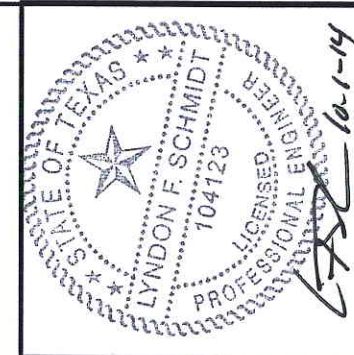




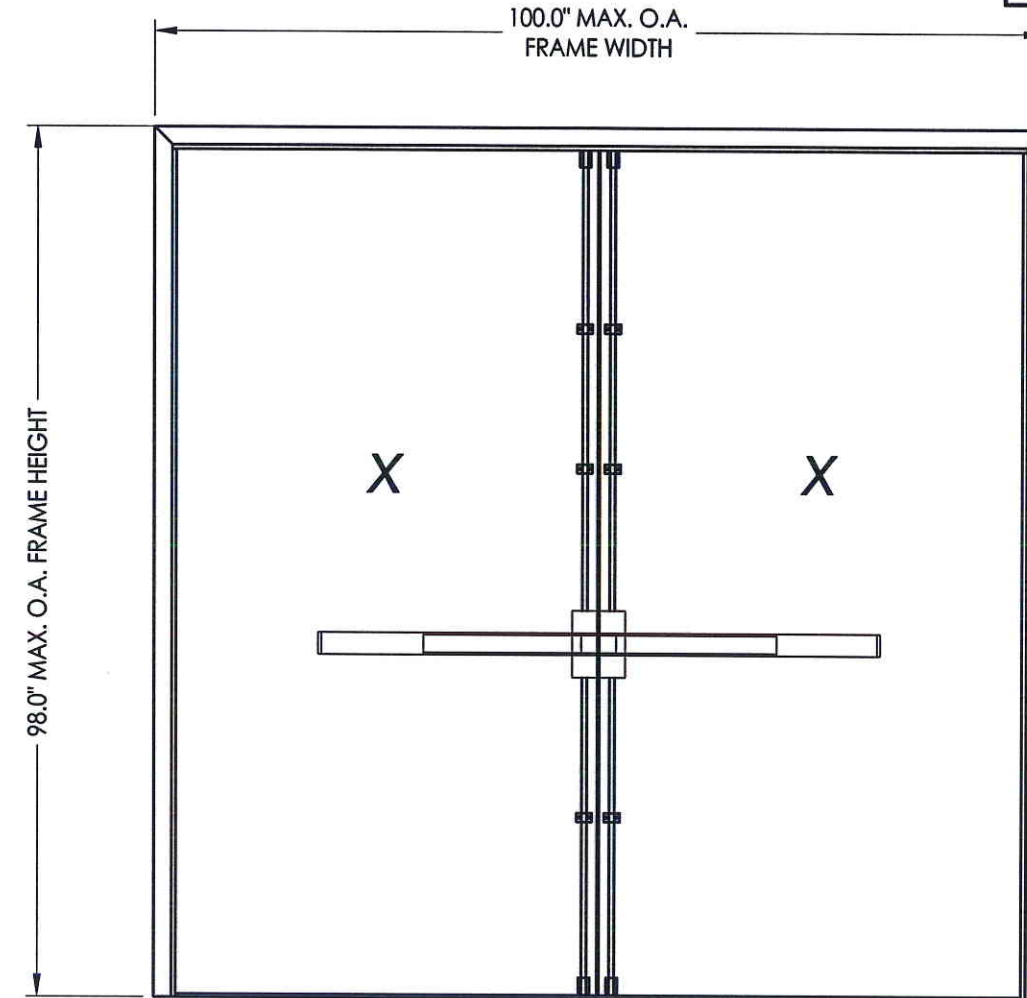
6605 Flotilla Street  
City of Commerce  
CA 90040



Documents Prepared By: Lyndon F. Schmidt, P.E.  
TEXAS P.E. #104123

**RW** BUILDING CONSULTANTS, INC.  
P.O. Box 230 Valrico FL 33595  
Phone No.: 813.659.9197  
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

## DKS SERIES 1800 STEEL COMMERCIAL DOUBLE DOOR OUTSWING "IMPACT"



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

### EVALUATED FOR USE IN THE STATE OF TEXAS

The Cal-Royal Door described herein complies with the 2006 International Residential Code (IRC), Sections R301 and the 2006 International Building Code (IBC), Sections 1405.12, 1609 & 1714.5 (including Texas revisions) subject to the following conditions:

1. Anchors shall be as listed and spaced as shown in the details. Anchor embedment to base material shall be beyond wall dressing or stucco.
2. This system has been tested and evaluated as a large missile impact protective system for installation in the Seaward, Inland I and Inland II areas. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E1996.
3. Allowable design pressure requirements must be equal to or less than the design pressure rating shown in the design pressure chart, sheet 1 of this drawing.
4. Conditions not covered by this drawing are subject to further engineering analysis.

### TABLE OF CONTENTS

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

MAX FRAME DIMENSION	LOCK TYPE	DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE
100.0" x 98.0"	PANIC BAR EXIT DEVICE w/ VERTICAL RODS "7700-V Series"	+50.0	-50.0

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

NO.	DATE	BY	REVISIONS

DATE: 10/1/14

SCALE: N.T.S.

