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### R W Building Consultants, Inc.

Consulting and Engineering Services for the Building Industry
P.O. Box 230 Valrico, FL 33595 Phone 813.659.9197

Florida Board of Professional Engineers Registry License No. 9813

**Product Evaluation Report** 

Report No.:

FL-41130.4

Date:

July 1, 2023

Product Category Sub Category		Manufacturer	Product Name	
	Exterior Doors Swinging Exterior Door Assemblies DKS Steel Door & Frame Systems, I 2142 Tubeway Ave. Commerce, CA 90040 (323) 888-7763	DKS Steel Door & Frame Systems, Inc.	DKS Series 1800	
		2142 Tubeway Ave.	Steel Commercial Single Door	
Doors		Commerce, CA 90040	Inswing / Outswing	
		(323) 888-7763	"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 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.
- Site conditions that deviate from the details of drawing FL-41130.4 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-41130.4 for size and design pressure limitations.

#### Supporting Documents:

1.	Test Report No.	Test Standard	Testing Laboratory	Signed by
	TEL 01820266	TAS 201, 202 & 203-94	Testing Evaluation Lab., Inc.	Lyndon F. Schmidt, P.E.
	ITS 3053378	UL 10C - 09	Intertek Testing Services	Mike van Geyn
	TEL 01820457	TAS 201, 202 & 203-94	Testing Evaluation Lab., Inc.	William Shelton, P.E.
	TEL 01821092	TAS 201, 202 & 203-94	Testing Evaluation Lab., Inc.	William Shelton, P.E.
2.	Drawing No.	Prepared by		Signed & Sealed by
2.	<u>Drawing No.</u> No. FL-41130.4	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 09:16:58 -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



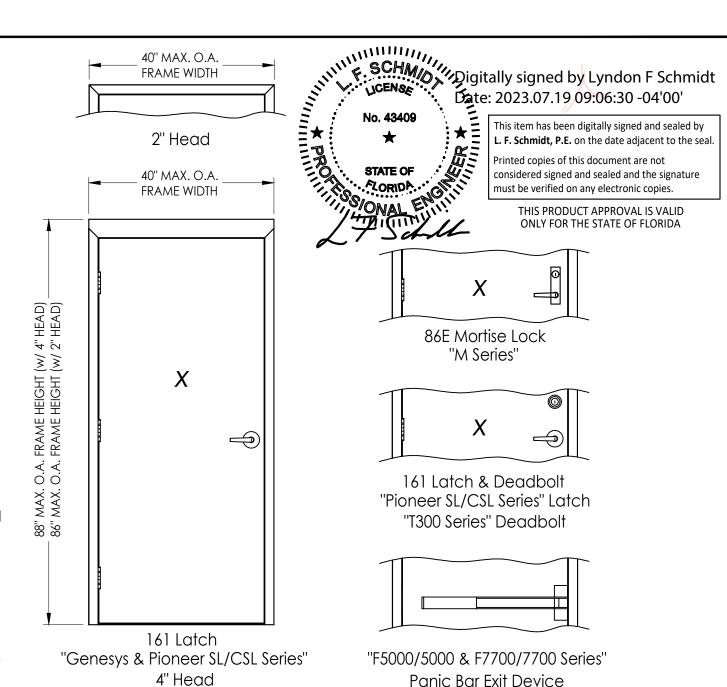
STEEL DOOR & FRAME SYSTEMS, INC.

## DKS SERIES 1800 STEEL COMMERCIAL SINGLE DOOR INSWING / OUTSWING "IMPACT"

#### **GENERAL NOTES**

- 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).
- Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
- When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
- 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.
- Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
- 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.
- When used in the "HVHZ", steel must be protected as specified in FBC Section 2222.6

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2	Door panel details					
3	Horizontal cross sections					
4	Vertical cross sections					
5	Frame anchoring					
6	Frame anchoring details					
7	Components					
8	Bill of materials and components					

