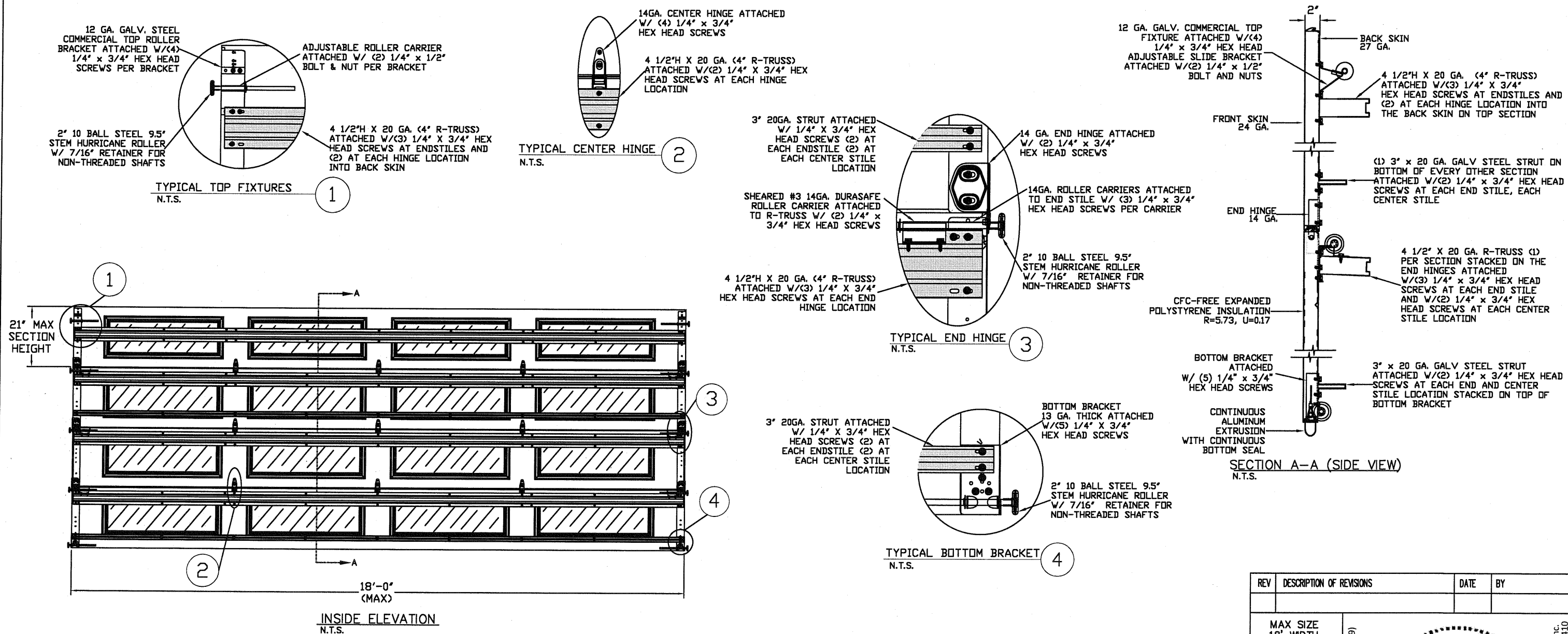
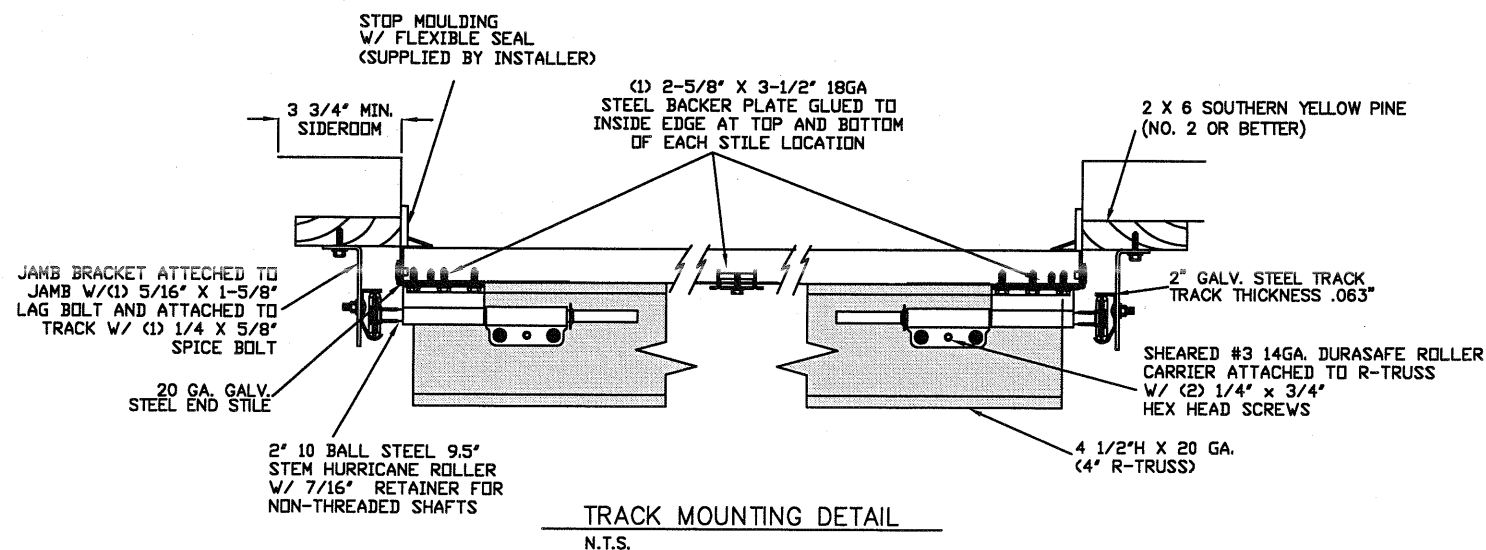




