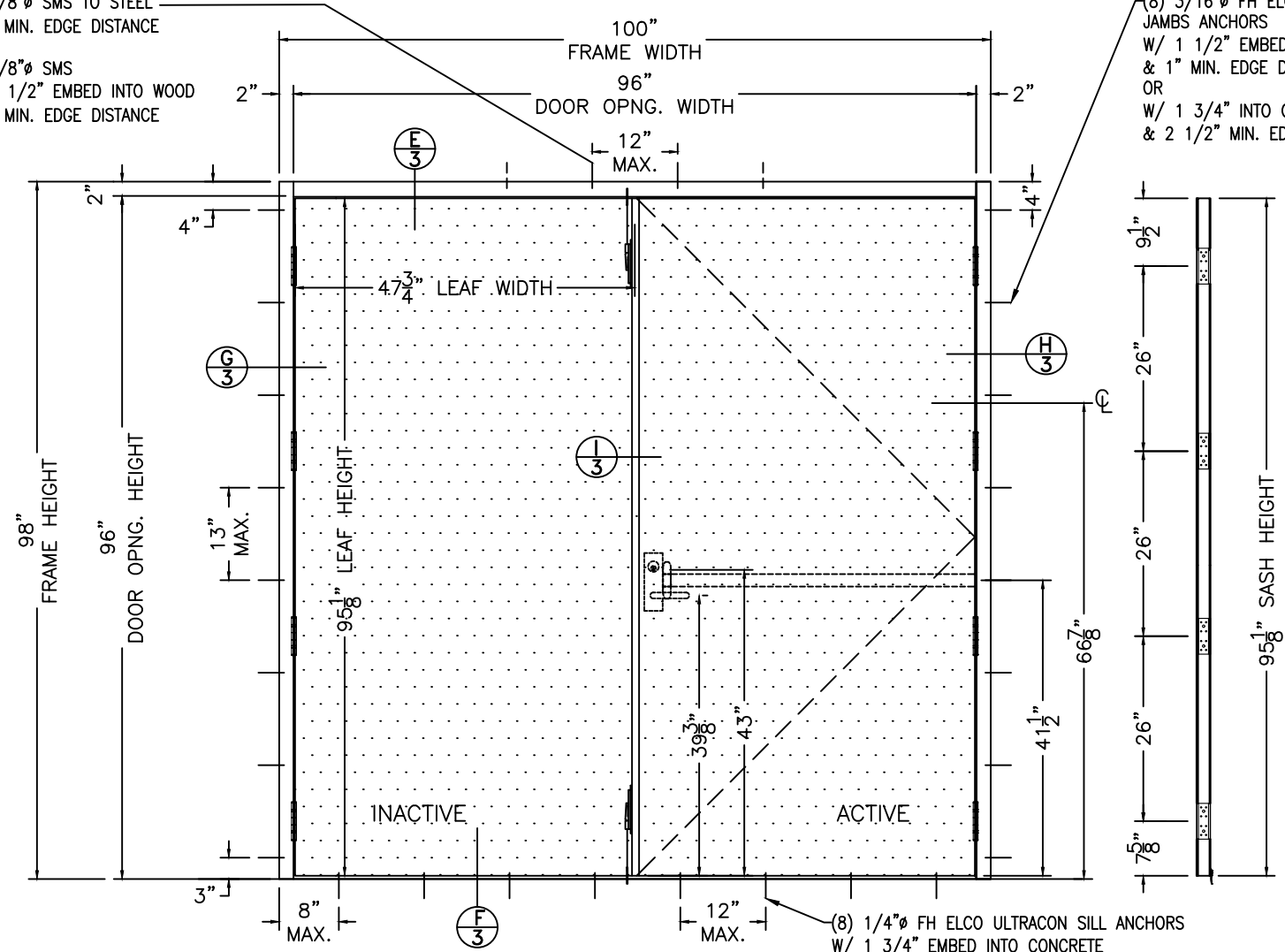


(2) 3/8" DYNABOLT HEADER ANCHORS  
W/ 1 1/2" EMBED INTO CONCRETE  
& 2 1/4" MIN. EDGE DISTANCE  
OR  
(2) 3/8" SMS TO STEEL  
& 1" MIN. EDGE DISTANCE  
OR  
(4) 3/8" SMS  
W/ 1 1/2" EMBED INTO WOOD  
& 1" MIN. EDGE DISTANCE

(8) 3/16" FH ELCO ULTRACON  
JAMBS ANCHORS  
W/ 1 1/2" EMBED INTO WOOD  
& 1" MIN. EDGE DISTANCE  
OR  
W/ 1 3/4" INTO CONCRETE/MASONRY  
& 2 1/2" MIN. EDGE DISTANCE

(8) 1/4" FH ELCO ULTRACON SILL ANCHORS  
W/ 1 3/4" EMBED INTO CONCRETE  
& 2 1/2" MIN. EDGE DISTANCE



**"TIOGA/SPARTAN" OUTSWING DOUBLE STEEL DOORS ( XX )**  
WITH OR WITHOUT VIEW WINDOW

Pd = +50.0 PSF (EXTERIOR)  
-50.0 PSF (INTERIOR)

**FRAME TO MASONRY BUILDING  
INSTALLATION DETAILS**

DOORS ARE RATED FOR IMPACT.  
INSTALLATION OF THIS PRODUCT IN THE HVHZ AREA DOES NOT REQUIRE  
THE USE OF APPROVED SHUTTERS OR EXTERNAL PROTECTION DEVICES  
COMPLYING WITH HVHZ REQUIREMENTS.  
INSTALLATION OF THIS SYSTEM OUTSIDE THE HVHZ AREA SHALL MEET  
THE APPLICABLE REQUIREMENTS FOR WIND BORNE DEBRIS PROTECTION.

**"TIOGA/SPARTAN" OUTSWING DOUBLE STEEL DOORS SYSTEM**

APPROVAL APPLIES TO DOUBLE (XX) LEAF DOORS WITHOUT SIDELITES.

DOORS NOT APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION  
RESISTANCE IS REQUIRED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE  
REQUIREMENTS OF THE 2006 INTERNATIONAL RESIDENTIAL CODE (IRC) AND  
2006 INTERNATIONAL BUILDING CODE (IBC) SECTIONS 1405.12, 1609,  
1714.5, 2403 AND 2404 WITH TEXAS REVISIONS.

TESTING PERFORMED IN ACCORDANCE WITH FLORIDA PROTOCOLS  
ASTM E 1886-13a, ASTM E 1996-14 AND TAS-202.

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS  
TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS  
EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT  
PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT  
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE  
REQUIREMENTS OF THE INTL. RESIDENTIAL CODE (IRC) AND INTL. BLDG. CODE  
(IBC) WITH TEXAS REVISIONS.

