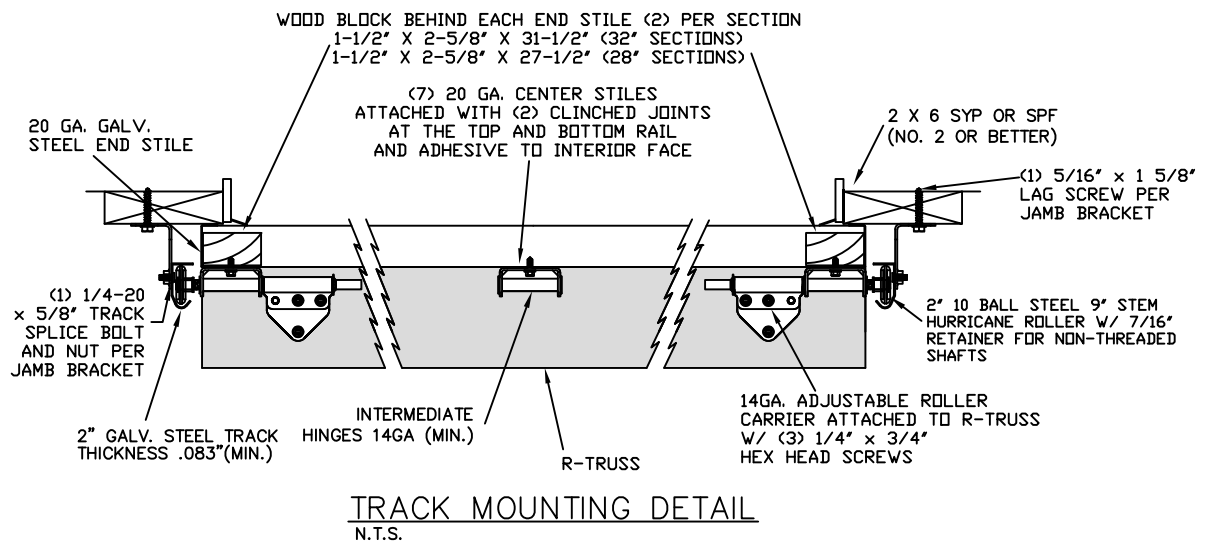
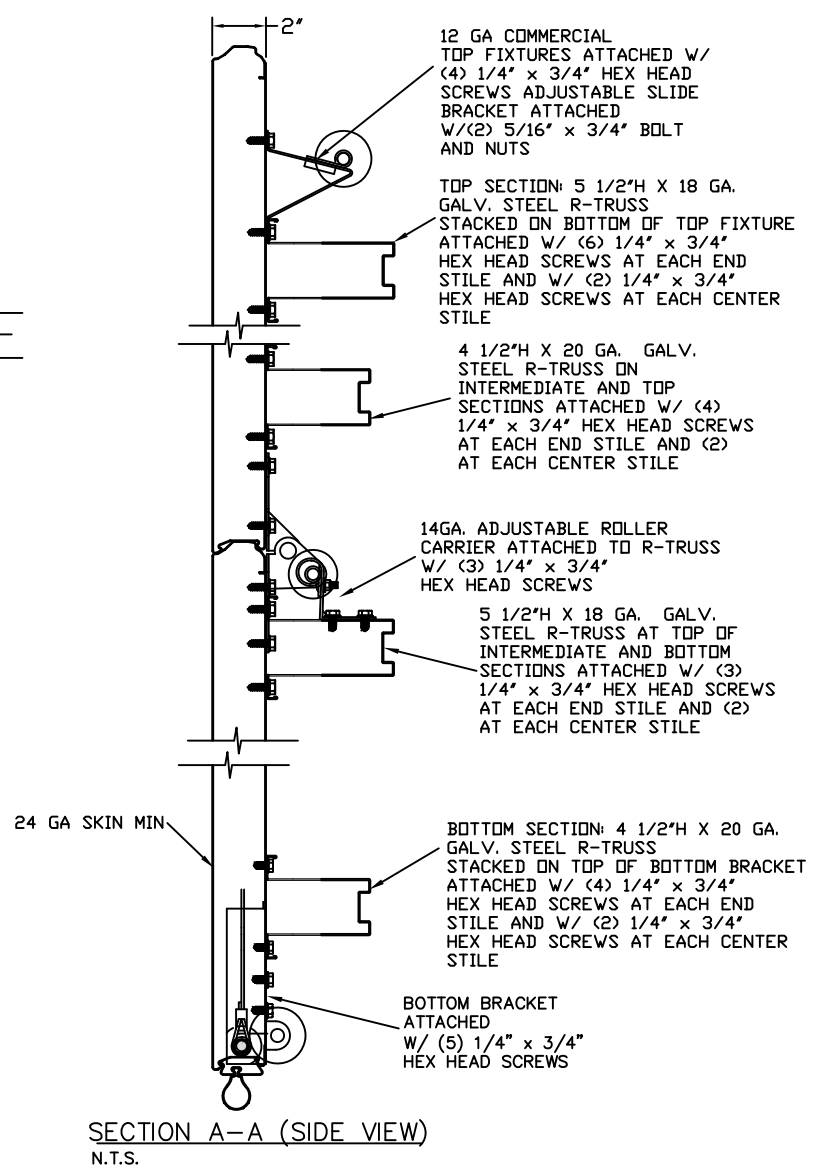