LARGE MISSILE IMPACT RESISTANT



THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330, E1886, E1996, & F588, ANSI/DASMA 108 & 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-16 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

WIND SPEED (MPH)	168	152	145	138	133
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
18' WIDTH
14' HEIGHT
(DOOR HEIGHT SUBJECT TO WEIGHT LIMITATIONS)

DESIGN LOADS
+25.4 PSF
-28.7 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+38.1 PSF
-43.1 PSF

LARGE MISSILE
IMPACT RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)

THOMAS L. SHELMERDINE
LICENSE
No. 48579
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
FL

dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

Amarr

MODEL #1200 HERITAGE 3000
MODEL #1200 OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

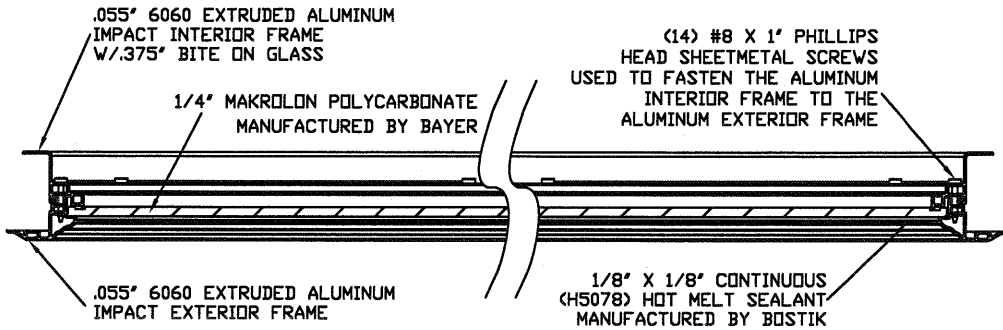
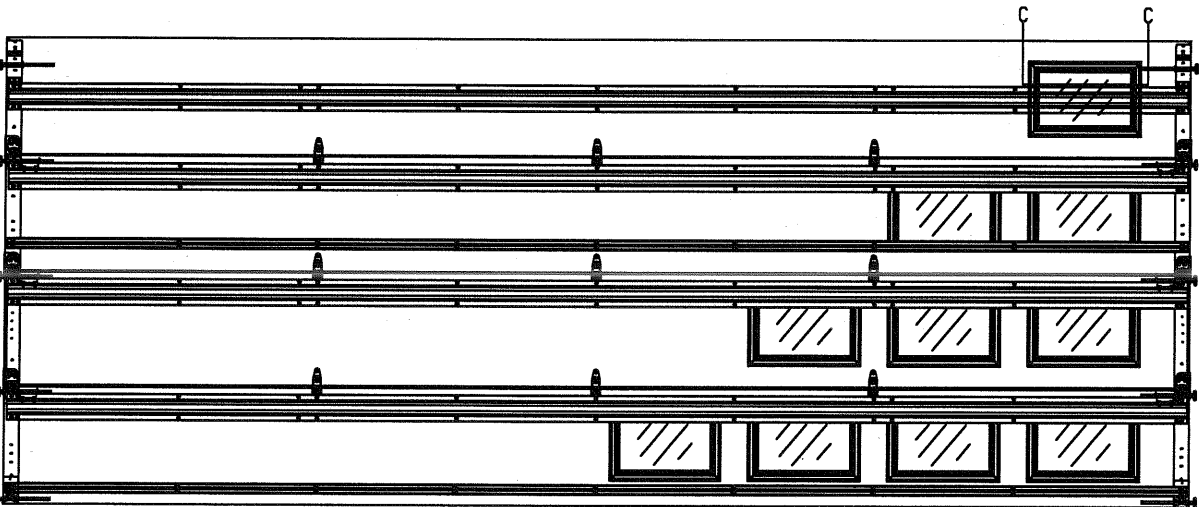
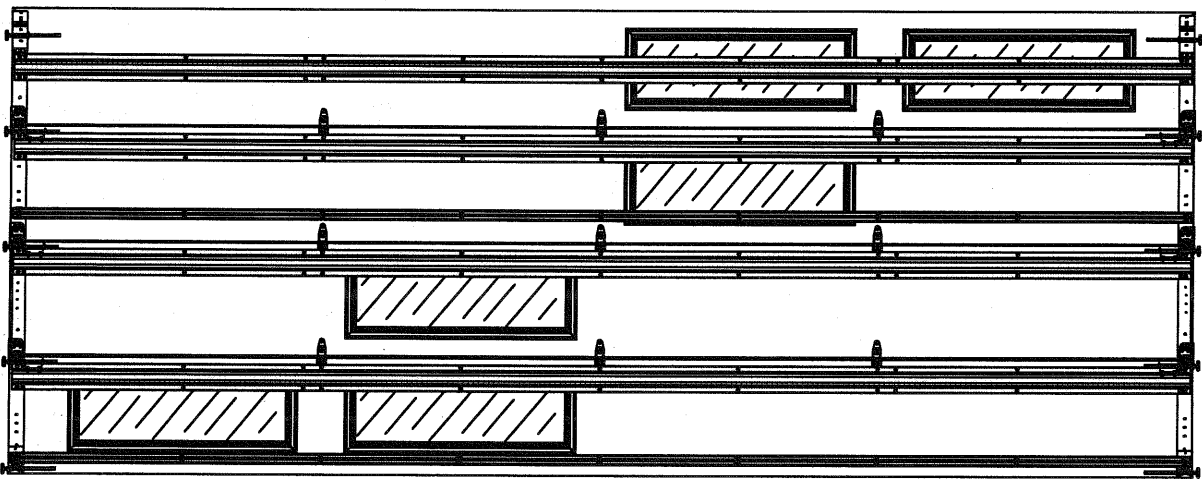
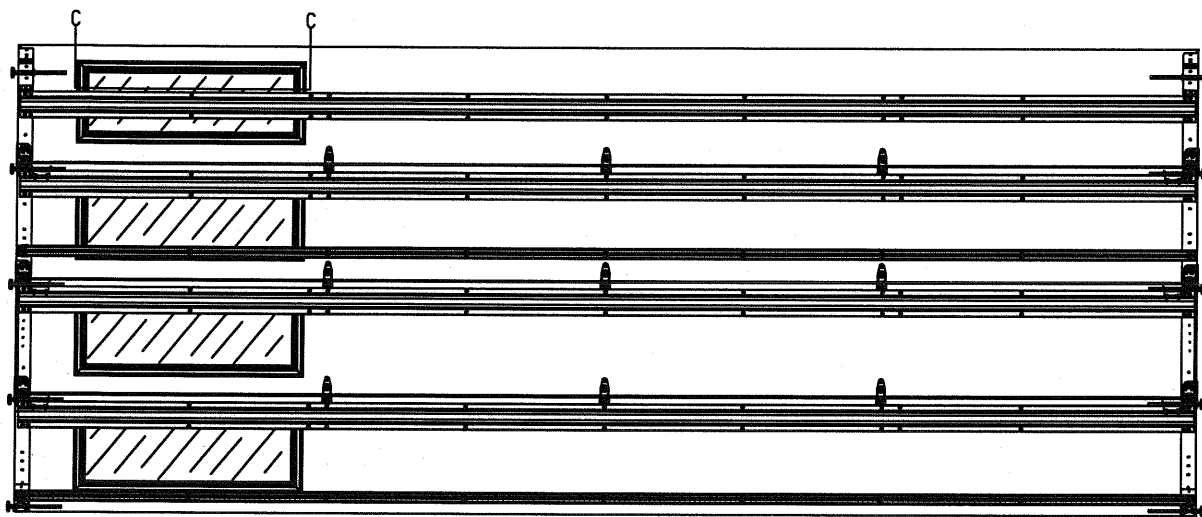
SIZE	DRAWN BY	RLR	DATE	3/21/19	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	3/21/19	IRC-1218-130-24-F

ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

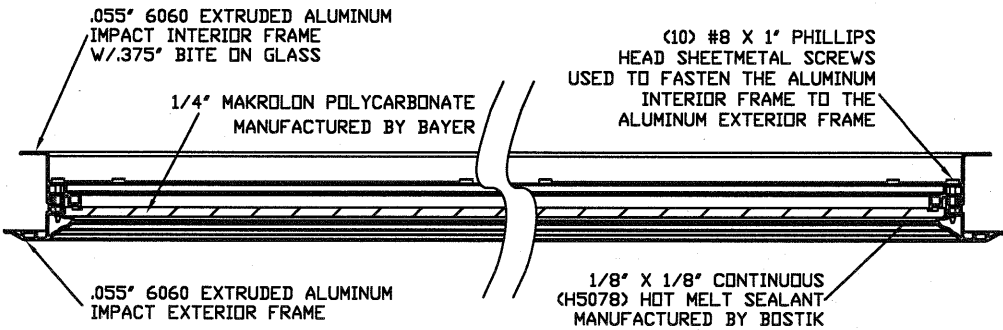
SHEET 1 OF 4

EXAMPLES OF OPTIONAL SHORT AND
LONG PANEL GLAZING LAYOUTS

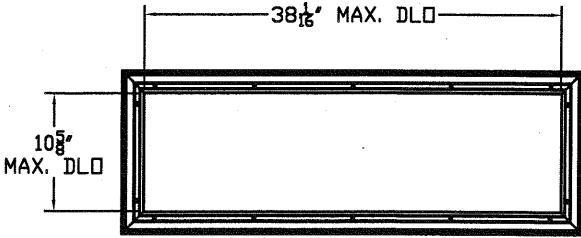
GLAZING AVAILABLE IN ANY COMBINATION
GLAZING MEETS ASTM E1300-04



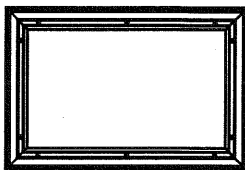
SECTION B-B IMPACT WINDOW DETAIL
N.T.S.



