

Product Evaluation Report

Report No.: FL-41130.6

Date: July 1, 2023

Product Category	Sub Category	Manufacturer	Product Name
Exterior Doors	Swinging Exterior Door Assemblies	DKS Steel Door & Frame Systems, Inc. 2142 Tubeway Ave. Commerce, CA 90040 (323) 888-7763	DKS Series 1800 Steel Commercial Double Door Inswing / Outswing "Impact"

Scope: This is a Product Evaluation report issued by R W Building Consultants, Inc. and Lyndon F. Schmidt, P.E. for DKS Steel Door & Frame Systems, Inc. based on Rule Chapter No. 61G20-3, Method 1D of the State of Florida Product Approval, Department of Business & Professional Regulation.

RW Building Consultants and Lyndon F. Schmidt, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

Limitations:

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection this product complies with FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
5. Site conditions that deviate from the details of drawing FL-41130.6 require further engineering analysis by a licensed engineer or registered architect.
6. This product does not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.
7. When used in the "HVHZ", steel must be protected as specified in FBC Section 2222.6.
8. See drawing FL-41130.6 for size and design pressure limitations.

Supporting Documents:

- | | | | |
|--|--|---|--|
| 1. Test Report No.
TEL 01820266
ITS 3053378 | Test Standard
TAS 201, 202 & 203-94
UL 10C - 09 | Testing Laboratory
Testing Evaluation Lab., Inc.
Intertek Testing Services | Signed by
Lyndon F. Schmidt, P.E.
Mike van Geyn |
| 2. Drawing No.
No. FL-41130.6 | Prepared by
RW Building Consultants, Inc. (#9813) | | Signed & Sealed by
Lyndon F. Schmidt, P.E. |
| 3. Calculations
Anchoring | Prepared by
RW Building Consultants, Inc. (#9813) | | Signed & Sealed by
Lyndon F. Schmidt, P.E. |

4. **Quality Assurance**
Certificate of Participation issued by National Accreditation and Management Institute, certifying that DKS Steel Door & Frame Systems, Inc. is manufacturing products within a quality assurance program that complies with ISO/IEC 17020 and Guide 53.

Digitally signed by Lyndon F Schmidt
Date: 2023.07.19 09:17:19 -04'00'

LYNDON F. SCHMIDT, State of Florida, Professional Engineer, License No. 43409
This item has been digitally signed and sealed by L. F. Schmidt on 7-19-23.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
THIS PRODUCT APPROVAL IS VALID ONLY FOR THE STATE OF FLORIDA

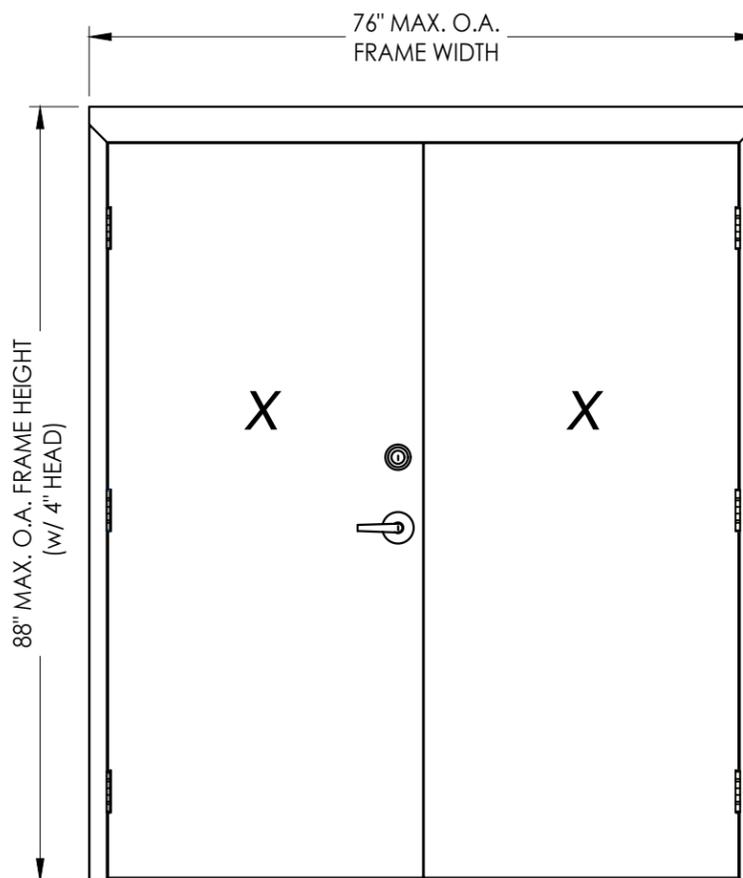


STEEL DOOR & FRAME SYSTEMS, INC.

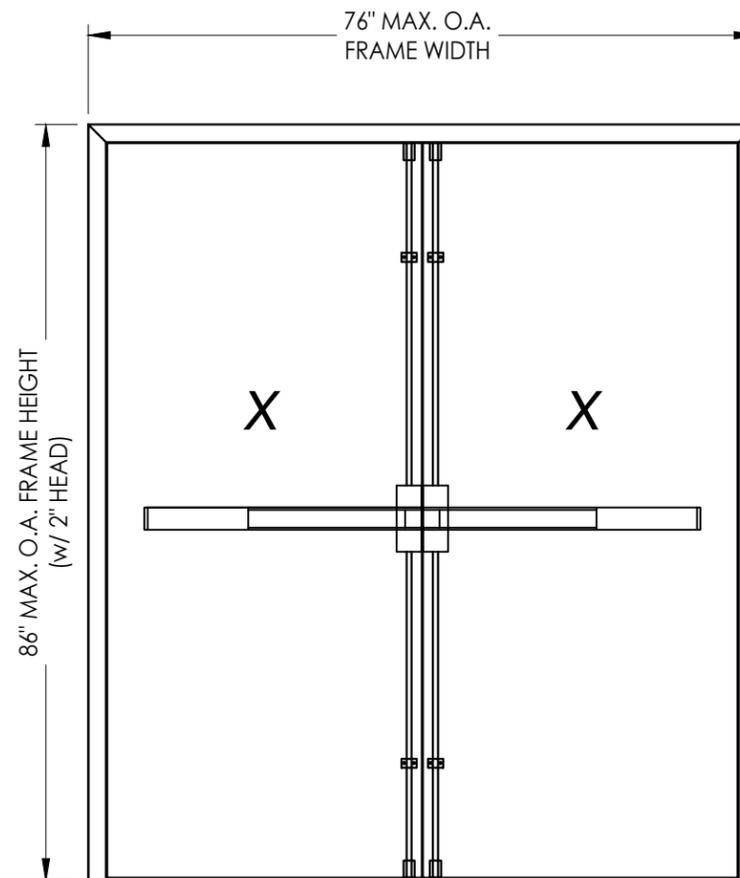
DKS SERIES 1800 STEEL COMMERCIAL DOUBLE DOOR IN SWING / OUT SWING "IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
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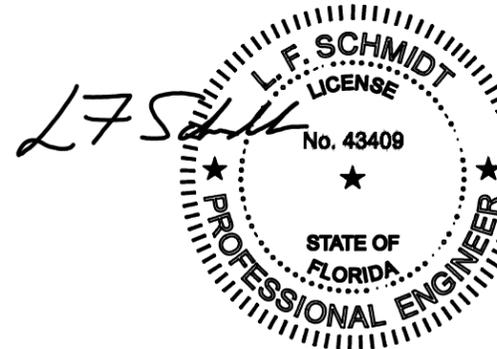
"Pioneer SL/CSL Series" Latch
"T300 Series" Deadbolt
161 Latch & Deadbolt



Panic Bar Exit Device w/ Vertical Rods
"7700-V Series"

MAX FRAME DIMENSION	LOCK TYPE	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
76.0" x 88.0"	161 LATCH & DEADBOLT "Pioneer SL/CSL & T300 Series"	+55.0	-55.0	+55.0	-55.0
76.0" x 88.0"	PANIC BAR EXIT DEVICE w/ VERTICAL RODS "7700-V Series"	N/A	N/A	+70.0	-70.0

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	Typical elevation, design pressures & general notes
2	Door panel details
3	Door panel details
4	Horizontal cross sections
5	Vertical cross sections
6	Frame anchoring
7	Frame anchoring
8	Components
9	Bill of materials and components



Digitally signed by Lyndon F Schmidt
Date: 2023.07.19 09:05:35 -04'00'

This item has been digitally signed and sealed by L. F. Schmidt, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID ONLY FOR THE STATE OF FLORIDA

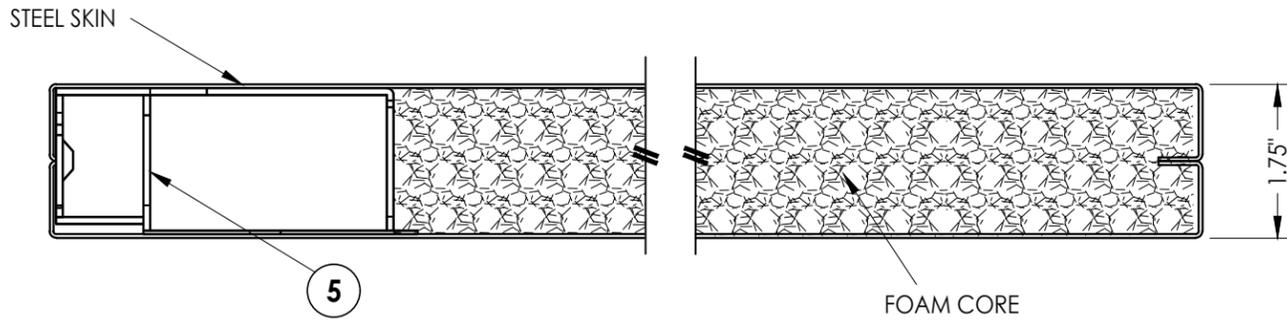
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