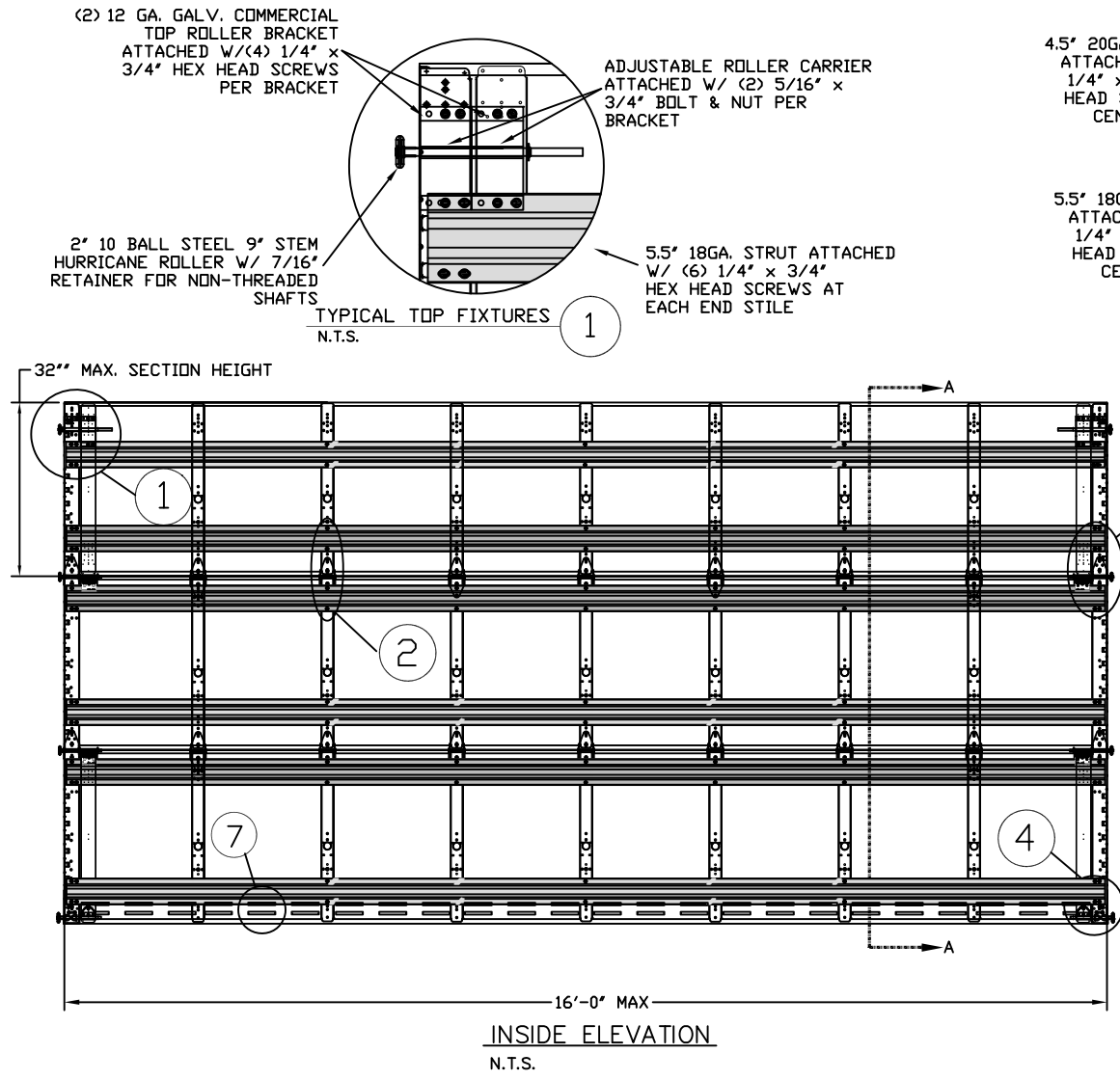


