



Fire Security Door Specifications

AESI's Fire Security Doors are designed for installation at wall penetration of automated airport baggage conveying systems. Fire Security Doors are designed for high frequency operation requiring significant clearance for the door operator and release mechanism. Wall construction must be masonry concrete with all voids filled within 18" of the jamb opening or structural steel. AESI's Controller for Fire Security Doors is designed for interfacing with all Baggage Handling System controllers, providing necessary communication between fire/security door and BHS system, Building Fire Control system and Building Security System for integrated operation.

Communication is available through Ethernet, controllers are supplied standard with an Ethernet connection. An optional ethernet switch is available for daisy chaining multiple fire/security doors to the BHS MCP.

Fire Doors are provided with gravity to close, failsafe, auto reset releasing, which can be activated by Fire Alarm System, localized smoke/heat detectors located at door openings, BHS System or loss of building power. Reset is automatic after fire signal is restored to normal, non-fire, state. Controllers for Fire Security Doors are designed for interfacing with all BHS controllers, providing necessary signals to the BHS systems for integrated operation.

Door opening sizes:	Maximum width of 24'0" Maximum heights of 24'0" Maximum size is 576 square feet
Wall construction approved:	Masonry jambs of hollow block must be filled 18" on each side of the UL and NFPA requirements opening. Steel jambs must be a minimum of 3/16" structural steel. Metal stud and dry wall construction is not a recognized wall construction for fire security doors. The Authority Having Jurisdiction (AHJ) should be consulted for acceptance of wall constructions not listed.
Fire rating:	UL "A" – 4 Hour Classified
Listings:	UL, C-UL, FM, CSFM (California State Fire Marshall) and MEA (NYC, NY)
Operation:	Heavy duty, worm gear reduction, Jackshaft operator. Motor is continuous duty, high starting torque with instant reverse and overload protection. Motor Operator provided with emergency manual hand chain operator. Manual chain hoist is automatically disengages when operator is raising or lowering the door. Engagement of manual override is not required.



Fire Security Door Specifications - Continued

COMPONENTS

Curtain:	Standard: 22 gauge cold rolled steel, G-90 galvanized and bonderized with one coat of epoxy primer and one coat of gray polyester top coat. Alternate: 22 gauge #304 stainless steel with a #4 finish.
Endlocks:	Ends of alternate slats to be fitted with malleable iron zinc coated endlocks to prevent lateral movement of the door curtain.
Guides:	3/16" structural steel angles, factory primed.
Bottom bar:	Designed to minimize gap between end rollers. UL Listed tubular bottom bar designed for industry standard 2" gap between end rollers. Standard: Tubular steel, finish to match curtain and guides. Alternate: #304 Stainless steel with a #4 finish.
Hood:	Standard: 24 gauge cold rolled steel, G-90 galvanized and bonderized with one coat of epoxy primer and one coat of gray polyester top coat. Alternate: 24 gauge, #304 stainless steel with a #4 finish.
Barrel:	4" Schedule 10 steel pipe.
Head plates:	Minimum 3/16" steel plate, factory primed.
Fire release:	165 degree fusible link. Facility Fire Alarm System. Fire door closes through motor operator when fire signal is received. Should an obstruction prevent closing thru the motor, the fire door will release for failsafe gravity closing after 15 seconds. AESI controller will signal MCP/BHS of obstruction. AESI controller will signal MCP/BHS when fire door has been gravity fire released. Fire Door will gravity close in the event of power loss Failsafe closure is controlled gravity closing through motor operators' centrifugal governor. Failsafe, gravity release/closing requires no reset.



Fire Security Door Specifications – Continued

Motor operator: Motor is continuous duty, high starting torque with instant reverse and overload protection. Voltage: 110, 220, 440 and 575 Volt, single and three phase.

Limit switches: Nylon cams mounted within motor operator on continuous threaded rod. Limits are synchronized to motor operator. Auxiliary limits signal AESI PLC of full open and full closed positions. AESI controller provides signal (communication) to BHS controller.

Manual override: Operator provided with emergency manual hand chain operator. Chain hoist is automatically disengages when operator is raising or lowering the door. Engagement of manual override is not required.

