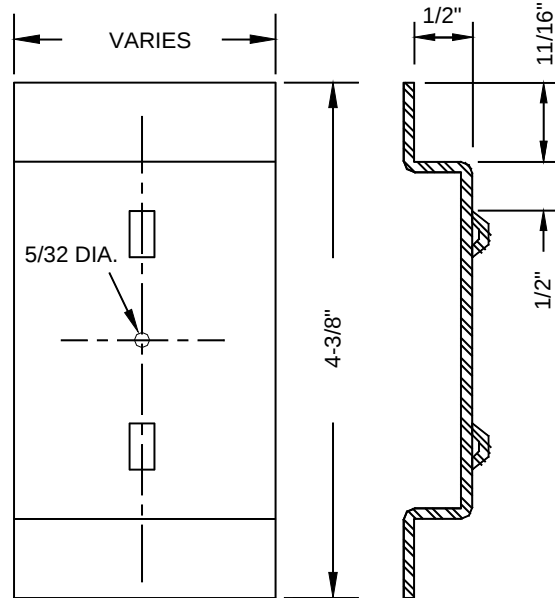
MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOT WELDS PER END



ANCHOR BOLTS USED FOR FLOOR
CONNECTION ARE NOT INCLUDED



ADJUSTABLE ANGLE

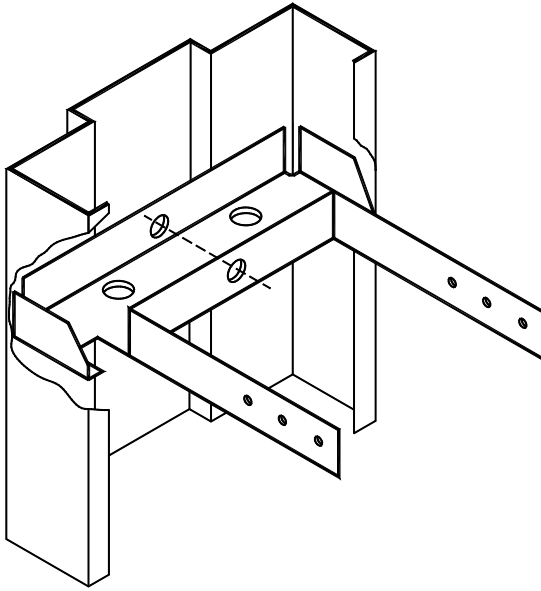


HAT STRAP

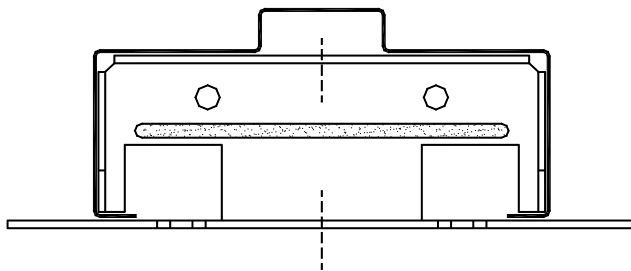
MATERIAL: GALVANNEAL
GAUGE: 18

MAY BE MANUFACTURED FOR CUSTOM
JAMB DEPTHS, FACES AND PROFILES.

STOCKED FOR THE FOLLOWING
JAMB DEPTHS - SHIPS LOOSE.

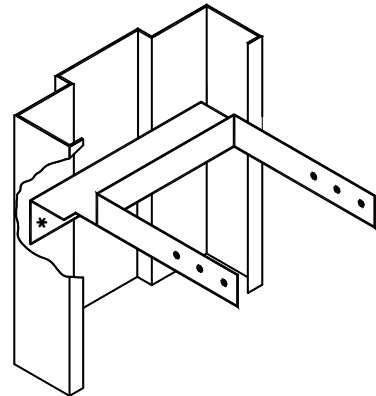
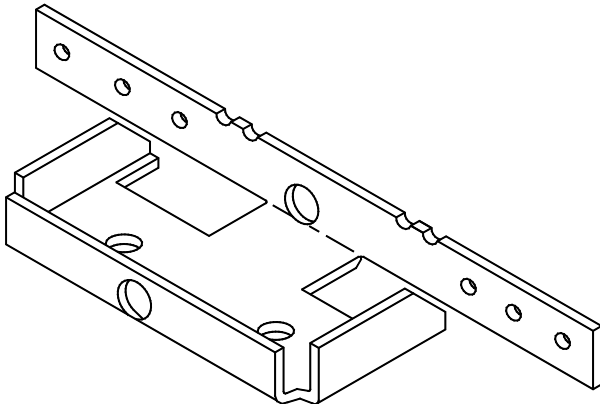


JAMB DEPTH	FACE
4-3/4"	2"
5-3/4"	2"
6-1/4"	2"
6-3/4"	2"
7-1/4"	2"
7-3/4"	2"
8-1/4"	2"
8-3/4"	2"



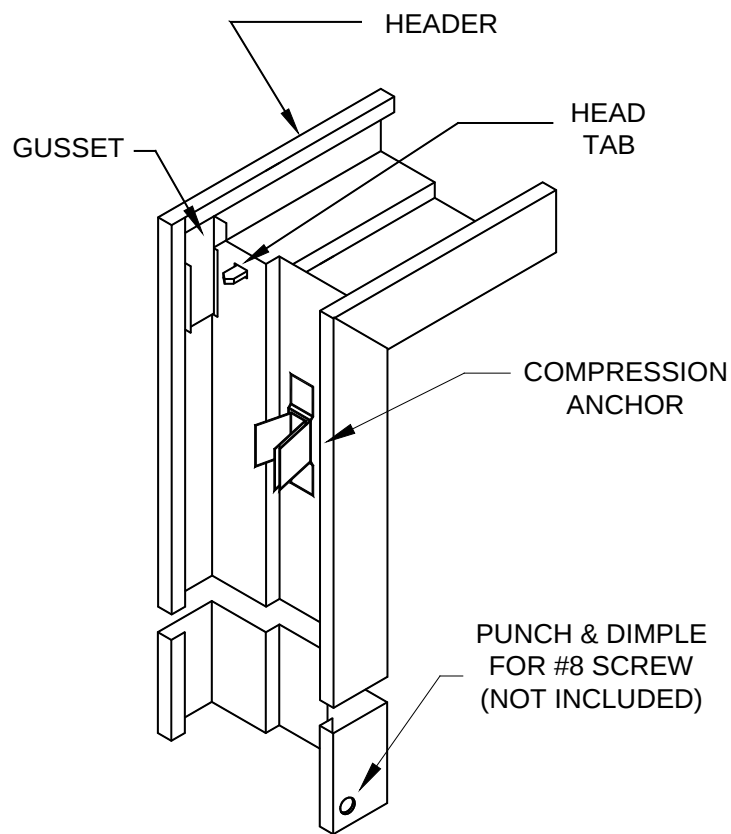
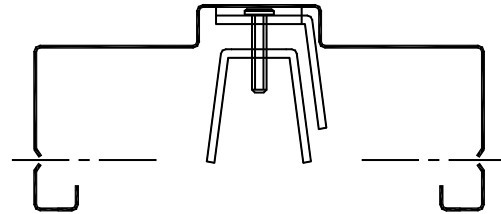
ALTERNATE A9W ANCHOR

WELDED IN -
FOR CUSTOM PROFILES

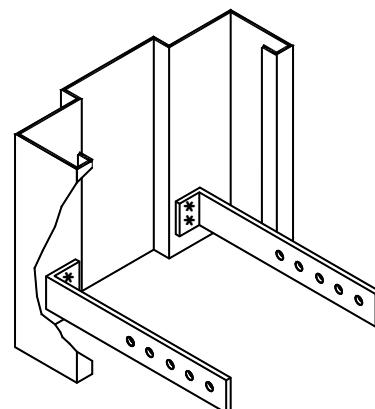


A10 KDDW COMPRESSION ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOTWELDS PER END



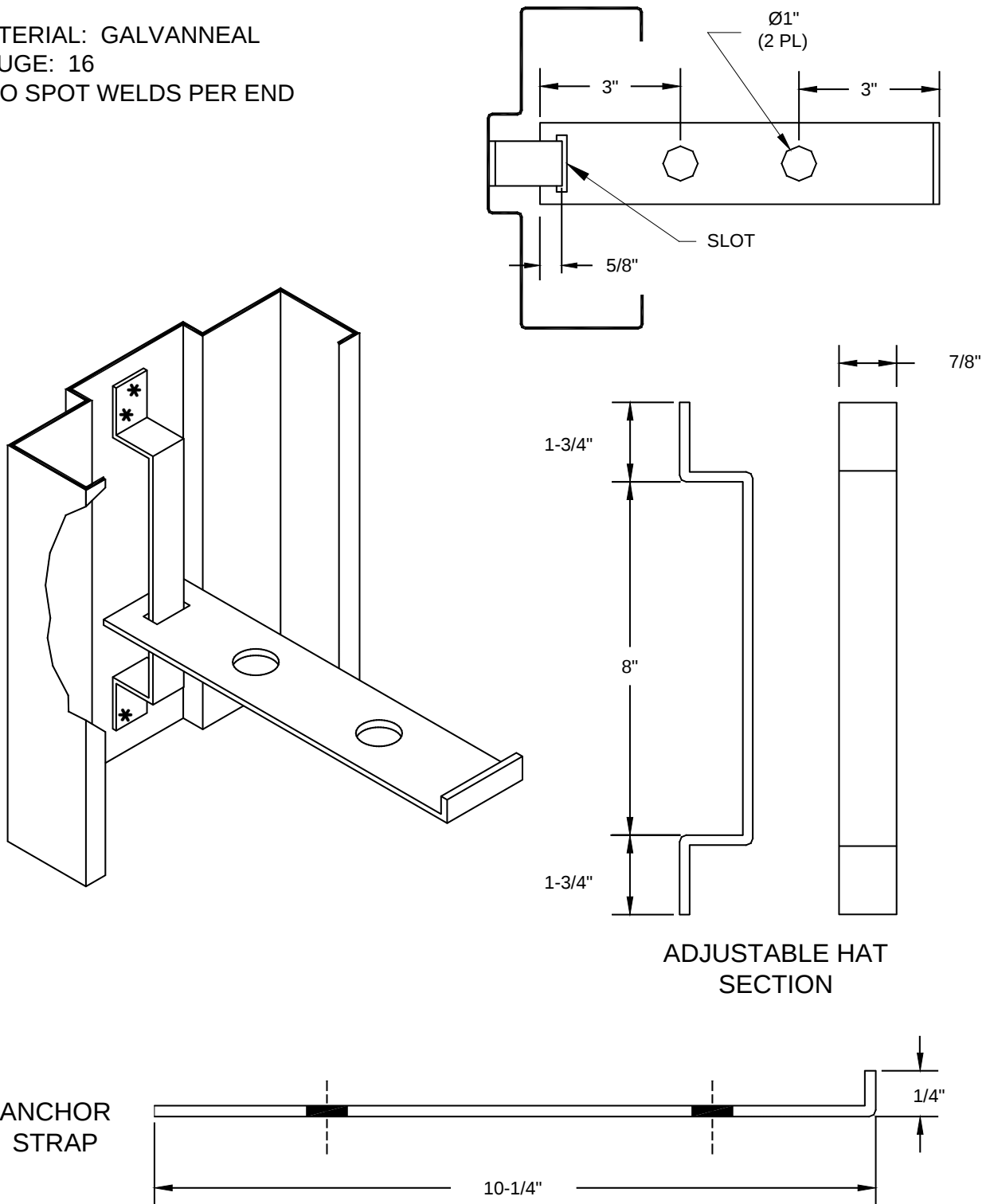
STANDARD BASE ANCHOR



ALTERNATE BASE ANCHOR
(SEE TO PAGE 1 FOR DETAILS)

A11 ADJUSTABLE MASONRY ANCHOR

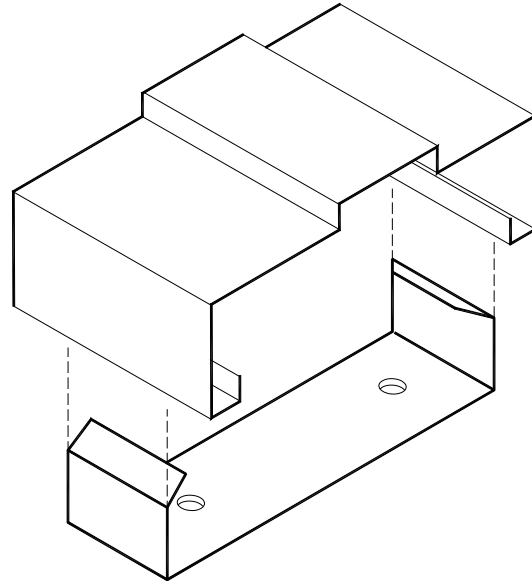
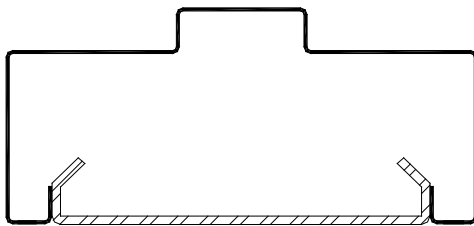
MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOT WELDS PER END



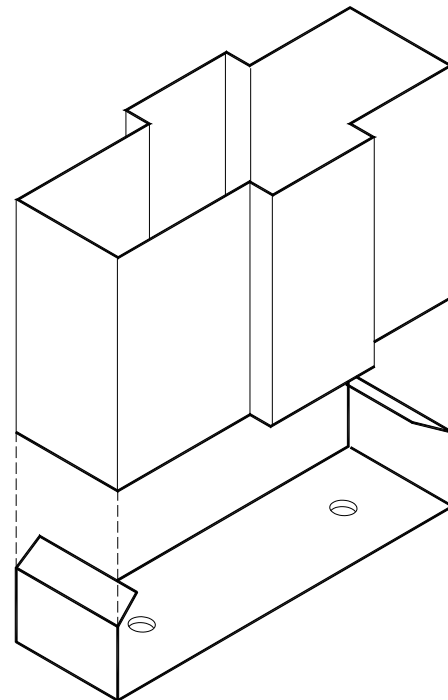
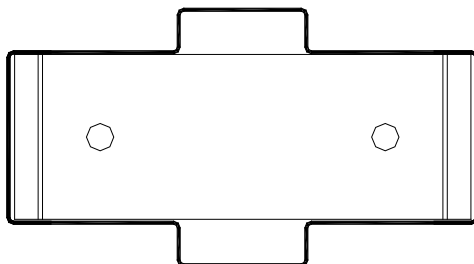
A12 FLOOR ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 14
THIS ANCHOR SHIPS LOOSE

SILL BASE ANCHOR



MULLION BASE ANCHOR

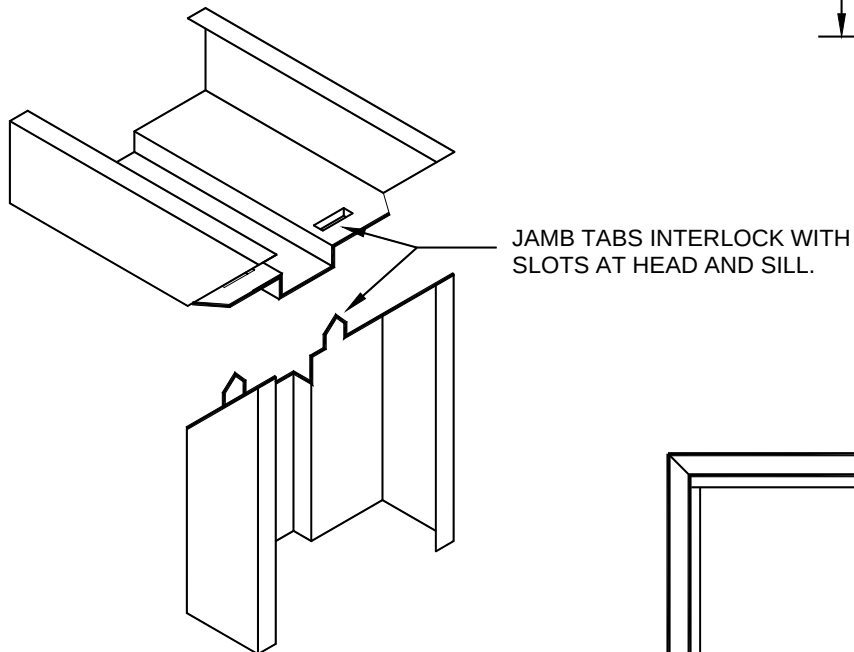
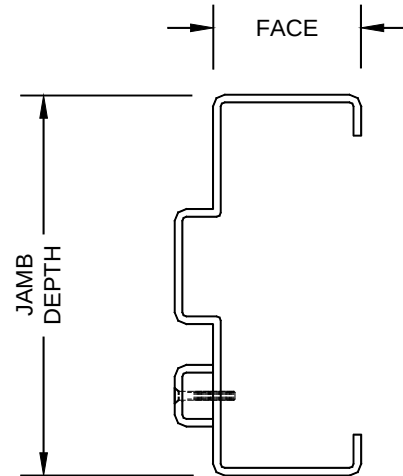


BASE ANCHOR INSTALLATION INSTRUCTIONS:

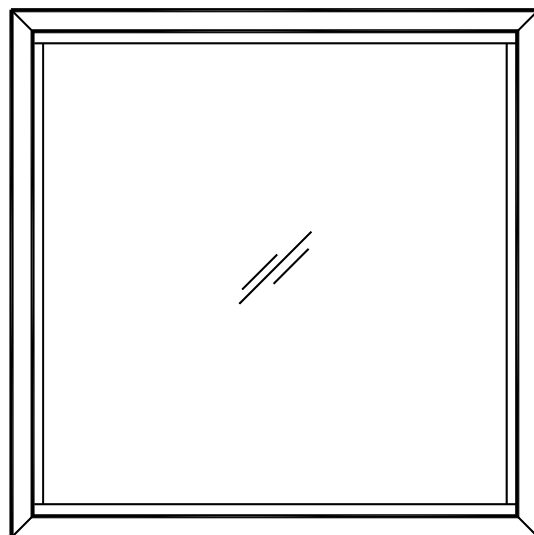
LOCATE ANCHOR CAREFULLY.
FASTEN ANCHOR TO FLOOR WITH
RAWLPLUGS OR EXPANSION BOLTS.
SLIP SILL OR MULLION OVER ANCHOR.

ANCHOR BOLTS FOR FLOOR ATTACHMENT
NOT INCLUDED

CONSTRUCTION: FULLY WELDED
GLASS STOP: 5/8 x 5/8 x 16 GA.
ANCHORS: AS REQUIRED
FINISH: RUST INHIBITIVE BAKED-
ON GREY PRIMER

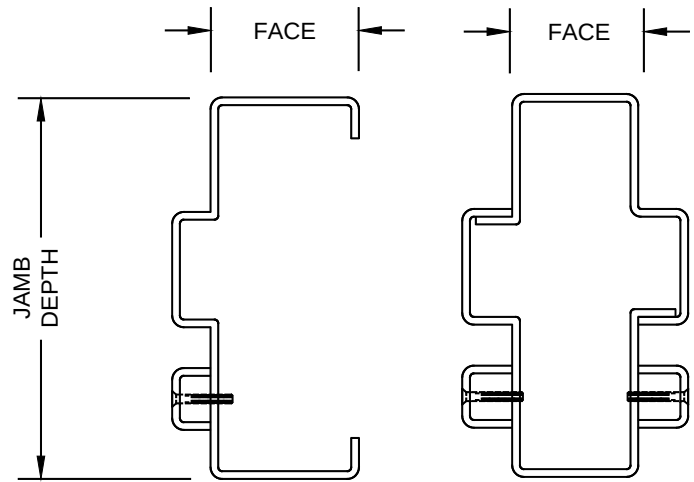
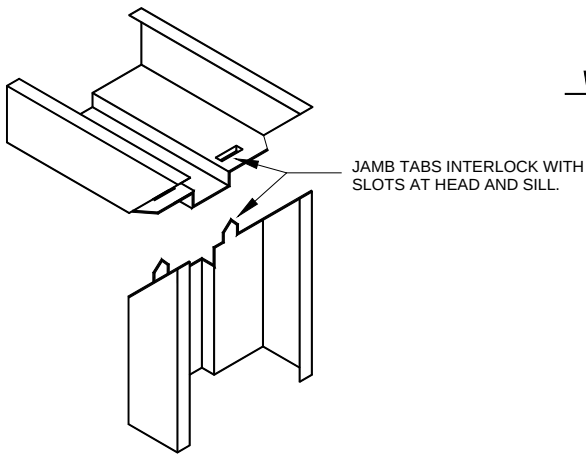


MACHINE-MITERED AND FULLY WELDED.
(CONTINUOUSLY WELDED AT FACE AND
RETURN. FACE GROUND SMOOTH AND
FINISHED.)

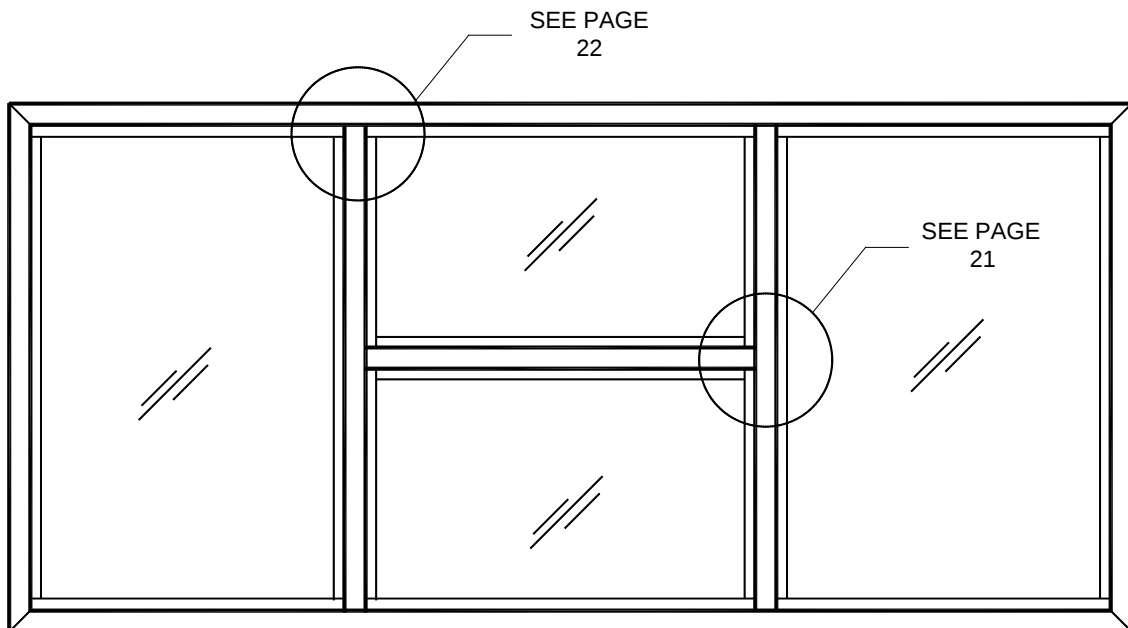


MULTI-LITE BORROWED LITE

CONSTRUCTION: FULLY WELDED
GLASS STOP: 5/8 x 5/8 x 16 GA.
ANCHORS: AS REQUIRED
FINISH: RUST INHIBITIVE BAKED-
ON GREY PRIMER

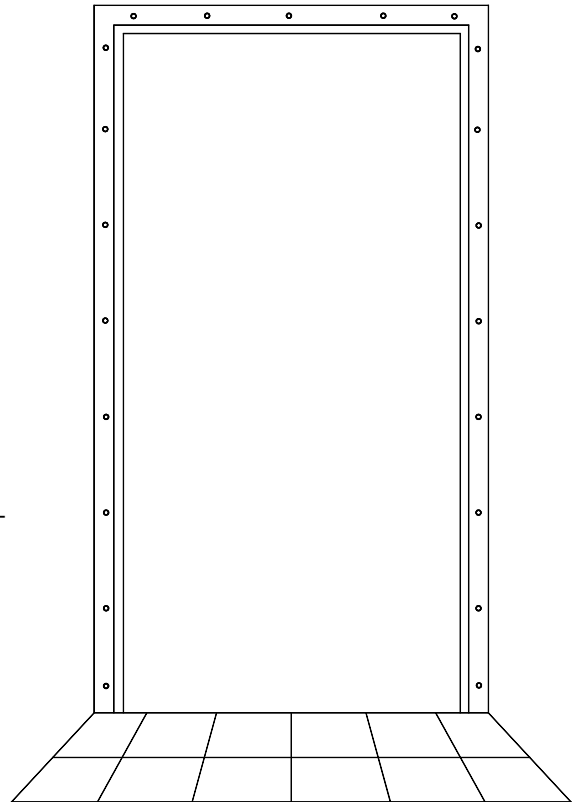
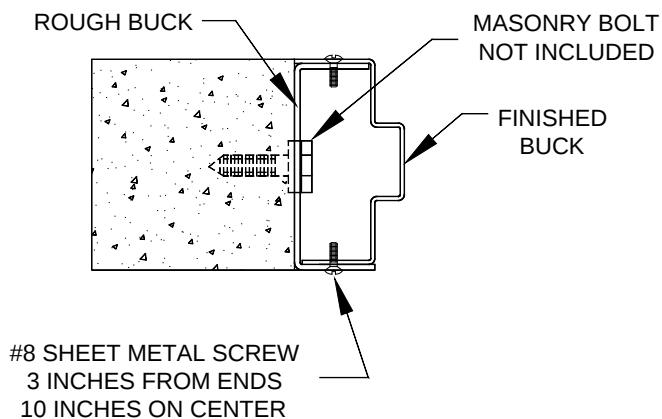
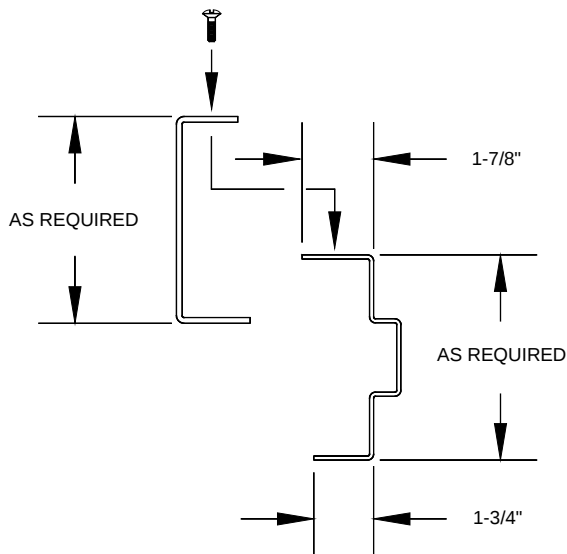


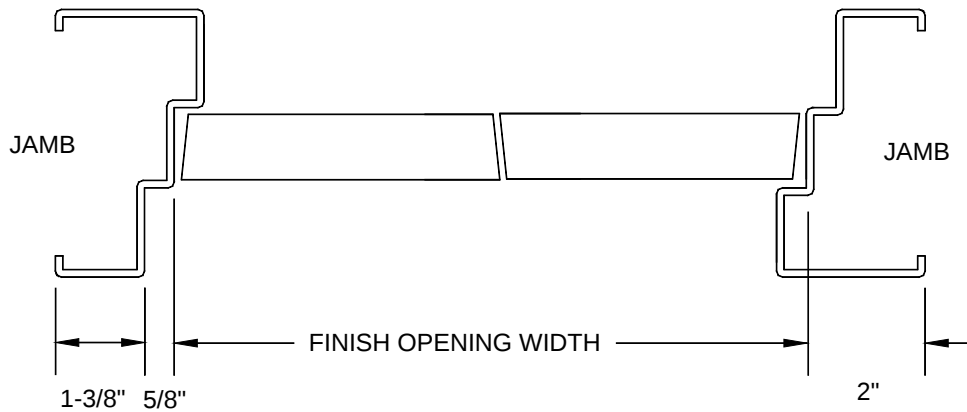
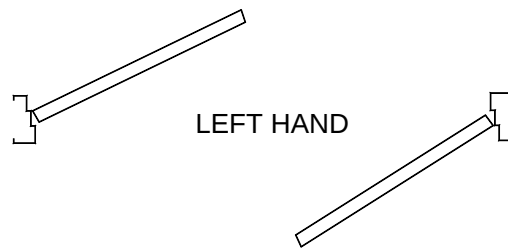
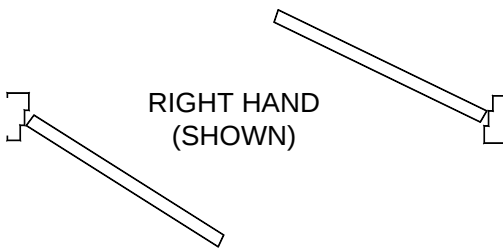
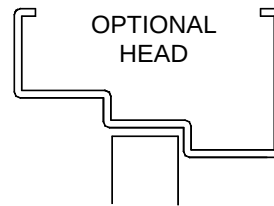
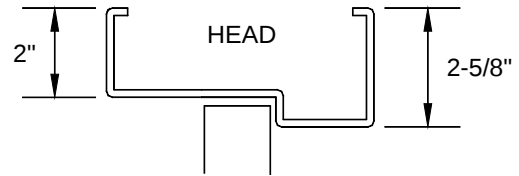
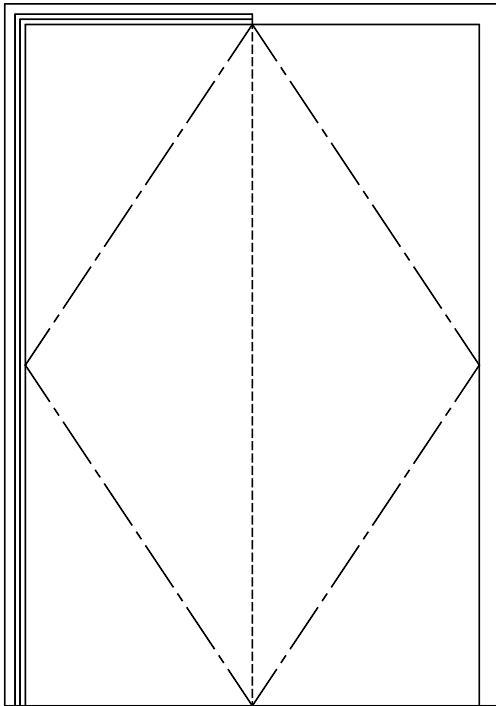
MACHINE-MITERED AND FULLY WELDED.
(CONTINUOUSLY WELDED AT FACE AND
RETURN. FACE GROUND SMOOTH AND
FINISHED.)



ROUGH BUCK

MATERIAL: GALVANNEAL
GAUGE: 16
CONSTRUCTION:
COMPOSED OF 3 LOOSE CHANNELS
WITH WELDED FINISHED BUCK

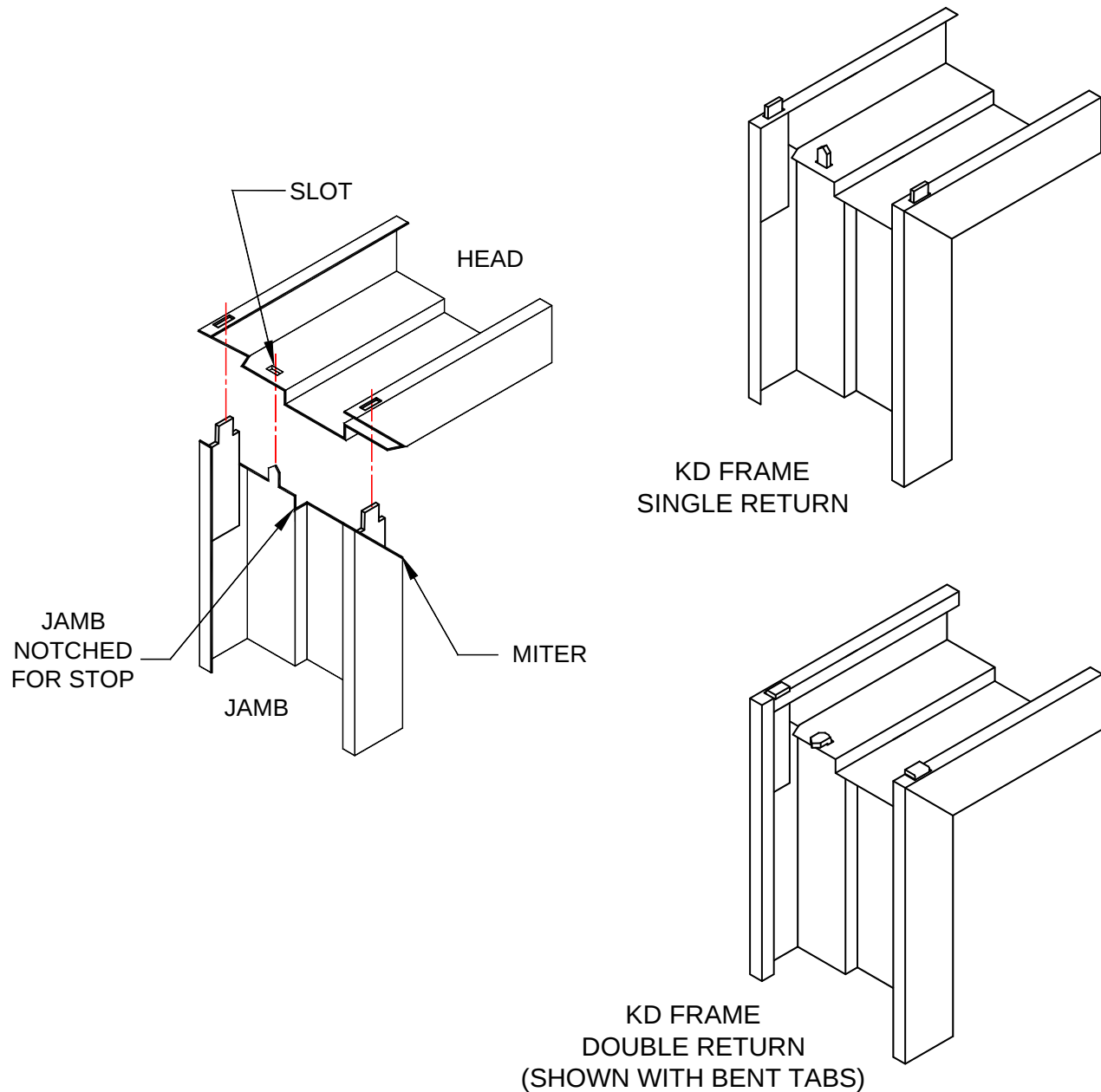


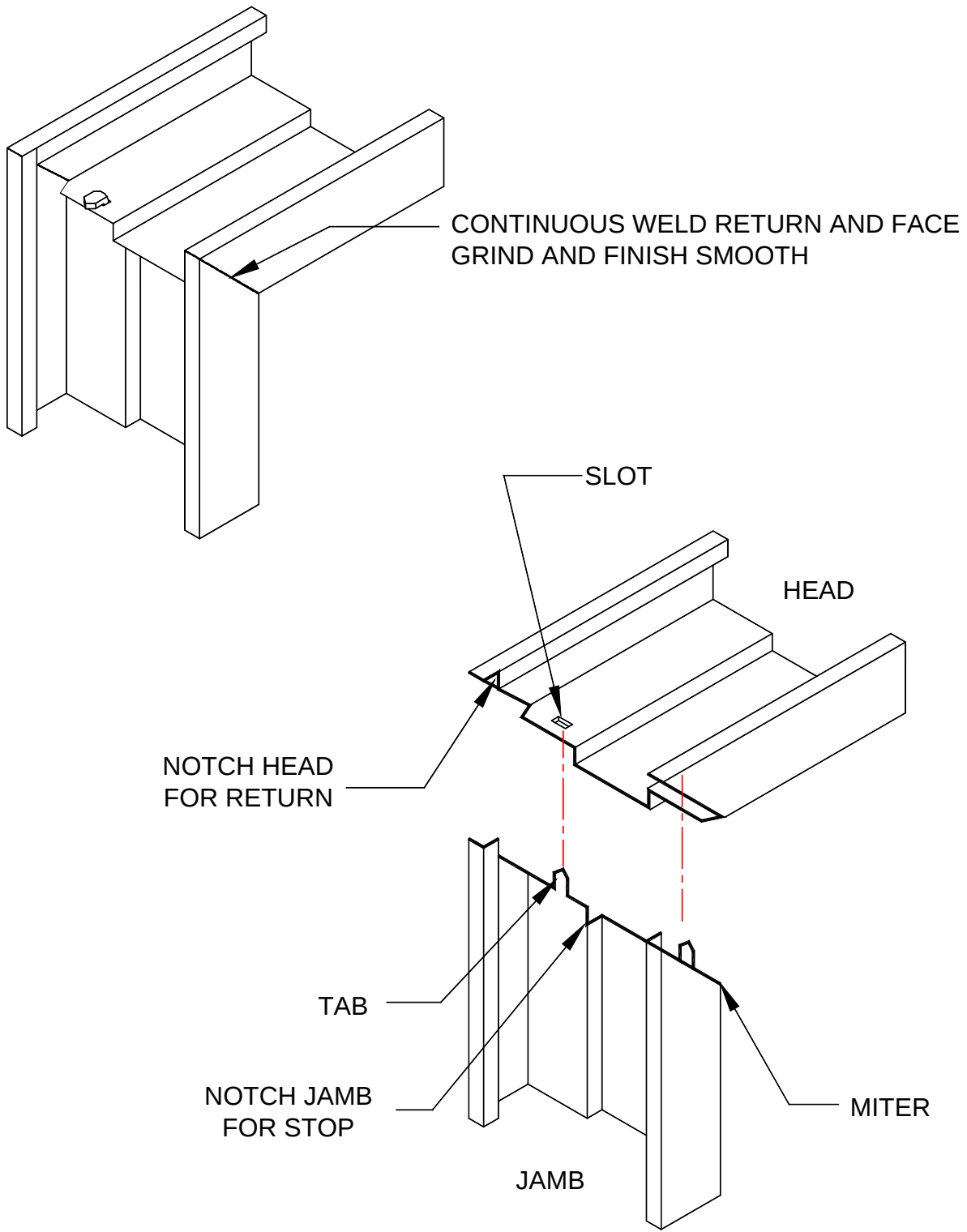


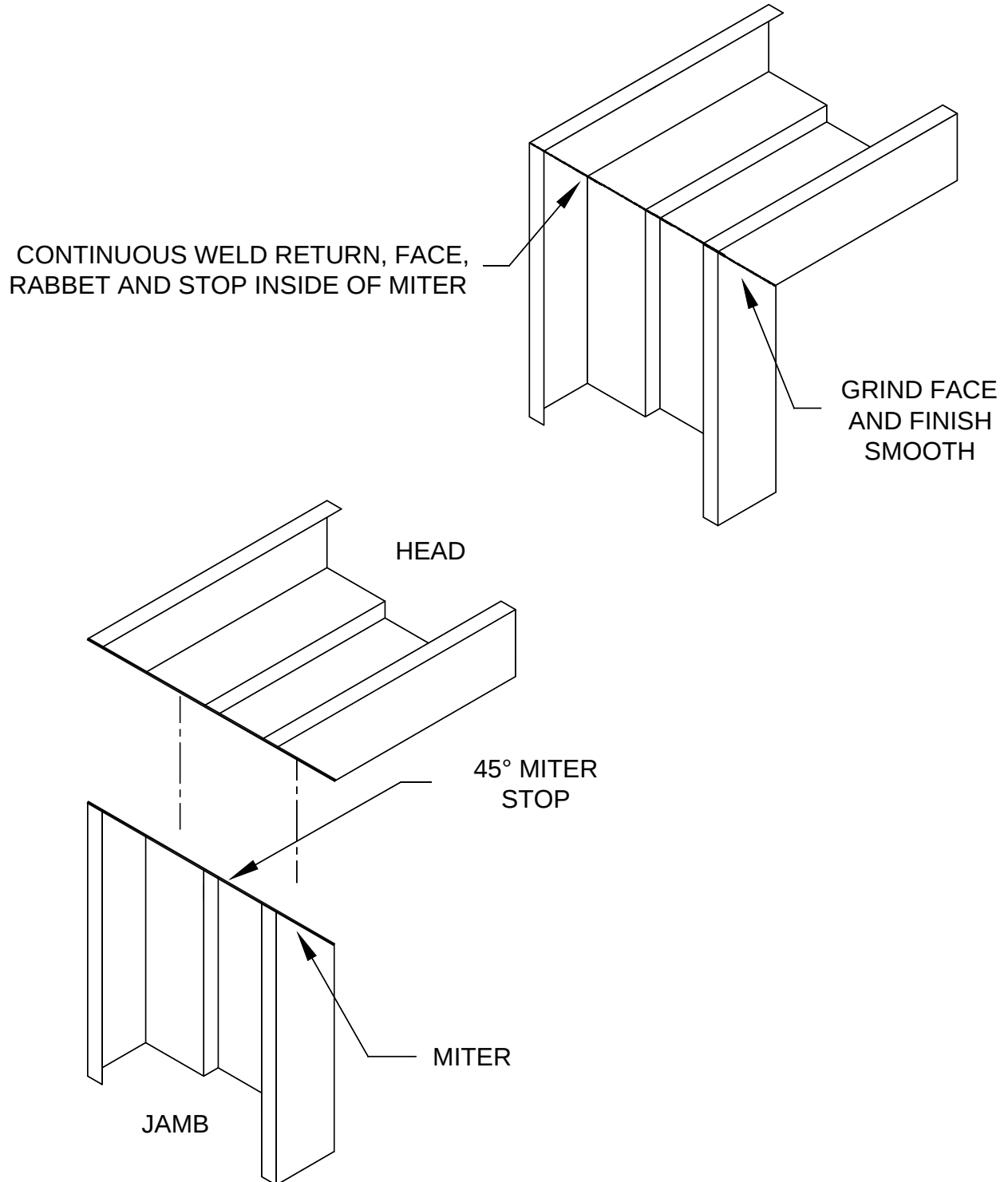
KD-COMPLETE FRAME CORNER

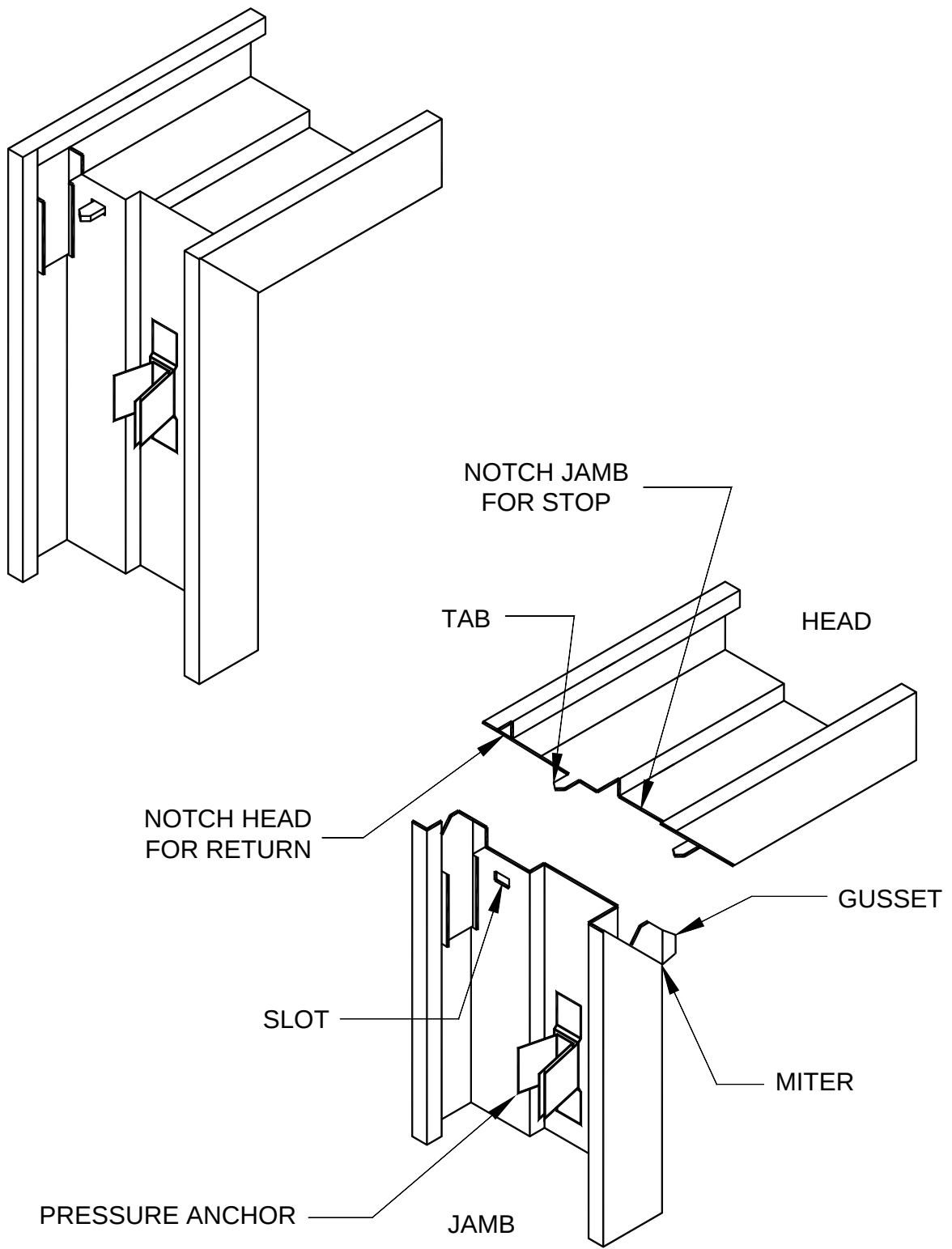
KD COMPLETE 3-SIDED FRAME
FIELD ASSEMBLED - JAMB AND GUSSET TABS TO BE BENT IN FIELD
AFTER ASSEMBLY, INSTALLATION SIMILAR TO WELDED FRAMES
INSTALLED WITH THE SAME HARDWARE AND ANCHORS AS WELDED FRAMES