LARGE MISSILE IMPACT RESISTANCE



THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 108 & 115, ASTM E330, E1886, E1996, & F588. 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)	194	176	168	160	154
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
16' x 14'

DESIGN LOADS
+34.0 PSF
-38.6 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+51.0 PSF
-57.9 PSF

LARGE MISSILE IMPACT RESISTANCE

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

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DN: c=US, o=North Carolina, dnQualifier=AD1410D000001856487A7B100125CE2, cn=Thomas L. Shelmerdine
Date: 2023.09.25 13:16:36 -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

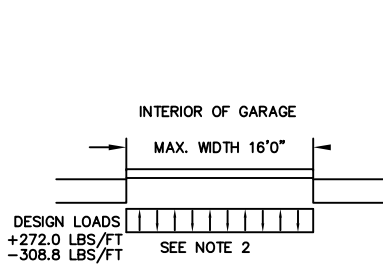
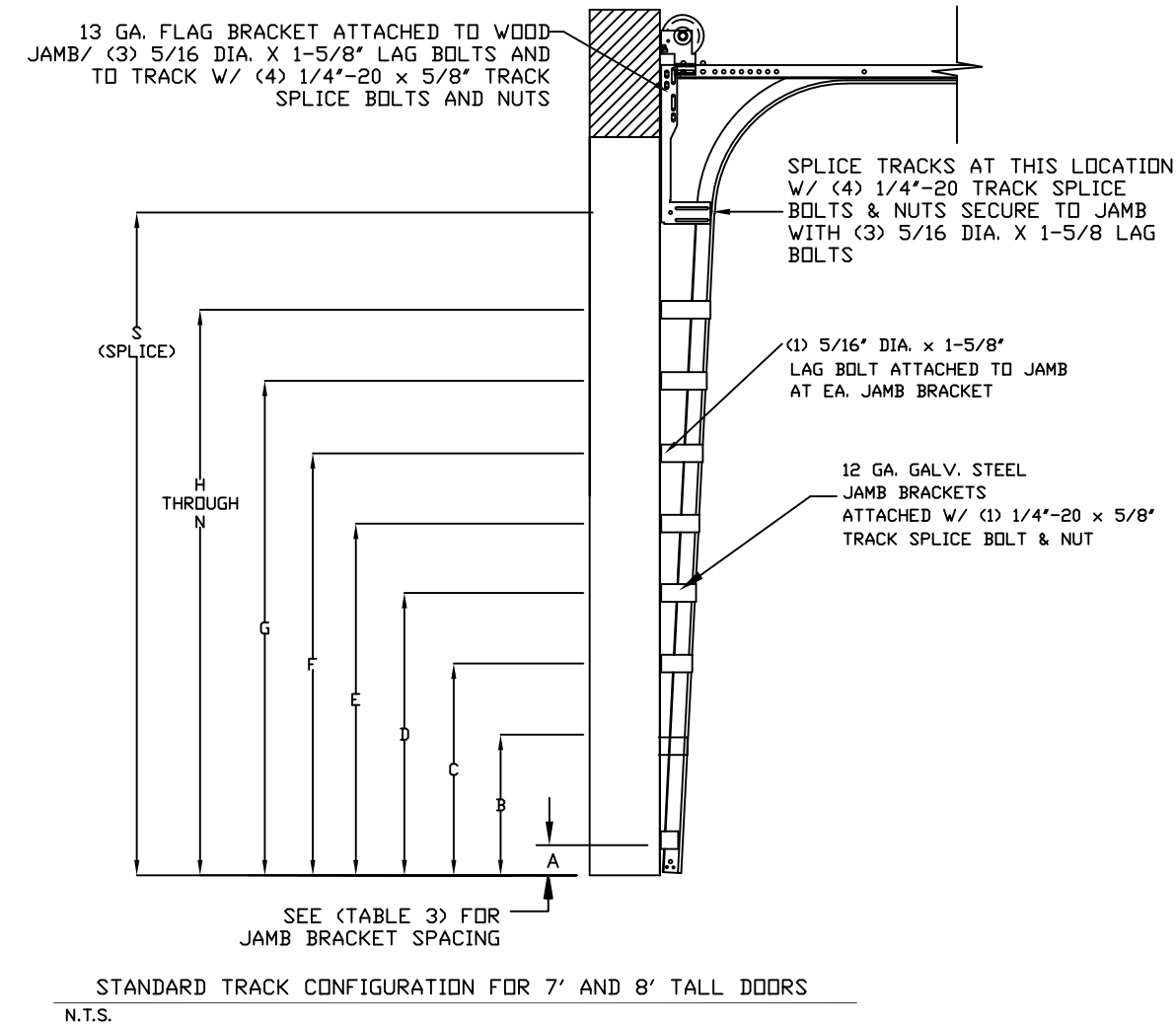
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MODEL #500 AMARR CLASSICA 1000, 2000