**af c**  
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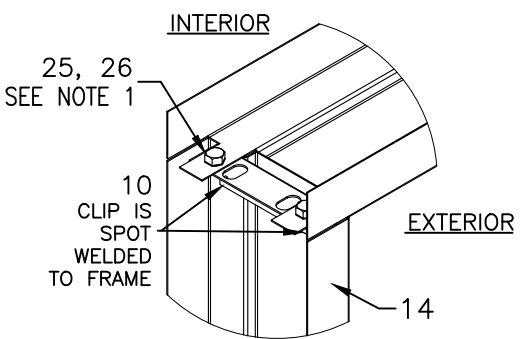
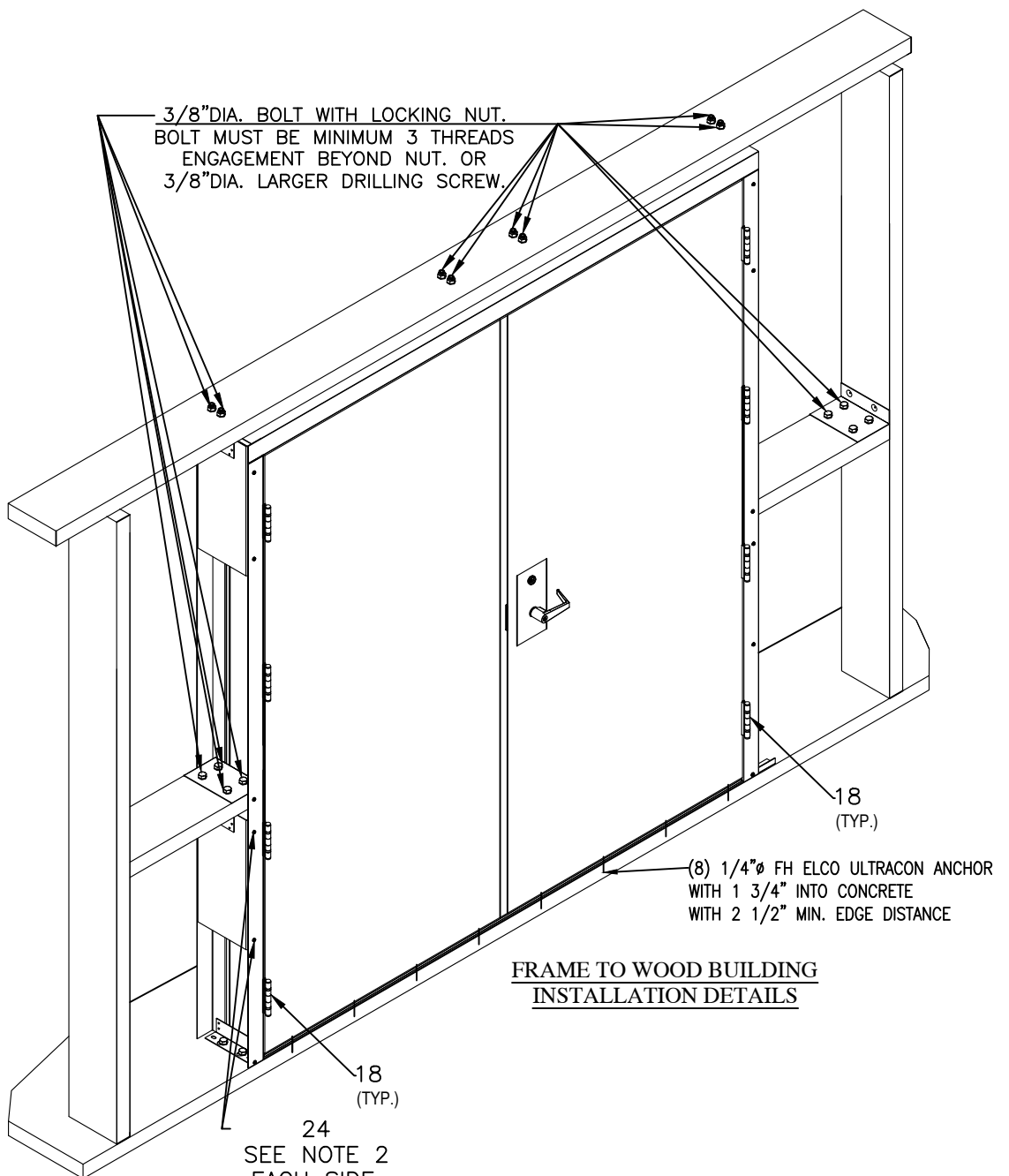
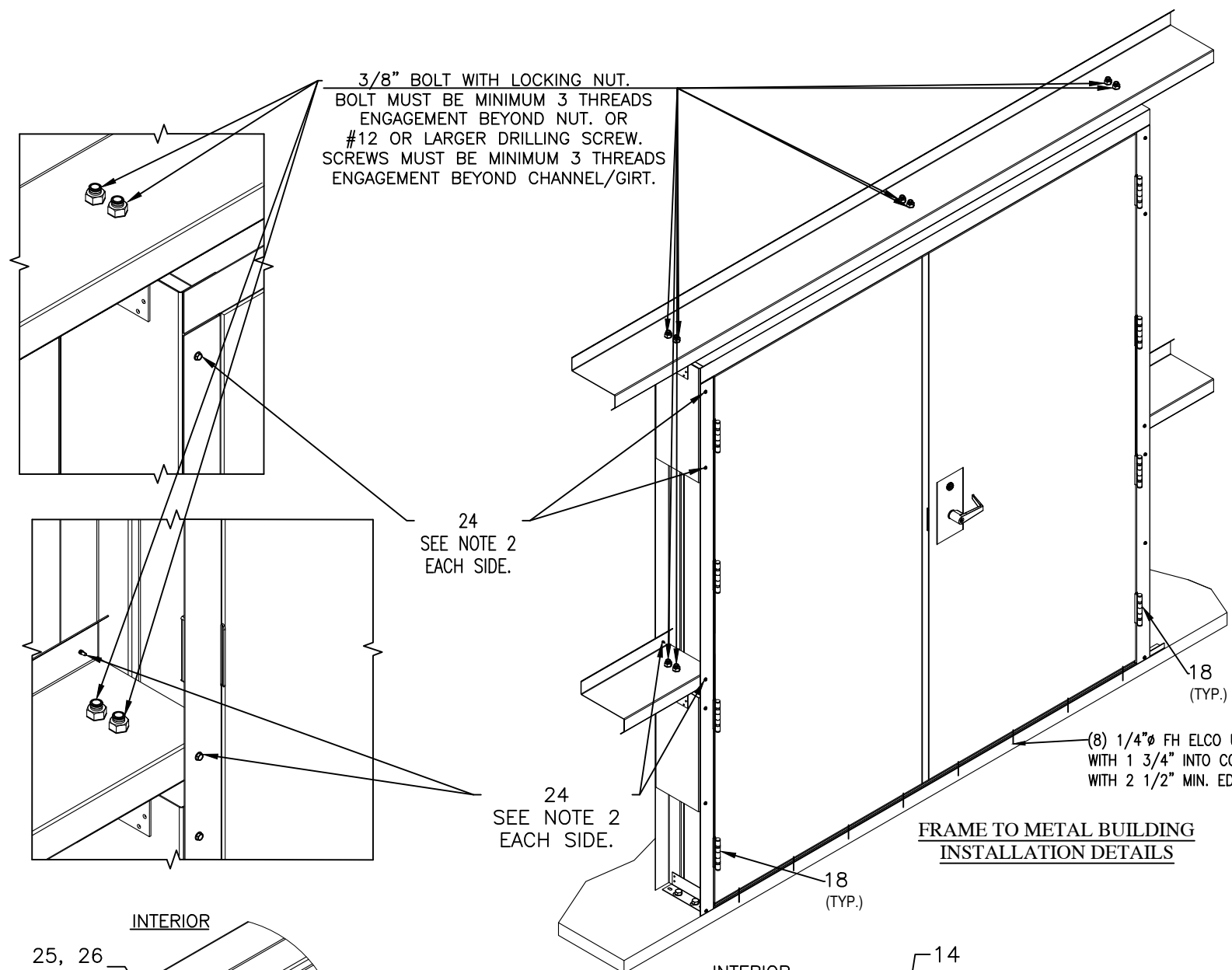
"TIOGA/SPARTAN" OS DOUBLE STEEL DOORS SYSTEM-L.M.I.  
**TELL MANUFACTURING, INC.**  
18 RICHARD DRIVE · LITITZ,  
PENNSYLVANIA 17543  
TOLL FREE: 1-800-433-4047 · 1-717-625-2990  
FAX: 1-888-370-3253