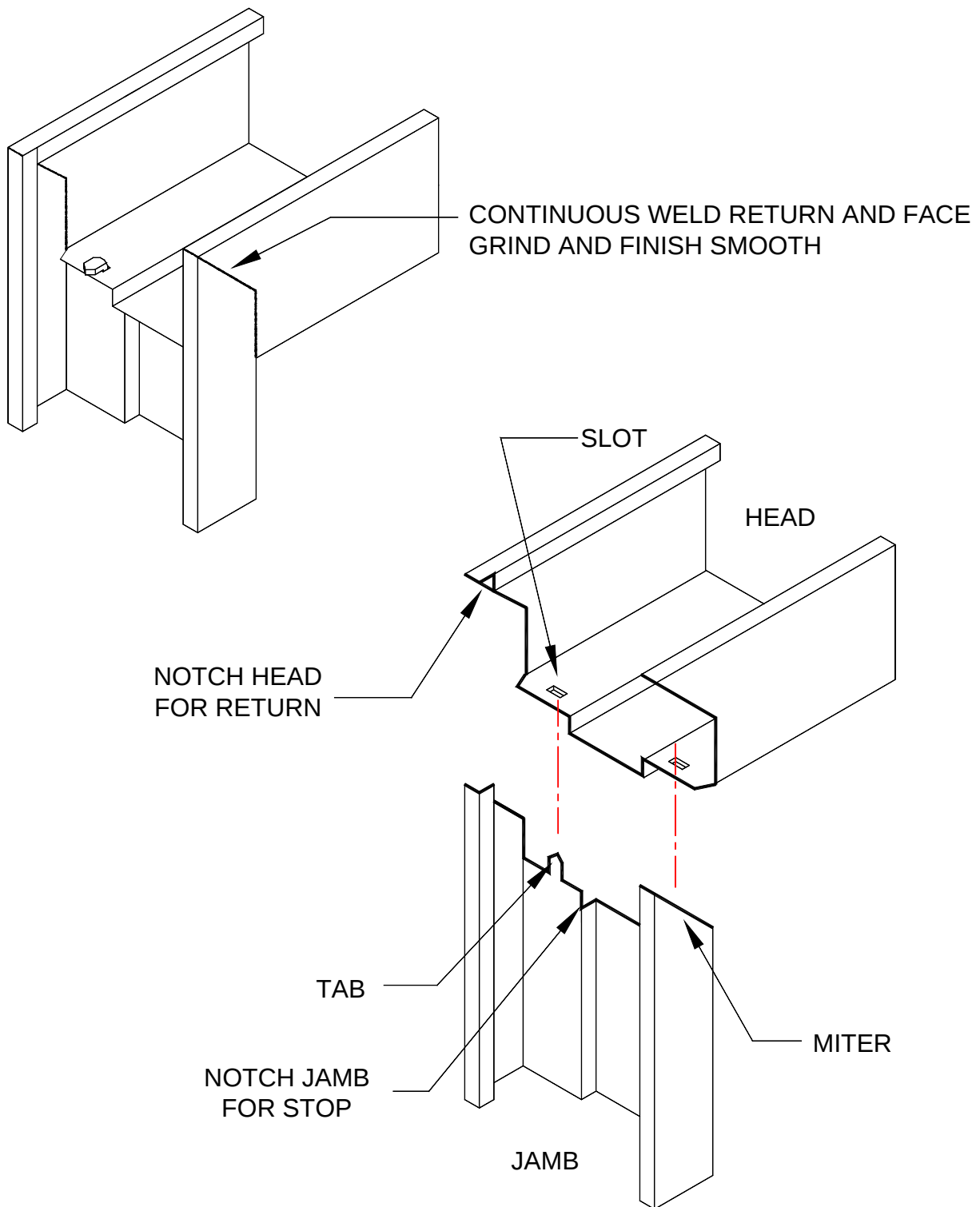
WHI FIRE RATINGS AVAILABLE - SEE FIRE RATED FRAMES SECTION

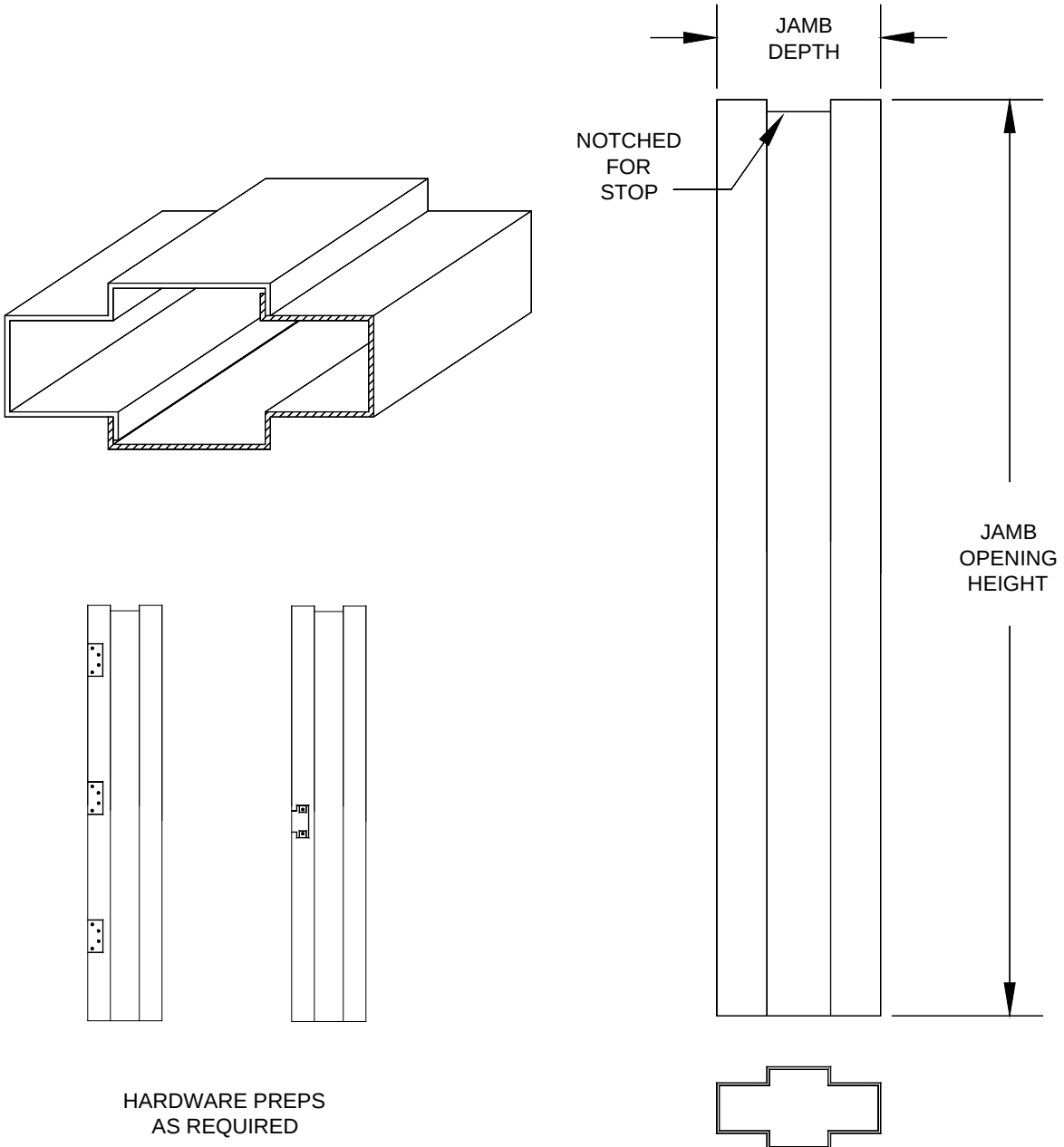


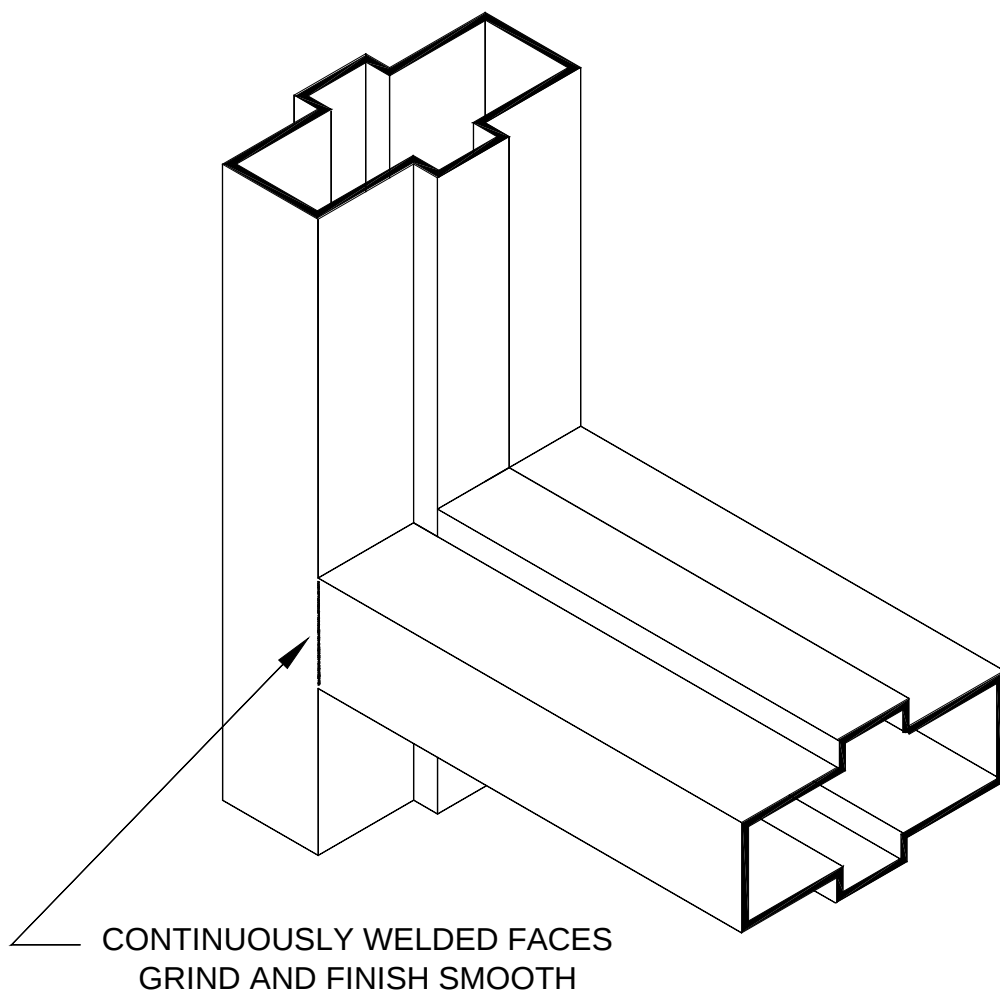
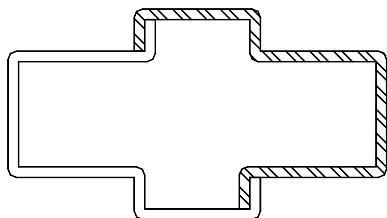


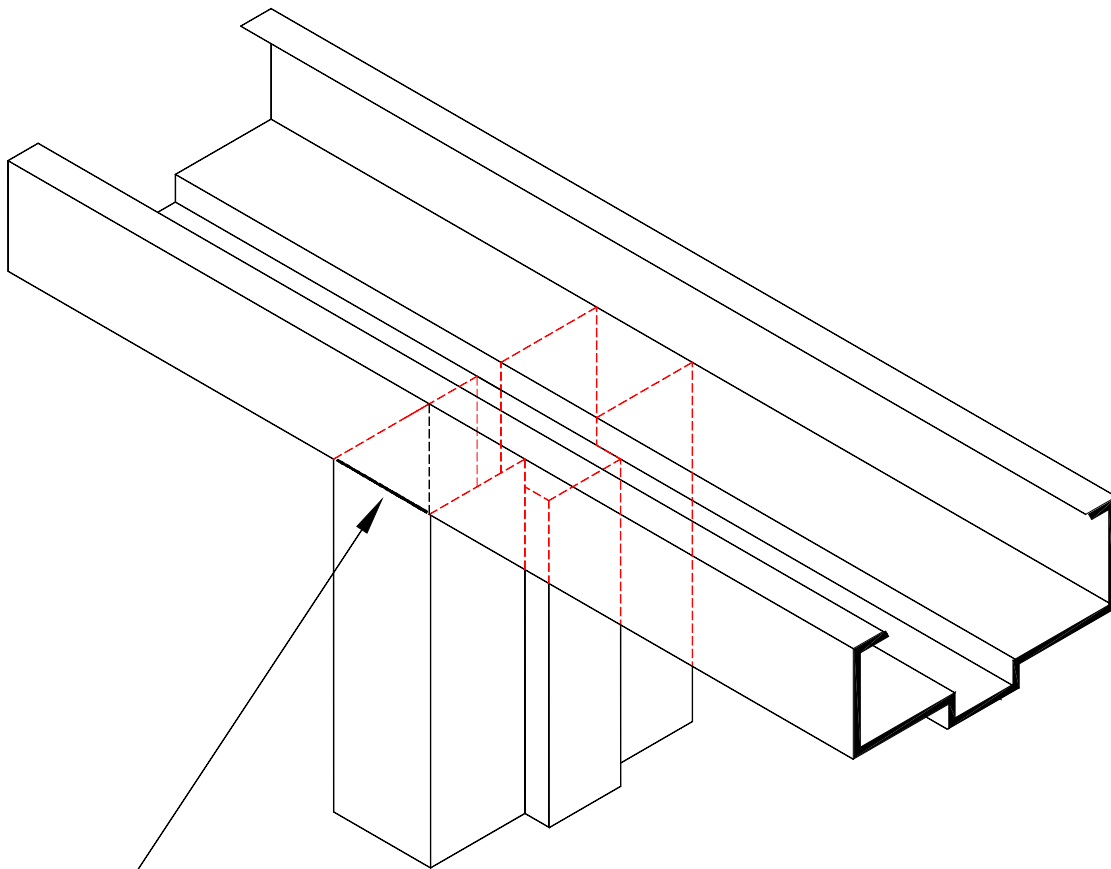
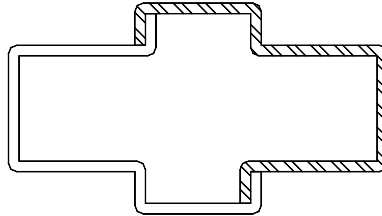




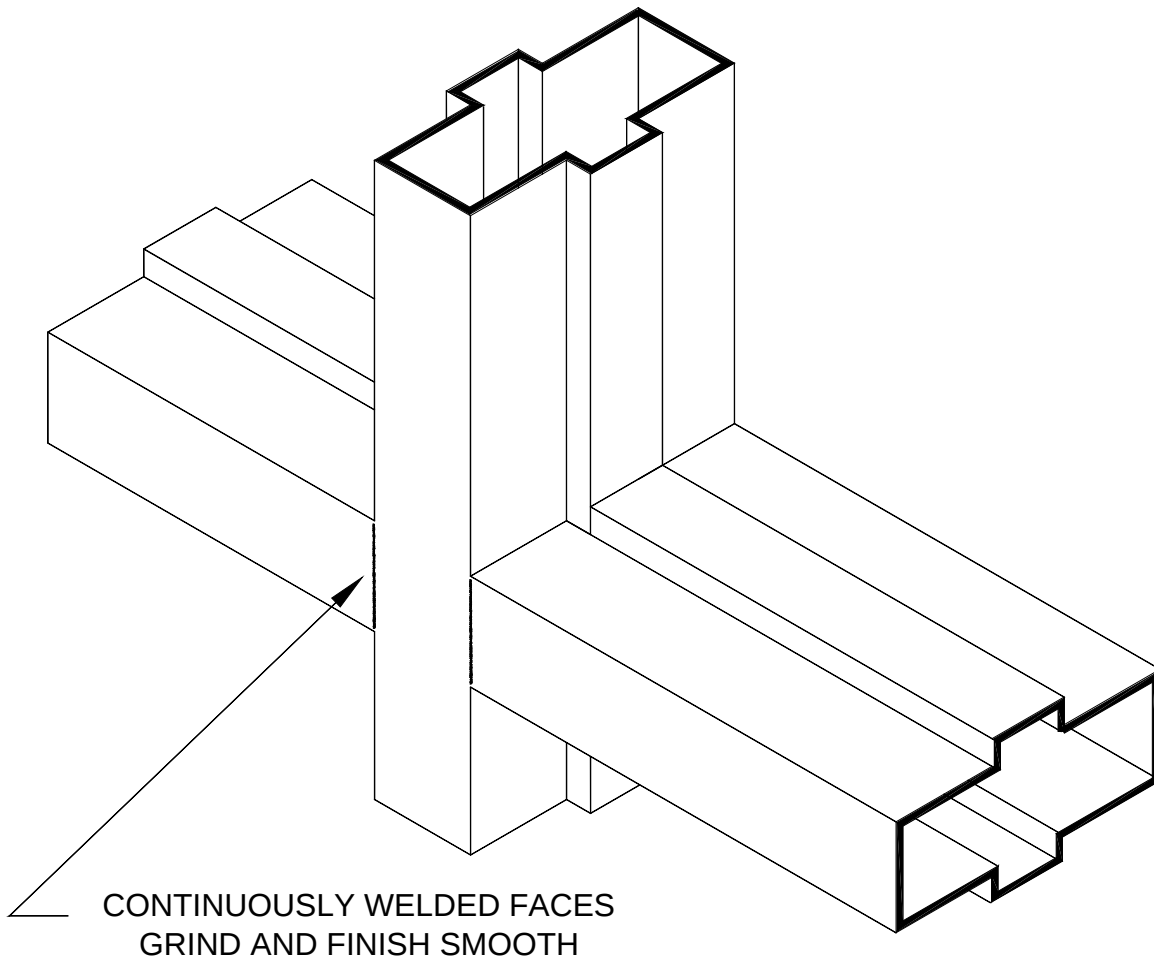
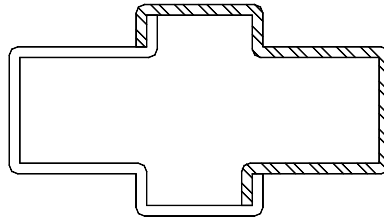




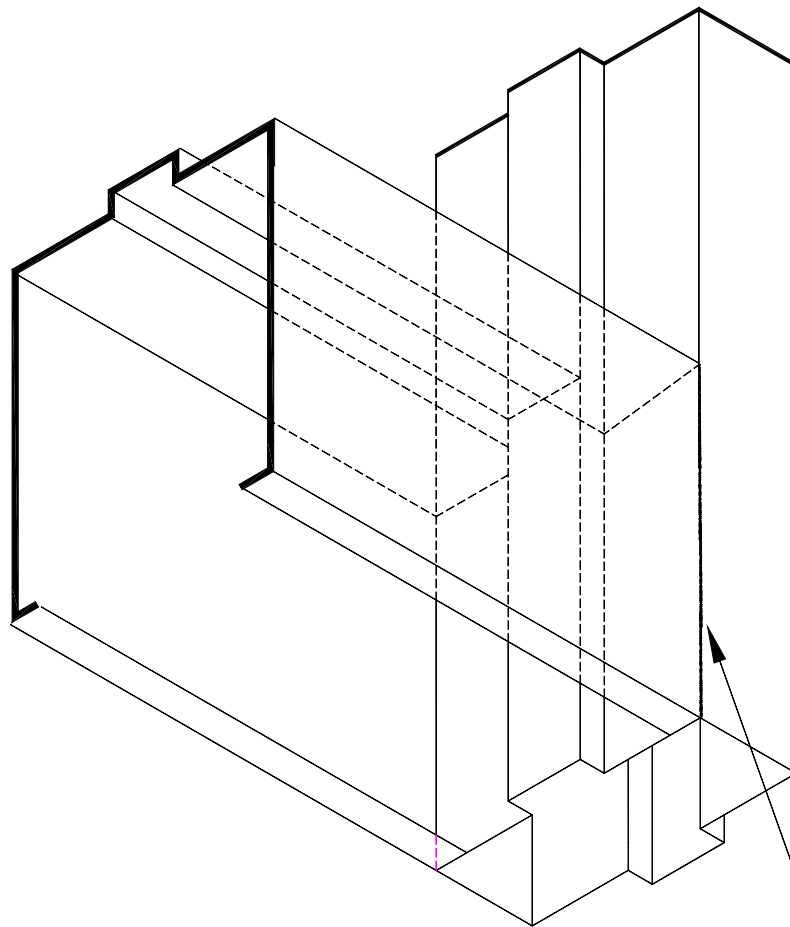
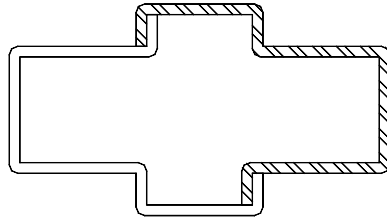




CONTINUOUSLY WELDED FACES
GRIND AND FINISH SMOOTH

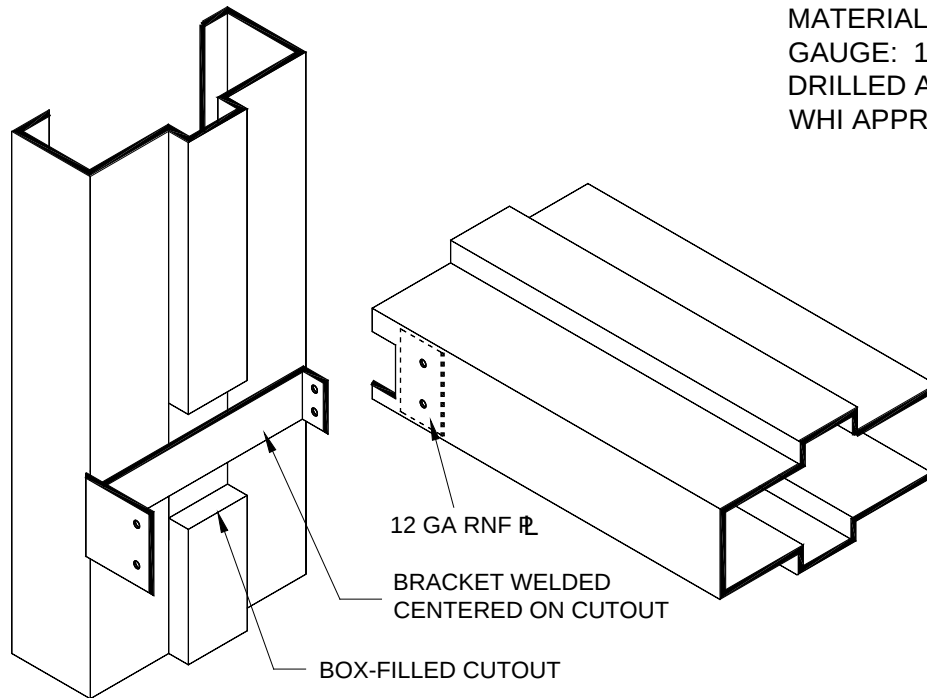


CONTINUOUSLY WELDED FACES
GRIND AND FINISH SMOOTH

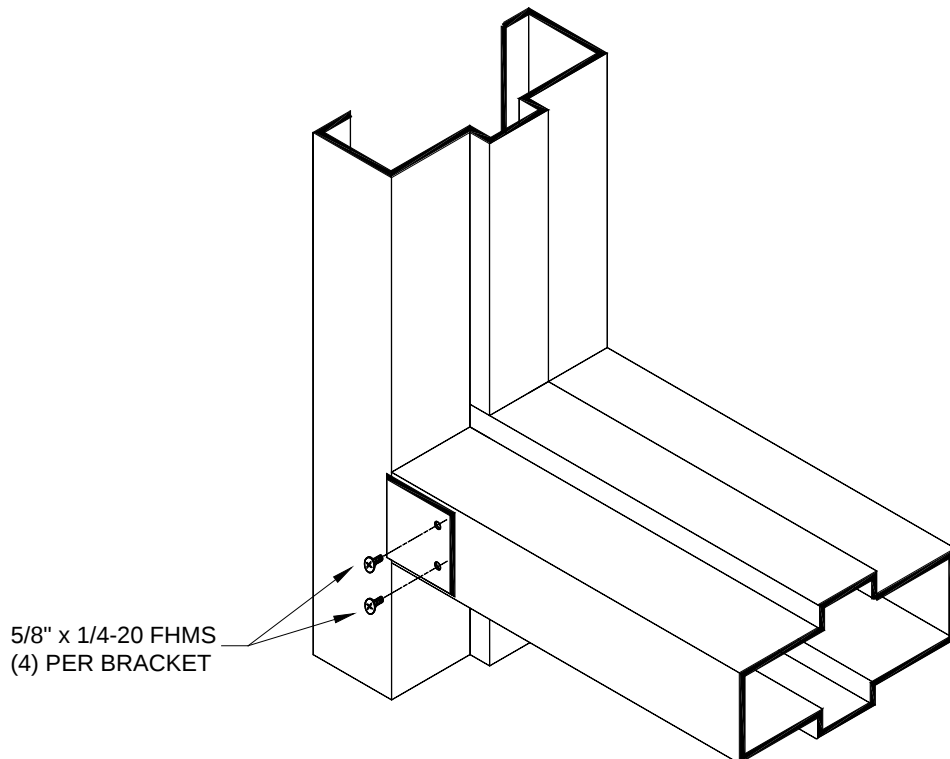


CONTINUOUSLY WELDED FACES
GRIND AND FINISH SMOOTH

REMOVABLE MULLION

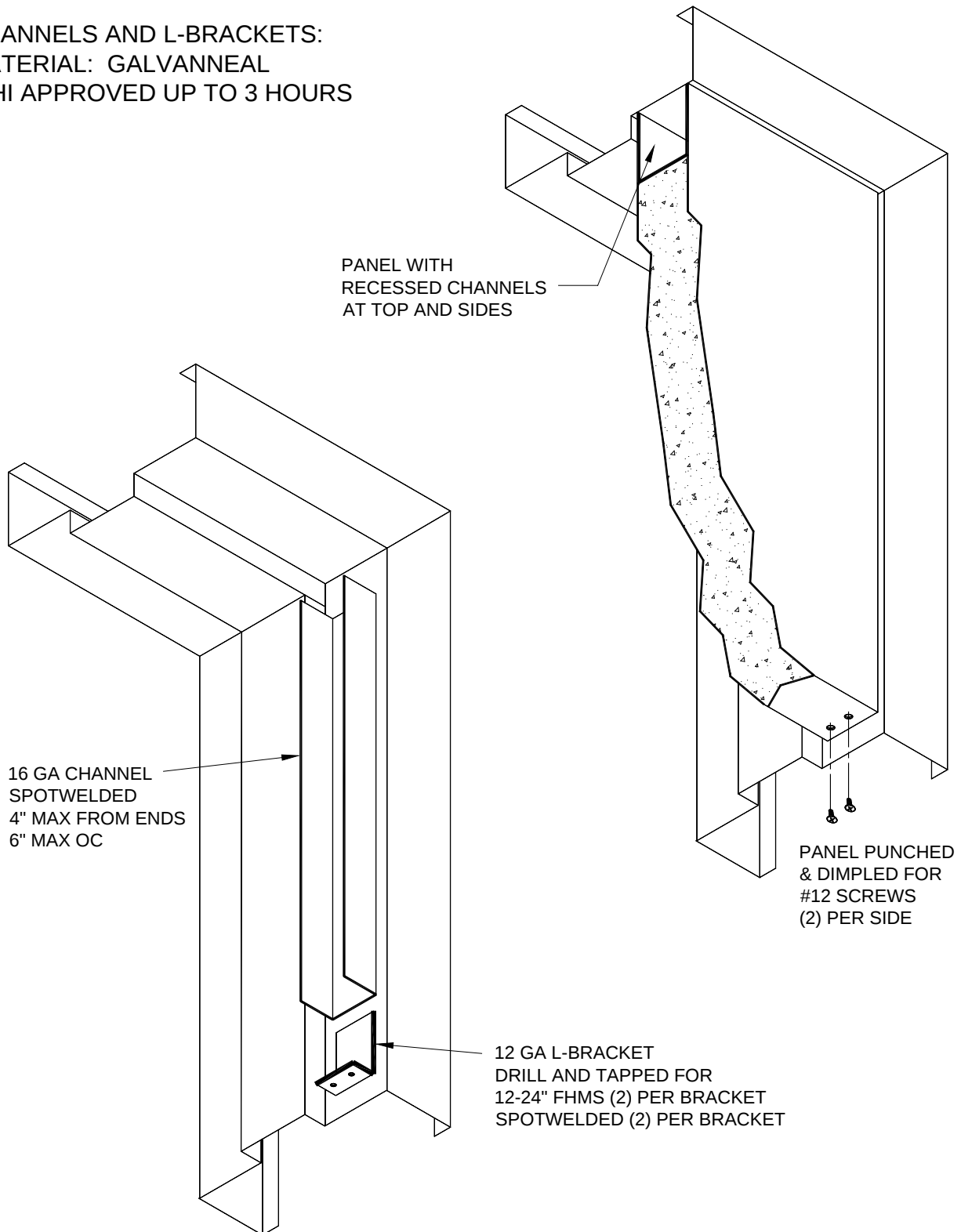


BRACKET & REINF PLATES:
MATERIAL: GALVANNEAL
GAUGE: 12
DRILLED AND TAPPED
WHI APPROVED UP TO 3 HOURS



REMOVABLE TRANSOM PANEL

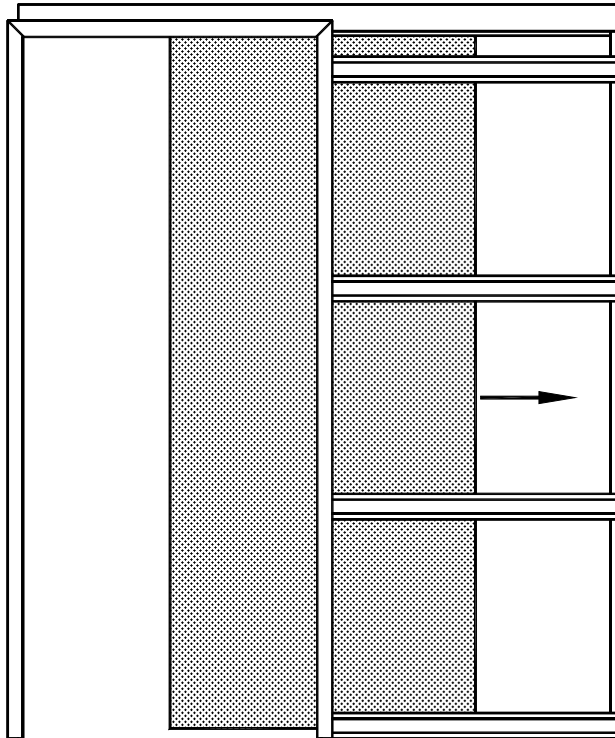
CHANNELS AND L-BRACKETS:
MATERIAL: GALVANNEAL
WHI APPROVED UP TO 3 HOURS



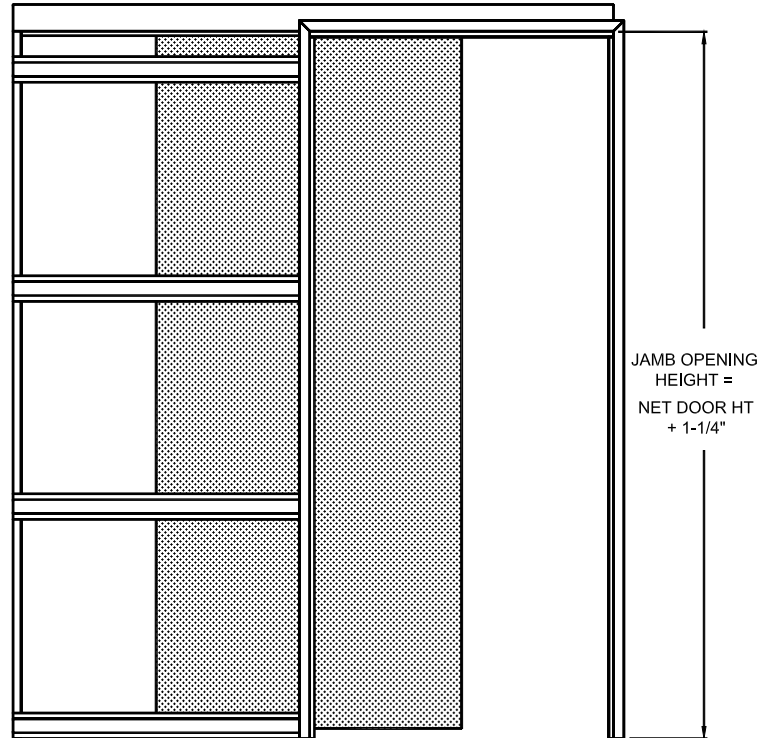
NOTES:

- 1.) TRACK POCKET DESIGNED TO ACCEPT GRANT 1230 / HAGER 9110 ASSEMBLIES (BY OTHERS)
- 2.) POCKET SLIDER FOR 1-3/4"
- 3.) SINGLE ELEVATION SHOWN (PAIR SIMILAR)
- 4.) MATERIAL: 16GA A60 GALVANNEAL
- 5.) SPECIFY STEEL STUD OR WOOD STUD ANCHORS

VIEW FROM EXTERIOR SIDE



VIEW FROM INTERIOR SIDE



HANDING:

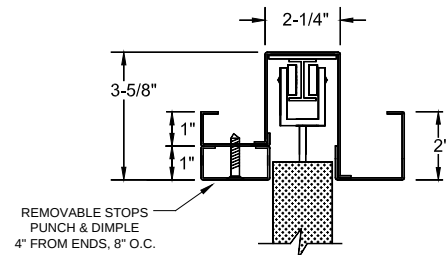
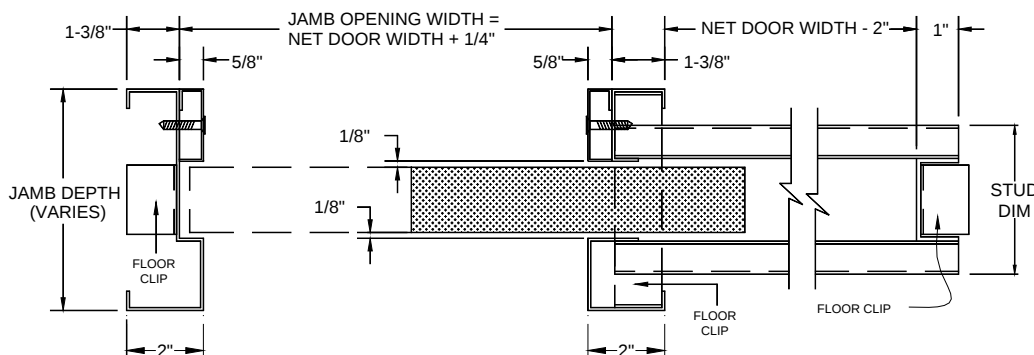
RIGHT HAND SHOWN

(OPENS TO THE **RIGHT** WHEN VIEWED FROM **EXTERIOR**)

HANDING:

RIGHT HAND SHOWN

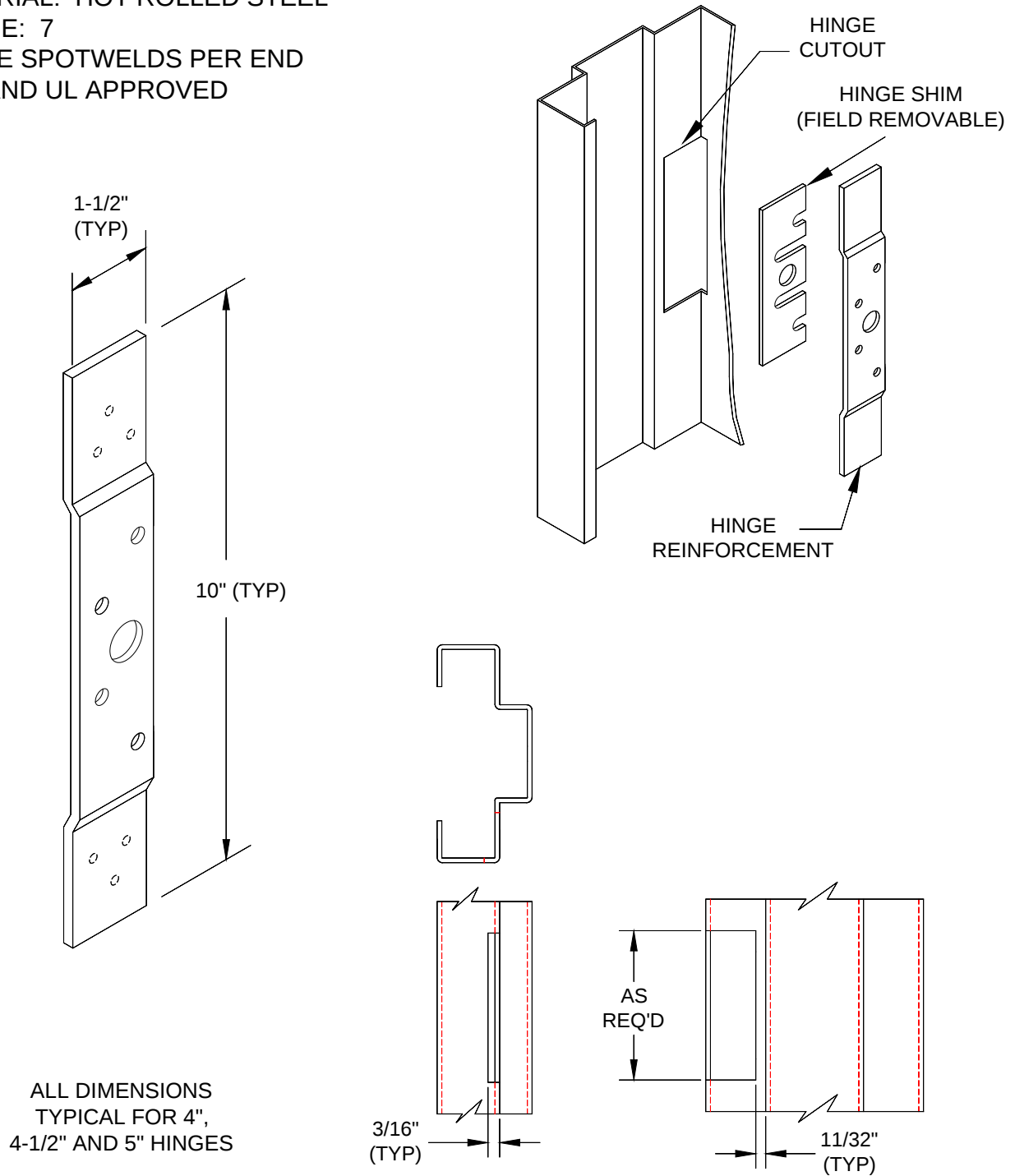
(OPENS TO THE **LEFT** WHEN VIEWED FROM **INTERIOR**)



HEADER AND TRACK HANGING SYSTEM

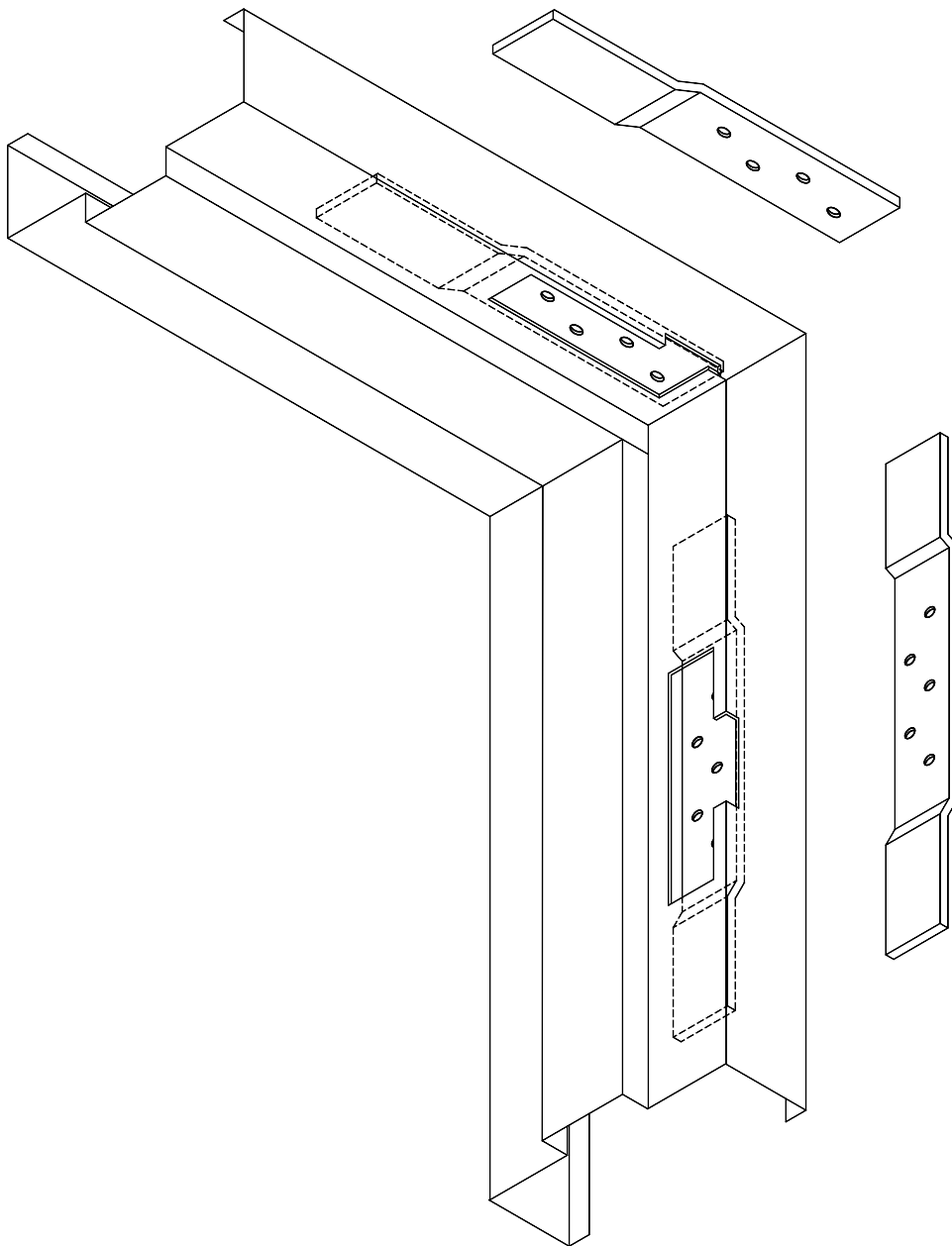
STANDARD FRAME HINGE REINF

MATERIAL: HOT ROLLED STEEL
GAUGE: 7
THREE SPOTWELDS PER END
WHI AND UL APPROVED

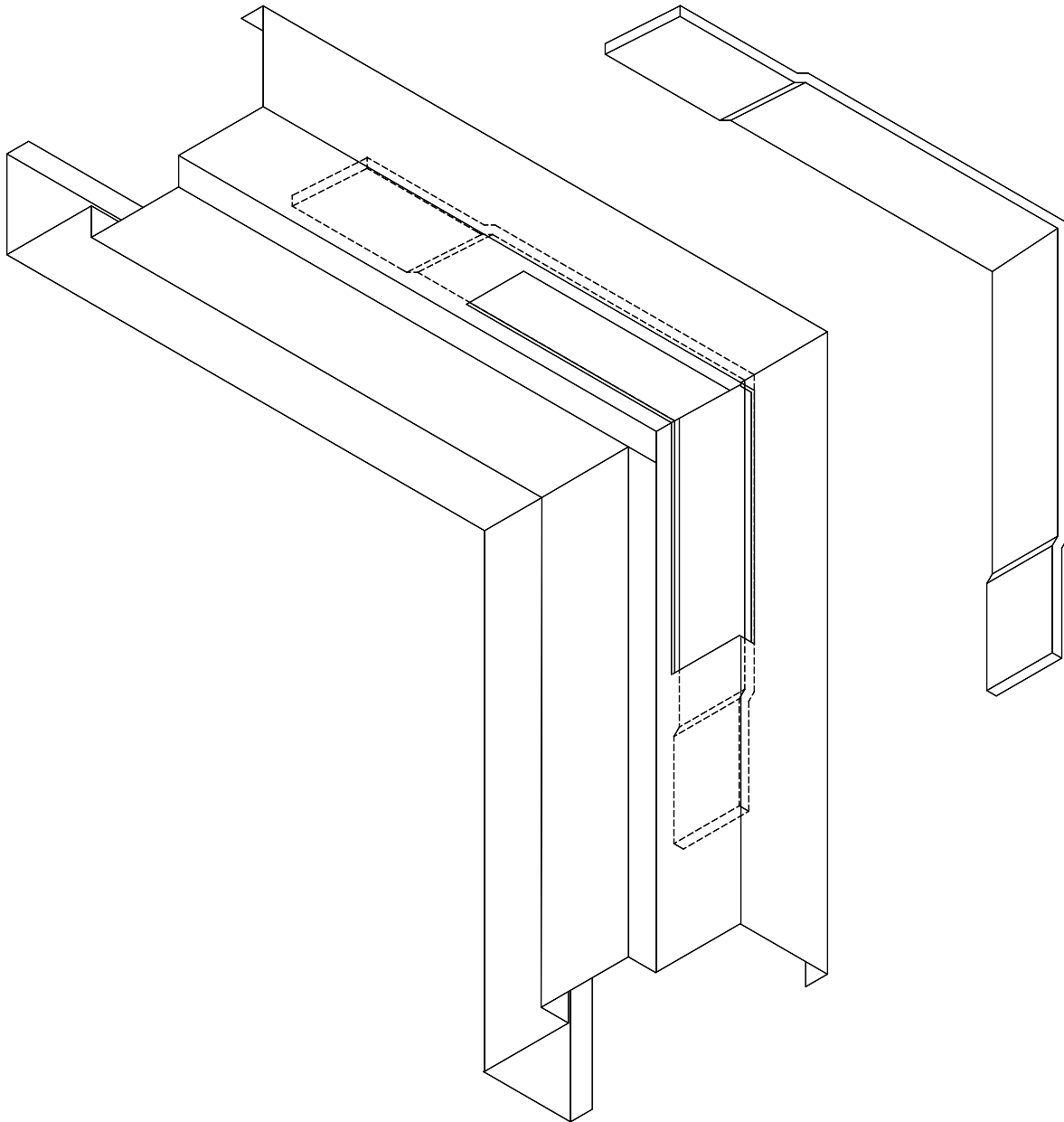


TOP/INTERMEDIATE PIVOTS

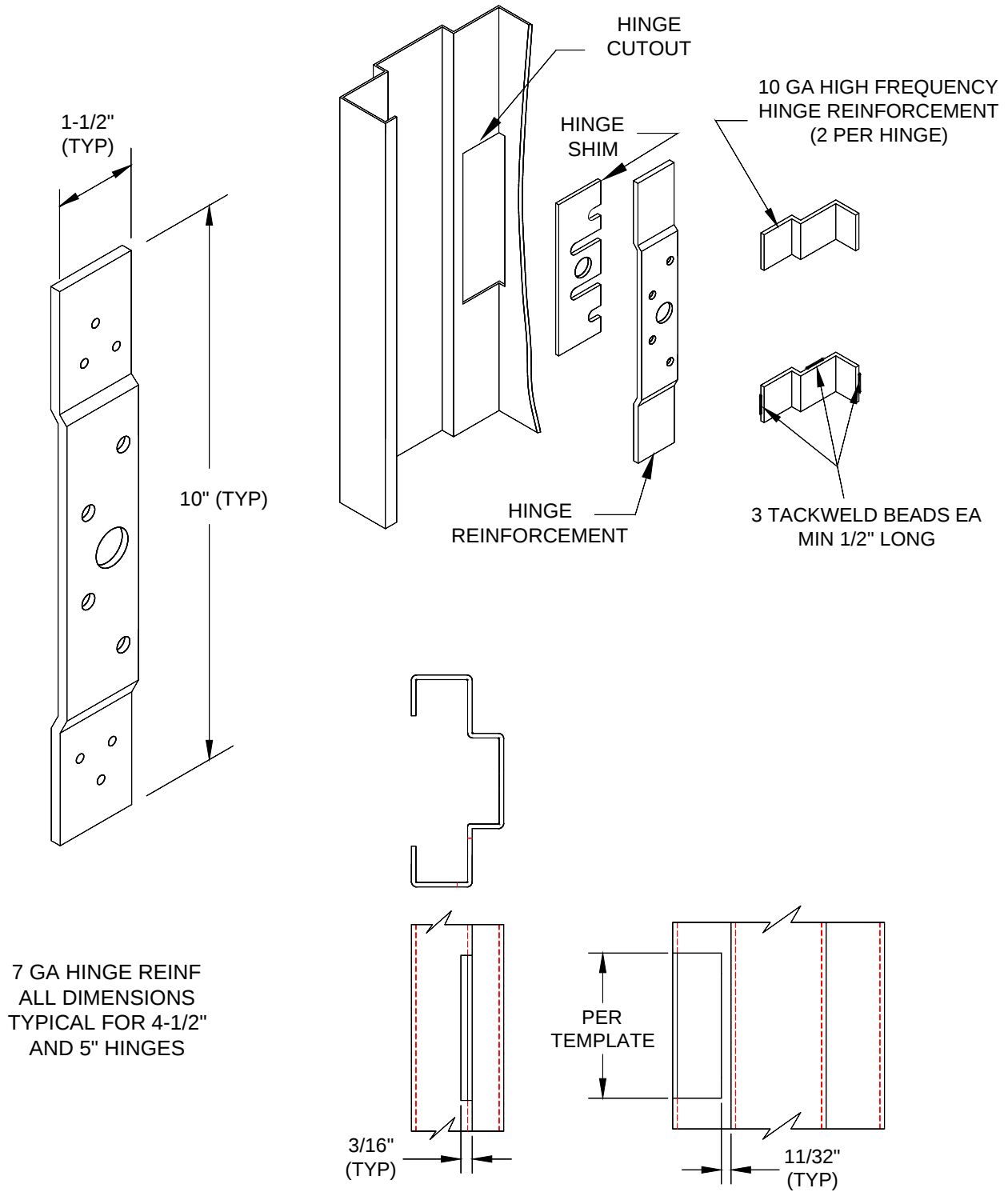
MATERIAL: HOT ROLLED STEEL
GAUGE: 7
THREE SPOTWELDS PER END
DRILLED AND TAPPED PER TEMPLATE
DUST BOXES OPTIONAL



