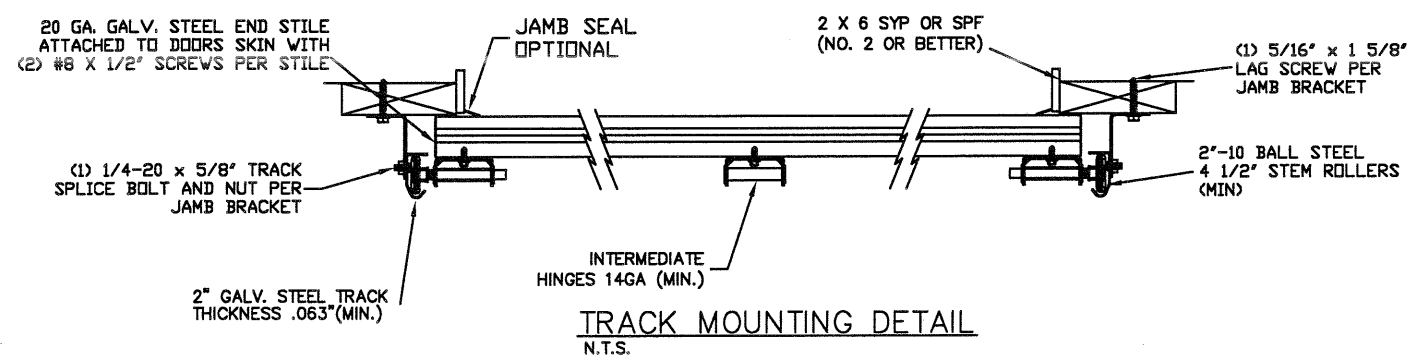
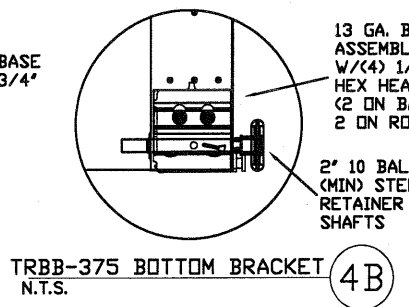
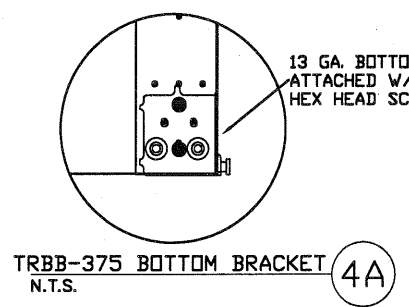