no.	date	description

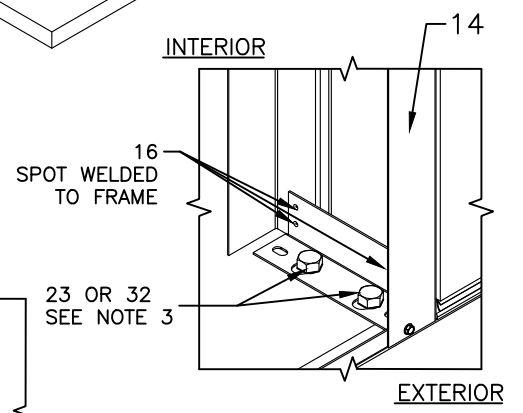
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dr. by: L.G.  
chk. by:

drawing no.  
**15-69LTX**  
sheet 1 of 6

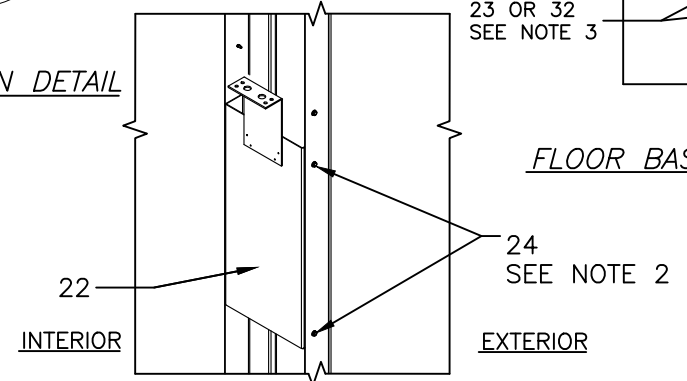
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CORNER CONSTRUCTION DETAIL



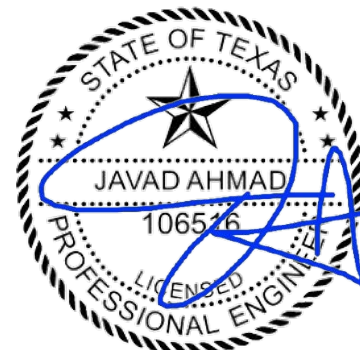
FLOOR BASE ANGLE DETAIL



JAMB EXTENSION ASSEMBLY DETAIL

**NOTES:**

- 1) FOR ANCHORING KNOCK DOWN FRAME HEAD JAMB TO FRAME HINGE JAMB AND FRAME STRIKE JAMB 16GA. (.053" MIN.) STEEL FRAMING USE (2 PER SIDE) 1/4" TO 1/2" DIAMETER STEEL BOLT WITH MATING SELF LOCKING NUT. BOLT TO BE OF SUFFICIENT LENGTH TO ACHIEVE 3-THREADS MINIMUM BEYOND NUT. LOCATE AND ANCHOR AS SHOWN IN CORNER CONSTRUCTION DETAIL.
- 2) FOR ANCHORING JAMB EXTENSION ASSEMBLY TO 16GA. (.053" MIN.) STEEL FRAMING HINGE AND STRIKE JAMBS, USE (4 PER CHANNEL) #12 OR LARGER DRILLING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 3-THREADS MINIMUM BEYOND ANCHOR CHANNELS. LOCATE AND ANCHOR AS SHOWN IN JAMB EXTENSION ASSEMBLY DETAIL.
- 3) FOR ANCHORING FLOOR BASE ANGLE OF FRAME HINGE AND STRIKE JAMBS ONTO CONCRETE USE (2 PER JAMB) 3/8" TO 1/2" DIAMETER WEDGE BOLTS OF SUFFICIENT LENGTH TO ACHIEVE 2" MINIMUM EMBEDMENT INTO CONCRETE WITH 4 1/2" MINIMUM EDGE DISTANCE OR (2 PER SIDE) 5/16" TO 1/2" DIAMETER HEX WASHER HEAD TAPCON SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 1-3/4" MINIMUM EMBEDMENT INTO CONCRETE WITH 3-3/16" MINIMUM EDGE DISTANCE (ADD WASHER IF NEEDED). LOCATE AND ANCHOR AS SHOWN IN FLOOR BASE ANGLE DETAIL.
- 4) FOR ANCHORING THRESHOLD ONTO CONCRETE USE 3/16" DIAMETER FLAT HEAD TAPCON SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1-3/4" MINIMUM EMBEDMENT INTO CONCRETE WITH 2-5/8" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 5) INSTALLATION ANCHORS AND HARDWARE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:  
 A. STEEL FRAMING: 16GA. (.053" MIN.)  
 B. CONCRETE: MINIMUM COMPRESSIVE STRENGTH 3,192 PSI.
- 6) PRE-ASSEMBLED FRAME CONFIGURATION SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.