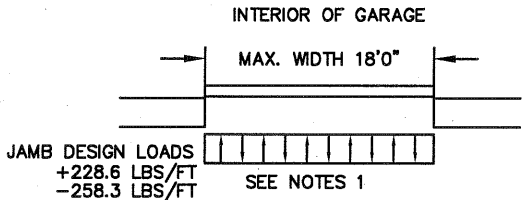
SECTION C-C IMPACT WINDOW DETAIL
N.T.S.



LONG PANEL IMPACT GLAZING FASTENER DETAIL
N.T.S.



SHORT PANEL IMPACT GLAZING FASTENER DETAIL
N.T.S.



SPECIFICATIONS AND NOTES

1. DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +228.6 LBS/FT & -258.3 LBS/FT
2. DOOR SECTIONS SHALL BE 24 GA. MIN. (.0216") EXTERIOR SKIN ROLLED FORMED LIGHT COMMERCIAL QUALITY
3. DOORS UP TO 14' TALL CONSTRUCTED WITH (1) 4.5" R-TRUSS PER SECTION AND (1) 3" STRUT ON EVERY OTHER SECTION STARTING WITH THE BOTTOM SECTION.
4. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
18' WIDTH
14' HEIGHT
(DOOR HEIGHT SUBJECT
TO WEIGHT LIMITATIONS)

DESIGN LOADS
+25.4 PSF
-28.7 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+38.1 PSF
-43.1 PSF

LARGE MISSILE
IMPACT RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)

FL

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FL

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FL

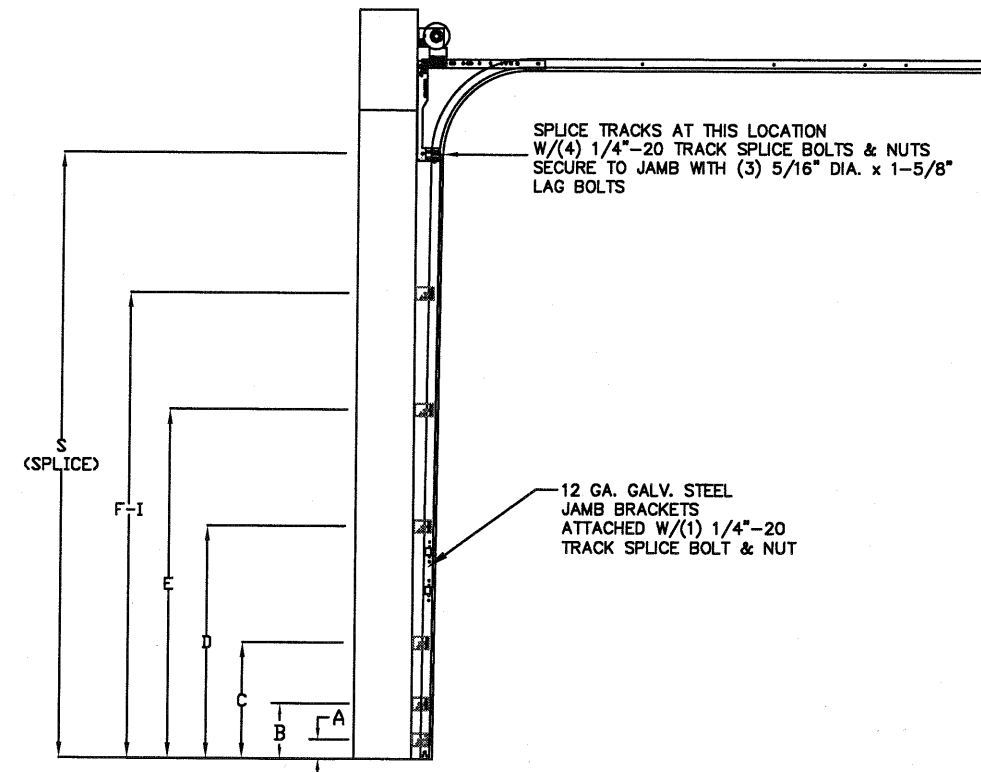
Amarr

MODEL #1200 HERITAGE 3000
MODEL #1200 OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE	DRAWN BY	RLR	DATE	3/21/19	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	3/21/19	IRC-1218-130-24-F

ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

SHEET 2 OF 4



TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS (SEE TABLE 1)
N.T.S.

TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT									SPLICE
	A	B	C	D	E	F	G	H	I	
6' 6"	3.5"	10"	21"	42"	63"					70"
7'	3.5"	10"	21"	42"	63"					76"
7' 6"	3.5"	10"	21"	42"	63"					82"
8'	3.5"	10"	21"	42"	63"					88"
8' 6"	3.5"	10"	21"	42"	63"	84"				94"
9'	3.5"	10"	21"	42"	63"	84"				100"
9' 6"	3.5"	10"	21"	42"	63"	84"				106"
10'	3.5"	10"	21"	42"	63"	84"	105"			112"
10' 6"	3.5"	10"	21"	42"	63"	84"	105"			118"
11'	3.5"	10"	21"	42"	63"	84"	105"			124"
11' 6"	3.5"	10"	21"	42"	63"	84"	105"			130"
12'	3.5"	10"	21"	42"	63"	84"	105"	126"		136"
12' 6"	3.5"	10"	21"	42"	63"	84"	105"	126"		142"
13'	3.5"	10"	21"	42"	63"	84"	105"	126"		148"
13' 6"	3.5"	10"	21"	42"	63"	84"	105"	126"	147"	154"
14'	3.5"	10"	21"	42"	63"	84"	105"	126"	147"	160"

ALL TRACK ATTACHMENT SPACING +/- 1/4" ALLOWED
WITH SYP OR SPF NO. 2 OR BETTER ONLY

WOOD JAMB ATTACHMENT TO STRUCTURE

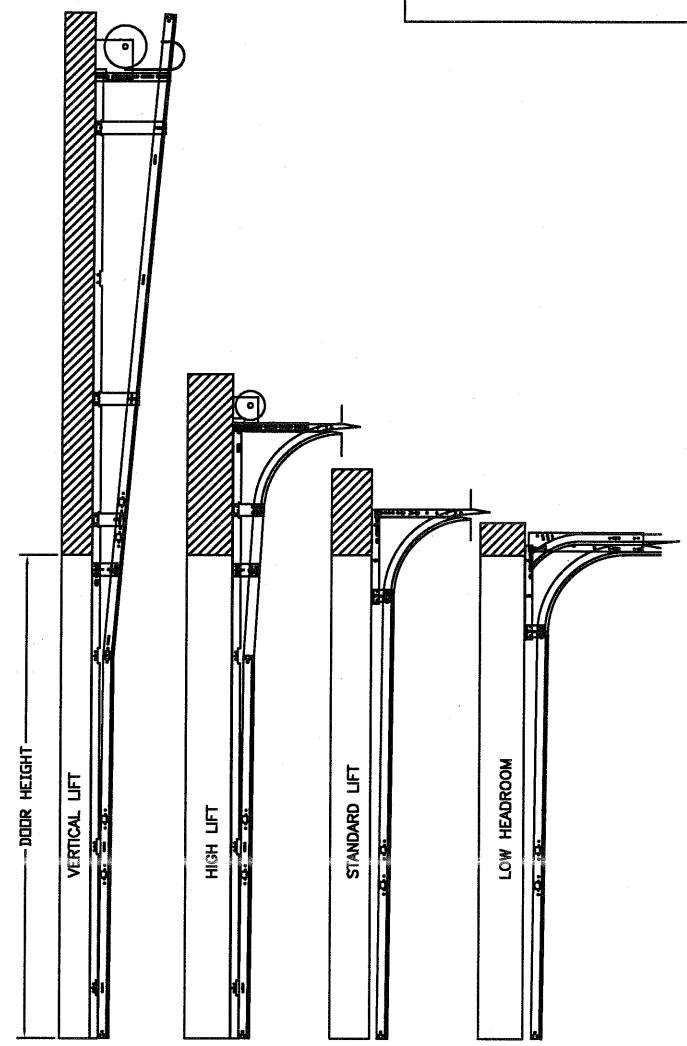
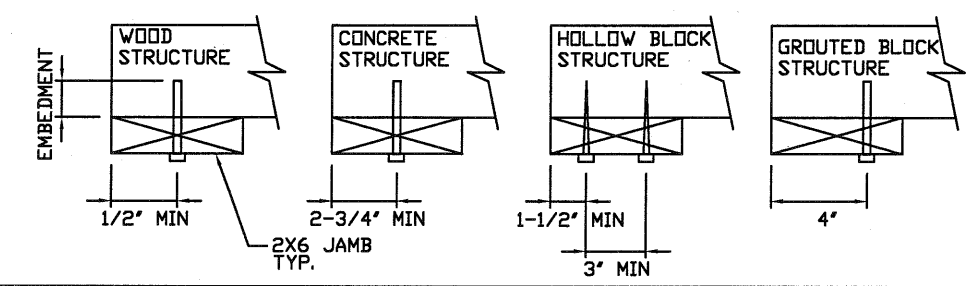
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 20" O.C. (1 1/2" EMBEDMENT)

