

12 GA. GALV. COMMERCIAL TOP ROLLER BRACKET ATTACHED W/(4) 1/4" x 1" SCREWS PER BRACKET

2" 10 BALL STEEL LONG STEM ROLLERS W/RETAINERS USED FOR NON THREADED SHAFTS

3" 20GA STRUT ATTACHED AT EACH END STILE LOCATION W/(2) 1/4" x 1" SCREWS

ADJUSTABLE ROLLER CARRIER ATTACHED W/ (2) 5/16" x 3/4" BOLT & NUT PER BRACKET

TYPICAL TOP FIXTURES
N.T.S. 1

3" 20GA. STRUT ATTACHED W/ (2) 1/4" x 1" SCREWS AT EACH CENTER STILE

14GA. MIN. CENTER HINGE ATTACHED W/ (5) 1/4" x 1" SCREWS

TYPICAL CENTER HINGE
N.T.S. 2

3" 20GA. STRUT ATTACHED W/ (2) 1/4" x 1" SCREWS AT EACH END STILE

14GA. MIN. END HINGE ATTACHED W/ (6) 1/4" x 1" SCREWS

2" 10 BALL STEEL 4.5" STEM ROLLERS (MIN.) W/RETAINERS USED FOR NON THREADED SHAFTS

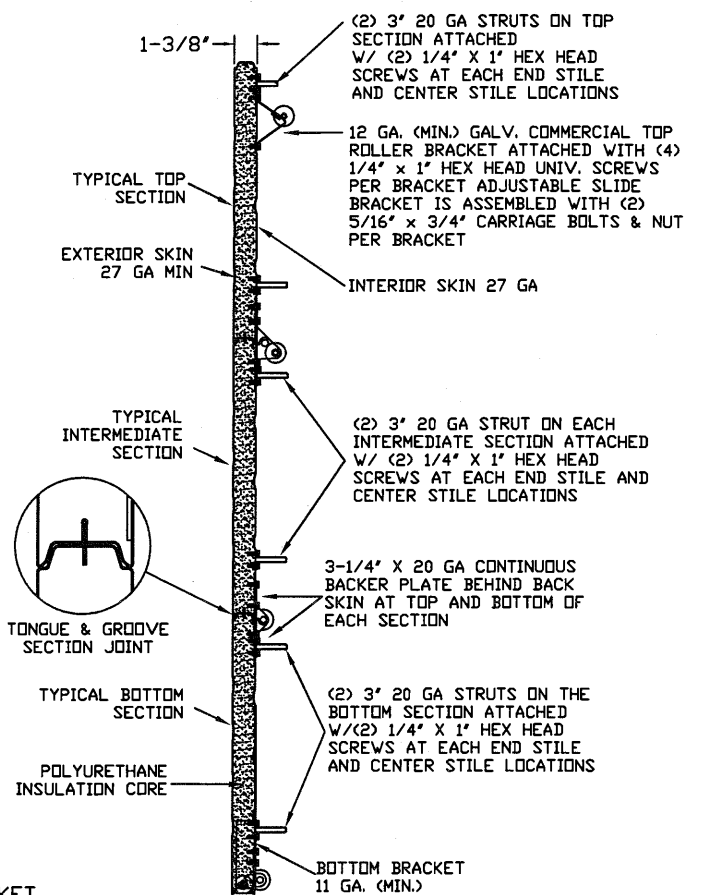
TYPICAL END HINGE
N.T.S. 3

3" 20GA. STRUT ATTACHED W/ (2) 1/4" x 1" SCREWS AT EACH END STILE

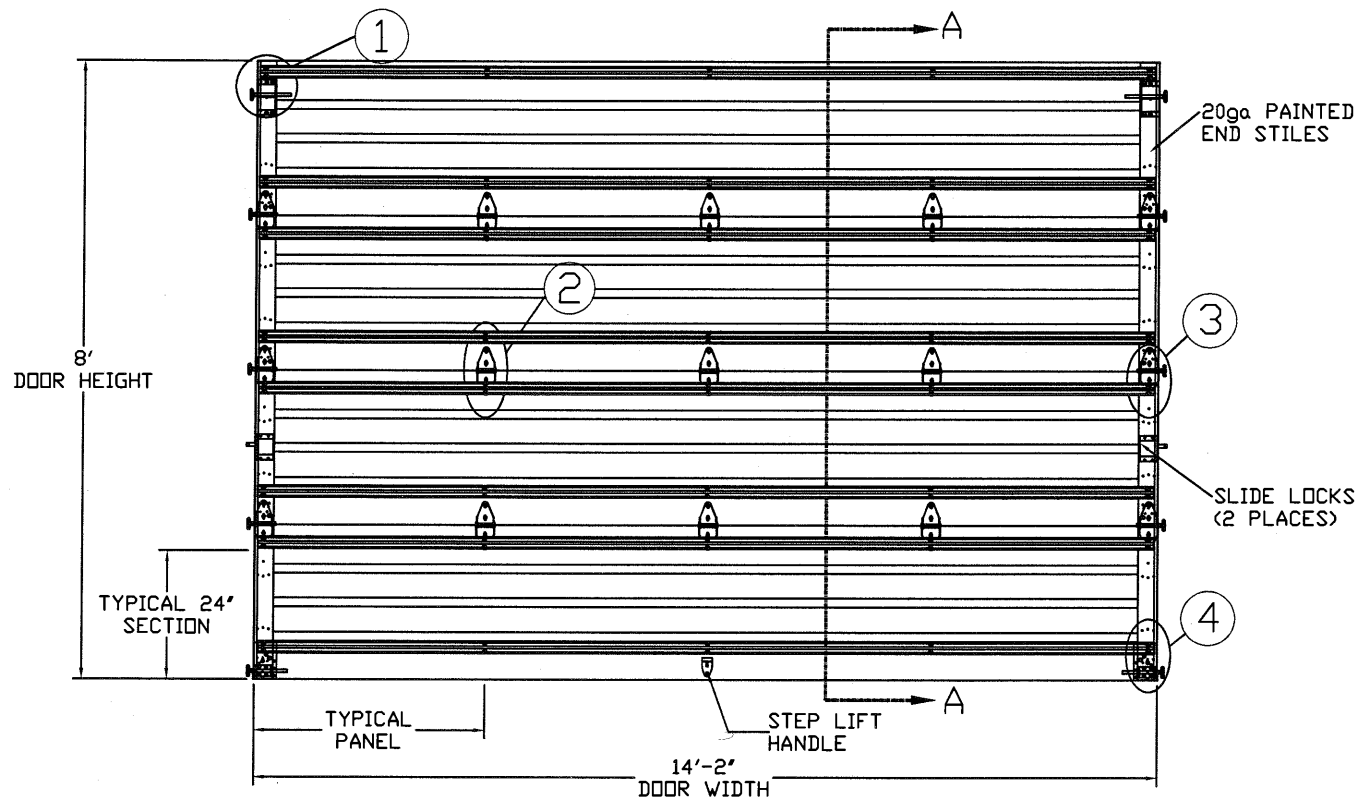
BOTTOM BRACKET 11 GA. (MIN.) ATTACHED W/(8) 1/4" x 1" HEX HEAD SCREWS

2" 10 BALL STEEL LONG STEM ROLLERS W/RETAINERS USED FOR NON THREADED SHAFTS

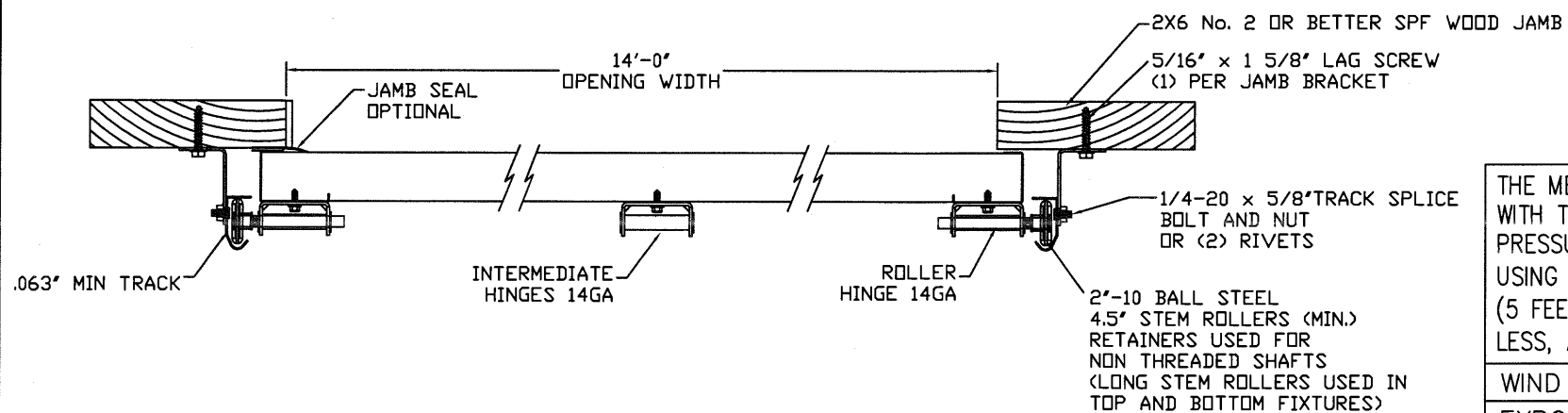
TYPICAL BOTTOM BRACKET
N.T.S. 4



SECTION A-A (SIDE VIEW)
N.T.S.



DOOR INTERIOR ELEVATION
N.T.S.



2" BRACKET MOUNT TO WOOD JAMB DETAIL
N.T.S.