Overloads: Motor is protected by internal thermal overloads.

Voltage: 110, 220, 440 and 575 Volts, single and three phase.

CONTROLS

Fusible link: Standard 165 degree fusible links are provided which will allow doors to gravity close. Fusible links require replacement and fire door requires resetting when released by fusible link.

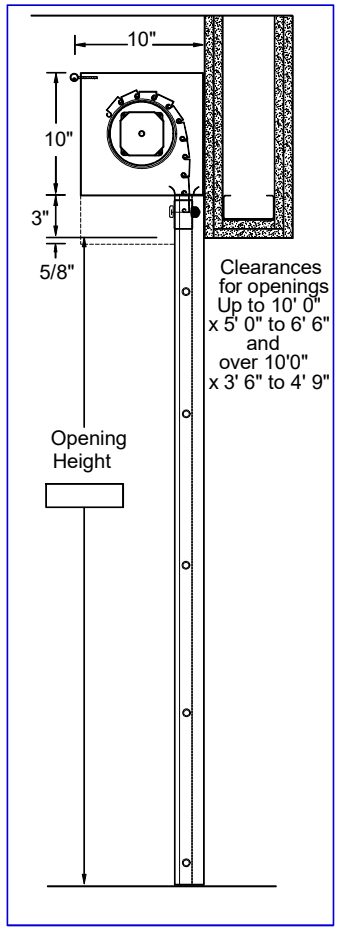
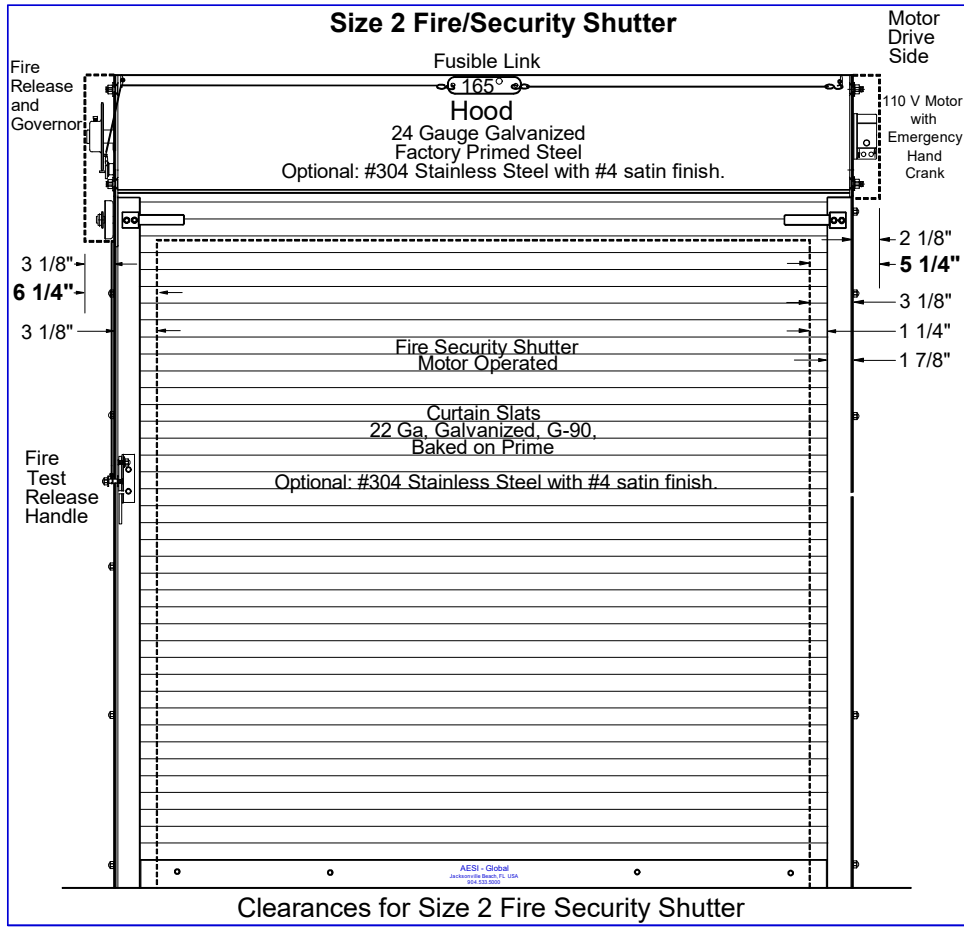
Optional Smoke/Heat Detectors Optional smoke/heat detector are available for localized detection of smoke or fire. Door will close thru standard sequence of operation described for Fire closing. AESI Controller will provide signals to the BHS or Fire Alarm system when smoke/heat is sensed.