2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE
HILTI KWIK BOLT 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 18" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)

2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3' APART) AT 8" O.C. (1 1/2" EMBEDMENT)
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3' APART) AT 8" O.C. (1 1/4" EMBEDMENT)

2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 22" O.C. (1 1/4" EMBEDMENT) (OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
*PREPARATION OF WOOD JAMBS BY OTHERS



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
18' WIDTH
14' HEIGHT
(DOOR HEIGHT SUBJECT
TO WEIGHT LIMITATIONS)

DESIGN LOADS
+25.4 PSF
-28.7 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+38.1 PSF
-43.1 PSF

LARGE MISSILE
IMPACT RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)

THOMAS L. SHELMERDINE
LICENSE
No. 48579
10/13/20
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
FL

dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

Amarr

MODEL #1200 HERITAGE 3000
MODEL #1200 OAK SUMMIT 3000
SHORT, LONG, FLUSH & OAK SUMMIT PANELS

SIZE B	DRAWN BY RLR	DATE 3/21/19	DRAWING NUMBER IRC-1218-130-24-F
CHECKED BY RLR	DATE 3/21/19	SHEET 3 OF 4	

ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

TABLE 2

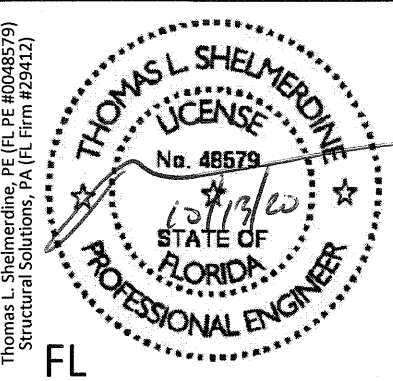
Section	Panel Type	Center Stile Locations (Measured from Left Edge)			Max Design Loads Allowed	
		1st (in)	3rd (in)	5th (in)	Positive (PSF)	Negative (PSF)
16' 2	Short	50.27	97.00	143.73	28.1	31.8
16' 2	Long	51.17	97.00	142.83	28.1	31.8
16' 2	Oak Summit	48.75	97.00	145.25	28.1	31.8
16' 4	Short	51.27	98.00	144.73	27.9	31.5
16' 4	Long	52.17	98.00	143.83	27.9	31.5
16' 4	Oak Summit	49.08	98.00	146.92	27.9	31.5
16' 6	Short	52.27	99.00	145.73	27.6	31.2
16' 6	Long	51.34	99.00	146.66	27.6	31.2
16' 6	Oak Summit	49.42	99.00	148.59	27.6	31.2
16' 8	Short	51.34	100.00	148.66	27.3	30.8
16' 8	Long	52.20	100.00	147.80	27.3	30.8
16' 8	Oak Summit	49.92	100.00	150.09	27.3	30.8
16' 10	Short	51.50	101.00	150.50	27.0	30.5
16' 10	Long	53.20	101.00	148.80	27.0	30.5
16' 10	Oak Summit	50.15	101.00	151.59	27.0	30.5
17' 0	Short	53.34	102.00	150.66	26.8	30.2