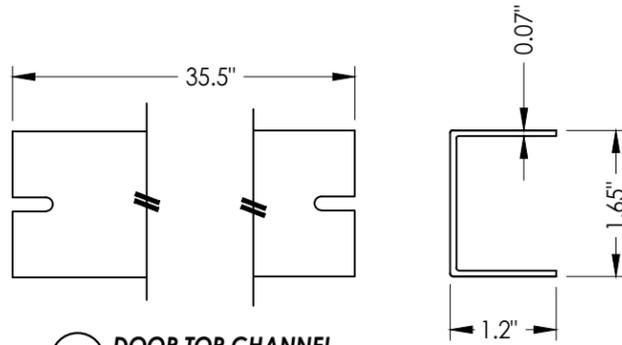
PRODUCT: DKS STEEL COMMERCIAL DOOR
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	BY	REVISIONS
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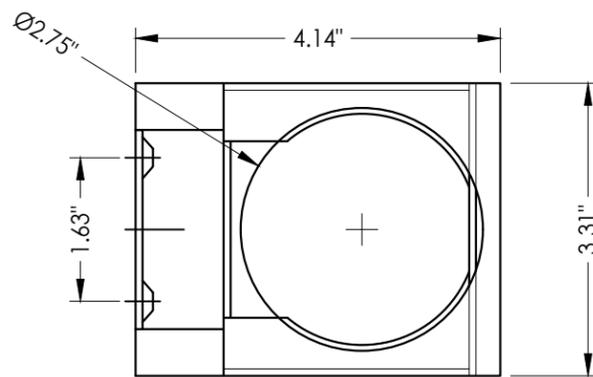
DATE: 3/21/22
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.: FL-41130.6
SHEET 1 OF 9



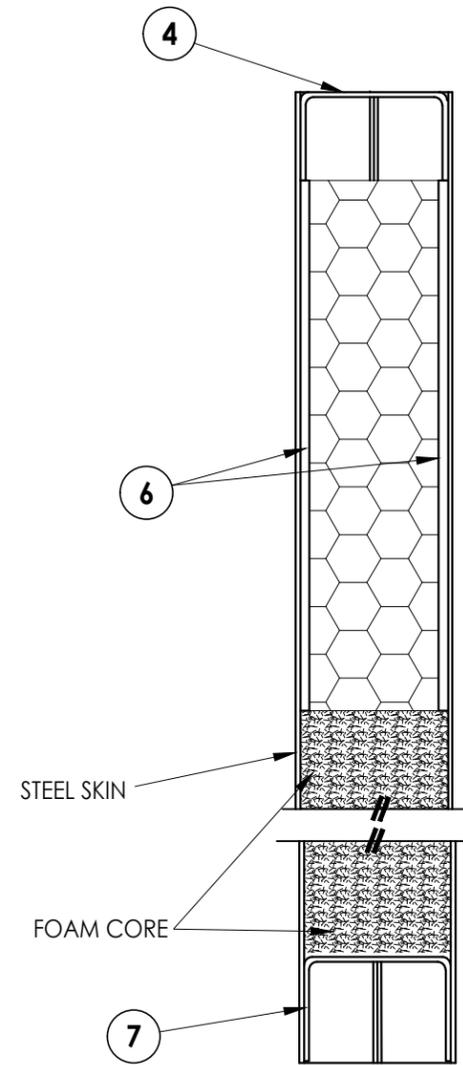
1 HORIZONTAL CROSS SECTION
2



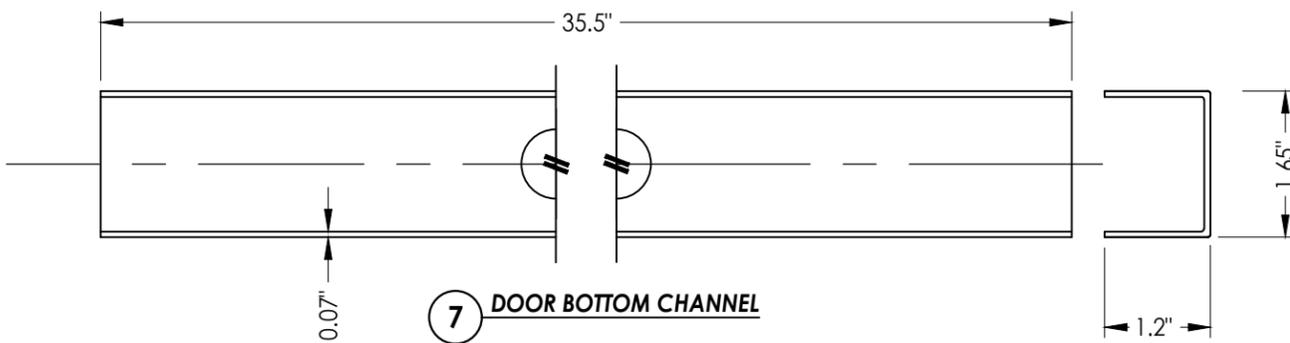
4 DOOR TOP CHANNEL



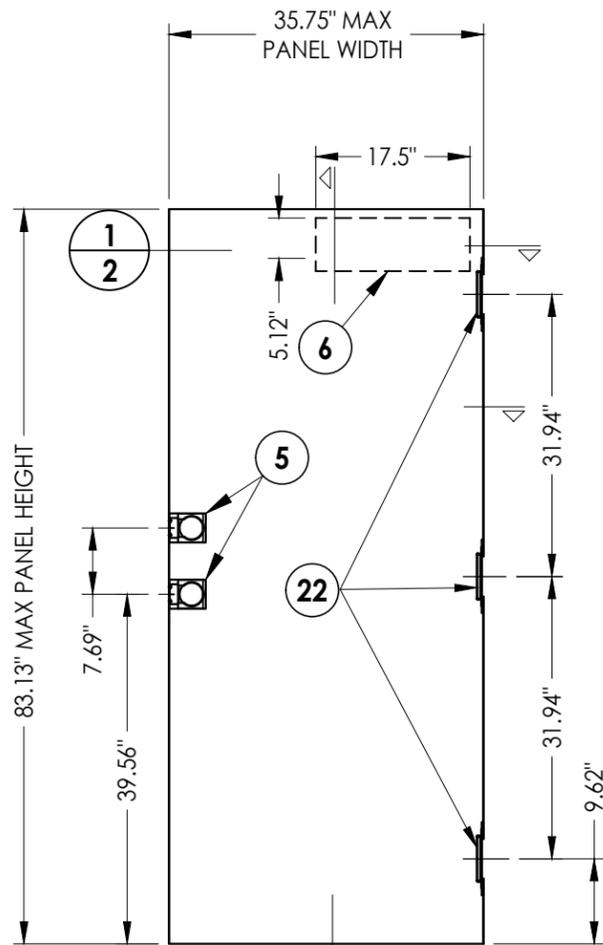
5 STEEL LOCK BOX REINFORCEMENT
161 Lock prep only



2 VERTICAL CROSS SECTION
2



7 DOOR BOTTOM CHANNEL



1 DKS STEEL DOOR PANEL
Active door

STEEL DOOR SKIN (18 GA.): MIN. 0.045" THK.
STEEL GRADE: ASTM A1008 GALV. STEEL (F_y = 33,000 PSI MIN.)
CORE MATERIAL: EPS FOAM (POLYSTYRENE - 1.0 PCF MIN. DENSITY)

Documents Prepared By:
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P.E. No. 43409

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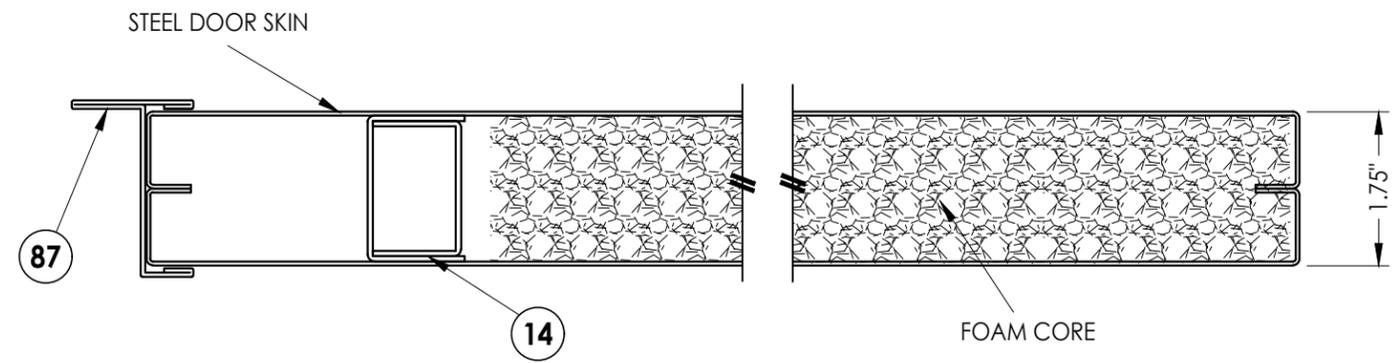
PRODUCT: DKS
STEEL COMMERCIAL DOOR

PART OR ASSEMBLY:
DOOR PANEL DETAILS

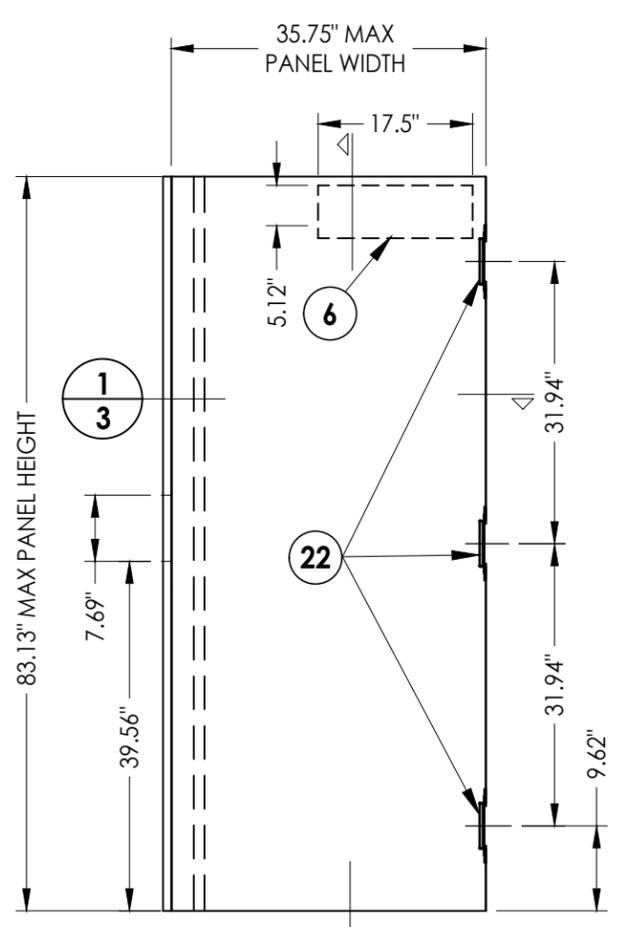
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UPDATE TO 8TH ED. (2023) FBC		