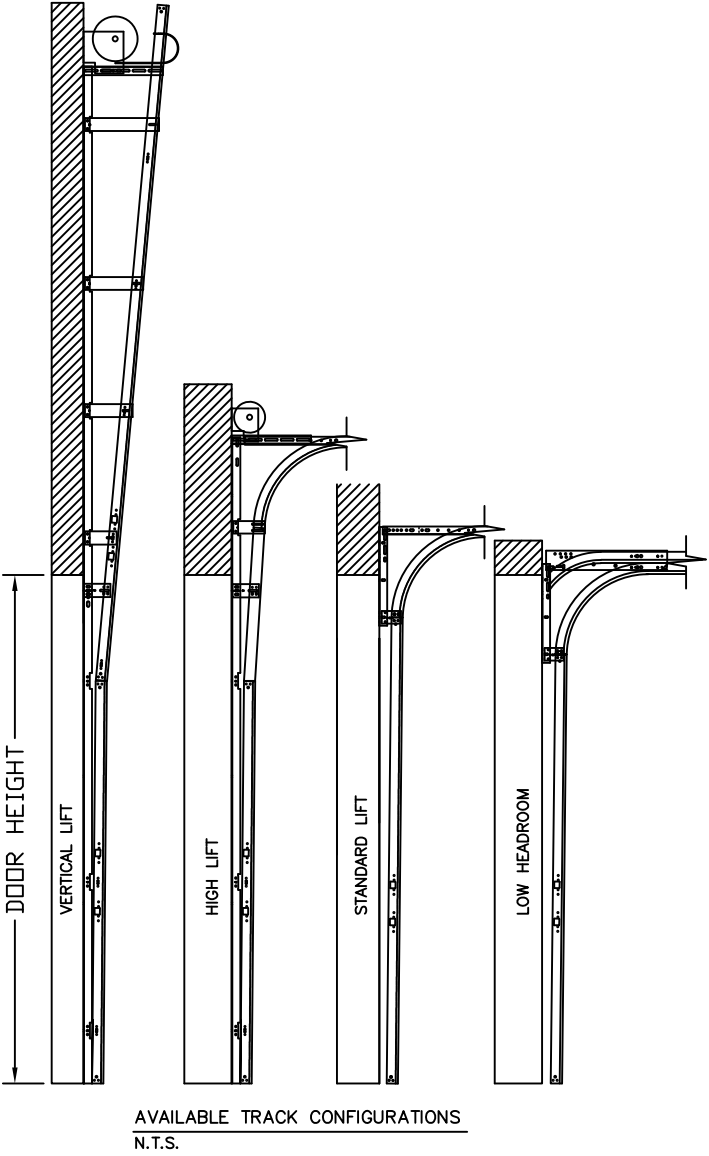
SIZE	DRAWN BY	DLJ	DATE	11/13/2020	DRAWING NUMBER
B	CHECKED BY	DRC	DATE	11/30/2020	IRC-5316-150-26-1

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

SHEET 1 OF 3



- 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: +272.0 LBS/FT & -308.8 LBS/FT
 3. DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
 4. DOOR SECTIONS SHALL BE 24 GA. MIN. (.022") ROLLED FORMED LIGHT COMMERCIAL QUALITY
 5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