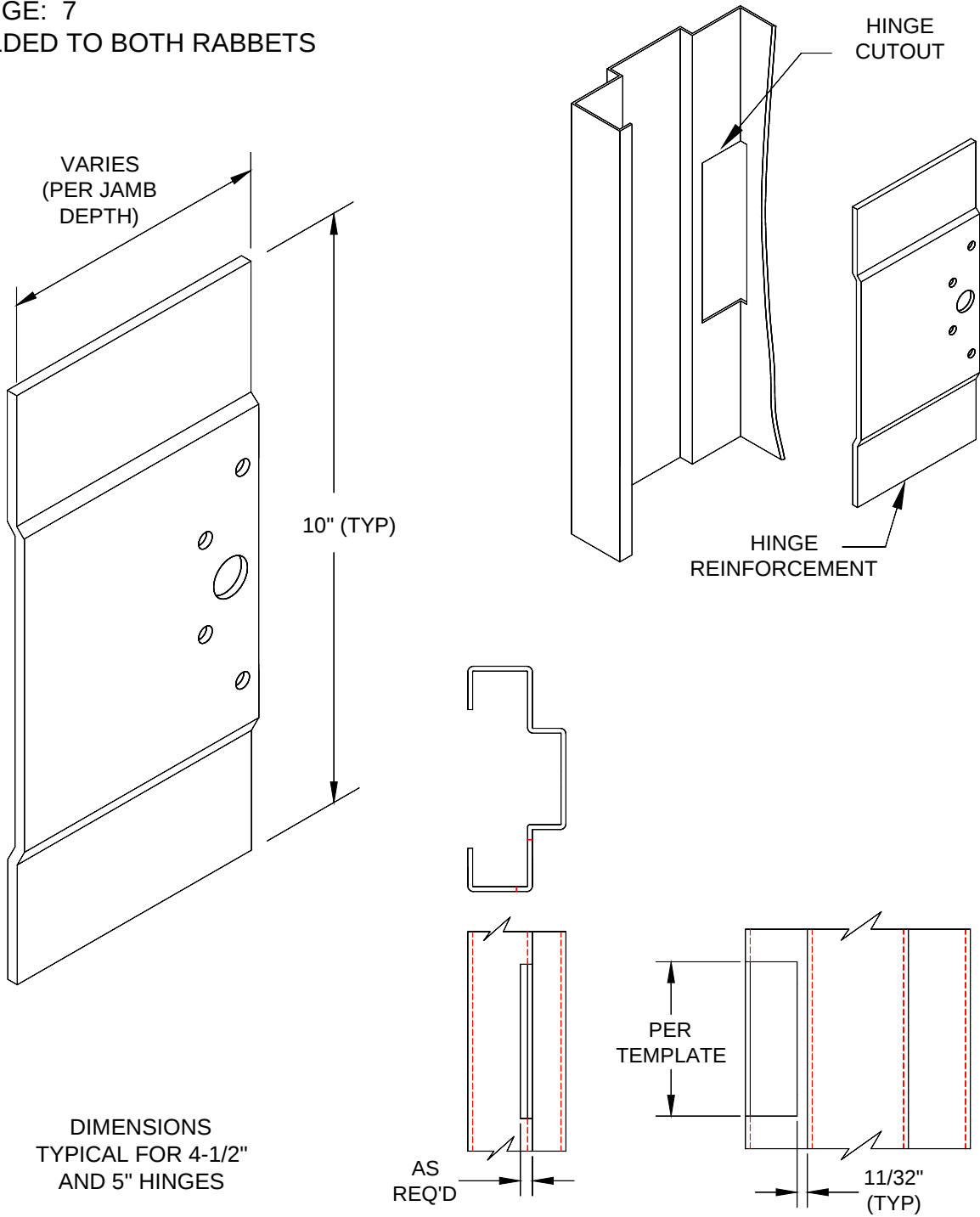
MATERIAL: HOT ROLLED STEEL
GAUGE: 7
THREE SPOTWELDS PER END
DRILLED AND TAPPED BY OTHERS



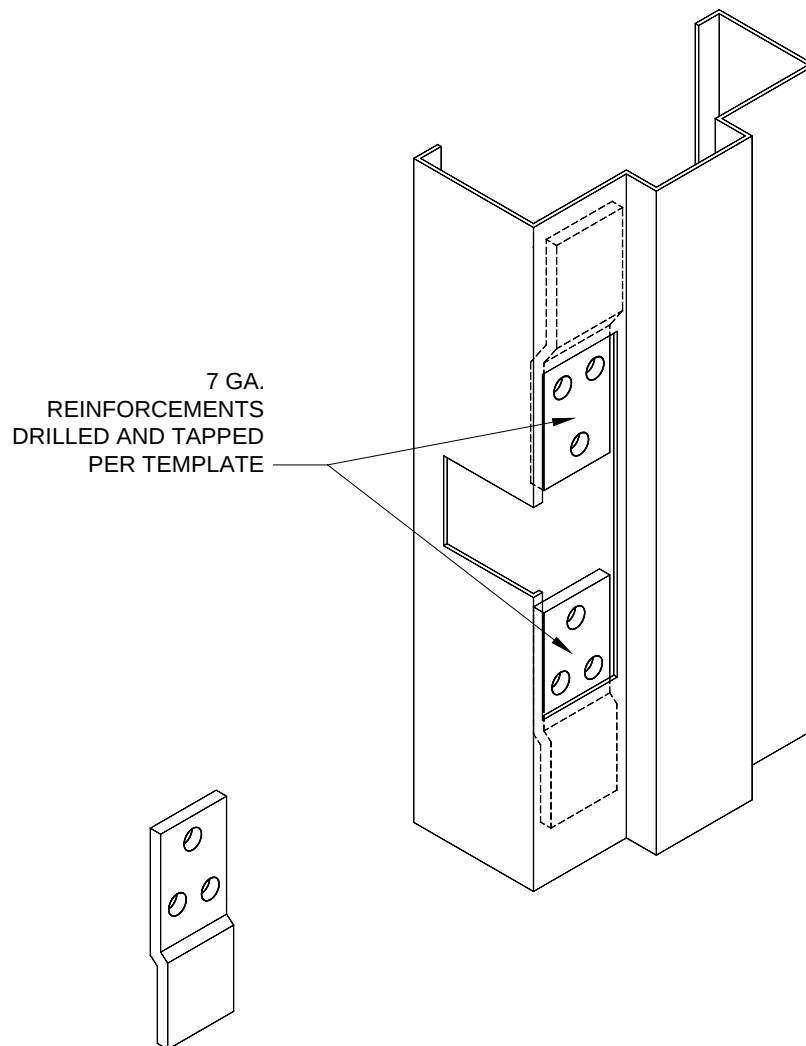
HIGH FREQUENCY HINGE REINF



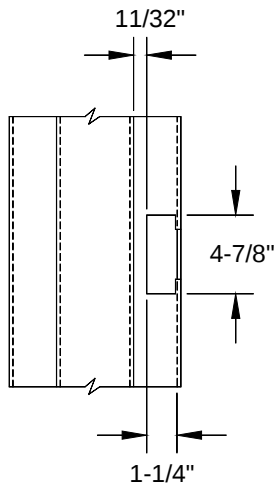
MATERIAL: HOT ROLLED STEEL
GAUGE: 7
WELDED TO BOTH RABBETS



MATERIAL: HOT ROLLED STEEL
GAUGE: 7
THREE SPOTWELDS PER END
2-1/2" MIN FACE DIM FOR FIRE RATED OPENINGS
DUST BOXES OPTIONAL

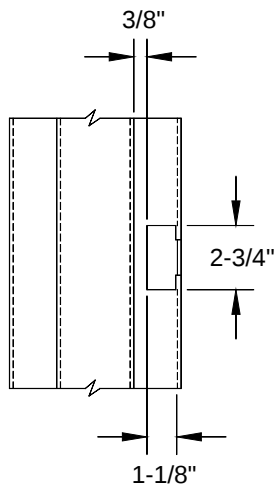
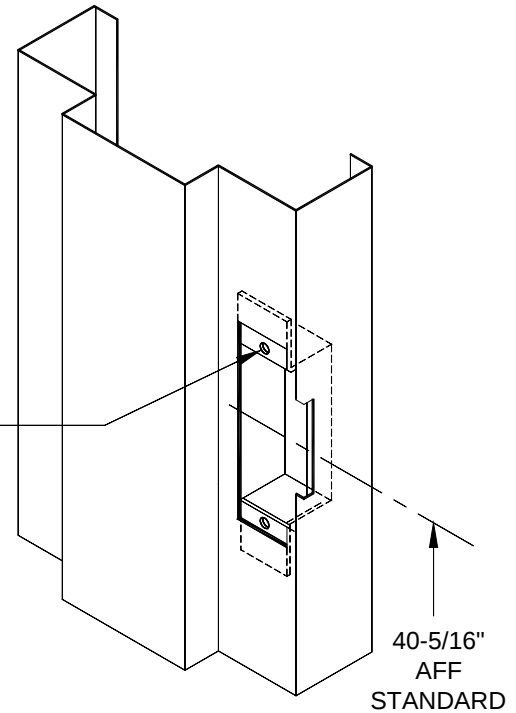


MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOTWELDS PER END



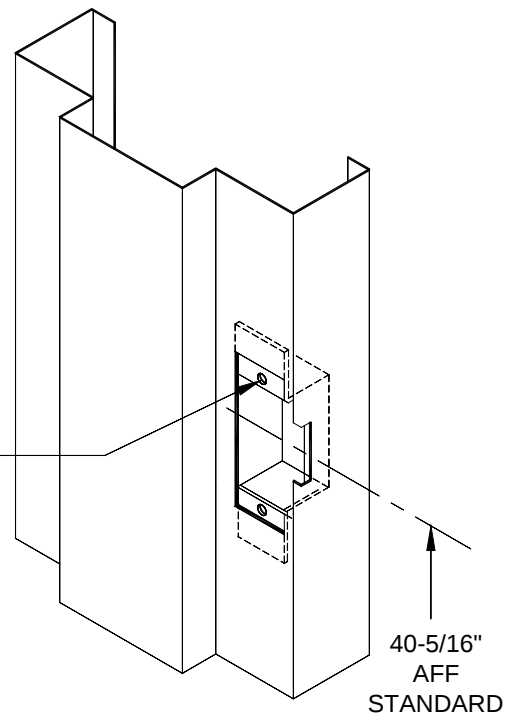
4-7/8" ASA STRIKE REINF
(ANSI A115.1 AND A115.2)

SCREW HOLES EXTRUDED TO
ACCOMMODATE 12-24 FHMS
EQUAL TO 12 GA



2-3/4" T-STRIKE REINF
(ANSI A115.3)

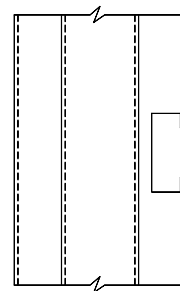
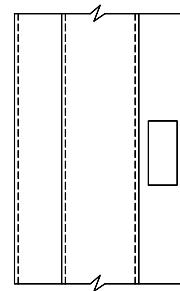
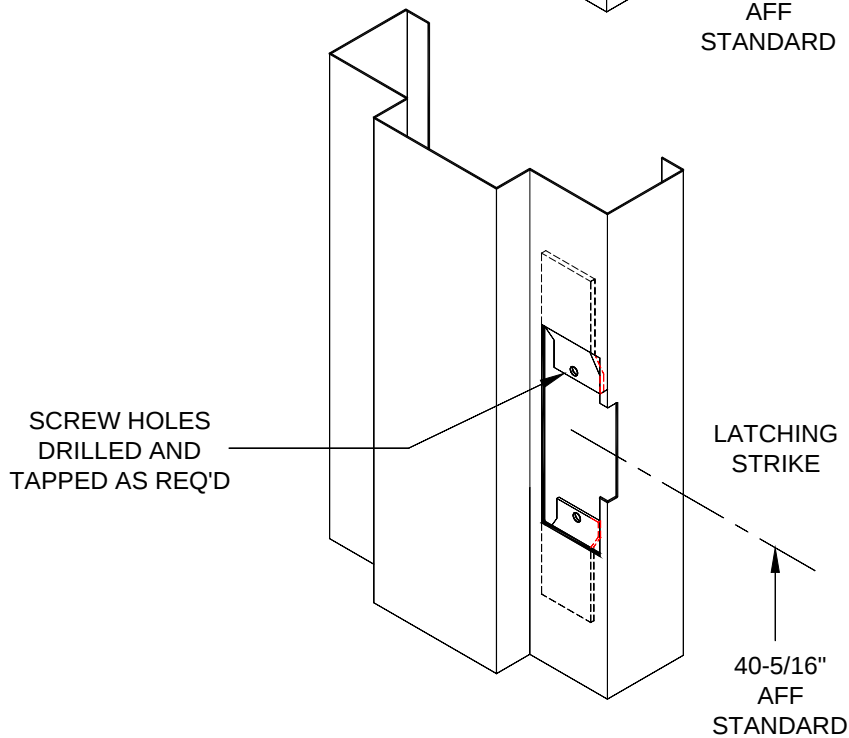
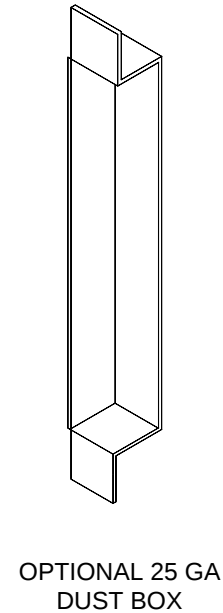
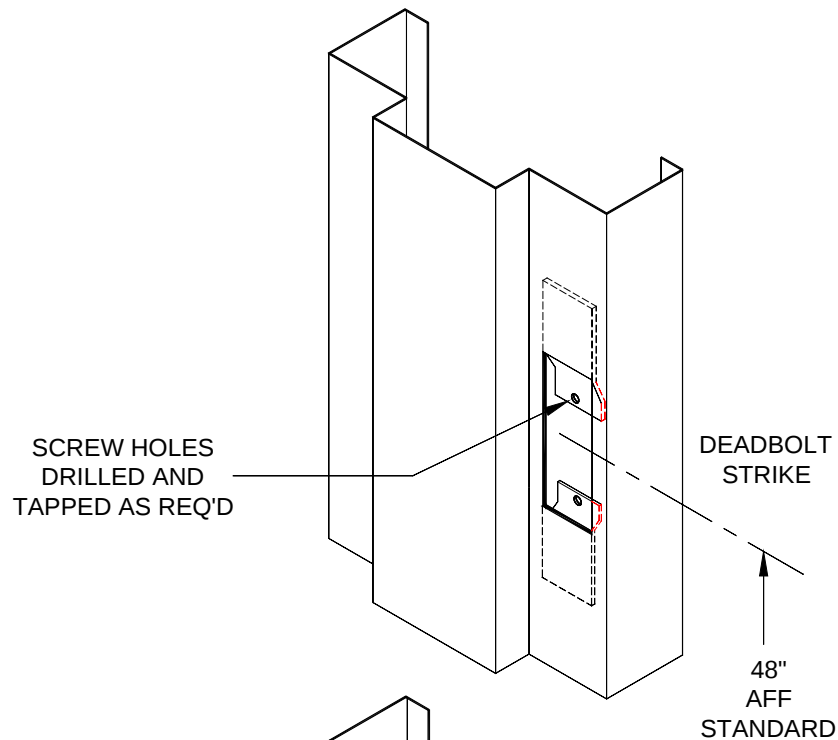
SCREW HOLES EXTRUDED TO
ACCOMMODATE 8-32 FHMS
EQUAL TO 12 GA



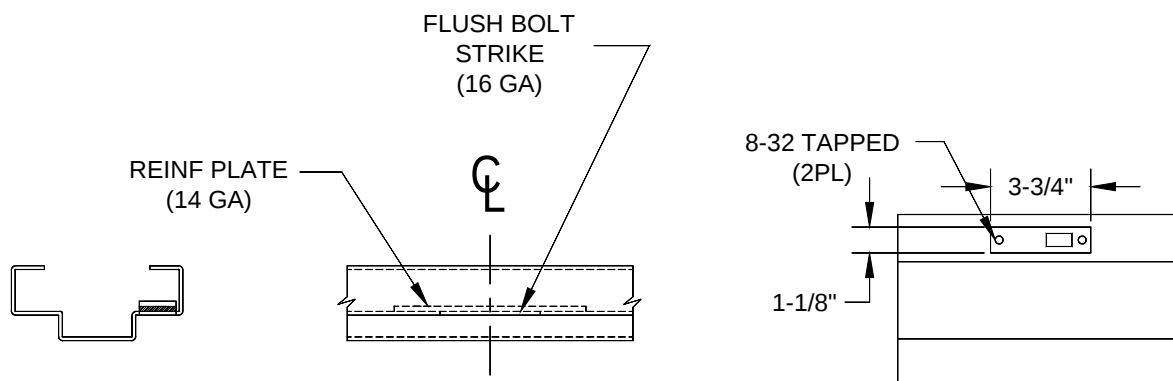
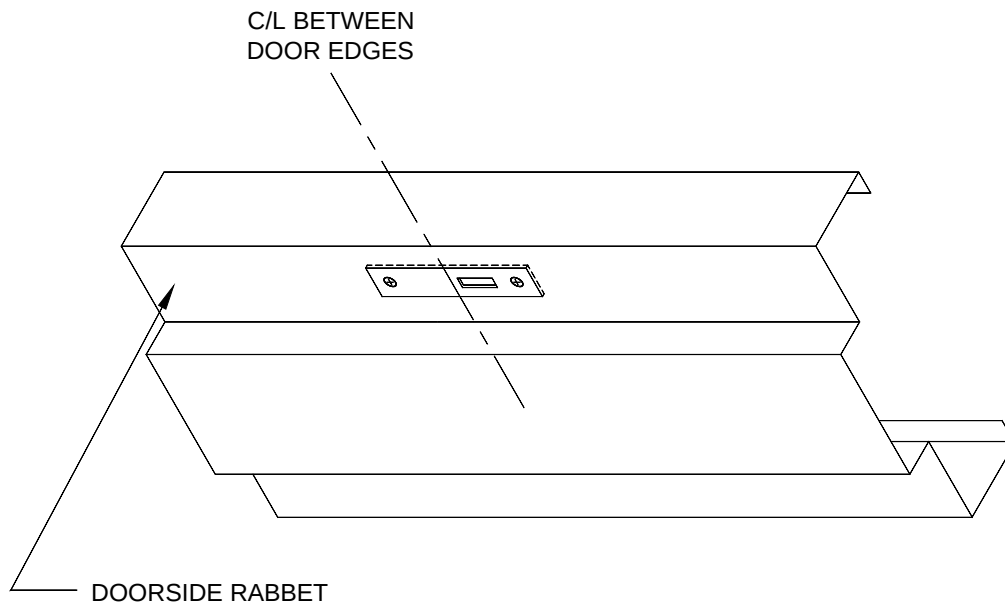
MATERIAL: HOT ROLLED BAR STOCK

GAUGE: 11

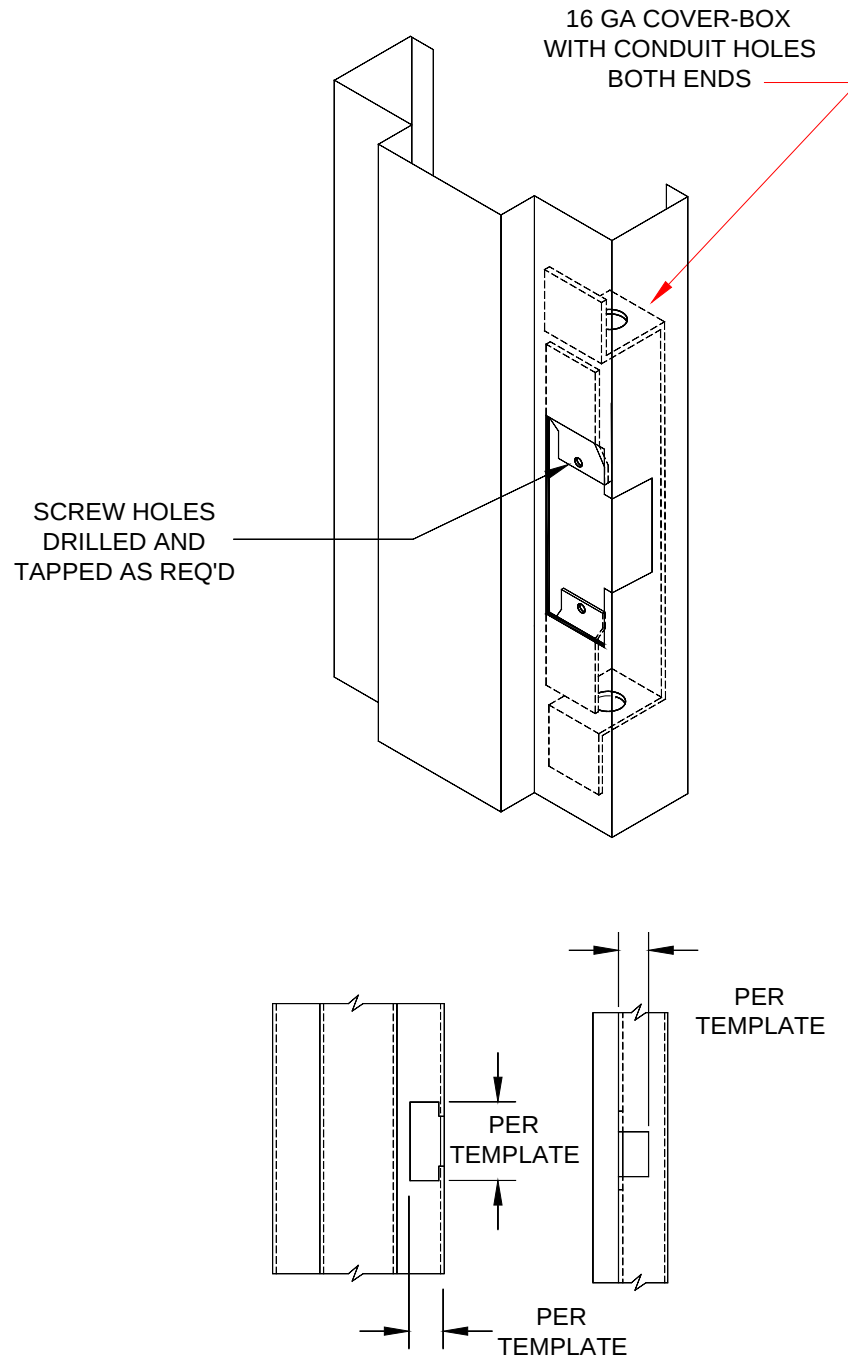
TWO SPOTWELDS PER END



MATERIAL: GALVANNEAL
TWO SPOTWELDS PER END

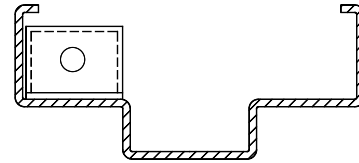


MATERIAL: HOT ROLLED STEEL
GAUGE: 11
TWO SPOTWELDS PER END

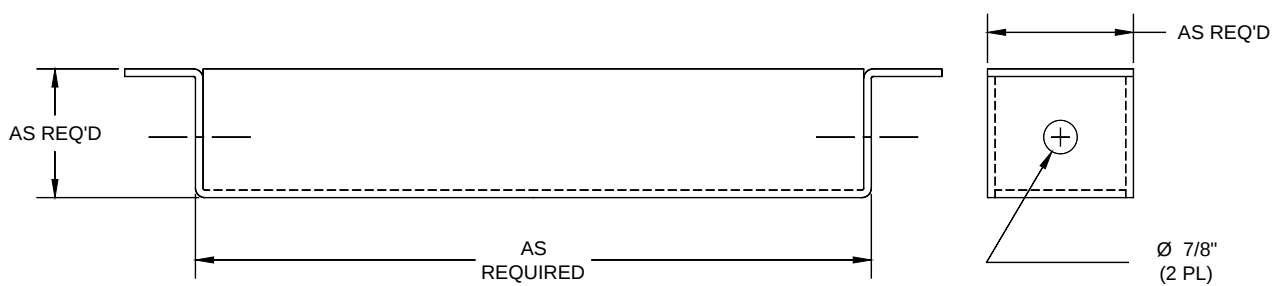


CONDUIT COVERBOX

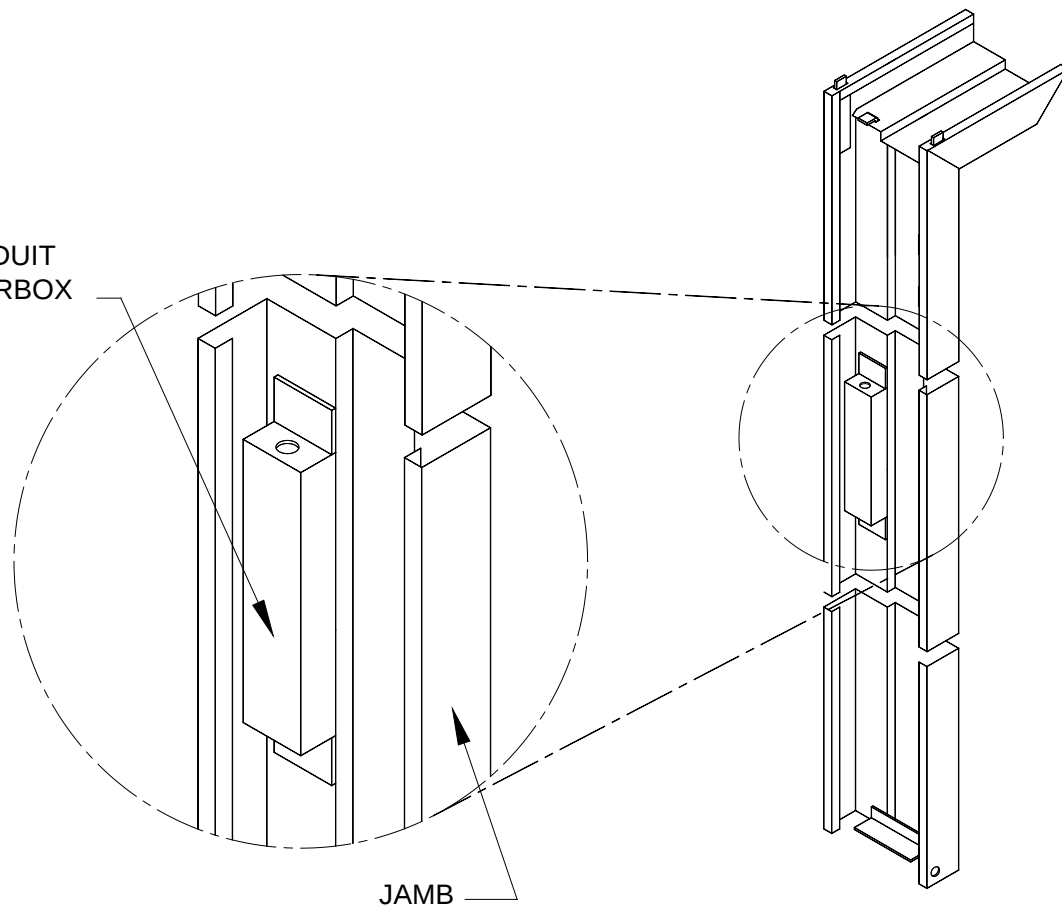
MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOTWELDS PER END
TYPICAL AT ELECTRIC HINGE PREPS



TOP SECTION VIEW

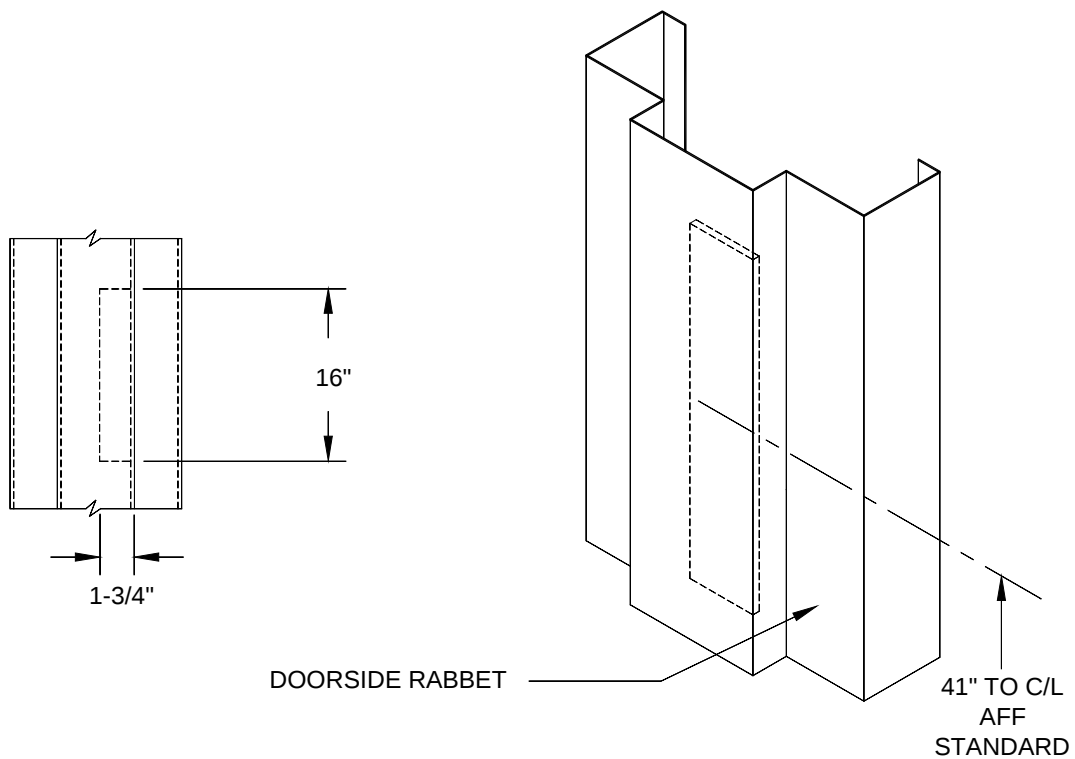


CONDUIT
COVERBOX

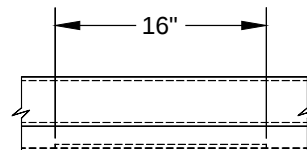
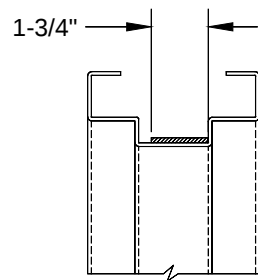
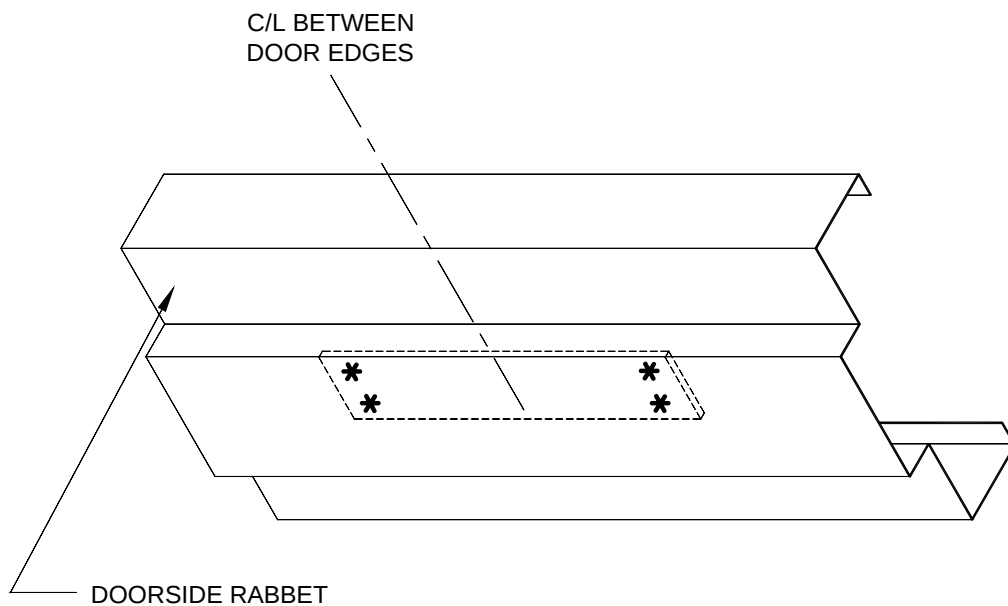


JAMB

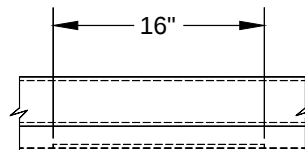
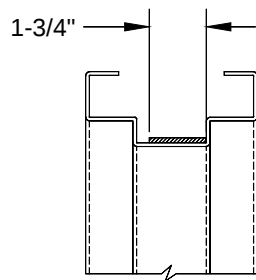
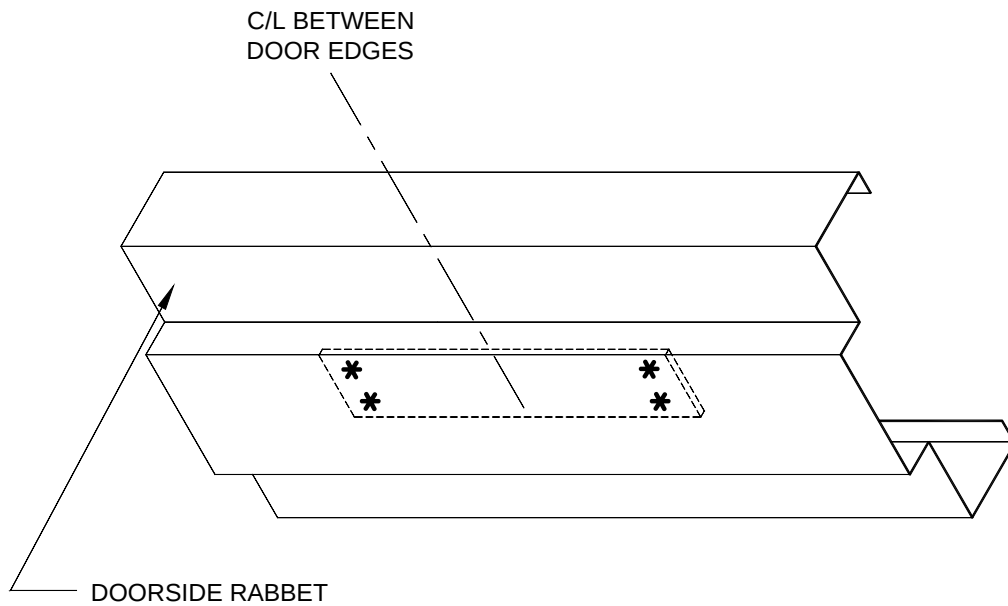
MATERIAL: GALVANNEAL
GAUGE: 12
TWO SPOTWELDS PER END



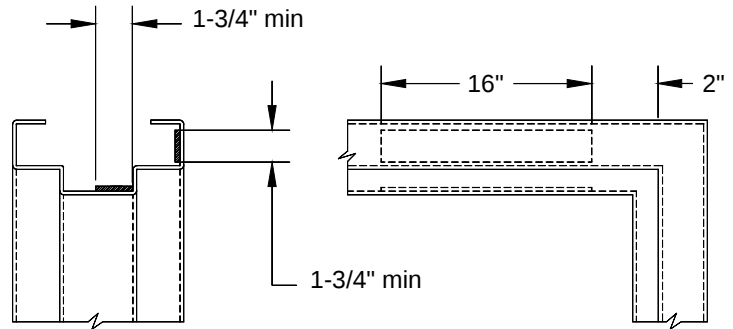
MATERIAL: GALVANNEAL
GAUGE: 12
TWO SPOTWELDS PER END



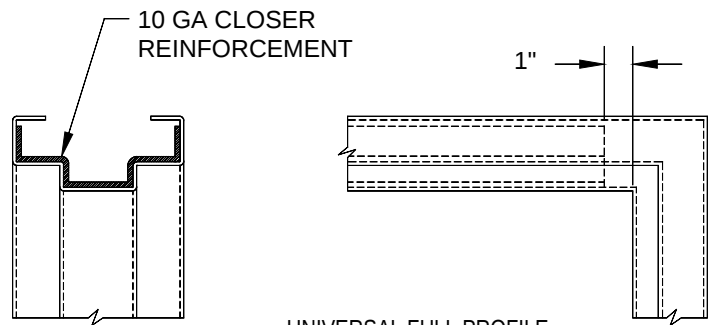
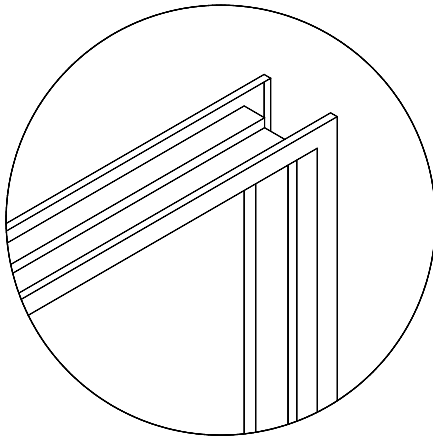
MATERIAL: GALVANNEAL
GAUGE: 12
TWO SPOTWELDS PER END



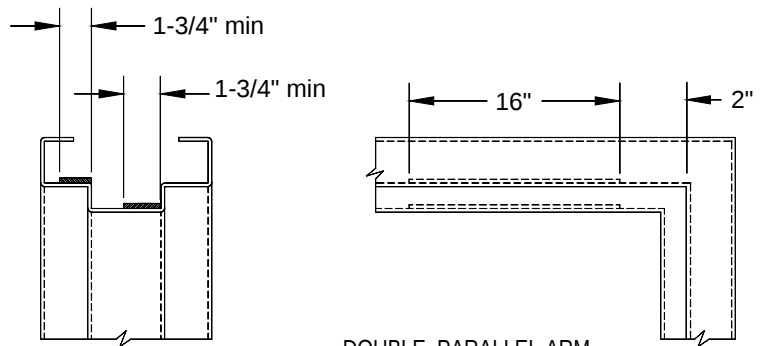
MATERIAL: GALVANNEAL
GAUGE: 12
TWO SPOTWELDS PER END



REGULAR ARM AND PARALLEL
ARM REINFORCEMENT
(BOTH APPLIED STANDARD)



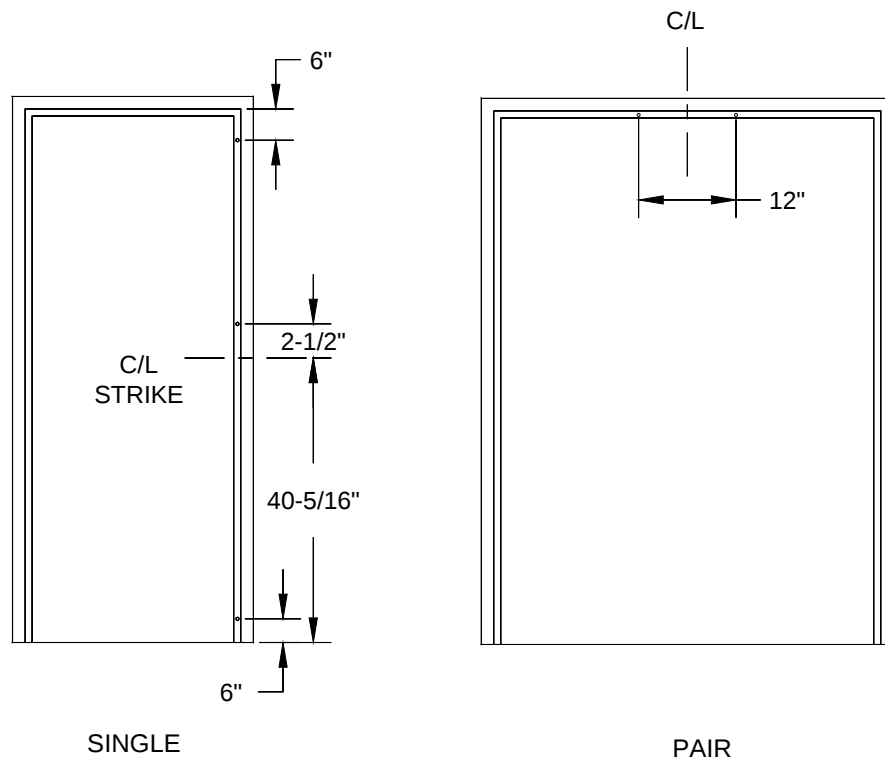
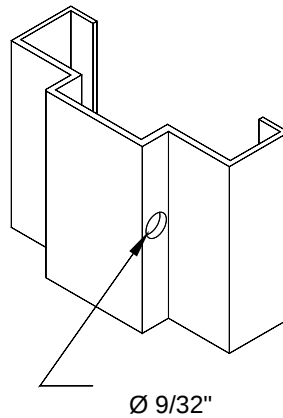
UNIVERSAL FULL PROFILE
CLOSER REINFORCEMENT



DOUBLE PARALLEL ARM
REINFORCEMENT

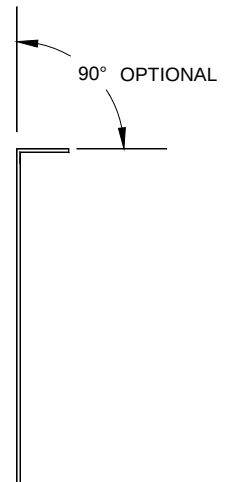
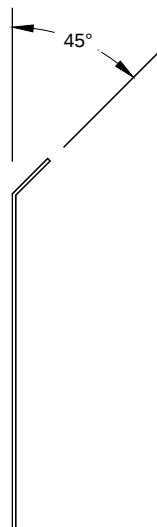
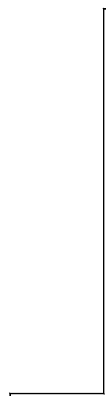
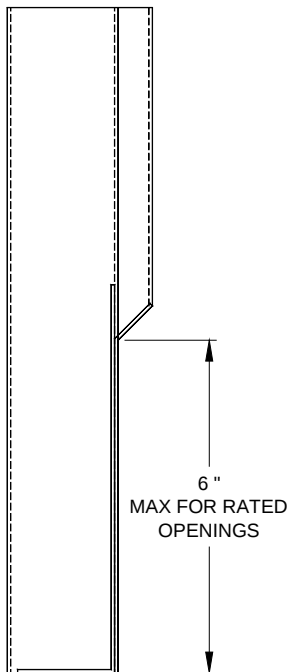
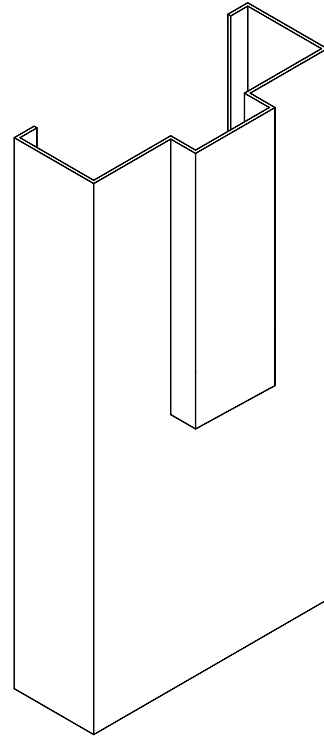
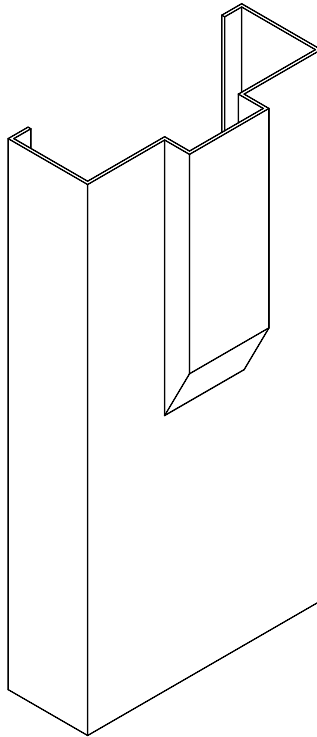
SILENCERS ARE PUNCHED
ONLY UPON REQUEST

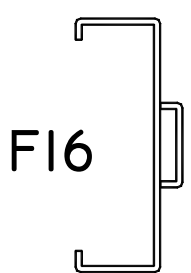
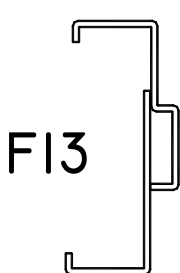
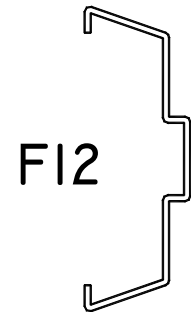
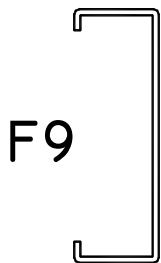
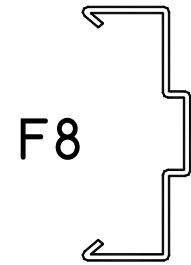
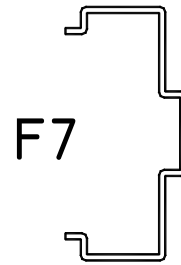
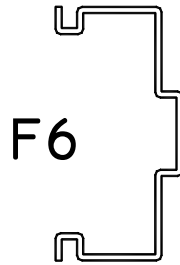
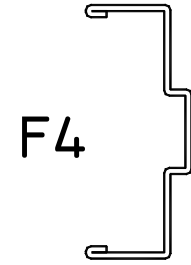
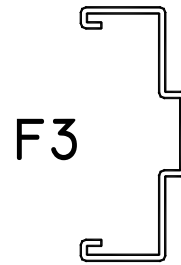
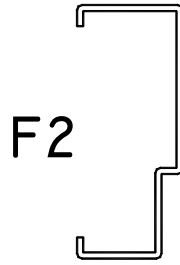
3 EA AT SINGLE SWING
2 EA AT PAIR SWING



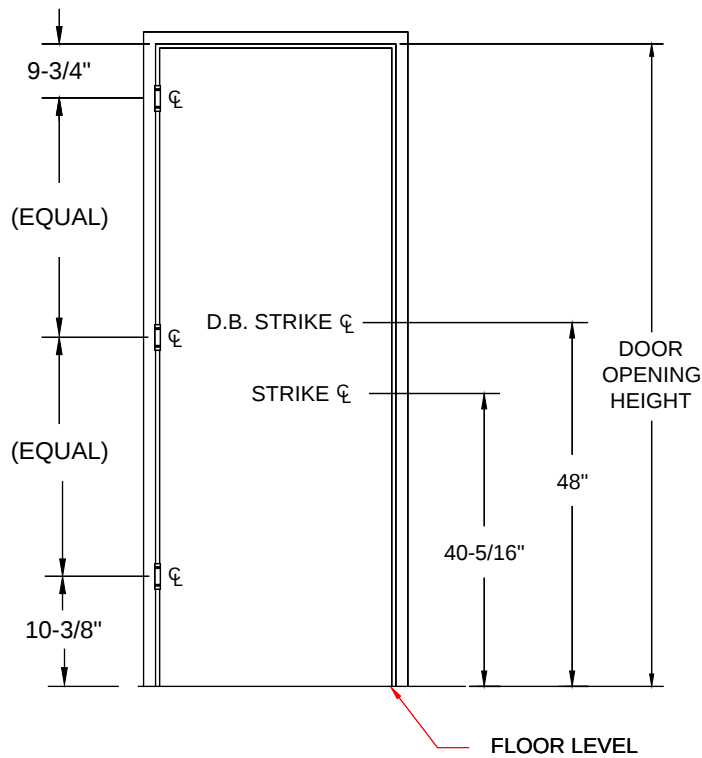
HOSPITAL STOP

GAUGE: 16
AVAILABLE FOR 45° OR 90°

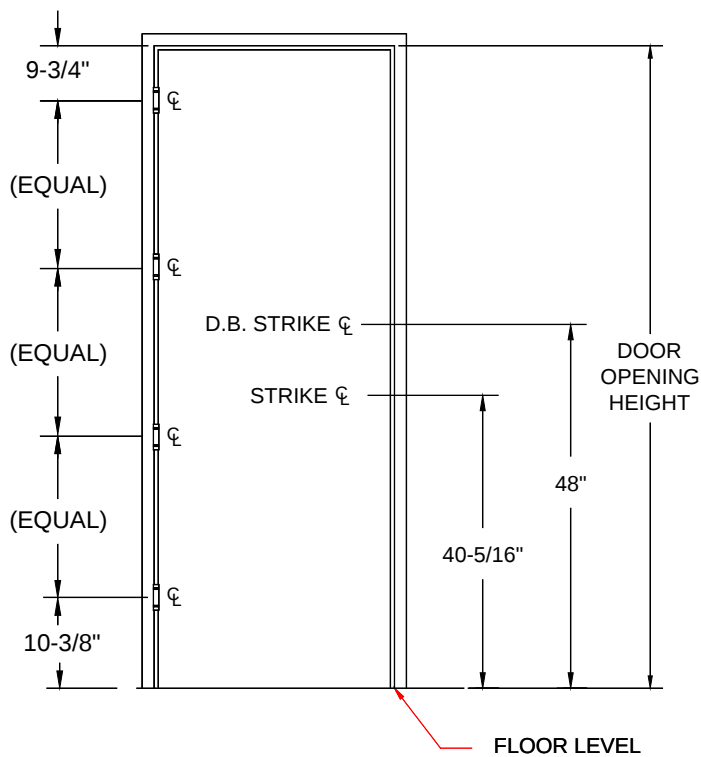
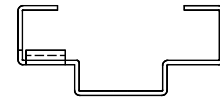




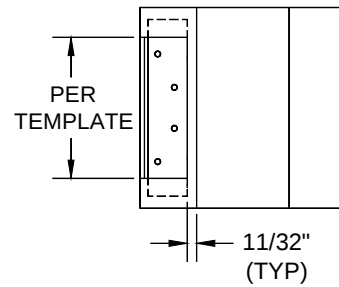
FRAME PROFILES SHOWN MAY HAVE ANY BACKBEND
STYLE OR COMBINATION OF BACKBEND STYLES

