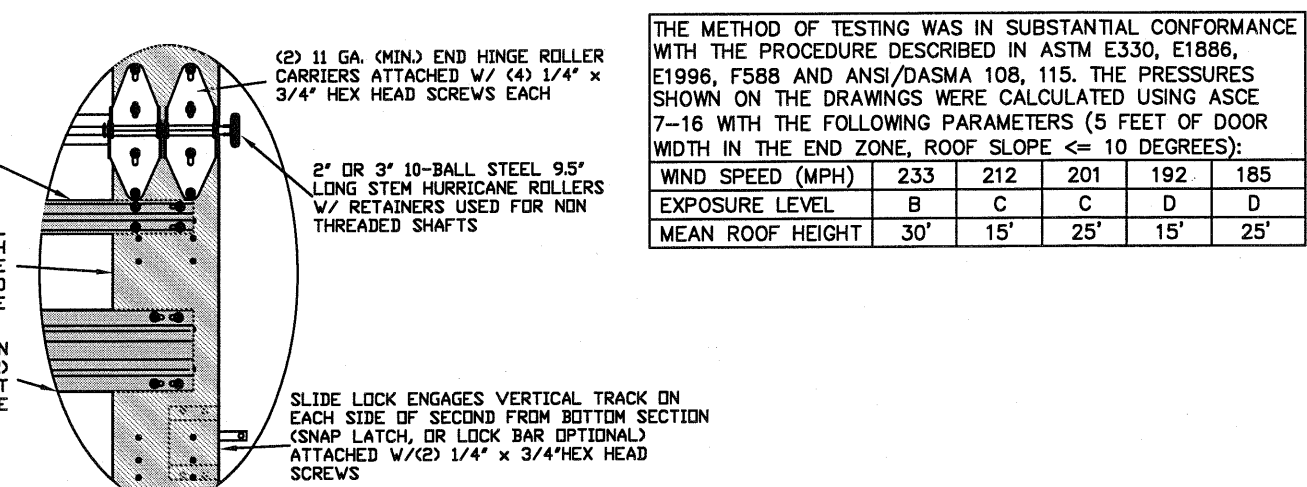
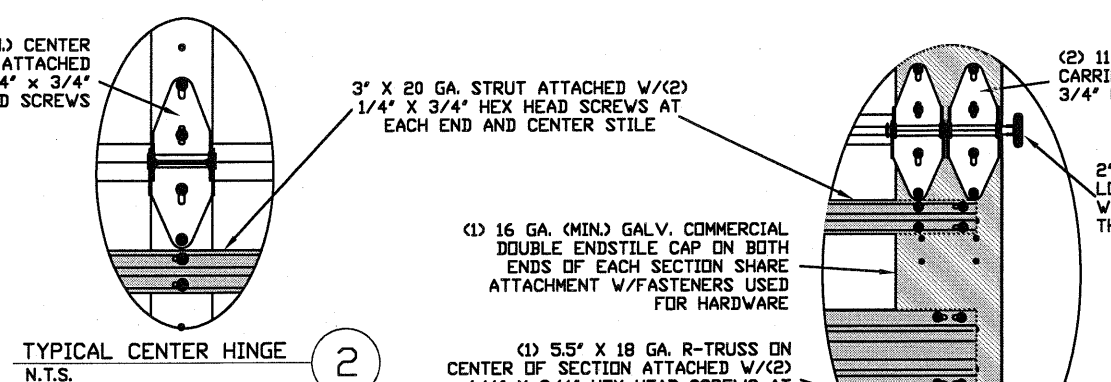
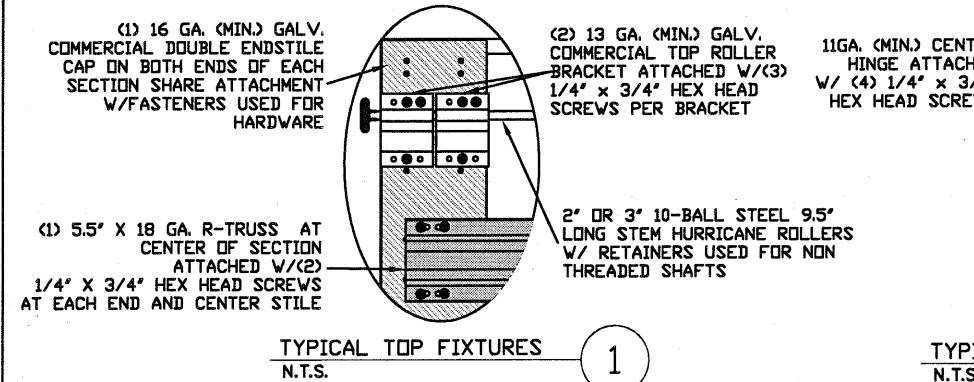