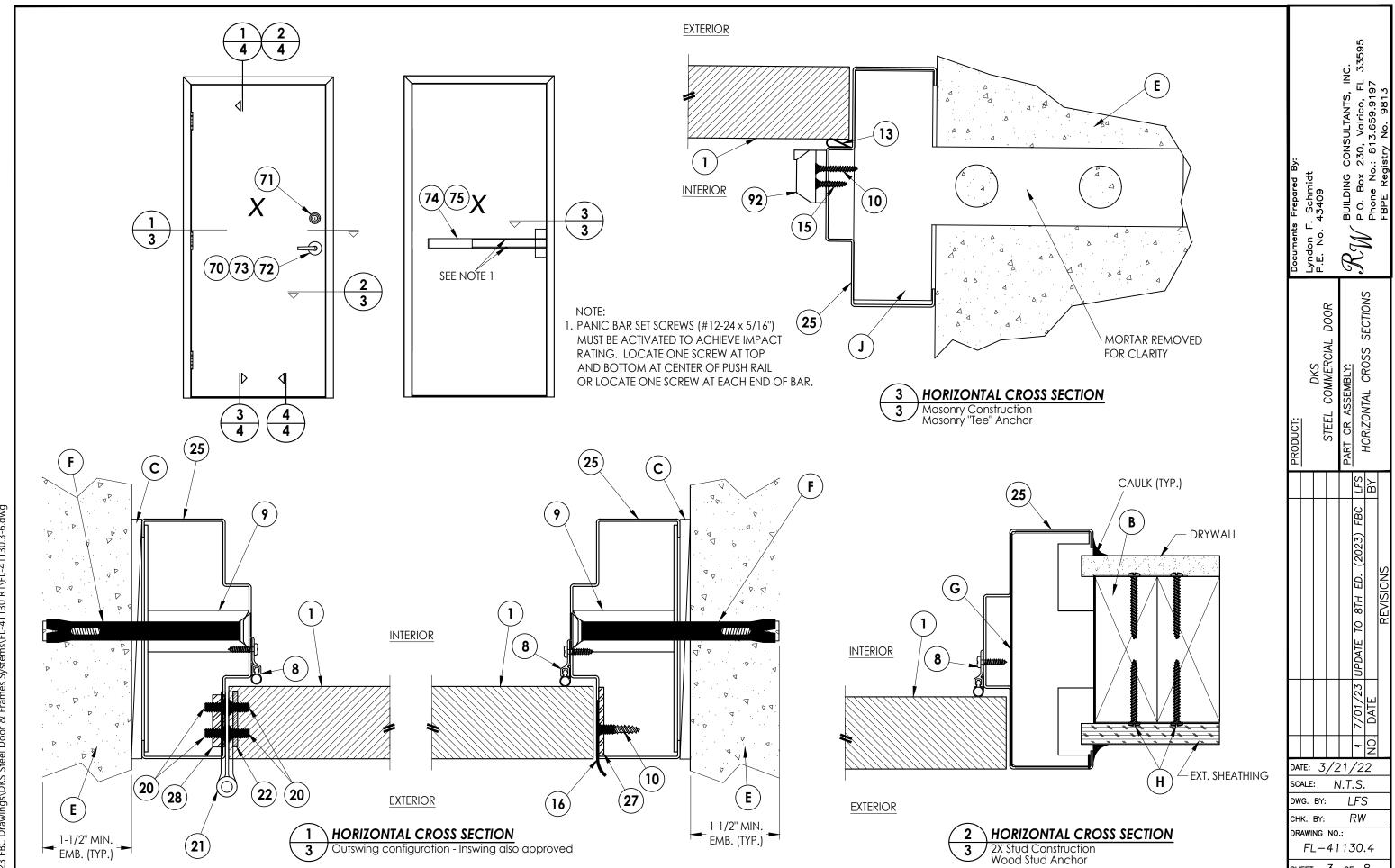


MAX FRAME	LOCK TYPE		ESSURE (PSF) WING	DESIGN PRESSURE (PSF) OUTSWING		
DIMENSION		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE	
40.0" x 88.0"	161 LATCH "Pioneer SL/CSL Series"	+55.0	-55.0	+55.0	-55.0	
40.0" x 88.0"	161 LATCH & DEADBOLT "Pioneer SL/CSL & T300 Series"	+55.0	-55.0	+55.0	-55.0	
40.0" x 88.0"	161 LATCH "Genesys Series"	+70.0	-70.0	+70.0	-70.0	
40.0" x 88.0"	PANIC BAR EXIT DEVICE "F5000/5000 Series"	N/A	N/A	+50.0	-50.0	
40.0" x 88.0"	PANIC BAR EXIT DEVICE "F7700/7700 Series"	N/A	N/A	+70.0	-70.0	
40.0" x 88.0"	86E Mortise Lock "M Series"	+80.0	-80.0	+80.0	-80.0	

