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dormakaba USA, Inc.

PHI SERIES HC2200, HC2300 & HC2800 VERTICAL ROD PANIC EXIT DEVICES AND HC2100 RIM EXIT DEVICE WITH HCK822 STEEL REMOVABLE MULLION (PANIC HARDWARE COMPONENT APPROVAL)

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED AND MANUFACTURED TO COMPLY WITH THE 6TH EDITION FLORIDA BUILDING CODE (FBC) INCLUDING PROVISIONS SET FORTH FOR HIGH-VELOCITY HURRICANE ZONES (HVHZ).
2. THE DOORS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

2.1. THE DOOR SHALL BE 1-3/4" MIN. OVERALL THICKNESS

2.2. DOOR PANEL SHALL BE REINFORCED WITH 22 GA. (0.029") "HAT-STIFFENERS" AT A MAXIMUM OF 6" O.C.

2.3. HINGE REINFORCEMENTS AT DOOR PANEL AND AT FRAME SHALL BE A MINIMUM OF 7 GA. (0.1875") THICK STEEL.

2.4. FULL-LENGTH 16 GA. (0.053" MIN.) STEEL TUBE (2 X C-NESTED CHANNELS) AT TOP & BOTTOM RAILS OF DOORS.

2.5. MIN. 12 GA. (0.101" MIN.) STEEL REINFORCEMENT AT HINGE & STRIKE PLATES WHERE APPLICABLE.

2.6. MIN. 14 GA. (0.067" MIN.) STEEL C-CHANNEL AT HINGE & LOCK STILES WHERE APPLICABLE.

2.7. FULL LENGTH 12 GA. (0.101" MIN.) STEEL TUBE (2 X C-NESTED CHANNELS) AT STILES WHERE APPLICABLE.

2.8. PLEASE REFER TO DOOR ELEVATIONS, SHEET 2, AND CORRESPONDING DETAILS FOR APPLICABILITY OF REINFORCEMENT REQUIREMENTS (SHEETS 3-7).
3. STRIKES, HINGES, AND ALL APPLICABLE REINFORCEMENTS AS REQUIRED ON DETAIL DRAWING IN THIS APPROVAL.
4. LOCKING HARDWARE SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. ALL FASTENERS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
6. STEEL COMPONENTS SHALL BE COATED OR COMPLY WITH CORROSION RESISTANCE PROTECTION IN CONFORMANCE WITH THE MATERIAL PROTECTION PROVISIONS OF THE 6TH EDITION FBC, CHAPTER 22.
7. ALL TRIMS SHALL BE THRU BOLTED WITH #10-24 MACHINE SCREWS.
8. 1700 & 200 SERIES TRIMS AVAILABLE WITH A, B, & C STYLE PULLS.
9. 3900 & 4900 SERIES TRIMS AVAILABLE WITH A, B, C, & D LEVERS AND KNOBS.
- 10.OPTIONAL TRIMS MODELS INCLUDE: 1703, 2003, 4900.
- 11.CONFORMS TO UL10C AND UBC7-2, BHMA CERTIFIED FOR ANSI 156.3 GRADE 1.

LIMITATIONS OF USE:

1. PANIC EXIT HARDWARE DEVICES ARE APPROVED TO BE EQUAL ALTERNATIVES OF TESTED COMPONENTS TO BE USED IN 16 GA. STEEL FRAME AND 16 GA. (0.053" MIN.) STEEL SINGLE OR DOUBLE DOORS, HOLDING CURRENT NOA. THE LOWEST DESIGN PRESSURE RATING OF DOOR OR THE COMPONENT APPROVAL HEREIN SHALL CONTROL.
2. DOOR PANELS MUST NOT BE WIDER THAN 48" AND HIGHER THAN 96".
3. COMPLIANCE WITH BUILDING EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.
4. OPTIONAL ELECTRONICALLY ACTIVATED HARDWARE MAY BE USED AS ALLOWED BY CODE SUCH THAT IT DOES NOT AFFECT THE MECHANICAL PROPERTIES OF THE LOCKING HARDWARE AND/OR INHIBIT EGRESS, TO BE REVIEWED BY AUTHORITY HAVING JURISDICTION (AHJ). ELECTRONICALLY ACTIVATED HARDWARE MAY BE SELF-CONTAINED OR HARD-WIRED SUCH THAT WIRING COMPONENTS DO NOT AFFECT THE STRUCTURAL PERFORMANCE OF THE DOOR ASSEMBLY.
5. ALL ELECTRICAL COMPONENTS MUST BE UL APPROVED.

TABLE OF CONTENTS		
SHEET	REVISION	SHEET DESCRIPTION
1	-	GENERAL NOTES
2	-	DOOR ELEVATIONS
3	-	HC2100 RIM EXIT W/ HCK822 MULLION
4	-	HC2200 SURFACE VERTICAL ROD (SVR)
5	-	HC2800 CONCEALED VERTICAL ROD (CVR)
6	-	HC2800 CVR W/ HC2300 MORTISE LOCK EXIT DEVICE
7	-	BILL OF MATERIALS (BOM) & COMPONENTS



dormakaba USA Inc.
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INDIANAPOLIS, IN 46250
PH: (317) 806-3288

TITLE:
PHI SERIES HC2200, HC2300 & HC2800 SVR AND
HC2100 RIM W/ HCK822 REMOVABLE MULL

GENERAL NOTES

PREPARED BY:



BUILDING DROPS, INC.

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REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