REVISIONS

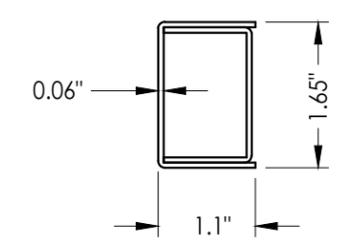
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CHK. BY: RW
DRAWING NO.: FL-41130.6
SHEET 2 OF 9



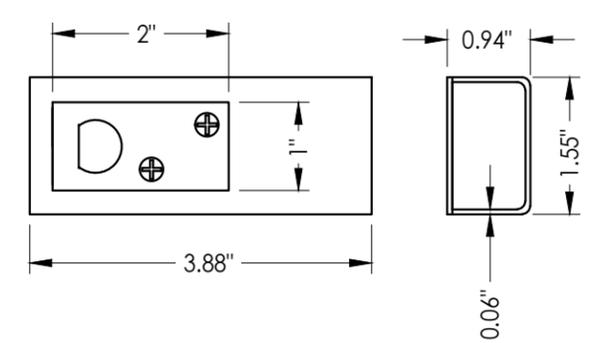
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3 HORIZONTAL CROSS SECTION



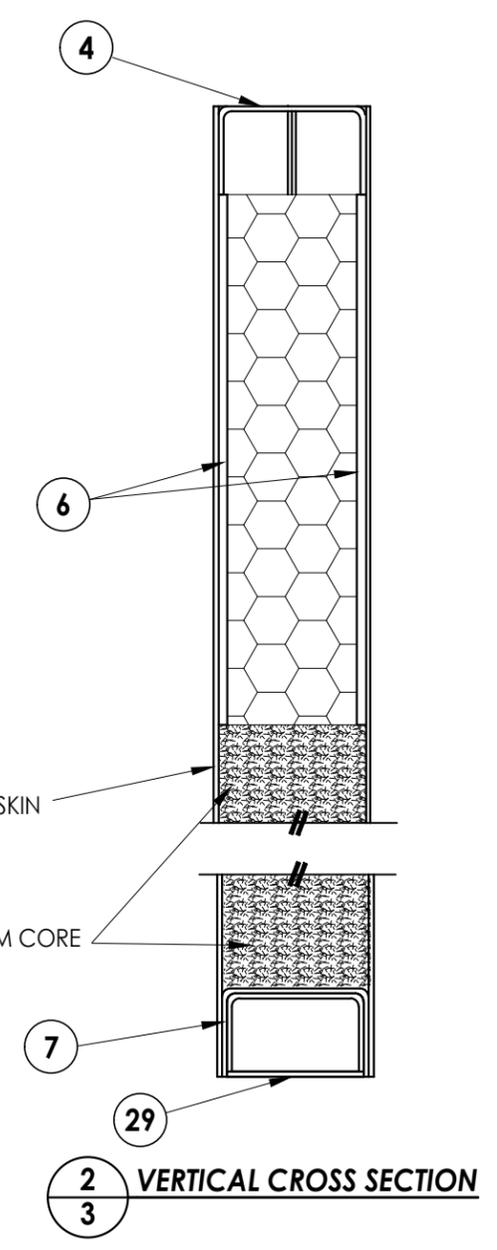
2
3 DKS STEEL DOOR PANEL
Inactive Door



14 STILE REINFORCEMENT



29 DOOR BOTTOM REINFORCEMENT
w/ Strike Plate



2
3 VERTICAL CROSS SECTION

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

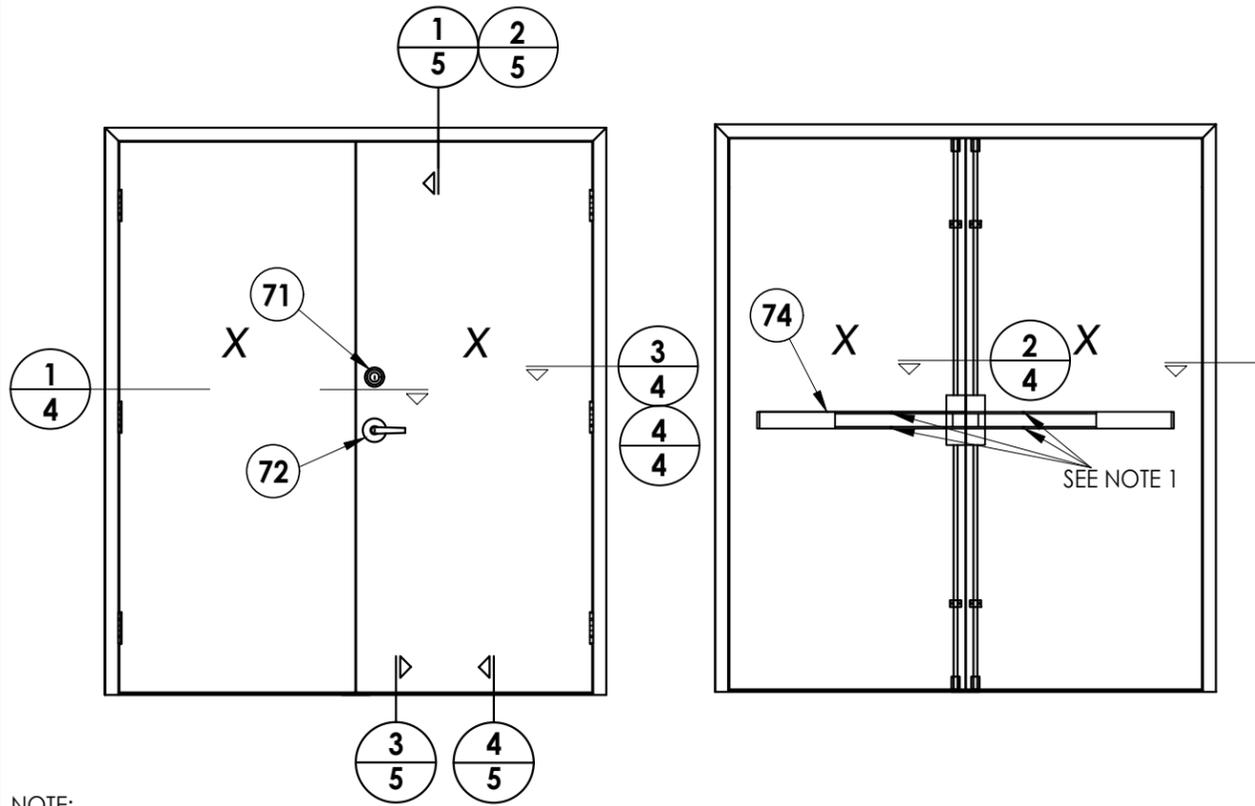
RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:	DKS
	STEEL COMMERCIAL DOOR
PART OR ASSEMBLY:	DOOR PANEL DETAILS

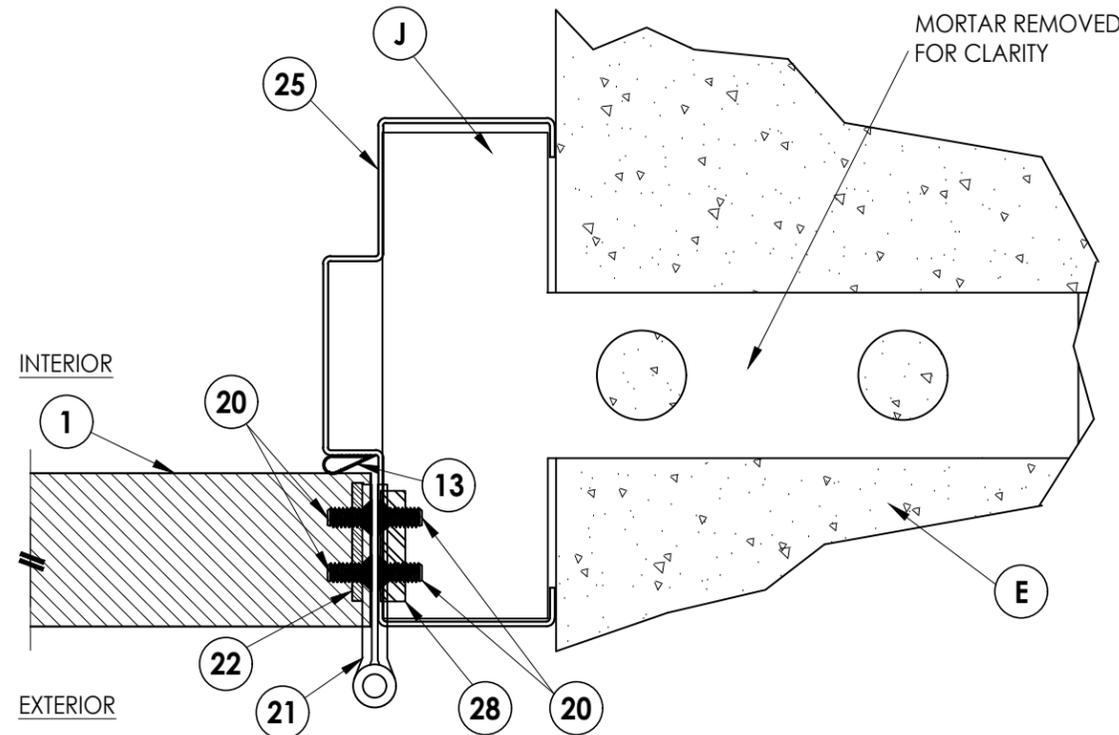
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1	7/01/23	LFS
	UPDATE TO 8TH ED. (2023)	FBC