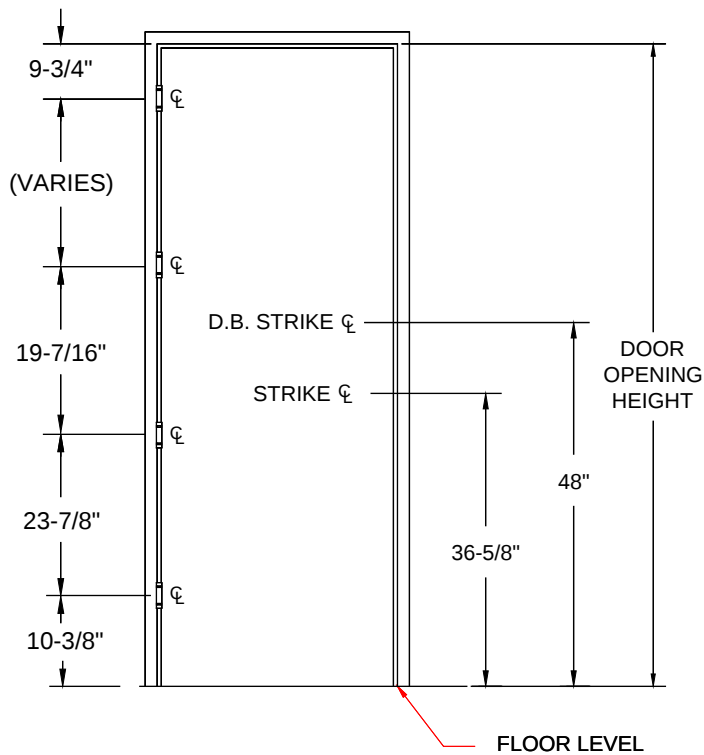


3-HINGES

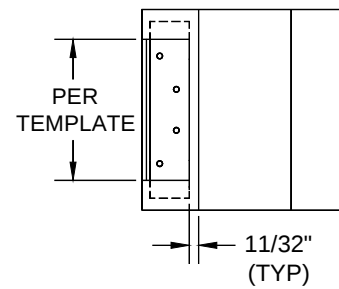
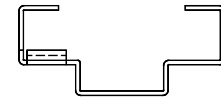


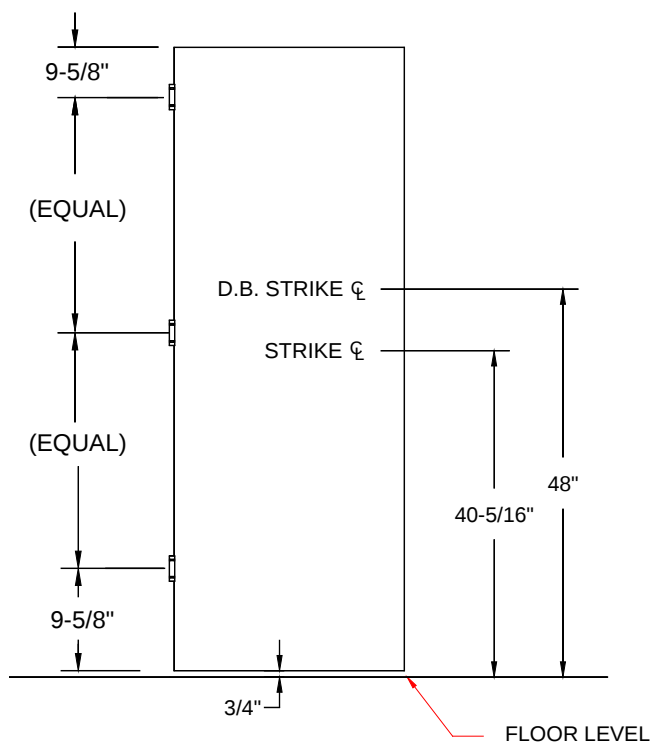
4-HINGES



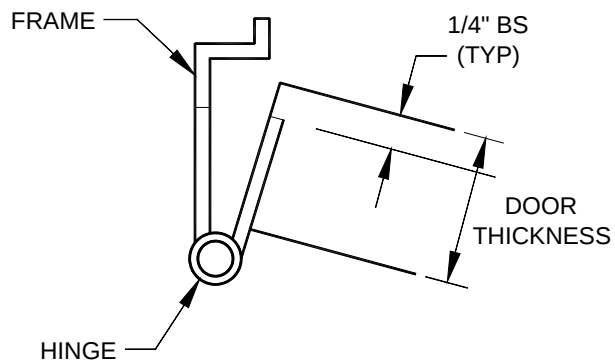


DUTCH

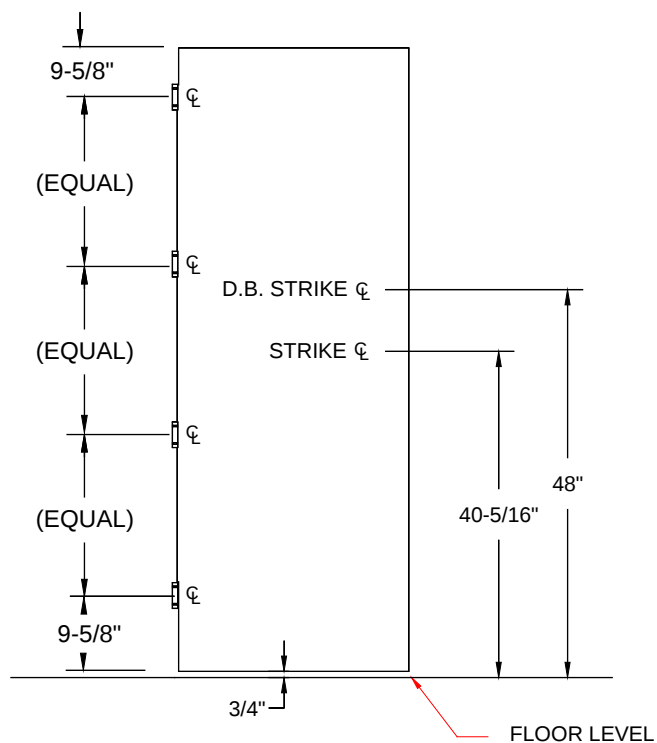


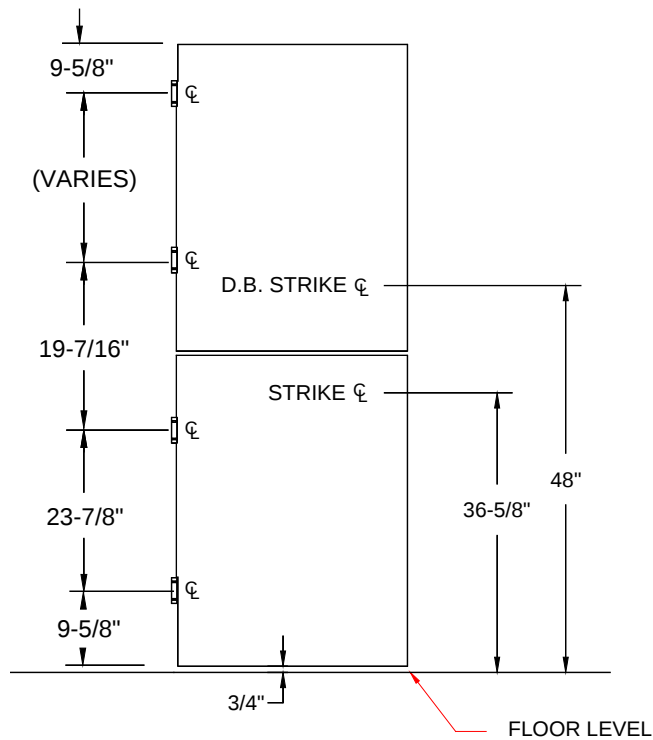


3-HINGES

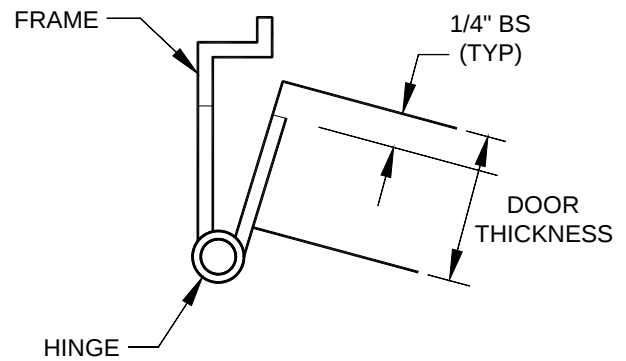


4-HINGES





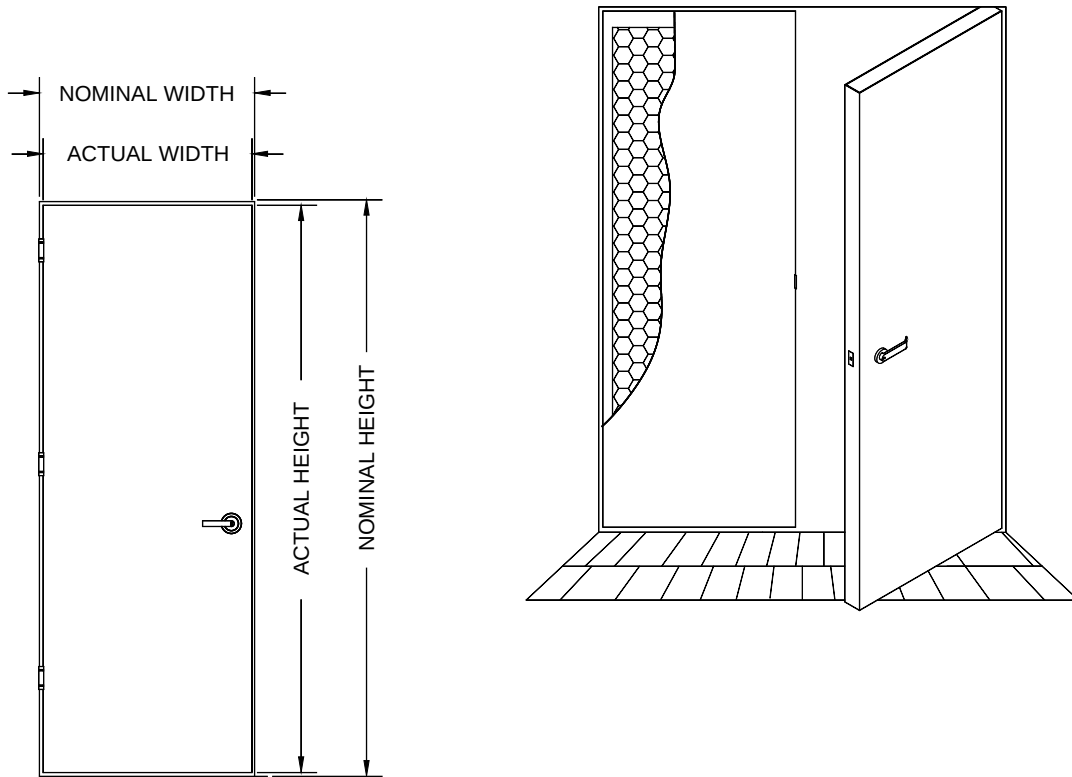
DUTCH



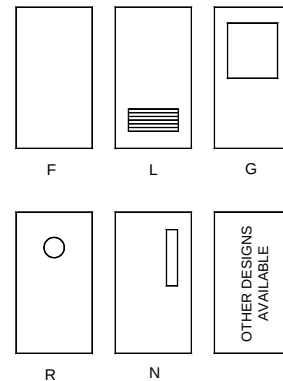
STANDARD SPECIFICATION

MATERIAL: GALVANNEAL

GAUGE: 18



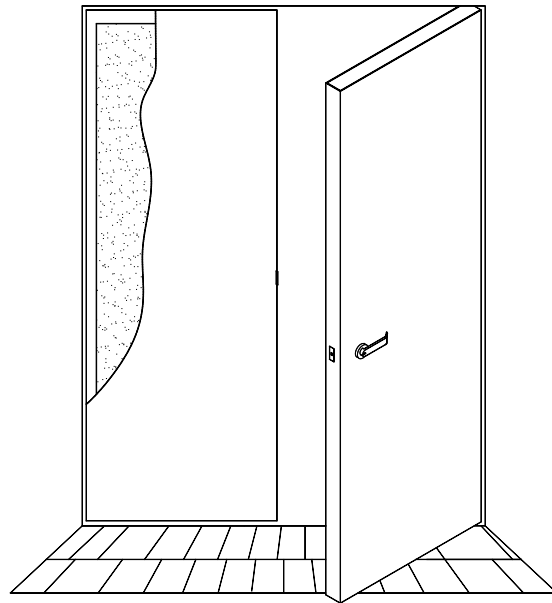
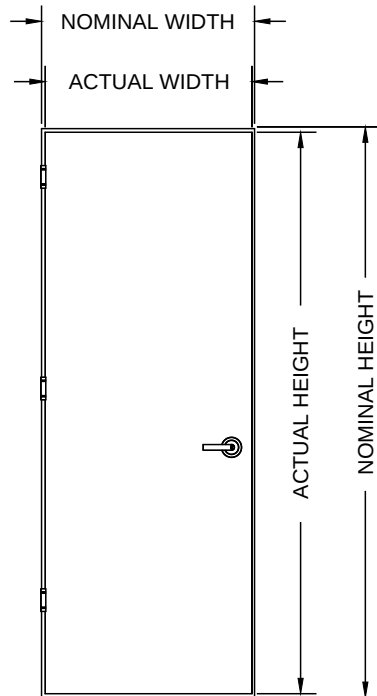
- 1.) 1-3/4" STANDARD DOOR THICKNESS, OTHER THICKNESSES AVAILABLE.
- 2.) 16, 14 AND 12 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
- 4.) 1" HONEYCOMB HEX CELLS PERMANENTLY BONDED TO BOTH FACE SHEETS. IMPACT RESISTANT (HONEYCOMB IS CRUSH RESISTANT TO 45 PSI).
- 5.) RESIN IMPREGNATED HONEYCOMB OPTIONAL
- 6.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS.
- 7.) CONTINUOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
- 8.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
- 9.) WHI LABELS AVAILABLE



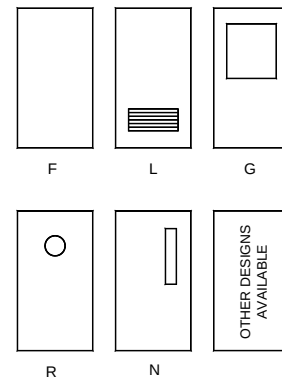
STANDARD SPECIFICATION

MATERIAL: GALVANNEAL

GAUGE: 18



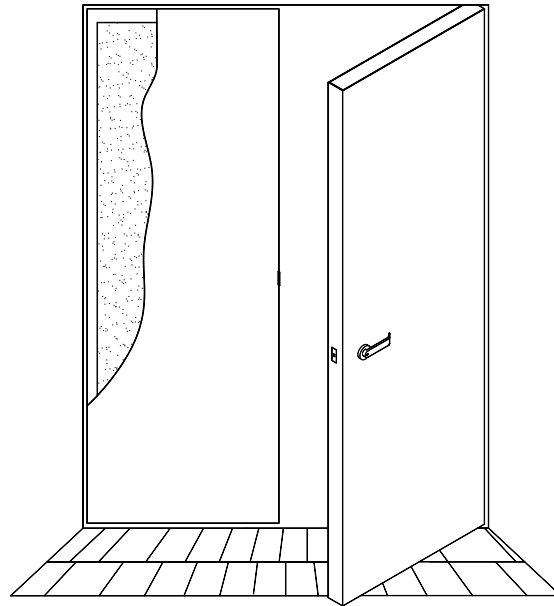
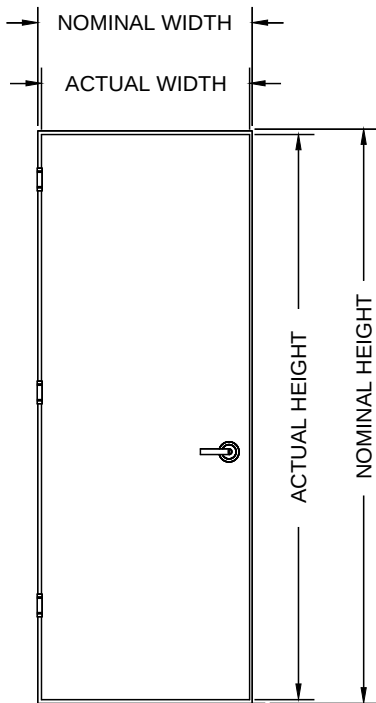
- 1.) 1-3/4" STANDARD DOOR THICKNESS, OTHER THICKNESSES AVAILABLE.
- 2.) 16, 14 AND 12 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
- 4.) 0.7 LB DENSITY POLYSTYRENE CORE PERMANENTLY BONDED TO BOTH FACE SHEETS. 1.0 LB DENSITY CORE AVAILABLE.
- 5.) THERMAL BARRIER FOR 0.7 LB CORE: R-VALUE = 2.39 / U-FACTOR = 0.42 TESTED PER ASTM C1199/E1423
- 6.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS.
- 7.) CONTINUOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
- 8.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
- 9.) WHI LABELS AVAILABLE



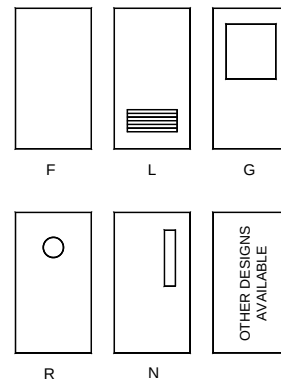
STANDARD SPECIFICATION

MATERIAL: GALVANNEAL

GAUGE: 18



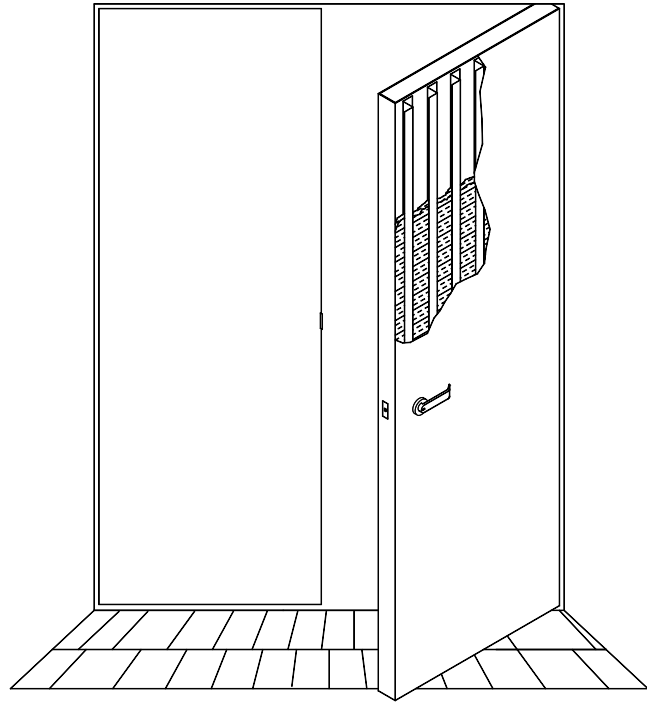
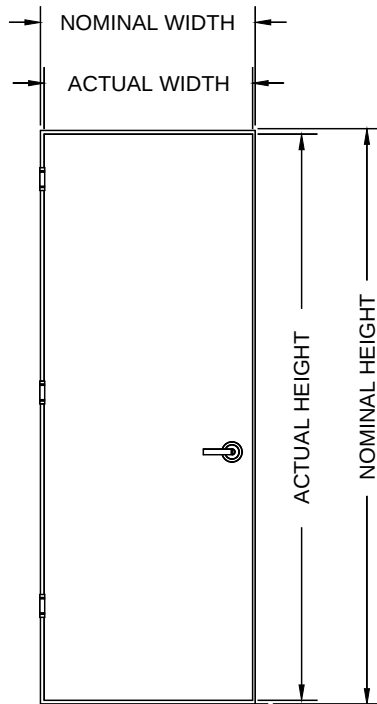
- 1.) 1-3/4" STANDARD DOOR THICKNESS, OTHER THICKNESSES AVAILABLE.
- 2.) 16, 14 AND 12 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
- 4.) 2 LB DENSITY POLYURETHANE CORE PERMANENTLY BONDED TO BOTH FACE SHEETS.
- 5.) THERMAL BARRIER R-FACTOR: 2.77 TESTED PER SDI-113, ASTM C1199/E1423
- 6.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS.
- 7.) CONTINUOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
- 8.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER



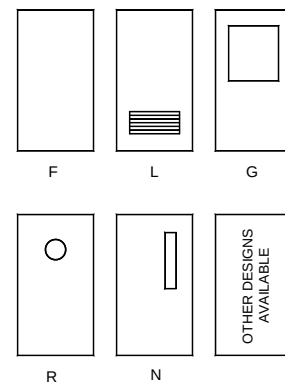
STANDARD SPECIFICATION

MATERIAL: GALVANNEAL

GAUGE: 18



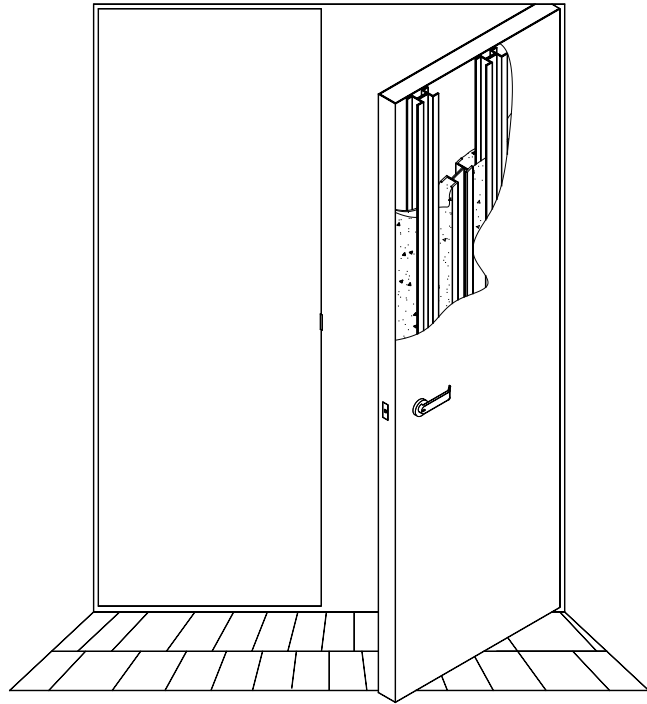
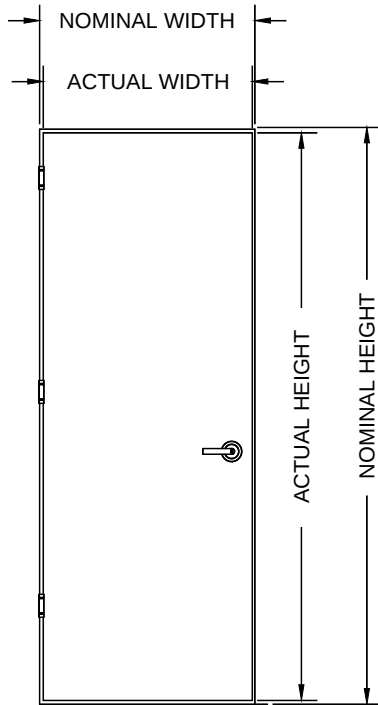
- 1.) 1-3/4" STANDARD DOOR THICKNESS, OTHER THICKNESSES AVAILABLE.
- 2.) 16, 14, 12 AND 10 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
- 4.) 20 GA STIFFENERS 6" ON CENTER WITH FIBERGLASS INSULATION BETWEEN. (OTHER GAUGES AVAILABLE)
- 5.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS. (OTHER GAUGES AVAILABLE)
- 6.) CONTINUOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
- 7.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
- 8.) WHI LABELS AVAILABLE



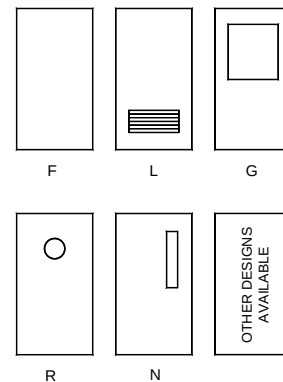
STANDARD SPECIFICATION

MATERIAL: GALVANNEAL

GAUGE: 18



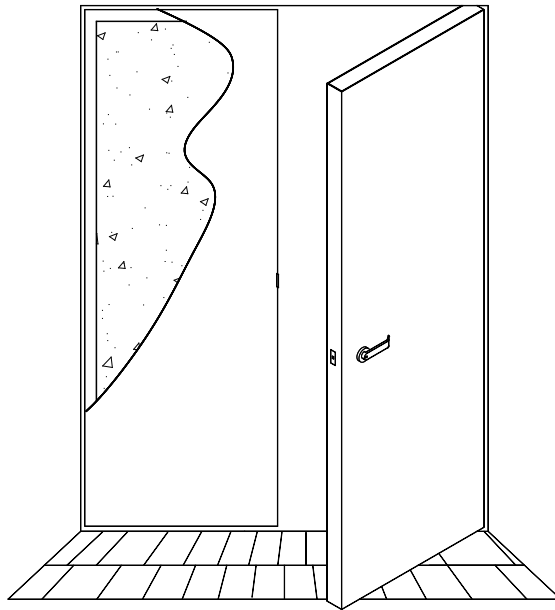
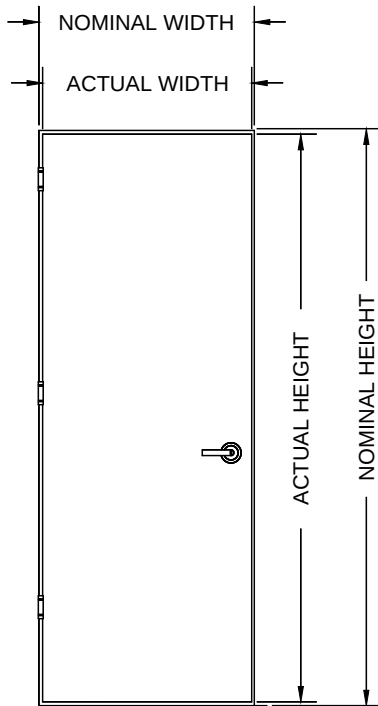
- 1.) 1-3/4" STANDARD DOOR THICKNESS, OTHER THICKNESSES AVAILABLE.
- 2.) 16, 14, 12 AND 10 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
- 4.) 20 GA STIFFENERS 6" ON CENTER WITH FIBERGLASS INSULATION BETWEEN. (OTHER GAUGES AVAILABLE)
- 5.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS. (OTHER GAUGES AVAILABLE)
- 6.) CONTINUOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
- 7.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
- 8.) WHI LABELS AVAILABLE



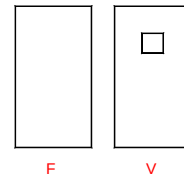
STANDARD SPECIFICATION

MATERIAL: GALVANNEAL

GAUGE: 18



- 1.) 1-3/4" STANDARD DOOR THICKNESS.
- 2.) 16 AND 14 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE.
- 4.) PROPRIETARY TEMP RISE CORE PERMANENTLY BONDED TO BOTH FACE SHEETS.
- 5.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS.
- 6.) CONTINUOUS WELD SEAMLESS EDGE STANDARD (OPEN SEAM AVAILABLE).
- 7.) HARDWARE REINFORCEMENTS:
 - 3/16" FOR HINGES
 - 12 GA FOR LOCKS
 - 14 GA FOR CLOSER
- 8.) 60-180 MIN WHI LABELS AVAILABLE FOR 450° AND 250° TEMP RISE AT 30 MIN.
- 9.) SIZES AVAILABLE UP TO 5'-0" x 12'-0" SINGLE SWING
10'-0" x 12'-0" PAIR SWING.

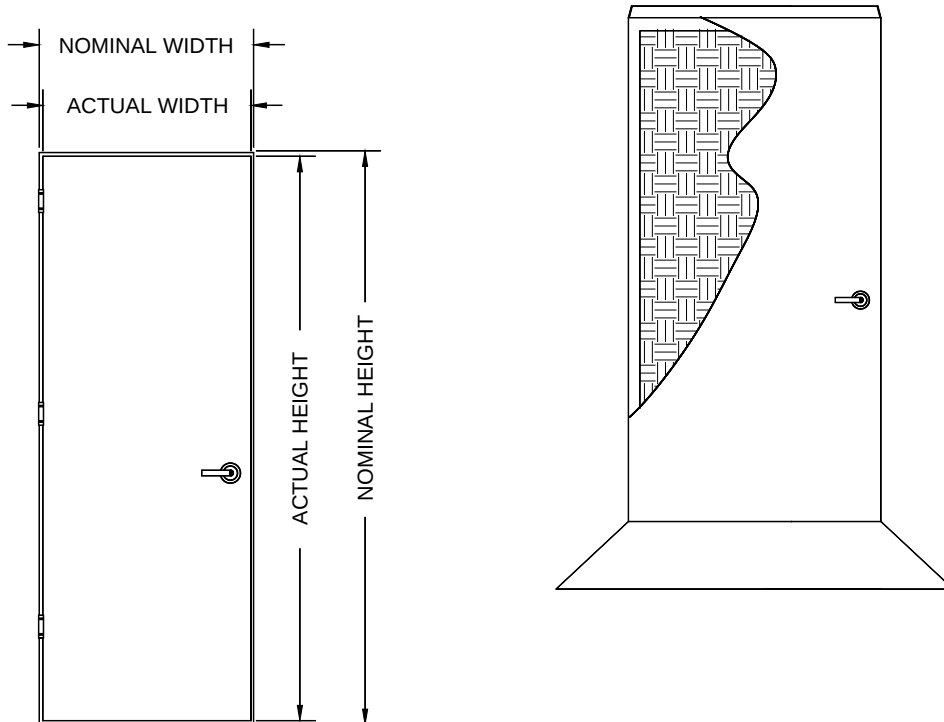


STANDARD SPECIFICATION

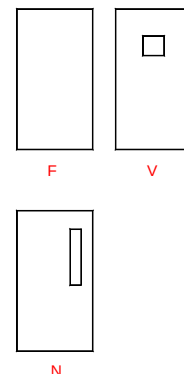
MATERIAL: GALVANNEAL

GAUGE: 16

UL 752 LEVELS 1 - 8 AVAILABLE



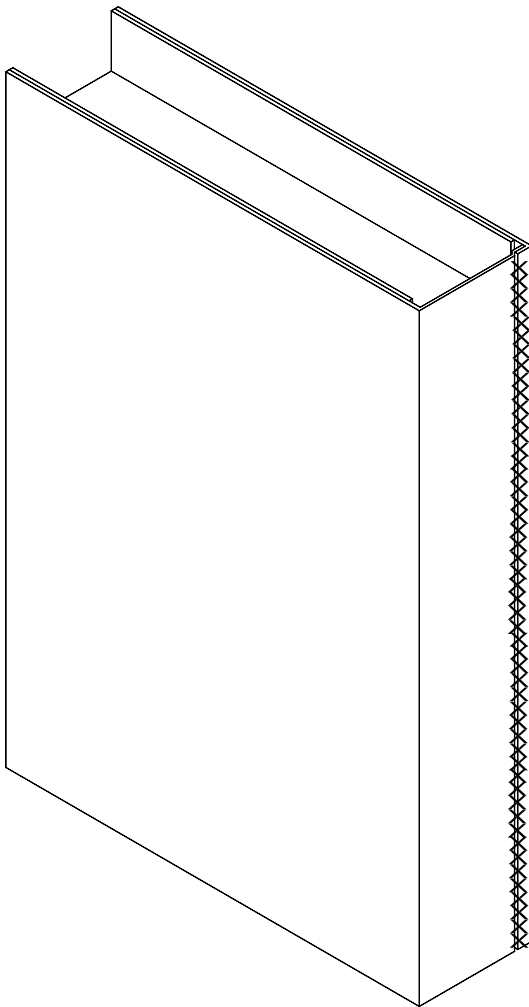
- 1.) 1-3/4" STANDARD DOOR THICKNESS.
- 2.) 14 GAUGE AVAILABLE.
- 3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316
AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
- 4.) PROPRIETARY BULLET RESISTANT CORE.
- 5.) 18 GA FLUSH TOP AND BOTTOM CHANNELS WELDED TO FACE SHEETS.
- 6.) CONTINUOUS WELD SEAMLESS EDGE STANDARD.
- 7.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
- 8.) SIZES AVAILABLE UP TO 4'-0" x 8'-0" SINGLE SWING.
- 9.) LEVELS I - III
APPROXIMATELY 9 LBS/SQ FT
LITES AVAILABLE UP TO 100 SQ INCHES (GLASS BY OTHERS)
CYLINDRICAL LOCKS, MORTISE LOCKS, SURFACE
MOUNTED AND MORTISE EXIT HARDWARE AVAILABLE
- 10.) LEVELS IV - VIII
APPROXIMATELY 22 LBS/SQ FT
FLUSH DOORS
CYLINDRICAL LOCKS OR SURFACE MOUNTED EXIT HARDWARE
AVAILABLE



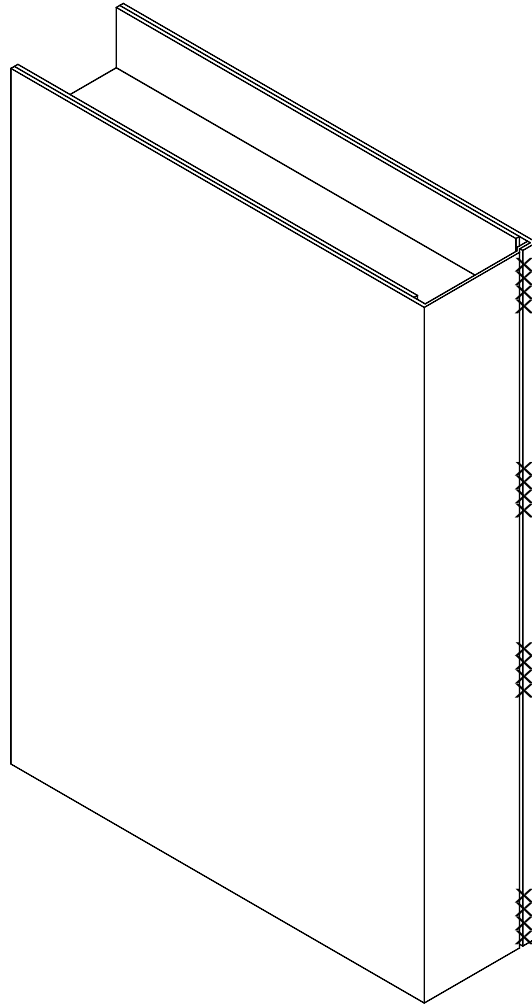
STANDARD DOOR EDGE SEAM



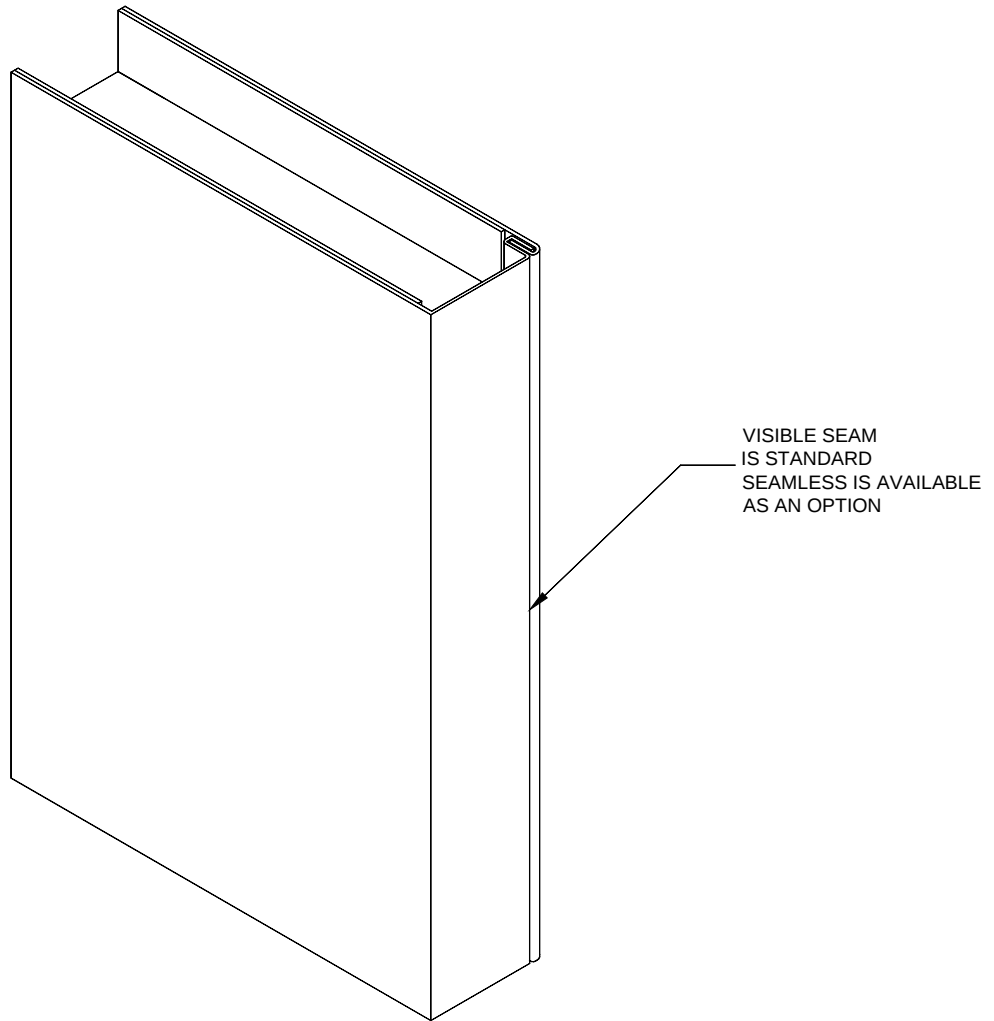
BEVELED AND SQUARE EDGES ARE AVAILABLE IN ANY COMBINATION



CONTINUOUSLY WELDED EDGE SEAM
DRESSED SMOOTH
(STANDARD)

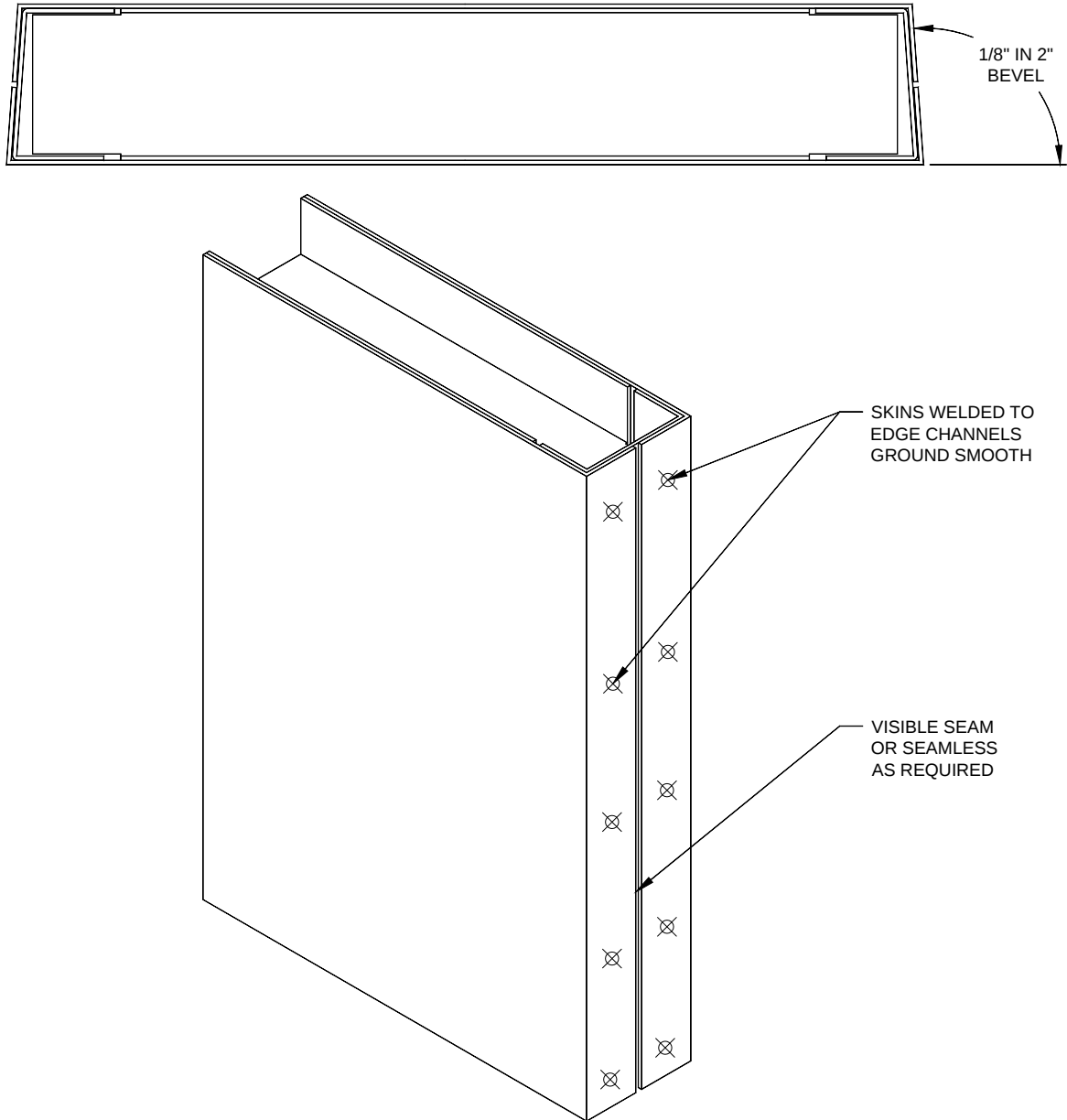


SKINS WELDED AT STRESS POINTS
DRESSED AND GROUND SMOOTH
(OPTIONAL)

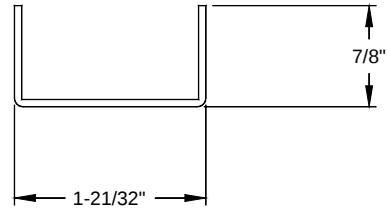
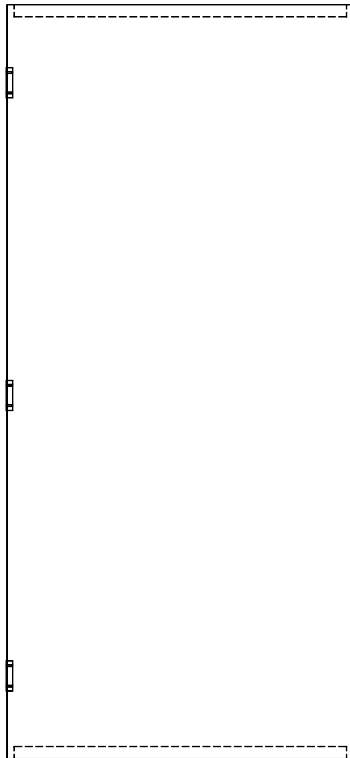
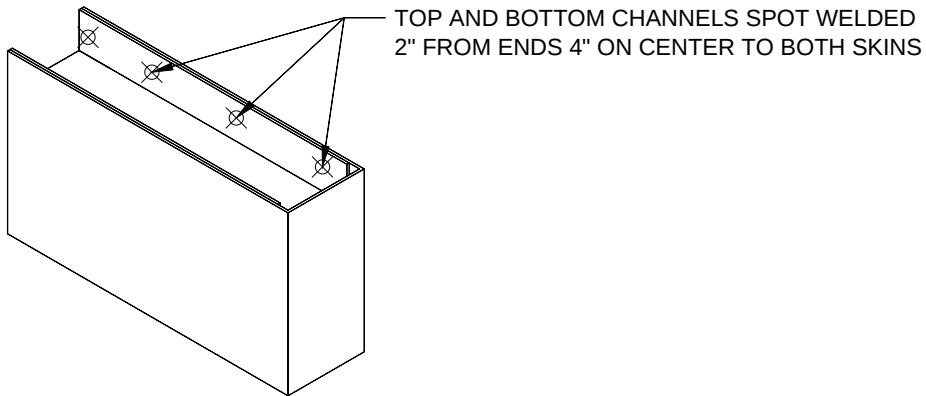


- 1.) BEVELED AND SQUARE EDGES ARE AVAILABLE IN ANY COMBINATION
- 2.) ONLY 18 AND 16 GAUGES AVAILABLE WITH THIS DOOR EDGE

CHANNELED DOOR EDGE SEAM

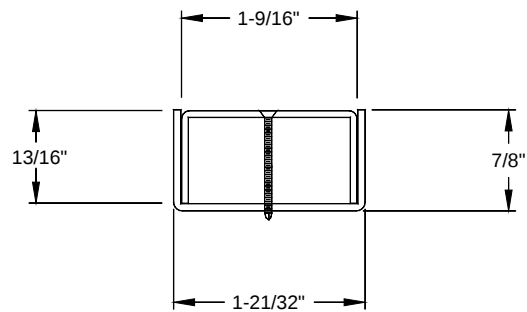
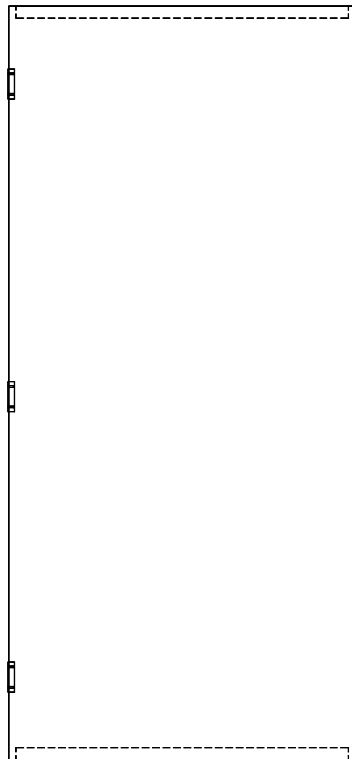
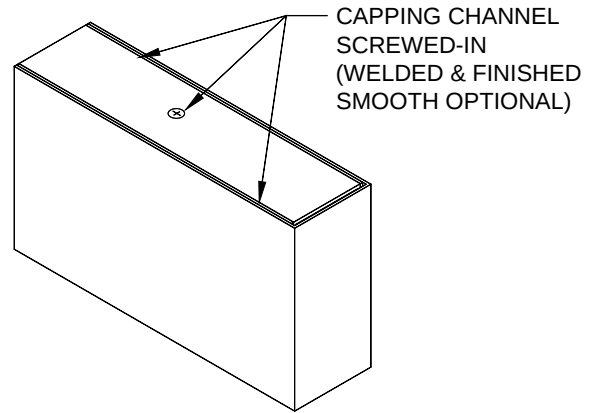
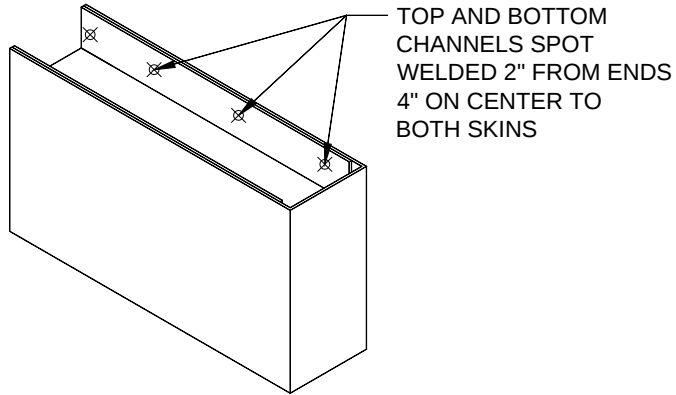


- 1.) BEVELED, BULL NOSED AND SQUARE EDGE ARE AVAILABLE IN ANY COMBINATION
- 2.) INTERNAL EDGE CHANNEL 18 GA STANDARD (UP TO 10 GA AVAILABLE)
- 3.) ALSO AVAILABLE WITH CONTINUOUSLY WELDED EDGE SEAM DRESSED SMOOTH



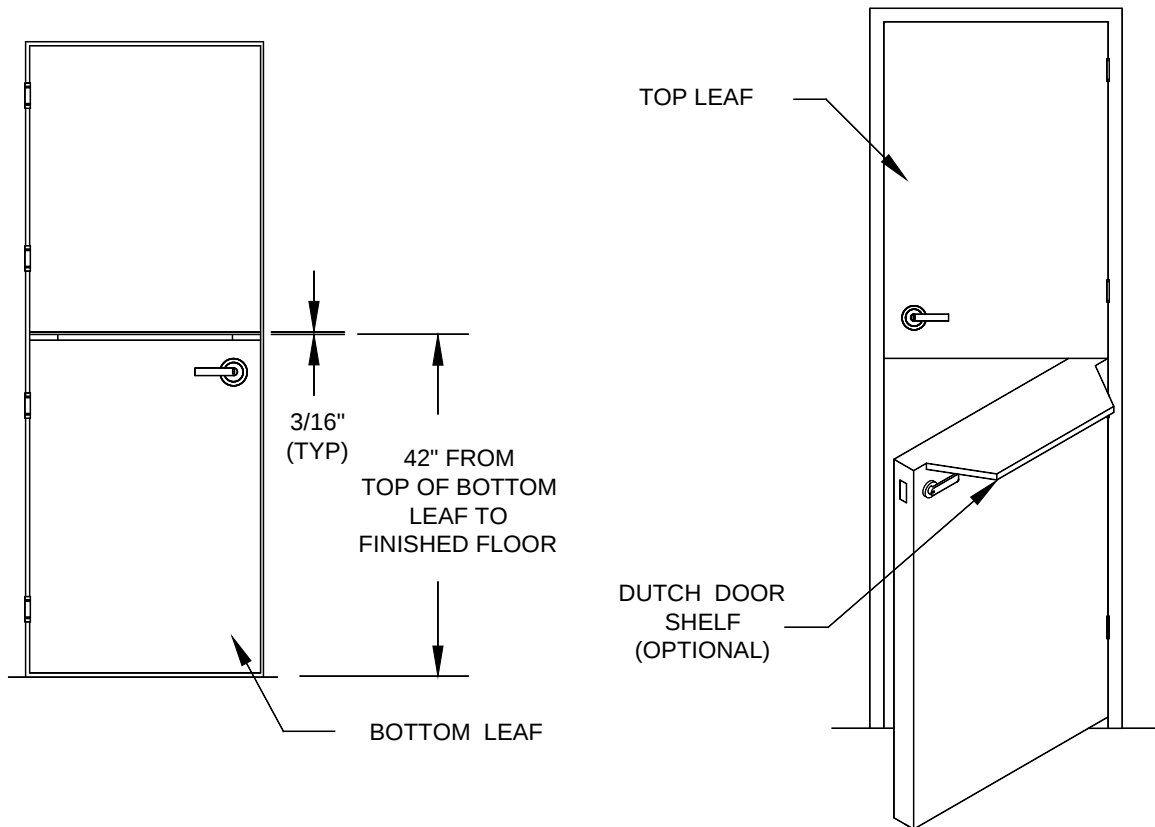
TOP AND BOTTOM CHANNELS
ARE 18 GA STANDARD
(OTHER GAUGES AVAILABLE
AS AN OPTION)

CAP TOP FLUSH



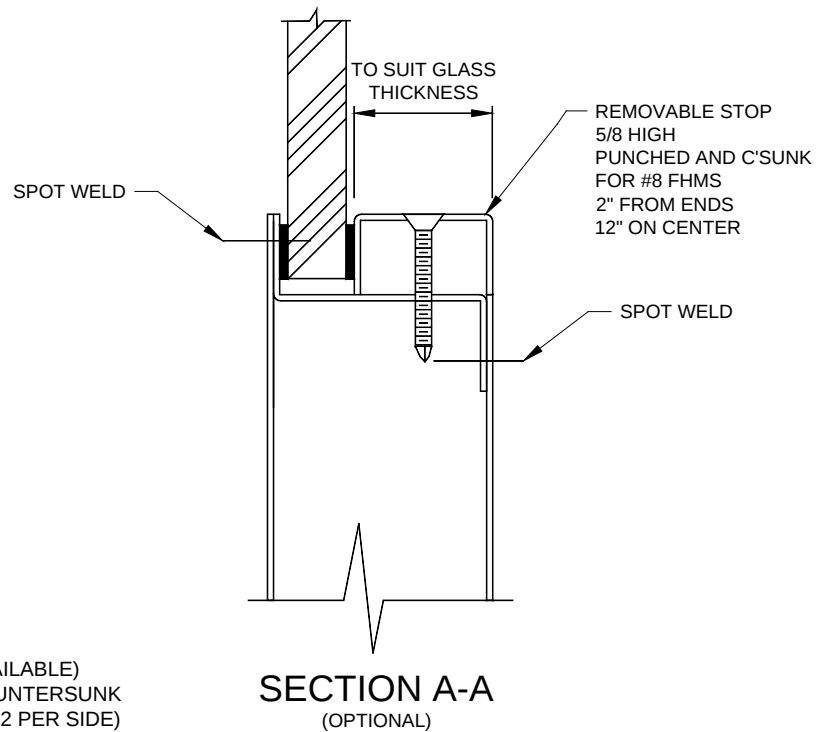
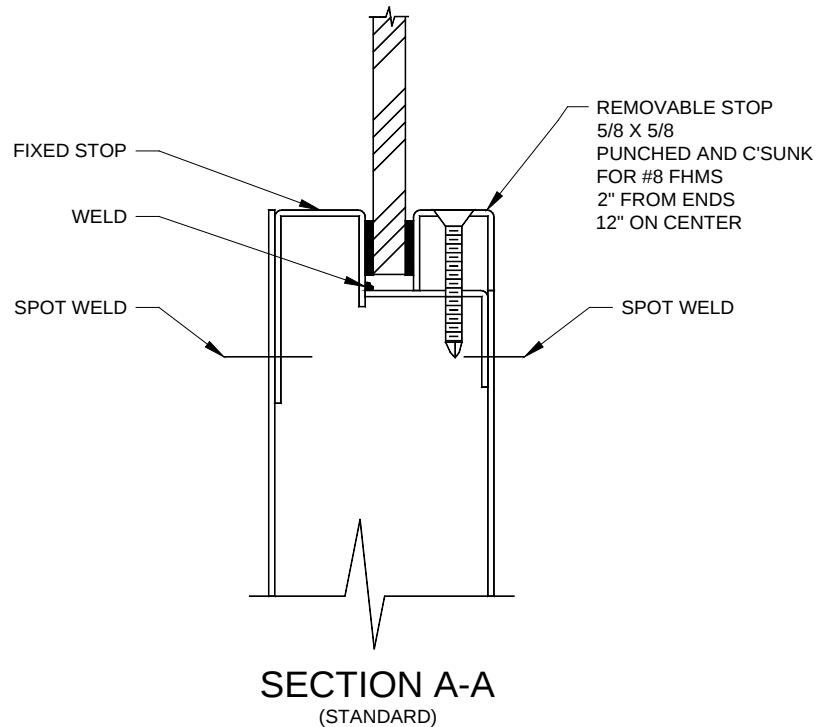
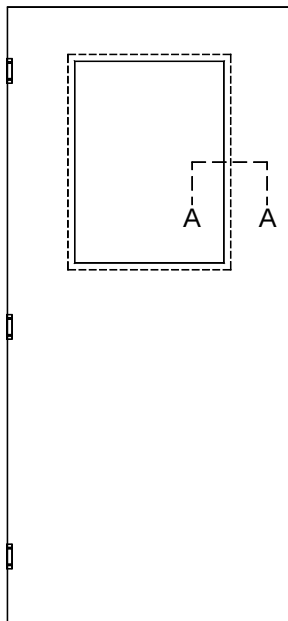
RECESSED AND CAPPING CHANNELS ARE 18 GA STANDARD (OTHER GAUGES AVAILABLE AS AN OPTION)

DUTCH DOOR



- 1.) 1-3/4" DOOR STANDARD, OTHER THICKNESSES AVAILABLE
- 2.) CAP BOTTOM CHANNEL OF TOP LEAF AND TOP CHANNEL OF BOTTOM LEAF.
- 3.) ASTRAGAL OPTIONAL
- 4.) STRIKE PREP IN TOP OF BOTTOM LEAF AND/OR SHELF.