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CHK. BY: HFN

SCALE: NTS

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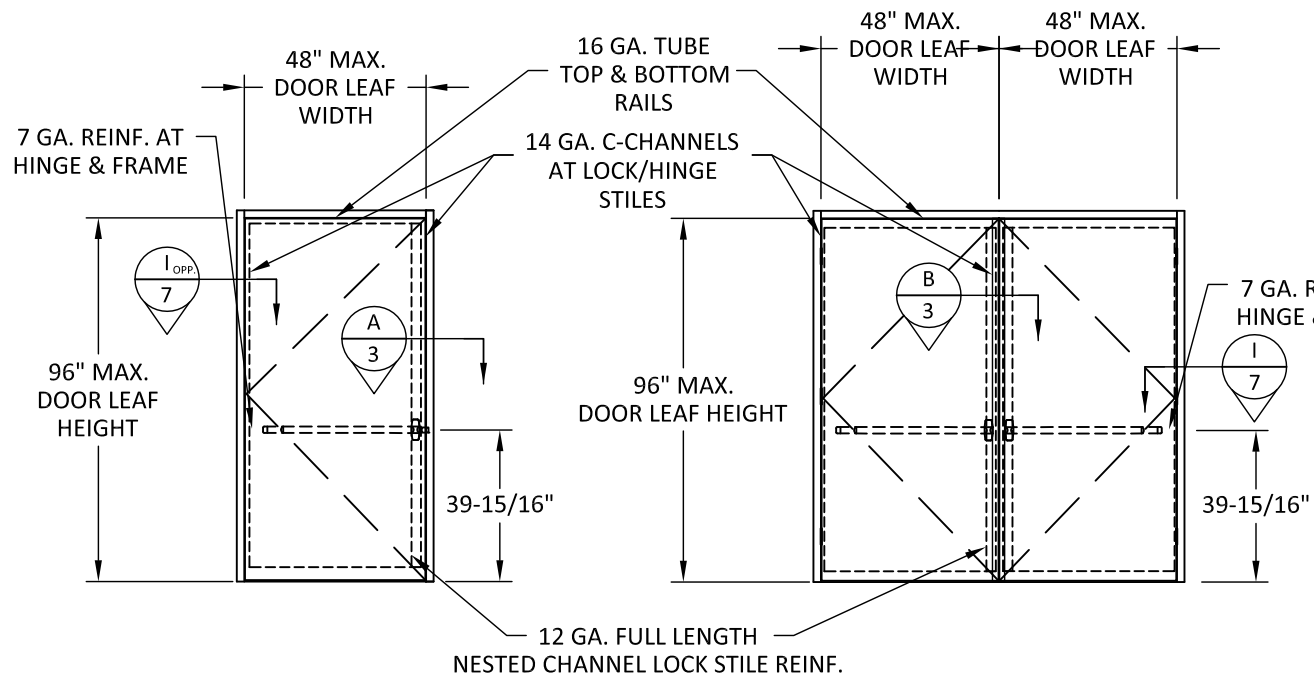
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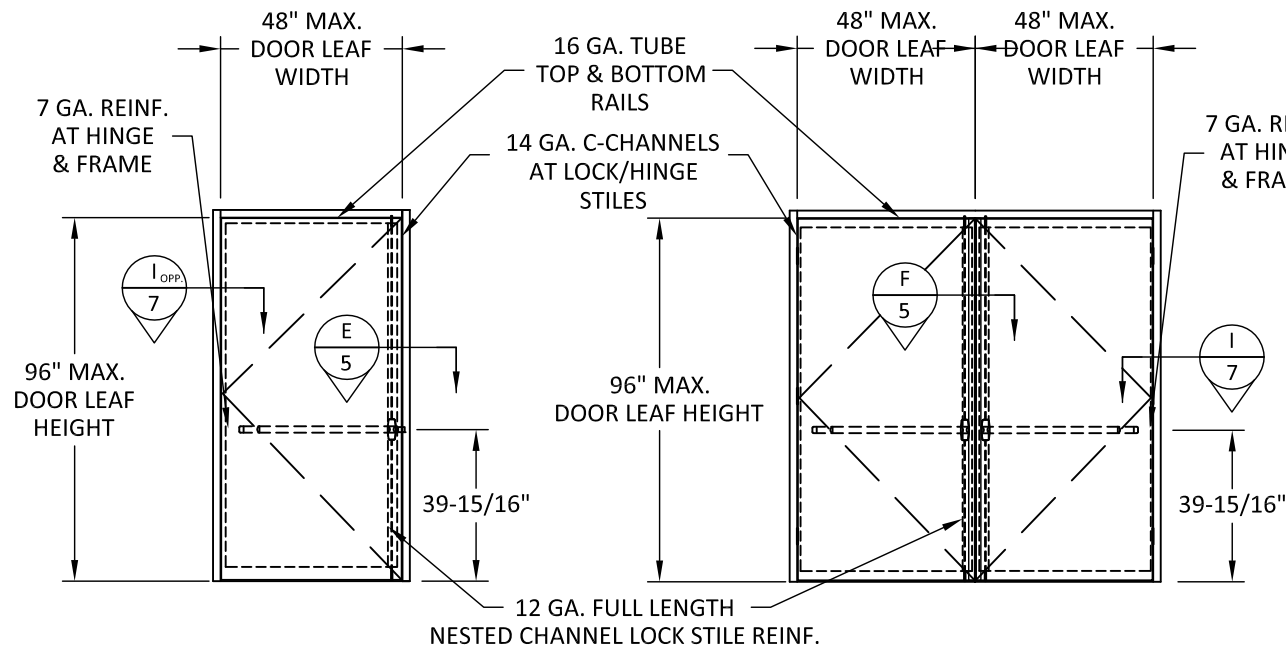
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OUTSWING SINGLE STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
HC2100 SERIES RIM DEVICE

OUTSWING SINGLE OR PAIR STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
TWO HC2100 SERIES RIM DEVICES
WITH HCK822 MULLION

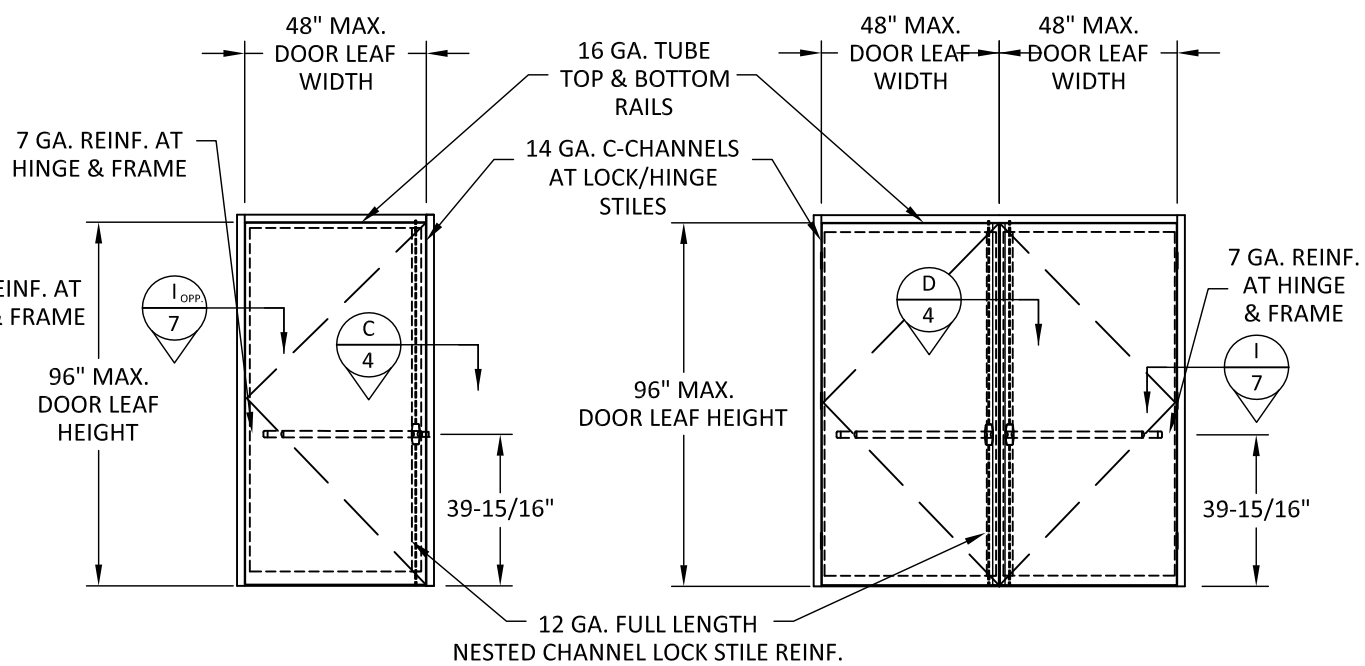
SERIES HC2100 RIM EXIT W/ HCK822 MULLION



OUTSWING SINGLE STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
HC2800 SERIES CONCEALED VERTICAL ROD

OUTSWING SINGLE OR PAIR STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
TWO HC2800 SERIES CONCEALED VERTICAL RODS

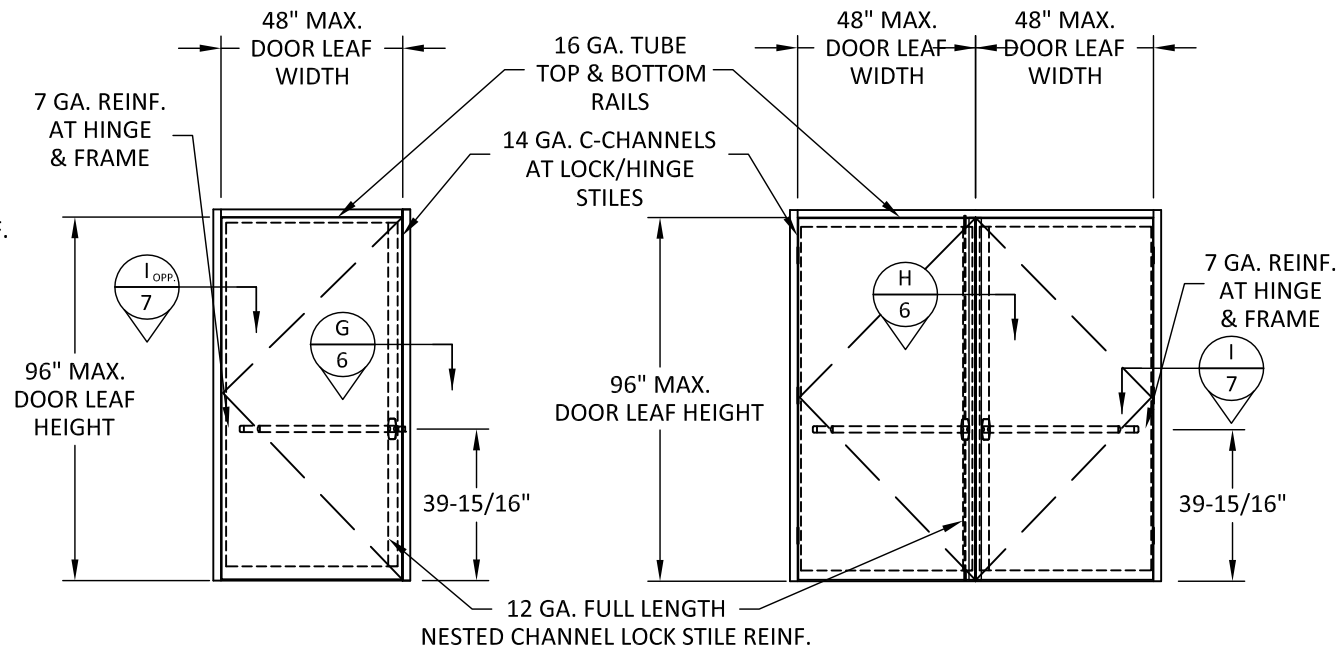
SERIES HC2800 CONCEALED VERTICAL ROD DEVICES (CVR)