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN DASMA 108. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10° OR LESS, AND I=1.0):

WIND SPEED (MPH)	151	137	130	124	119
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 14'2 x 24'

DESIGN LOADS +31.5 PSF -35.9 PSF

TEST LOADS +47.3 PSF -53.9 PSF

Thomas L. Shelmerdine, PE (TX PE #85829)
Structural Solutions, PA (TX Firm #F-004063)



TX

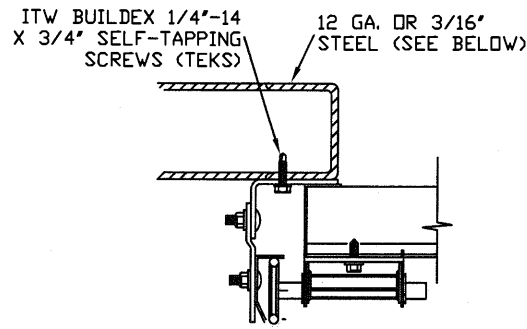


MODEL 1350 AMARR 2741 (27GA)
MODEL 2700 AMARR 2742 (27GA)
MODEL 2720 AMARR 2042 (20GA)

SIZE	DRAWN BY DC	DATE 3/13/18	DRAWING NUMBER
B	CHECKED BY RLR	DATE 3/15/18	IBC-1314-150-15

5921-G W. Friendly Ave., Greensboro, NC 27410

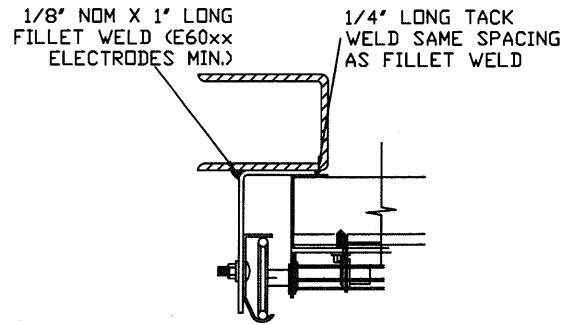
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



CLIP STYLE REVERSE ANGLE MOUNT SHOWN BRACKET, CONTINUOUS AND TAPERED ANGLE MOUNT AVAILABLE

12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6' FROM ENDS AND 12' O.C.
REFER TO NOTES: 1, 2 AND 5

3/16\"/>



REVERSE ANGLE MOUNT SHOWN BRACKET, CONTINUOUS AND TAPERED ANGLE MOUNT AVAILABLE

STEEL FRAMING 12GA OR BETTER
1590 LBS./IN. ALLOWABLE LOAD - 6' FROM ENDS AND 24' O.C.
REFER TO NOTES: 1, 2, 5, 6, 7, 8 AND 9

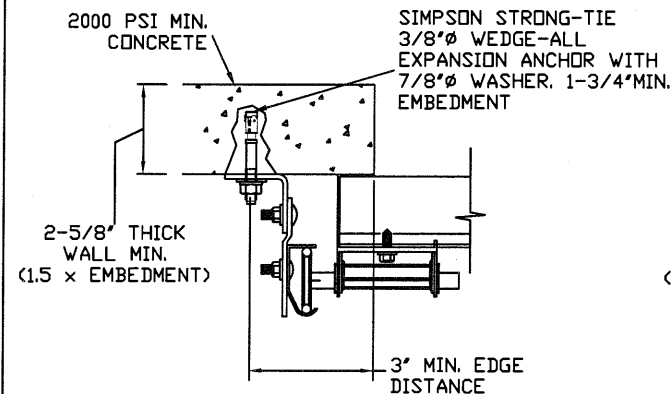
NOTES:

- ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
- FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
- MIN. EDGE DISTANCE OF 3' REQUIRED.
- USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS IN ADDITION TO OTHER LOADS.
- MOST GARAGE DOOR TRACK IS GALVANIZED STEEL. USE ALL NECESSARY PRECAUTIONS WHEN WELDING GALVANIZED STEEL.
- ALL WELDS SHOULD BE PERFORMED BY A CERTIFIED WELDER OR INSPECTED BY A CERTIFIED WELDING INSPECTOR TO VERIFY THE INTEGRITY OF THE WELD.
- FILLET WELDS TO HAVE A STRAIGHT OR CONVEX FACE SURFACE.
- TACK WELD TOE OF ANGLE AT SAME SPACING TO PREVENT ROTATION OF TRACK ANGLE.

SPECIFICATIONS AND NOTES

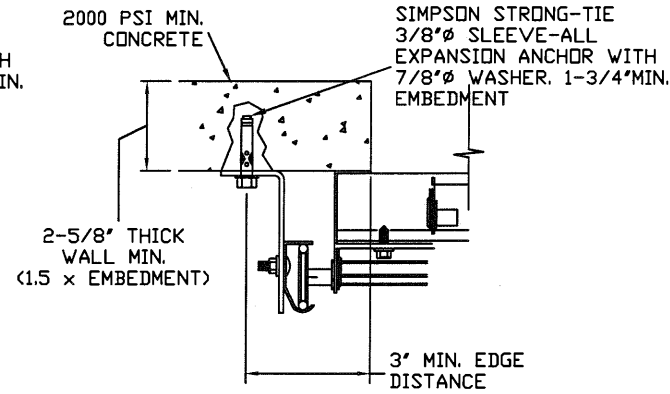
- ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
- EACH VERTICAL JAMB RECEIVES MAXIMUM DESIGN LOADS OF: +223.1 LBS/FT & -254.3 LBS/FT
- DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
- DOOR SECTIONS SHALL BE 27 GA. (.015) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
- DOORS UP TO 24'0\"/>
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)