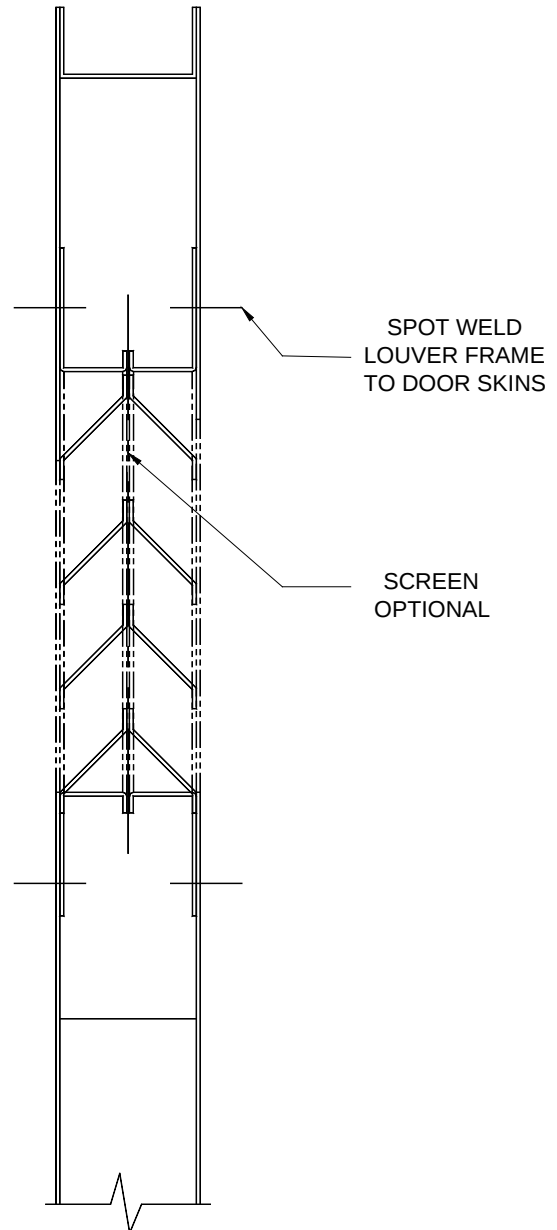
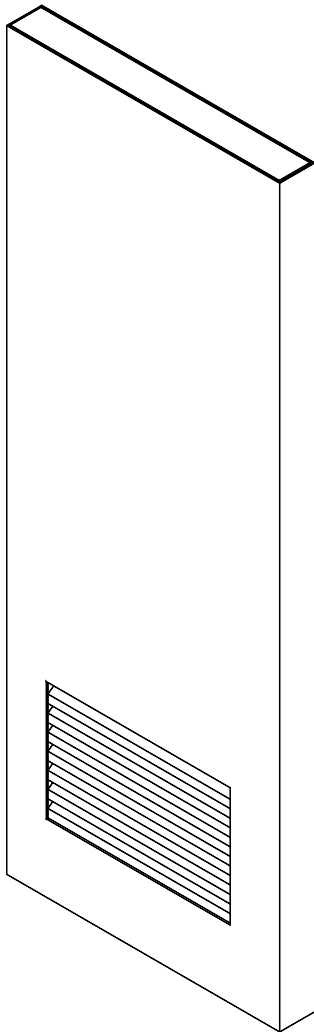
INTEGRAL LITE



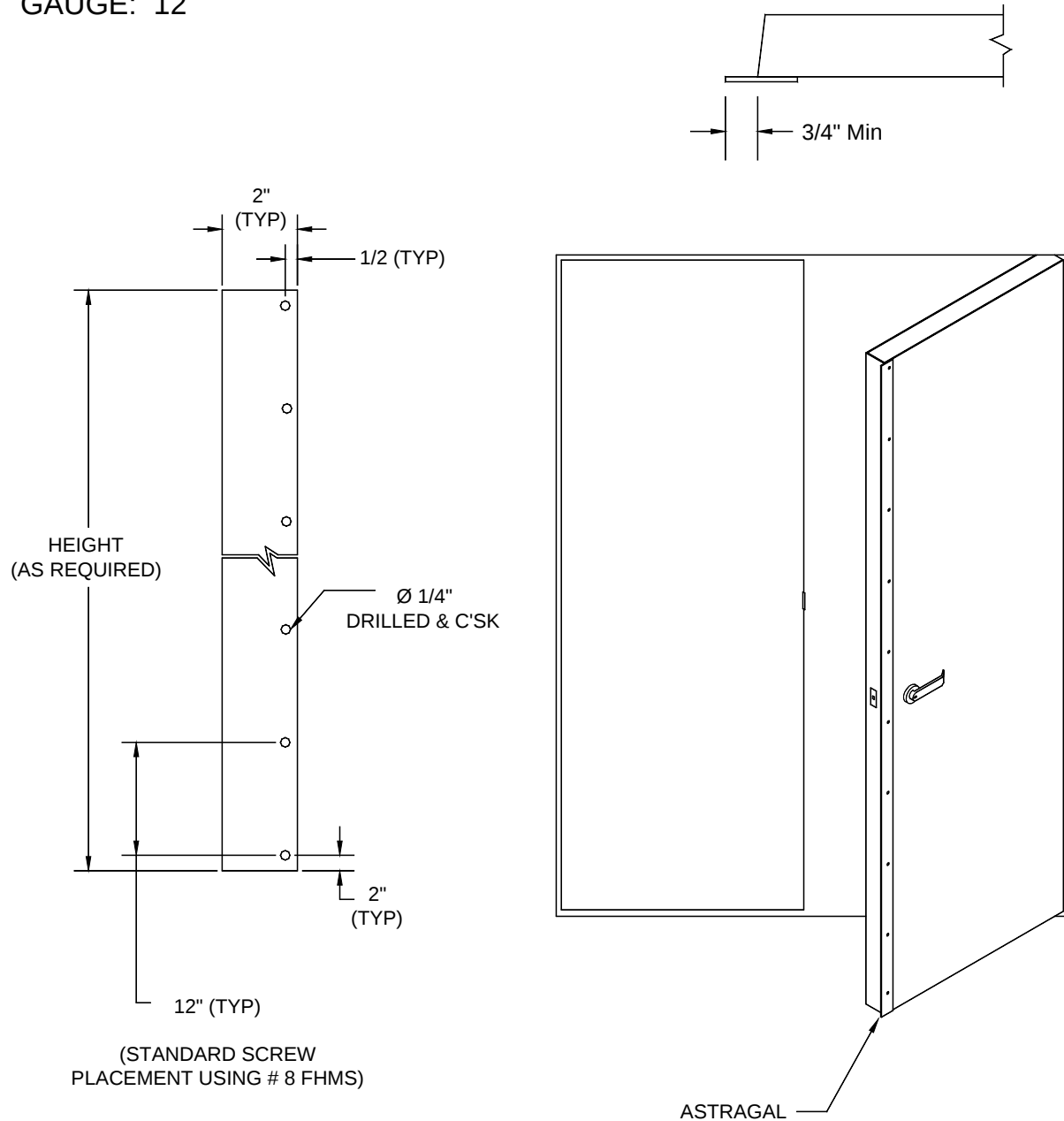
- 1.) 16 GA GLASS STOP (OTHER GAUGES AVAILABLE)
- 2.) REMOVABLE STOP IS PUNCHED AND COUNTERSUNK
2" FROM ENDS AND 12" ON CENTER (MIN 2 PER SIDE)

INTEGRAL LOUVER

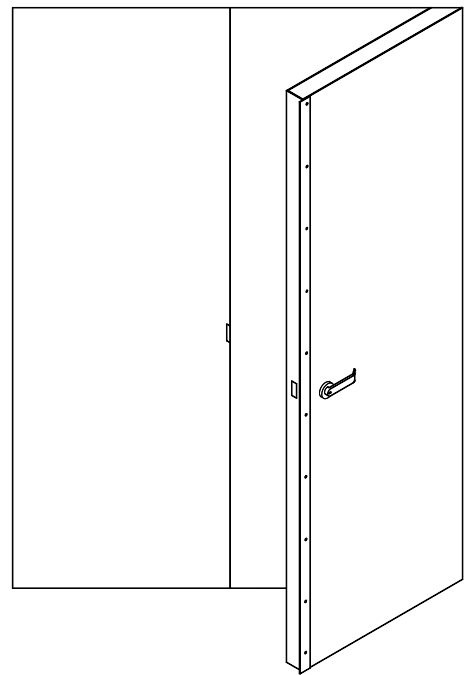
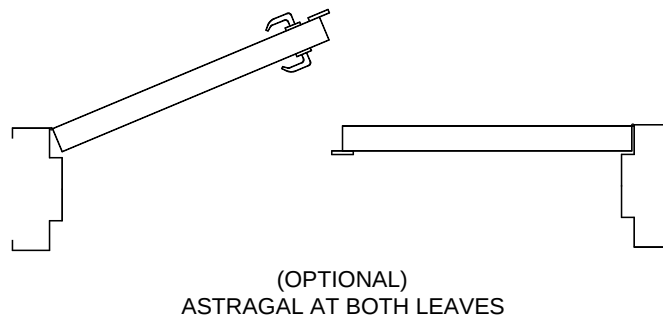
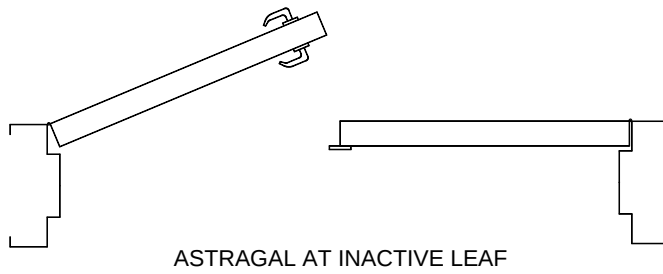
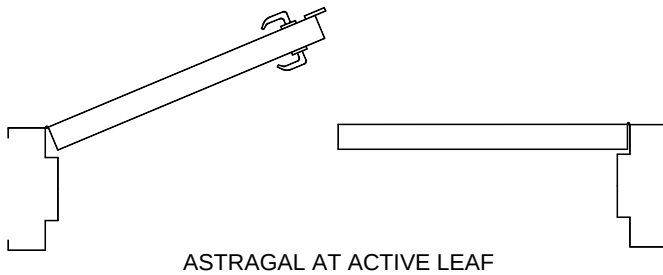
REINFORCEMENTS: GALVANNEAL
GAUGE: 18
SPOTWELDED TO DOOR SKIN
FREE AIR FLOW: 50% FREE AREA



MATERIAL: GALVANNEAL
GAUGE: 12

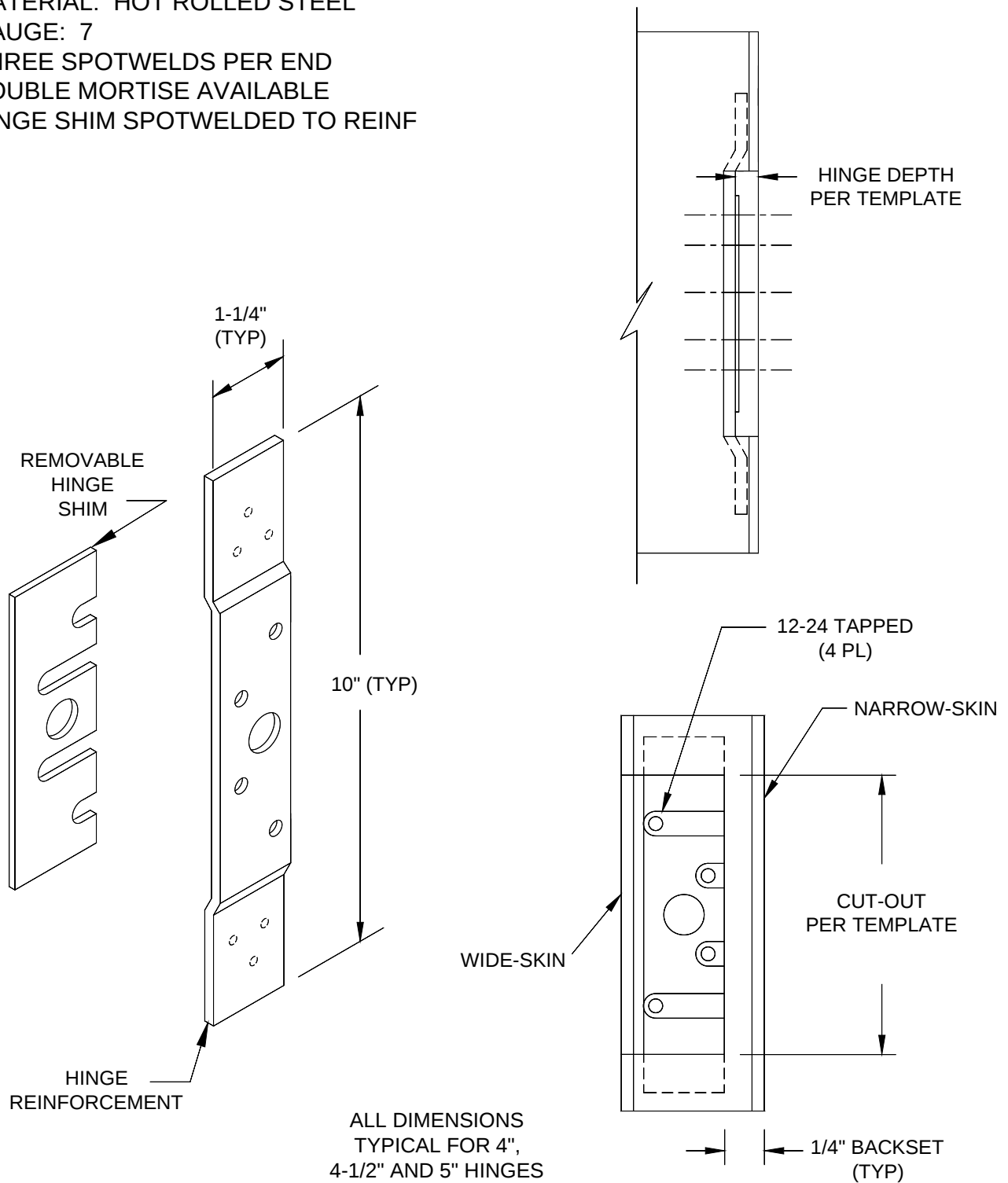


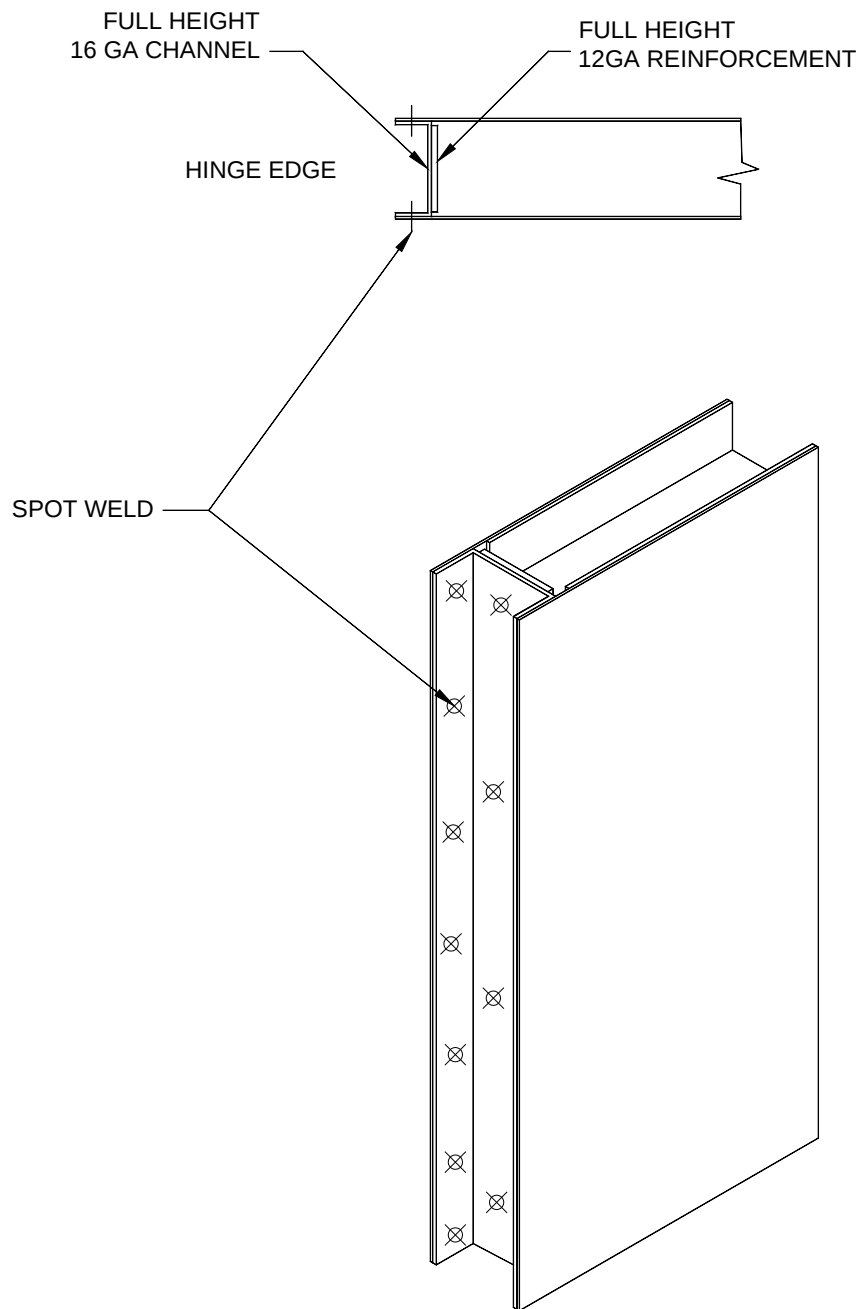
MATERIAL: GALVANNEAL
GAUGE: 12



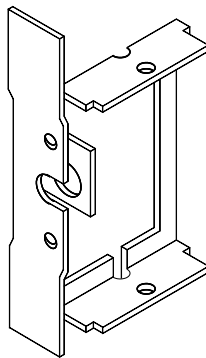
STANDARD DOOR HINGE REINF

MATERIAL: HOT ROLLED STEEL
 GAUGE: 7
 THREE SPOTWELDS PER END
 DOUBLE MORTISE AVAILABLE
 HINGE SHIM SPOTWELDED TO REINF

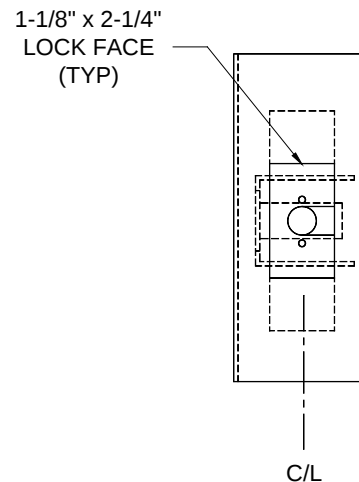
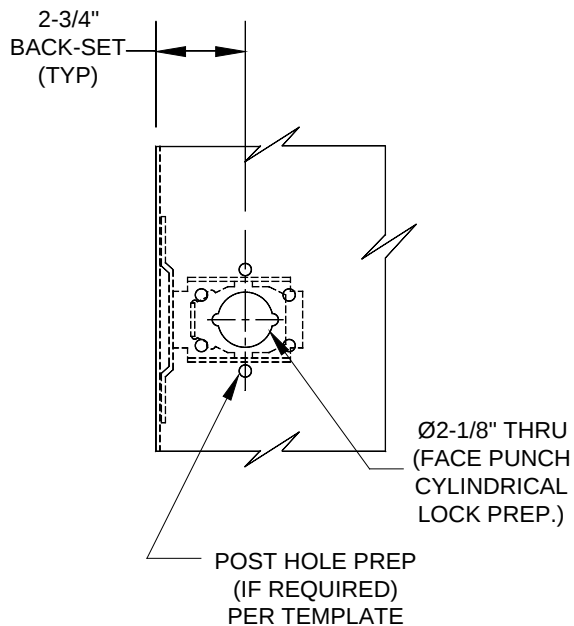




REINFORCEMENT: COLD ROLLED STEEL
GAUGE: 16 (EXTRUDED TO 12 GA AT SCREW HOLES)
TWO SPOTWELDS PER END

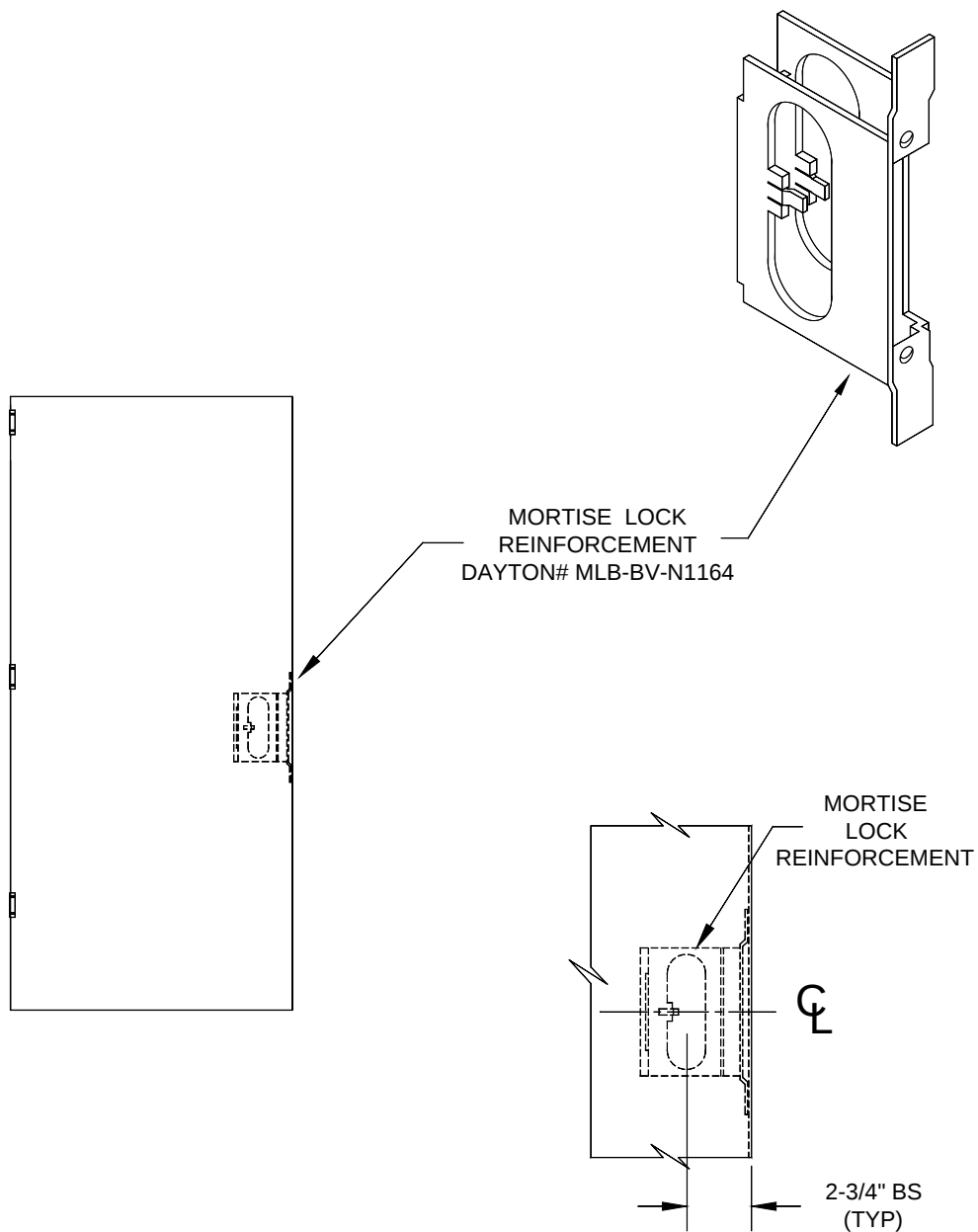


CYLINDRICAL LOCK
REINFORCEMENT
DAYTON# CLB-BV-N158



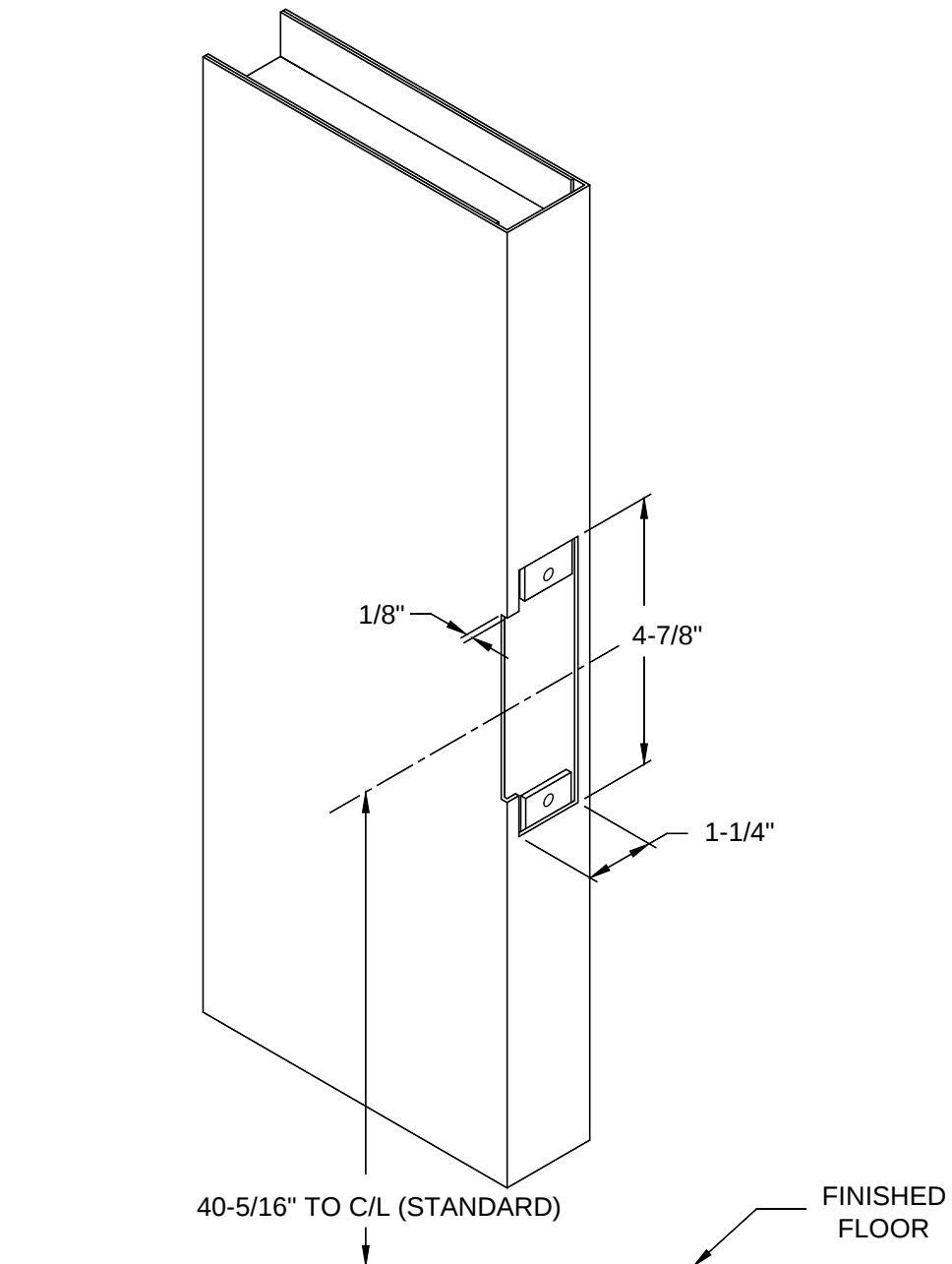
MORTISE LOCK REINFORCEMENT

REINFORCEMENTS: GALVANNEAL
GAUGE: 16 (EXTRUDED TO 12 GA AT SCREW HOLES)
TWO SPOTWELDS PER END
FACE PREP PER HARDWARE MANUFACTURER'S TEMPLATE

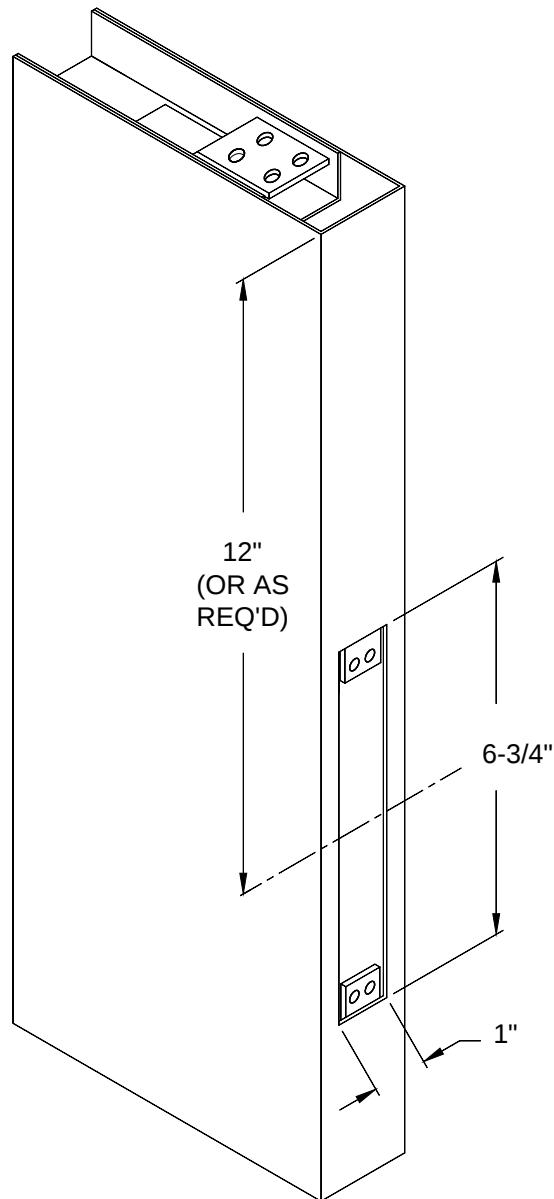


DOOR STRIKE PREPARATION

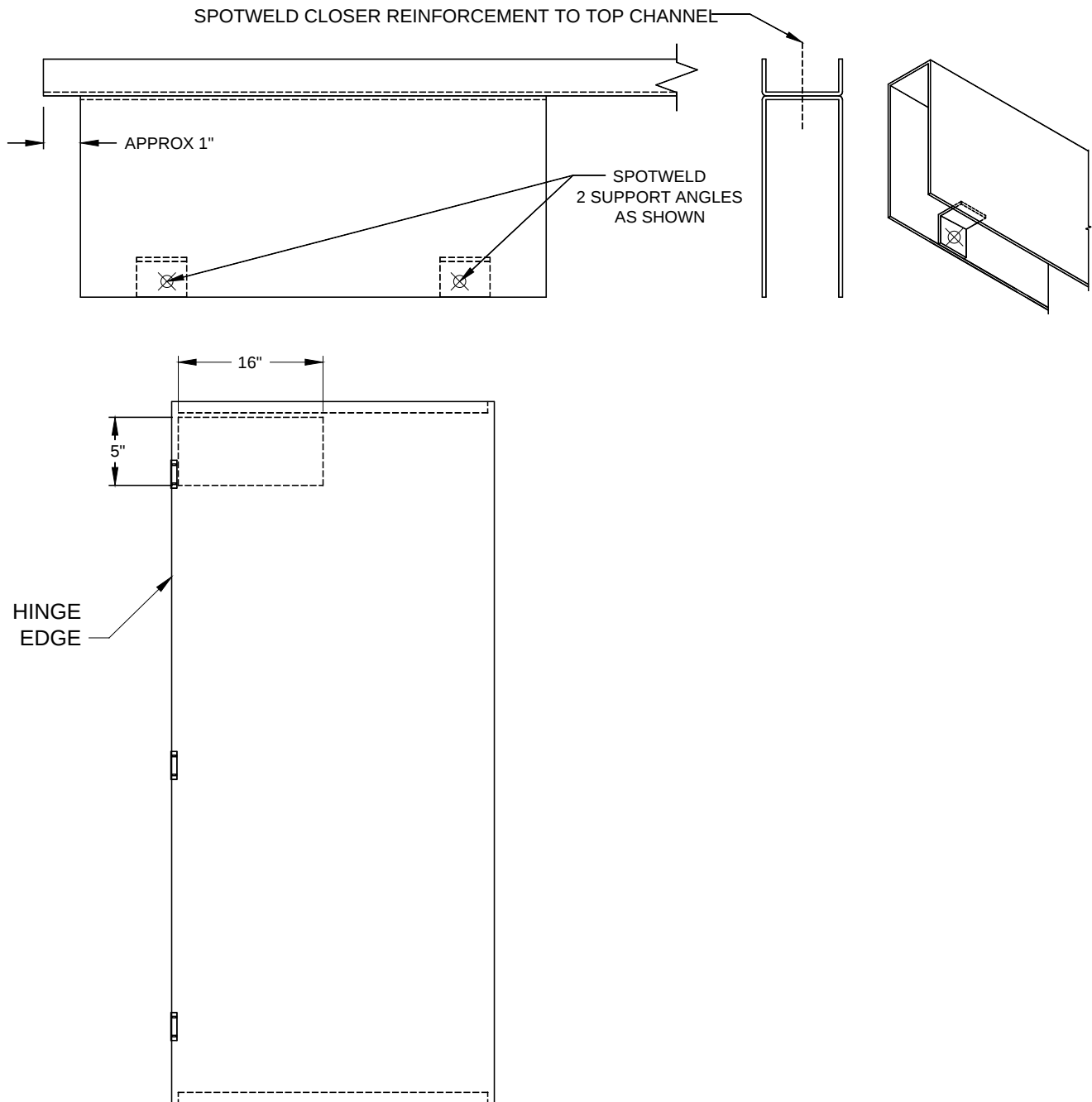
2-1/2" x 1" x 11 GAUGE
DRILLED AND TAPPED FOR 12-24 FHMS
TWO SPOTWELDS PER END



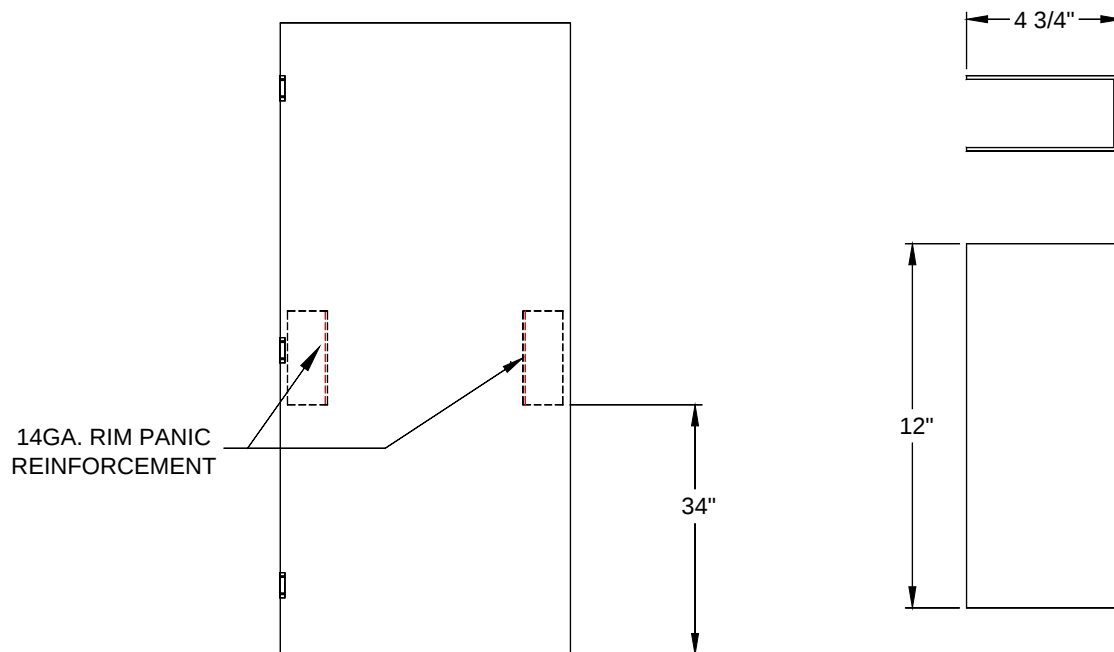
2-1/2" x 1" x 11 GAUGE
DRILLED AND TAPPED AS REQ'D
TWO SPOTWELDS PER END



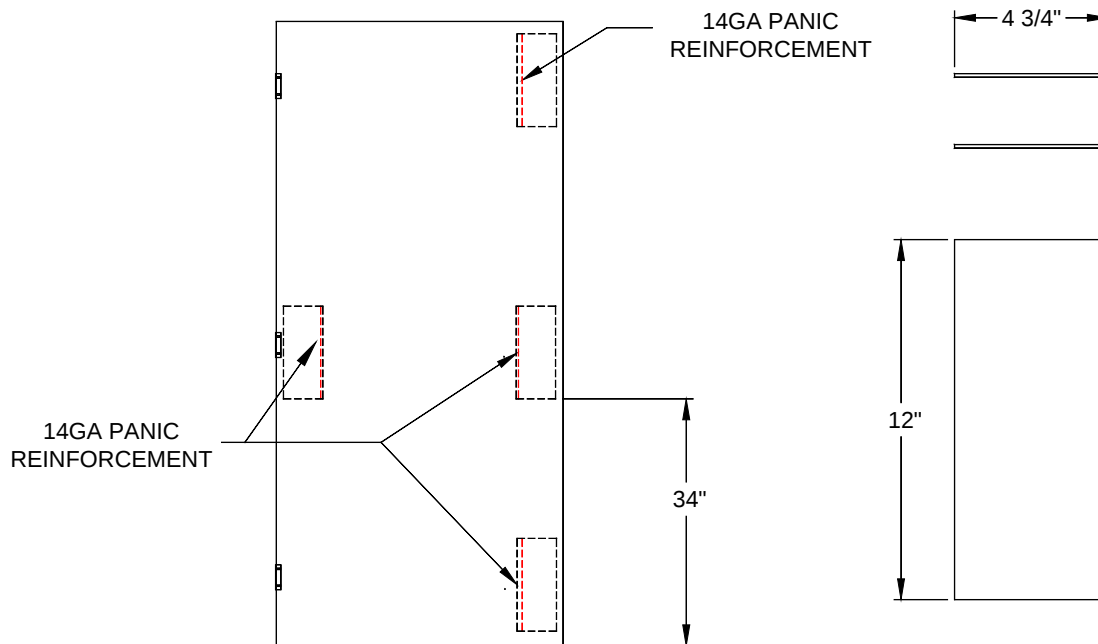
MATERIAL: GALVANNEAL
GAUGE: 14
WHI APPROVED