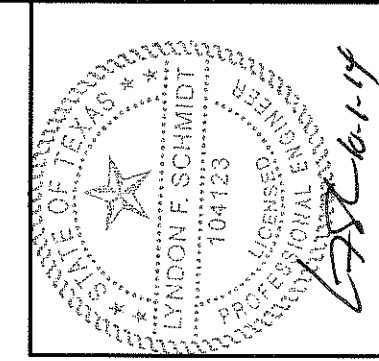
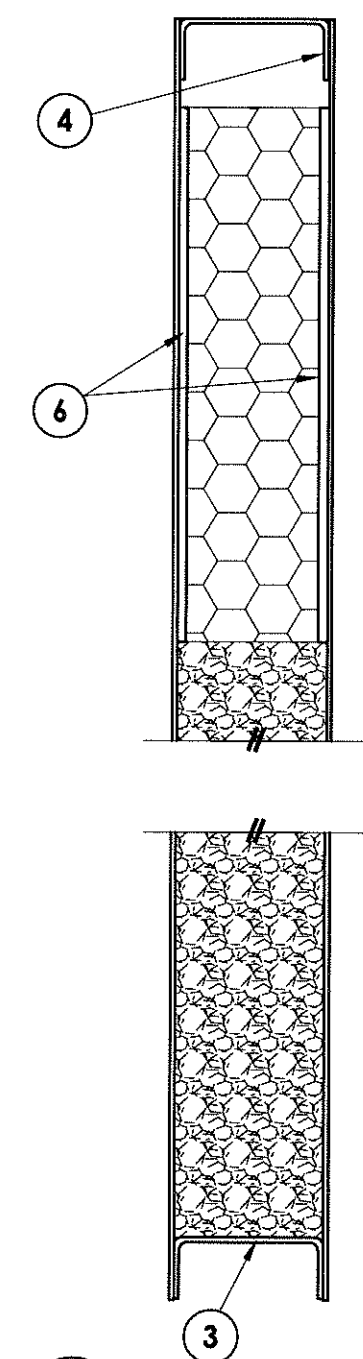
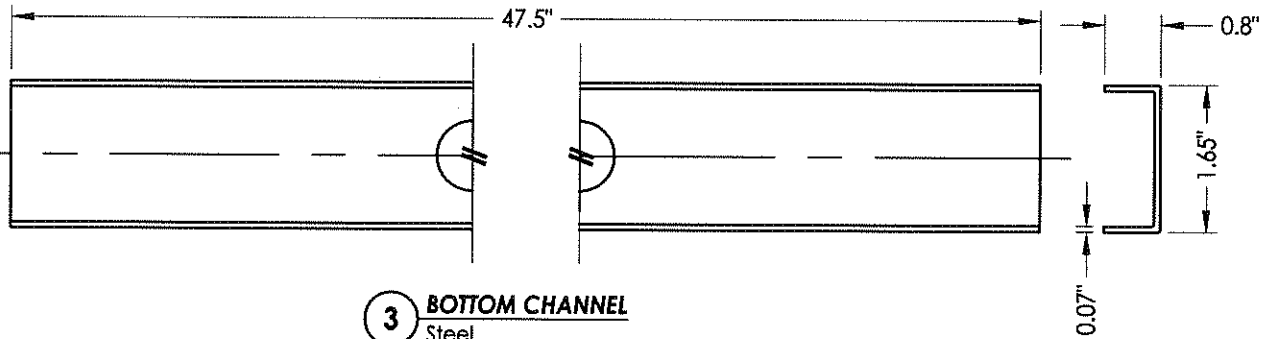
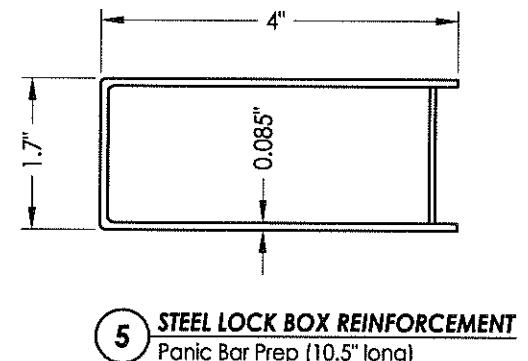
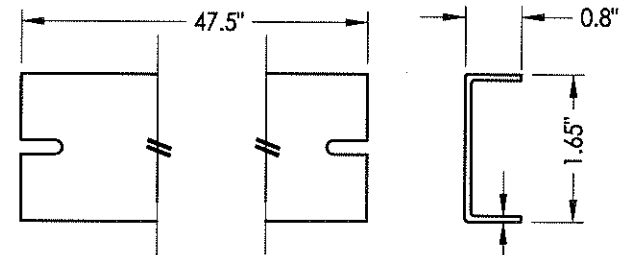
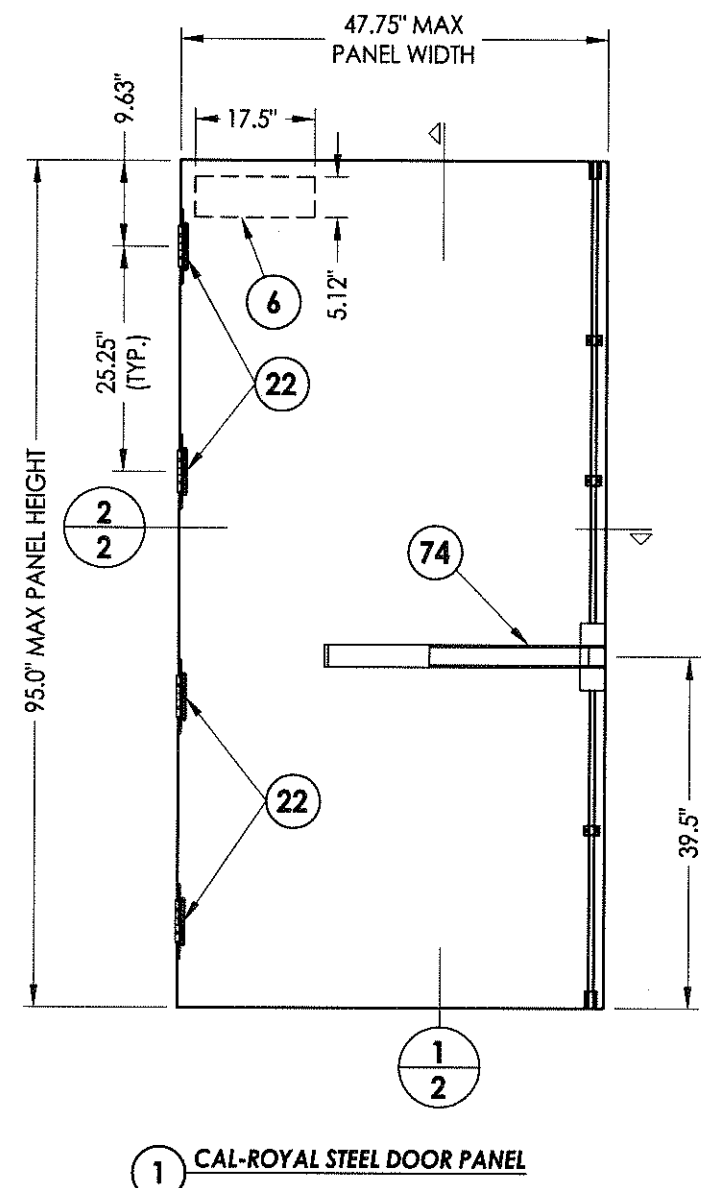
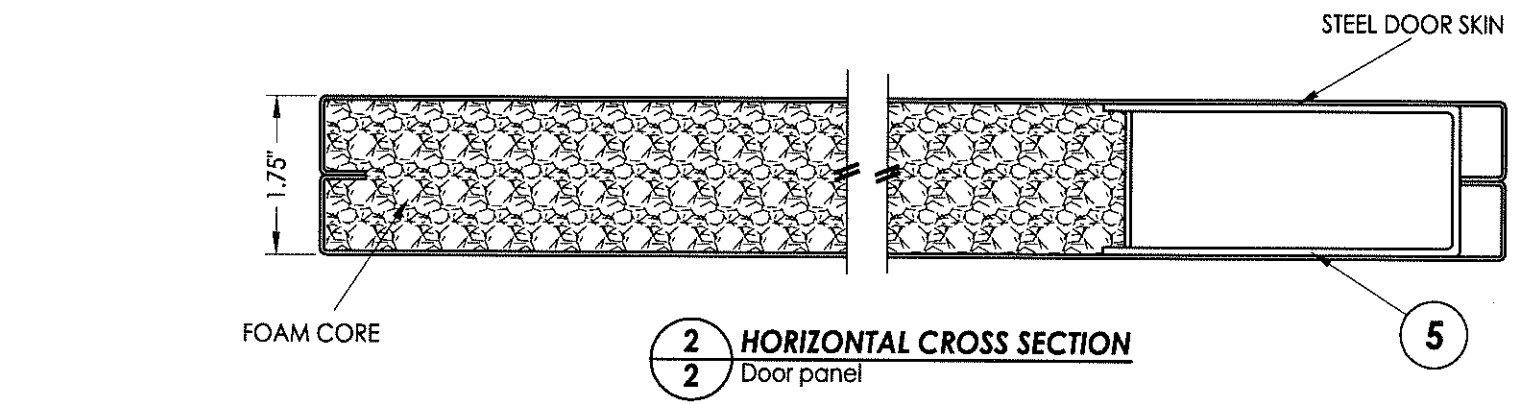
DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: TX-4486

SHEET 1 OF 7

\\2012ess\RWBC\Clients\Cal-Royal NEW Texas Dept of Ins\TDI - 472 Renewal\Drawings\Current\TEXAS 2014.dwg, 7.2