**af c**  
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revisions:	no	date	by	description

date: 9-23-16  
 scale:  
 dr. by: L.G.  
 chk. by:

drawing no.  
**15-69LTX**  
 sheet 2 of 6



## BILL OF MATERIAL

ITEM No.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	MSD72235	METAL BUILDING DOOR FRAME (4 1/4" & 5 3/4" WIDTH) 3.21" x 0.054" THK. 16GA (2) HINGE JAMBS & (1) HEAD JAMB PER ASSEMBLY	GALVANNEAL STEEL	1
2	MSD72232	HEADER/JAMB FRAME 2.67" x 5.86" x 0.059" THK. 16GA	GALVANNEAL STEEL	1
3	DT101228	THRESHOLD 0.5" x 4.25" x 0.090" THK. x 96"	6063-T5 ALUMINUM	1
3A	DT101234	THRESHOLD 0.5" x 5.75" x 0.090" THK. x 96"	6063-T5 ALUMINUM	
4	MSD10027	HINGE REINFORCEMENT 1.25" x 10.00" x 0.180" THK.	COLD ROLLED STEEL	8
5	MSD21808	BOTTOM DOOR SKIN 47 3/4" x 95 1/8" (16GA)	GALVANNEAL STEEL	1
6	MSD21808	TOP DOOR SKIN 47 3/4" x 95 1/8" (16GA)	GALVANNEAL STEEL	1
7	MMD10205	TOP CAP 0.70" x 1.54" x .038" THK.	GALVANNEAL STEEL	1
8	MSD10223	DOOR CHANNEL 47.5" x 1.6" x .055" THK.	GALVANNEAL STEEL	2
9	MSD10091	CYLINDRICAL LOCK REINFORCEMENT 1.65" x 6.69" x 3.80" x 0.54" THK. 16GA	COLD ROLLED STEEL	1
10	MSD70048	FRAME CLIP 5.54" x 1.45" x 1.43" x 0.097" THK. 12GA SPOT WELDED TO JAMBS	GALVANNEAL STEEL	2
11	MSD10005	FOAM CORE 44.00" x 91.00" x 1.688" THK. - 0.733 LB/FT <sup>3</sup> DENSITY	POLYSTYRENE FOAM	1
12	MMD10347	DOOR CLOSER REINFORCEMENT 7.00" x 19.50" (16GA) STEEL SHEET	GALVANNEAL STEEL	2
13	MSD10068	MORTISE LOCK REINFORCEMENT 5.00" x 1.50" x 11.93" x 0.067" THK. 15GA	COLD ROLLED STEEL	1
14	MSD10564	ASTRAGAL 14GA 2.00" x 95.13" OVERLAP STRIP (BLADE), 16GA EDGE CHANNEL (STILE REINF.)	GALVANNEAL STEEL	1
15	-	#8 x 1" SELF DRILLING SCREWS (NOT SUPPLIED)	STEEL	6
16	-	HINGE FLOOR BASE ANGLE CLIP 12GA	GALVANNEAL STEEL	2
17	DT100631	WEATHER STRIP LP1153 (18')	-	1
18	HG100034	HINGE 4-1/2" x 4-1/2"	GALVANNEAL STEEL	8
19	-	ML1300 SERIES HEAVY DUTY COMMERCIAL GRADE 1 MORTISE LOCKSET	-	1
20	-	9100 SERIES MORTISE EXIT DEVICE WITH PANIC DOOR EXIT AND KEYED ESCUTCHEON TRIM	-	1
21	MMD10203	DOOR SWEEP 0.61" x 1.35" x 0.083" THK. TP 35.75"	6063-T6 ALUMINUM	1
22	MSD10259	JAMB EXTENSION ASSEMBLY 4.93" x 4.10" x 19.50" x 0.100" THK.	GALVANNEAL STEEL	4
22A	MSD10206	JAMB EXTENSION CHANNEL 2.37" x 4.05" x 16.00" x 0.054" THK.	GALVANNEAL STEEL	
22B	MSD10236	JAMB EXTENSION CLIP 1.68" x 4.93" x 10.25" x 0.100" THK.	GALVANNEAL STEEL	
23	-	3/8"Ø TO 1/2"Ø x 2-1/4" DYNABOLT STUD ANCHOR FOR CONCRETE	-	4
24	-	#12 x 1" SELF DRILLING SCREW (NOT SUPPLIED)	STEEL	24
25	-	1/4"Ø TO 1/2"Ø x 3/4" HEX BOLT	STEEL	12
26	-	1/4"Ø TO 1/2"Ø HEX NUT SELF LOCKING STEEL TO MATCH ITEM 25	STEEL	12
27	-	#10 x 1" SELF DRILLING SCREW (NOT SUPPLIED)	STEEL	6
28	-	STRIKE PLATE - TO MATCH HARDWARE OPTION AS SPECIFIED	-	1
29	-	#12 - 24 x 3/8" PHILLIPS FLAT HEAD COUNTERSUNK MACHINE SCREW STEEL, FOR HINGES	STEEL	32
30	-	3/16"Ø x 1-3/4" PHILLIPS FLAT HEAD COUNTERSUNK TAPCON CONCRETE SCREW (NOT SUPPLIED)	STEEL	5
31	DT101278	SURFACE BOLT	-	2
32	-	5/16"Ø TO 1/2"Ø x 1-3/4" HEX WASHER HEAD TAPCON CONCRETE SCREW (NOT SUPPLIED)	STEEL	4
33	MSD10061	HINGE REINFORCEMENT COVER 1.66" x 0.84" x 10.13" x 0.024" THK.	COLD ROLLED STEEL	4
34	MSD10090	STRIKE PLATE REINFORCEMENT 1.38" x 6.50" x 1.13" x 0.059" THK. 16GA	COLD ROLLED STEEL	1
35	MSD10006 MSD10033	2 PART ADHESIVE, REZ-CURE EP882 BY INNOVATIVE RASIN SYSTEM, INC.	EPOXY RESIN	2
36	DT100852	ANCHOR 1.58" x 2.50" x 7.00" x 0.048" THK.	COLD ROLLED STEEL	4
37	SD100081	ANCHOR 0.95" x 2.05" x 7.00" x 0.052" THK.	COLD ROLLED STEEL	4
38	-	1/4" x 3/4" HEX HEAD MACHINE BOLTS (HH MB) AND LOCK NUTS THRU FRAME CLIPS	STEEL	2
39	-	#8 x 3 1/2" NAILS	STEEL	16
40	-	3/8" x 4" WOOD LAG BOLT	STEEL	2
41	MSD10322	1.50" x 10.00" x 0.099" THK. SURFACE BOLT KEEPER REINFORCEMENT	COLD ROLLED STEEL	4
42	MSD10347	INACTIVE LEAF REINFORCEMENT 7.00" x 19.50" x 0.069" THK.	GALVANNEAL STEEL	3
43	-	1/4"Ø x 2-1/4" PHILLIPS FLAT HEAD ELCO TAPCON CONCRETE SCREW (NOT SUPPLIED)	STEEL	8