Fire Security Door Specifications - Continued

OPTIONAL FEATURES

Communication:	Ethernet switch for daisy chaining multiple fire doors to the BNS MCP
Optional Smoke/ Heat Detectors	Optional smoke/heat detector are available for localized detection of smoke or fire. Door will close thru standard sequence of operation described for Fire closing. AESI Controller will provide signals to the BHS or Fire Alarm system when smoke/heat is sensed.
Stainless steel:	Stainless Steel, #304 with #4 finish for Curtain, Hood and Leading Edge (Bottom Bar)
Auto lock latch:	Door will be locked by auto lock latch, preventing manual tampering of the door. Locks disengage upon signal to controller for door to open. Auto latch is supplied with a two position selector key. Normal position is for auto locking, lock can be placed in maintenance mode for unlocking latch from the secure side, allowing maintenance to be performed.
Hurricane rated:	Doors are designed for withstanding 65 pound per square foot wind load. Doors are approved by Dade County and comply with applicable rules and regulations governing the fabrication and installation in High Velocity Hurricane Zones. Dade County Notice of Acceptance (NOA) No. 12-0517.12



Fire Security Shutter Motor Operated U. L. "A" - 3 Hour Rating

FM, CSFM & MEA Listed - UL & C-UL Classified

Fire Shutters up to 10' 0" x 4' 4" to 6' 6" and Over 10' 0" width x 3' 6" to 4' 9" in height

Component Specifications:

Curtain Slats:
22 Gauge, G-90 Galvanized steel, interlocking with a two coat factory baked on prime.
Optional: #304 Stainless Steel with #4 satin finish.

Endlocks:
Zinc plated steel

Bottom Bar:
1 1/4" x 2" tubular design to facilitate passage of leading edge (bottom bar) thru conveyor end rollers.
Galvanized and baked on factory primed steel.

Guides:
13 gauge galvanized steel, primed to match curtain finish.

Brackets:
.120" zinc plated steel, fitted with sealed ball bearing.

Hood:
24 Ga., Galvanized and baked on prime steel.

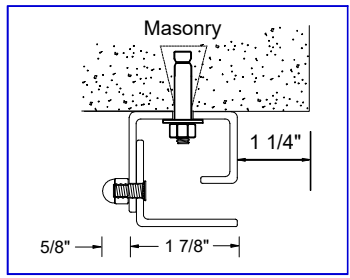
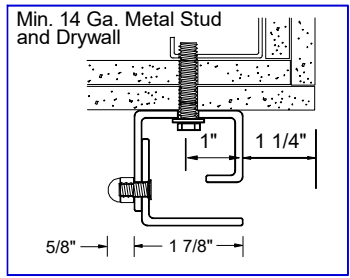
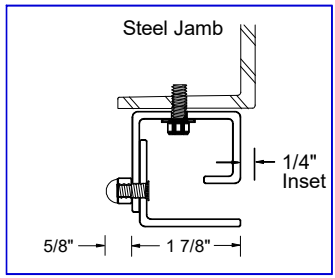
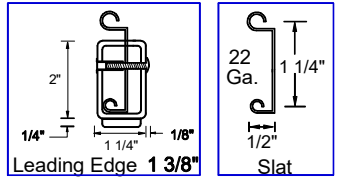
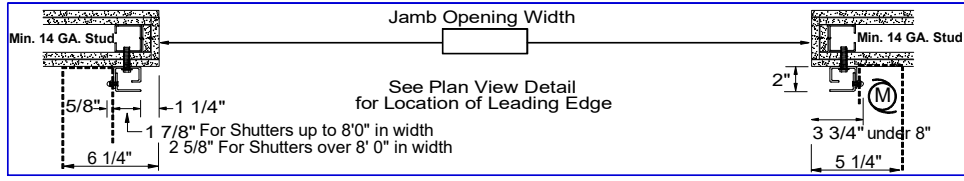
Barrel:
Structural steel pipe, 4" Schedule 10, 4 1/2" x .120" wall thickness, limit maximum deflection to .03" per foot of span.