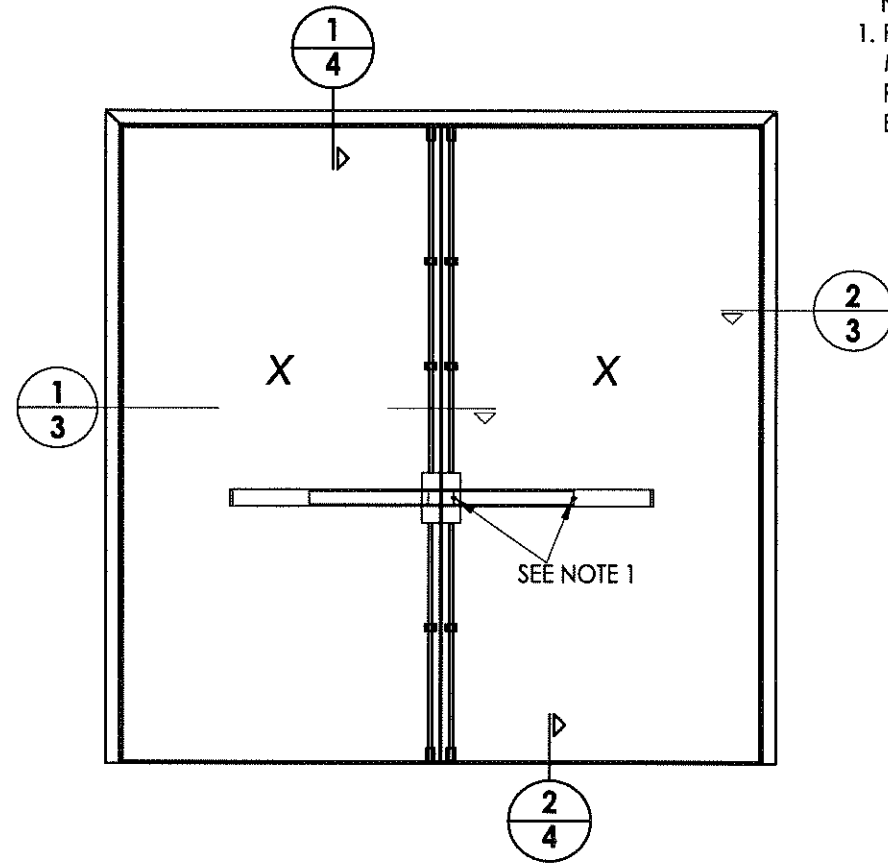
Documents Prepared By: Lyndon F. Schmidt, P.E.  
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Phone No.: 813.659.9197

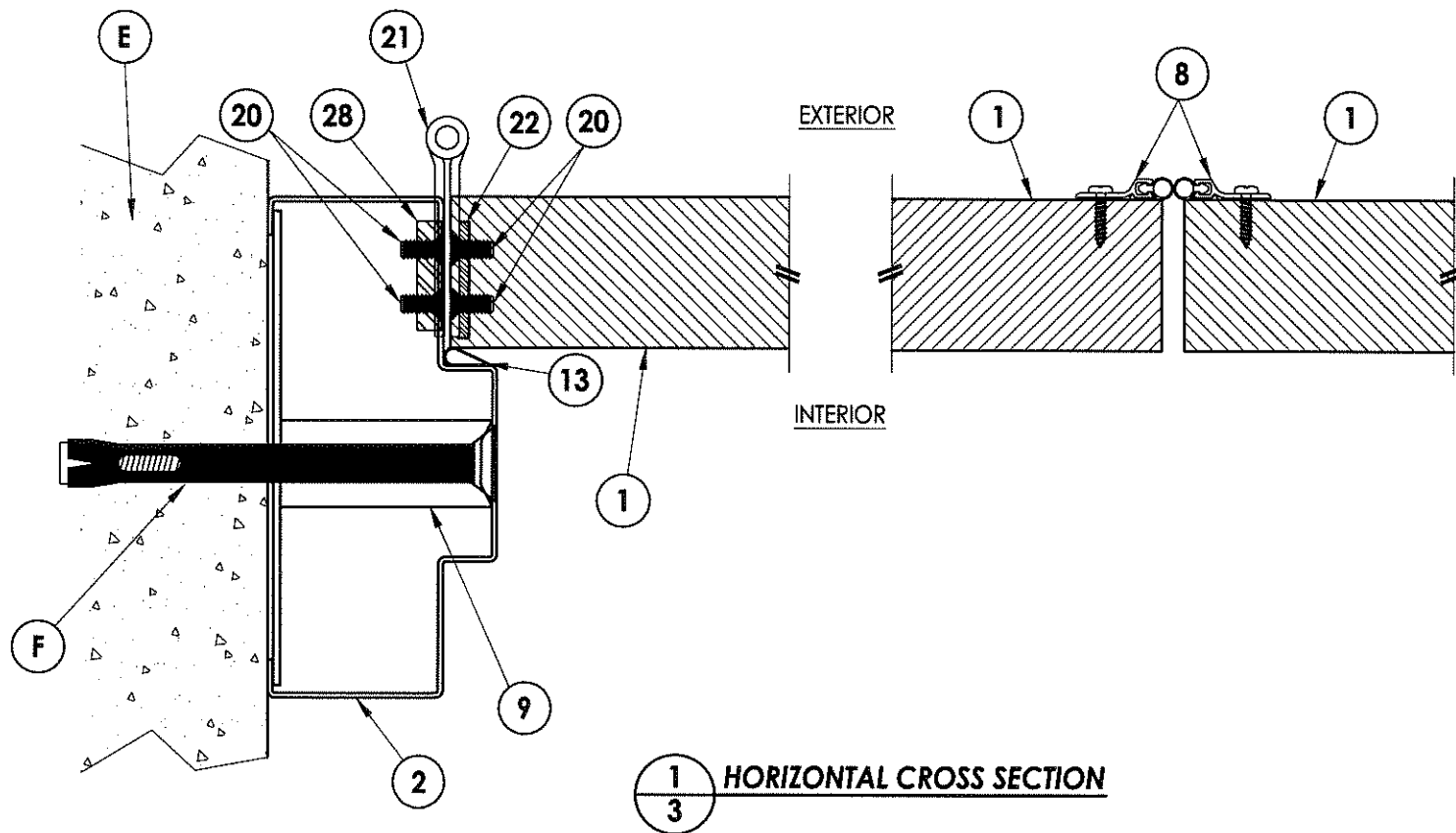
TEXAS BOARD OF PROFESSIONAL ENGINEERS  
CERTIFICATE OF REGISTRATION # F-11852

PRODUCT: CAL-ROYAL	
STEEL COMMERCIAL DOOR	
PART OR ASSEMBLY: DOOR PANEL DETAILS	
NO.	DATE
BY	
REVISIONS	
DATE: 10/1/14	
SCALE: N.T.S.	
DWG. BY: JK	
CHK. BY: LFS	
DRAWING NO.: TX-4486	
SHEET 2 OF 7	