## HARDWARE SCHEDULE

FRAME	16 GA. (STEEL)
DOOR	16 GA (STEEL)
REINFORCEMENT	16 GA 7.00" x 19.50" LONG GALVANNEALED STEEL CLOSER REINFORCEMENT
CORE	1 11/16" THK. EPS FOAM
HINGE	(8) 4 1/2" x 4 1/2" (4/PANEL STEEL SQUARE HINGES)
REINFORCEMENT	1.25" x 10" x 0.180" THK. (COLD ROLLED STEEL) HINGE REINFORCEMENT & 1.38" x 6.50" x 1.13" x 0.059" THK. STRIKE PLATE REINFORCEMENT
LOCK	8400 SERIES HEAVY DUTY COMMERCIAL GRADE 1 RIM PANIC DOOR EXIT W/ KEYED ESCUTCHEON TRIM ML1300 SERIES HEAVY DUTY COMMERCIAL GRADE 1 MORTISE LOCKSET (2) 3/8" DIA. SURFACE BOLTS (INACTIVE LEAF) W/ (2) SUPPORTS @ 8" O.C. USING (2) # 12 SMS/SUPPORT
REINFORCEMENT	(2) 5.00" x 1.50" x 12.00" x 0.067" THK. (COLD ROLLED STEEL) MORTISE LOCK REINFORCEMENT. 1.50" x 10.00" x 0.099" THK. (12GA COLD ROLLED STEEL) SURFACE BOLT KEEPER REINFORCEMENT 7.00" x 19.50" x 0.069" THK. (GALVANNEAL STEEL) INACTIVE LEAF REINFORCEMENT
ASTRAGAL	ASTRAGAL 14GA 2.00" x 95.13" OVERLAP STRIP (BLADE), 16GA EDGE CHANNEL (STILE REINF. GALVANNEAL STEEL)
JAMB EXTENSION	ASSEMBLY 4.93" x 4.10" x 19.50" x 0.100" THK. CHANNEL 2.37" x 4.05" x 16.00" x 0.054" THK. CLIP 1.68" x 4.93" x 10.25" x 0.100" THK.