OUTSWING SINGLE STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
HC2200 SERIES SURFACE VERTICAL RODS

OUTSWING SINGLE OR PAIR STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
TWO HC2200 SERIES SURFACE VERTICAL RODS

SERIES HC2200 SURFACE VERTICAL ROD (SVR)



OUTSWING SINGLE STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
HC2300 SERIES SINGLE MORTISE LOCK

OUTSWING SINGLE OR PAIR STEEL DOOR
DOORS UNDER SEPARATE APPROVAL
HC2800 CONCEALED VERTICAL ROD WITH
HC2300 SERIES MORTISE LOCK

SERIES HC2800 CVR/SERIES HC2300 MORTISE LOCK
OR SERIES HC2800 CVR SINGLE OR DOUBLE DOORS

NOTE: ALL ELEVATIONS SHOWN FROM EXTERIOR SIDE



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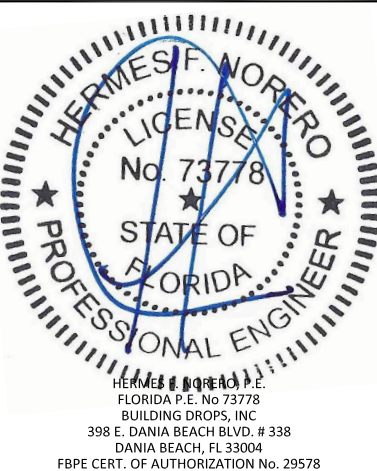
DOOR ELEVATIONS

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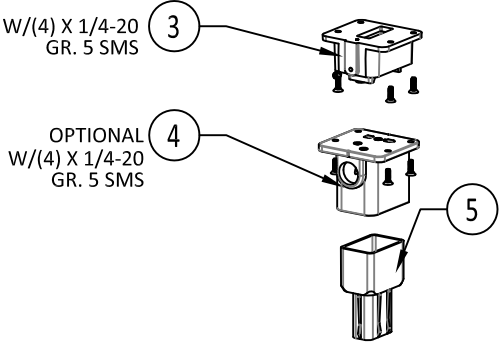


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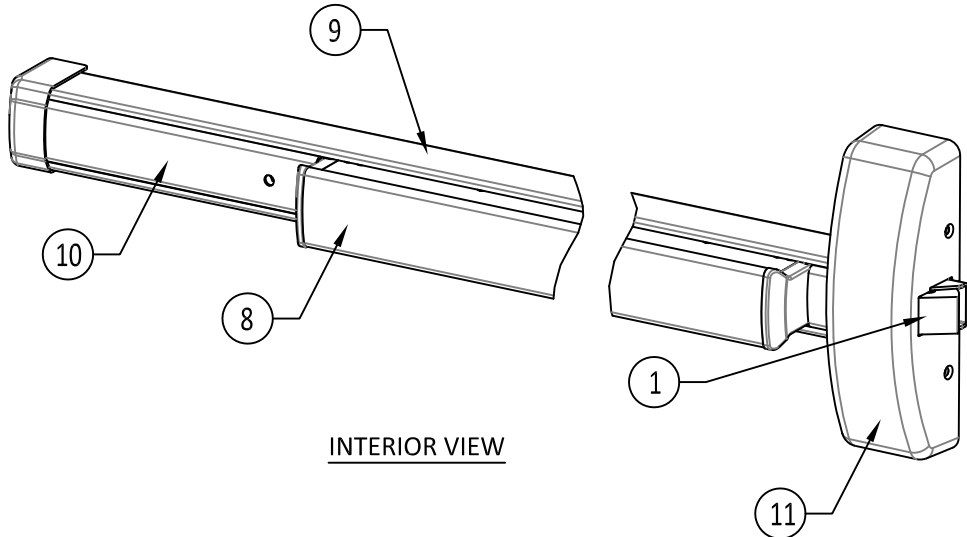
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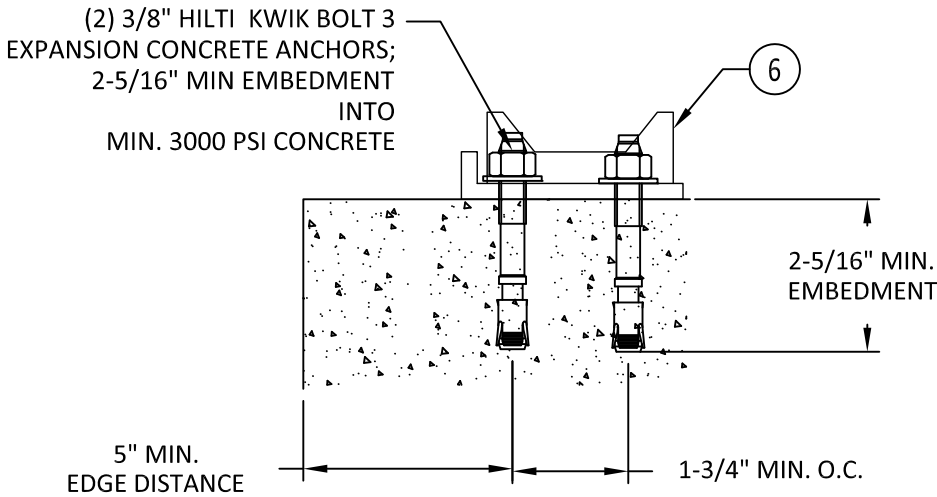
SERIES HC2100 RIM EXIT WITH HCK 822 MULLION EXIT DEVICE		
MAX. DESIGN PRESSURE	SINGLE DOOR W/ OUT MULLION	DOUBLE DOOR WITH MULLION
POSITIVE	70 PSF	65 PSF
NEGATIVE	70 PSF	65 PSF