Automatic Fire Closure:
Fire closing initiated by melting of 165 fusible link.
Gravity descent controlled by centrifugal governor.

NFPA 80:
Fire Security Door installation will conform with National Fire Protection Association Bulletin 80.

Approved Wall Construction:
Masonry walls, hollow cavities must be filled within 18" of jamb opening.
Structural steel must be a minimum of 3/16" thickness.
Drywall partitions using a minimum 14 gauge metal stud.

All other wall construction must receive approval from the Authority Having Jurisdiction. The Fire Marshall should be consulted.

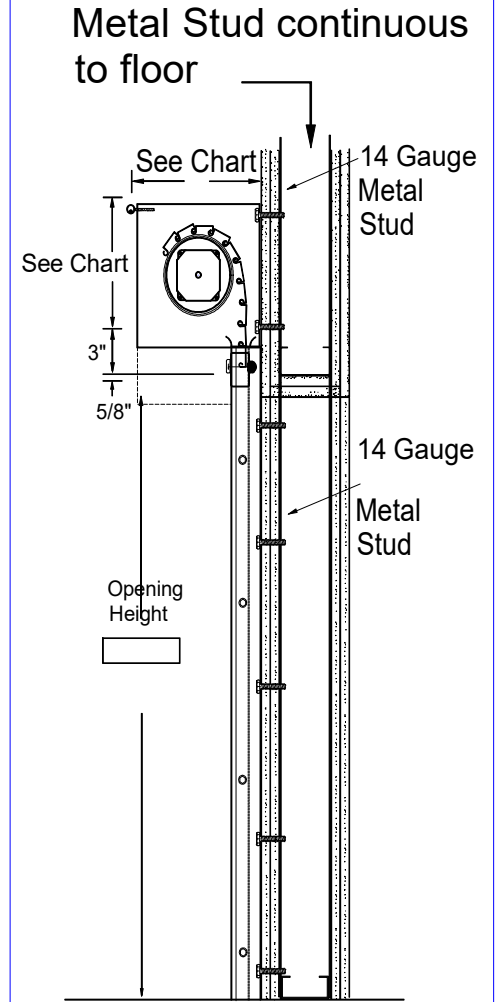
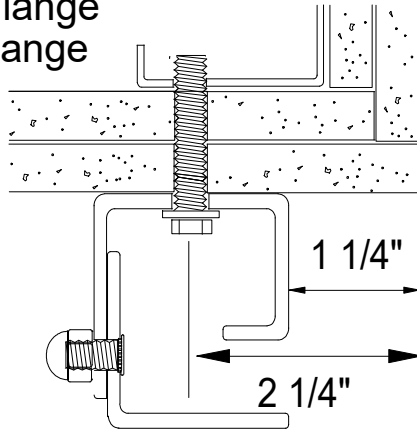


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Drawing:	Fire/Security Shutter - Size 2
Project:	
Location:	
Customer:	
Date: 04-11-2003	Rev No.: Drwn By: CCF Page of

For Fire Rated Shutters
U.L and NFPA require minimum 14 Ga Metal Stud

Minimum 1 5/8" Flange
 Recommend 2" Flange

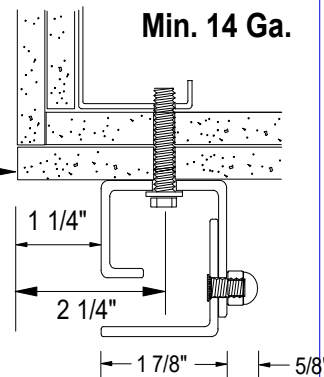
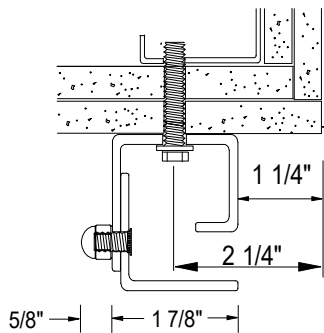


Min. 14 Ga. Metal Stud

Metal Stud and Drywall Construction

Min. 14 Ga.