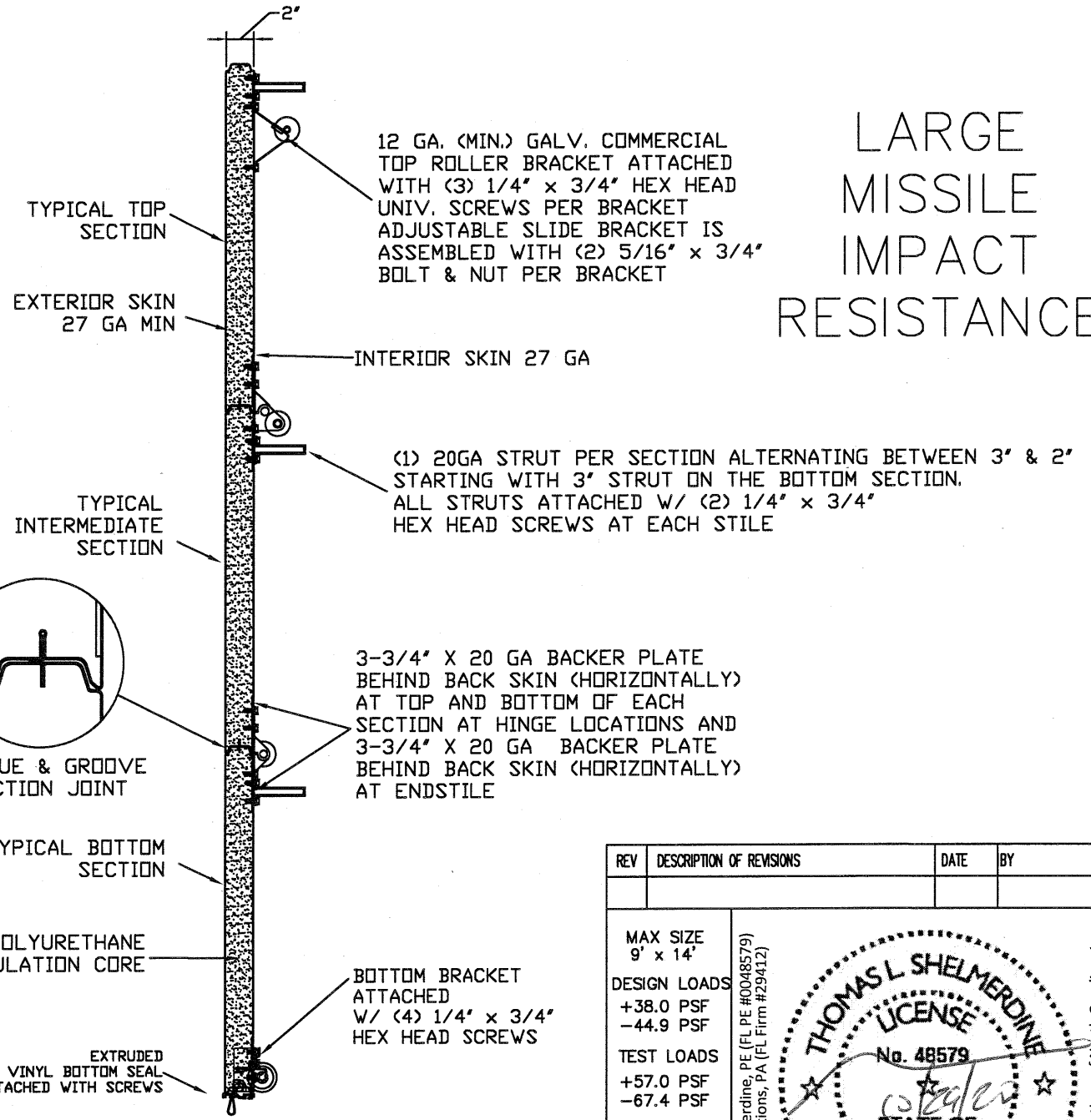
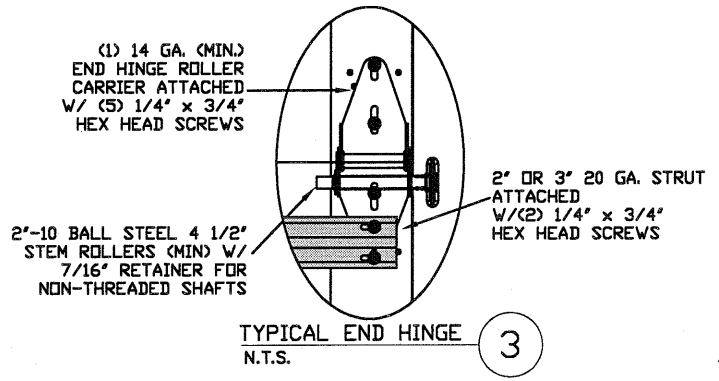