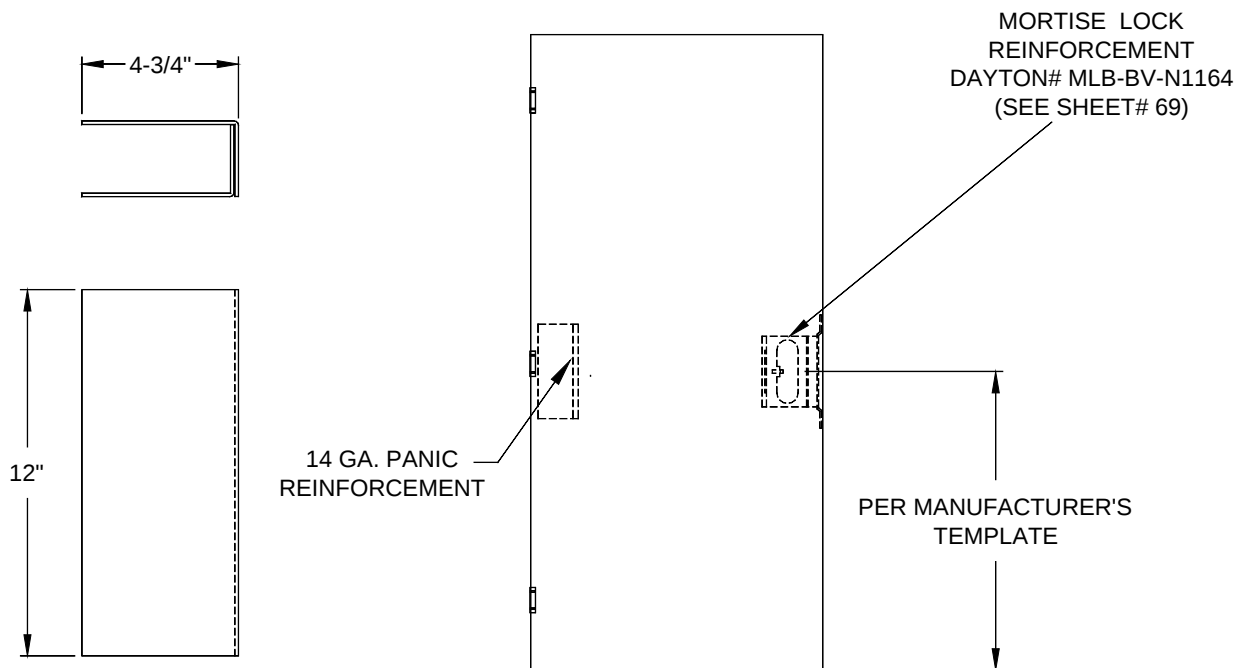
REINFORCEMENTS: GALVANNEAL
GAUGE: 14
SPOTWELDED TO DOOR SKIN



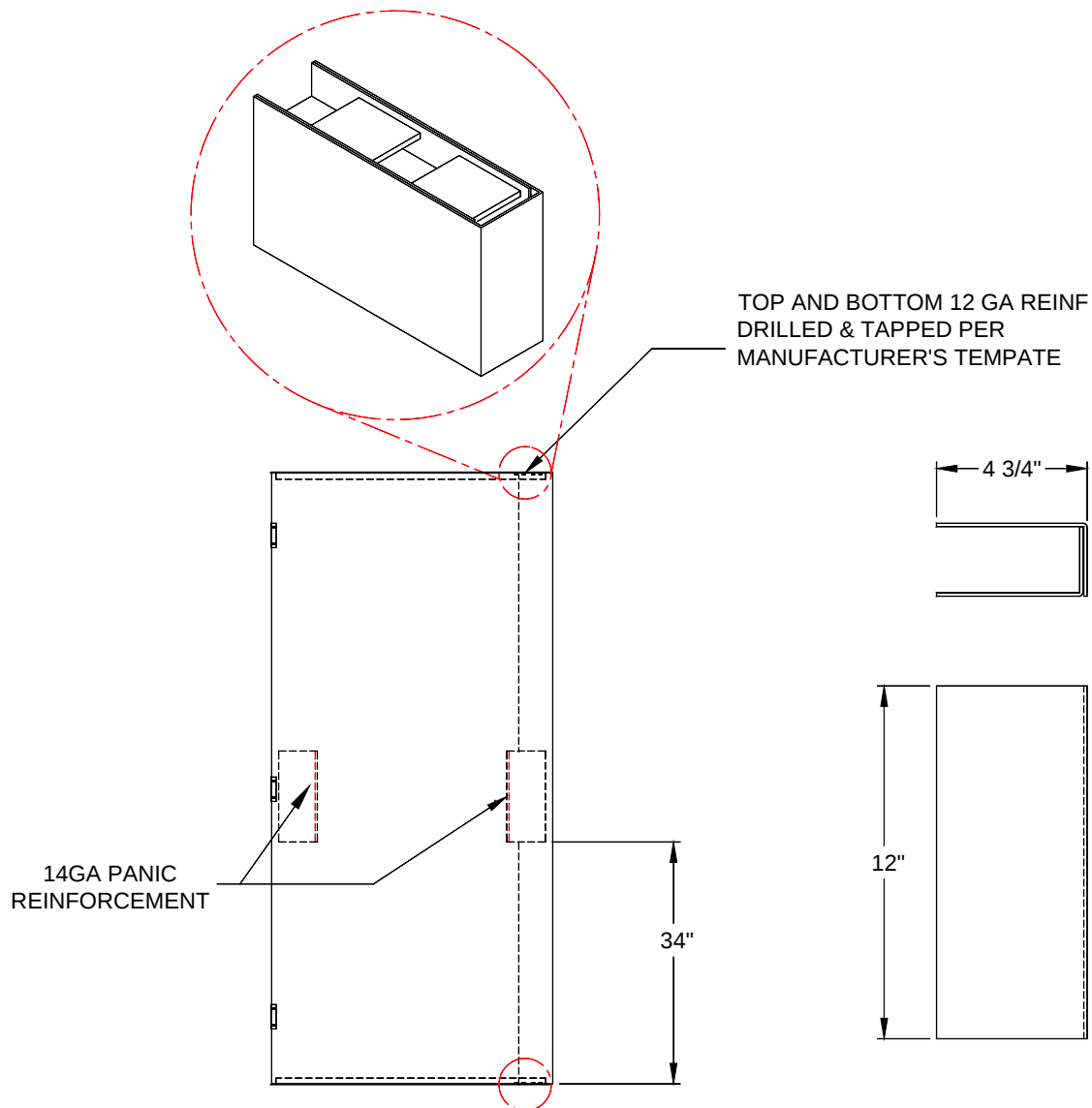
REINFORCEMENTS: GALVANNEAL
GAUGE: 14
SPOTWELDED TO DOOR SKIN



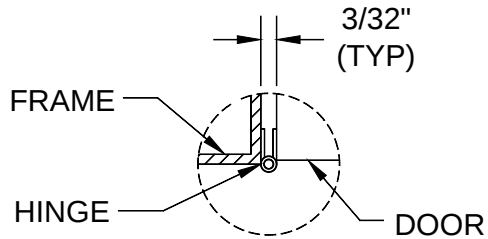
PANIC REINFORCEMENT



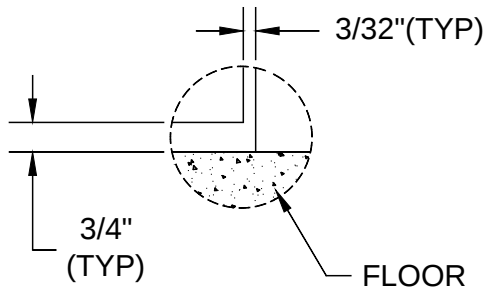
REINFORCEMENTS: GALVANNEAL
GAUGE: AS SHOWN BELOW
SPOTWELDED TO DOOR SKIN/
TACKWELDED INTO TOP CHANNEL



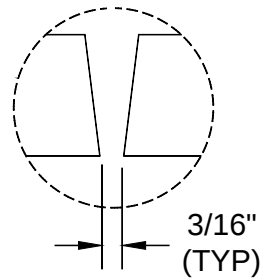
DETAIL "A"



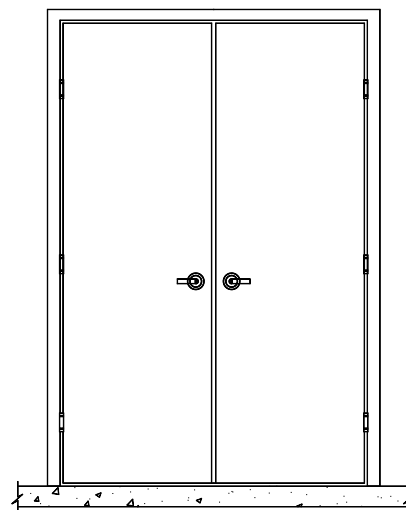
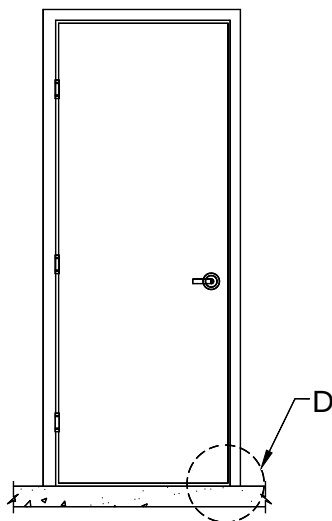
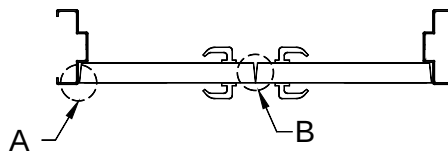
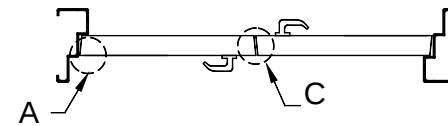
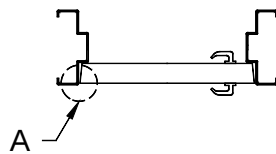
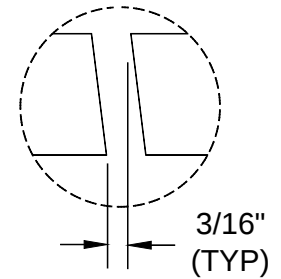
DETAIL "D"



DETAIL "B"



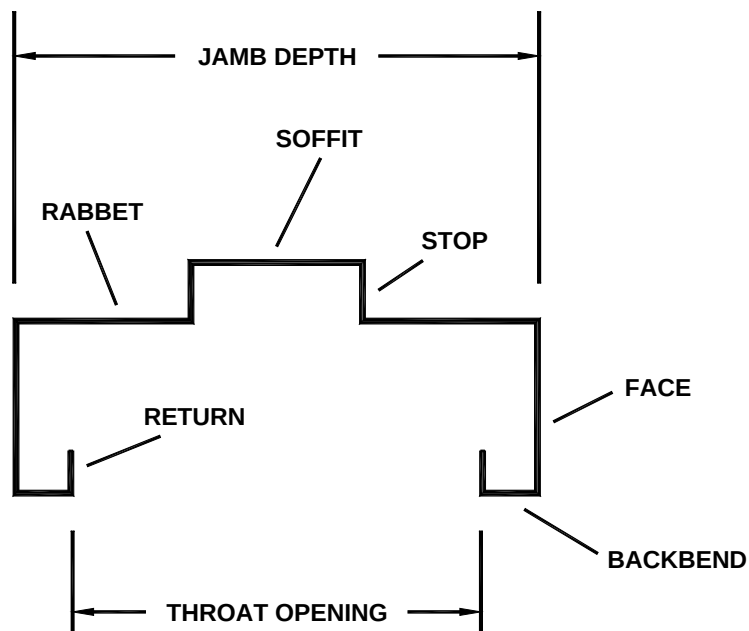
DETAIL "C"



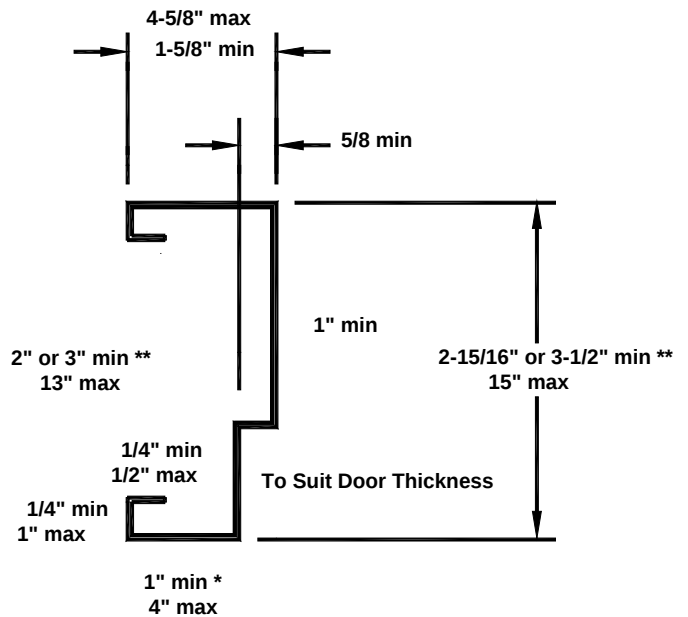
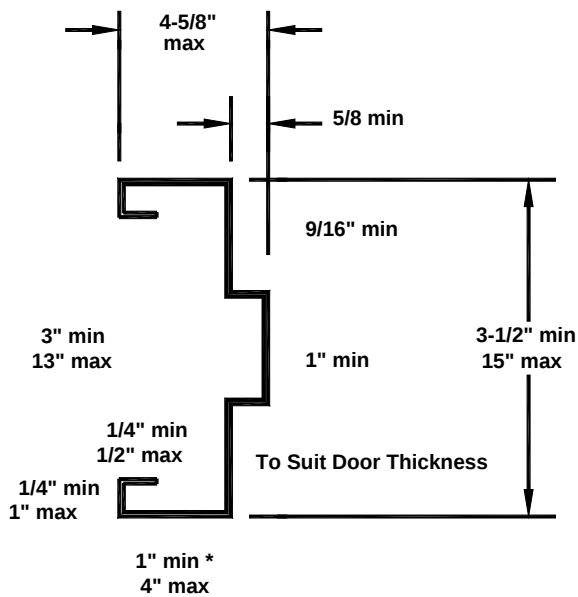
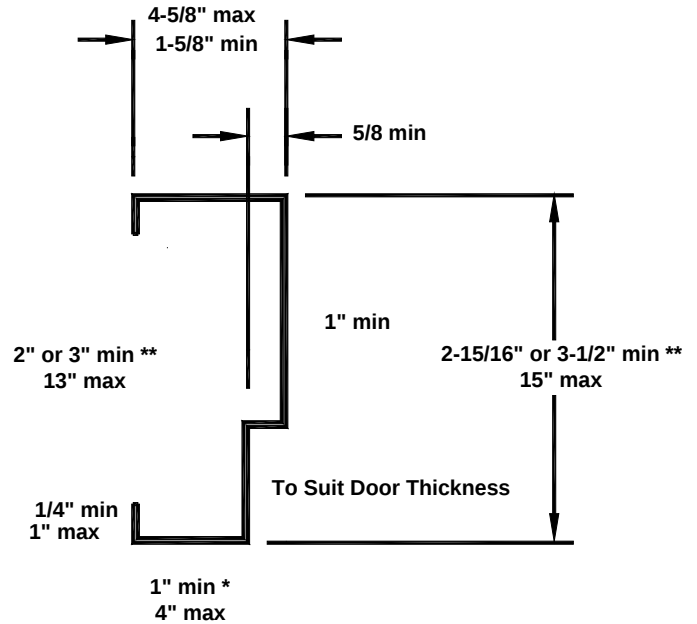
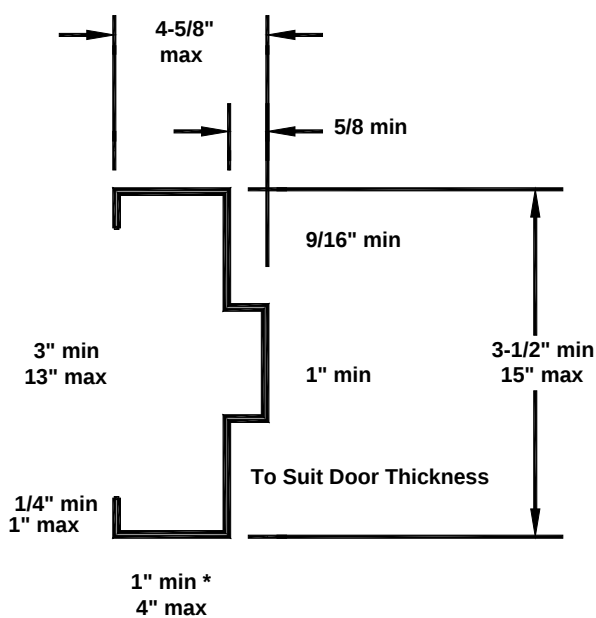
These requirements apply to all fire rated doors, frames, and windows.

Requirements for the installation of these assemblies are included in the Standard of the National Fire Protection Association for Fire Doors and Fire Windows, NFPA-80 and the Door Components' installation instructions.

Terminology used in describing these frames follows as closely as possible the American National Standard for Nomenclature for Steel Doors and Steel Door Frames, ANSI A250.7.

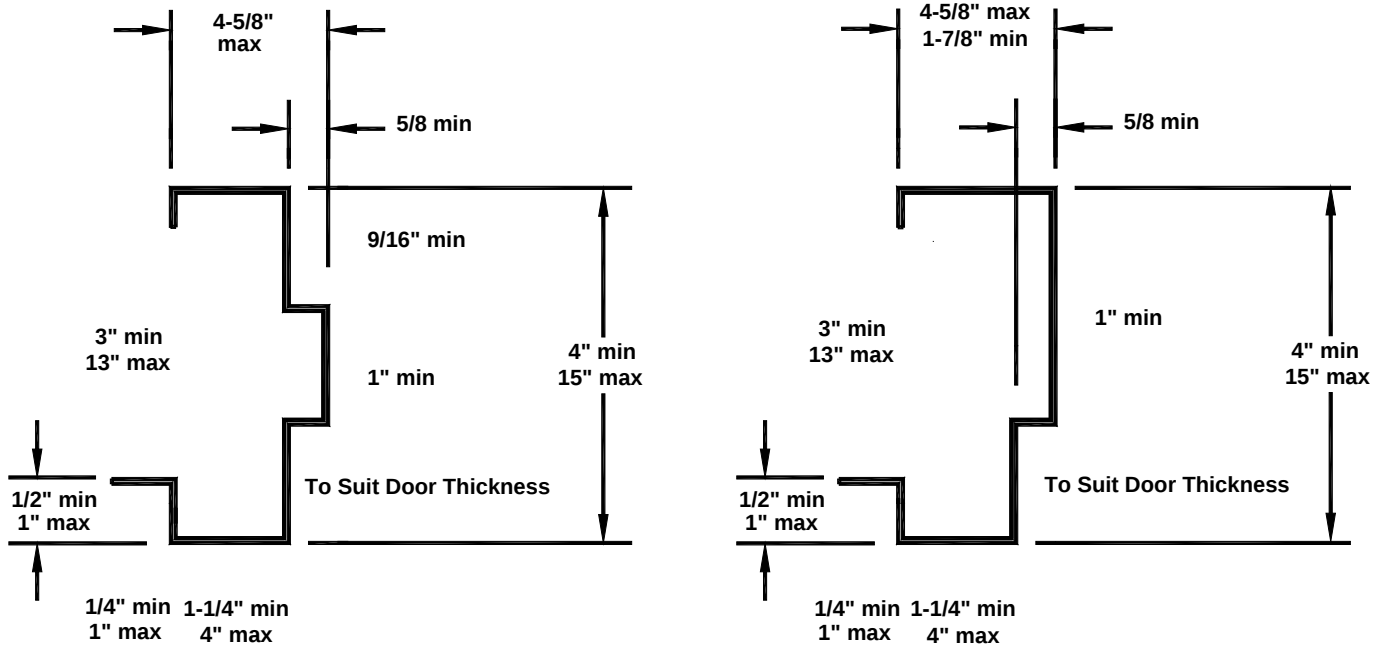


Note: Minimum and maximum dimensions shown in this section may be further restricted by frame elevation and wall type.

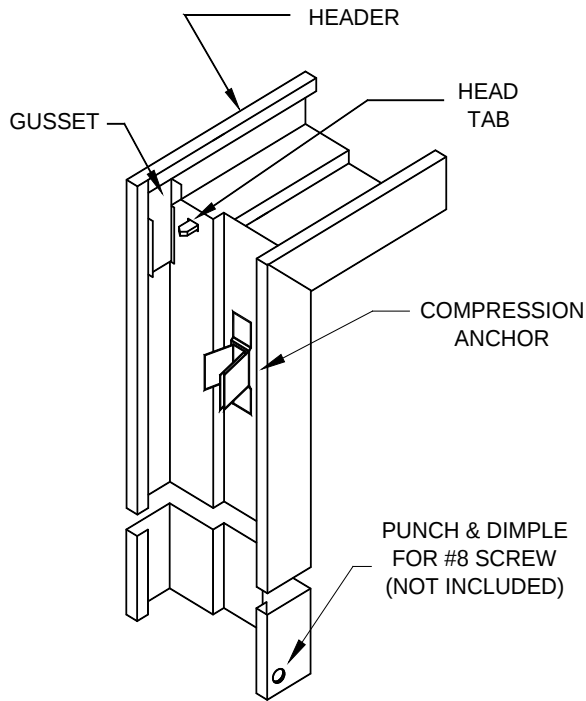
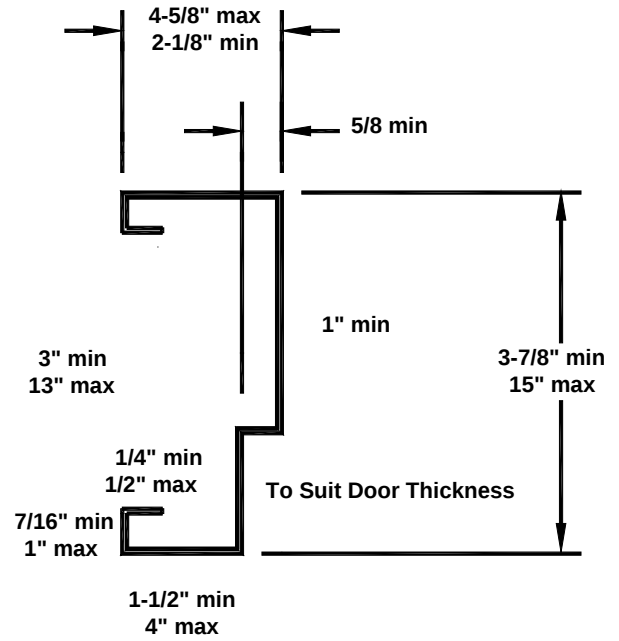
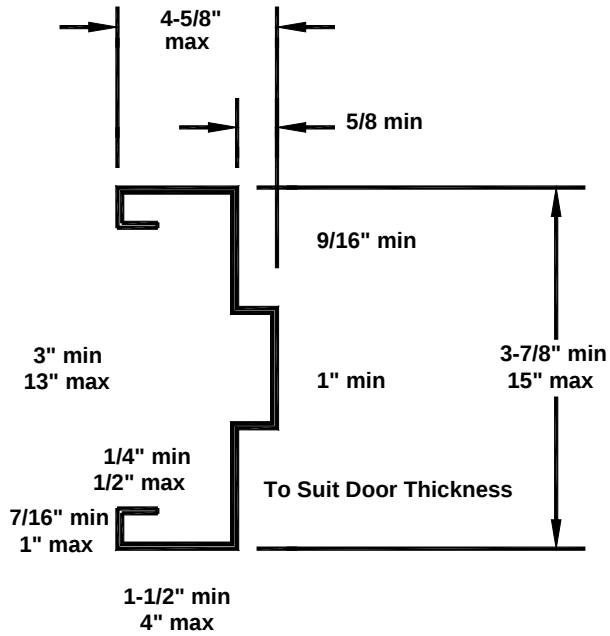


* 1" min face permitted at masonry, 1-1/4" min at drywall

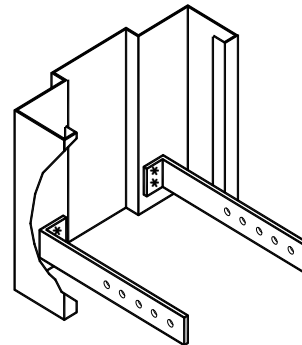
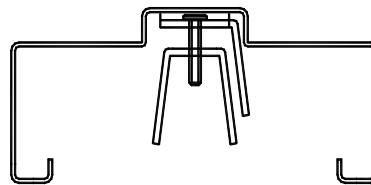
** 2" throat permitted when door side face is min 2" and opposite face is min 2-5/8"



Standard profile frames may have combinations of the above backbend types.

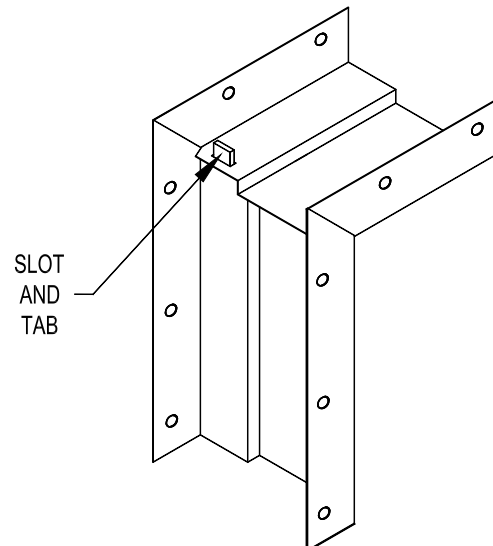
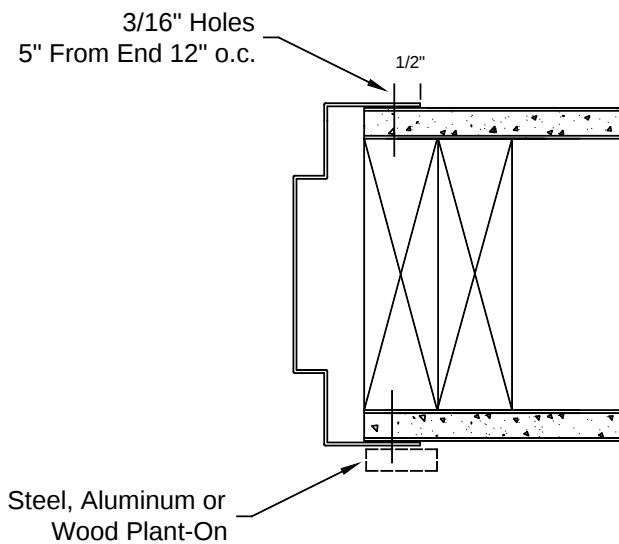
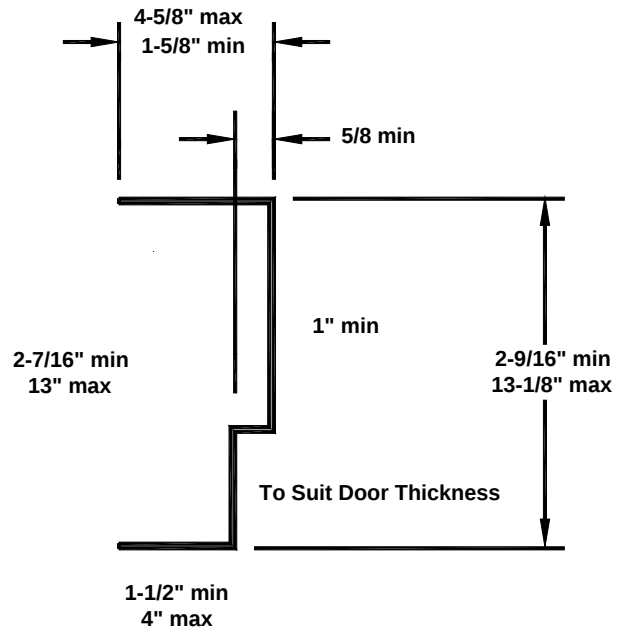
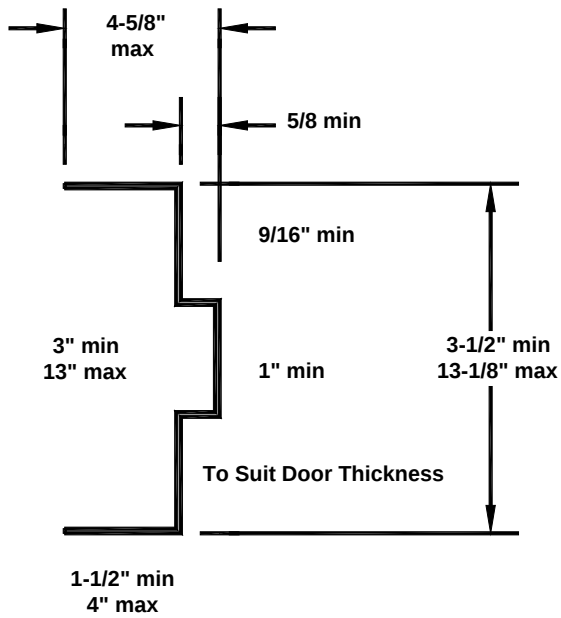


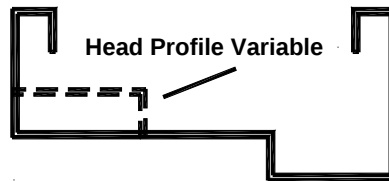
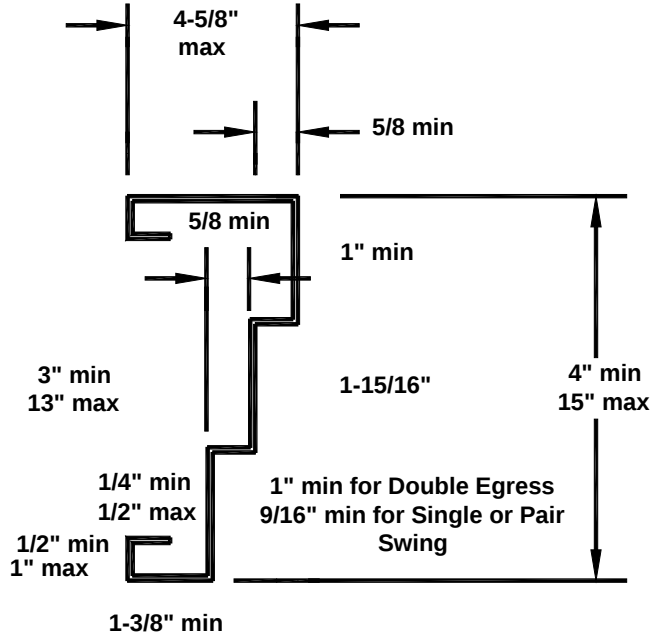
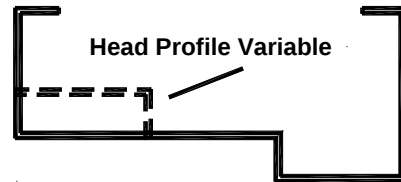
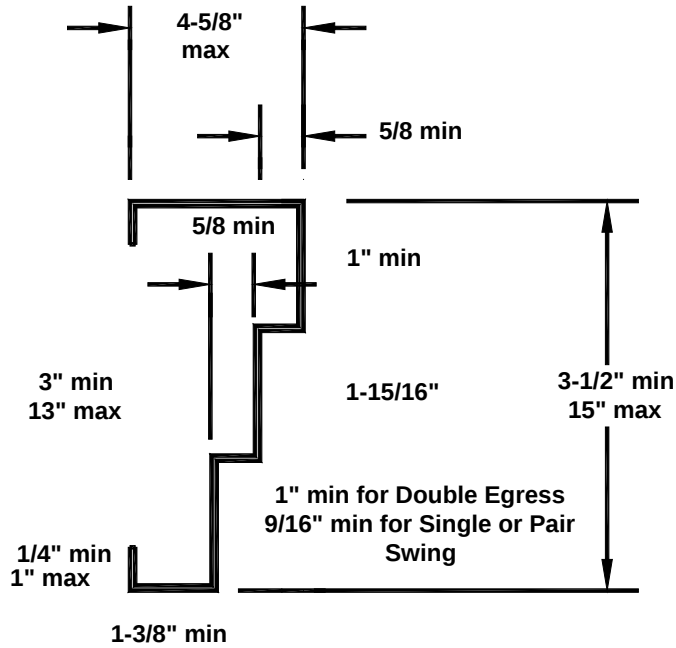
STANDARD BASE ANCHOR



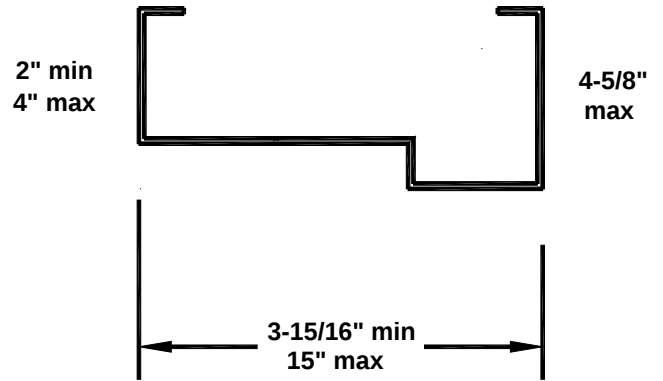
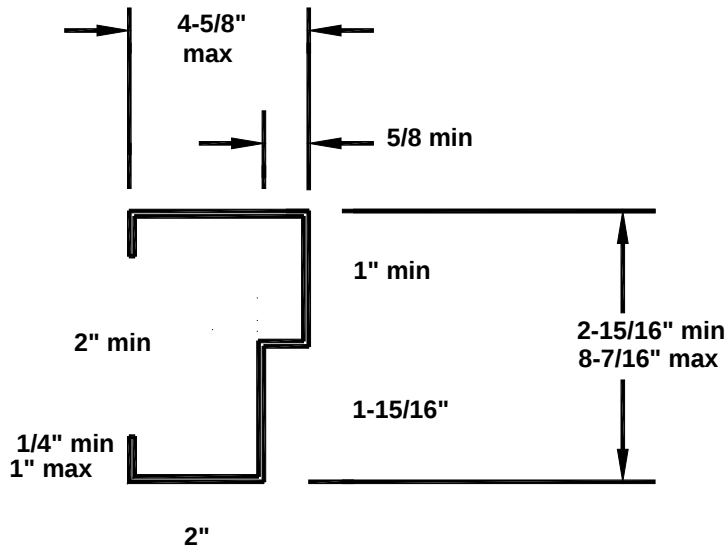
ALTERNATE BASE ANCHOR

NAIL-IN FACE FRAMES

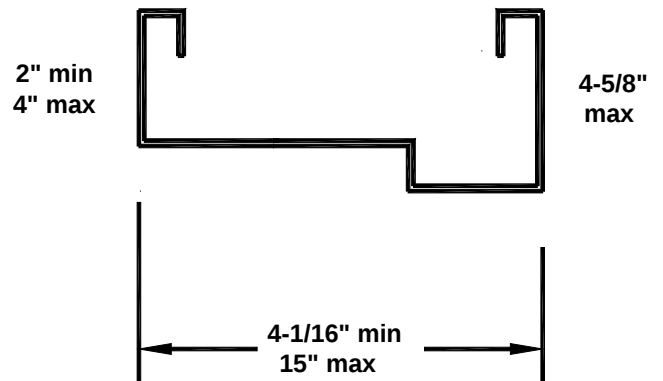
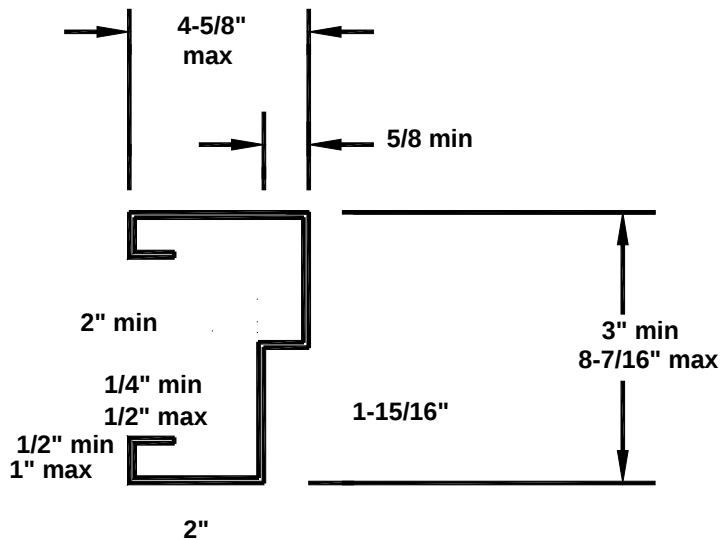




Frames may have combinations of the previous backbend types.

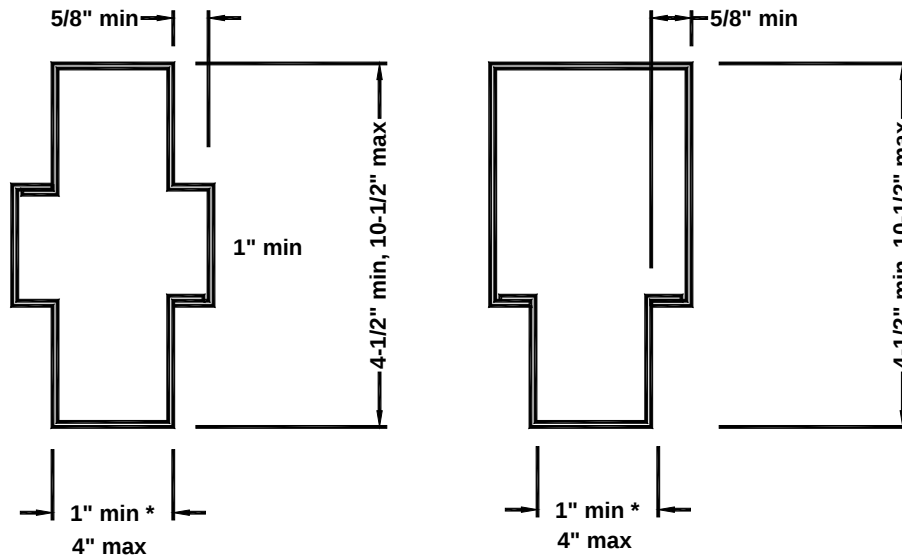


$$\text{Head Jamb Depth} = (2 \times \text{Jamb Soffit}) + 1 \frac{15}{16}$$



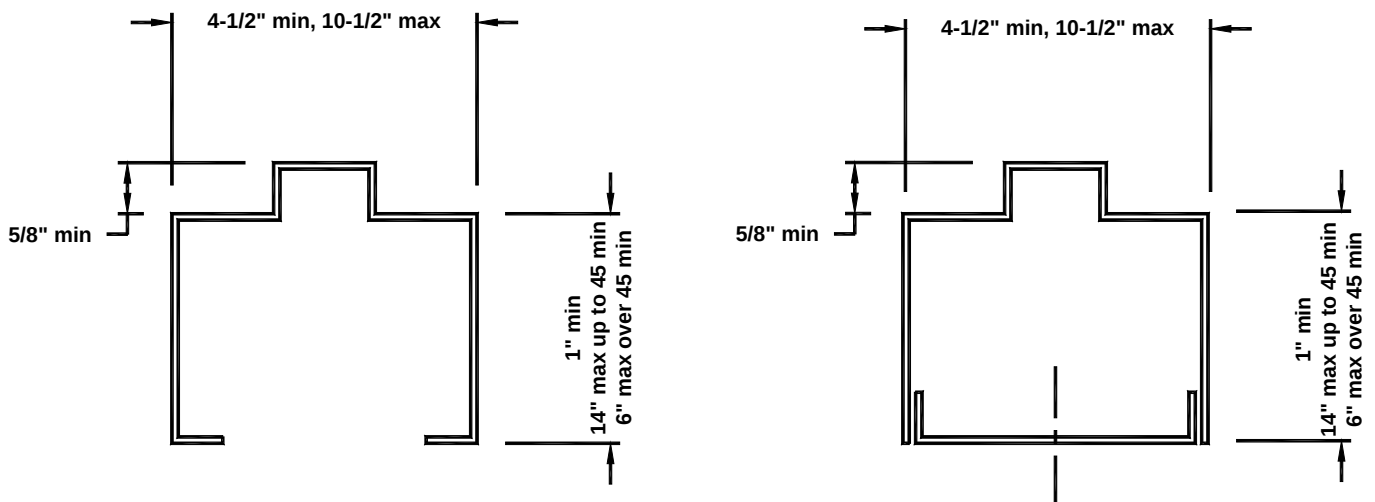
$$\text{Head Jamb Depth} = (2 \times \text{Jamb Soffit}) + 1 \frac{15}{16}$$

Frames may have combinations of the previous backbend types.



* 1" minimum at members surrounding glazed openings in sidelight or window frames. 1-1/4" minimum at all transom frames and at members surrounding door openings in sidelight frames.

Mullions

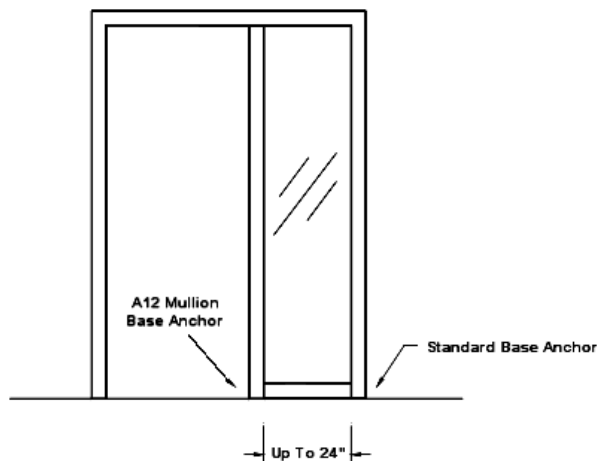


Sills

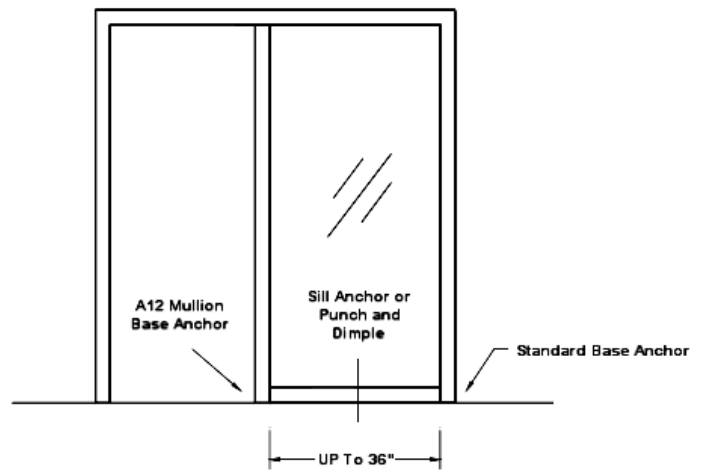
Approved Methods for Anchoring Mullions and Sills

Standard anchorage for sills is one anchor for every foot with a minimum of two anchors.

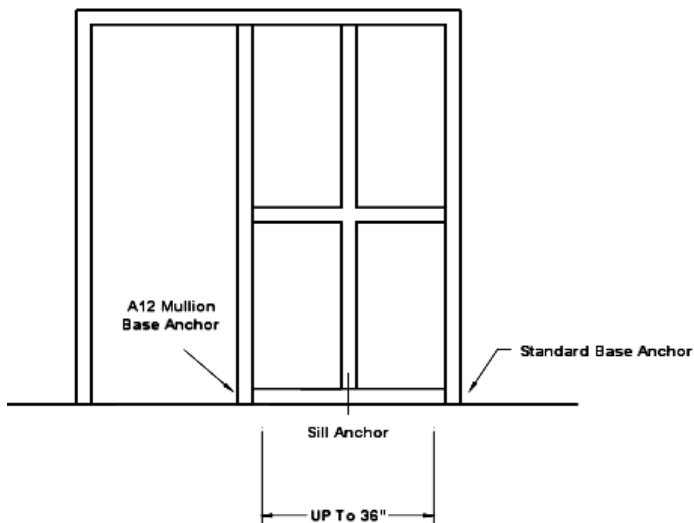
This can include an A12 mullion base anchor and a standard jamb base anchor for the appropriate wall type.
Sill anchors are to be spaced evenly.



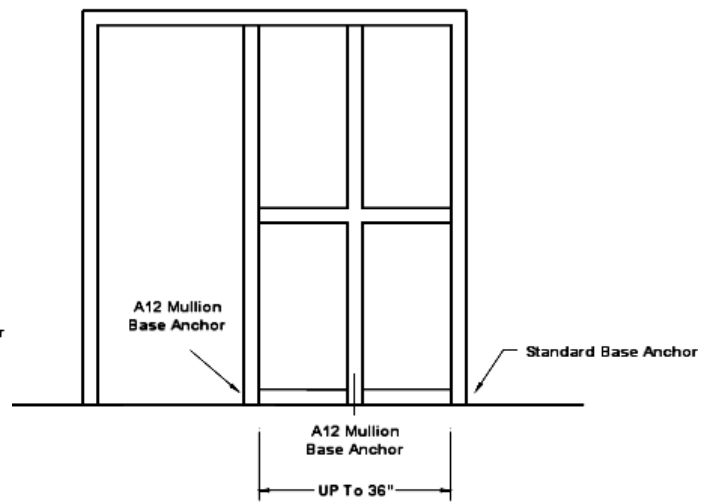
2 Anchors Total



3 Anchors Total

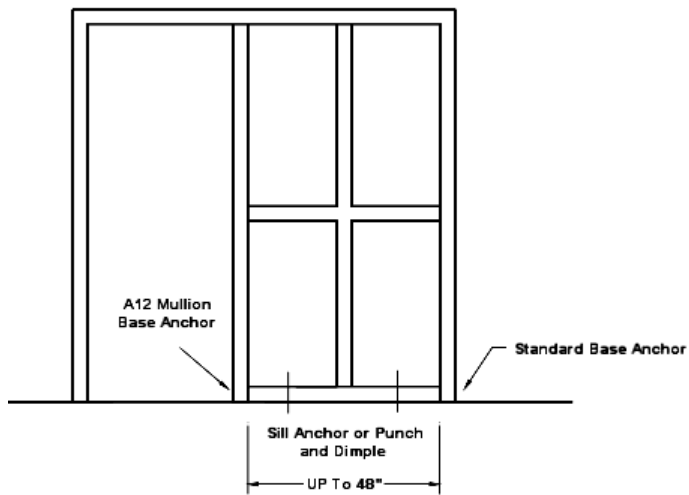


3 Anchors Total

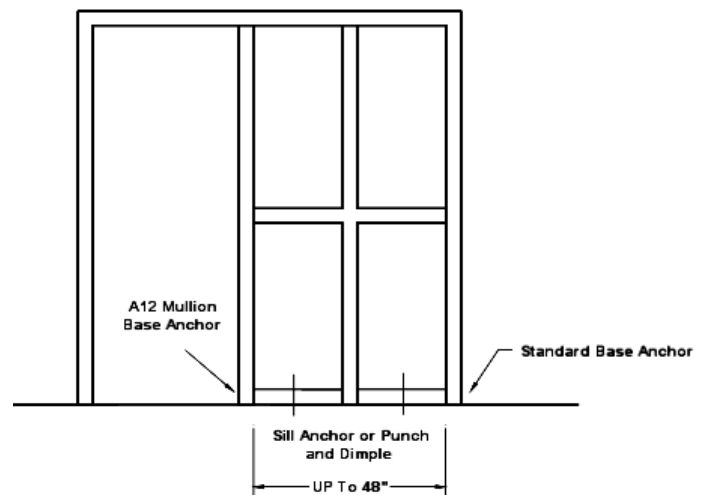


3 Anchors Total

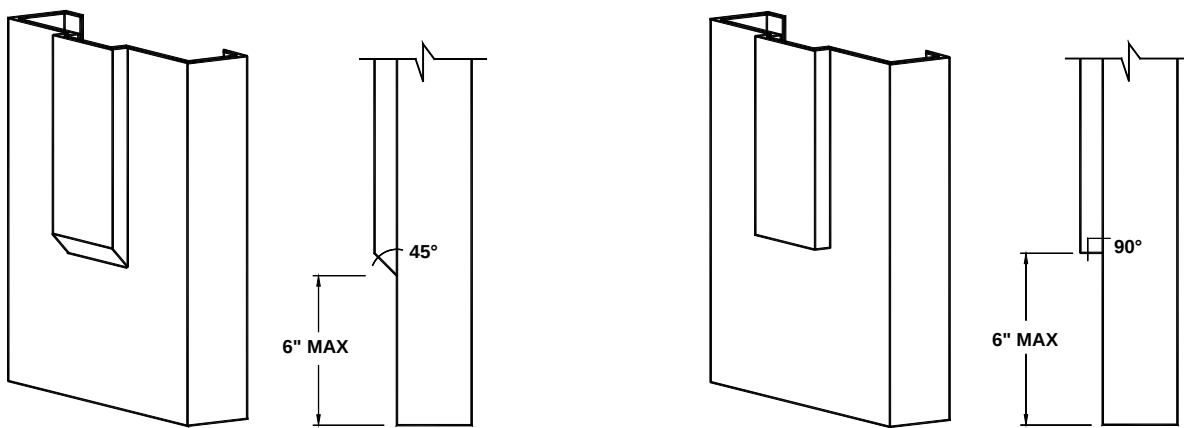
Mullions may be run to the top of the sill or to the floor ... mullion or sill anchors to be supplied accordingly.