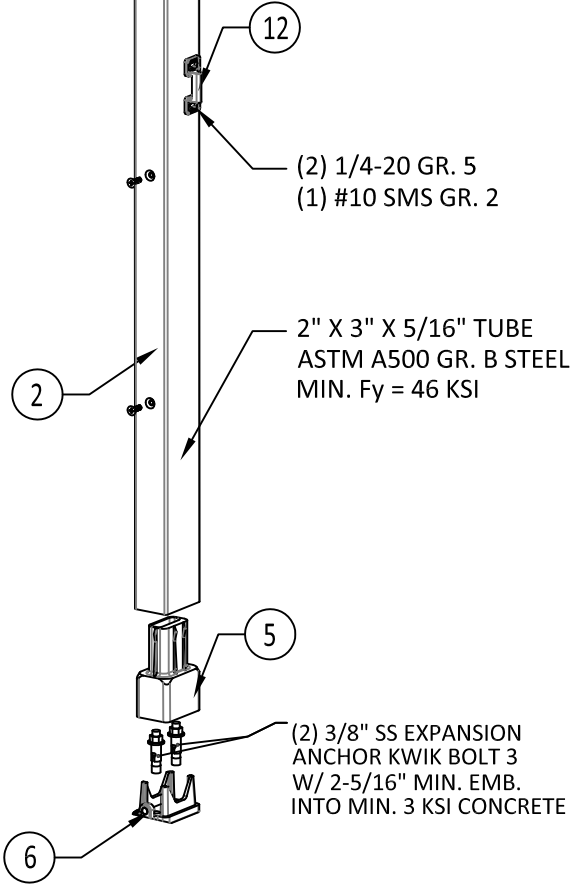
NOTE: SEE SHEET 7 FOR APPLICABLE COMPONENT DETAILS



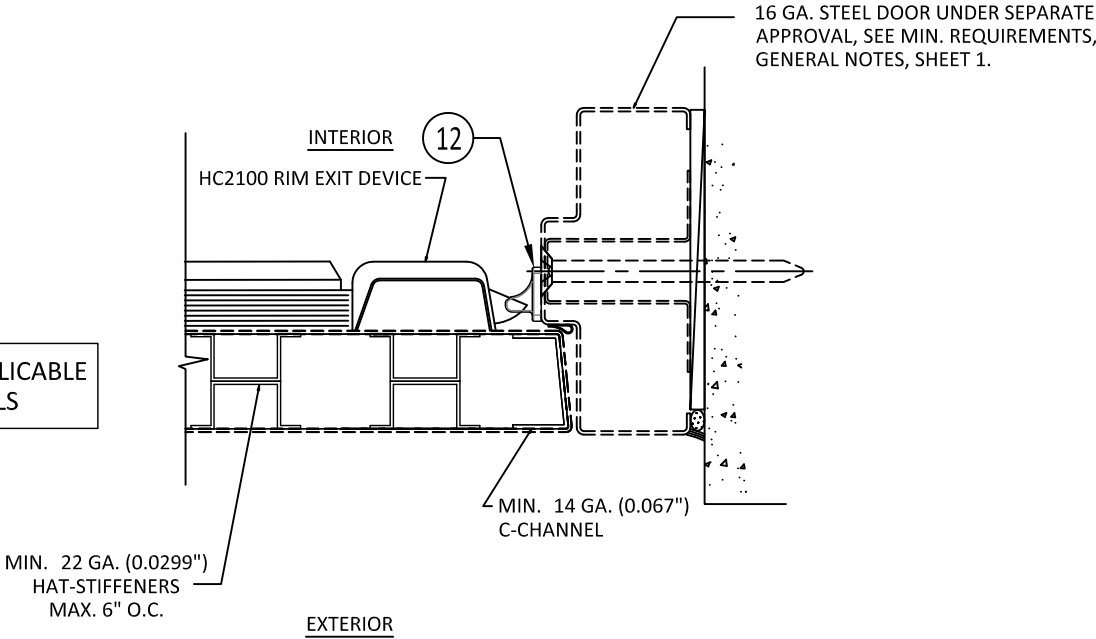
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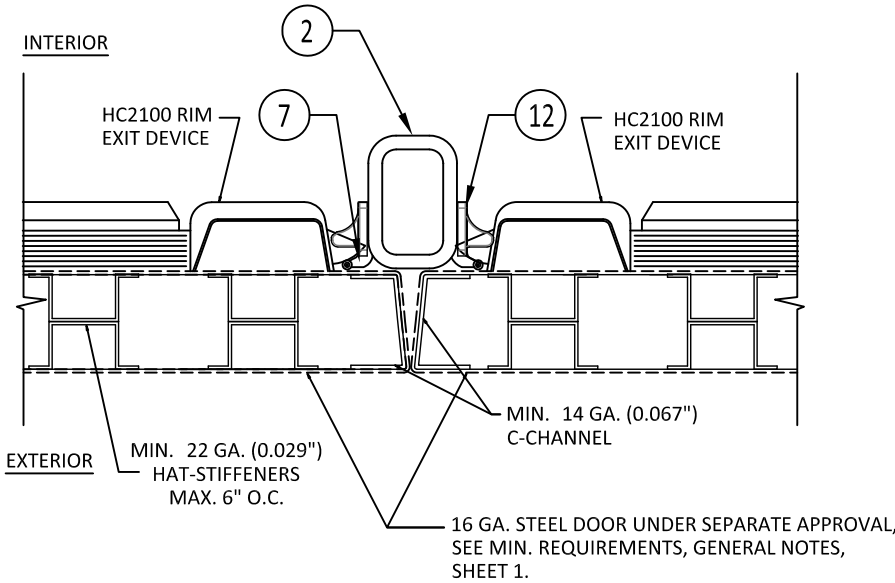
MULLION SILL BASE



HCK 822 MULLION



A
3 HORIZONTAL SECTION
HC2100 RIM EXIT
SINGLE DOOR APPLICATION



B
3 HORIZONTAL SECTION
HC2100 RIM EXIT W/ HCK822
MULLION DOUBLE DOOR APPLICATION

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HC2100 RIM W/ HCK822 REMOVABLE MULL