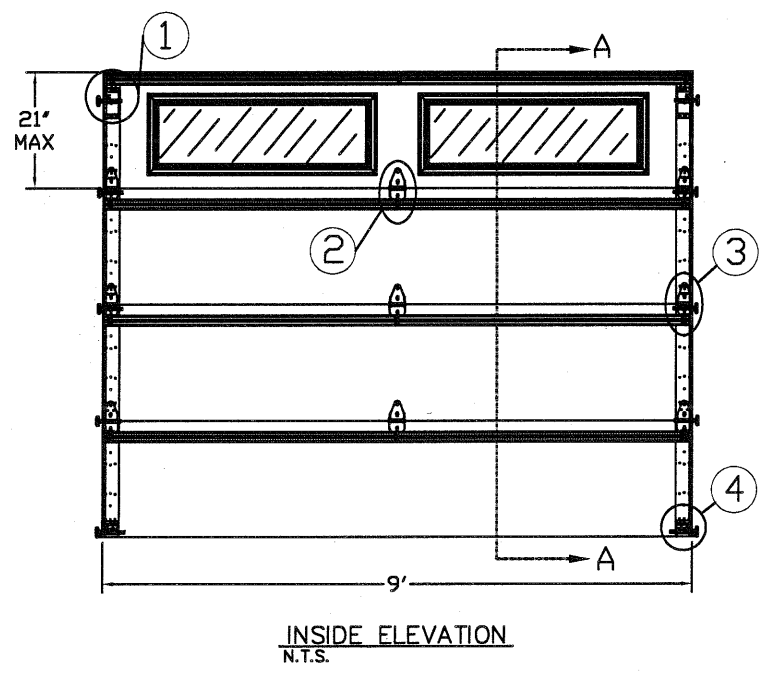
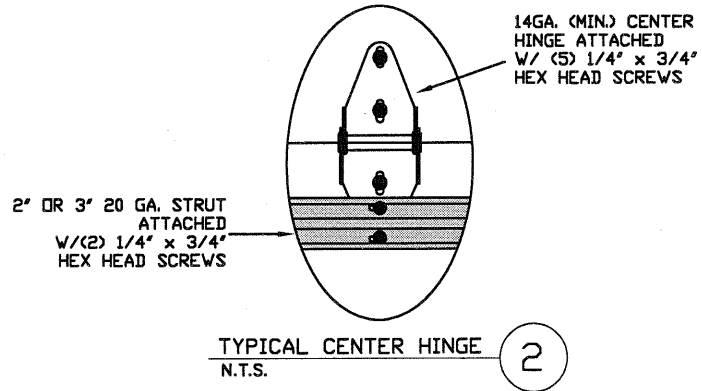
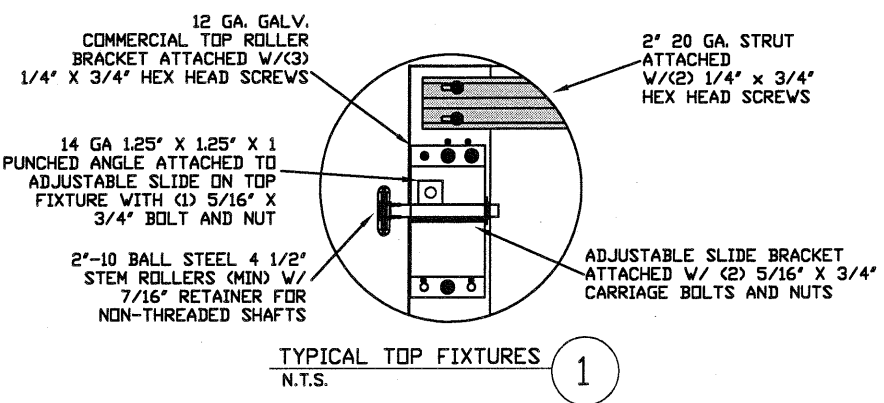