DATE:	3/21/22
SCALE:	N.T.S.
DWG. BY:	LFS
CHK. BY:	RW
DRAWING NO.:	FL-41130.6
SHEET	3 OF 9

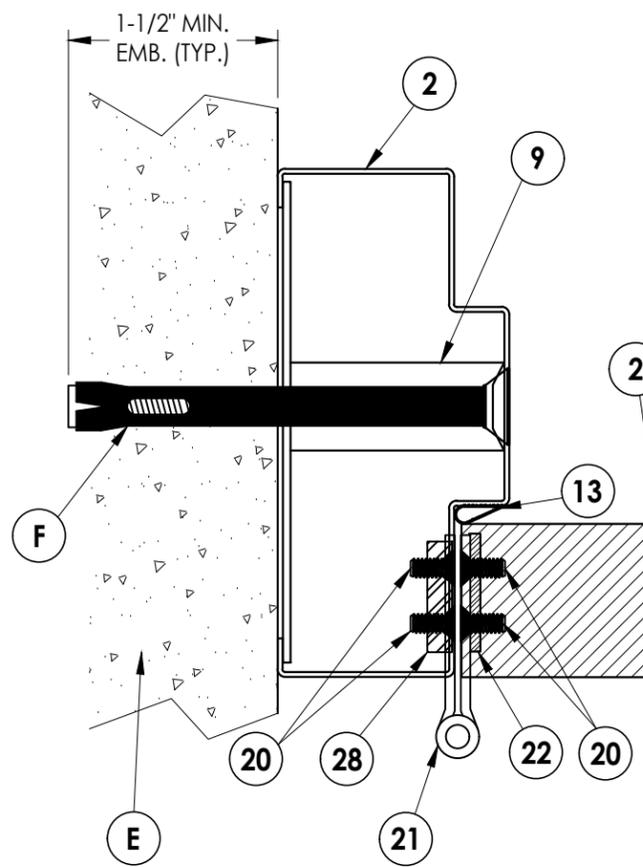
STEEL DOOR SKIN (18 GA.): MIN. 0.045" THK.
STEEL GRADE: ASTM A1008 GALV. STEEL (Fy = 33,000 PSI MIN.)
CORE MATERIAL: EPS FOAM (POLYSTYRENE - 1.0 PCF MIN. DENSITY)



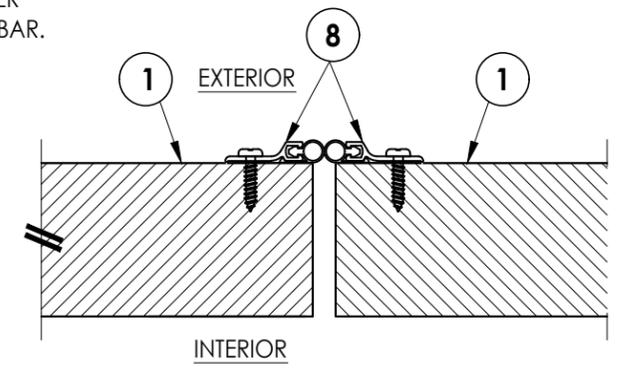
NOTE:
 1. PANIC BAR SET SCREWS (#12-24 x 5/16") MUST BE ACTIVATED TO ACHIEVE IMPACT RATING. LOCATE ONE SCREW AT TOP AND BOTTOM AT CENTER OF EACH PUSH RAIL OR LOCATE ONE SCREW AT EACH END OF EACH BAR.



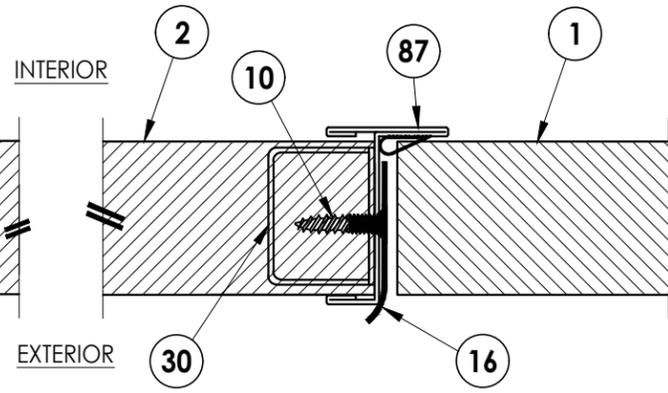
3
4 **HORIZONTAL CROSS SECTION**
 Masonry Construction
 Masonry "Tee" Anchor



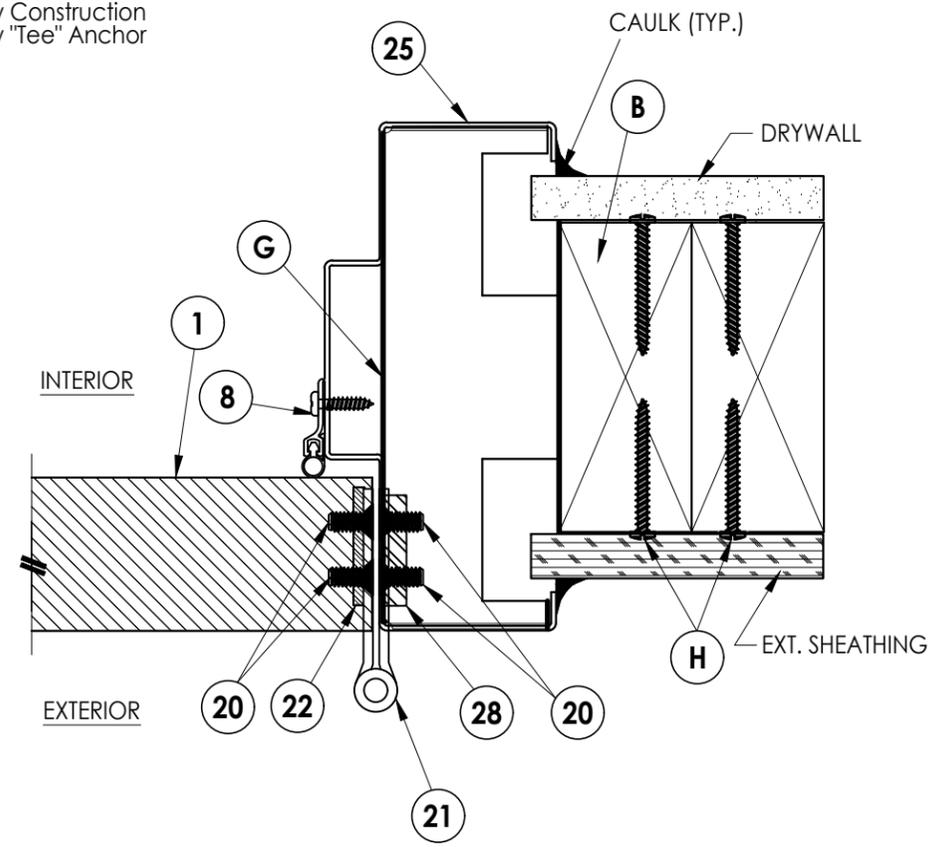
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4 **HORIZONTAL CROSS SECTION**



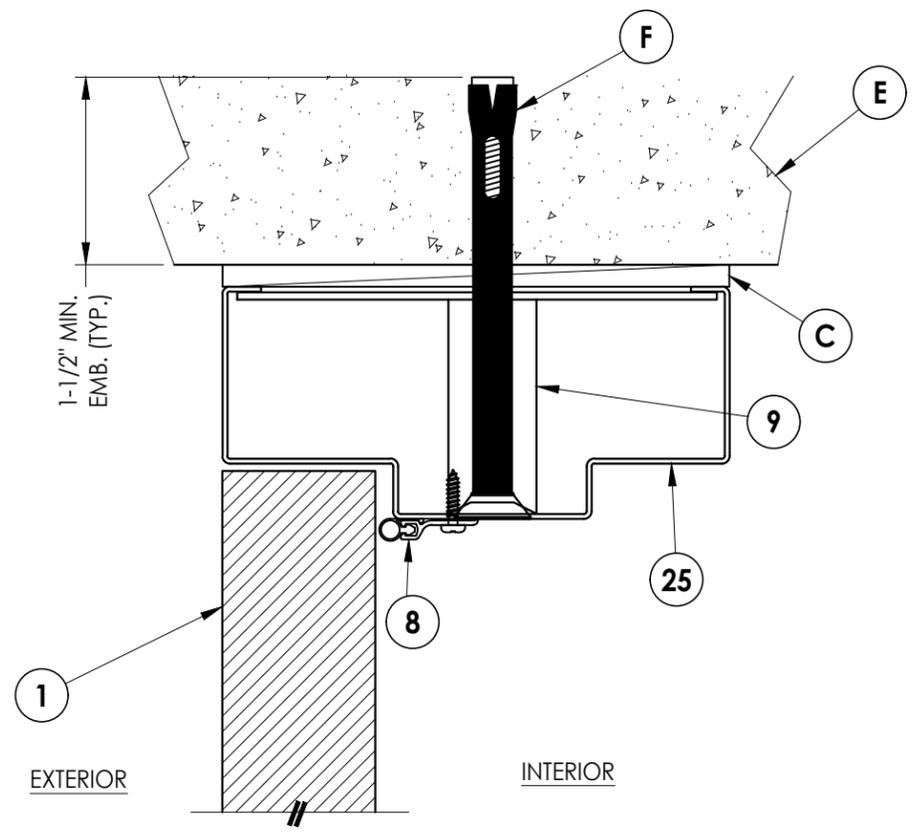
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4 **HORIZONTAL CROSS SECTION**