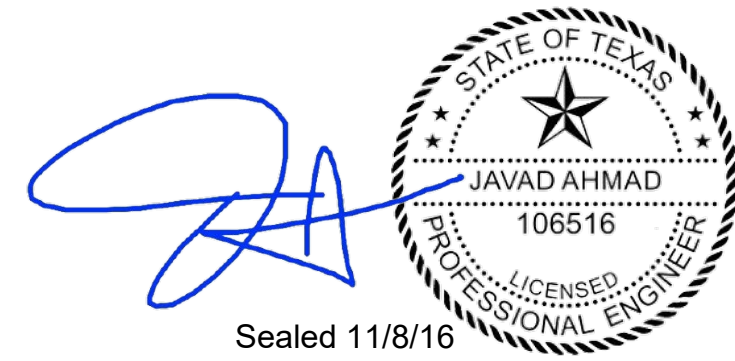
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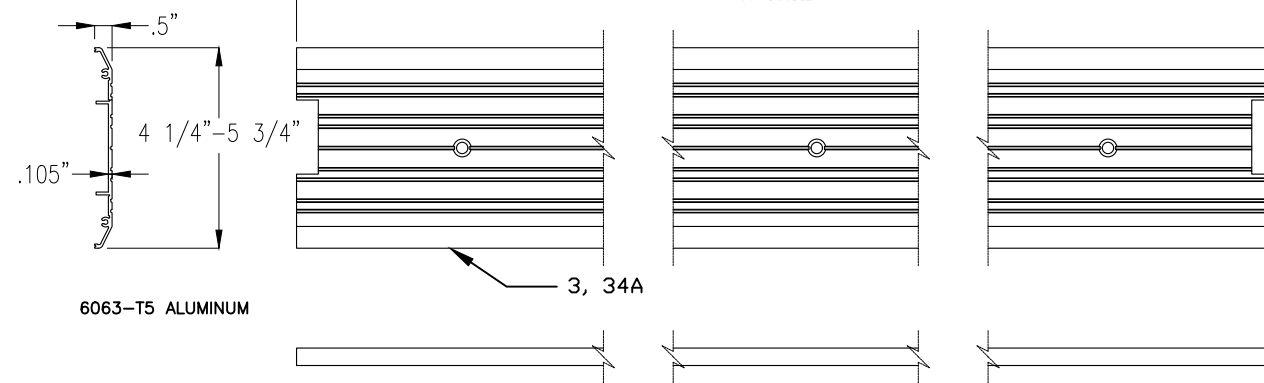
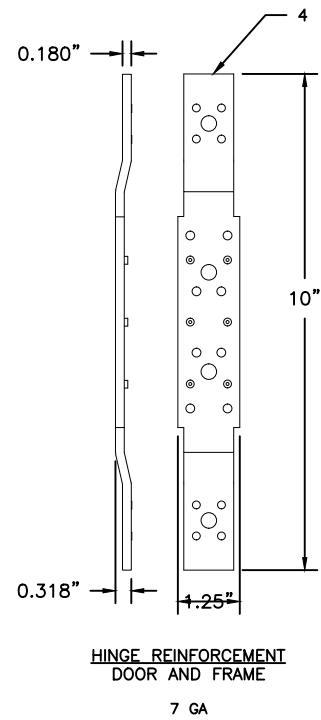
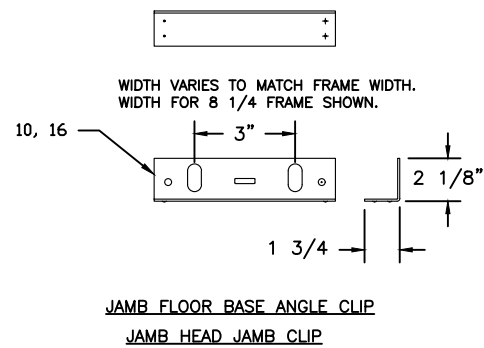
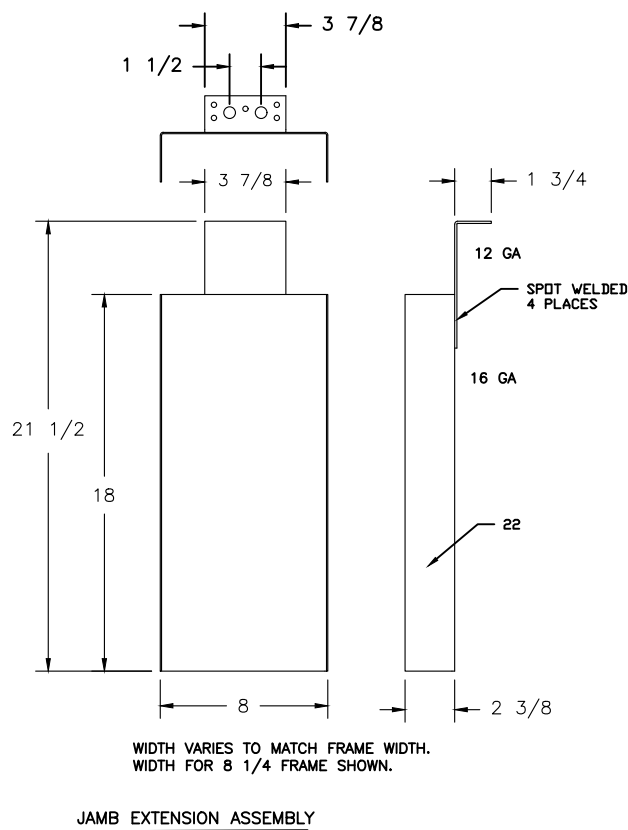
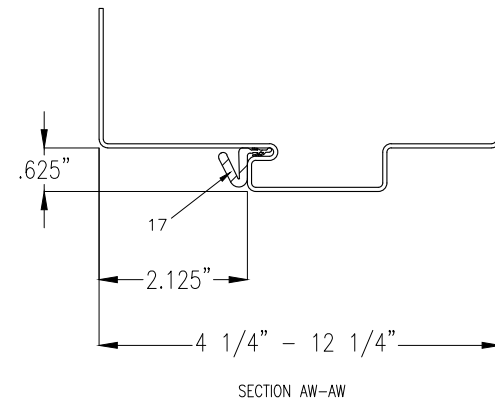
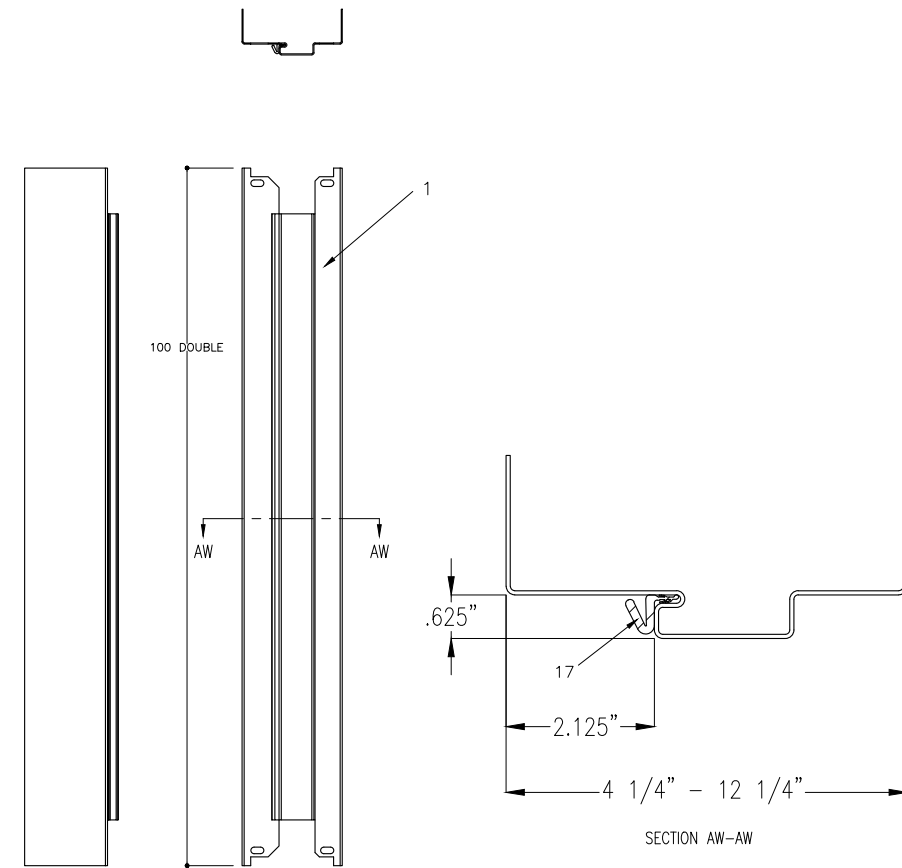
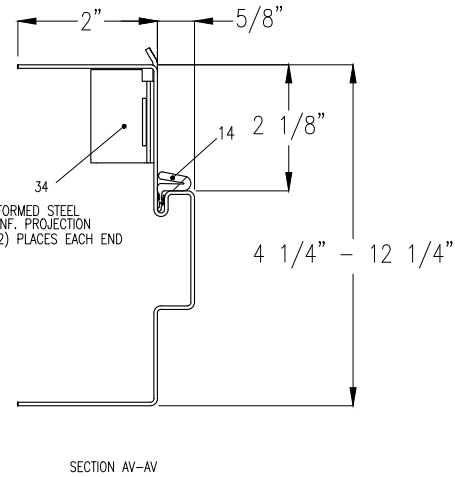
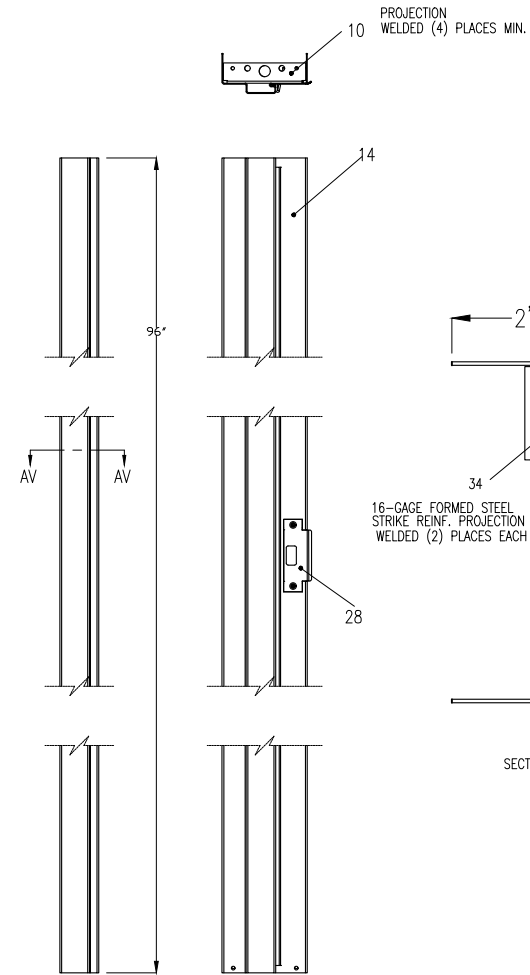
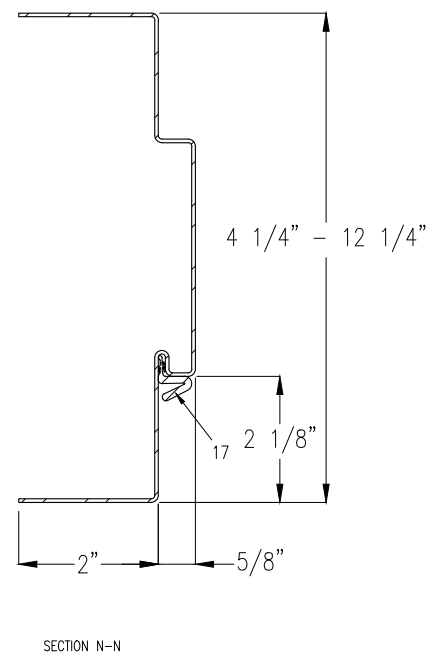
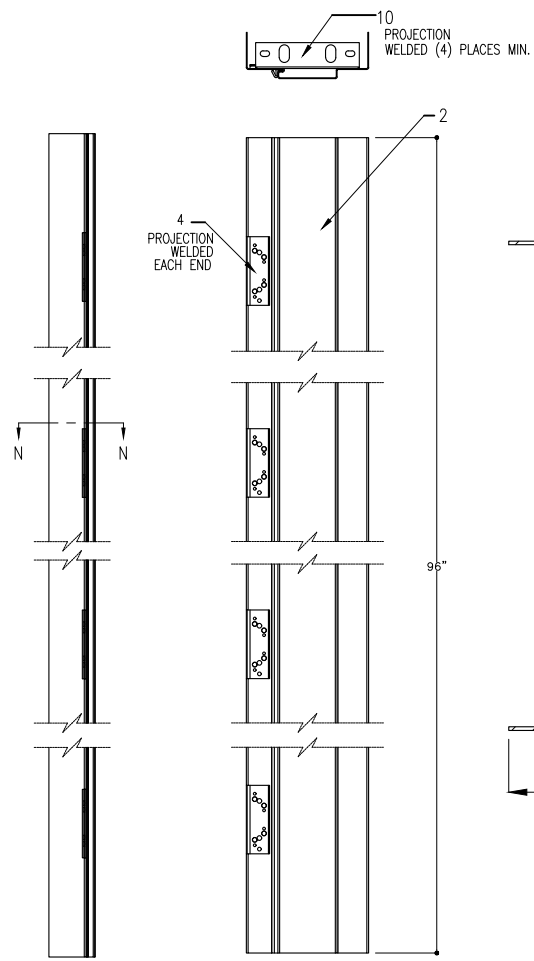
"100A/SPARTAN" OS DOUBLE STEEL DOORS SYSTEM-L.M.I.  
**TELL MANUFACTURING, INC.**  
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no.	date	by	description
1	9/11/15	L.G.	8400 TO 9100 SERIES LOCK