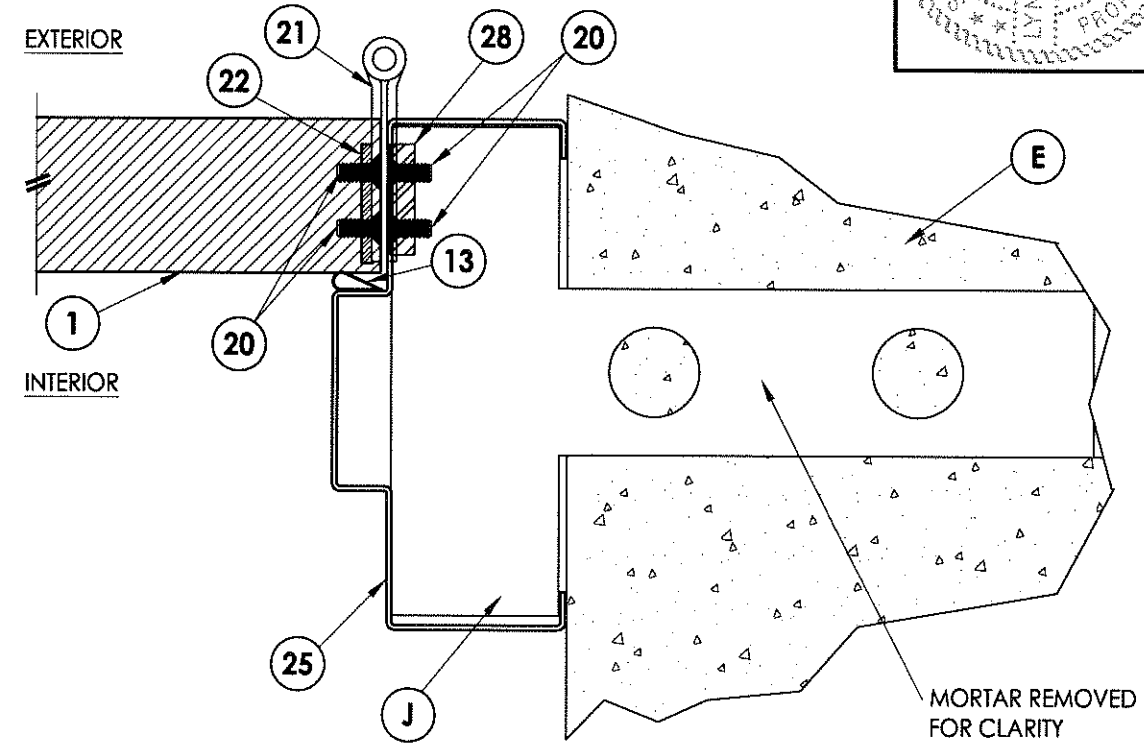
© 2014 R.W. BUILDING CONSULTANTS INC.



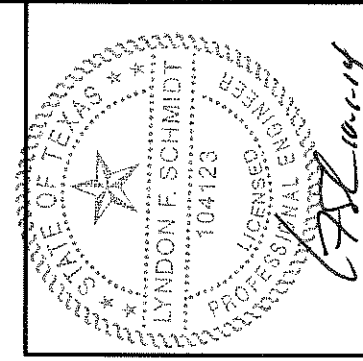
NOTE:  
 1. PANIC BAR SET SCREWS (#12-24 x 5/16")  
 MUST BE ACTIVATED TO ACHIEVE IMPACT  
 RATING. LOCATE ONE SCREW AT THE  
 END OF EACH PUSH BAR.



**1 HORIZONTAL CROSS SECTION**



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

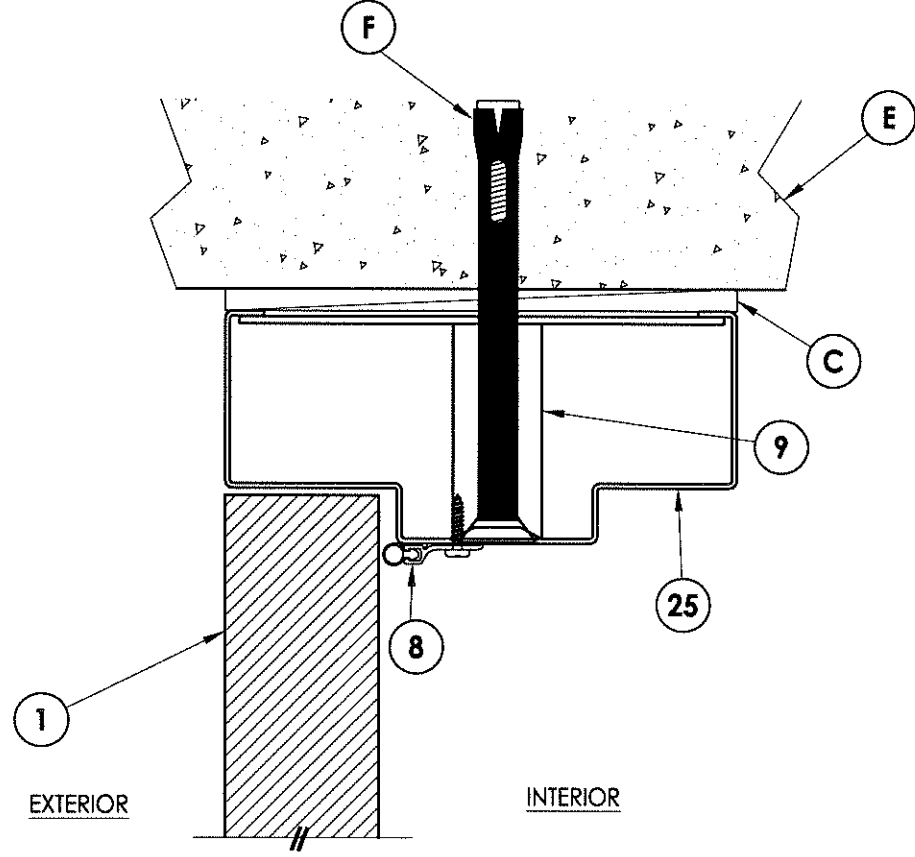


Documents Prepared By: Lyndon F. Schmidt, P.E.  
 TEXAS P.E. #104123

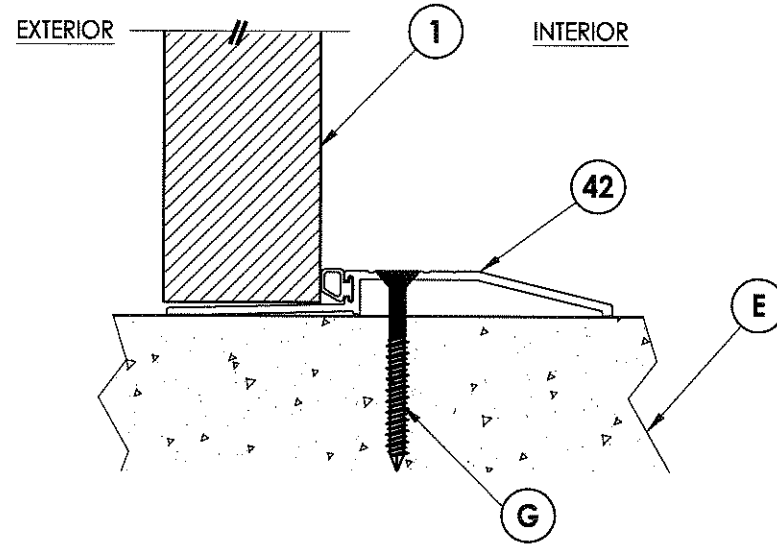
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230 Valrico FL, 33595  
 Phone No.: 813.659.9197

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 CERTIFICATE OF REGISTRATION # F-11852