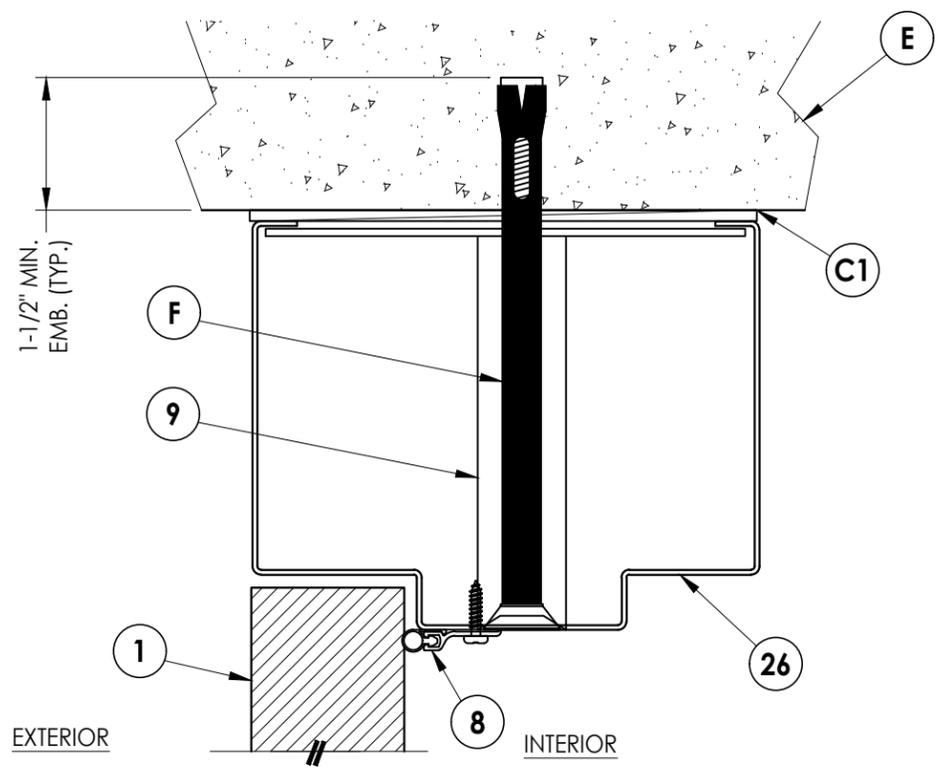
4
4 **HORIZONTAL CROSS SECTION**
 2X Stud Construction
 Wood Stud Anchor



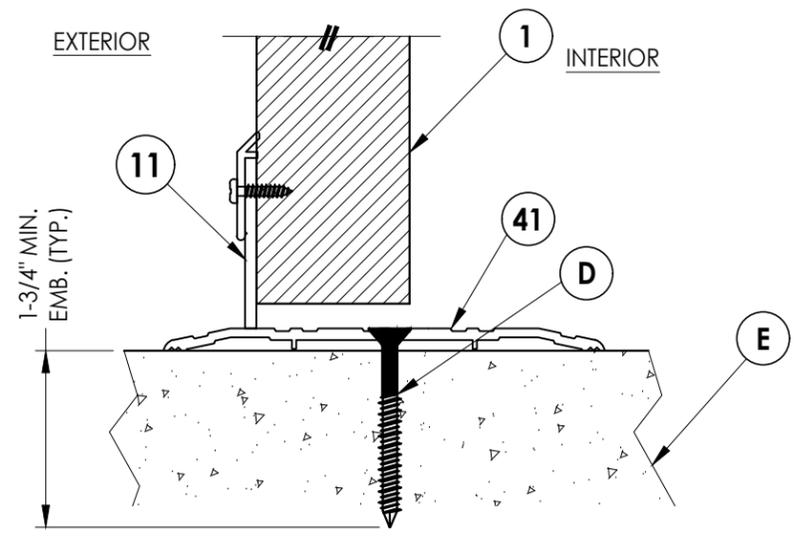
Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Valrico, FL 33595 Phone No.: 813.659.9197 FBPE Registry No. 9813	
PRODUCT:	DKS STEEL COMMERCIAL DOOR	PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
NO.	DATE	BY	REVISIONS
1	7/01/23	LFS	UPDATE TO 8TH ED. (2023) FBC
DATE: 3/21/22		SCALE: N.T.S.	
DWG. BY: LFS		CHK. BY: RW	
DRAWING NO.: FL-41130.6		SHEET 4 OF 9	



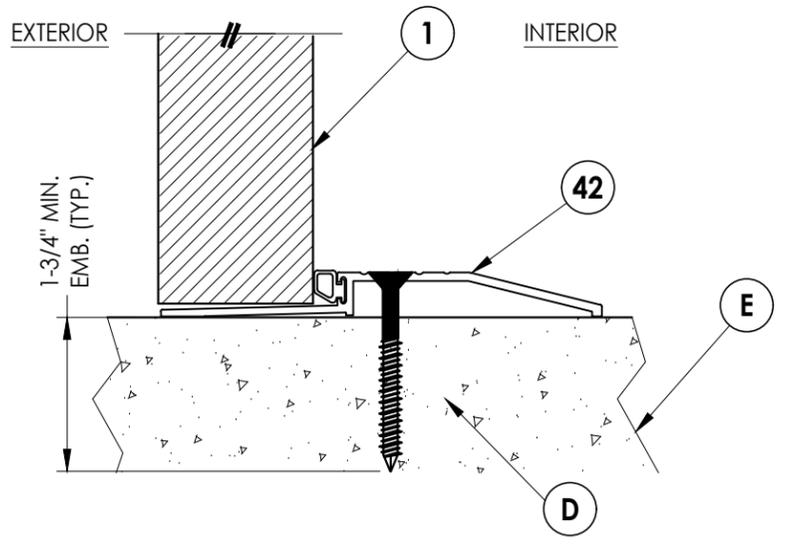
1 VERTICAL CROSS SECTION
5 Outswing configuration - Inswing also approved



2 VERTICAL CROSS SECTION
5 Outswing configuration - Inswing also approved



3 VERTICAL CROSS SECTION
5 Inswing configuration



4 VERTICAL CROSS SECTION
5 Outswing configuration

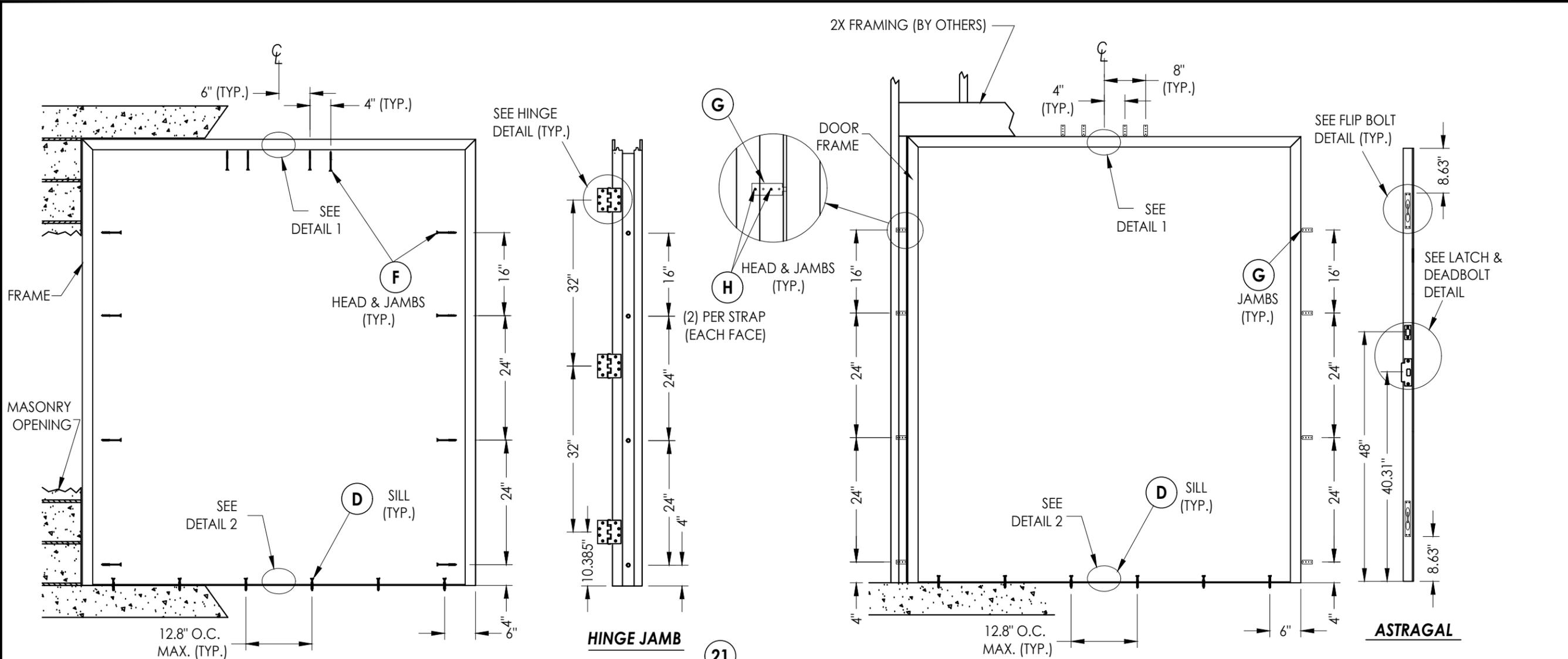
Documents Prepared By:
 Lyndon F. Schmidt
 P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
 P.O. Box 230, Vairico, FL 33595
 Phone No.: 813.659.9197
 FBPE Registry No. 9813

PRODUCT:
 DKS
 STEEL COMMERCIAL DOOR
 PART OR ASSEMBLY:
 VERTICAL CROSS SECTIONS

NO.	DATE	BY
1	7/01/23	LFS
	UPDATE TO 8TH ED. (2023)	FBC

DATE: 3/21/22
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.: FL-41130.6
 SHEET 5 OF 9