CLIP STYLE CONTINUOUS ANGLE MOUNT SHOWN BRACKET, REVERSE AND TAPERED ANGLE MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
351 LBS./EXPANSION ANCHOR ALLOWABLE LOAD - 6' FROM ENDS AND 18' O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



CONTINUOUS ANGLE MOUNT SHOWN BRACKET, CONTINUOUS AND TAPERED ANGLE MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
336 LBS./EXPANSION ANCHOR ALLOWABLE LOAD - 6' FROM ENDS AND 18' O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE

5/16\"/>

2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE

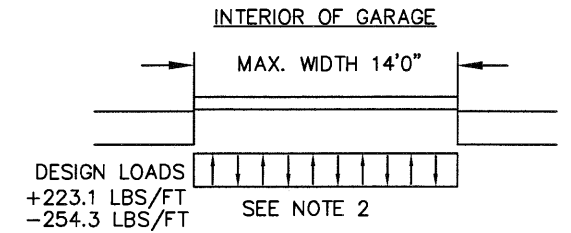
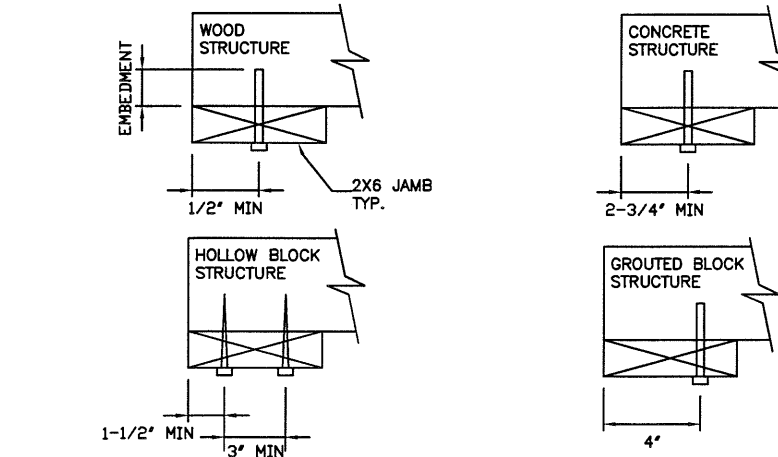
HILTI KWIK BOLT 3/8\"/>

2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK

SIMPSON 1/4\"/>

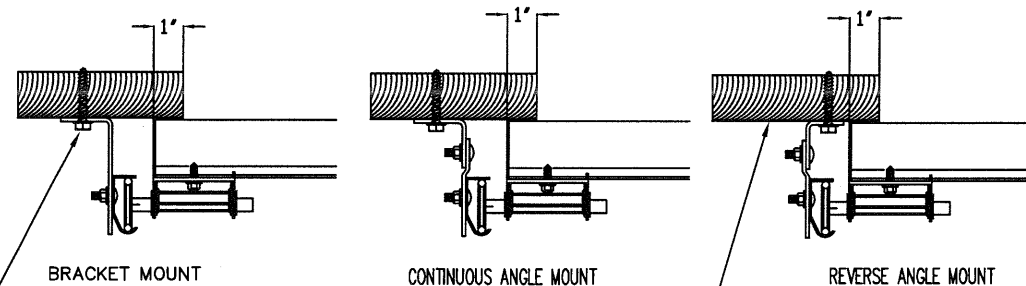
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)

HILTI SLEEVE ANCHOR 3/8\"/>



TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE TRACK CONFIGURATION DETAIL



5/16\"/>

2x6 WOOD JAMB SYP OR SPF (NO.2) OR BETTER (TYP.)

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 14'2\"/>

DESIGN LOADS +31.5 PSF -35.9 PSF

TEST LOADS +47.3 PSF -53.9 PSF

Thomas L. Shelmerdine, PE (TX PE #85829) Structural Solutions, PA (TX Firm #F-004063)