17' 0	Long	54.20	102.00	149.80	26.8	30.2
17' 0	Oak Summit	50.92	102.00	153.09	26.8	30.2
17' 2	Short	53.00	103.00	153.00	26.5	29.9
17' 2	Long	55.20	103.00	150.80	26.5	29.9
17' 2	Oak Summit	51.42	103.00	154.59	26.5	29.9
17' 4	Short	54.00	104.00	154.00	26.2	29.7
17' 4	Long	56.20	104.00	151.80	26.2	29.7
17' 4	Oak Summit	51.92	104.00	156.09	26.2	29.7
17' 6	Short	55.00	105.00	155.00	26.0	29.4
17' 6	Long	57.20	105.00	152.80	26.0	29.4
17' 6	Oak Summit	52.42	105.00	157.59	26.0	29.4
17' 8	Short	54.80	106.00	157.20	25.7	29.1
17' 8	Long	55.80	106.00	156.20	25.7	29.1
17' 8	Oak Summit	52.92	106.00	159.09	25.7	29.1
17' 10	Short	55.80	107.00	158.20	25.5	28.8
17' 10	Long	56.25	107.00	157.75	25.5	28.8
17' 10	Oak Summit	53.42	107.00	160.59	25.5	28.8
18' 0	Short	57.25	108.00	158.75	25.4	28.7
18' 0	Long	57.80	108.00	158.20	25.4	28.7
18' 0	Oak Summit	53.92	108.00	162.09	25.4	28.7

TABLE 3

DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
14' 0"	21"	21"	21"	21"	21"	21"	21"	21"
13' 6"	21"	21"	21"	21"	21"	18"	18"	21"
13' 0"	21"	21"	21"	18"	18"	18"	18"	21"
12' 6"	21"	18"	18"	18"	18"	18"	18"	21"
12' 0"	21"	21"	21"	21"	21"	18"	21"	
11' 6"	21"	21"	21"	18"	18"	18"	21"	
11' 0"	21"	18"	18"	18"	18"	18"	21"	
10' 6"	21"	21"	21"	21"	21"	21"		
10' 0"	21"	21"	21"	18"	18"	21"		
9' 6"	21"	18"	18"	18"	18"	21"		
9' 0"	18"	18"	18"	18"	18"	18"		
8' 6"	21"	21"	21"	18"	21"			
8' 0"	21"	18"	18"	18"	21"			
7' 6"	18"	18"	18"	18"	18"			
7' 0"	21"	21"	21"	21"				
6' 6"	21"	18"	18"	21"				

TABLE 4

SECTION	STRUT SIZE
8TH	4.5"
7TH	4.5"
	3"
6TH	4.5"
5TH	4.5"
	3"
4TH	4.5"
3RD	4.5"
	3"
2ND	4.5"
BOTTOM	4.5"
	3"

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 18' WIDTH 14' HEIGHT (DOOR HEIGHT SUBJECT TO WEIGHT LIMITATIONS) DESIGN LOADS +25.4 PSF -28.7 PSF TEST LOADS (1.5 x DESIGN LOADS) +38.1 PSF -43.1 PSF LARGE MISSILE IMPACT RESISTANCE		Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412)  FL dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410	
			
MODEL #1200 HERITAGE 3000 MODEL #1200 OAK SUMMIT 3000 SHORT, LONG, FLUSH & OAK SUMMIT PANELS			
SIZE	DRAWN BY RLR	DATE 3/21/19	DRAWING NUMBER
B	CHECKED BY RLR	DATE 3/21/19	IRC-1218-130-24-F
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 4 OF 4