date: 9-23-16  
scale:  
dr. by: L.G.  
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drawing no.  
15-69LTX  
sheet 4 of 6



Sealed 11/8/16  
EB C.A.N. # 3538

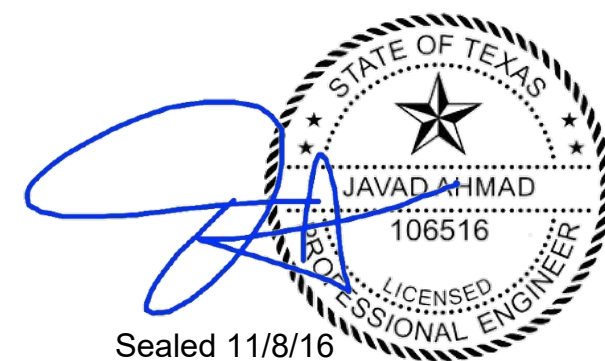


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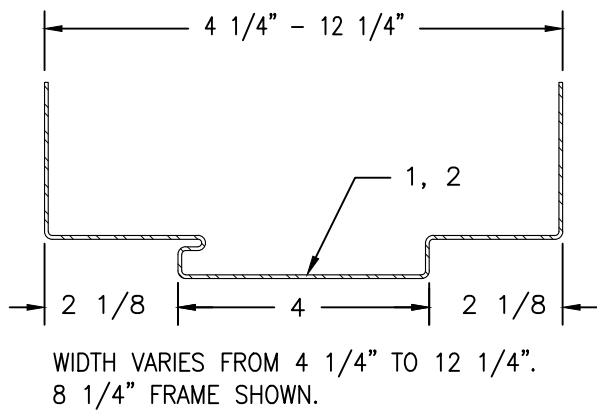
"TIOGA/SPARTAN" OS DOUBLE STEEL DOORS SYSTEM-L.M.I.  
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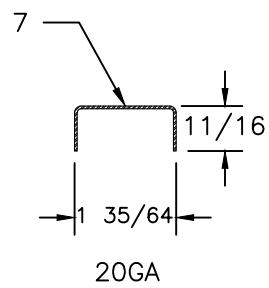
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sheet 5 of 6			



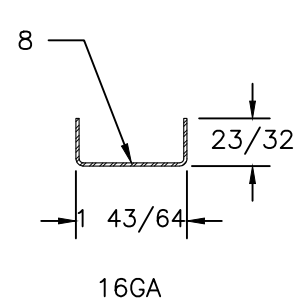
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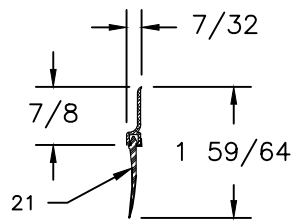
METAL BUILDING DOOR FRAME PROFILE



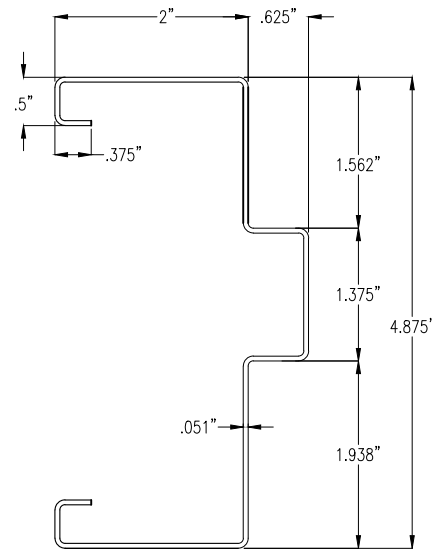
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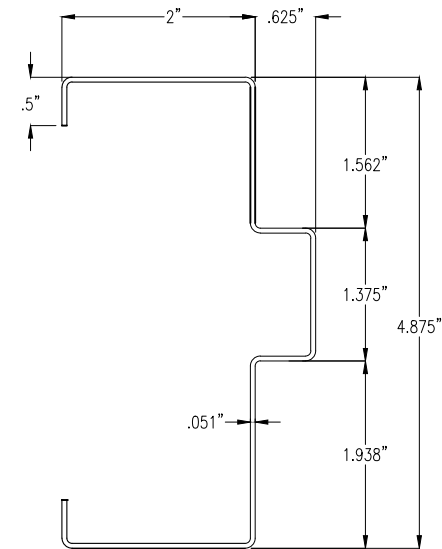
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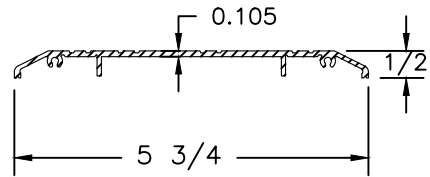
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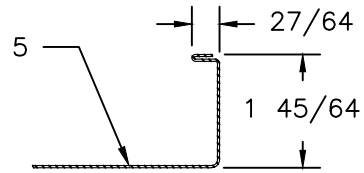
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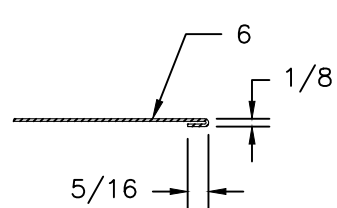
MASONRY DOOR FRAME