HC2100 RIM W/ HCK822 MULL

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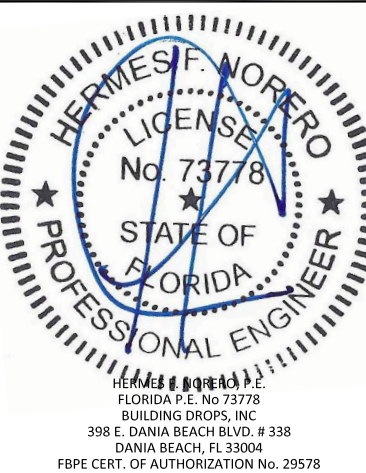
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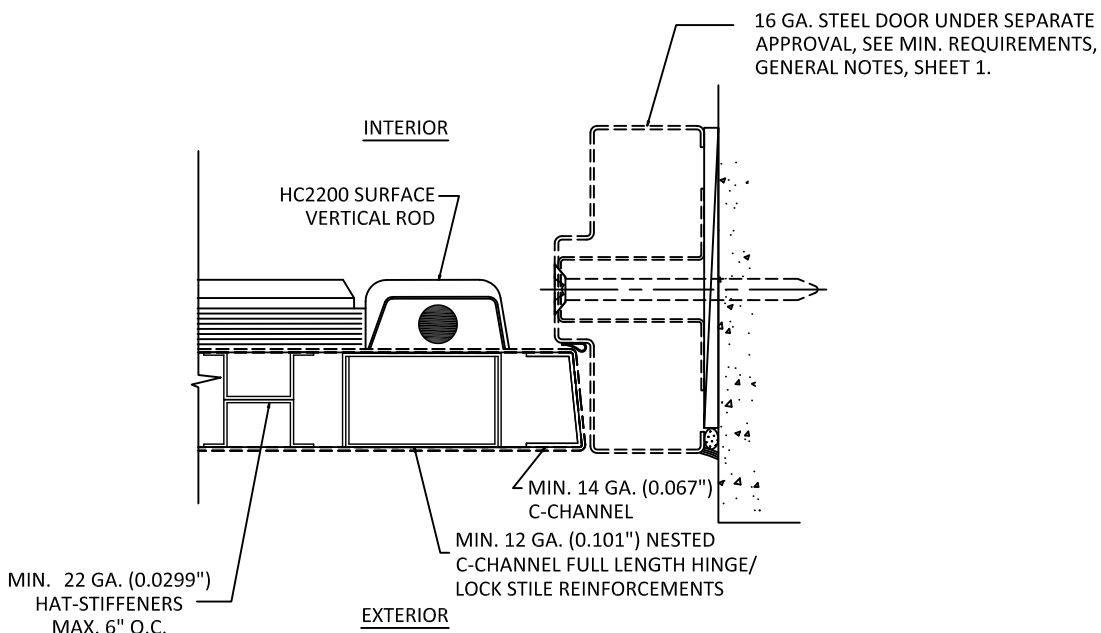
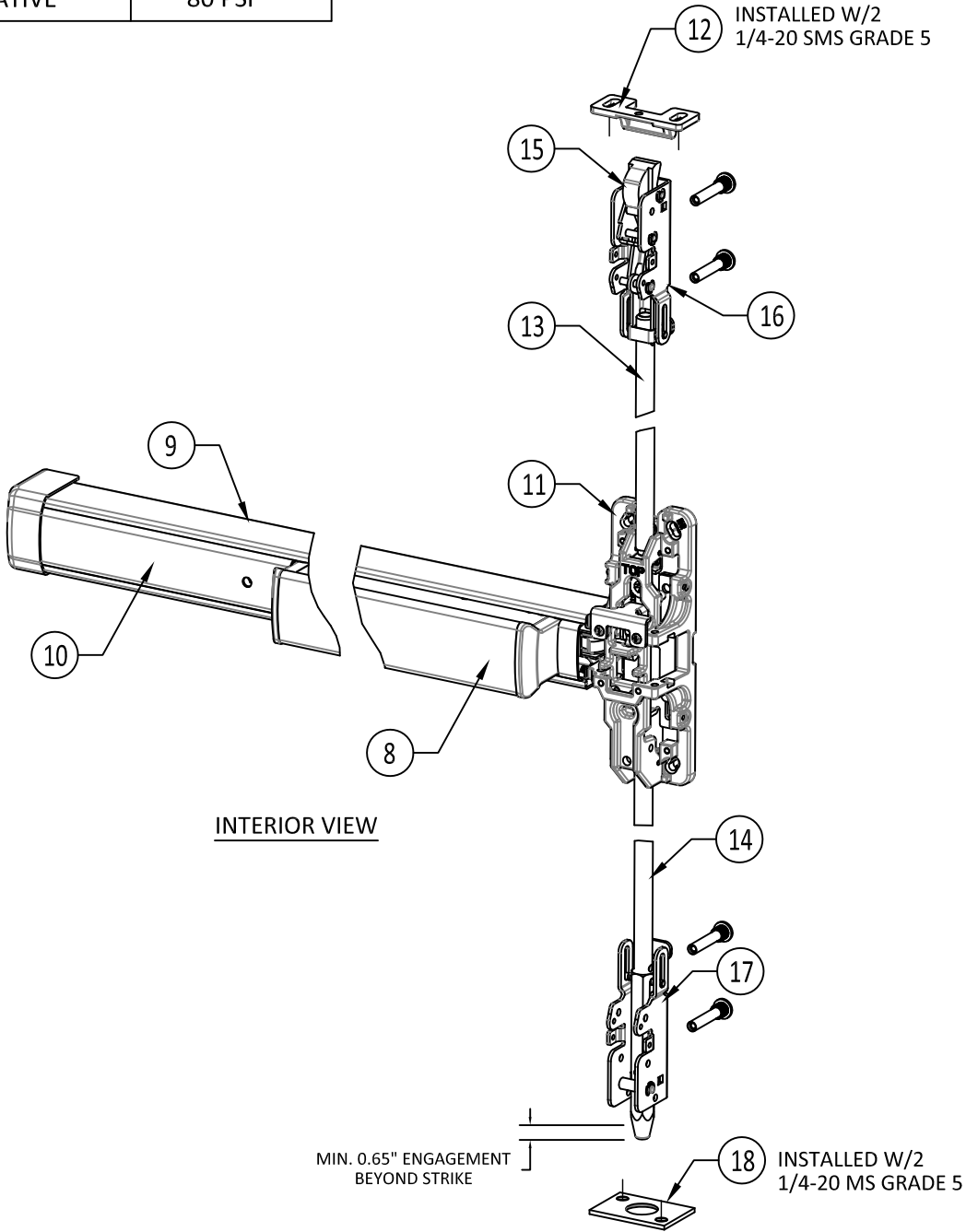
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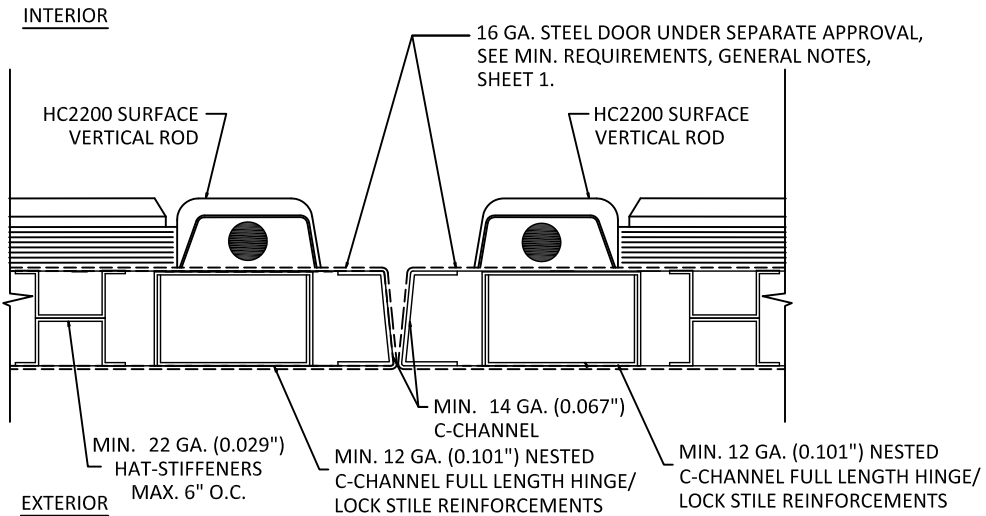
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OF 7

SERIES HC2200 SURFACE MOUNT VERTICAL ROD EXIT DEVICE (SVR)	
MAX. DESIGN PRESSURE (SINGLE OR DOUBLE DOORS)	
POSITIVE	80 PSF
NEGATIVE	80 PSF



C
4 **HORIZONTAL SECTION**
HC2200 SVR
SINGLE DOOR APPLICATION



D
4 **HORIZONTAL SECTION**
HC2200 SVR
DOUBLE DOOR APPLICATION



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HC2200 SURFACE VERTICAL ROD (SVR)