STATE OF TEXAS
THOMAS L. SHELMERDINE
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LICENSED PROFESSIONAL ENGINEER

TX

Amarr
ENTREMATIC

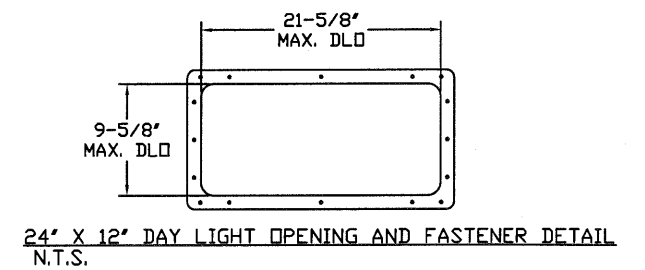
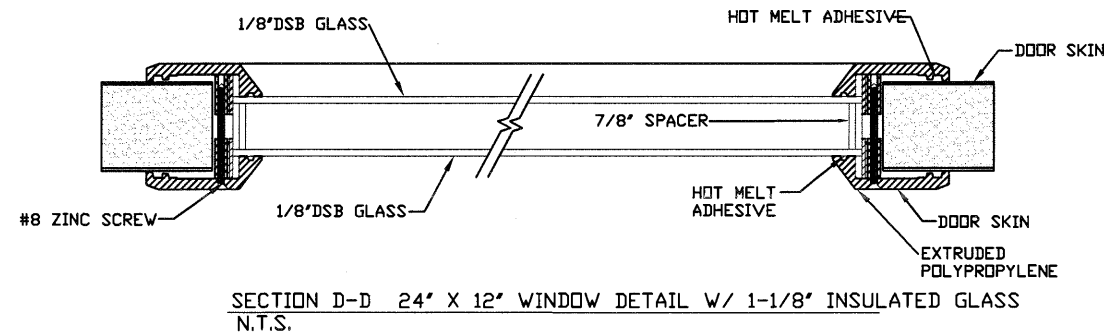
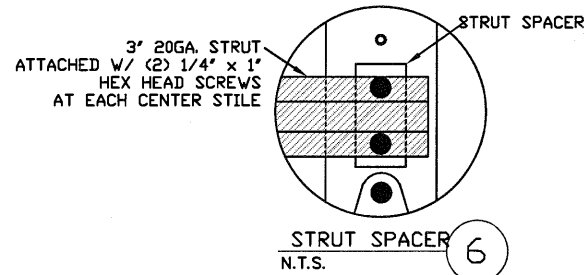
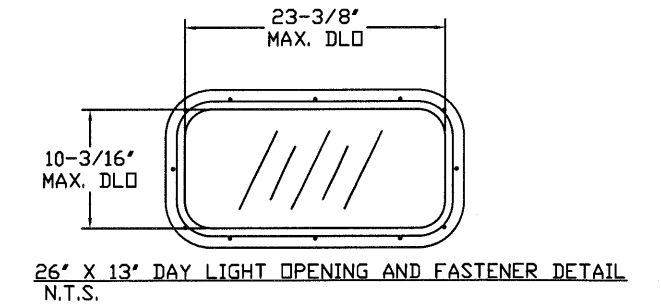
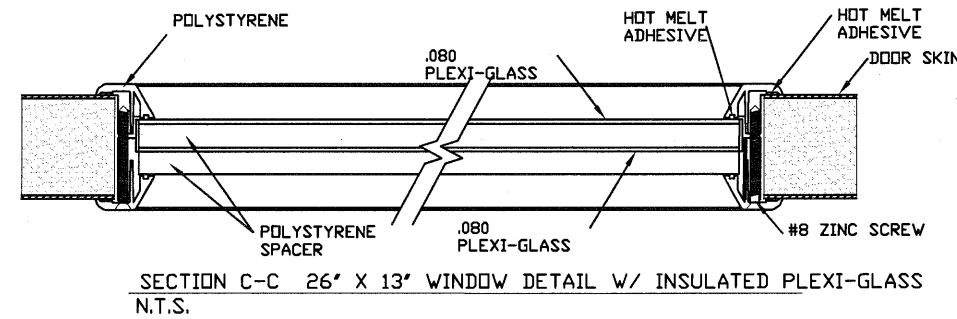
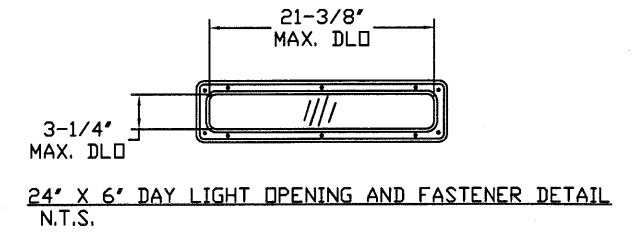