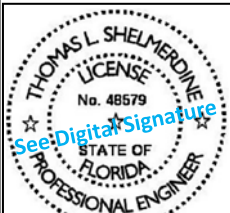
REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
16' x 14'

DESIGN LOADS
+34.0 PSF
-38.6 PSF

TEST LOADS
(1.5 x DESIGN LOADS)
+51.0 PSF
-57.9 PSF

LARGE MISSILE
IMPACT
RESISTANCE



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MODEL #500 AMARR CLASSICA 1000, 2000

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SHEET 2 OF 3

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 18" 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 16" 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 18" 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

WOOD STRUCTURE

EMBEDMENT

1/2" MIN

CONCRETE STRUCTURE

2-3/4" MIN

HOLLOW BLOCK STRUCTURE

1-1/2" MIN

3" MIN

GROUTED BLOCK STRUCTURE

4"

2X6 JAMB TYP.

TABLE 1

Section	Center Stile Locations (Measured from Left Edge)							Max Design Loads Allowed	
Width (ft)	1st (in)	2st (in)	3rd (in)	4th (in)	5th (in)	6th (in)	7th (in)	Positive (PSF)	Negative (PSF)
12' 0	24.63	48.31	72.00	95.69	119.38			33.9	38.5
12' 2	25.13	49.06	73.00	96.94	120.88			33.4	37.9
12' 4	25.63	49.81	74.00	98.19	122.38			32.9	37.3
12' 6	26.13	50.56	75.00	99.44	123.88			32.4	36.8
12' 8	26.63	51.31	76.00	100.69	125.38			31.9	36.2
12' 10	27.13	52.06	77.00	101.94	126.88			31.5	35.7
13' 0	27.63	52.81	78.00	103.19	128.38			31.0	35.2
13' 2	28.13	53.56	79.00	104.44	129.88			30.6	34.7
13' 4	28.63	54.31	80.00	105.69	131.38			30.2	34.2
13' 6	29.13	55.06	81.00	106.94	132.88			29.7	33.8
13' 8	29.63	55.81	82.00	108.19	134.38			29.3	33.3
13' 10	30.13	56.56	83.00	109.44	135.88			29.0	32.9
14' 0	30.63	57.31	84.00	110.69	137.38			28.6	32.4
14' 2	31.13	58.06	85.00	111.94	138.88			28.2	32.0
14' 4	31.63	58.81	86.00	113.19	140.38			27.9	31.6
14' 6	32.13	59.56	87.00	114.44	141.88			27.5	31.2
14' 8	32.63	60.31	88.00	115.69	143.38			27.2	30.8
14' 10	33.13	61.06	89.00	116.94	144.88			26.8	30.5
15' 0	33.63	61.81	90.00	118.19	146.38			26.5	30.1
15' 2	34.13	62.56	91.00	119.44	147.88			26.2	29.7
15' 4	34.63	63.31	92.00	120.69	149.38			25.9	29.4
15' 6	24.63	47.42	70.208	93.00	115.791	138.58	161.37	34.5	39.2
15' 8	25.03	48.02	71.008	94.00	116.991	139.98	162.97	34.1	38.7
15' 10	25.43	48.62	71.808	95.00	118.191	141.38	164.57	33.7	38.2
16' 0	24.63	48.42	72.208	96.00	119.791	143.58	167.37	34.0	38.6

TABLE 2

SECTION	STRUT SIZE
TOP	5.5"
	4.5"
5TH	5.5"
	4.5"
4TH	5.5"
	4.5"
3RD	5.5"
	4.5"
2ND	5.5"
	4.5"
BOTTOM	5.5"
	4.5"

TABLE 3

DOOR HEIGHT	TRACK ATTACHMENT															TYPICAL SPLICE
	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
7' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"									76"
7' 6"	3.5"	10.0"	22.0"	34"	46"	58"	70"									82"
8' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"								88"
8' 6"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"								94"
9' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"							100"
9' 6"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"							106"
10' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"						112"
11' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"					124"
12' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"				136"
13' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"			148"
14' 0"	3.5"	10.0"	22.0"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"		160"

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

REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE 16' x 14' DESIGN LOADS +34.0 PSF -38.6 PSF TEST LOADS (1.5 x DESIGN LOADS) +51.0 PSF -57.9 PSF LARGE MISSILE IMPACT RESISTANCE  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. 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		
			
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AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 3 OF 3