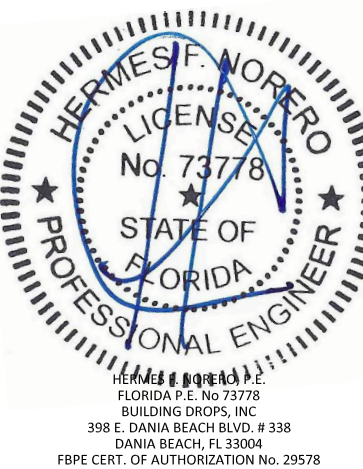
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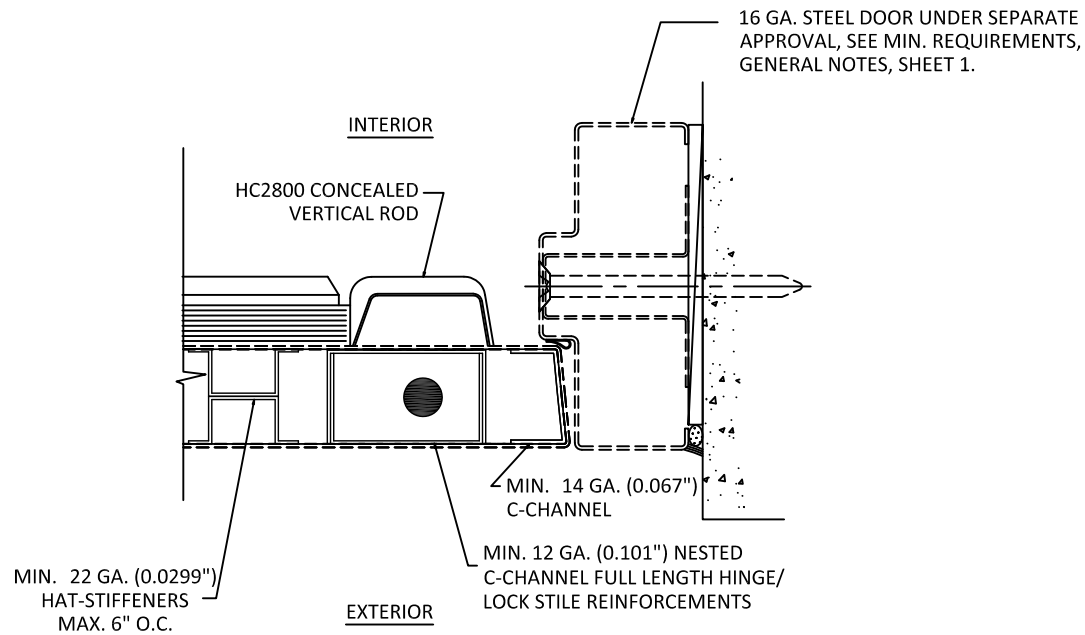
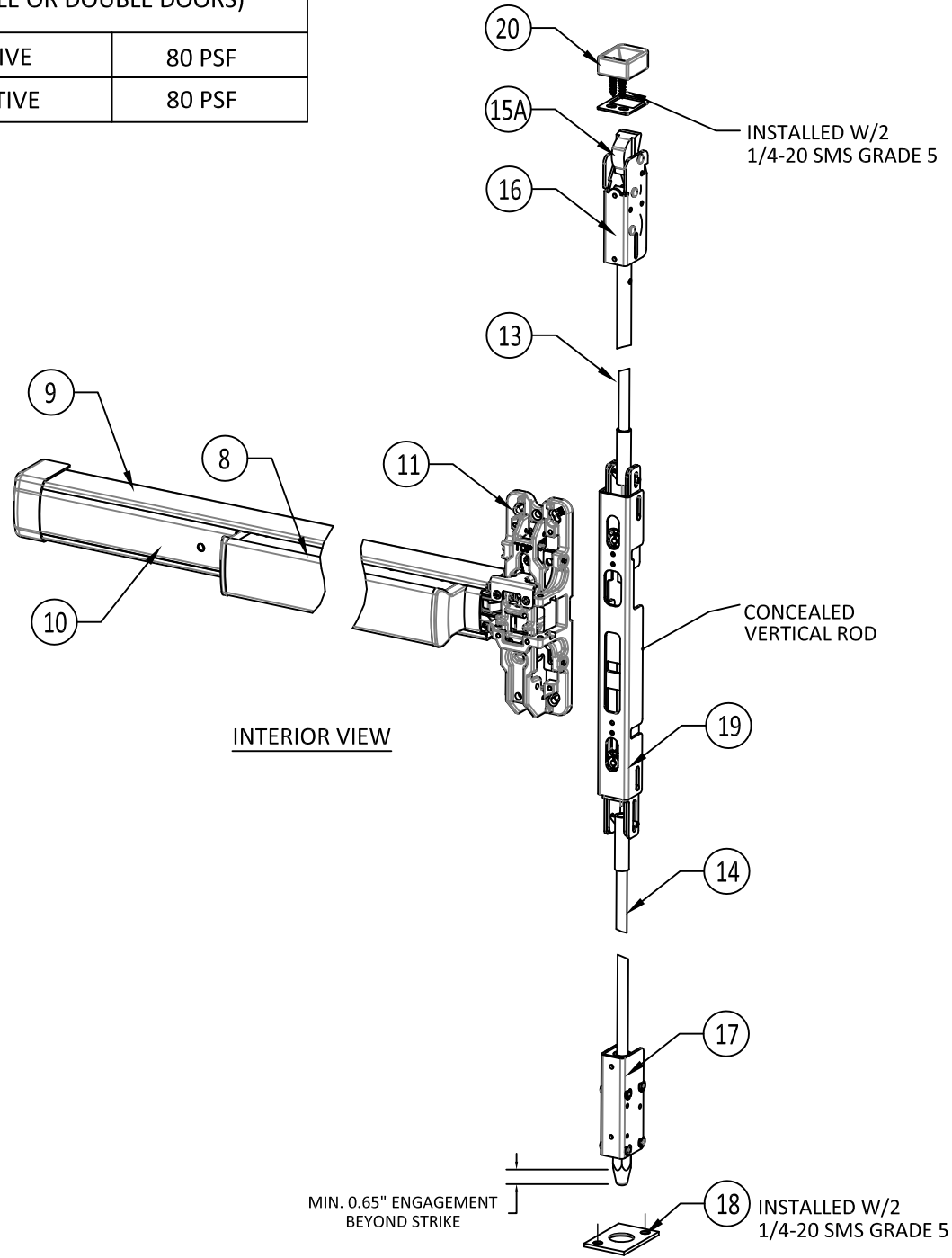
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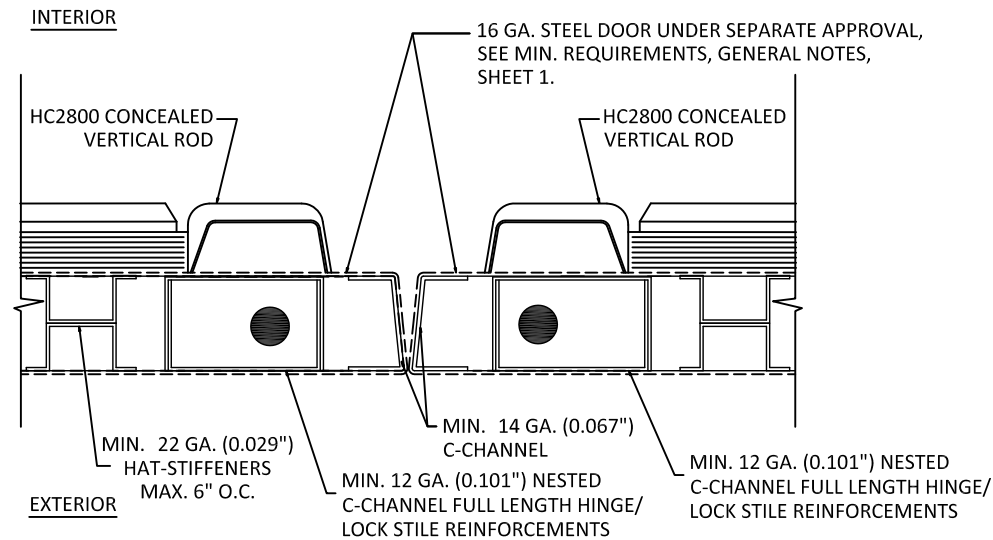
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SERIES HC2800 CONCEALED VERTICAL ROD EXIT DEVICE (CVR)	
MAX. DESIGN PRESSURE (SINGLE OR DOUBLE DOORS)	
POSITIVE	80 PSF
NEGATIVE	80 PSF