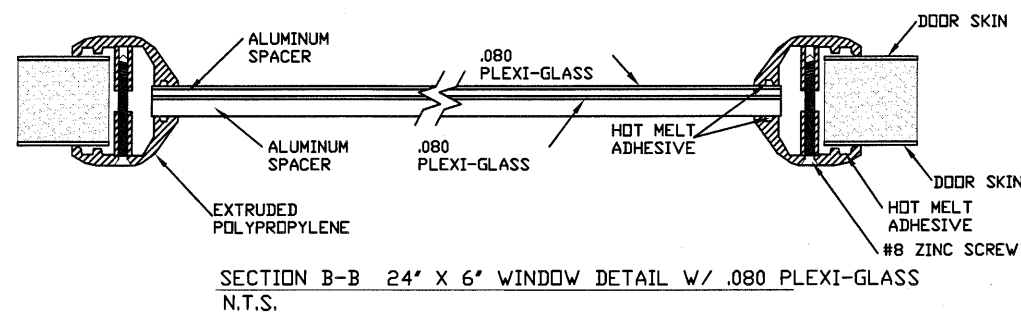
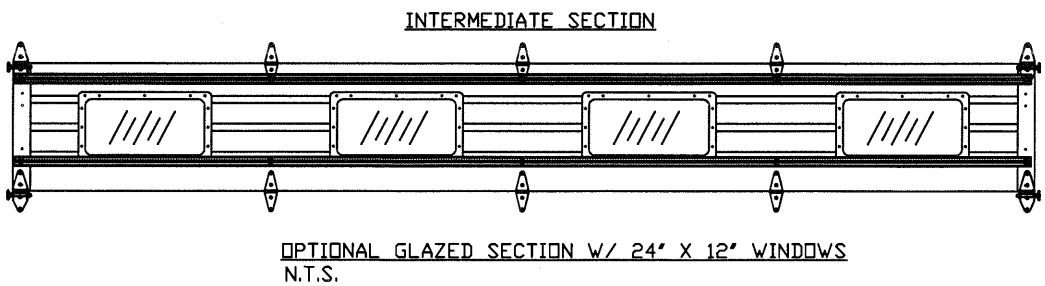
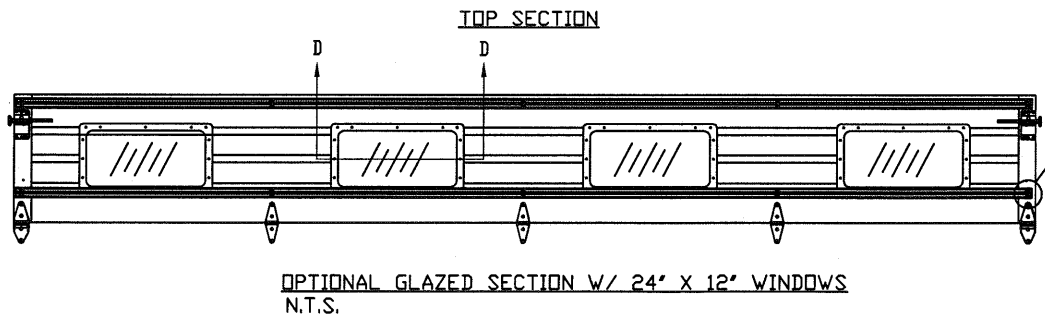
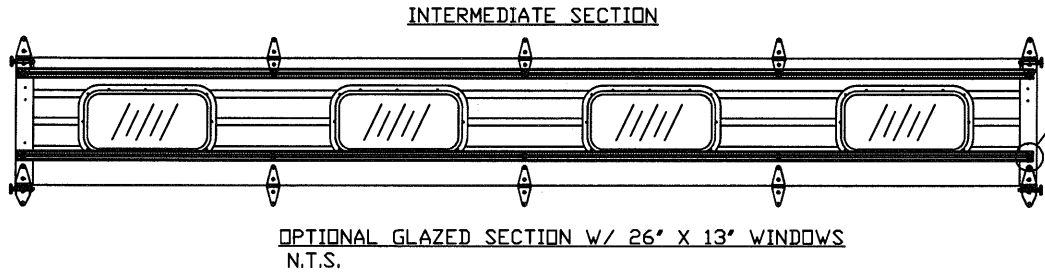
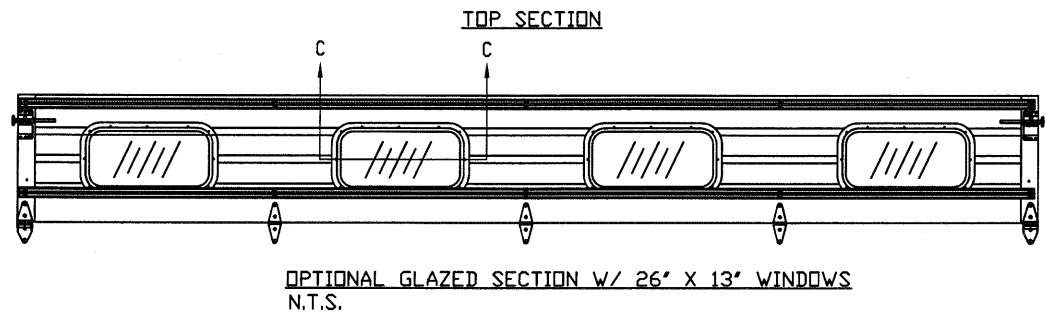
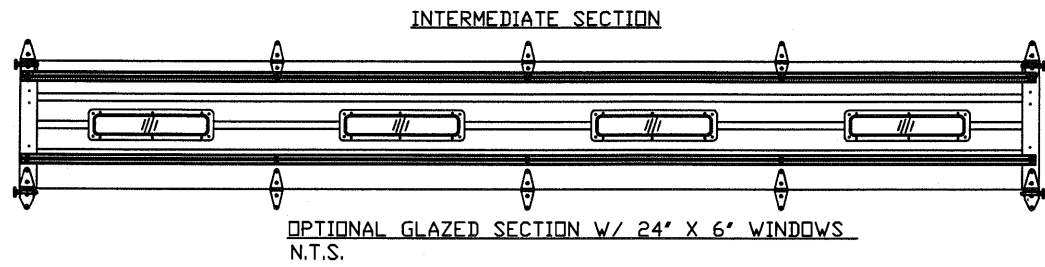
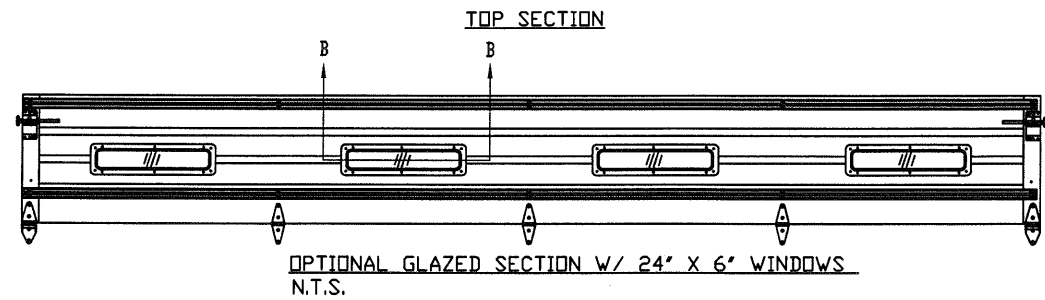
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MODEL 2700 AMARR 2742 (27GA)
MODEL 2720 AMARR 2042 (20GA)