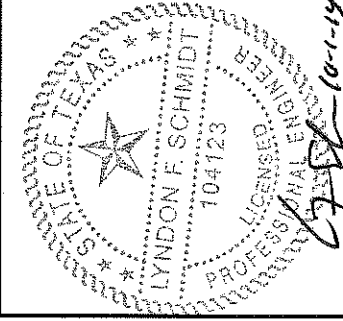
PRODUCT:	CAL-ROYAL STEEL COMMERCIAL DOOR	
PART OR ASSEMBLY:	HORIZONTAL CROSS SECTIONS	
NO.	DATE	BY
		REVISIONS
DATE:	10/1/14	
SCALE:	N.T.S.	
DWG. BY:	JK	
CHK. BY:	LFS	
DRAWING NO.:	TX-4486	
SHEET	3	OF 7



**1**  
**4** VERTICAL CROSS SECTION



**2**  
**4** VERTICAL CROSS SECTION  
Outswing configuration



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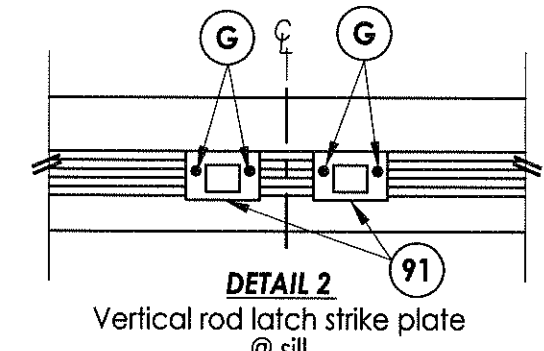
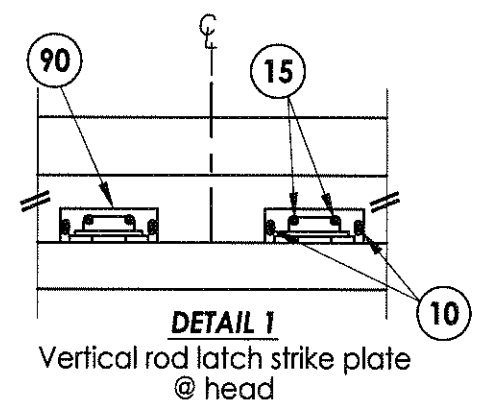
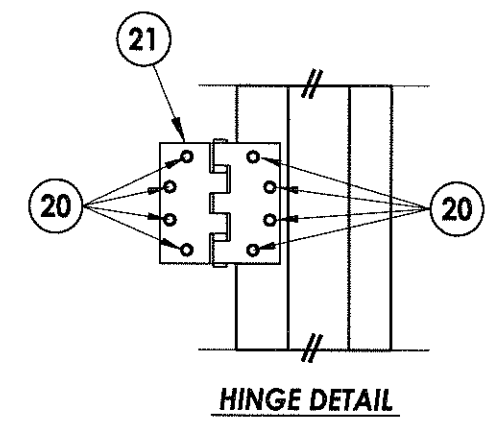
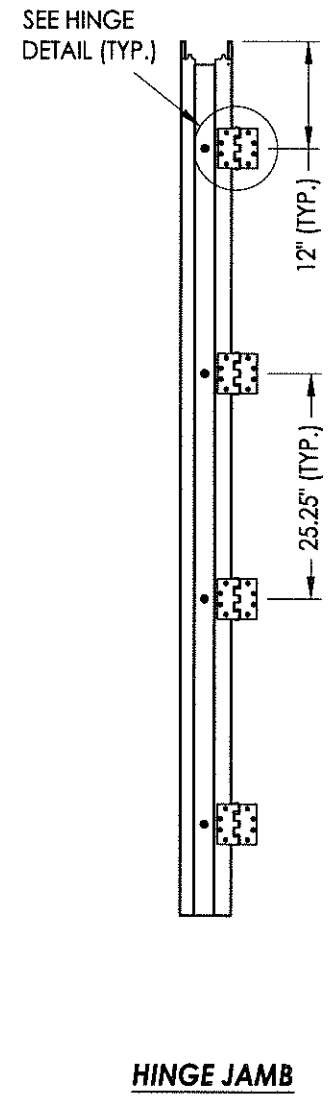
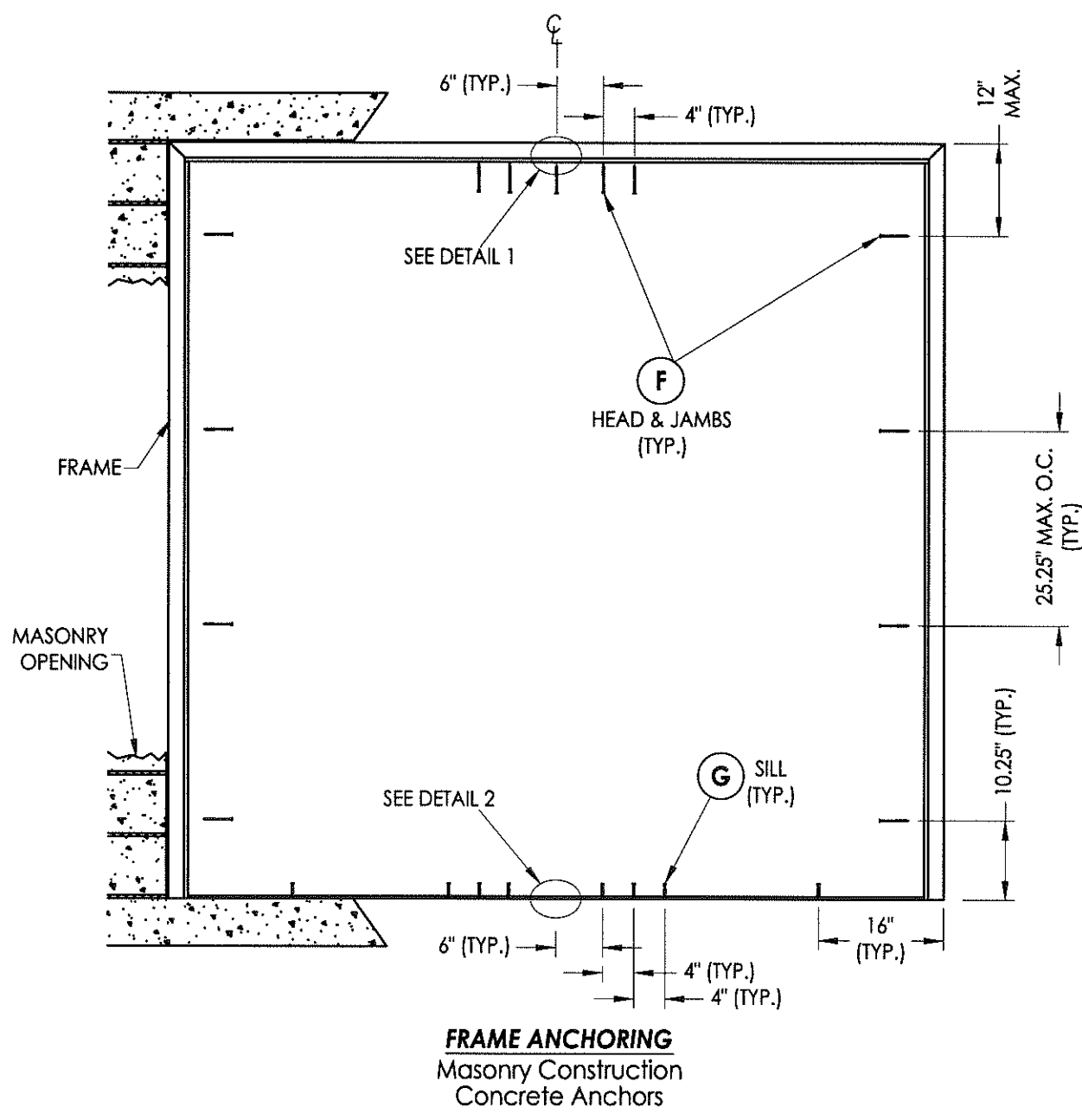
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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:		CAL-ROYAL	
STEEL COMMERCIAL DOOR			
PART OR ASSEMBLY:		VERTICAL CROSS SECTIONS	
NO.	DATE	BY	
DATE: 10/1/14			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: TX-4486			
SHEET 4 OF 7		REVISIONS	