Jamb Opening



Note: Shaft wall and drywall partitions MUST have a no less than a 14 Gauge metal stud to meet UL and NFPA 80 standards.
Approved wall constructions are shown

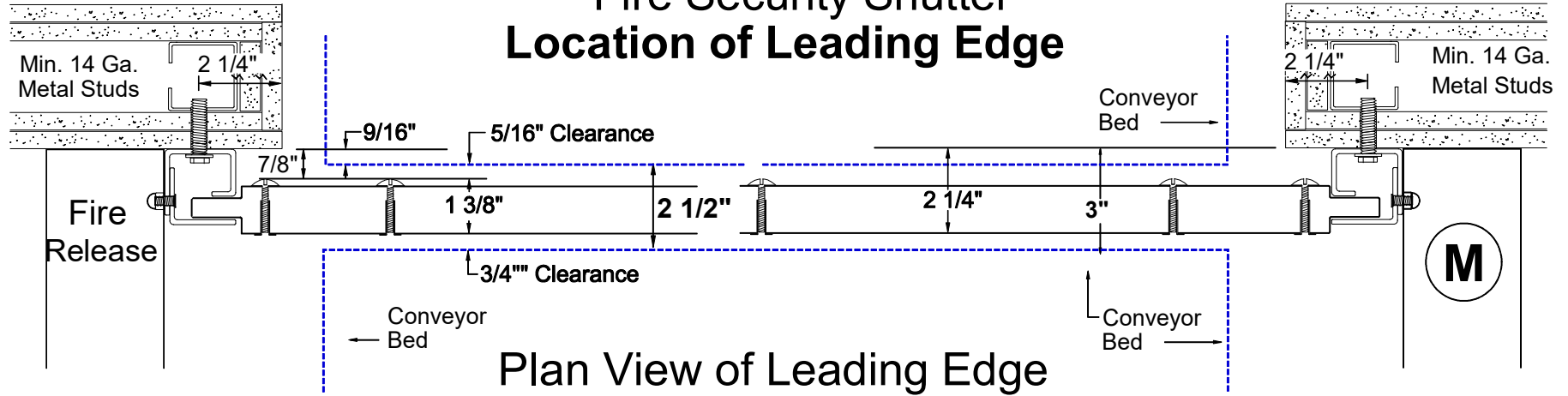