SIZE	DRAWN BY DC	DATE 3/13/18	DRAWING NUMBER
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ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

5921-G W. Friendly Ave., Greensboro, NC 27410

SHEET 2 OF 4



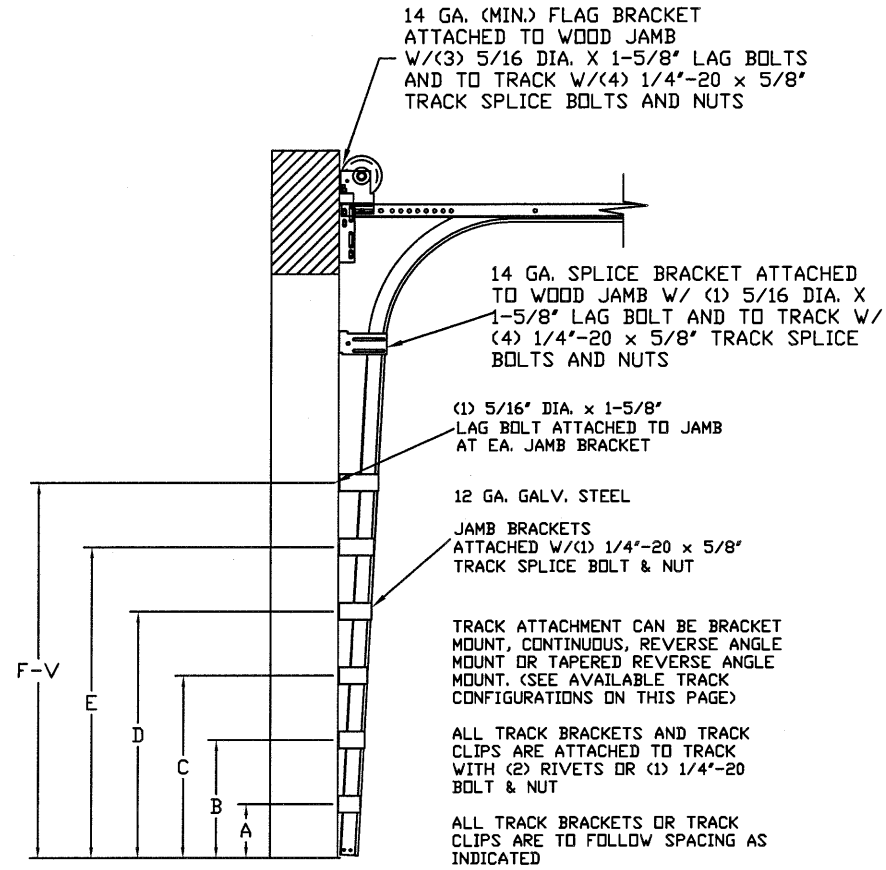
REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE 14'2" x 24'		
	DESIGN LOADS +31.5 PSF -35.9 PSF		
	TEST LOADS +47.3 PSF -53.9 PSF		
Amarr ENTREMATIC			
MODEL 1350 AMARR 2741 (27GA) MODEL 2700 AMARR 2742 (27GA) MODEL 2720 AMARR 2042 (20GA)			
SIZE B	DRAWN BY DC	DATE 3/13/18	DRAWING NUMBER IBC-1314-150-15
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ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, NC 27105			SHEET 3 OF 4