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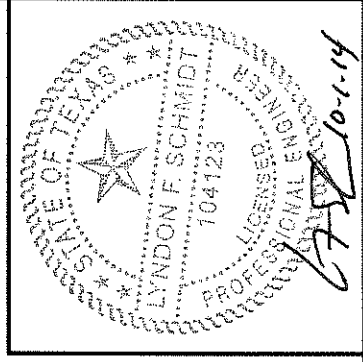


**CONCRETE ANCHOR NOTES:**

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"	2"
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.



Documents Prepared By: Lyndon F. Schmidt, P.E.  
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 CERTIFICATE OF REGISTRATION # F-11852

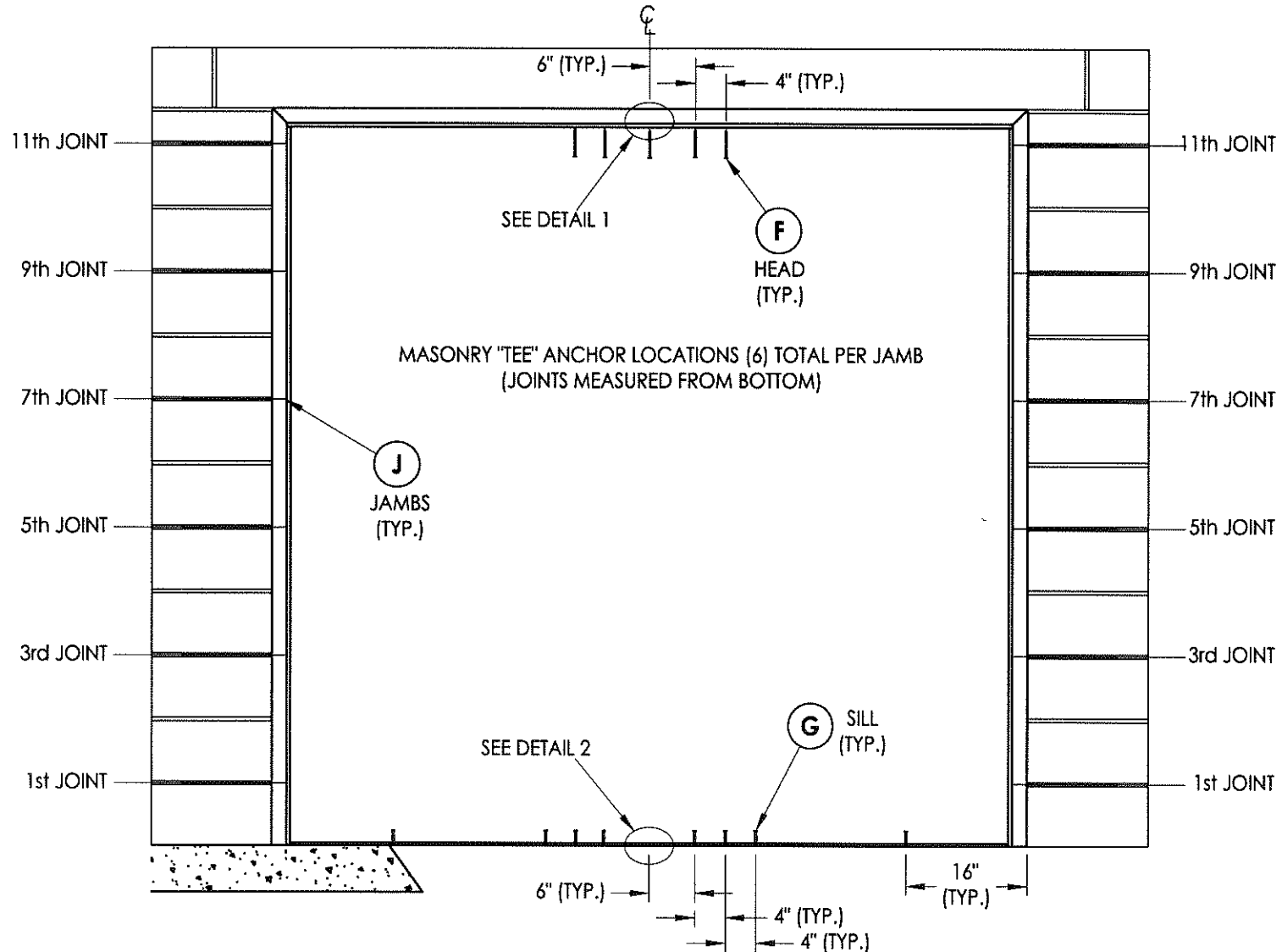
PRODUCT: CAL-ROYAL STEEL COMMERCIAL DOOR  
 PART OR ASSEMBLY: FRAME ANCHORING

NO.	DATE	BY	REVISIONS

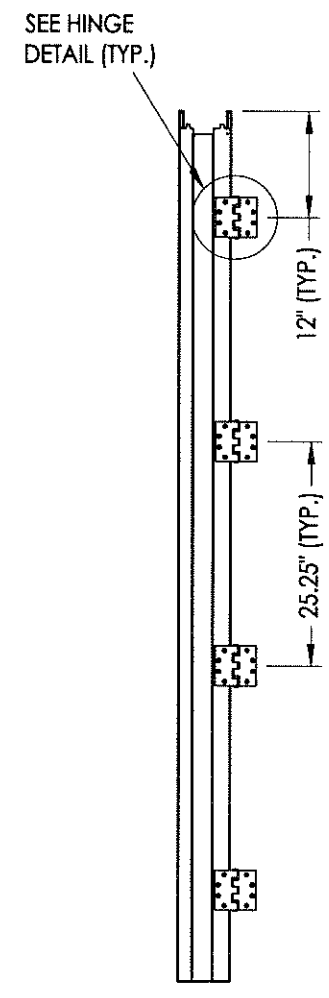
DATE: 10/1/14  
 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: TX-4486  
 SHEET 5 OF 7

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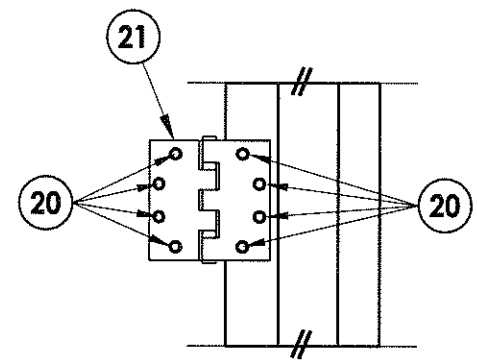
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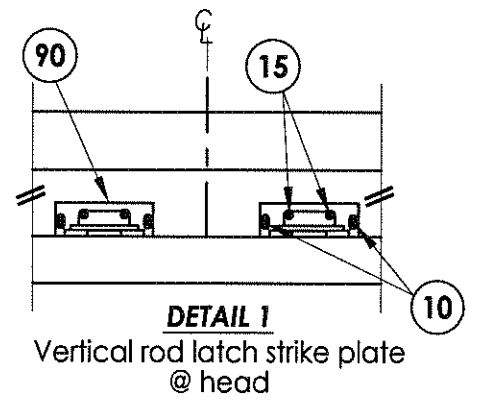
**FRAME ANCHORING**  
Masonry Construction  
Masonry "Tee" Anchors