DATE: 3/21/22N.T.S. LFS RAWING NO.: FL-41130.4

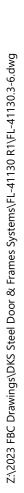
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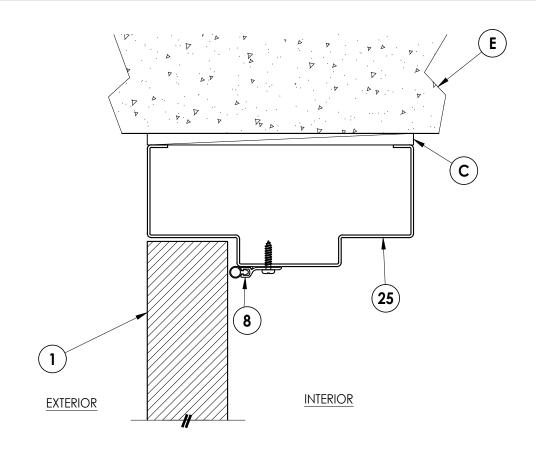
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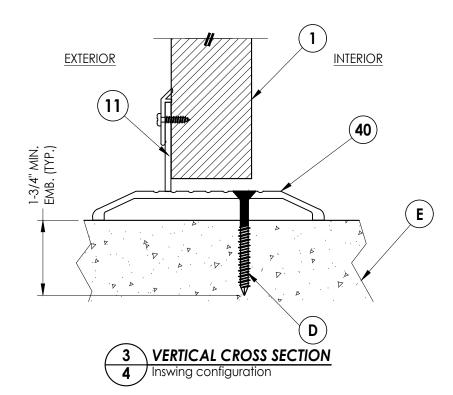
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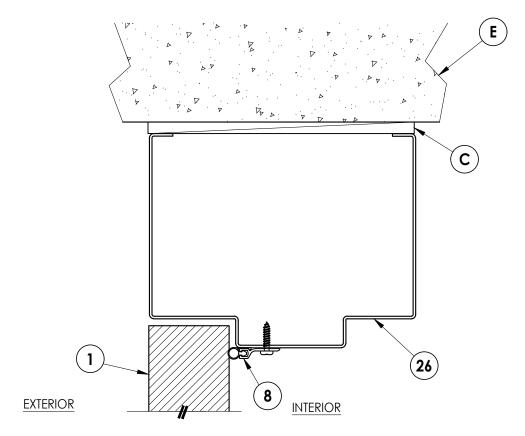
SHEET <u>3</u> OF 8