FRAME ANCHORING
Masonry Construction
Concrete Anchors

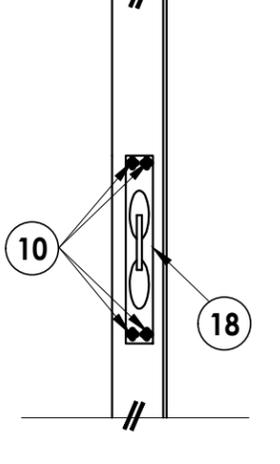
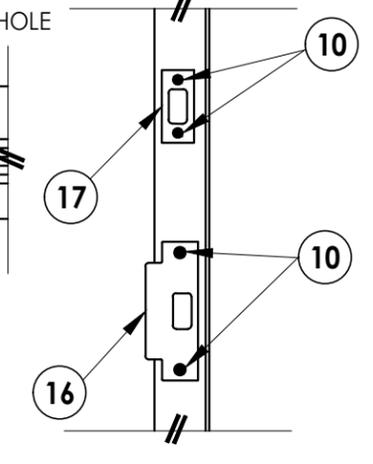
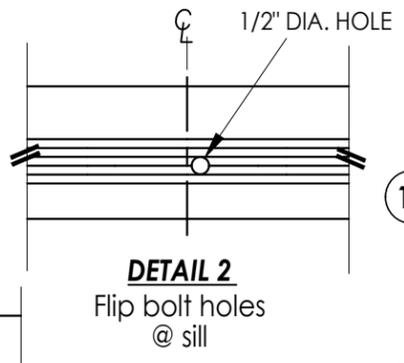
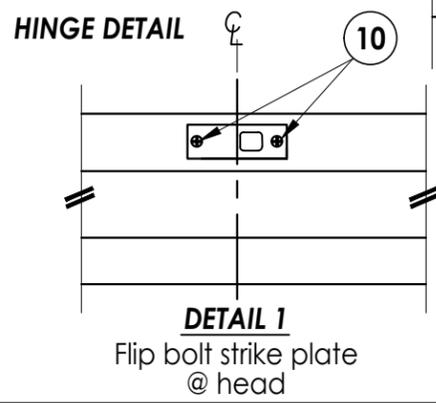
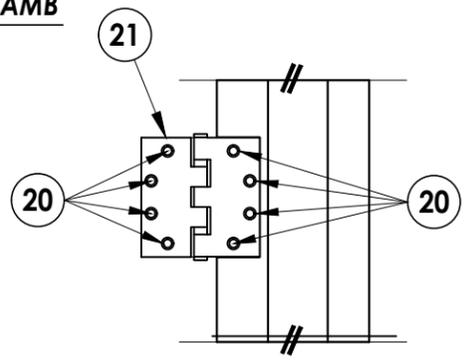
FRAME ANCHORING
2X Stud Construction
Strap Anchors

- CONCRETE ANCHOR NOTES:**
1. Substitution of equal concrete screws from a different supplier may have different edge distance and center distance requirements.
 2. Concrete screw locations at the corners may be adjusted to maintain the minimum edge distance to mortar joints. If concrete screw locations noted as "MAX. ON CENTER" must be adjusted to maintain the minimum edge distance to mortar joints, additional concrete screws may be required to ensure the maximum on center dimension is not exceeded.
 3. Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-3/4"	2-1/2"	4"
DeWALT ULTRACON+	1/4"	1-3/4"	1"	4"
DYNABOLT SLEEVE ANCHOR	3/8"	1-1/2"	2-1/4"	4-1/2"

4. Embedment may be through 1-1/4" face shell of hollow block.

- WOOD SCREW INSTALLATION NOTES:**
1. Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: DKS STEEL COMMERCIAL DOOR
PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	DESCRIPTION	BY
1	7/01/23	UPDATE TO 8TH ED. (2023) FBC	LFS

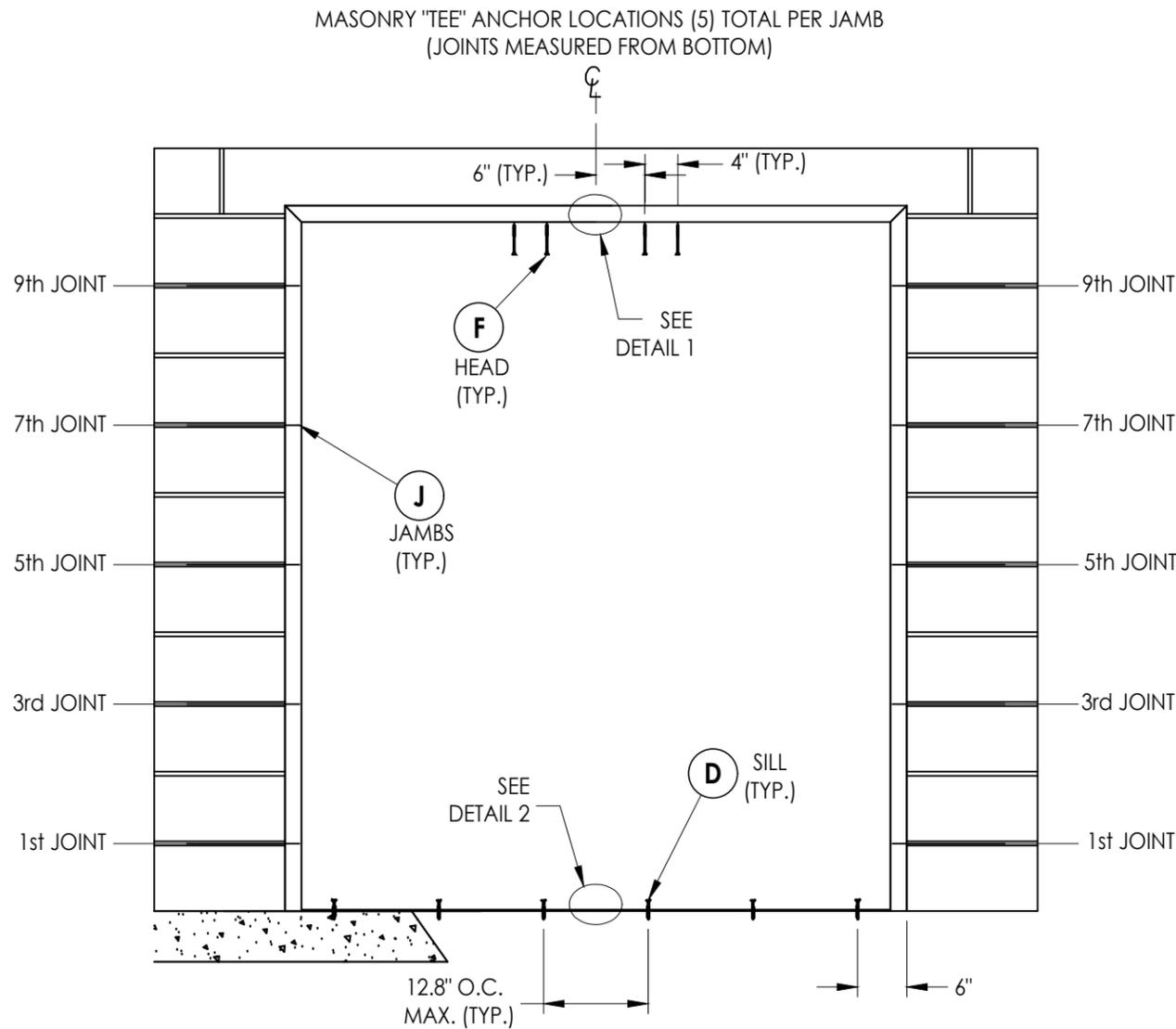
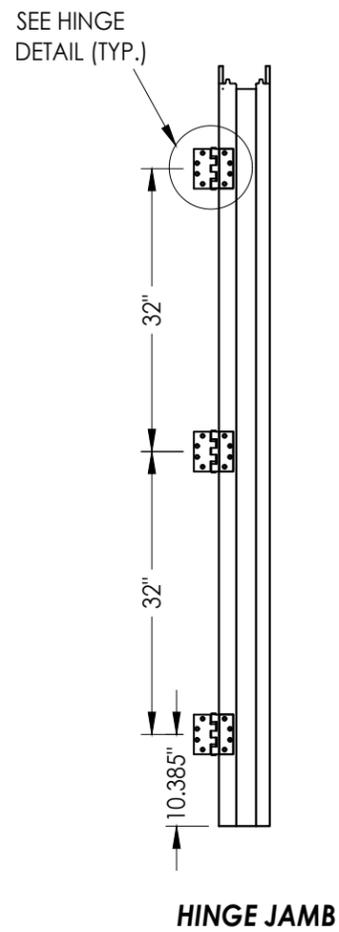
REVISIONS

DATE: 3/21/22
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.: FL-41130.6
SHEET 6 OF 9

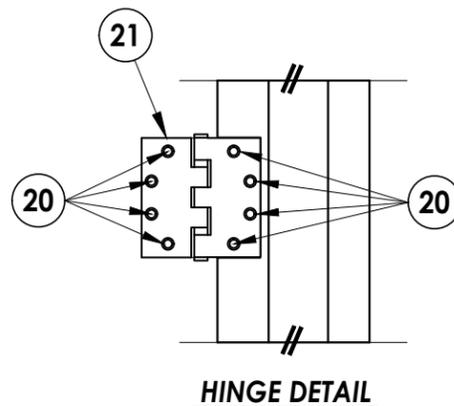
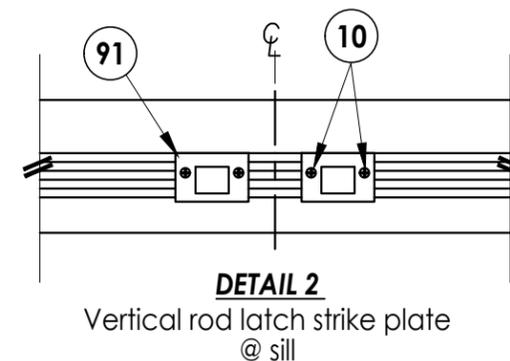
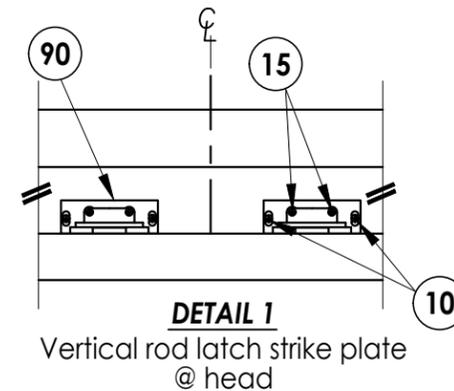
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Z:\2023 FBC Drawings\DKS Steel Door & Frames Systems\FL-41130 R1\FL-41130.3-6.dwg

Z:\2023 FBC Drawings\DKS Steel Door & Frames Systems\FL-41130 R1\FL-41130.3-6.dwg



FRAME ANCHORING
Masonry Construction
Masonry "Tee" Anchors



CONCRETE ANCHOR NOTES:

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DYNABOLT SLEEVE ANCHOR	3/8"	1-1/2"	2-1/4"	4-1/2"