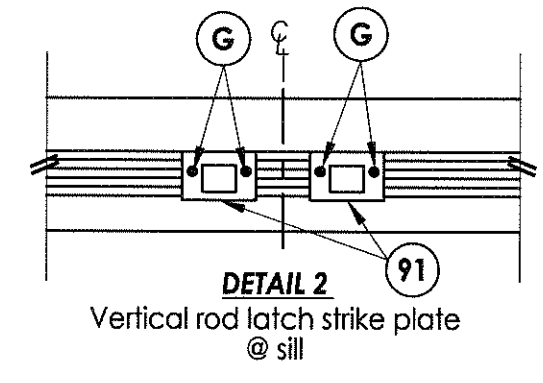
**HINGE JAMB**



**HINGE DETAIL**



**DETAIL 1**  
Vertical rod latch strike plate  
@ head

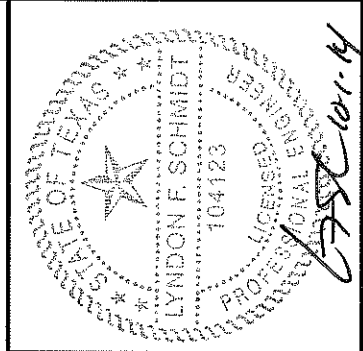


**DETAIL 2**  
Vertical rod latch strike plate  
@ sill

**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.
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Documents Prepared By: Lyndon F. Schmidt, P.E.  
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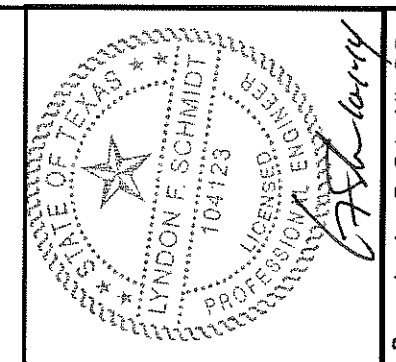
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Phone No.: 813.659.9197

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CERTIFICATE OF REGISTRATION # F-11852

PRODUCT:	CAL-ROYAL STEEL COMMERCIAL DOOR	
PART OR ASSEMBLY:	FRAME ANCHORING	
NO.	DATE	BY
REVISIONS		
DATE:	10/1/14	
SCALE:	N.T.S.	
DWG. BY:	JK	
CHK. BY:	LFS	
DRAWING NO.:	TX-4486	
SHEET	6 OF 7	

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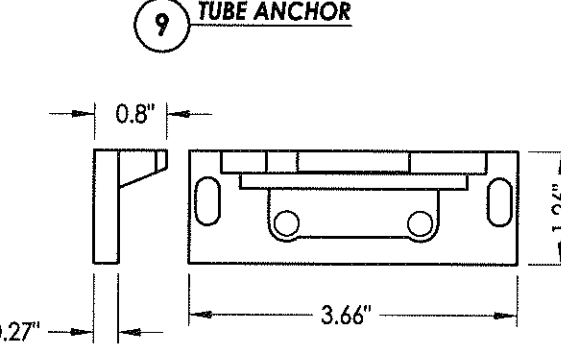
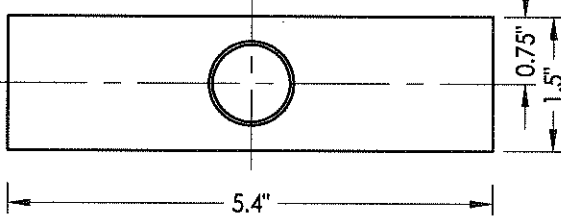
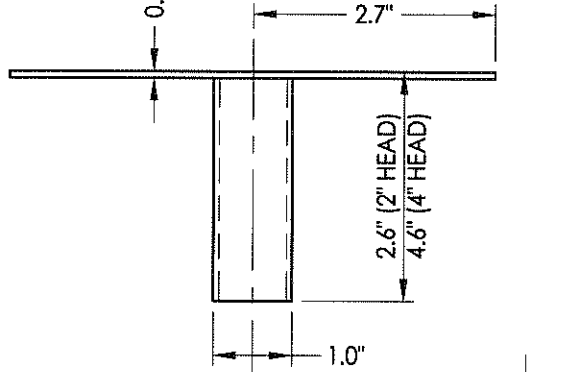
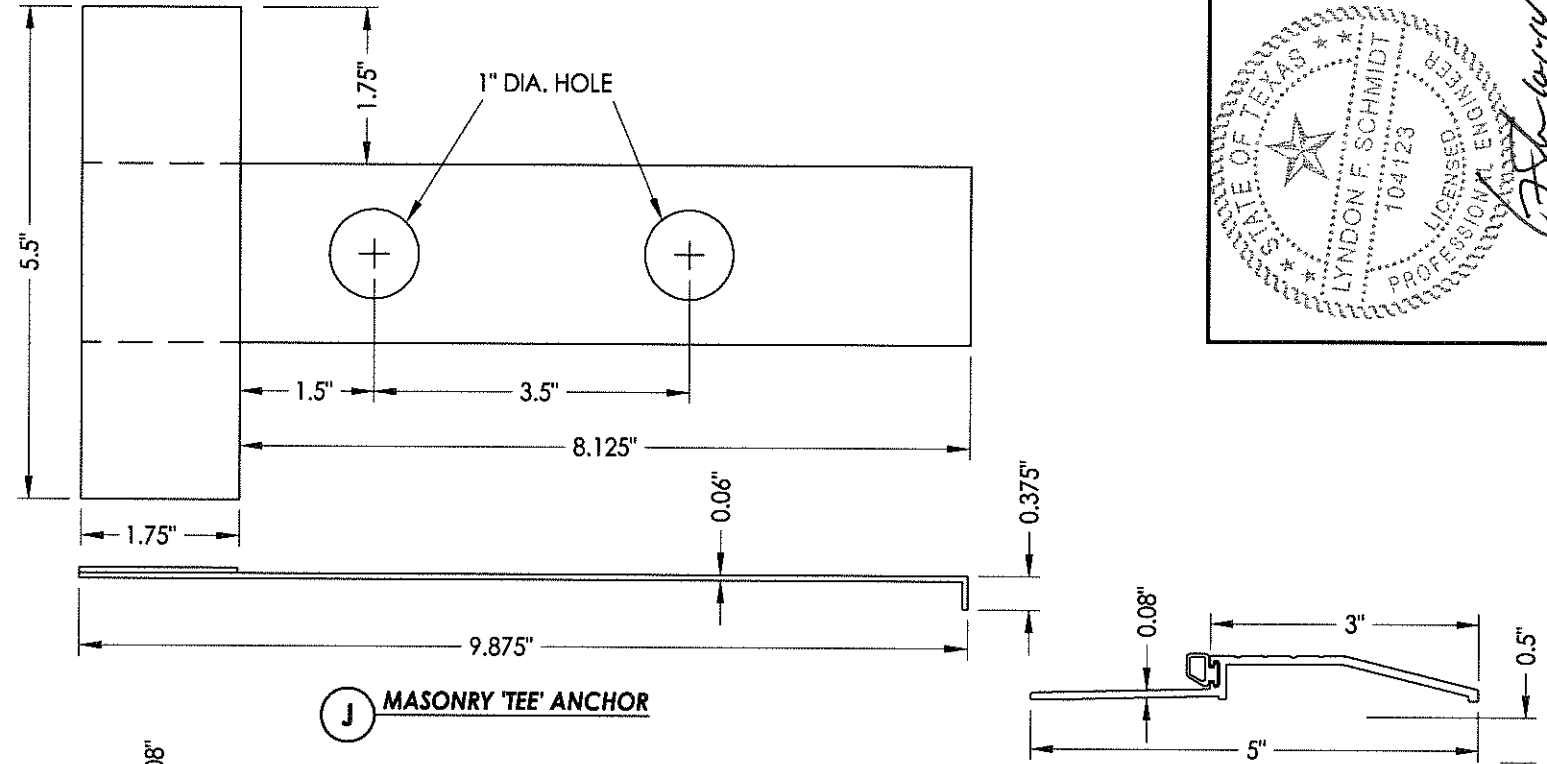
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
C	1/4" MAX. SHIM SPACE	-
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	3/8" PFH ITW DYNABOLT SLEEVE ANCHOR	STEEL
G	1/4" X 2-1/4" ITW PFH CONCRETE SCREW	STEEL
H	#8 X 1-1/2" PH WOOD SCREW	STEEL
J	MASONRY "TEE" ANCHOR	STEEL
1	CAL-ROYAL DOOR PANEL	-
3	DOOR BOTTOM CHANNEL	STEEL
4	DOOR TOP CHANNEL	STEEL
5	LOCK BOX REINFORCEMENT	STEEL
6	CLOSER REINFORCEMENT (11 gauge)	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
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
28	FRAME HINGE REINFORCEMENT	STEEL
29	DOOR BOTTOM REINFORCEMENT w/ STRIKE PLATE	STEEL
42	OUTSWING THRESHOLD - PEMKO 2001P	ALUM
74	CAL-ROYAL 7700-V SERIES VERTICAL ROD EXIT DEVICE	-
90	VERTICAL ROD LATCH STRIKE PLATE @ HEAD	STEEL
91	VERTICAL ROD LATCH STRIKE PLATE @ SILL	STEEL