E
5 **HORIZONTAL SECTION**
HC2800 CVR
SINGLE DOOR APPLICATION



F
5 **HORIZONTAL SECTION**
HC2800 CVR
DOUBLE DOOR APPLICATION



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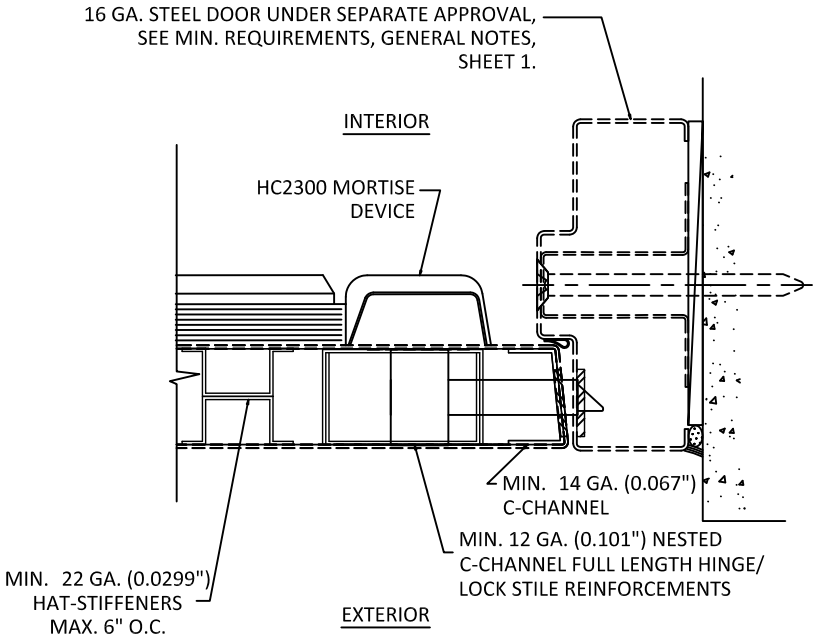
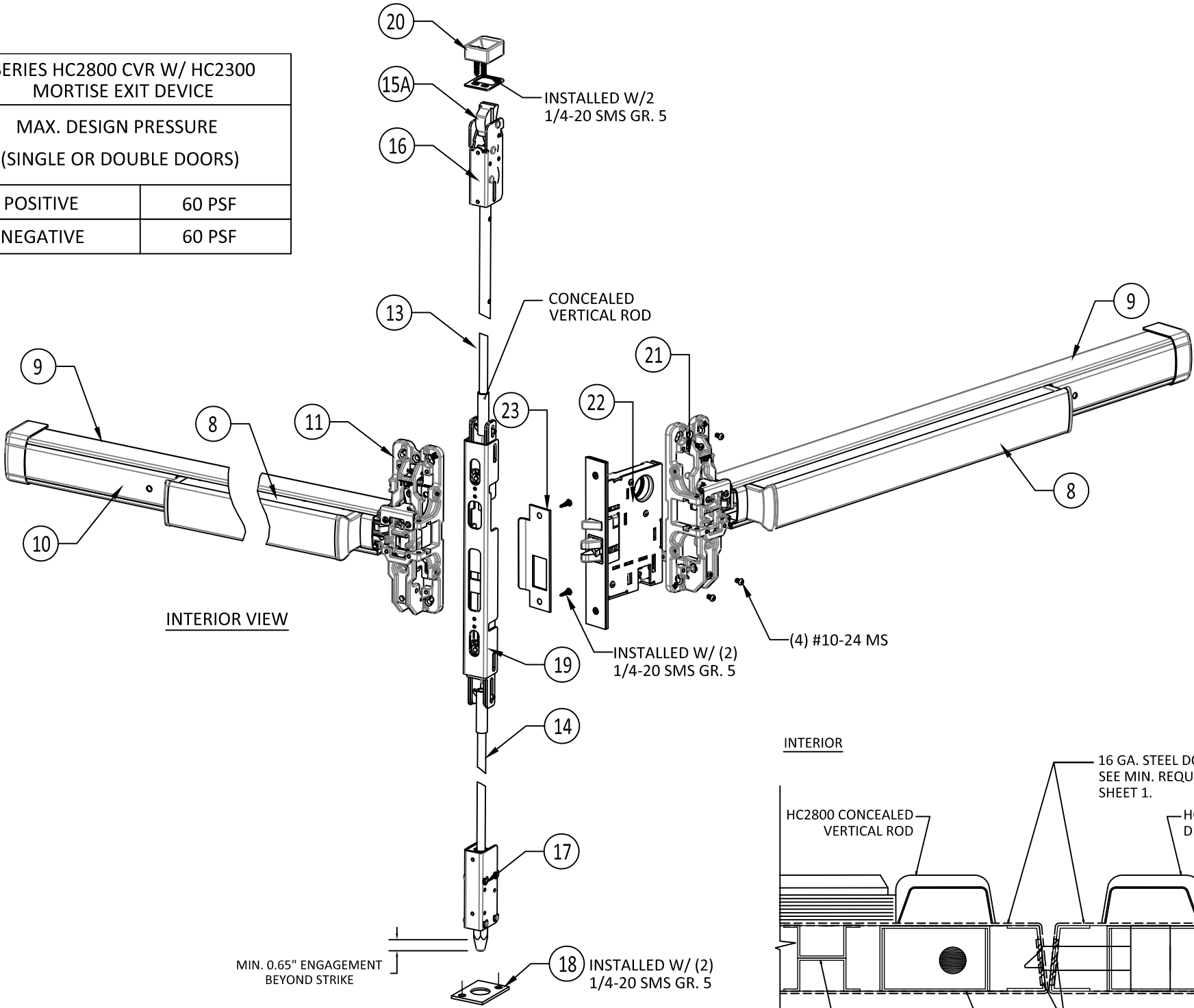


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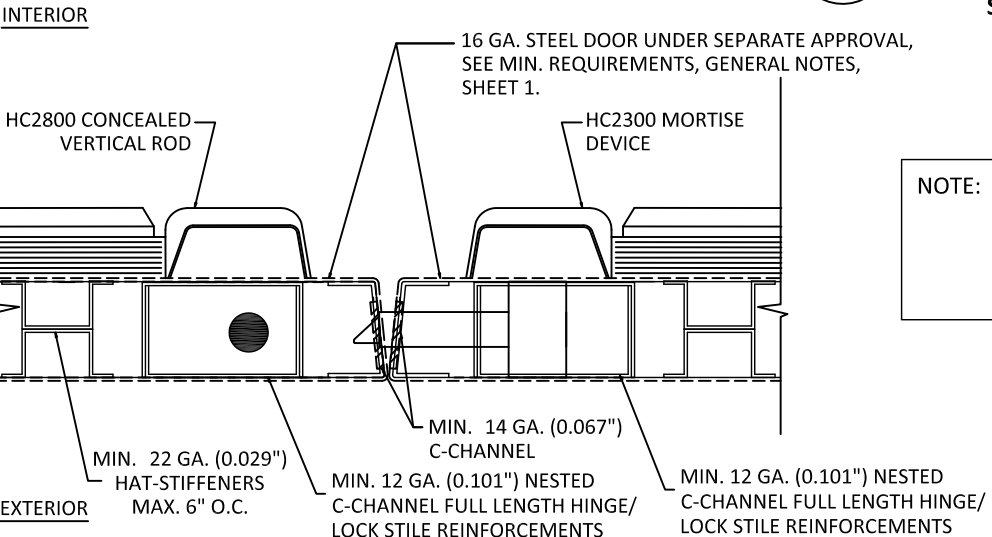
SERIES HC2800 CVR W/ HC2300 MORTISE EXIT DEVICE	
MAX. DESIGN PRESSURE (SINGLE OR DOUBLE DOORS)	
POSITIVE	60 PSF
NEGATIVE	60 PSF



G HORIZONTAL SECTION

HC2300 MORTISE DEVICE SINGLE DOOR APPLICATION

NOTE: HC2300 MORTISE PANIC EXIT MUST BE USED IN COMBINATIONS WITH HC2800 CVR WHEN USED IN DOUBLE DOOR APPLICATIONS.



H HORIZONTAL SECTION

HC2800 CVR W/ HC2300 MORTISE DEVICE DOUBLE DOOR APPLICATION OR HC2800 CVR ON SINGLE OR BOTH DOOR PANELS



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HC2800 CVR W/ HC2300 MORTISE

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HERMES F. NORENO, P.E.
FLORIDA P.E. No 73778
BUILDING DROPS, INC
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