4 Anchors Total



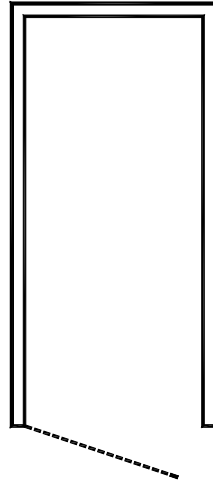
4 Anchors Total



Hospital stops available for 20 min to 180 min frames

Maximum 6" above the floor line, 45° and 90° only

SINGLE SWING FRAME LIMITATIONS



Standard Profile Frames -

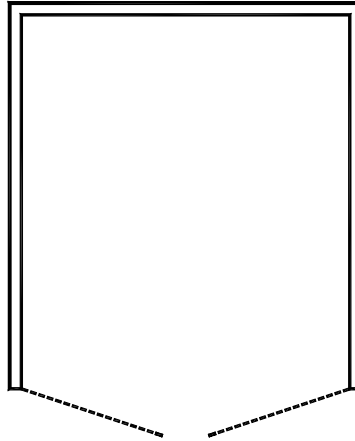
Maximum Jamb Opening Size:	4'-0" x 10'-0"		5'-0" x 12'-0"
Minimum Jamb Depth:	Per Section Detail		4"
Maximum Jamb Depth:	15"		15"
Minimum Gage:	16	OR	16
Maximum Gage:	12		12
Maximum Rating Steel/Wood Stud:	3 Hour		1-1/2 Hour
Maximum Rating Masonry:	3 Hour		1-1/2 Hour
Construction:	Knock-Down or Welded		Welded
Minimum Face:	Per Section Detail		1-1/2"

Drywall Pressure Anchor Frames -

Maximum Jamb Opening Size:	4'-0" x 9'-0"
Minimum Jamb Depth:	3-7/8"
Maximum Jamb Depth:	15"
Minimum Gage:	16
Maximum Gage:	14
Maximum Rating Steel/Wood Stud:	1-1/2 Hour
Maximum Rating Masonry:	N/A
Construction:	Knock-Down

Nail-In Face Frames -

Maximum Jamb Opening Size:	3'-6" x 7'-6"
Minimum Jamb Depth:	2-9/16"
Maximum Jamb Depth:	13-1/8"
Minimum Gage:	16
Maximum Gage:	12
Maximum Rating Steel/Wood Stud:	1-1/2 Hour
Maximum Rating Masonry:	N/A
Construction:	Knock-Down

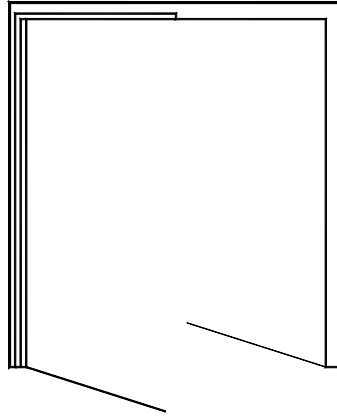


Standard Profile Frames -

Maximum Jamb Opening Size:	8'-0" x 10'-0"	10'-0" x 12'-0"
Minimum Jamb Depth:	Per Section Detail	4"
Maximum Jamb Depth:	15"	15"
Minimum Gage:	16	16
Maximum Gage:	12	12
Maximum Rating Steel/Wood Stud:	3 Hour	1-1/2 Hour
Maximum Rating Masonry:	3 Hour	1-1/2 Hour
Construction:	Knock-Down or Welded	Welded
Minimum Face:	Per Section Detail	1-1/2"

Drywall Pressure Anchor Frames -

Maximum Jamb Opening Size:	8'-0" x 9'-0"
Minimum Jamb Depth:	3-7/8"
Maximum Jamb Depth:	15"
Minimum Gage:	16
Maximum Gage:	14
Maximum Rating Steel/Wood Stud:	1-1/2 Hour
Maximum Rating Masonry:	N/A
Construction:	Knock-Down

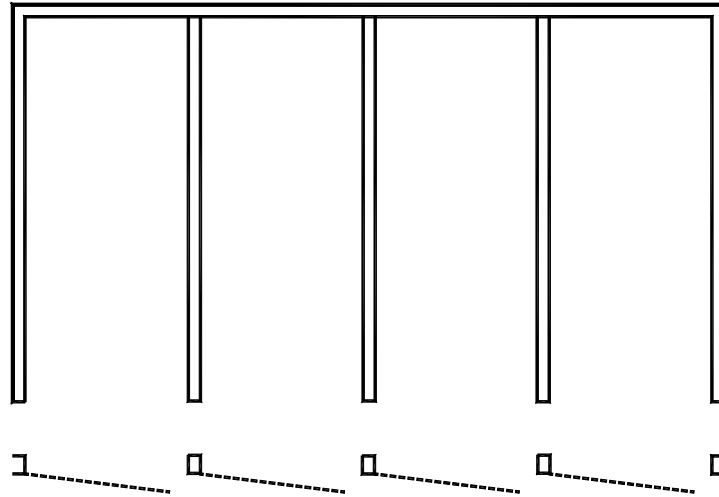


Double Egress Frames -

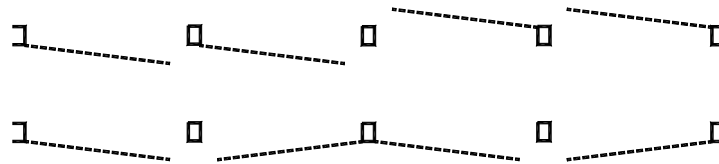
Maximum Jamb Opening Size:	8'-0" x 8'-0"		8'-0" x 10'-0"
Minimum Jamb Depth:	3-1/2"		3-1/2"
Maximum Jamb Depth:	14-1/2"		14-1/2"
Minimum Gage:	16	OR	16
Maximum Gage:	12		12
Maximum Rating Steel/Wood Stud:	1-1/2 Hour		3 Hour
Maximum Rating Masonry:	1-1/2 Hour		3 Hour
Construction:	Knock-Down		Welded

Swing Clear Double Egress Frames -

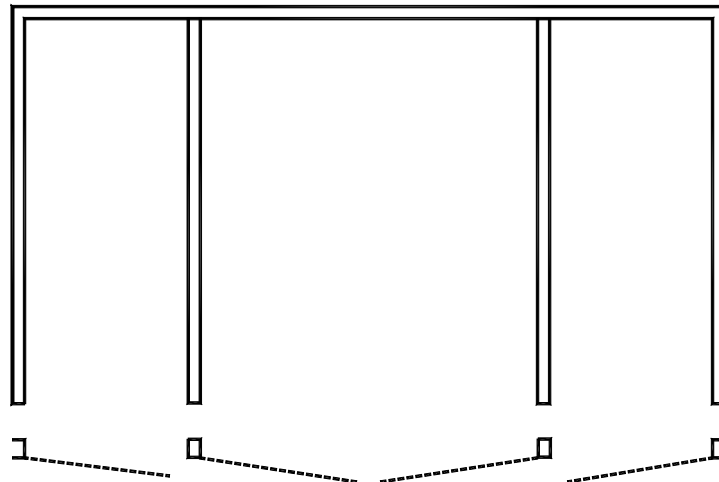
Maximum Jamb Opening Size:	8'-0" x 8'-0"
Minimum Jamb Depth:	2-15/16" Legs, 3-15/16" Head
Maximum Jamb Depth:	8-7/16" Legs, 15" Head
Minimum Gage:	16
Maximum Gage:	12
Maximum Rating Steel/Wood Stud:	1-1/2 Hour
Maximum Rating Masonry:	1-1/2 Hour
Construction:	Welded



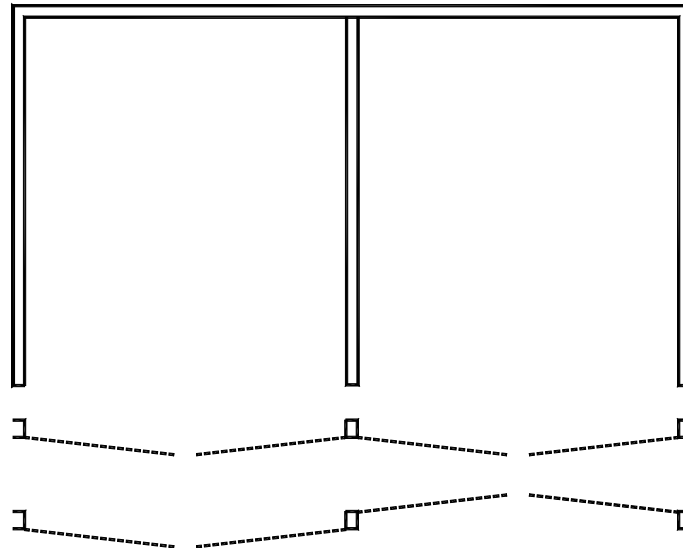
Welded Mullions
(Doors may be hinged on welded mullions only)



Welded or Removable Mullions
(Doors may be hinged on welded mullions only)



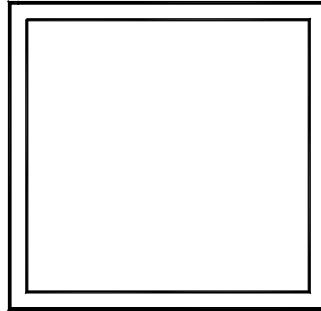
Welded Mullions
(Doors may be hinged on welded mullions only)



Welded Mullions
(Doors may be hinged on welded mullions only)

Standard Profile Frames -

Maximum Overall Frame Size:	12'-8" x 8'-4" Outside Dimensions
Maximum Opening Size:	4'-0" x 8'-0" singles, 8'-0" x 8'-0" pairs
Minimum Jamb Depth:	4-1/2"
Maximum Jamb Depth:	10-1/2"
Minimum Gage:	16
Maximum Gage:	12
Maximum Rating Steel/Wood Stud:	1-1/2 Hour
Maximum Rating Masonry:	1-1/2 Hour
Construction:	Welded
Mullion:	Removable or Welded



¼" Wired Glass

Maximum Opening Width:	54" (20 - 45 min)
Maximum Opening Height:	54" (20 - 45 min)
Maximum Clear Glass Area:	1296 sq inches (20 - 45 min)
Minimum Jamb Depth:	4-1/2"
Maximum Jamb Depth:	15"
Minimum Face:	1"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Welded
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 12" on center

Pilkington Wired Glass with Pemko FG3000 Fireglaze (or equal)

Maximum Opening Width:	98" (20 - 45 min)
Maximum Opening Height:	106" (20 - 45 min)
Maximum Clear Glass Area:	4704 sq inches (20 - 45 min)
Minimum Jamb Depth:	5-3/4"
Maximum Jamb Depth:	15"
Minimum Face:	2"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Welded
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 9" on center

* 20 minute without hose stream

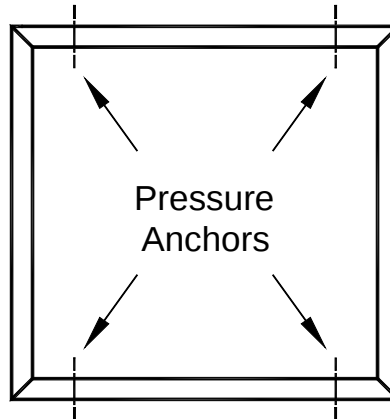


SINGLE BORROWED LITE LIMITATIONS

FireLite® (or equal)

Maximum Opening Width:	95" (20 - 60 min) 56½" (90 min)
Maximum Opening Height:	95" (20 - 60 min) 56½" (90 min)
Maximum Clear Glass Area:	3325 sq inches (20 - 60 min) 2627 sq inches (90 min)
Minimum Jamb Depth:	4-3/4"
Maximum Jamb Depth:	14-1/2"
Minimum Face:	1"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Welded
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 12" on center

* 20 minute without hose stream



Drywall Pressure Anchor Frames -

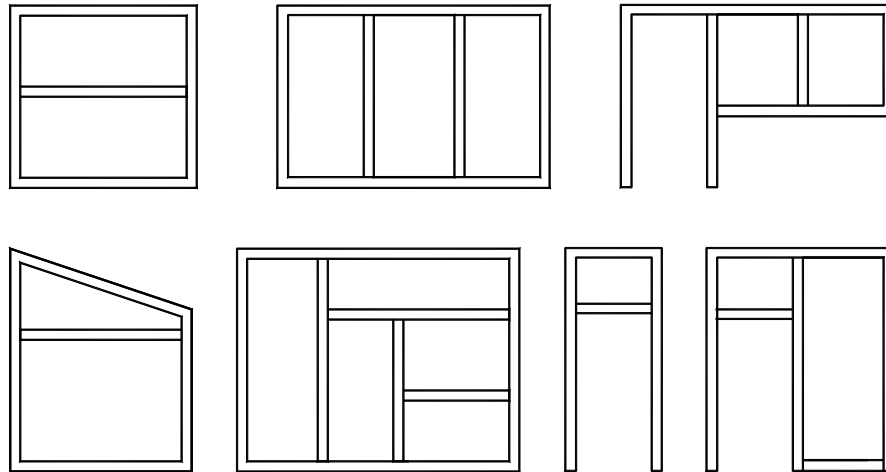
¼" Wired Glass

Maximum Opening Width:	54" (20 - 45 min)
Maximum Opening Height:	54" (20 - 45 min)
Maximum Clear Glass Area:	1296 sq inches (20 - 45 min)
Minimum Jamb Depth:	4-3/4"
Maximum Jamb Depth:	15"
Minimum Face:	1-1/2"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Knock-Down
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 12" on center

FireLite® (or equal)

Maximum Opening Width:	54" (20 - 45 min)
Maximum Opening Height:	96" (20 - 45 min)
Maximum Clear Glass Area:	3325 sq inches (20 - 45 min)
Minimum Jamb Depth:	4-3/4"
Maximum Jamb Depth:	15"
Minimum Face:	1-1/2"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Knock-Down
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 12" on center

* 20 minute without hose stream



¼" Wired Glass

Maximum Overall Frame Size:	174"x 120"
Maximum Opening Width:	54" (20 - 45 min)
Maximum Opening Height:	54" (20 - 45 min)
Maximum Clear Glass Area:	1296 sq inches (20 - 45 min)
Minimum Jamb Depth:	4-1/2"
Maximum Jamb Depth:	15"
Minimum Face:	1"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Welded
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 12" on center

Pilkington Wired Glass with Pemko FG3000 Fireglaze (or equal)

Maximum Overall Frame Size:	174"x 136" Drywall 174"x 144" Masonry
Maximum Opening Width:	98" (20 - 45 min)
Maximum Opening Height:	106" (20 - 45 min)
Maximum Clear Glass Area:	4704 sq inches (20 - 45 min)
Minimum Jamb Depth:	5-3/4"
Maximum Jamb Depth:	15"
Minimum Face:	2"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Welded
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 9" on center

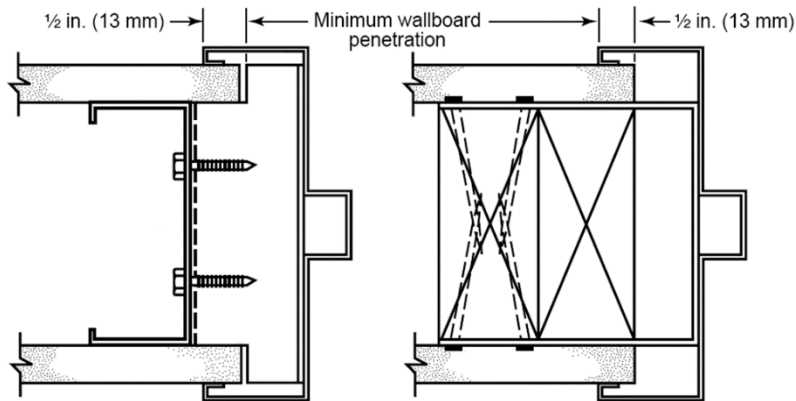
* 20 minute without hose stream

FireLite® (or equal)

Maximum Overall Frame Size:	174"x 120"
Maximum Opening Width:	95" (20 - 60 min) 56½" (90 min)
Maximum Opening Height:	95" (20 - 60 min) 56½" (90 min)
Maximum Clear Glass Area:	3325 sq inches (20 - 60 min) 2627 sq inches (90 min)
Minimum Jamb Depth:	4-3/4"
Maximum Jamb Depth:	15"
Minimum Face:	1"
Minimum Gage:	16
Maximum Gage:	14
Construction:	Welded
Glass Stop:	Min. 18 Gage 5/8" x 5/8" with #8 screws 4" from ends and 12" on center

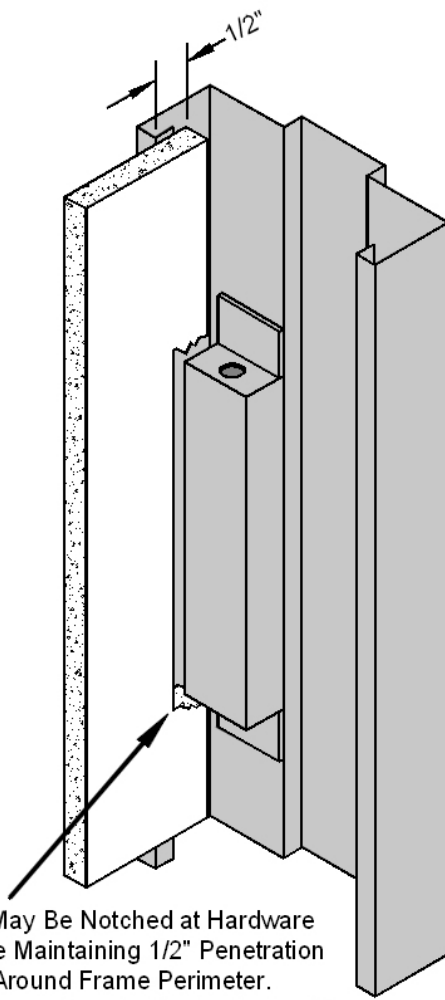
* 20 minute without hose stream

WALLBOARD PENETRATION PER NFPA-80

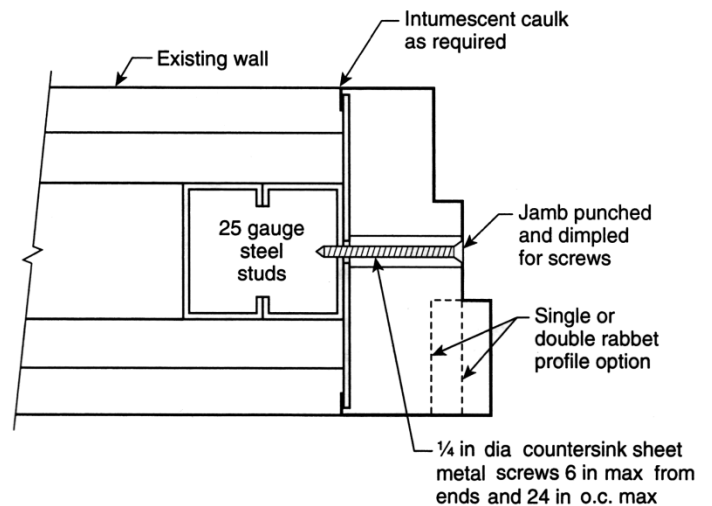


Pressed steel door frame with steel stud anchors

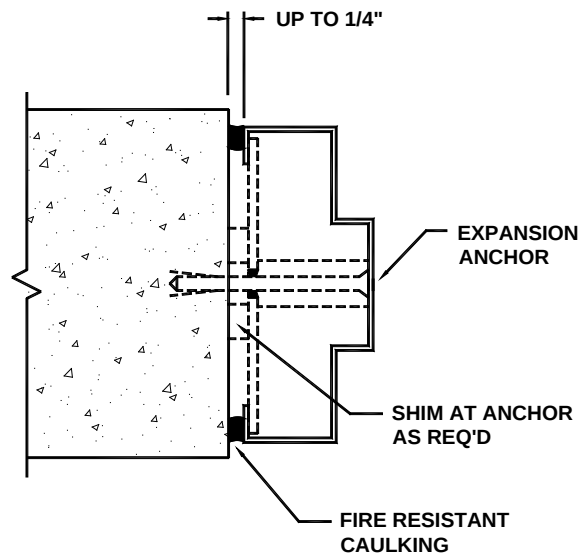
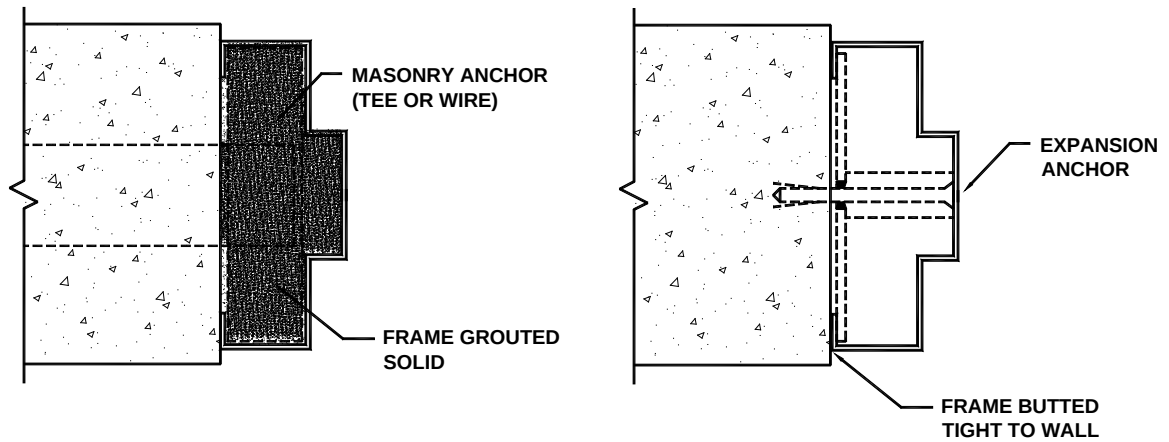
Pressed steel door frame with wood stud anchors



Wallboard May Be Notched at Hardware Boxes While Maintaining 1/2" Penetration Elsewhere Around Frame Perimeter. Exposed Seams May Be Filled with Fire Calk.

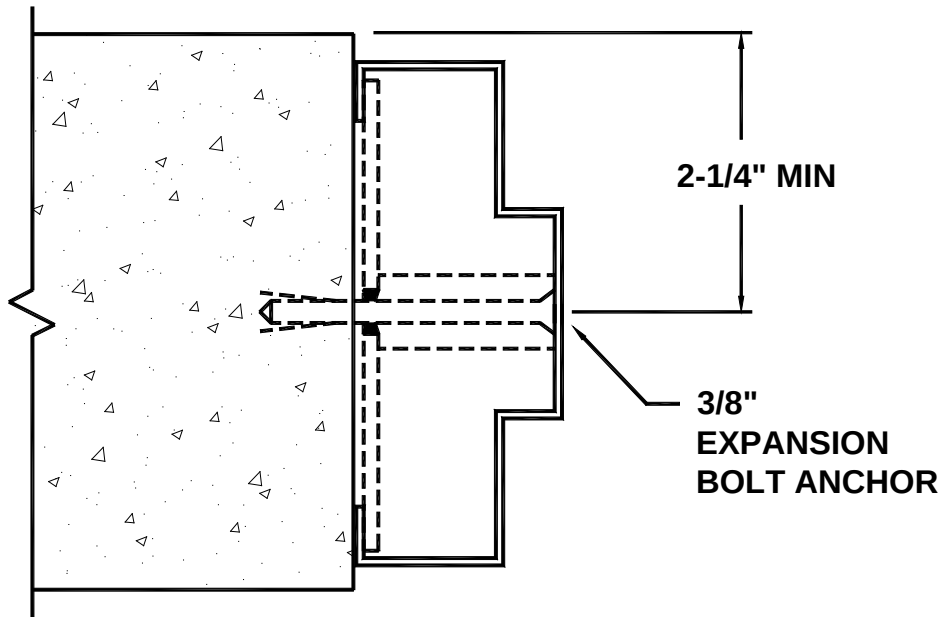


Alternate Flush Mount Method for Steel Stud Walls with No Wallboard Penetration Required.



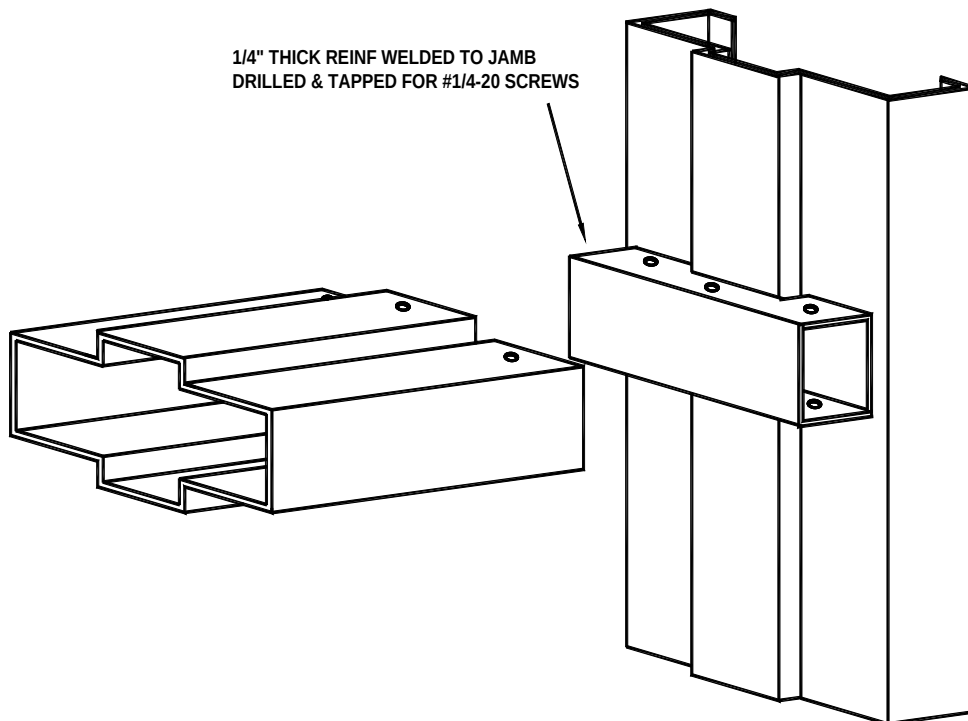
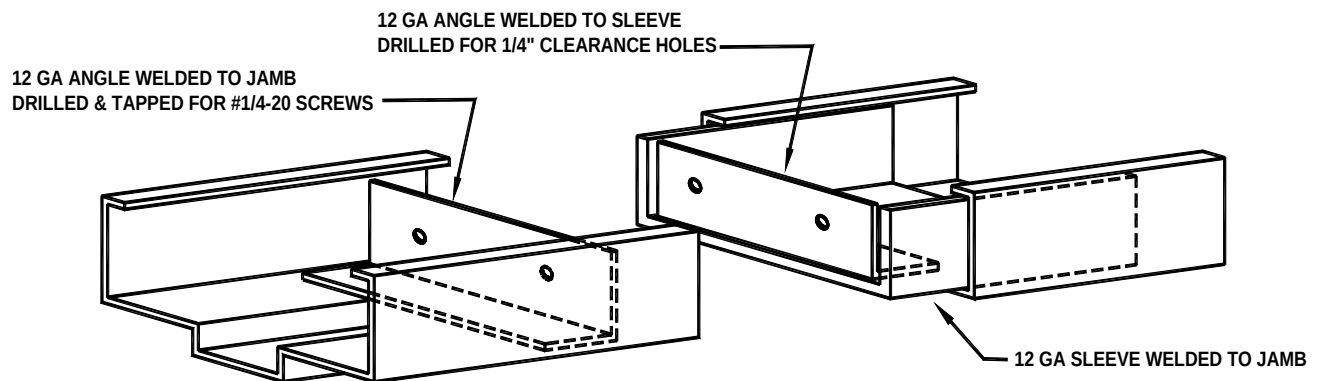
If expansion bolt anchors are to be used, the soffit shall be provided with 7/16" dimpled holes located not more than **6" from the top and bottom** with intermediate holes spaced no more than **26" on center**. The installer is to provide each hole with a minimum 3/8" roundhead bolt.

The bottom bolt acts as the base anchor. As such, adjustable type base anchors are not permitted at these frames as they would conflict with the required location of the bottom bolt.



No expansion bolt anchor shall be set closer to the edge of the wall opening than six times the diameter of the anchor or closer to another anchor than eight times the diameter of the anchor.

Mechanical Field Splices for Oversized Frames (45 Minute Maximum Rating)



FIRE-RATED DOOR TYPES

		CORES ¹	H	P	S	TR-250 ^P	TR-250 ^G	TR-450
DOOR TYPE		RATINGS (MINUTES)	MAXIMUM OPENING SIZE					
	SINGLE	20 45 60 90	4-0x10-0	4-0x8-0	5-0x12-0	4-0x8-0	4-0x9-0	5-0x12-0
	SINGLE	180	4-0x10-0	3-0x7-0	4-0x10-0	4-0x8-0		
	PAIR	20 45 60 90	8-0x10-0	6-0x8-0	10-0x12-0	8-0x8-0	8-0x9-0	10-0x12-0
	PAIR	180	8-0x10-0		8-0x9-0	8-0x8-0		
	DOUBLE EGRESS	20 45 60 90 180	8-0x10-0		8-0x10-0	8-0x8-0		
	SINGLE LOUVER ³	45 60 90	4-0x10-0		5-0x12-0			
	PAIR LOUVER ³	45 60 90	8-0x10-0		10-0x12-0			
	SINGLE w/ LITE ⁴	20 45 60 90	4-0x10-0	4-0x8-0	5-0x12-0	4-0x8-0	4-0x9-0	5-0x12-0
	PAIR w/ LITE ⁴	20 45 60 90	8-0x10-0	6-0x8-0	10-0x12-0	8-0x8-0	8-0x9-0	10-0x12-0
	DUTCH DOOR	20 45 60 90 180	4-0x10-0		4-0x10-0			
	STC-40	20 45 60 90 180				4-0x8-0		
	STC-48 ⁵	20 45 60 90		3-2x7-0				
	STC-50 - STC-53	20 45 60 90		3-0x7-0				

1. H=HONEYCOMB P=POLYSTYRENE(EPS) S=STEEL STIFFENED TR-250^P=STANDARD TEMP RISE CORE
TR-250^G=SPECIAL TEMP RISE CORE TR-450=STEEL STIFFENED W/ HIGH DENSITY INSULATION
2. ALL DOORS AVAILABLE 1-3/4" THICK FOR 14, 16, 18 GAUGES
3. SEE LOUVER AND GLAZING SPECIFICATIONS FOR MAXIMUM SIZES FOR THOSE COMPONENTS
4. LIMITED GLAZING AVAILABLE FOR 180 MIN DOORS – SEE GLAZING SPECIFICATIONS OR CALL FOR AVAILABILITY.
5. STC48 AVAILABLE IN PAIRS UP TO 6470 OR SINGLES WITH LITES UP TO 100 SQ INCHES

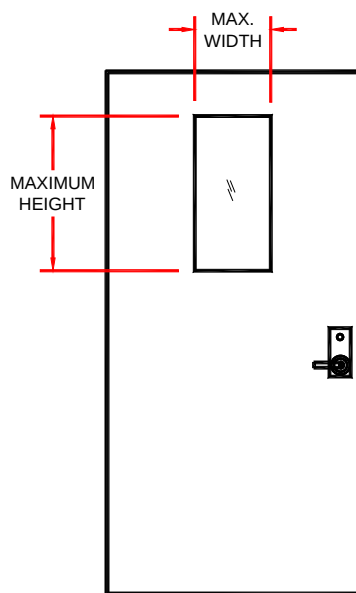
Maximum Glass Opening Sizes Permitted for Doors

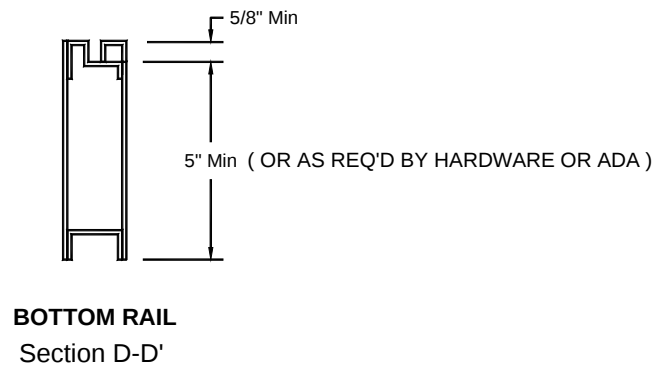
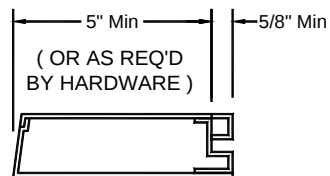
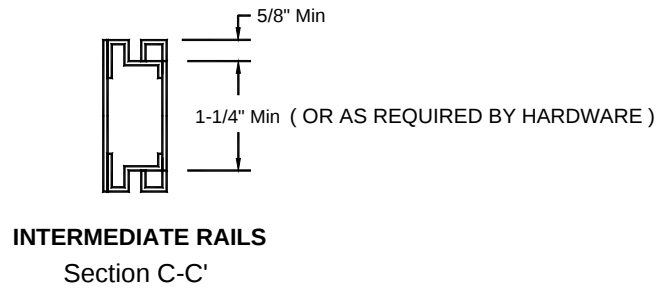
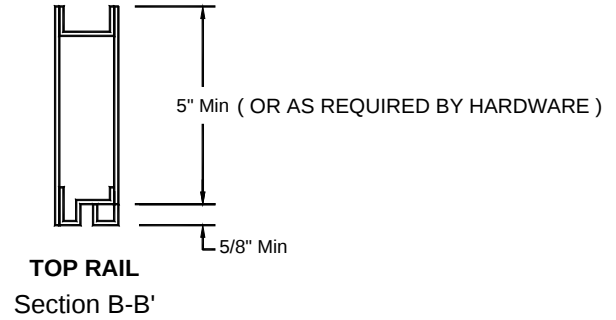
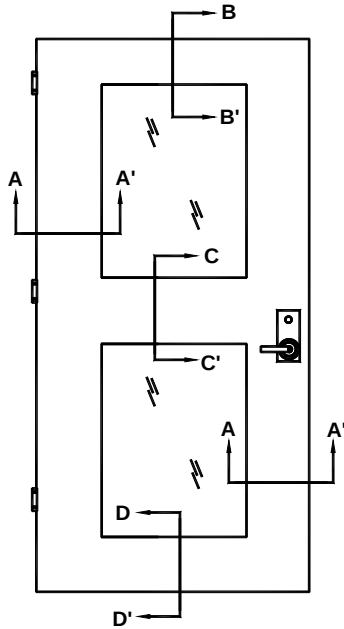
RATING (MINUTES)	MAX WIDTH	MAX HEIGHT	MAX AREA PER LITE	MAX AREA PER LEAF	MAX WIDTH	MAX HEIGHT	MAX AREA PER LITE	MAX AREA PER LEAF	MAX WIDTH	MAX HEIGHT	MAX AREA PER LITE	MAX AREA PER LEAF
20	36	54	1296	2400	34	84	2856	2856	36	89	3204	3204
45	36	54	1296	2400	34	84	2856	2856	36	89	3204	3204
60	12	33	100	100	12	46	1716	1716	36	89	3204	3204
90	12	33	100	100	12	46	1716	1716	36	56-1/2	2034	2034
180	-	-	-	-	-	-	-	-	12	33	100	100
60 TR	12	33	100	100	12	33	100	100	12	33	100	100
90 TR	12	33	100	100	12	33	100	100	12	33	100	100
180 TR	-	-	-	-	-	-	-	-	-	-	-	-

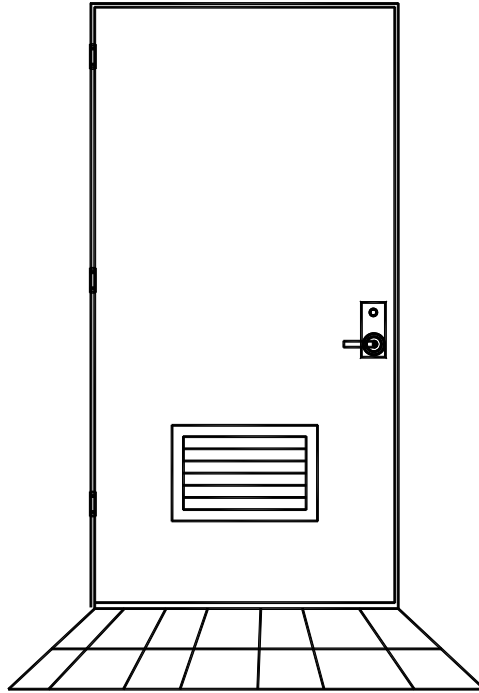
WIRE GLASS

PILKINGTON GLASS
w/ PEMKO FIREGLAZE
(OR EQUAL)

FIRELITE
(OR EQUAL)







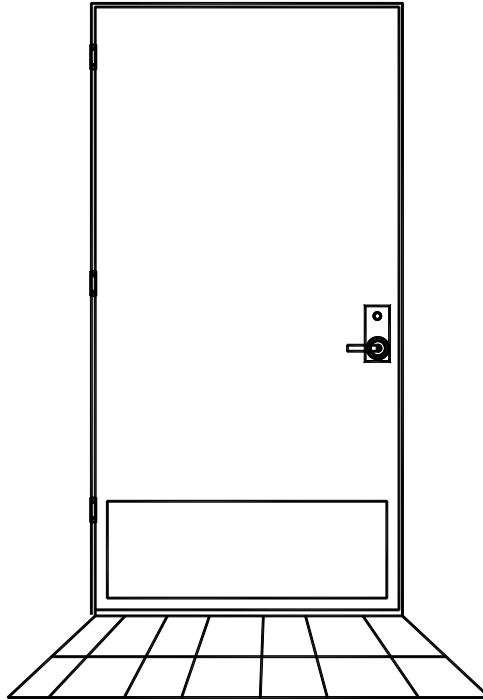
Louvers are **NOT** permitted in the following :

- 20 Minute Doors
 - 3 Hour Doors
- Doors with Exit Devices
 - Doors with Lites
- The Top Half of a Door
- Temperature Rise Doors
- Transoms of Frames

Louvers are restricted to use in 45, 60 and 90 min doors where smoke control is not a consideration. They must be listed Fusible Link types and may not exceed 24"x 24".

Per DCI Installation Instructions, the "S" indicated on the label for this door is voided by the use of louvers.

Cutout in door does not need to be channeled when using Anemostat FLDL-UL with HM-Clips.

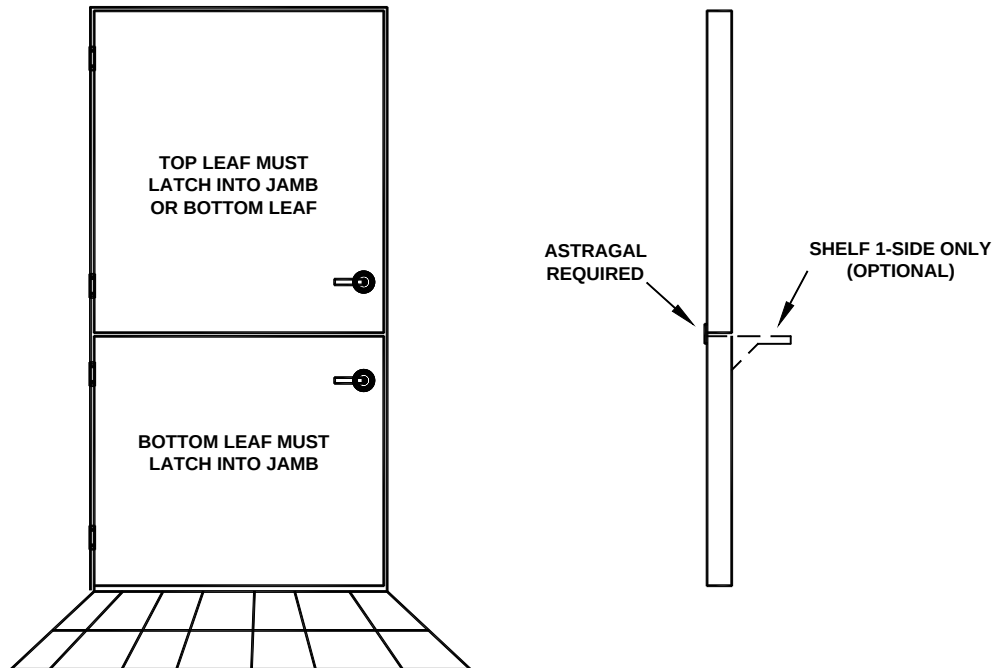


Per HMMA 850 & NFPA 80:

"The top of the plate shall be a maximum of 16 inches above the bottom of the door unless otherwise tested and labeled.
Such plates may be on both faces. No other plates shall be installed."

Exception:

Life Safety Code NFPA 101 permits the following for Health Care Facilities only:
"Nonrated, factory- or field-applied protective plates, unlimited in height, shall be permitted."



Rated up to 3 hours

4'-0" x 10'-0" maximum opening size

Dead latch is permitted in top leaf when not in a means of egress.

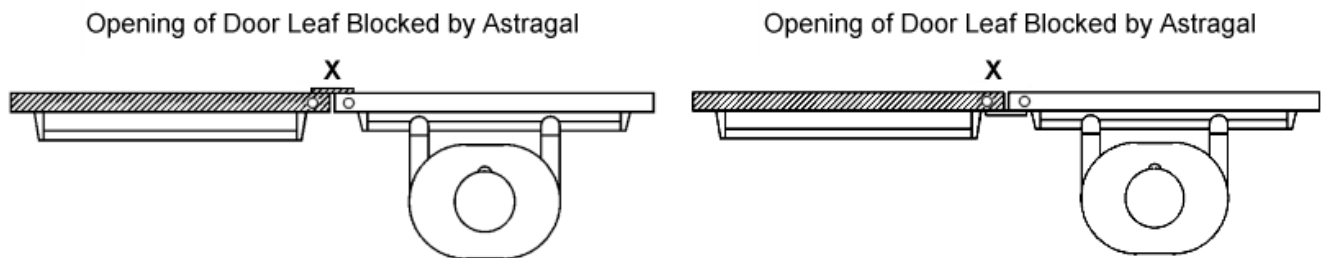
Dead bolt (in addition to latches) is permitted when not in a means of egress.

1. Overlapping flat bar astragals are not required on standard pairs of doors or double egress doors up to 8'-0" x 10'-0" in size and up to a 3-hour fire rating.
2. Astragals are NOT permitted on pairs of doors with vertical rod exit devices on both leaves, or when rim panic devices are used on both leaves with a hardware mullion.
3. Overlapping flat bar astragals ARE required on all standard pairs over 10'-0" high or when one leaf exceeds 4'-0" in width. (Therefore, exit devices may not be used on standard pairs of doors over 10'-0" high or when either door leaf is over 4'-0" wide)
4. The customer may need to provide additional gasketing/smoke-seal type astragals to comply with UL1784 smoke and draft control requirements where required by code.

Standard swing pairs of doors with vertical rod devices:

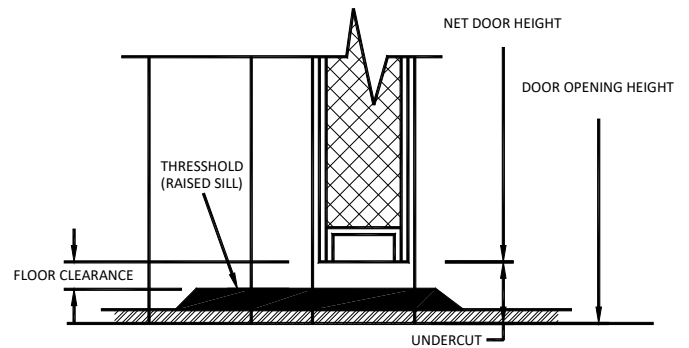
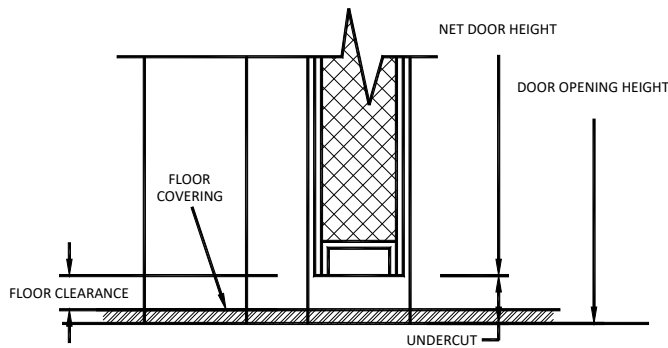
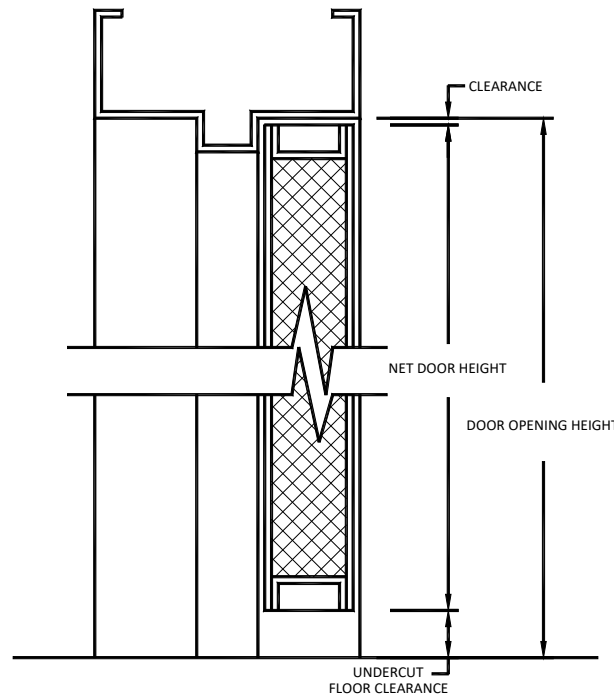
With two vertical rods, an astragal applied to the pull side of one leaf would disable the leaf without the astragal.

An astragal applied to the push side of one leaf would also disable the leaf with the astragal.



Astragals ARE permitted when a door with a vertical rod device is used with an inactive leaf equipped with flush bolts.

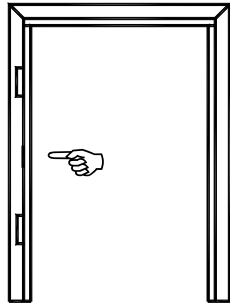
(Where only one leaf is needed to satisfy egress requirements)



Maximum Clearances allowed:

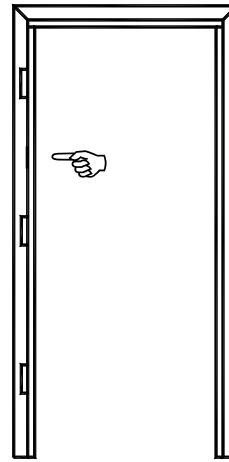
Clearance Between Bottom of Door and ...	
raised sill *	3/4"
floor without sill	3/4"
rigid floor tiles	3/4"

* Life Safety Code, NFPA 101 limits sill height to 1/2" in a means of egress.
 ADA limits sill height to 1/2" at all accessible doors.



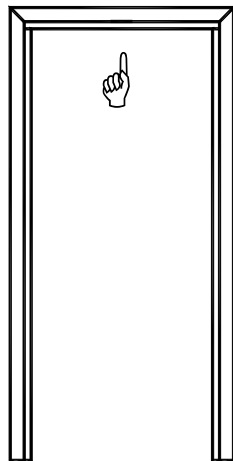
2 HINGES OR PIVOTS

MIDDLE OF HINGE JAMB RABBET
(PLUS OR MINUS 8 INCHES)



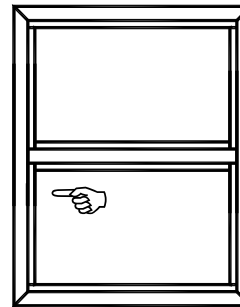
3 OR 4 HINGES OR PIVOTS

HINGE JAMB RABBET AT 52" TO
68" FROM BOTTOM OF FRAME



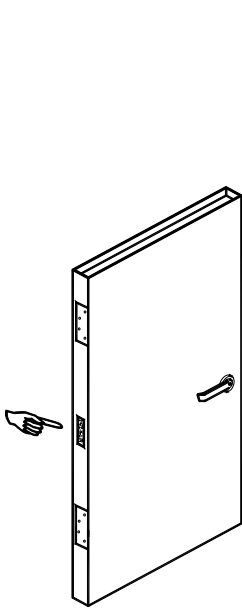
NO HINGES (CONTINUOUS OR
SURFACE HINGES)

DOOR SIDE RABBET OF HEAD
CENTERED IN WIDTH AT SINGLES
CENTERED OVER INACTIVE LEAF AT PAIRS



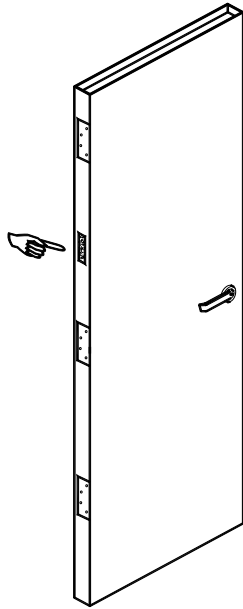
BORROWED LITE

ANYWHERE VISIBLE -
PREFERABLY ON SIDE JAMB,
ON RABBET OPPOSITE GLASS,
ABOUT HALFWAY UP



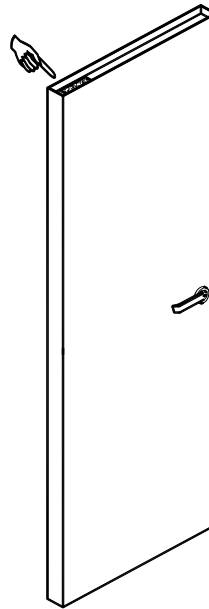
2 HINGES OR PIVOTS

MIDDLE OF HINGE EDGE
(PLUS OR MINUS 8 INCHES)



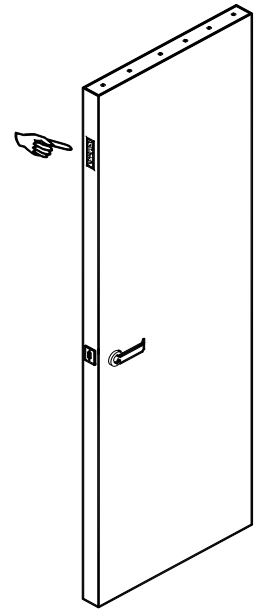
3 OR 4 HINGES OR PIVOT:

HINGE EDGE 52" TO 68"
FROM BOTTOM OF DOOR



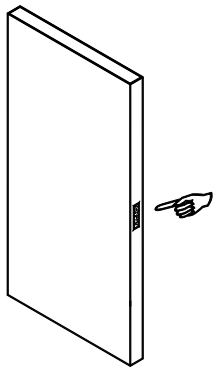
CONTINUOUS OR SURFACE
HINGES OR POCKET PIVOTS

TOP OF DOOR AS TIGHT AS
POSSIBLE TO THE HINGE EDGE
FOR EITHER STANDARD CHANNEL
OR FOR FLUSH AND SEAL



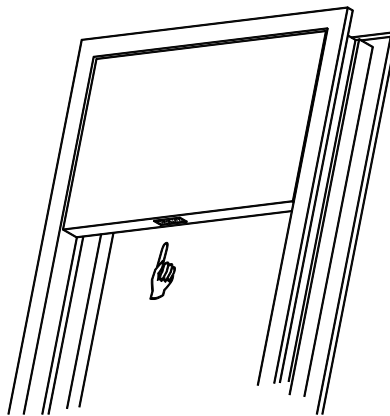
DOOR WITH REMOVABLE TOP CAP
& CONTINUOUS OR SURFACE
HINGES OR POCKET PIVOTS

LOCK EDGE AT 6" DOWN
FROM TOP OF DOOR



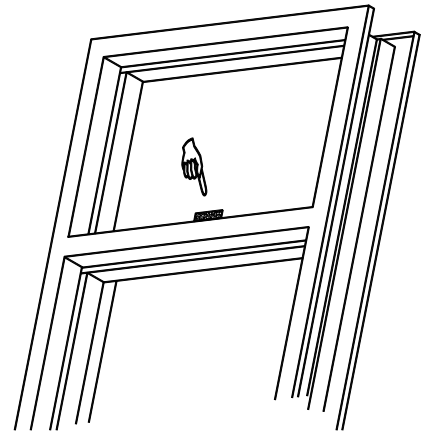
LOOSE PANEL

ON ANY EDGE



WELDED IN FRAME
NO TRANSOM BAR

ON BOTTOM EDGE
CENTERED IN WIDTH
(PLUS OR MINUS 8 INCHES)



WELDED IN FRAME
WITH TRANSOM BAR

ON FACE OF PANEL
STOP SIDE - CENTERED IN WIDTH
(PLUS OR MINUS 8 INCHES)

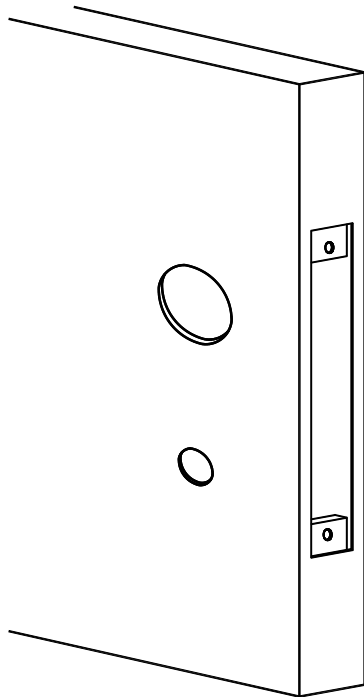
FIELD PREPS PERMITTED ON RATED HOLLOW METAL FRAMES AND DOORS

THE FOLLOWING IS PERMITTED PER NFPA 80 (2013 EDITION) SECTIONS 4.1.3.2 – 4.1.3.4.