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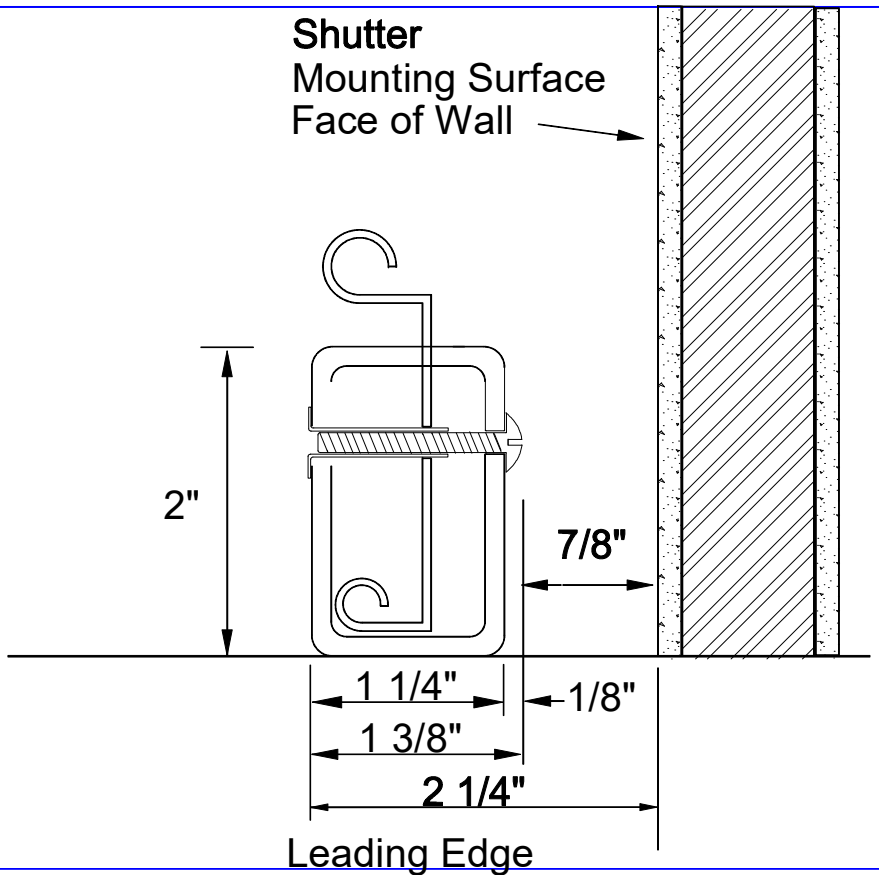
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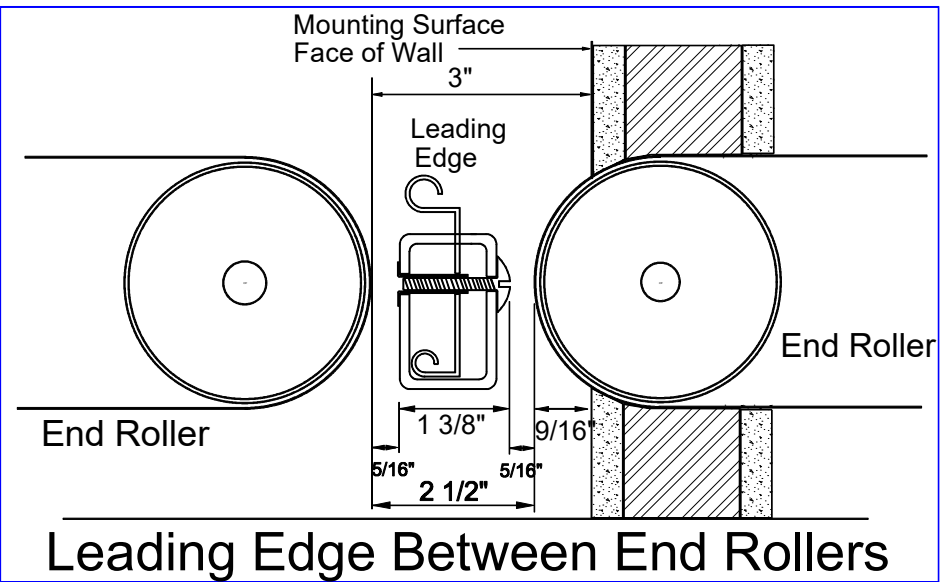
Fire Security Shutter Location of Leading Edge