LARGE MISSILE IMPACT RESISTANCE



THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 105 & 115, AND ASTM E330, E1886, E1996, & F588. 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)	200	182	173	165	158
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 9' x 14'

DESIGN LOADS +38.0 PSF -44.9 PSF

TEST LOADS +57.0 PSF -67.4 PSF

LARGE MISSILE IMPACT RESISTANCE

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

FL

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

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

Amarr

MODEL P500 AMARR OLYMPUS 500
MODEL D500 AMARR DESIGNERS CHOICE DC500

SIZE	DRAWN BY	RLR	DATE	02/06/18	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	02/06/18	IRC-P509-155-15-1

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

SHEET 1 OF 3

HEIGHT	TRACK ATTACHMENT							SPLICE
	A	B	C	D	E	F	G	
6' 0"	3.5"	10"	38"					64"
6' 6"	3.5"	10"	38"	63"				70"
7' 0"	3.5"	10"	38"	63"				76"
7' 6"	3.5"	10"	38"	63"				82"
8' 0"	3.5"	10"	38"	63"				88"
8' 6"	3.5"	10"	38"	63"				94"
9' 0"	3.5"	10"	38"	63"	88"			100"
9' 6"	3.5"	10"	38"	63"	88"			106"
10' 0"	3.5"	10"	38"	63"	88"			112"
10' 6"	3.5"	10"	38"	63"	88"			118"
11' 0"	3.5"	10"	38"	63"	88"	112"		124"
11' 6"	3.5"	10"	38"	63"	88"	112"		130"
12' 0"	3.5"	10"	38"	63"	88"	112"		136"
12' 6"	3.5"	10"	38"	63"	88"	112"		142"
13' 0"	3.5"	10"	38"	63"	88"	112"	136"	148"
13' 6"	3.5"	10"	38"	63"	88"	112"	136"	154"
14' 0"	3.5"	10"	38"	63"	88"	112"	136"	160"

19° 14 GA (MIN.) VERTICAL ANGLE ATTACHED TO WOOD JAMB W/ (3) 5/16 DIA. X 1-5/8" LAG BOLTS AND TO TRACK W/ (4) 1/4"-20 x 5/8" TRACK SPLICE BOLTS AND NUTS

SPLICE TRACKS AT THIS LOCATION W/ (4) 1/4"-20 TRACK SPLICE BOLTS & NUTS SECURE TO JAMB WITH (3) 5/16" DIA. x 1-5/8" LAG BOLTS

(1) 5/16" DIA. x 1-5/8" LAG BOLT ATTACHED TO JAMB AT EA. JAMB BRACKET

12 GA. GALV. STEEL JAMB BRACKETS ATTACHED W/ (1) 1/4"-20 x 5/8" TRACK SPLICE BOLT & NUT

TRACK ATTACHMENT CAN BE BRACKET MOUNT, CONTINUOUS, REVERSE ANGLE MOUNT OR TAPERED REVERSE ANGLE MOUNT. (SEE AVAILABLE TRACK CONFIGURATIONS)

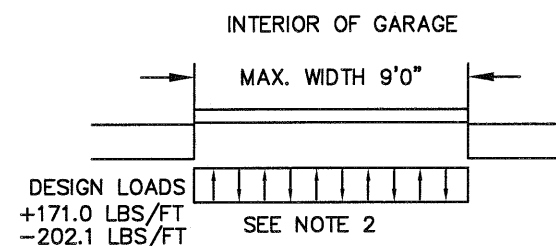
ALL TRACK BRACKETS AND TRACK CLIPS ARE ATTACHED TO TRACK WITH (2) RIVETS OR (1) 1/4"-20 BOLT & NUT

ALL TRACK BRACKETS OR TRACK CLIPS ARE TO FOLLOW SPACING AS INDICATED IN TABLE 1

TRACK CONFIGURATION FOR UP TO 14' TALL DOORS
N.T.S.

SPECIFICATIONS AND NOTES

1. 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.
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF:
+171.0 LBS/FT & -202.1 LBS/FT.
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27GA MIN. INTERIOR AND 27GA MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH.
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
6. PANEL STAMP DOES NOT AFFECT WINDLOAD CAPABILITIES.