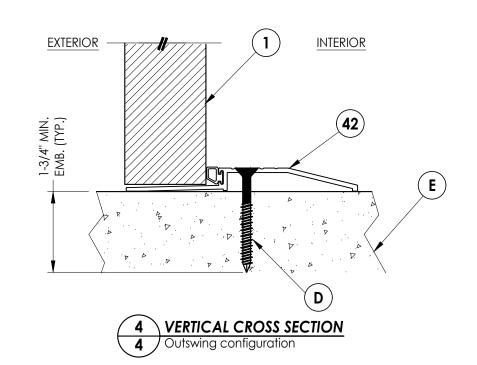


VERTICAL CROSS SECTION
Outswing configuration - Inswing also approved

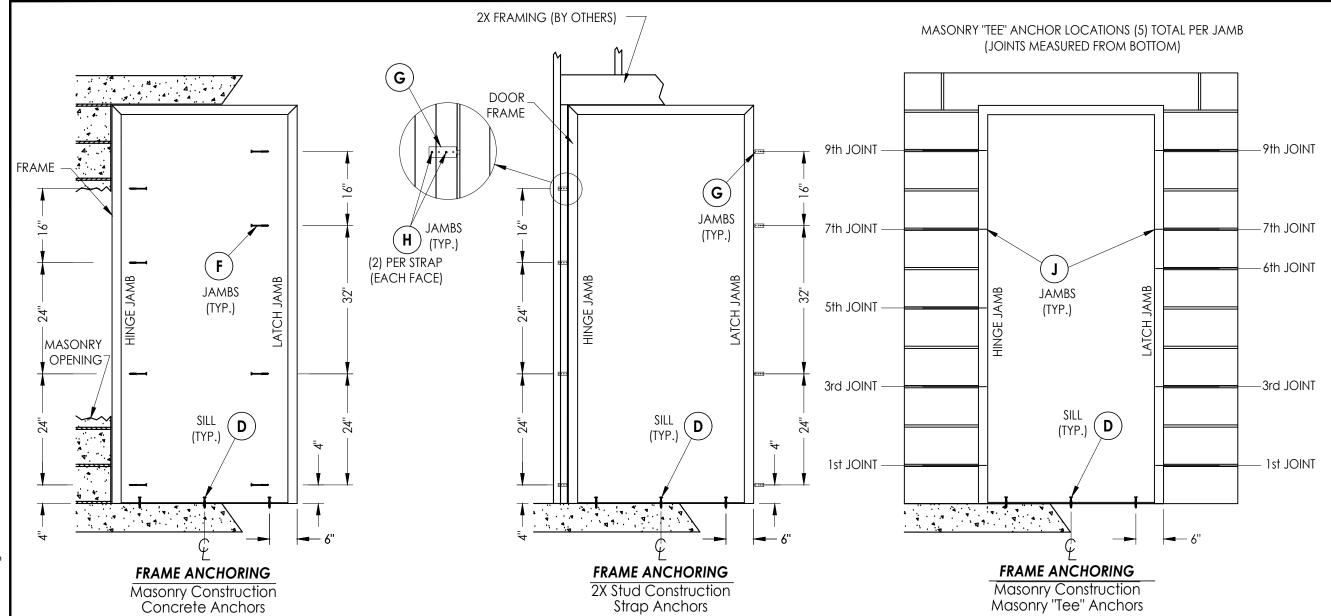




2 VERTICAL CROSS SECTION
4 Outswing configuration - Inswing also approved



Documents Prepared By:	Lyndon F. Schmidt	P.E. No. 43409		$\mathcal{O}_{\mathcal{O}}$ , BUILDING CONSULTANTS, INC.	JV /// P.O. Box 230, Valrico, FL 33595	Dhone No.: 813.659.9197	FBPE Registry No. 9813	