Shutter
Mounting Surface
Face of Wall



Mounting Surface
Face of Wall

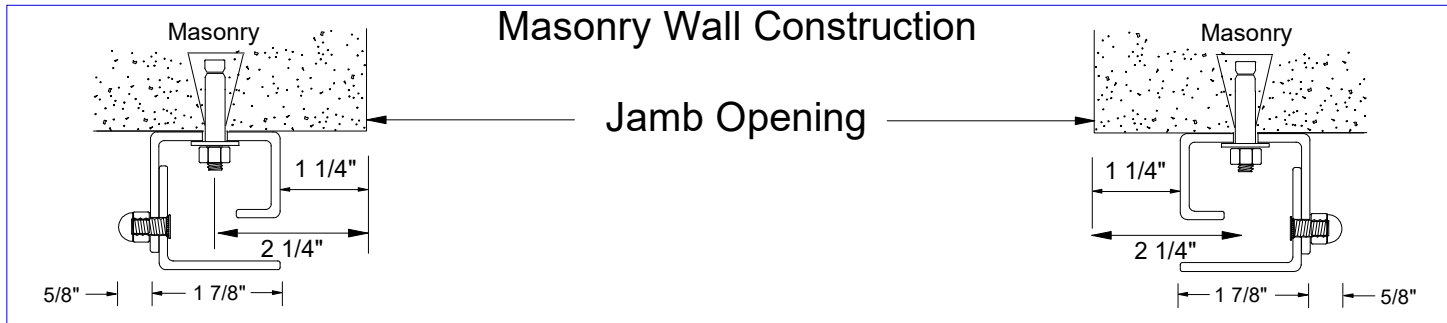
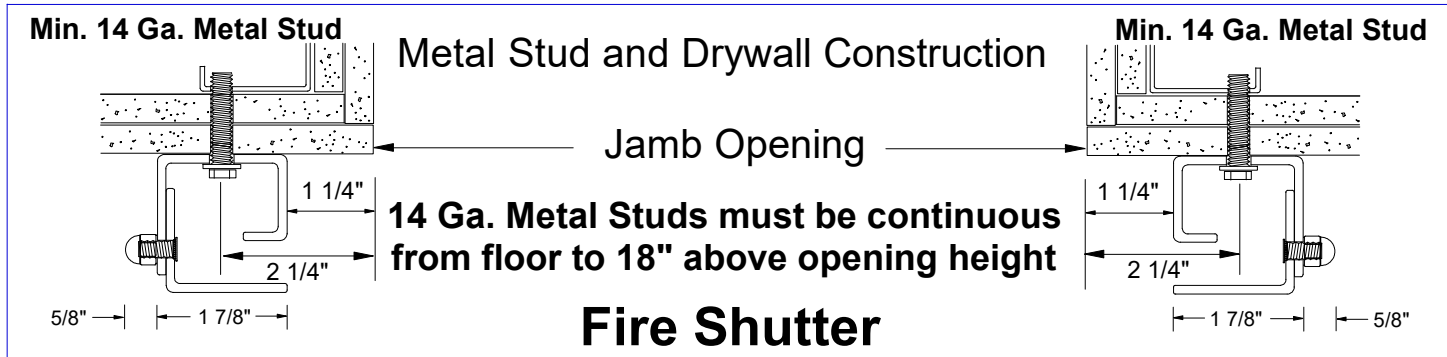
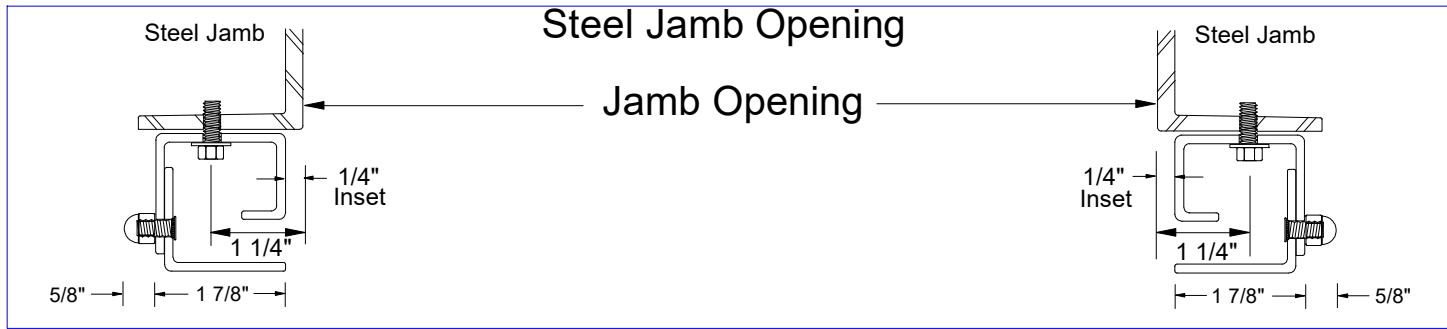


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Drawing:	Location of Leading Edge - 2 1/2" Gap		
Project:			
Location:			
Customer:			
Date: 01/11/2017	Rev No.:	Drwn By: CCF	Page of



Note: Shaft wall and drywall partitions MUST have a no less than a 14 Gauge metal stud to meet UL and NFPA 80 standards. Approved wall constructions are shown

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Drawing: **Wall Construction for Fire Rated Shutters**

Project:

Location:

Customer:

Date: Rev No.: Drwn By: CCF Page of