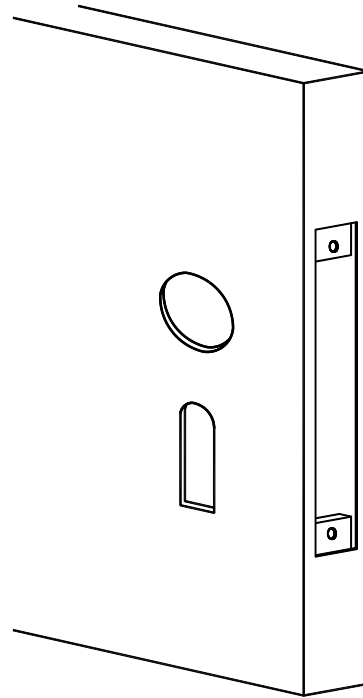
FOR JOB SITE PREPARATION OF SURFACE-APPLIED HARDWARE, FUNCTION HOLES FOR MORTISE LOCKS, AND HOLES FOR LABELED VIEWERS, AND PROTECTION PLATES:

SURFACE-APPLIED HARDWARE SHALL BE APPLIED TO THE FACE OF THE DOOR OR FRAME WITHOUT REMOVING MATERIAL OTHER THAN DRILLING **ROUND HOLES**.

THE HOLES SHALL NOT BE PERMITTED TO EXCEED A DIAMETER OF 1" WITH THE EXCEPTION OF CYLINDERS.

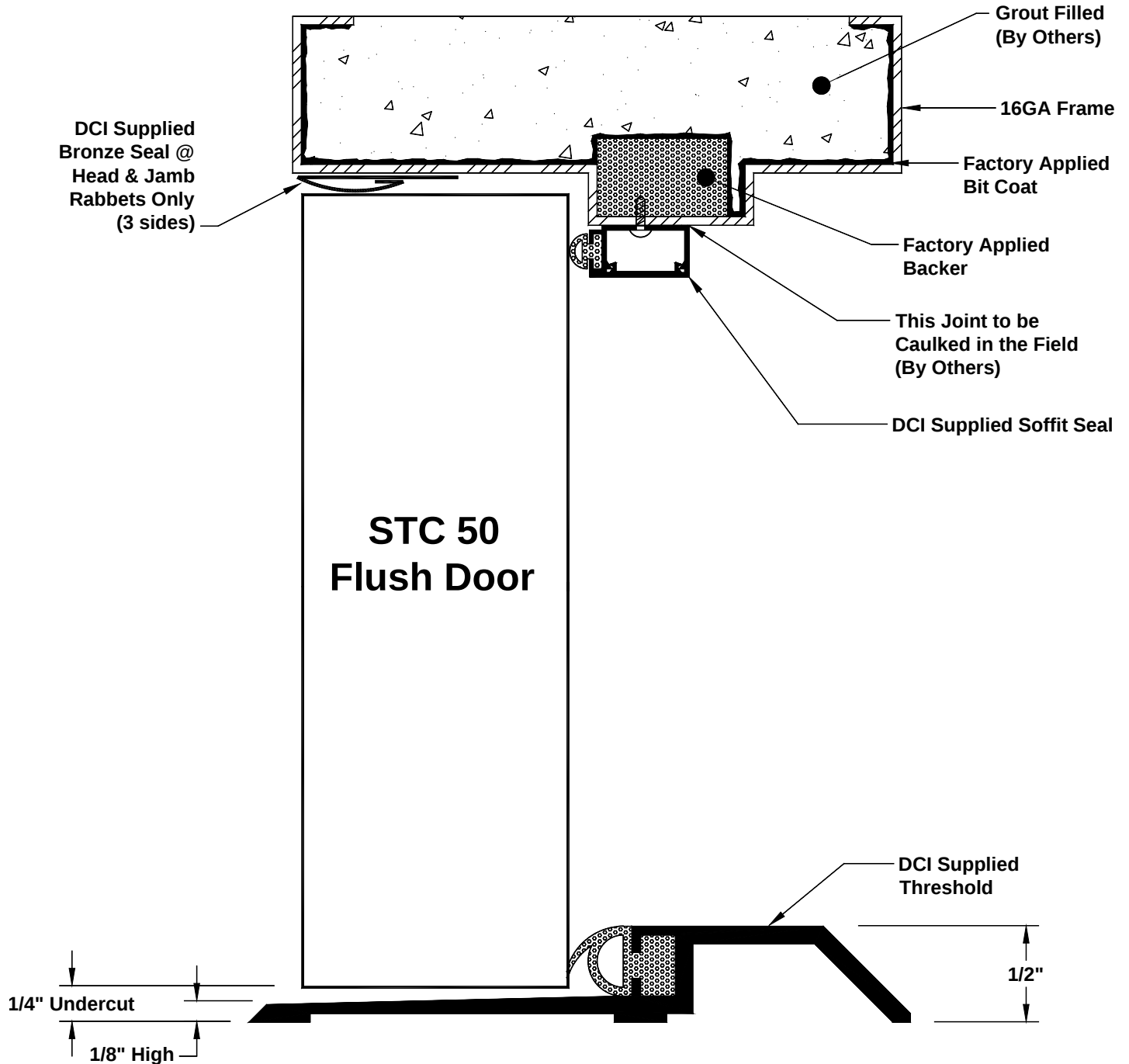


PERMITTED



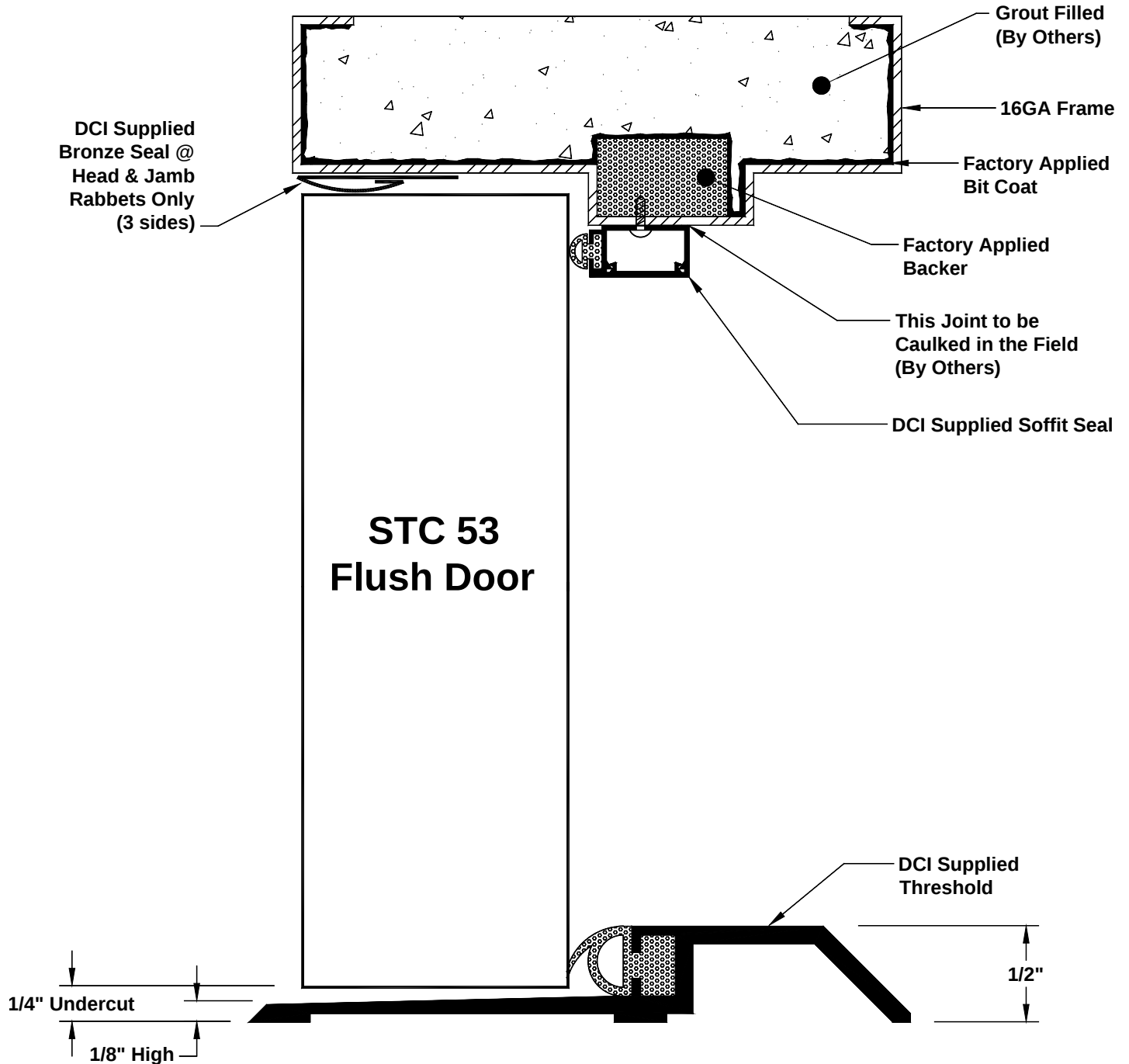
NOT PERMITTED

STC 50 FLUSH DOOR ASSEMBLY



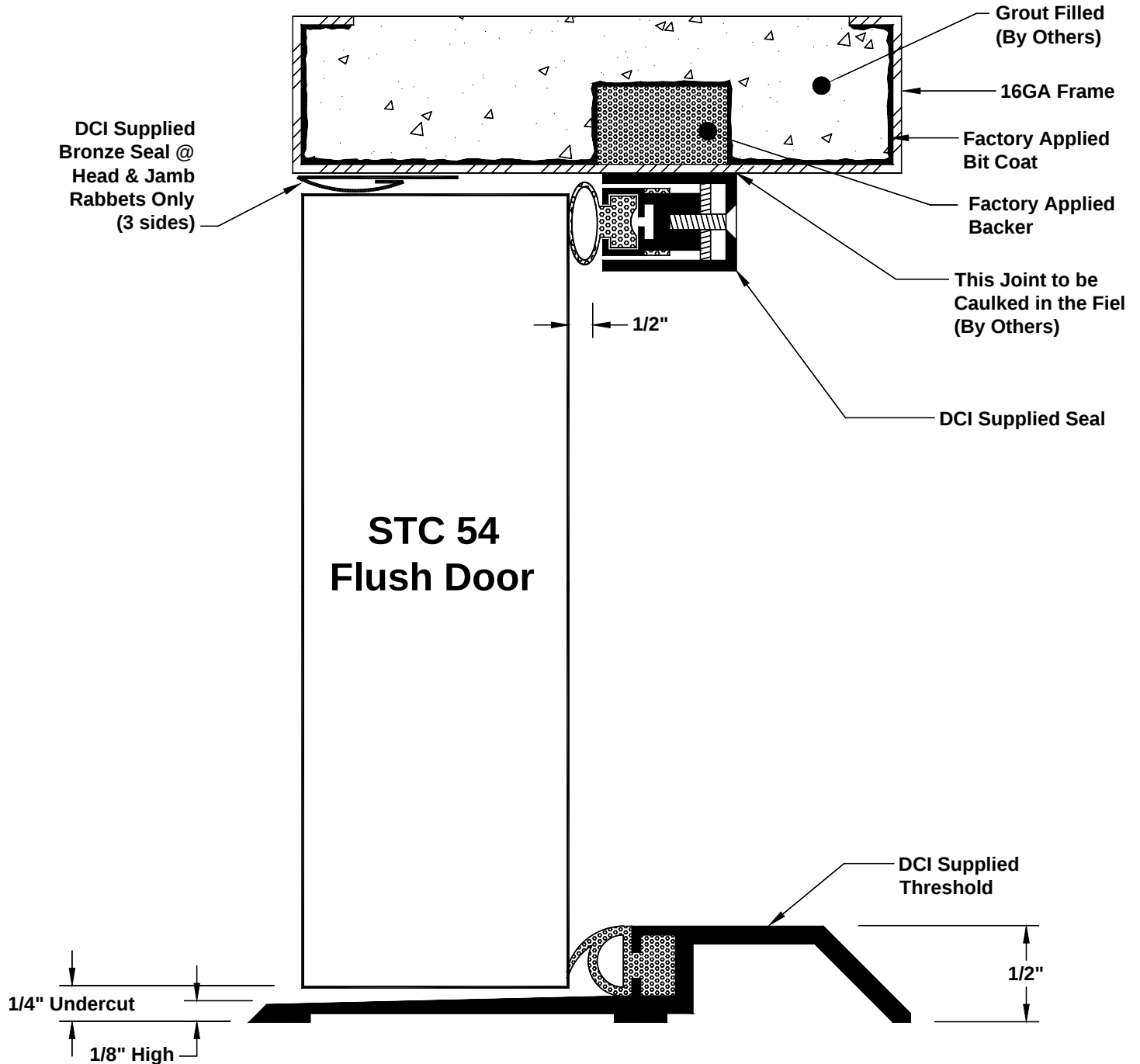
Tested as 3'0"x7'0" with (3) 4-1/2" Hinges, Cylindrical Lock

STC 53 FLUSH DOOR ASSEMBLY



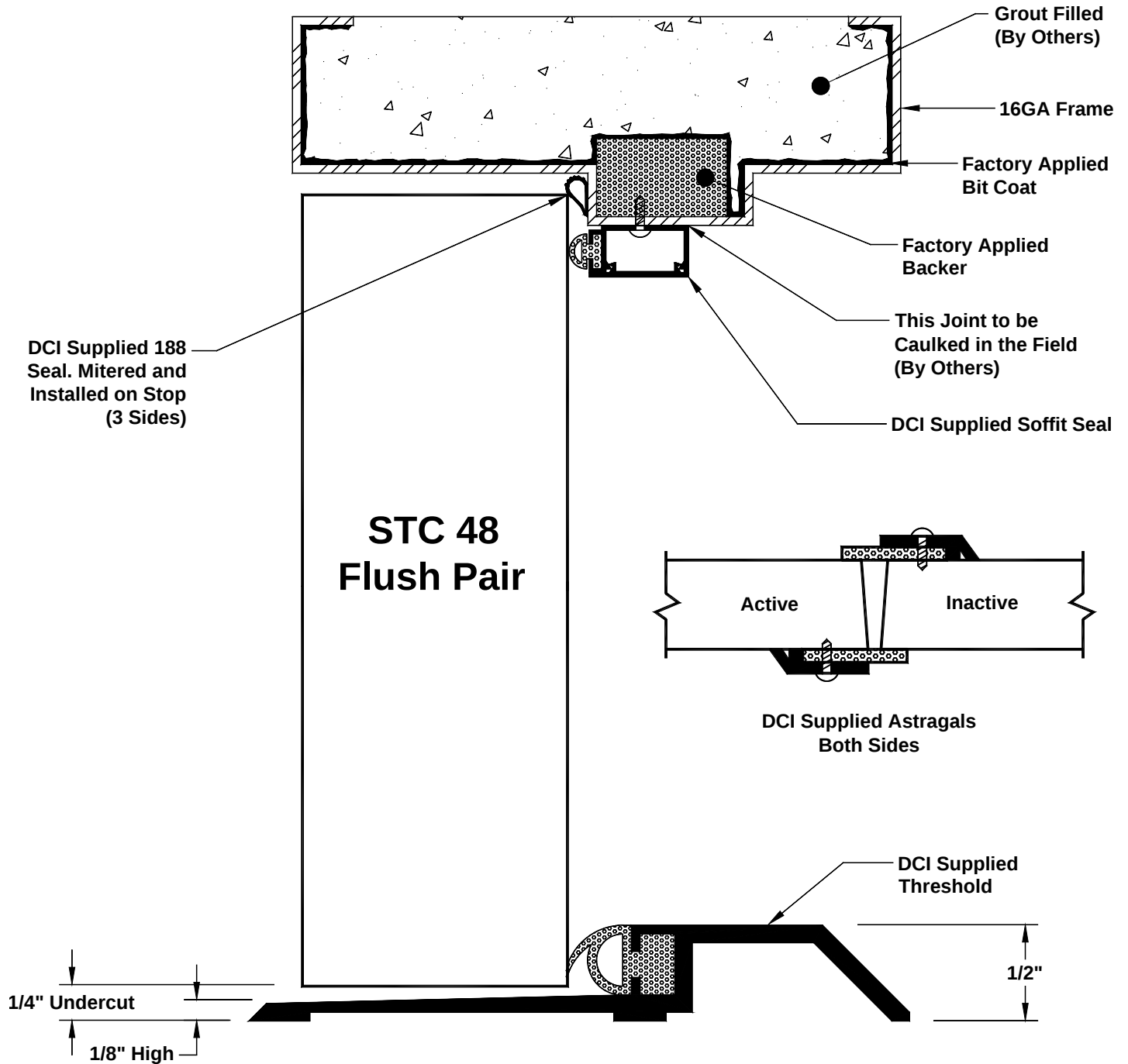
Tested as 3'0"x7'0" with (3) 4-1/2" Hinges, Cylindrical Lock

STC 54 FLUSH DOOR ASSEMBLY

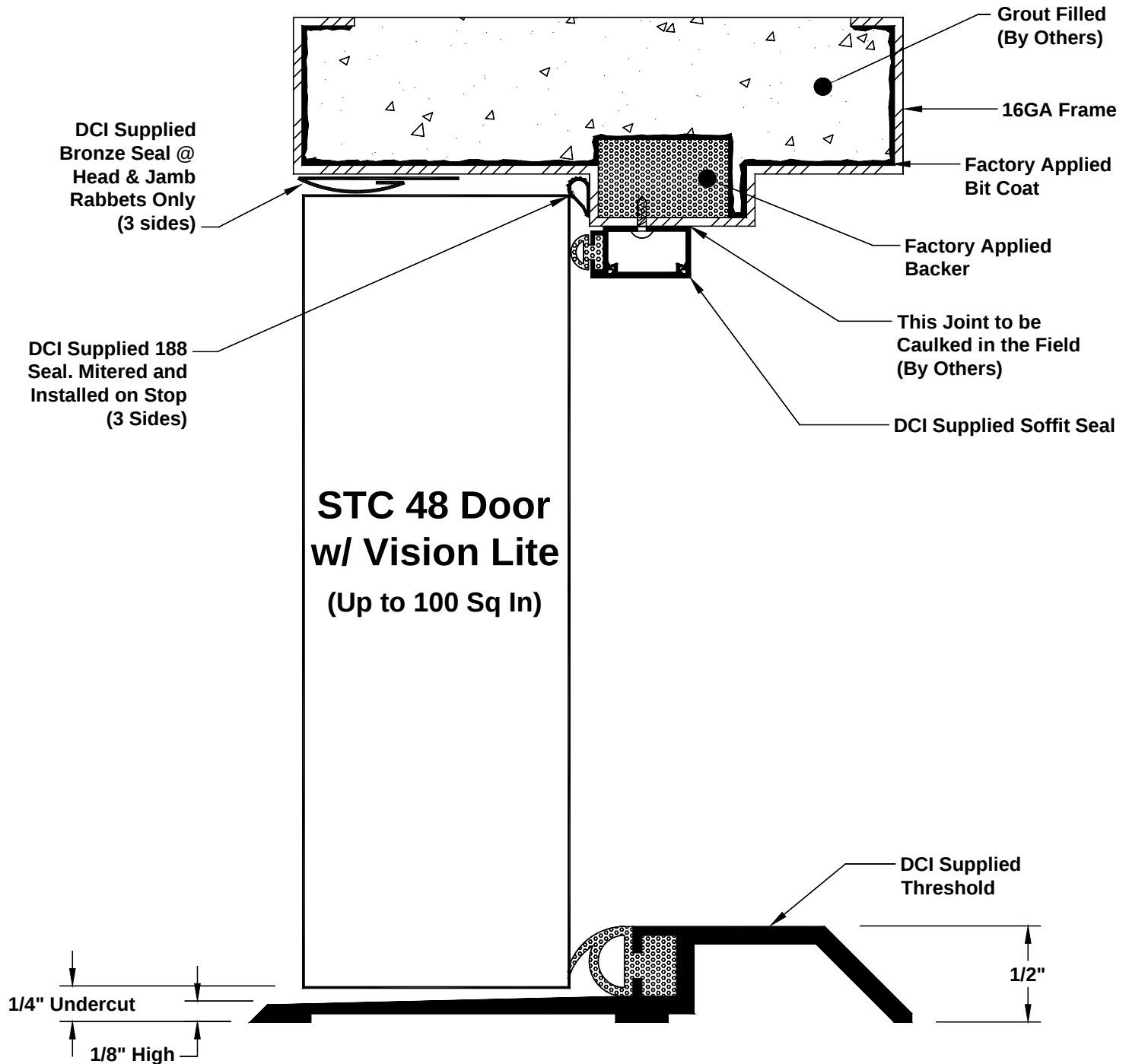


Tested as 3'0"x7'0" with (3) 4-1/2" Hinges, Cylindrical Lock

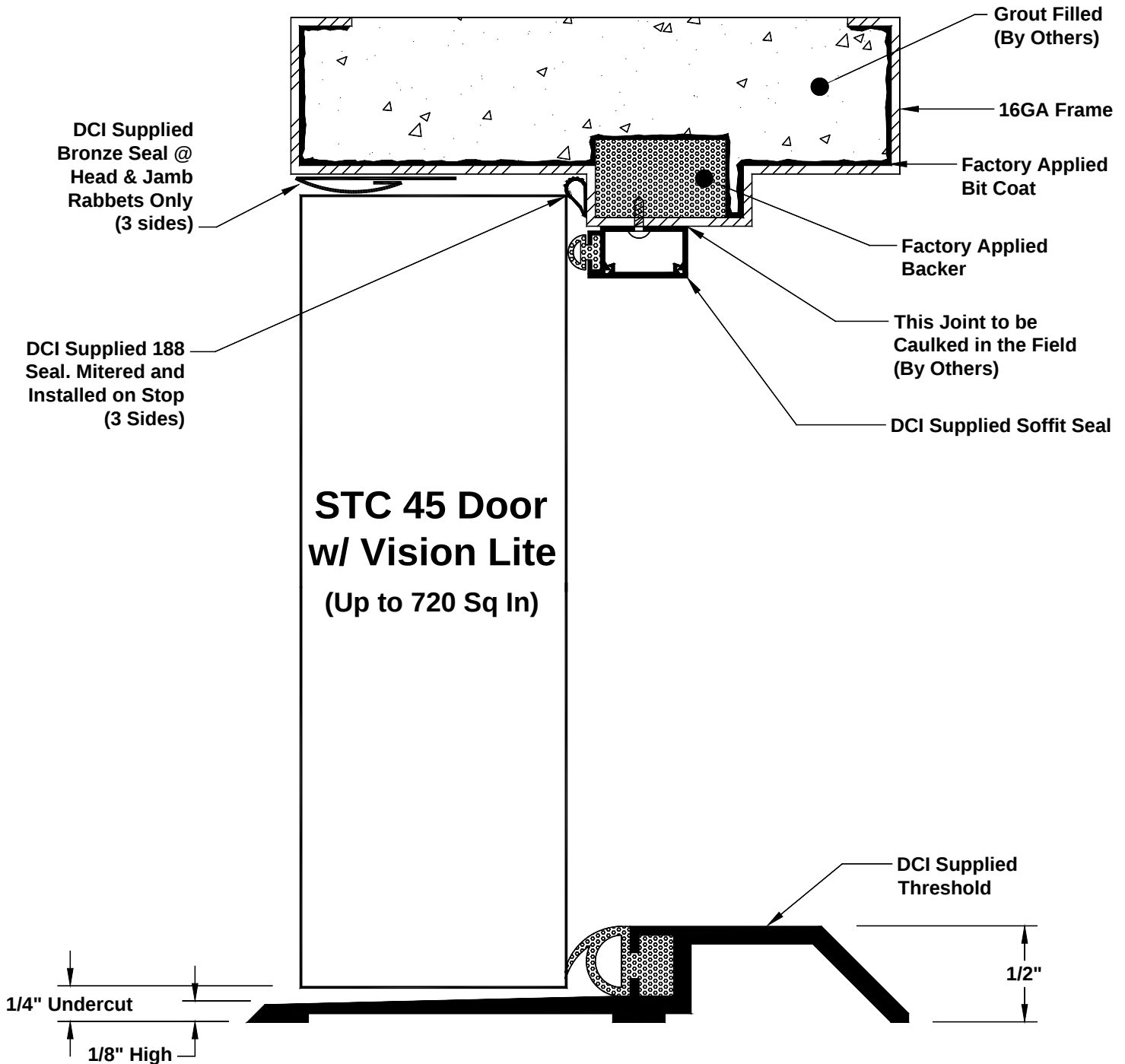
STC 48 FLUSH DOOR PAIR ASSEMBLY



Tested as 6'0"x7'0" with (6) 4-1/2" Hinges, Cylindrical Lock, (2) 6" Manual Flush Bolts

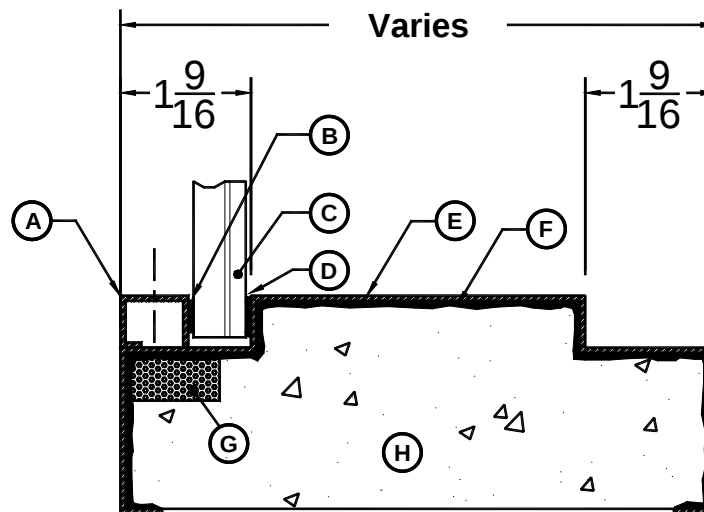
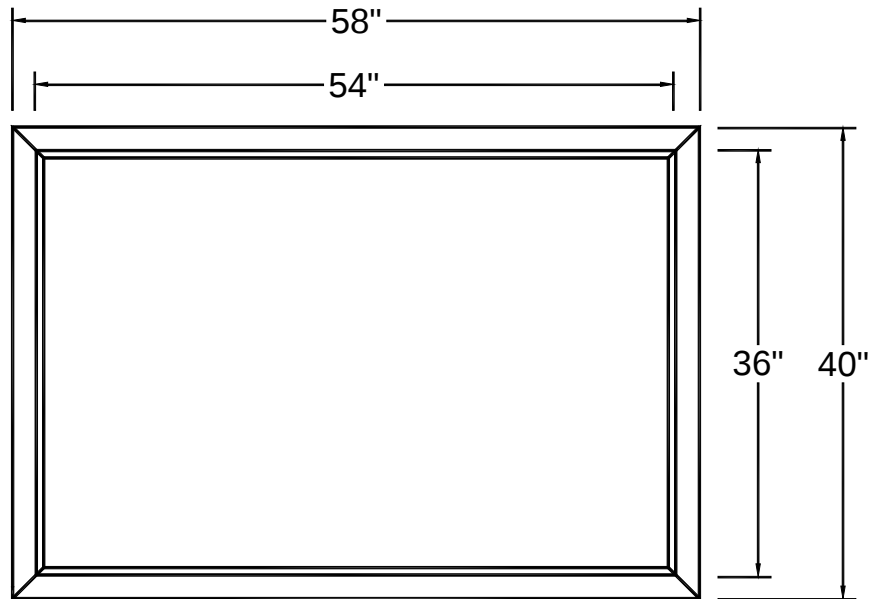


Tested as 3'0"x7'0" with (3) 4-1/2" Hinges, Cylindrical Lock



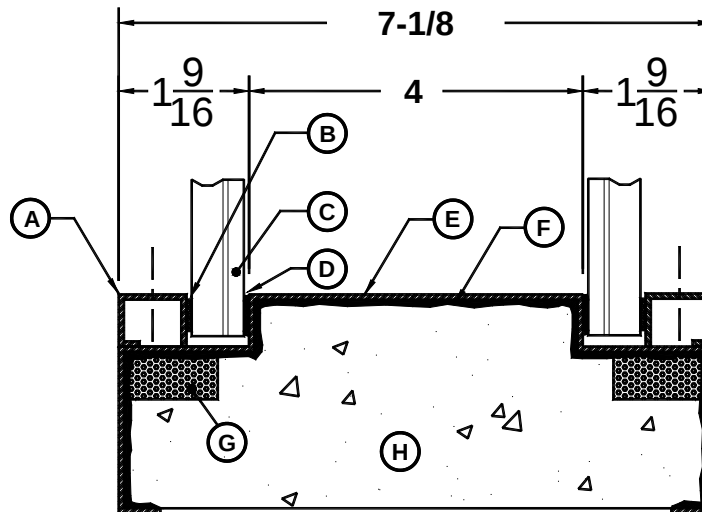
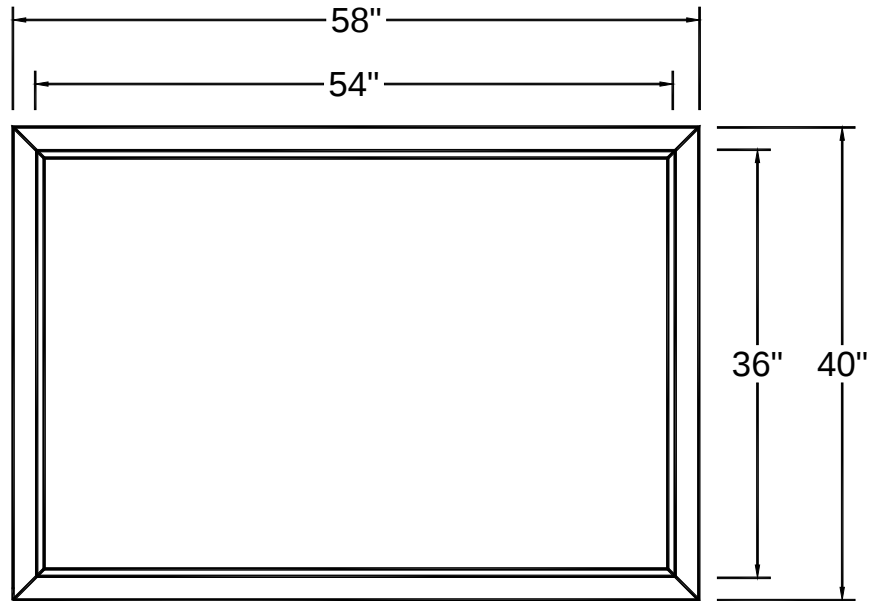
Tested as 3'0"x7'0" with (3) 4-1/2" Hinges, Cylindrical Lock

Maximum Size Tested:



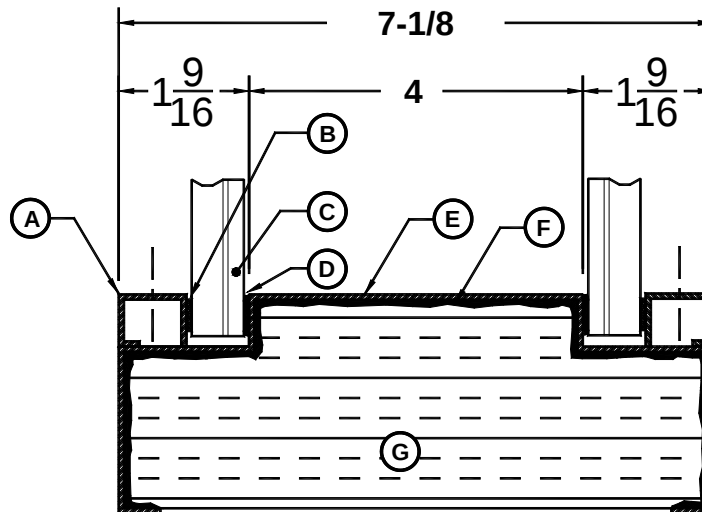
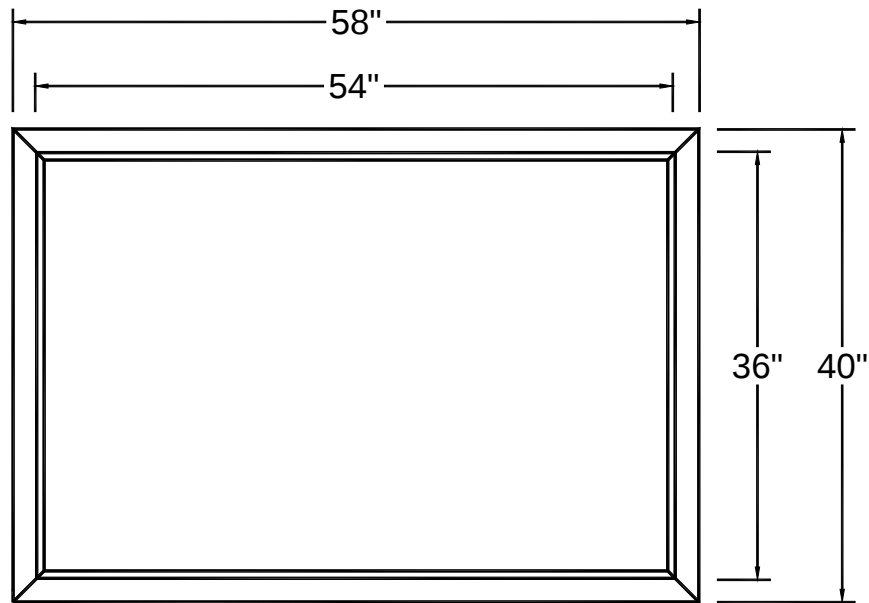
- A. $1\frac{3}{16}$ " x $\frac{5}{8}$ " Glass Stop
- B. CR Laurence $\frac{1}{8}$ " x $\frac{3}{8}$ " Norseal® V730 Acoustical Sealant Tape (By Others)
- C. $\frac{5}{8}$ " Lam Glass ($\frac{3}{8}$ " + $\frac{3}{16}$ " with .060" Interlayer) - (By Others)
- D. Stay-Soft Glazing Rope - $\frac{1}{4}$ " Diameter (By Others)
- E. 16 GA Frame
- F. Factory Applied Bit Coat
- G. Factory Applied Backer
- H. Grout Filled (By Others)

Maximum Size Tested:



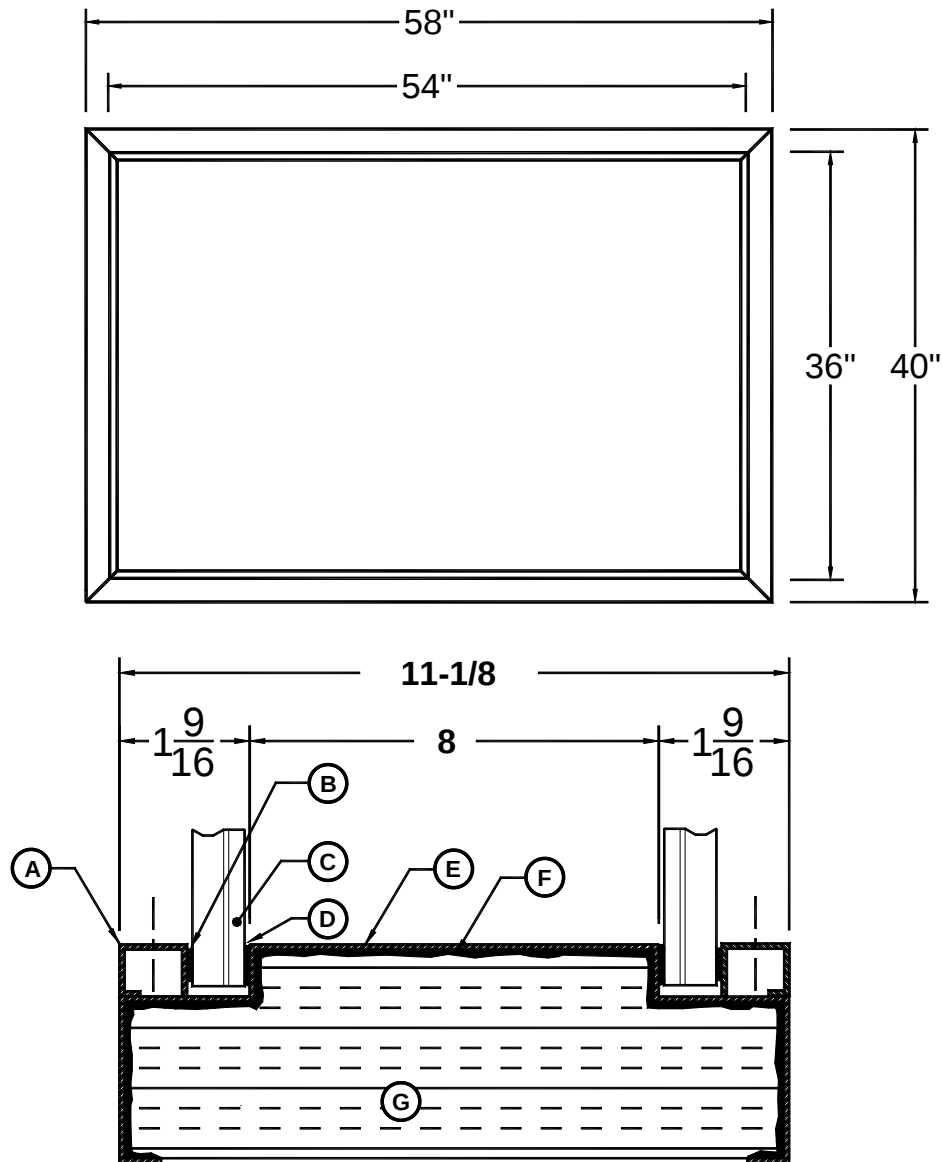
- A. 13/16" x 5/8" Glass Stop
- B. CR Laurence 1/8" x 3/8" Norseal® V730 Acoustical Sealant Tape (By Others)
- C. 5/8" Lam Glass (3/8" + 3/16" with .060" Interlayer) - (By Others)
- D. Stay-Soft Glazing Rope - 1/4" Diameter (By Others)
- E. 16 GA Frame
- F. Factory Applied Bit Coat
- G. Factory Applied Backer
- H. Grout Filled (By Others)

Maximum Size Tested:



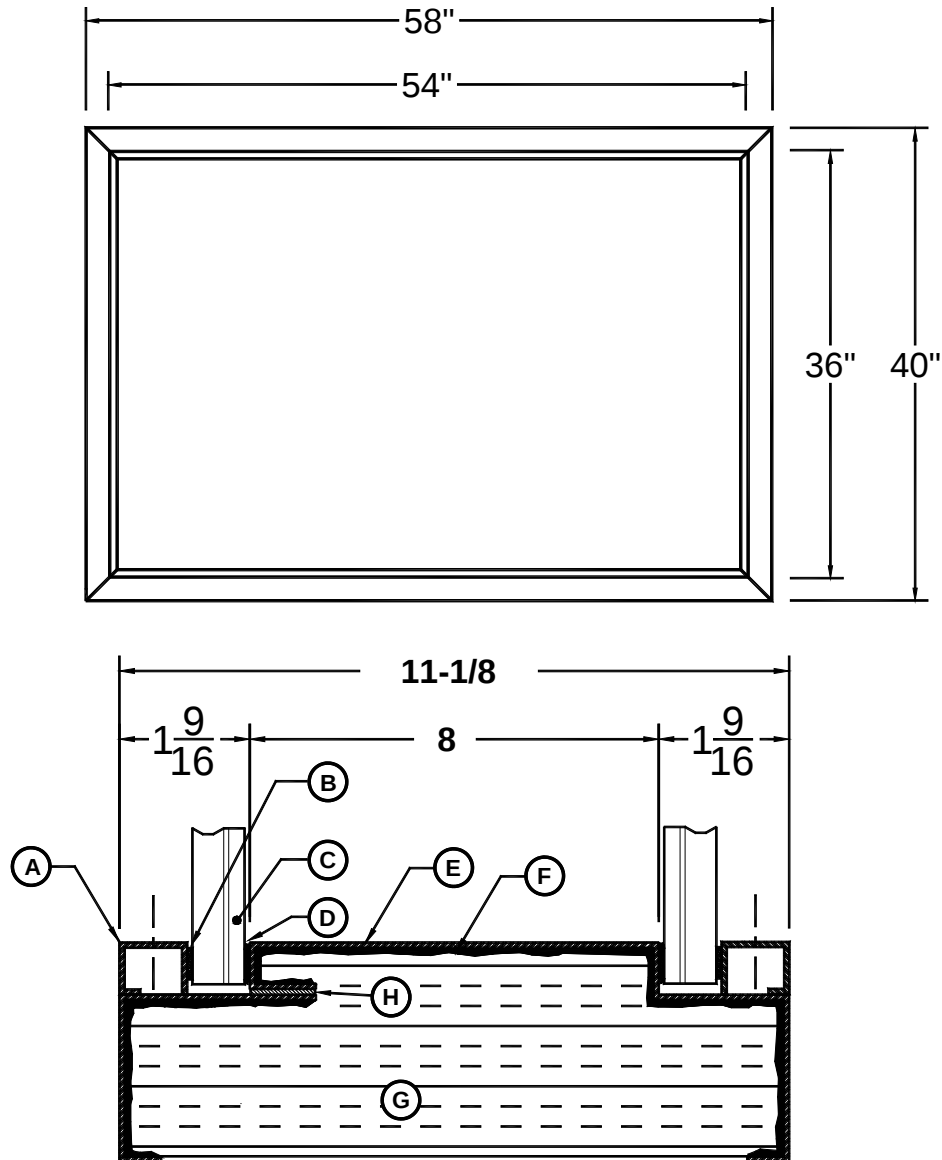
- A. 13/16" x 5/8" Glass Stop
- B. CR Laurence 1/8" x 3/8" Norseal® V730 Acoustical Sealant Tape (By Others)
- C. 5/8" Lam Glass (3/8" + 3/16" with .060" Interlayer) - (By Others)
- D. Stay-Soft Glazing Rope - 1/4" Diameter (By Others)
- E. 16 GA Frame
- F. Factory Applied Bit Coat
- G. Factory Installed Insulation

Maximum Size Tested:



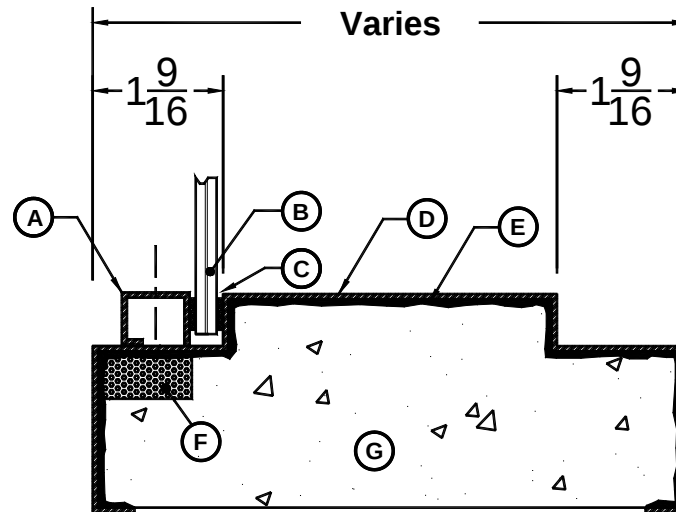
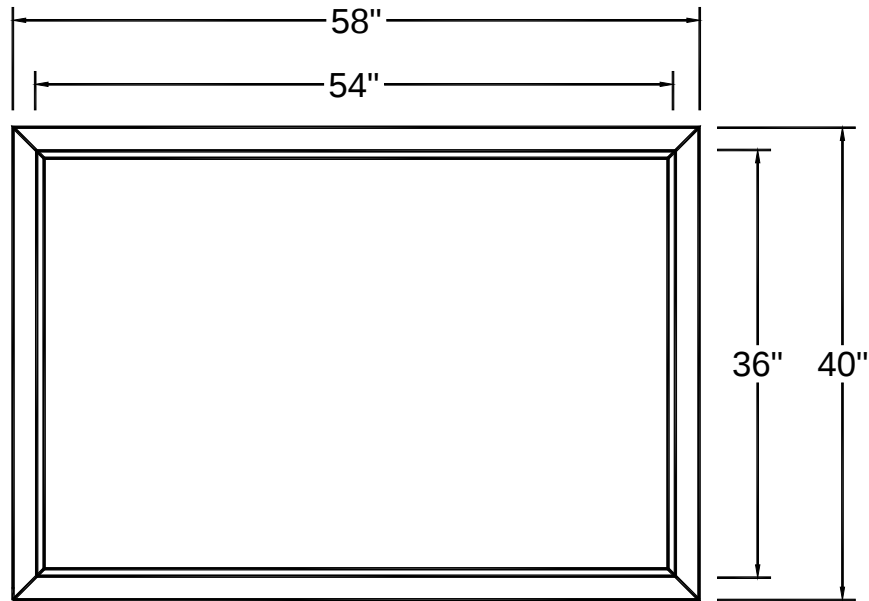
- A. 13/16" x 5/8" Glass Stop
- B. CR Laurence 1/8" x 3/8" Norseal® V730 Acoustical Sealant Tape (By Others)
- C. 5/8" Lam Glass (3/8" + 3/16" with .060" Interlayer) - (By Others)
- D. Stay-Soft Glazing Rope - 1/4" Diameter (By Others)
- E. 16 GA Frame
- F. Factory Applied Bit Coat
- G. Factory Installed Insulation

Maximum Size Tested:



- A. 13/16" x 5/8" Glass Stop
- B. CR Laurence 1/8" x 3/8" Norseal® V730 Acoustical Sealant Tape (By Others)
- C. 5/8" Lam Glass (3/8" + 3/16" with .060" Interlayer) - (By Others)
- D. Stay-Soft Glazing Rope - 1/4" Diameter (By Others)
- E. 16 GA Frame
- F. Factory Applied Bit Coat
- G. Factory Installed Insulation
- H. Sound/Thermal Break

Maximum Size Tested:



- A. $13/16"$ x $5/8"$ Glass Stop
- B. $5/16"$ FireLite Plus® Glazing (By Others)
- C. Rated Glazing Tape (By Others)
- D. 16 GA Frame
- E. Factory Applied Bit Coat
- F. Factory Applied Backer
- G. Grout Filled (By Others)