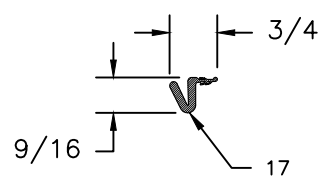
THRESHOLD (0.105\"/>



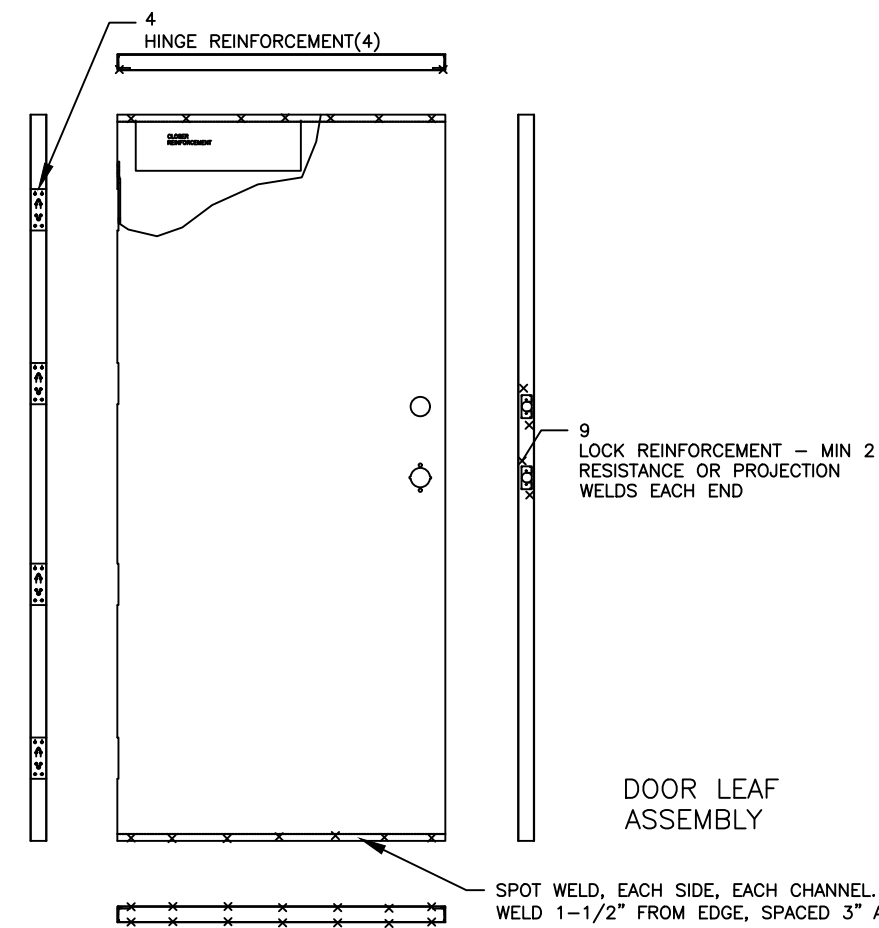
BOTTOM DOOR SKIN



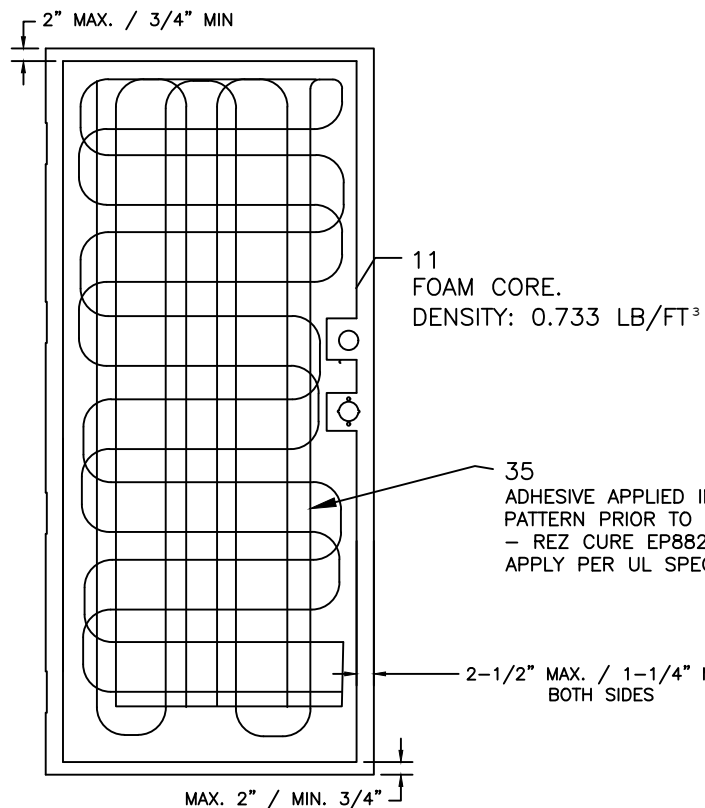
TOP DOOR SKIN



JAMB WEATHERSTRIPPING



DOOR LEAF ASSEMBLY

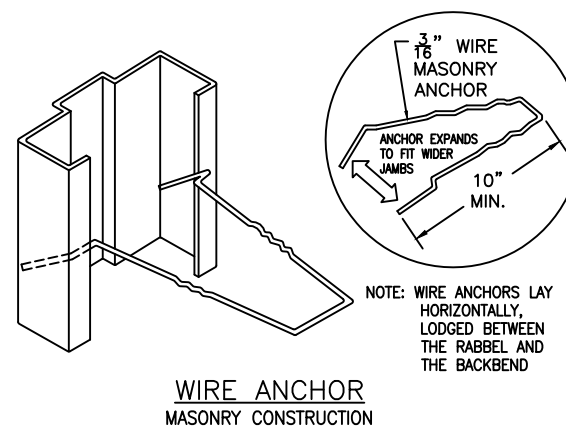


11  
FOAM CORE.  
DENSITY: 0.733 LB/FT<sup>3</sup>

35  
ADHESIVE APPLIED IN CROSSED  
PATTERN PRIOR TO SPREADING.  
- REZ CURE EP882 PART A & B  
APPLY PER UL SPEC.

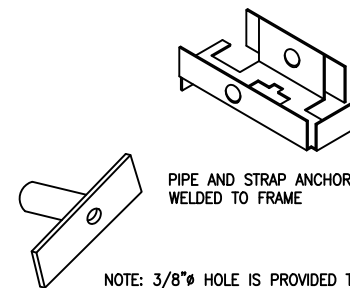
2-1/2\"/>

MAX. 2\"/>



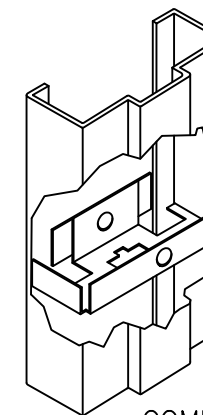
WIRE ANCHOR  
MASONRY CONSTRUCTION

NOTE: WIRE ANCHORS LAY  
HORIZONTALLY,  
LODGED BETWEEN  
THE RABBEL AND  
THE BACKBEND



PIPE AND STRAP ANCHOR  
EXISTING MASONRY CONSTRUCTION

NOTE: 3/8\"/>



COMBINED ANCHOR  
PUNCH & DIMPLE ANCHORING

NOTE: COMBINATION ANCHORS  
USED AS A STEEL  
STUD ANCHOR  
  
5-3/4\"/>



Sealed 11/8/16  
EB C.A.N. # 3538

AL-FAROOQ CORPORATION  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
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TDI APPROVAL/15-69LTX

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no.	date	by	description

date: 9-23-16  
scale:  
dr. by: L.G.  
chk. by:  
drawing no.  
15-69LTX  
sheet 6 of 6