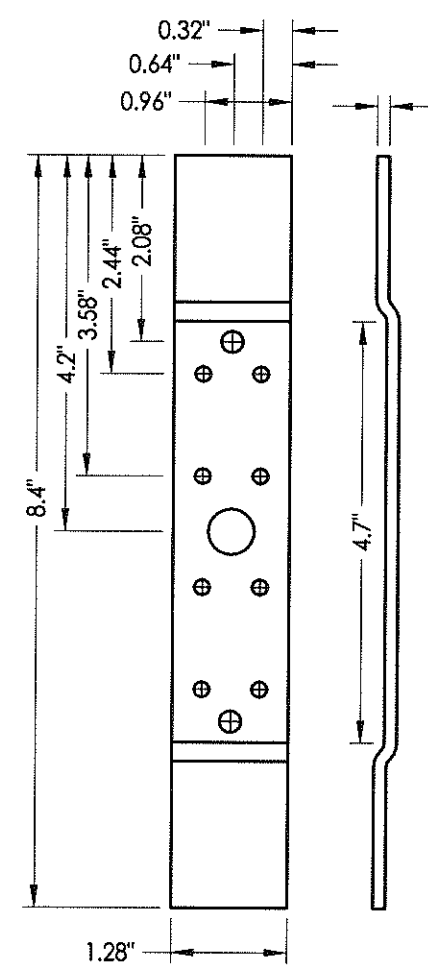
Documents Prepared By: Lyndon F. Schmidt, P.E.  
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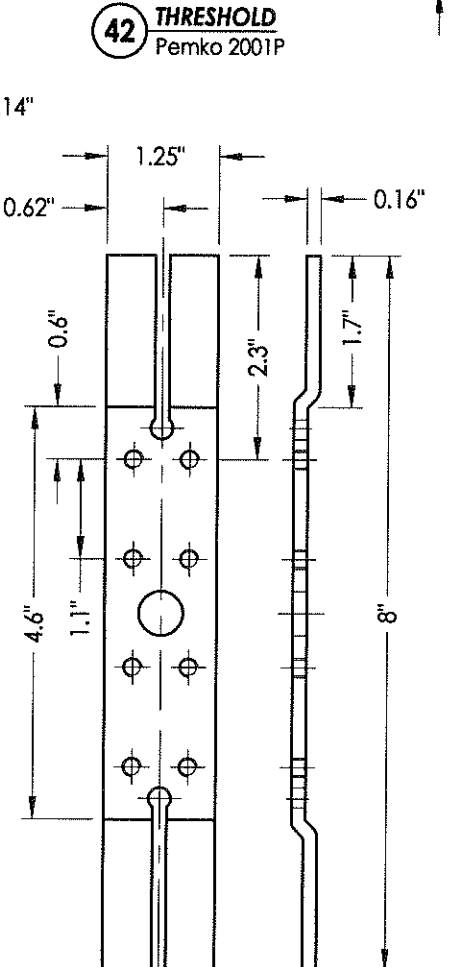
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CERTIFICATE OF REGISTRATION # F-11852



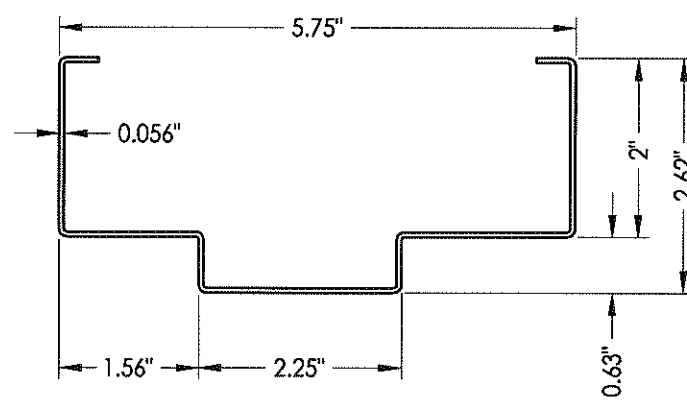
**90** VERTICAL ROD LATCH STRIKE PLATE @ Head



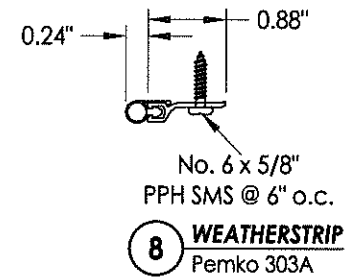
**28** FRAME HINGE REINFORCEMENT



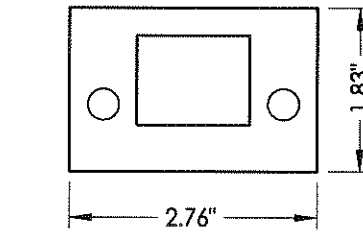
**22** DOOR HINGE REINFORCEMENT



**25** HOLLOW METAL FRAME



**8** WEATHERSTRIP Pemko 303A



**91** VERTICAL ROD LATCH STRIKE PLATE @ Sill

PRODUCT: CAL-ROYAL STEEL COMMERCIAL DOOR

PART OR ASSEMBLY: BILL OF MATERIALS AND COMPONENTS

NO.	DATE	BY	REVISIONS

DATE: 10/1/14  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: TX-4486  
SHEET 7 OF 7

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