PRODUCT:		DAS GTTT COMMITTED	SIEEL COMMERCIAL DOOR	PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS		
						ВУ		
					/23 UPDATE TO 8TH ED. (2023) FBC  LFS		REVISIONS	[2
					7/01/23	DATE		
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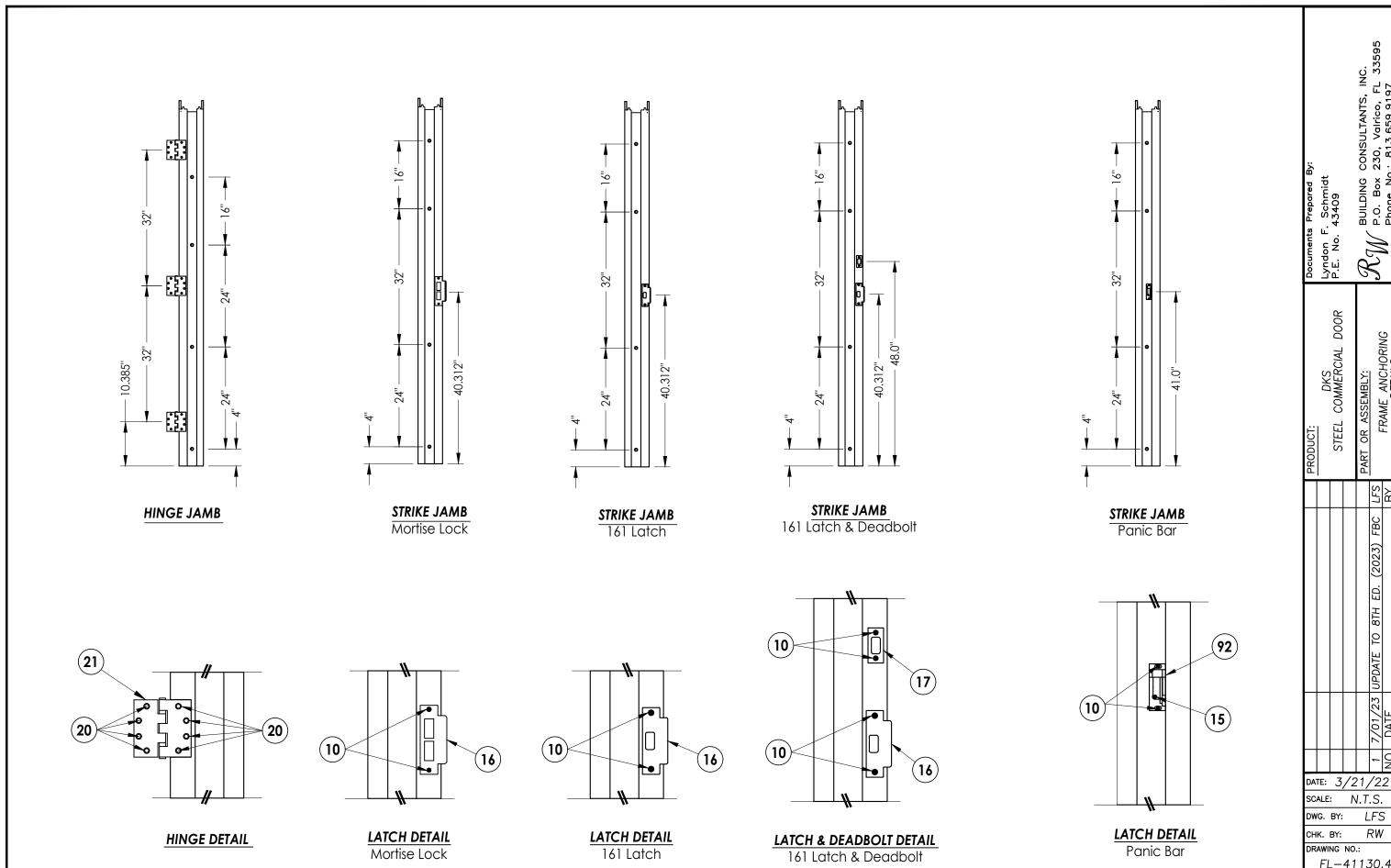
#### CONCRETE ANCHOR NOTES:

- . Substitution of equal concrete screws from a different supplier may have different edge distance and center distance requirements.
- 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