WOOD JAMB ATTACHMENT TO STRUCTURE

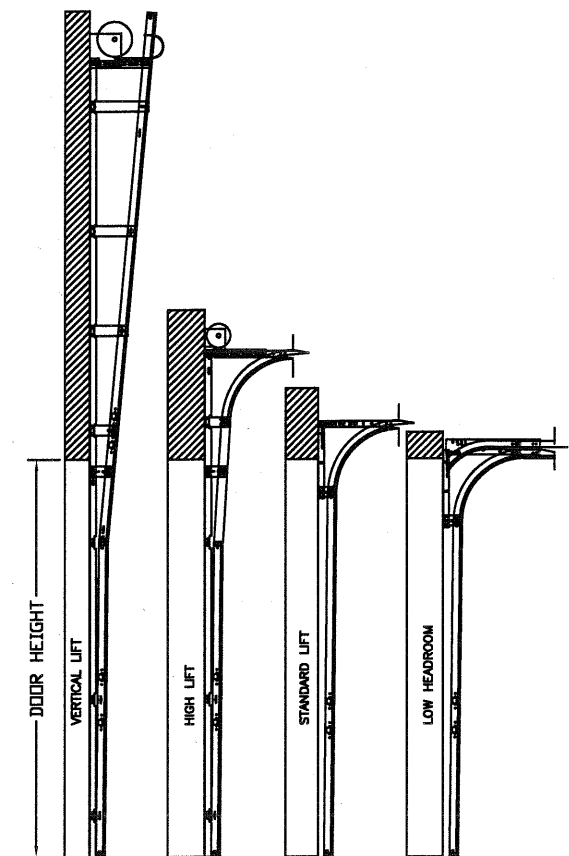
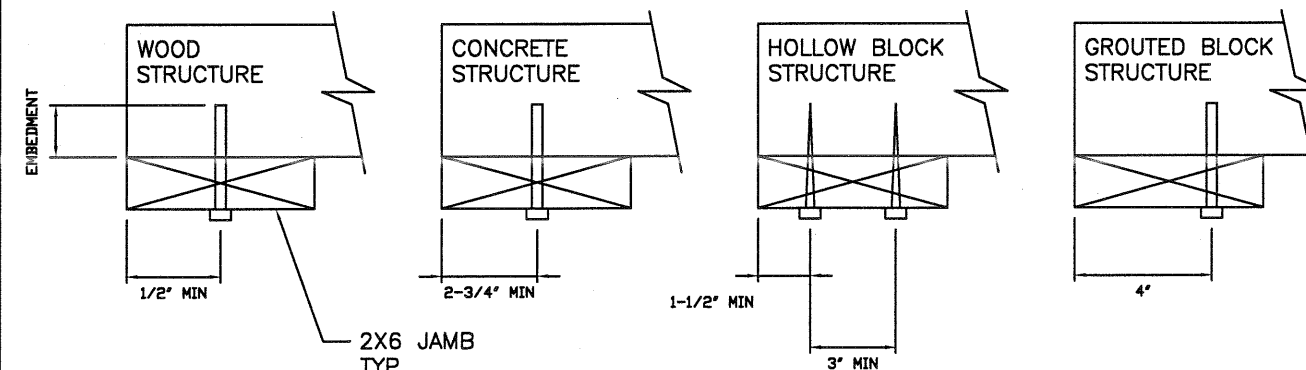
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)

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 24" 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 16" 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 16" 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 24" 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.

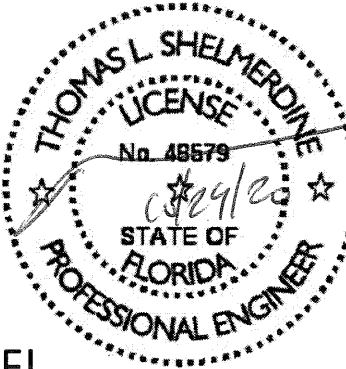
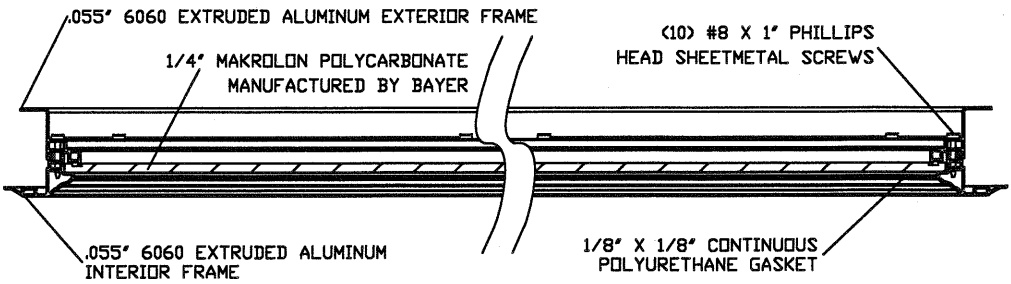
REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 9' x 14' DESIGN LOADS +38.0 PSF -44.9 PSF TEST LOADS +57.0 PSF -67.4 PSF LARGE MISSILE IMPACT RESISTANCE		Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412)  FL  MODEL P500 AMARR OLYMPUS 500 MODEL D500 AMARR DESIGNERS CHOICE DC500	
SIZE	DRAWN BY	R/LR	DATE 02/06/18
B	CHECKED BY	R/LR	DATE 02/06/18
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, NC 27105			
DRAWING NUMBER		IRC-P509-155-15-1 SHEET 2 OF 3	