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

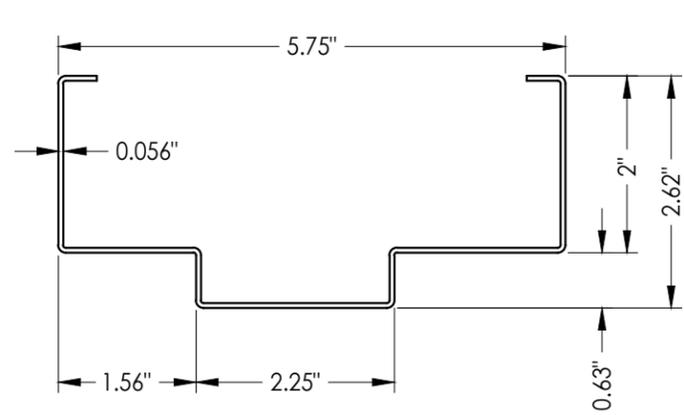
PRODUCT: DKS STEEL COMMERCIAL DOOR

PART OR ASSEMBLY: FRAME ANCHORING

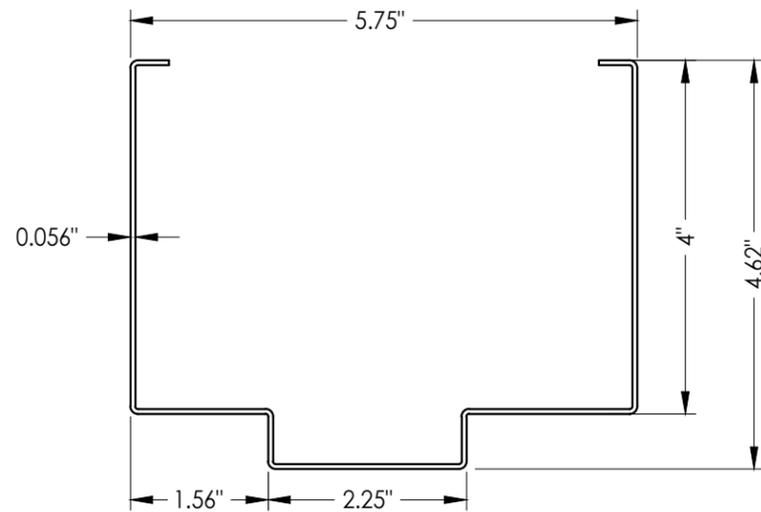
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1	7/01/23	LFS

REVISIONS

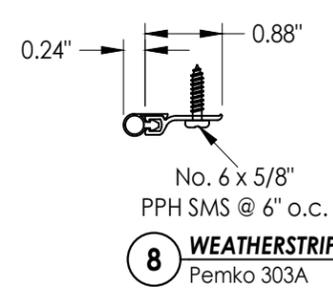
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SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.: FL-41130.6
SHEET 7 OF 9



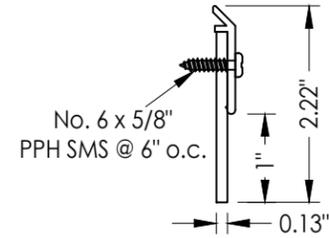
26 HOLLOW METAL FRAME
2" HEAD



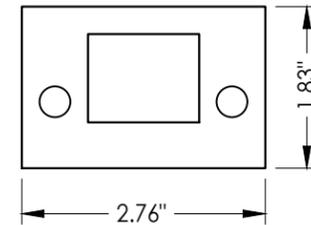
26 HOLLOW METAL FRAME
4" HEAD



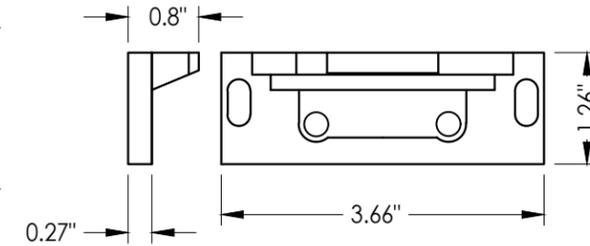
8 WEATHERSTRIP
Pemko 303A



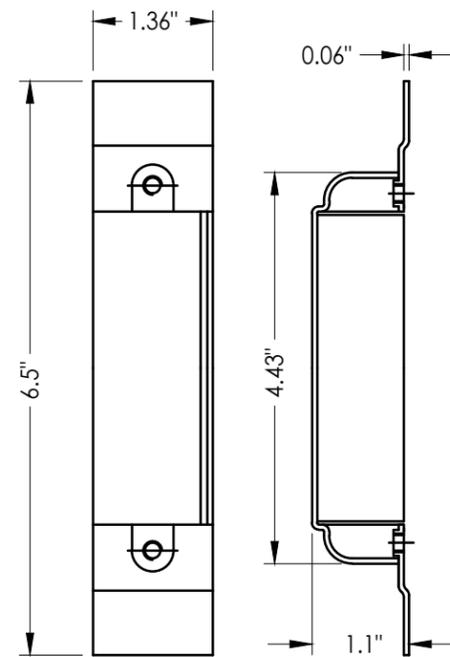
11 DOOR SWEEP
Pemko 3151



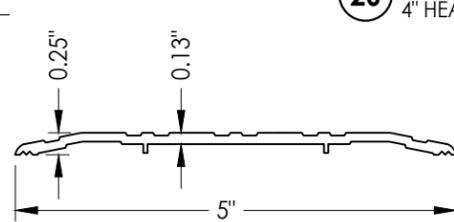
91 VERTICAL ROD LATCH STRIKE PLATE
@ Sill



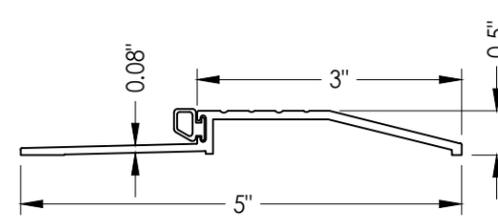
90 VERTICAL ROD LATCH STRIKE PLATE
@ Head



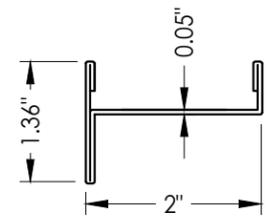
30 DOOR LATCH REINFORCEMENT



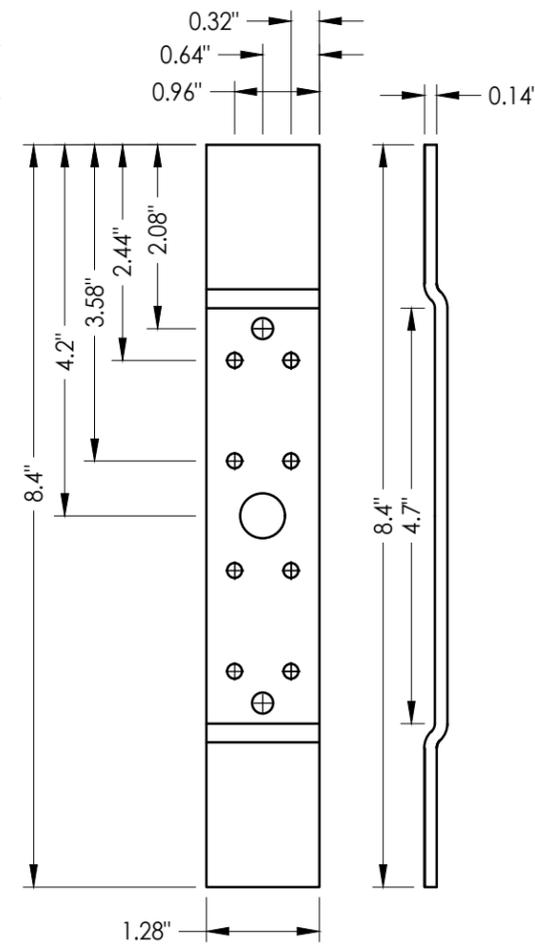
41 THRESHOLD
Pemko 271



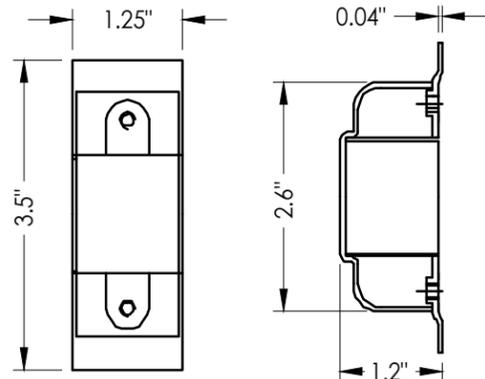
42 THRESHOLD
Pemko 2001P



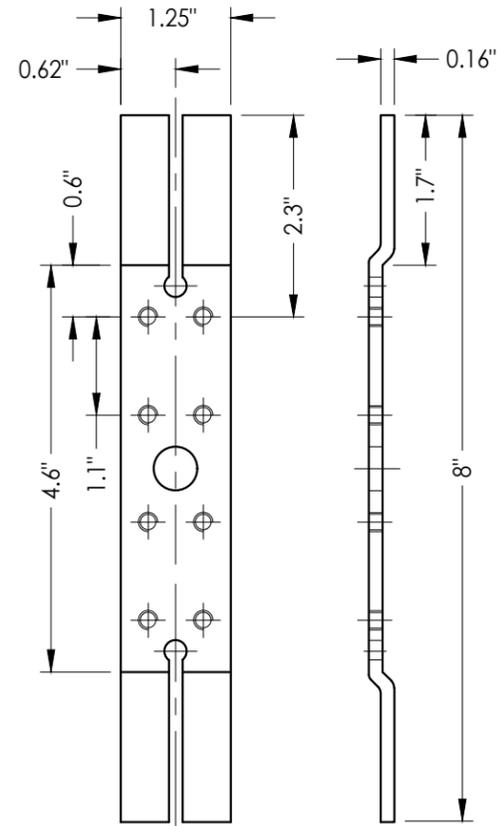
87 ASTRAGAL



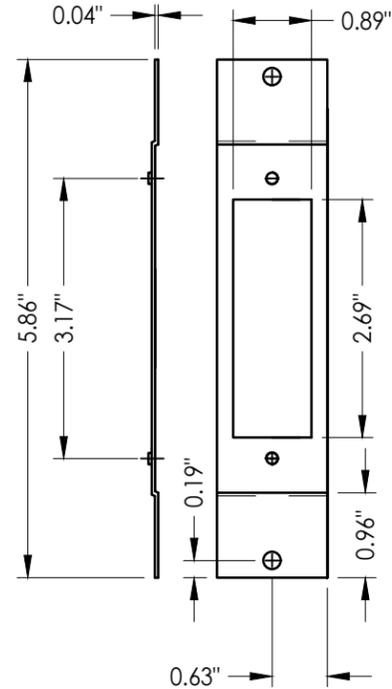
28 FRAME HINGE REINFORCEMENT



31 DOOR DEADBOLT REINFORCEMENT



22 DOOR HINGE REINFORCEMENT



27 FRAME LATCH STRIKE REINFORCEMENT

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Vairico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT:
DKS
STEEL COMMERCIAL DOOR