. Concrete and	chor rable:			
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT		MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON	1/4"	1-3/4"	2-1/2"	4"
DeWALT ®	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		$\mathcal{D}_{\mathcal{L}}$ , BUILDING CONSULTANTS, INC.	$\mathcal{N}'/\!\!/\!\!/$ P.O. Box 230, Valrico, FL 33595	VV Phone No.: 813.659.9197	FBPE Registry No. 9813
PRODUCT:	DKS STEEL COMMERCIAL DOOR		PART OR ASSEMBLY:		FRAME ANCHURING	
					ВУ	
				1   7/01/23   UPDATE TO 8TH ED. (2023) FBC   LFS	NO, DATE	REVISIONS
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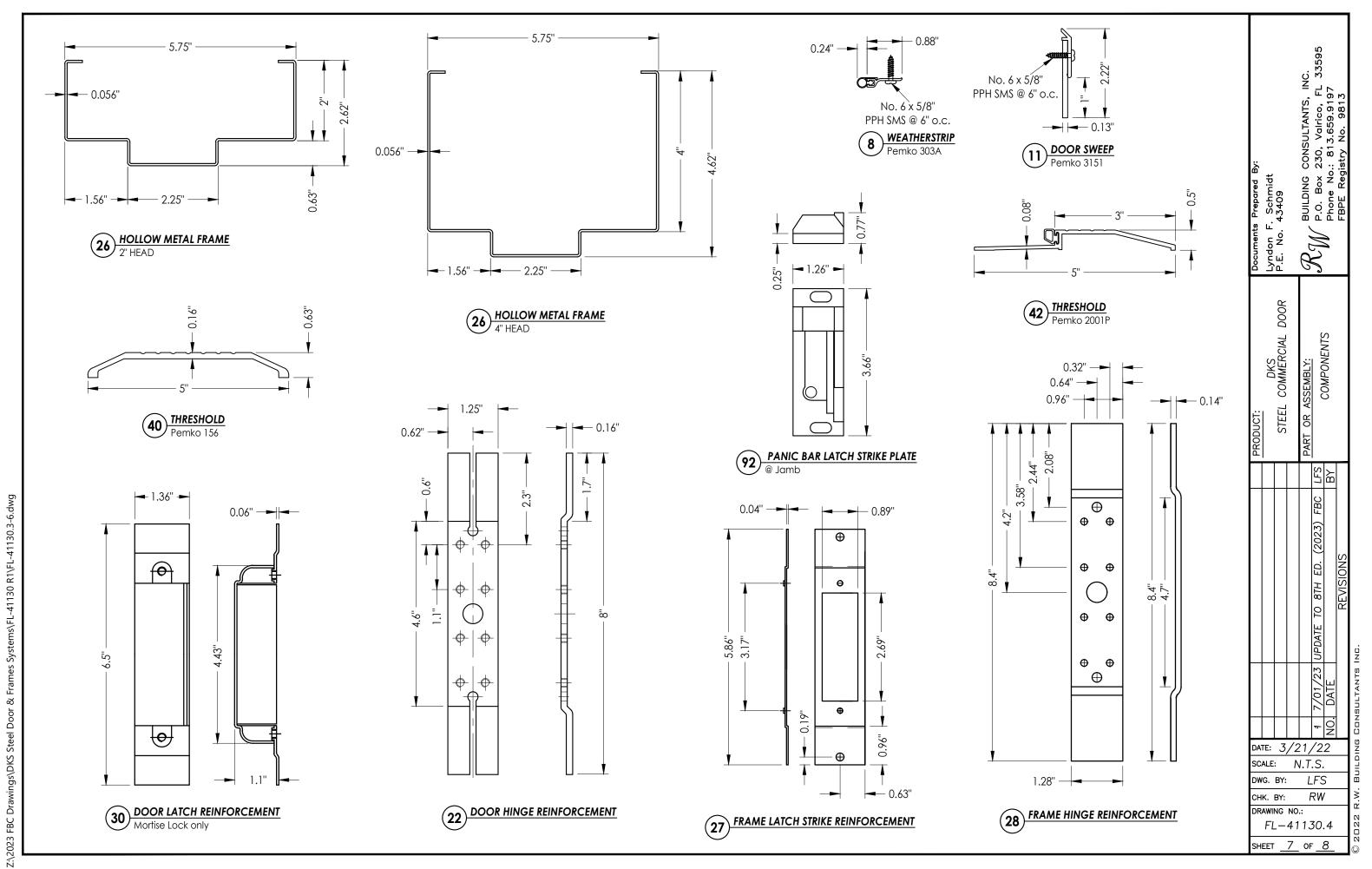
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FL-41130.4