TABLE 2

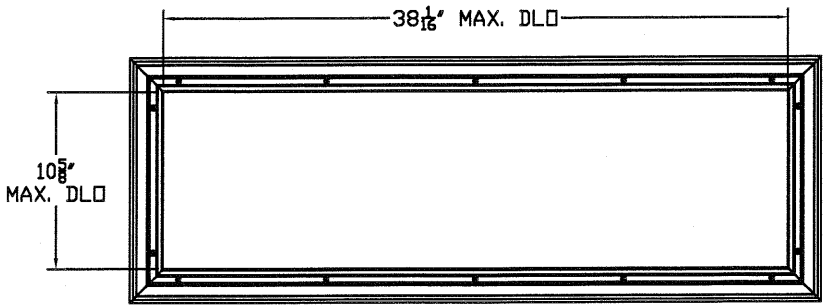
DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
6' 0"	18"	18"	18"	18"				
6' 6"	21"	18"	18"	21"				
7' 0"	21"	21"	21"	21"				
7' 6"	18"	18"	18"	18"	18"			
8' 0"	21"	18"	18"	18"	21"			
8' 6"	21"	21"	21"	18"	21"			
9' 0"	18"	18"	18"	18"	18"	18"		
9' 6"	21"	18"	18"	18"	18"	21"		
10' 0"	21"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

TABLE 3

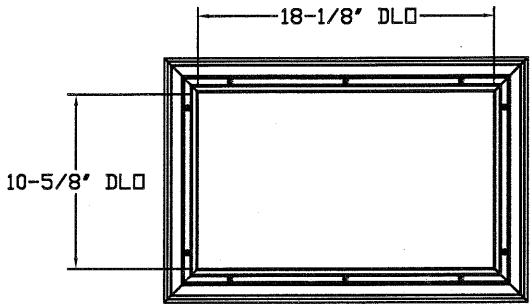
Section	Panel Type	Center Stile Location (Measured from Left Edge)		Max Design Loads Allowed	
		1st (in)	2nd (in)	Positive (PSF)	Negative (PSF)
6' 0"	Short	24.406	47.594	57.0	67.3
7' 0"	Short	29.200	54.800	48.8	57.7
7' 2"	Short	30.200	55.800	47.7	56.3
7' 4"	Short	31.200	56.800	46.6	55.1
7' 6"	Short	32.200	57.800	45.6	53.8
7' 6"	Long	45.000		45.6	53.8
7' 8"	Short	32.200	60.000	44.6	52.7
7' 8"	Long	46.000		44.6	52.7
7' 10"	Short	33.000	61.000	43.6	51.5
7' 10"	Long	47.000		43.6	51.5
8' 0"	Short	48.000		42.7	50.5
8' 0"	Long	48.000		42.7	50.5
8' 2"	Short	49.000		41.8	49.4
8' 2"	Long	49.000		41.8	49.4
8' 4"	Short	50.000		41.0	48.4
8' 4"	Long	50.000		41.0	48.4
8' 6"	Short	51.000		40.2	47.5
8' 6"	Long	51.000		40.2	47.5
8' 8"	Short	52.000		39.4	46.6
8' 8"	Long	52.000		39.4	46.6
8' 10"	Short	53.000		38.7	45.7
8' 10"	Long	53.000		38.7	45.7
9' 0"	Short	54.000		38.0	44.9
9' 0"	Long	54.000		38.0	44.9



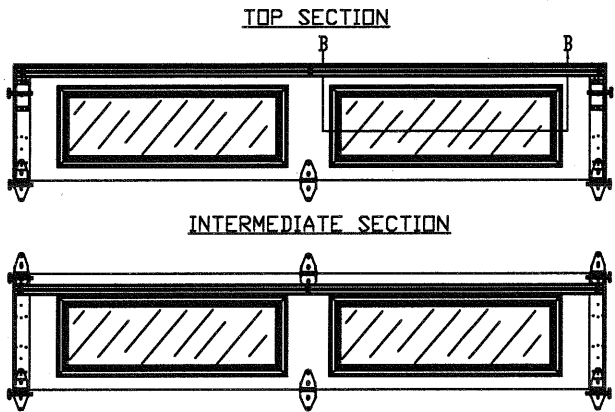
SECTION B-B IMPACT WINDOW DETAIL
N.T.S.



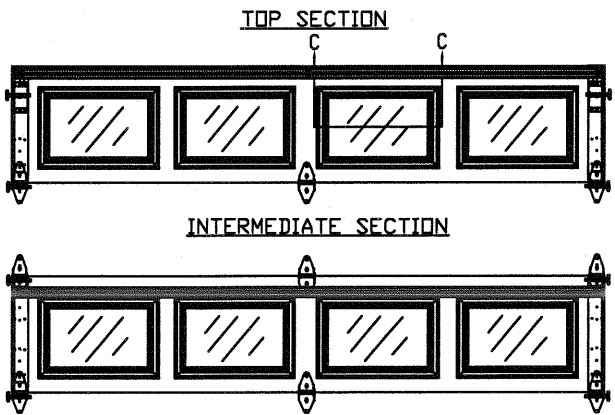
LONG PANEL GLAZING FASTENER DETAIL
N.T.S.



SHORT PANEL GLAZING FASTENER DETAIL
N.T.S.

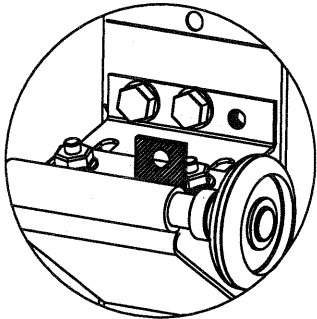


OPTIONAL LONG PANEL GLAZED SECTION STRUT AND STILE LAYOUT
N.T.S.

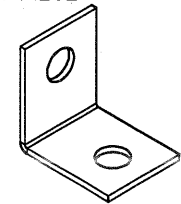
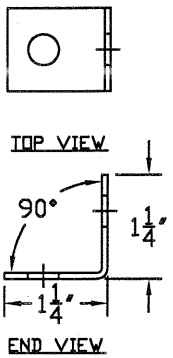


OPTIONAL SHORT PANEL GLAZED SECTION STRUT AND STILE LAYOUT
N.T.S.

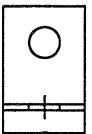
TOP FIXTURE REINFORCEMENT
ILLUSTRATION



TOP FIXTURE ADDER PIECE



ISOMETRIC VIEW



SIDE VIEW

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9' x 14'

DESIGN LOADS
+38.0 PSF
-44.9 PSF

TEST LOADS
+57.0 PSF
-67.4 PSF

LARGE MISSILE
IMPACT
RESISTANCE

Thomas L. Shelmerdine, PE (FL PE #00048579)
Structural Solutions, PA (FL Firm #29412)

THOMAS L. SHELMERDINE
LICENSE
No. 48579
STATE OF
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5921-G W. Friendly Ave., Greensboro, NC 27410

Amarr

MODEL P500 AMARR OLYMPUS 500
MODEL D500 AMARR DESIGNERS CHOICE DC500

SIZE	DRAWN BY	RLR	DATE	02/06/18	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	02/06/18	IRC-P509-155-15-1

ENTREMATIC
165 CARRIAGE COURT WINSTON-SALEM, NC. 27105

SHEET 3 OF 3