5921-G W. Friendly Ave., Greensboro, NC 27410

TABLE 1

Section Width (ft)	Center Stile Locations (Measured from Left)			Max Design Loads Allowed	
	1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
6' 0"	36"	-	-	37.1	42.3
6' 2"	37"	-	-	36.1	41.2
6' 4"	38"	-	-	35.2	40.1
6' 6"	39"	-	-	34.3	39.1
6' 8"	40"	-	-	33.4	38.1
6' 10"	41"	-	-	32.6	37.2
7' 0"	42"	-	-	31.8	36.3
9' 4"	36"	76"	-	35.0	39.9
9' 6"	37"	77"	-	34.5	39.4
9' 8"	38"	78"	-	34.1	38.9
9' 10"	39"	79"	-	33.7	38.4
10' 0"	40"	80"	-	33.3	37.9
10' 2"	41"	81"	-	32.8	37.4
10' 4"	42"	82"	-	32.4	37.0
10' 6"	43"	83"	-	32.0	36.5
10' 8"	44"	84"	-	31.7	36.1
13' 0"	36"	78"	120"	31.7	36.1
13' 2"	37"	79"	121"	31.7	36.1
13' 4"	38"	80"	122"	31.7	36.1
13' 6"	39"	81"	123"	31.7	36.1
13' 8"	40"	82"	124"	31.7	36.1
13' 10"	41"	83"	125"	31.7	36.1
14' 0"	42"	84"	126"	31.7	36.1
14' 2"	43"	85"	127"	31.5	35.9

* CONTACT ENGINEERING FOR SIZES 7'2" THROUGH 9'2" & 10'10" THROUGH 12'10"



TRACK CONFIGURATION FOR UP TO 24' TALL DOORS
SEE TABLE 2

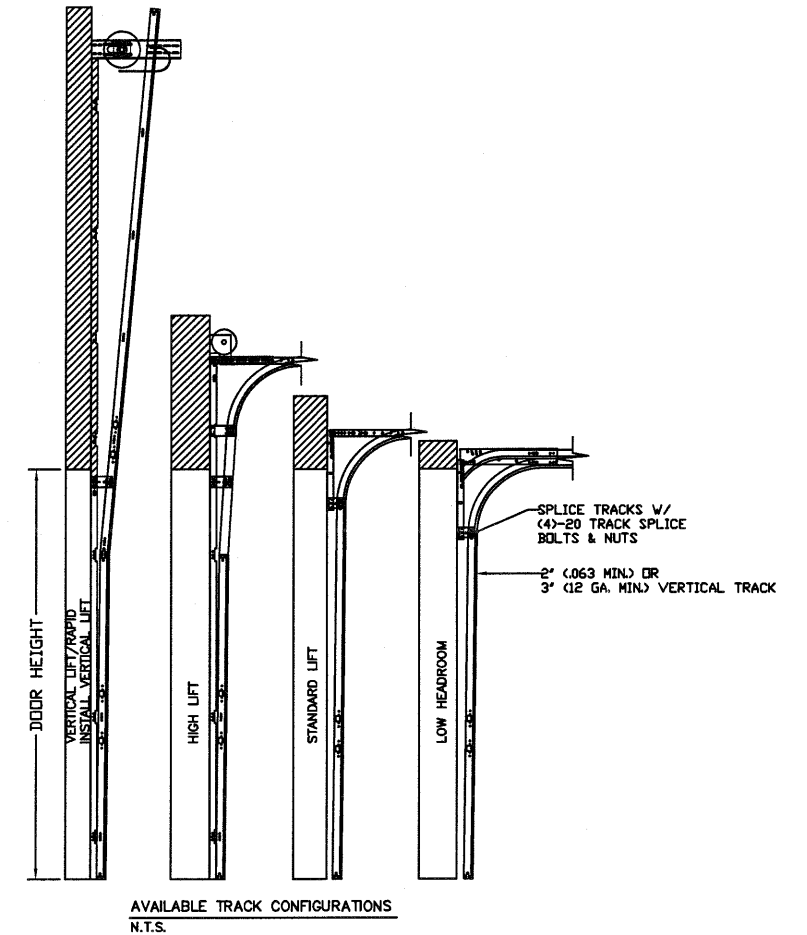


TABLE 2

DOOR HEIGHT	TRACK ATTACHMENT																				TYPICAL SPLICE		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T		U	V
7' 0"	10"	22"	34"	46"	58"	70"																	76"
7' 6"	10"	22"	34"	46"	58"	70"																	82"
8' 0"	10"	22"	34"	46"	58"	70"																	88"
8' 6"	10"	22"	34"	46"	58"	70"	82"																94"
9' 0"	10"	22"	34"	46"	58"	70"	82"																100"
9' 6"	10"	22"	34"	46"	58"	70"	82"	94"															106"
10' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"														112"
11' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"													124"
12' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"												136"
13' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"											148"
14' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"										160"
15' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"									172"
16' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"								184"
17' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"							196"
18' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"						208"
19' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"					220"
20' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"				232"
21' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"				244"
22' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"			256"
23' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"		268"
24' 0"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"	280"

ALL TRACK ATTACHMENTS +/- 2" ALLOWED USING SYP OR SPF NO.2 OR BETTER ONLY
AMARR MODEL 1350 ONLY AVAILABLE UP TO 14'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
14'2" x 24'

DESIGN LOADS
+31.5 PSF
-35.9 PSF

TEST LOADS
+47.3 PSF
-53.9 PSF

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SHEET 4 OF 4