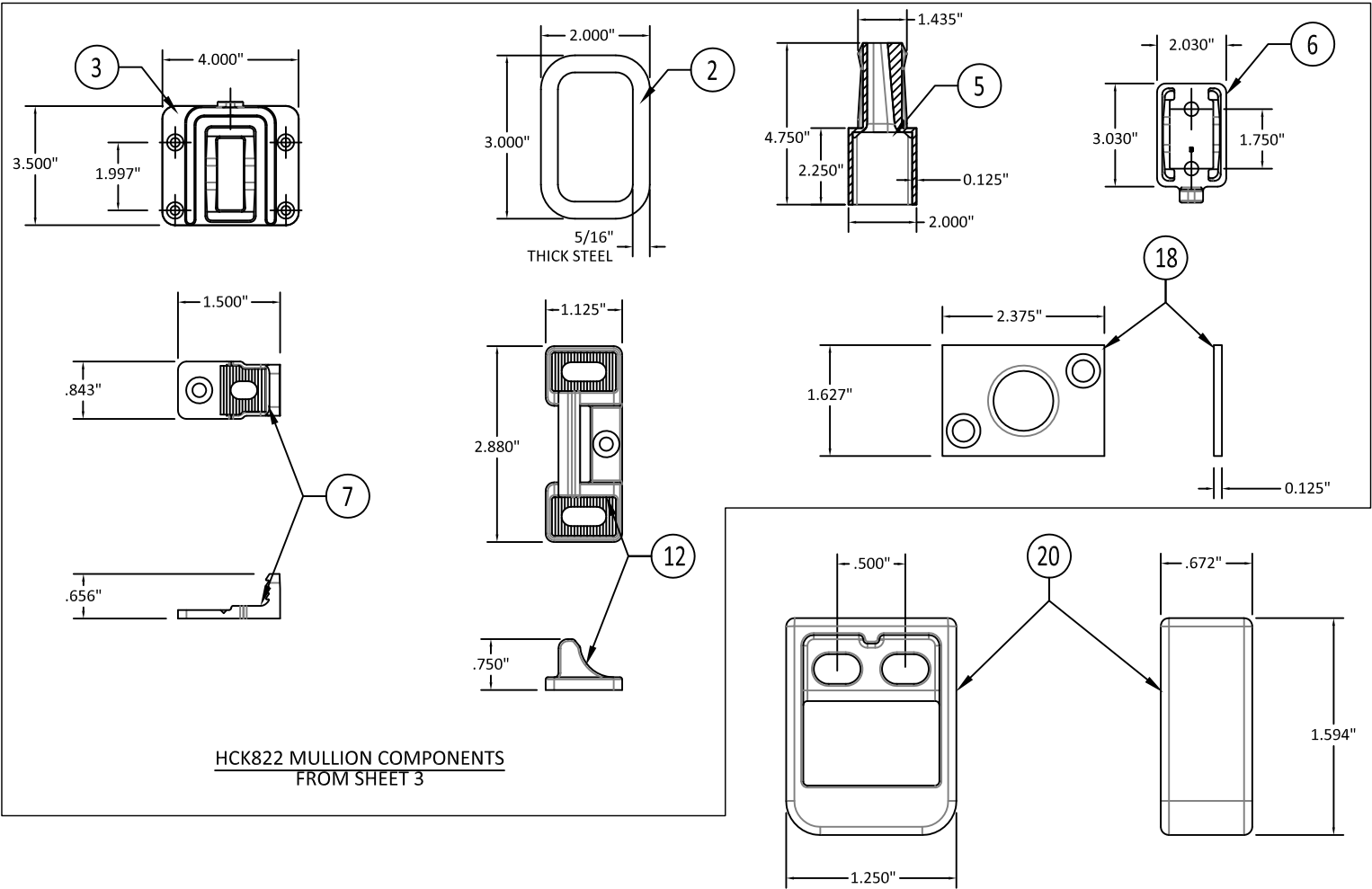
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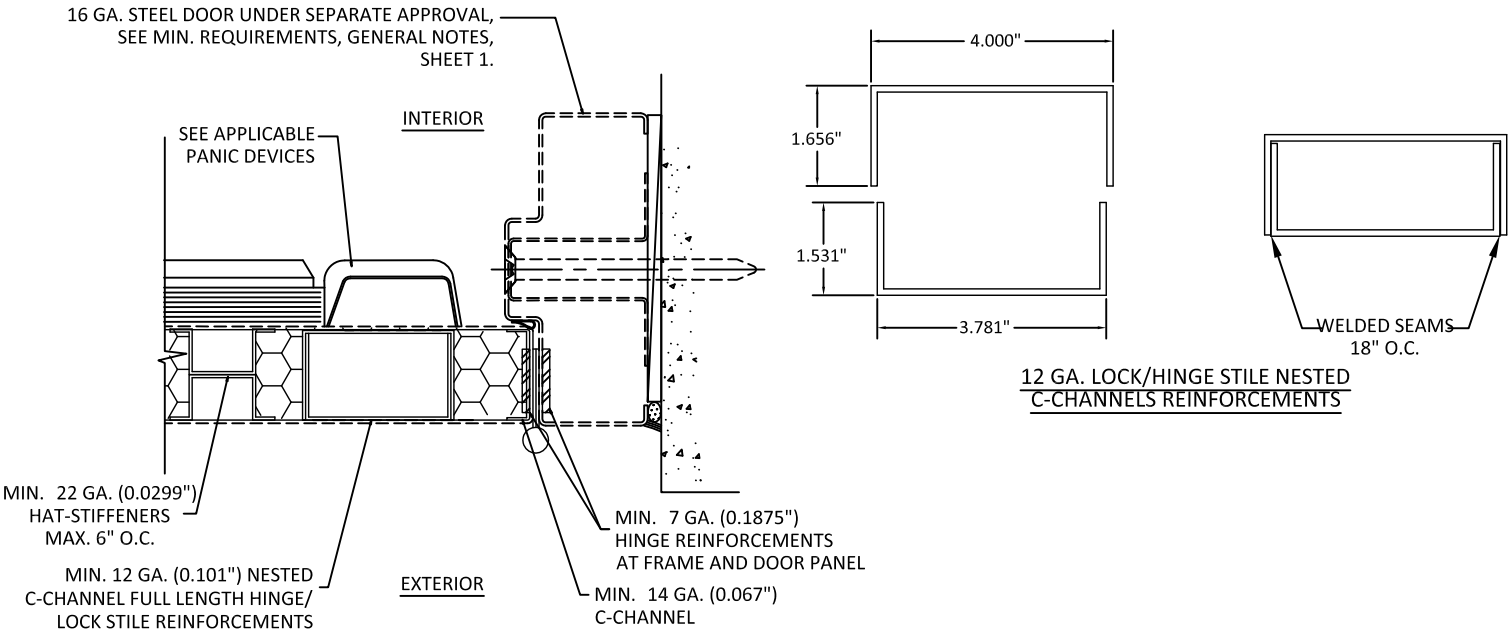
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Item No.	QTY.	Description	Part No.	Series
1	1	3/4 THROW DEADLOCKING LATCHBOLT		HC2100
2	1	HC822 STEEL MULLIONS (ASTM-A500 STEEL GRADE B OR HIGHER STRENGTH MATERIAL) W/(4) 1/4-20 SS FLAT HEAD SCREWS		HC2100
3	1	HCK822 MULLION CAP W/(1) 1/4-20 SET SCREW & (4) 1/4-20 GR. 5 MACHINE SCREWS		HC2100
4		HCKR822 MULLION ALTERNATE CAP W(4) 1/4-20 GR. 5 MACHINE SCREWS		HC2100
5	2	MULLION FITTING ADAPTER TOP/BOTTOM		HC2100
6	1	MULLION STILL BASE W/ (2) 3/8 HILTI KWIK BOLT 3 EXPANSION ANCHORS W/ 2 5/16" EMB. INTO CONCRETE & (1) 1/4-20 SET SCREW		HC822
7	1	INTERLOCKING ANGLE W/(1) 1/4-20 & (1) #10-24 MACHINE SCREWS S216	S216	HC2100
8	1	TOUCHBAR ASSEMBLY		HC2100, HC2200, HC2300, HC2800
9	1	DEVICE CHANNEL		HC2100, HC2200, HC2300, HC2800
10	1	HINGE FILLER		HC2100, HC2200, HC2300, HC2800
11	1	ACTIVE CASE W/(4) #10-24 MACHINE SCREWS		HC2100, HC2200, HC2300, HC2800
12	1	STRIKE W/(2) 1/4-20 & (1) 10-24 MACHINE SCREW	S300	HC2100, HC2200
13	1	TOP TOD		HC2200, HC2800
14	1	BOTTOM ROD		HC2200, HC2800
15	1	DEADLOCKING LATCHBOLT W(2) 1/4-20 MACHINE SCREWS & SEX BOLTS		HC2200
15A	1	DEADLOCKING LATCHBOLT W(2) 10-24 MACHINE SCREWS		
16	1	TOP LATCH ASSEMBLY		HC2800
17	1	BOTTOM BOLT ASSEMBLY		HC2200, HC2800
18	1	BOTTOM STRIKE W/(2) 3/8 X 2 1/4" STUD ANCHORS	S460	HC2200, HC2800
19	1	CENTER CHASSIS		HC2800
20	1	TOP STRIKE W(2) #10-24 MACHINE SCREWS	S519	HC2800
21	1	MORTISE ACTIVE CASE W(4) #10-24, (2) 1/4-20 GR. 5 MACHINE SCREWS (SINGLE DOOR ONLY)		HC2300
22	1	MORTISE CASE		HC2300
23	1	STRIKE - MORTISE CURVED LIP W/ (2) 1/4-20 SMS GR. 5		HC2300



HCK822 MULLION COMPONENTS
FROM SHEET 3



1
7 **HORIZONTAL SECTION**
TYPICAL HINGE STILE CONSTRUCTION

dormakaba

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BOM & COMPONENTS

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