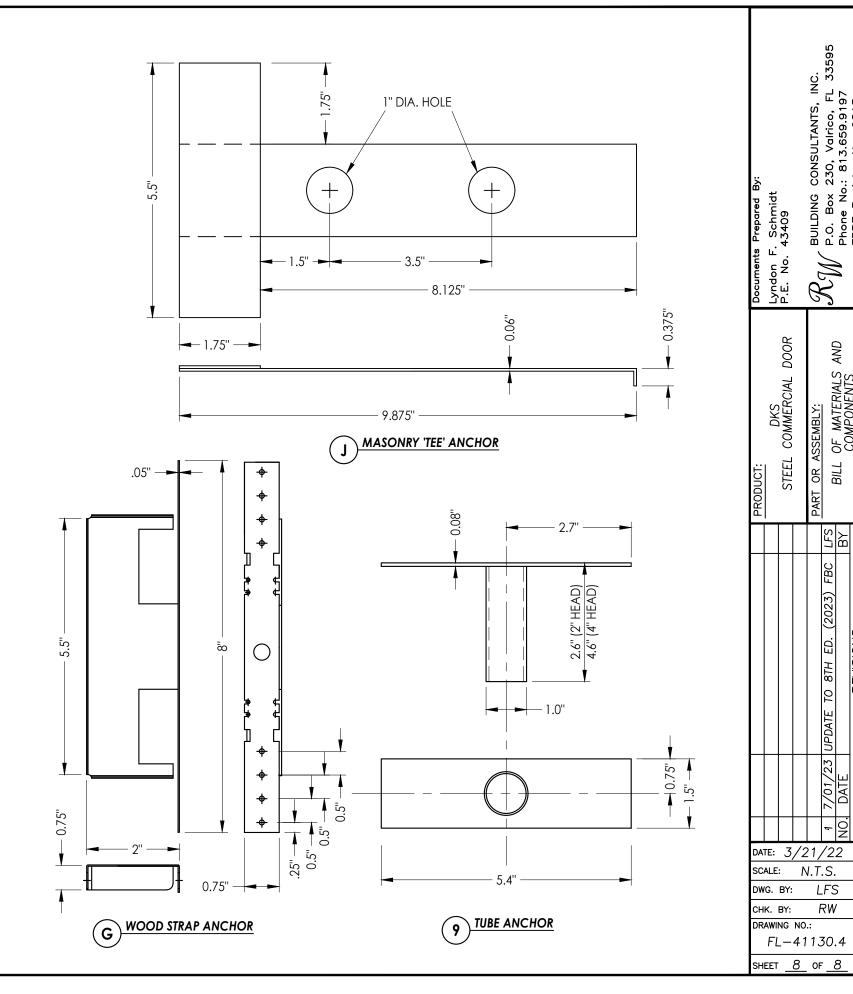
STEEL COMMERCIAL DOOR

DR ASSEMBLY: FRAME ANCHORING DETAILS

SHEET <u>6</u> OF <u>8</u>



BILL OF MATERIALS  TEM # DESCRIPTION MATERIA							
B	2 X 4 FRAMING (SG >= 0.55)	WOOD					
С	1/4" MAX. SHIM SPACE	WOOD					
	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL					
D	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI	SIEEL					
Е	301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE					
F	3/8" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL					
G	WOOD STRAP ANCHOR	STEEL					
<del></del>	#8 X 1-1/2" PH WOOD SCREW (1-3/8" MIN. EMBEDMENT)	STEEL					
	MASONRY "TEE" ANCHOR	STEEL					
1	DKS DOOR PANEL	-					
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					
15	#8-24 X 3/4" COMBINATION MACHINE / WOOD SCREW	STEEL					
16	ANSI LATCH STRIKE	STEEL					
17	DEAD BOLT STRIKE	STEEL					
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					
30	FRAME LATCH STRIKE REINFORCEMENT (MORTISE LOCK)	STEEL					
40	INSWING THRESHOLD - PEMKO 156	ALUM					
42	OUTSWING THRESHOLD - PEMKO 2001P	ALUM					
70	CAL-ROYAL M SERIES MORTISE LOCK	-					
71	CAL-ROYAL T300 SERIES DEADBOLT	_					
72	CAL-ROYAL PIONEER SL/CSL SERIES CYLINDRICAL LOCK	_					
73	CAL-ROYAL GENESYS SERIES CYLINDRICAL LOCK	_					
74	CAL-ROYAL F7700/7700 SERIES RIM TYPE PANIC BAR	_					
75	CAL-ROYAL F5000/5000 SERIES RIM TYPE PANIC BAR	_					
92	PANIC BAR LATCH STRIKE PLATE	STEEL					



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

DKS
STEEL COMMERCIAL DOOR

PART OR ASSEMBLY:
BILL OF MATERIALS AND
COMPONENTS

LFS BY

N.T.S.

SHEET <u>8</u> OF <u>8</u>

LFS

SCALE: