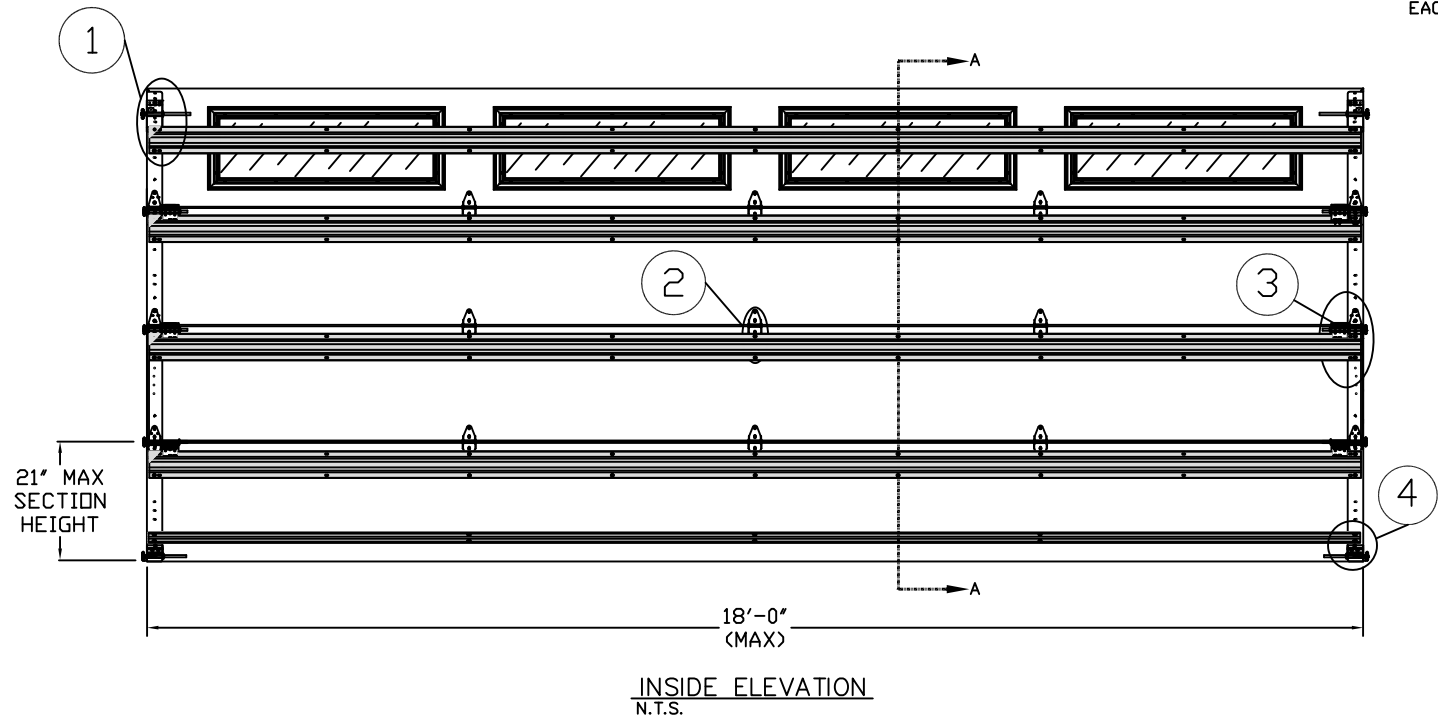
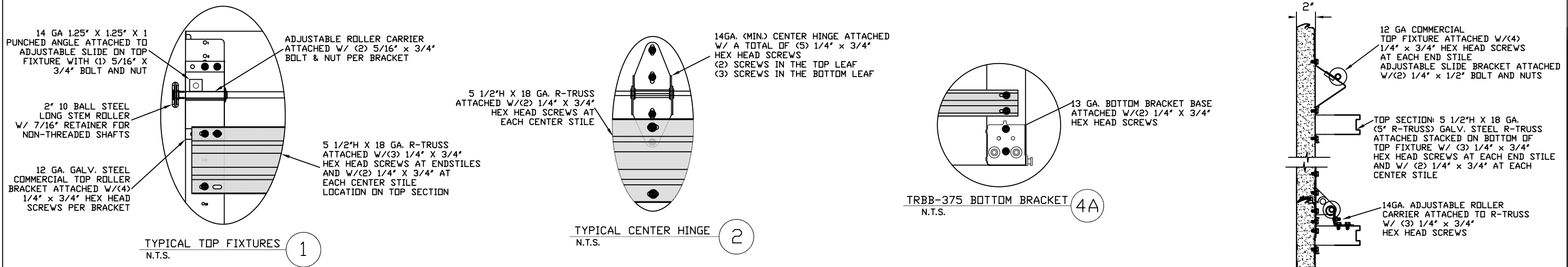
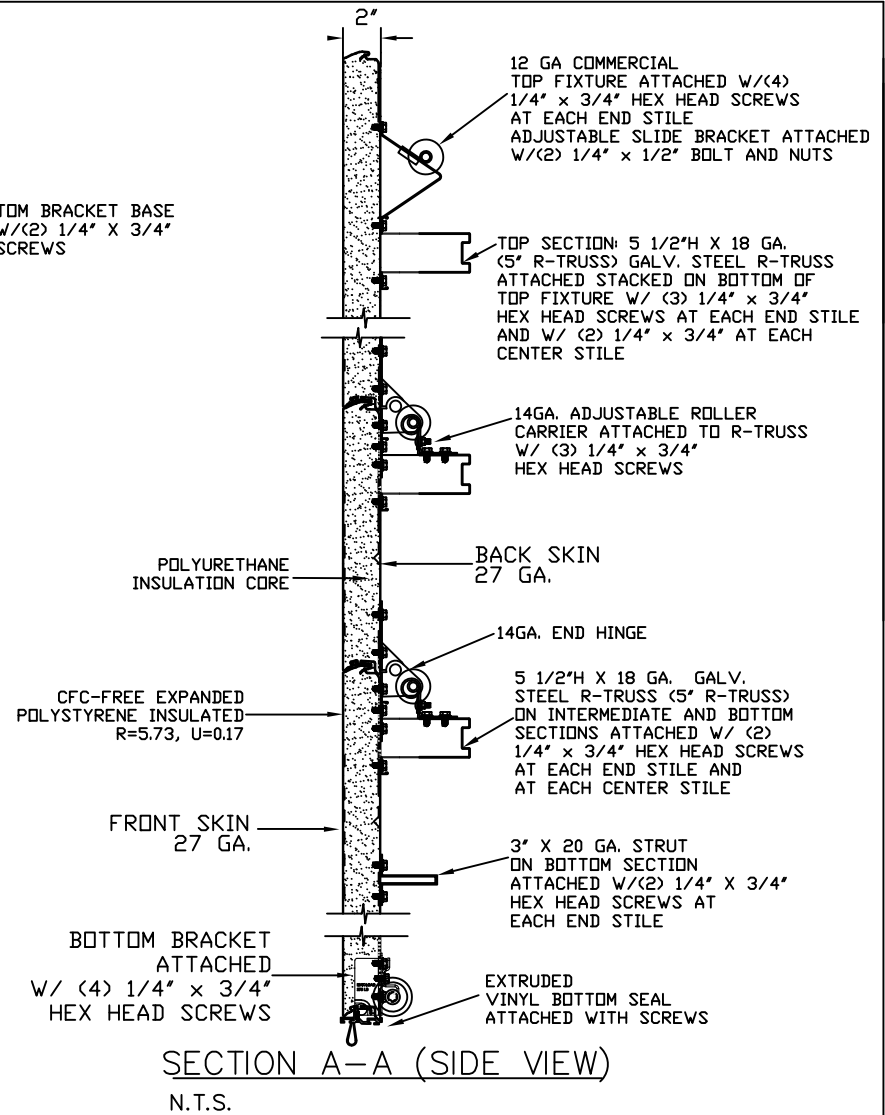
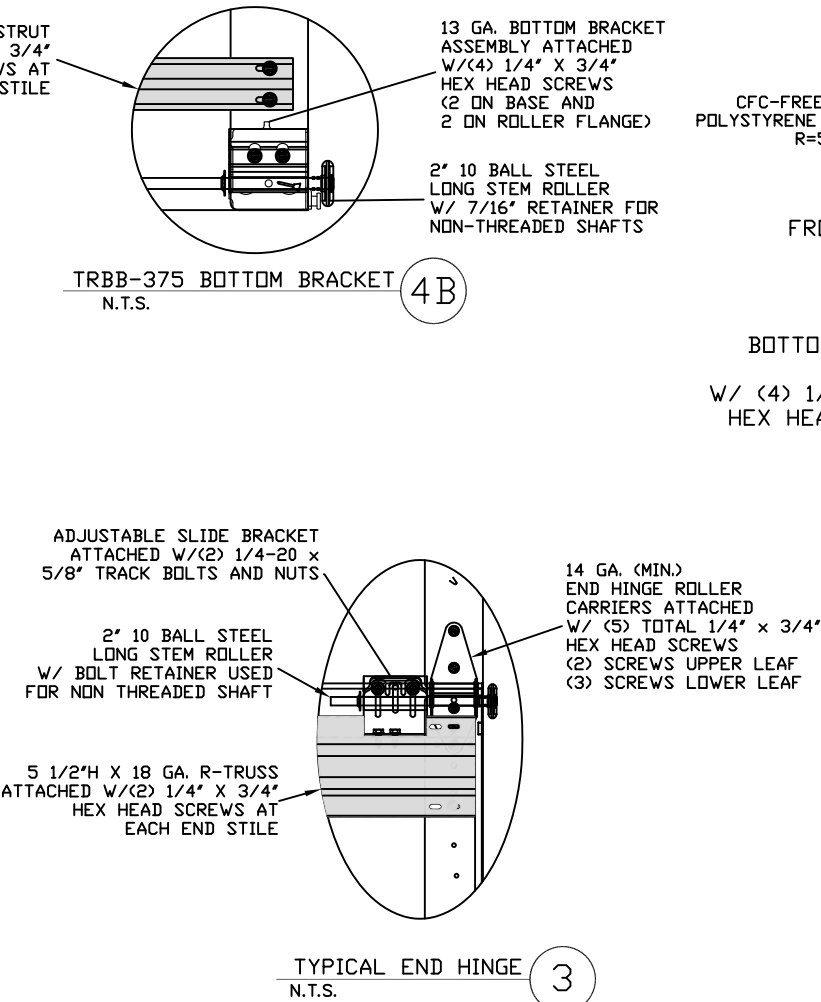
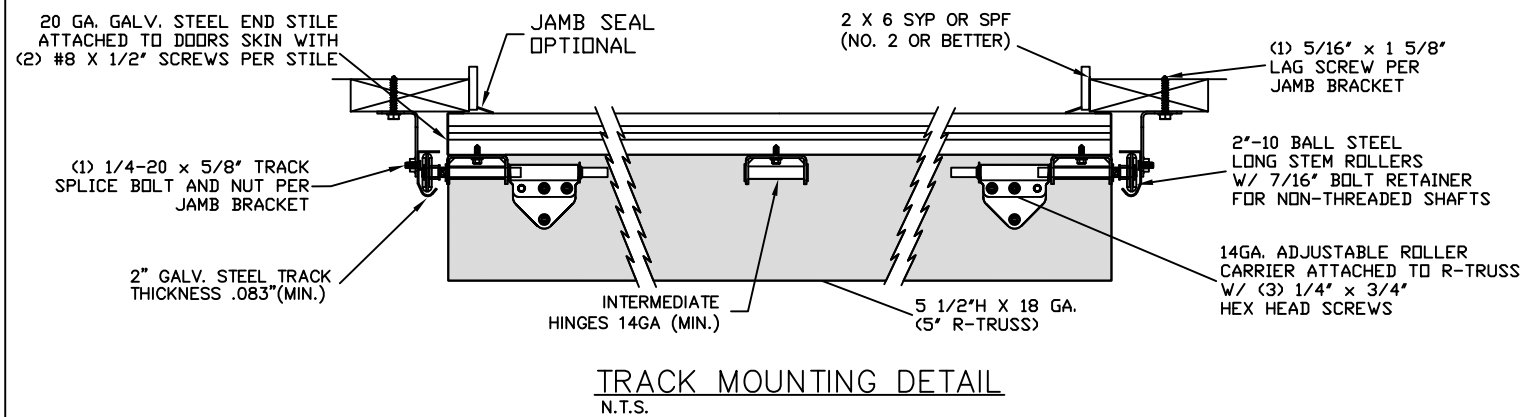




LARGE MISSILE IMPACT RESISTANT



REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 18' x 14'

DESIGN LOADS +37.0 PSF -40.6 PSF

TEST LOADS (1.5 x DESIGN LOADS) +55.5 PSF -60.9 PSF

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

This document has been digitally signed & sealed by Thomas L. Shelmerdine, PE on the date shown. Printed copies of this document are not considered signed & sealed, and the signature must be verified on any electronic copies.

Digitally signed by Thomas L. Shelmerdine
DN: c=US, o=North Carolina, dnQualifier=A01410D000001856487A7, 8100125CE2, cn=Thomas L. Shelmerdine
Date: 2023.10.04 10:38:06 -04'00'

Thomas L. Shelmerdine

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)
dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

FL

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330, E1996, F588 AND DASMA 108, 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-22 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

WIND SPEED (MPH)	200	181	172	165	158
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

Amarr

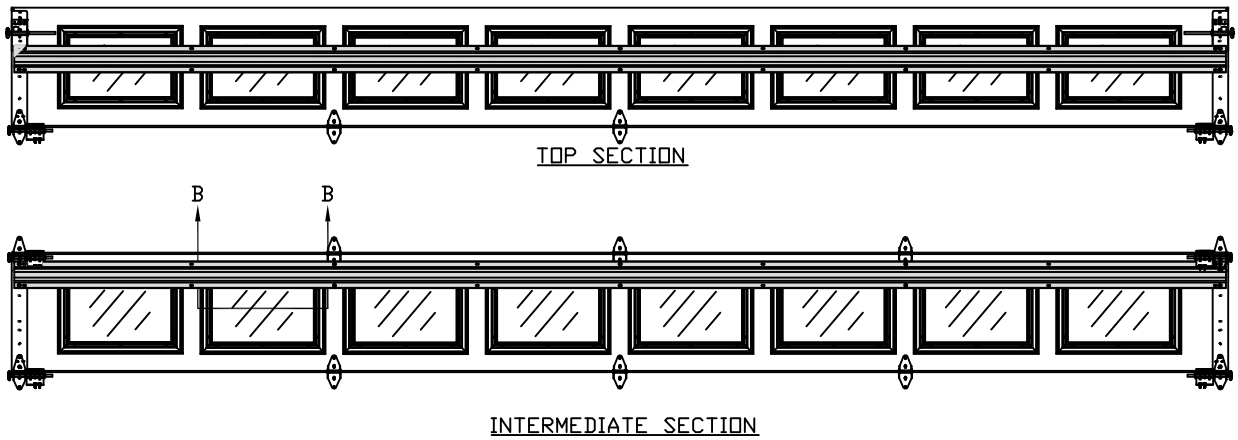
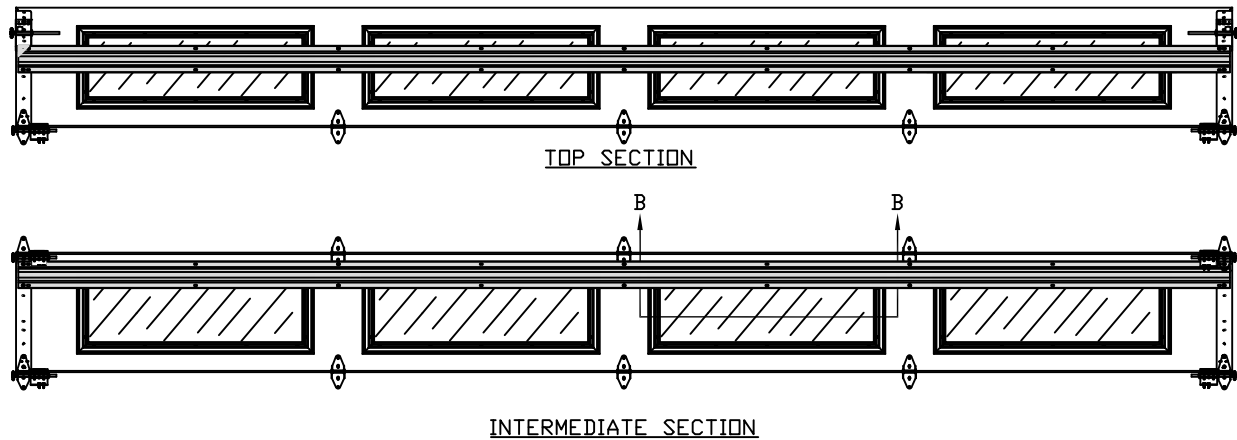
MODEL C500 (CLAMSHELL)
AMARR OLYMPUS 3200,
AMARR DESIGNERS CHOICE 3200

SIZE	DRAWN BY	RLR	DATE	01/19/16	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	01/19/16	IRC-C518-155-26-1

AMARR COMPANY
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

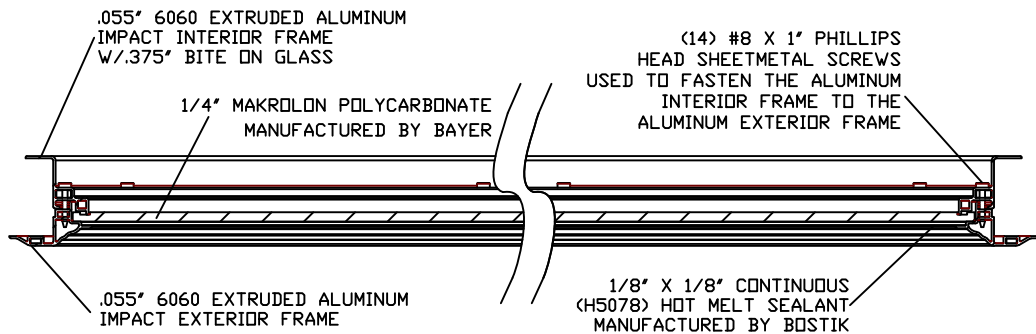
SHEET 1 OF 3

OPTIONAL SHORT AND LONG PANEL GLAZING LAYOUTS
N.T.S.

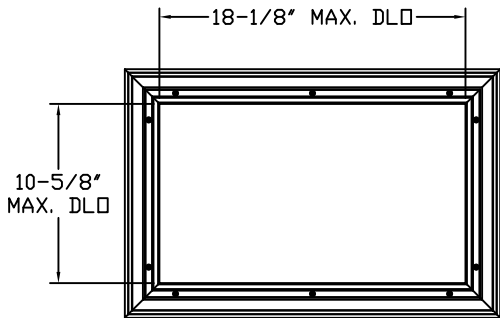


SPECIFICATIONS AND NOTES

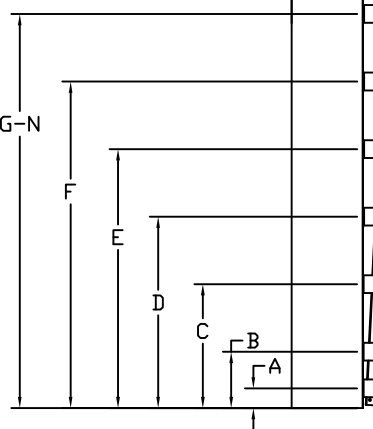
1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
2. EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +333.0 LBS/FT & -365.4 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27 GA. (.015) MIN. EXTERIOR AND INTERIOR SKIN, ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 14'0" HIGH USE (1) 5.5" 18GA R-TRUSS PER SECTION AND (1) 3" STRUT ON THE BOTTOM SECTION.
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



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



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



TRACK CONFIGURATION FOR UP TO 14' TALL DOORS
SEE TABLE 1

14 GA. (MIN.) FLAG BRACKET 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

14 GA. SPLICE BRACKET ATTACHED TO WOOD JAMB W/ (1) 5/16 DIA. X 1-5/8" LAG BOLT AND TO TRACK W/ (4) 1/4"-20 X 5/8" TRACK SPLICE BOLTS AND NUTS

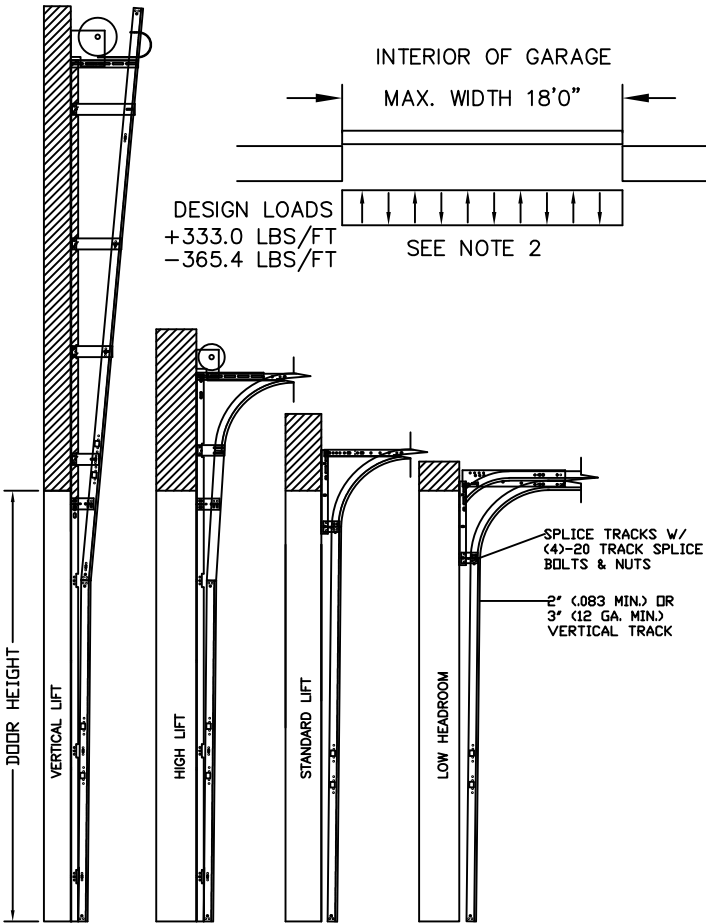
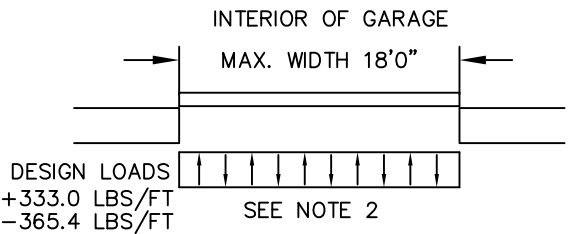
(1) 5/16" DIA. X 1-5/8" LAG BOLT ATTACHED TO JAMB AT EA. JAMB BRACKET

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

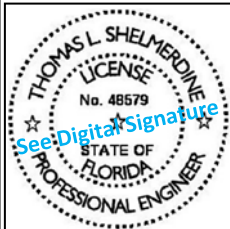
TRACK ATTACHMENT CAN BE BRACKET MOUNT, CONTINUOUS, REVERSE ANGLE MOUNT OR TAPERED REVERSE ANGLE MOUNT. (SEE AVAILABLE TRACK CONFIGURATIONS ON THIS PAGE)

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



AVAILABLE TRACK CONFIGURATIONS
N.T.S.



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Amarr

MODEL C500 (CLAMSHELL)
AMARR OLYMPUS 3200,
AMARR DESIGNERS CHOICE 3200

SIZE	DRAWN BY	RLR	DATE	01/19/16	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	01/19/16	IRC-C518-155-26-1
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					SHEET 2 OF 3

TABLE 1

HEIGHT	TRACK ATTACHMENT														SPLICE
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
6' 0"	3.5"	10"	22"	34"	46"	58"									64"
6' 6"	3.5"	10"	22"	34"	46"	58"									70"
7' 0"	3.5"	10"	22"	34"	46"	58"	70"								76"
7' 6"	3.5"	10"	22"	34"	46"	58"	70"								82"
8' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"							88"
8' 6"	3.5"	10"	22"	34"	46"	58"	70"	82"							94"
9' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"						100"
9' 6"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"						106"
10' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"					112"
10' 6"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"					118"
11' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"				124"
11' 6"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"				130"
12' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"			136"
12' 6"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"			142"
13' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"		148"
13' 6"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"		154"
14' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	160"

ALL TRACK ATTACHMENT SPACING $\pm 3/4"$ ALLOWED WITH SYP OR SPF NO. 2 OR BETTER ONLY

TABLE 2

Section	Panel Type	Center Stile Locations (Measured from Left Edge)			Max Design Loads Allowed	
Width (ft)		1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
16' 2	Short	50.27	97.00	143.73	41.1	45.2
16' 2	Long	51.17	97.00	142.83	41.1	45.2
16' 4	Short	51.27	98.00	144.73	40.7	44.7
16' 4	Long	52.17	98.00	143.83	40.7	44.7
16' 6	Short	52.27	99.00	145.73	40.3	44.2
16' 6	Long	51.34	99.00	146.66	40.3	44.2
16' 8	Short	51.34	100.00	148.66	39.9	43.8
16' 8	Long	52.20	100.00	147.80	39.9	43.8
16' 10	Short	51.50	101.00	150.50	39.5	43.4
16' 10	Long	53.20	101.00	148.80	39.5	43.4
17' 0	Short	53.34	102.00	150.66	39.1	42.9
17' 0	Long	54.20	102.00	149.80	39.1	42.9
17' 2	Short	53.00	103.00	153.00	38.7	42.5
17' 2	Long	55.20	103.00	150.80	38.7	42.5
17' 4	Short	54.00	104.00	154.00	38.4	42.1
17' 4	Long	56.20	104.00	151.80	38.4	42.1
17' 6	Short	55.00	105.00	155.00	38.0	41.7
17' 6	Long	57.20	105.00	152.80	38.0	41.7
17' 8	Short	54.80	106.00	157.20	37.6	41.3
17' 8	Long	55.80	106.00	156.20	37.6	41.3
17' 10	Short	55.80	107.00	158.20	37.3	40.9
17' 10	Long	56.25	107.00	157.75	37.3	40.9
18' 0	Short	57.25	108.00	158.75	37.0	40.6
18' 0	Long	57.80	108.00	158.20	37.0	40.6

TABLE 3

SECTION	STRUT SIZE
8TH	5.5"
7TH	5.5"
6TH	5.5"
5TH	5.5"
4TH	5.5"
3RD	5.5"
2ND	5.5"
BOTTOM	5.5"
	3"

WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE

5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS
THEN 14" 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 12" 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)

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

2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C=90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS

SIMPSON 1/4" X 3" TIEN SCREWS S
USE PAIRS OF FASTENERS (3" APART)

USE PAIRS OF FASTENERS (3" APART)
AT 8" O.C. (1 1/2" EMBEDMENT)

HULL 1 1/4" X 2-3/4" KWIK-CON. II+ SCREWS STARTING 6" FROM ENDS

HILT 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)

USE PAIRS OF FASTENERS (3" APART) AT 8" O.C. (1 1/4" EMBEDMENT)
3" X 6" VERTICAL LAMB ATTACHMENT TO GROUTED 6" Ø Ø BLOCK (3000 PSI GROUT)

2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (MULTI SLEEVE ANCHOR 3/8" X 3 3/4" STARTING 6" FROM ENDS)

INSTALL SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS
THEN 14" O.C. (1 1/4" EMBEDMENT)

THEN 14" O.C. (1 1/4" EMBEDMENT)
(OR USE FASTENERS FOR HOLLOW C

(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