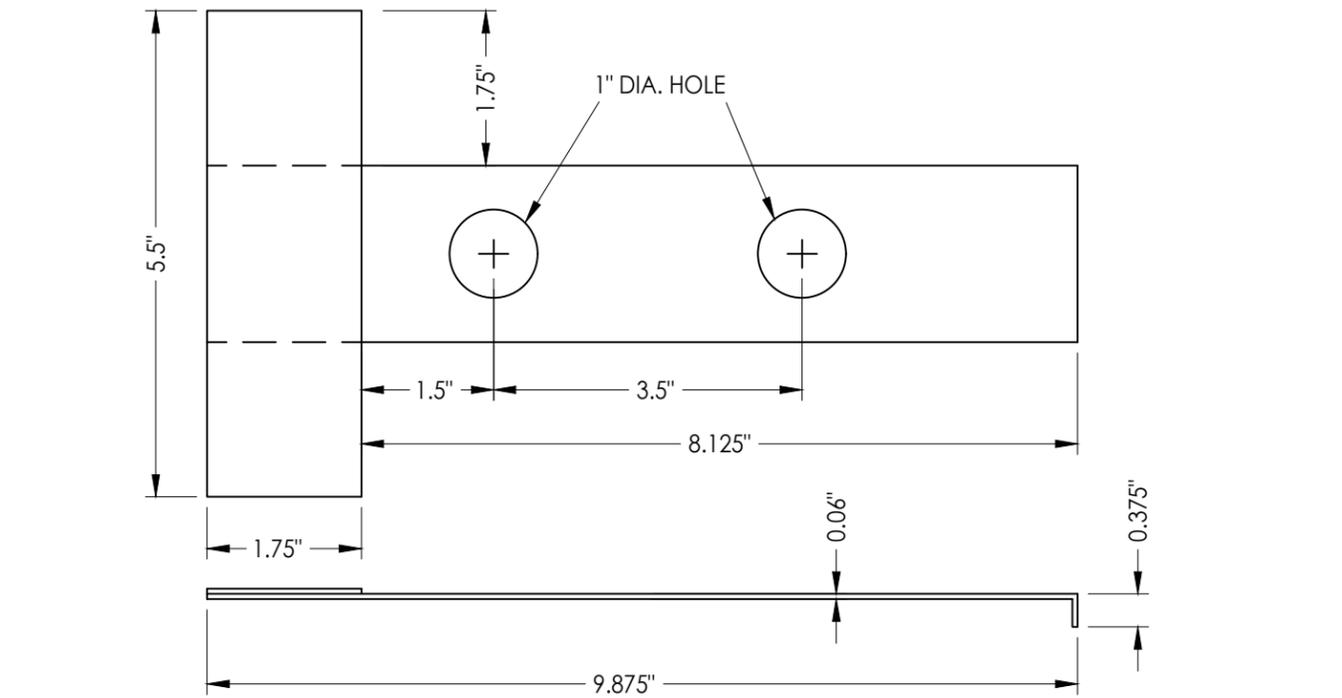
PART OR ASSEMBLY:
COMPONENTS

NO.	DATE	BY	REVISIONS
1	7/01/23	LFS	UPDATE TO 8TH ED. (2023) FBC

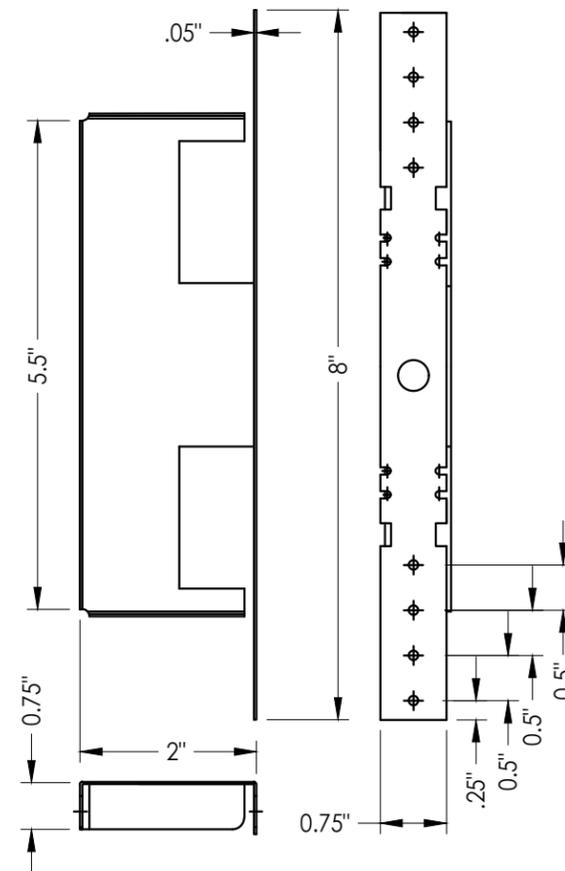
DATE: 3/21/22
SCALE: N.T.S.
DWG. BY: LFS
CHK. BY: RW
DRAWING NO.: FL-41130.6
SHEET 8 OF 9

Z:\2023 FBC Drawings\DKS Steel Door & Frames Systems\FL-41130 R1\FL-41130.3-6.dwg

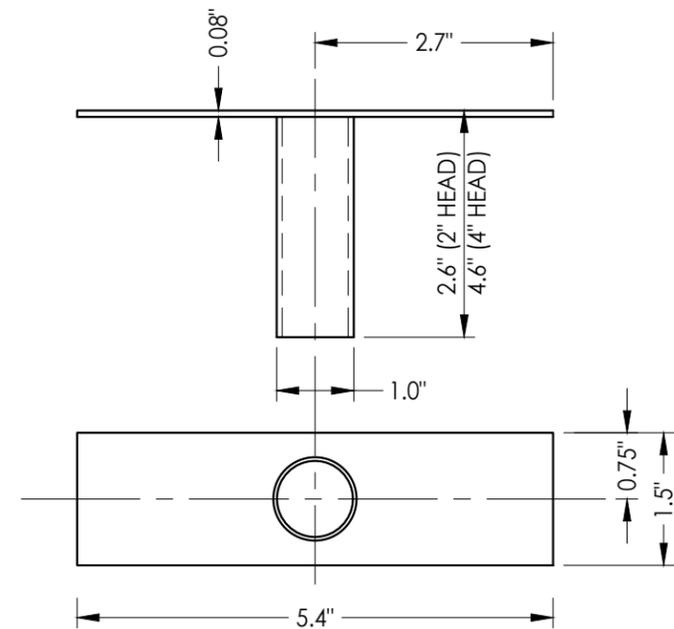
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
B	2 X 4 FRAMING (SG >= 0.55)	-
C	1/4" MAX. SHIM SPACE	-
C1	1/8" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	3/8" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL
G	WOOD STRAP ANCHOR	STEEL
H	#8 X 1-1/2" PH WOOD SCREW (1-3/8" MIN. EMBEDMENT)	STEEL
J	MASONRY "TEE" ANCHOR	STEEL
1	DKS DOOR PANEL (ACTIVE DOOR)	-
2	DKS DOOR PANEL (INACTIVE DOOR)	-
4	DOOR TOP CHANNEL	STEEL
5	LOCK BOX REINFORCEMENT	STEEL
6	CLOSER REINFORCEMENT (11 GA.)	STEEL
7	DOOR BOTTOM CHANNEL	STEEL
8	WEATHERSTRIP - PEMKO 303A	NEOPRENE
9	TUBE ANCHOR	STEEL
10	#12-24 X 1" COMBINATION MACHINE / WOOD SCREW	STEEL
11	DOOR SWEEP - PEMKO 3151	PVC
13	WEATHERSTRIP - COMPRESSION BULB 1/4" X 1/2" (PEMKO S88)	NEOPRENE
14	STILE REINFORCEMENT	STEEL
15	#8-24 X 3/4" COMBINATION MACHINE / WOOD SCREW	STEEL
16	ANSI LATCH STRIKE	STEEL
17	DEAD BOLT STRIKE	STEEL
18	FLIP BOLT (CAL-ROYAL)	-
20	#12-24 X 1/2" PFH MACHINE SCREW	STEEL
21	4-1/2" X 4-1/2" X 0.125" TEMPLATE HINGE	STEEL
22	DOOR HINGE REINFORCEMENT	STEEL
25	HOLLOW FRAME 2"	STEEL
26	HOLLOW FRAME 4" HEAD	STEEL
27	FRAME LATCH STRIKE REINFORCEMENT	STEEL
28	FRAME HINGE REINFORCEMENT	STEEL
29	DOOR BOTTOM REINFORCEMENT w/ STRIKE PLATE	STEEL
30	DOOR LATCH REINFORCEMENT	STEEL
31	DOOR DEADBOLT REINFORCEMENT	STEEL
41	INSWING THRESHOLD - PEMKO 271	ALUM
42	OUTSWING THRESHOLD - PEMKO 2001P	ALUM
71	CAL-ROYAL PIONEER SL/CSL SERIES CYLINDRICAL LOCK	-
72	CAL-ROYAL T300 SERIES DEADBOLT	-
74	CAL-ROYAL 7700-V SERIES VERTICAL ROD EXIT DEVICE	-
87	ASTRAGAL	STEEL
90	VERTICAL ROD LATCH STRIKE PLATE @ HEAD	STEEL
91	VERTICAL ROD LATCH STRIKE PLATE @ SILL	STEEL



J MASONRY 'TEE' ANCHOR



G WOOD STRAP ANCHOR



9 TUBE ANCHOR

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PART OR ASSEMBLY:
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NO.	DATE	BY	LFS	FBC
1	7/01/23	DATE	UPDATE TO 8TH ED.	(2023)

REVISIONS

DATE: 3/21/22
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DWG. BY: LFS
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DRAWING NO.: FL-41130.6
SHEET 9 OF 9

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