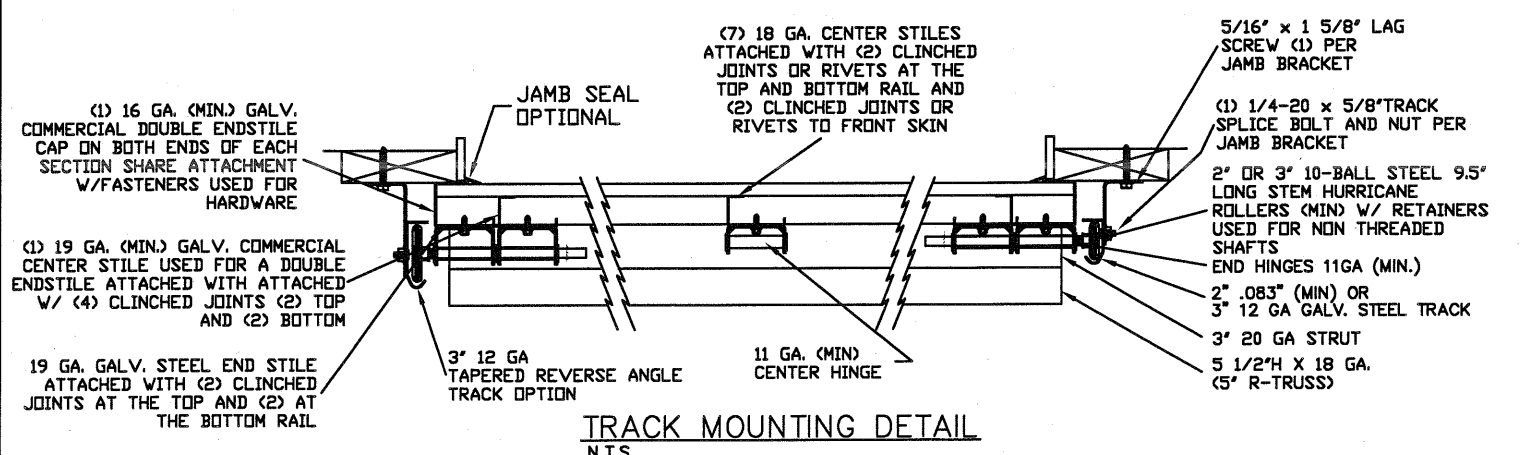
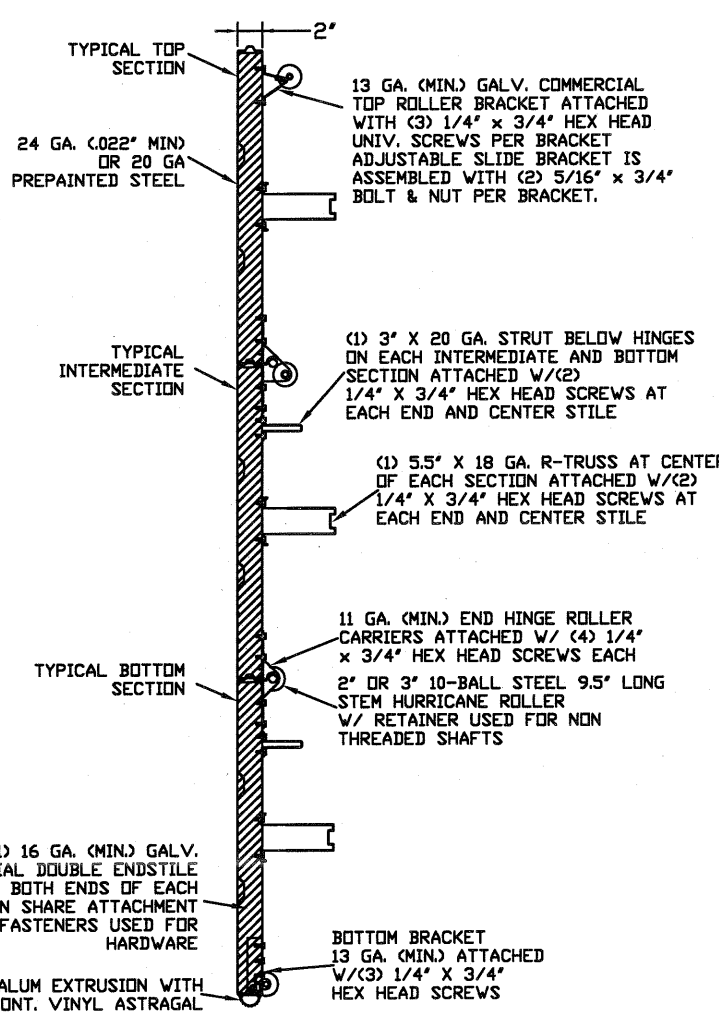
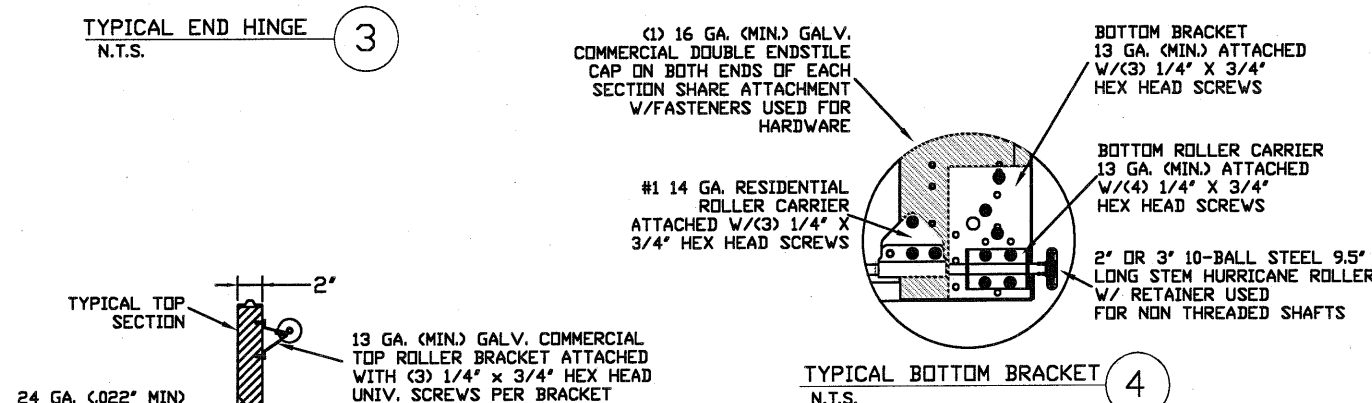
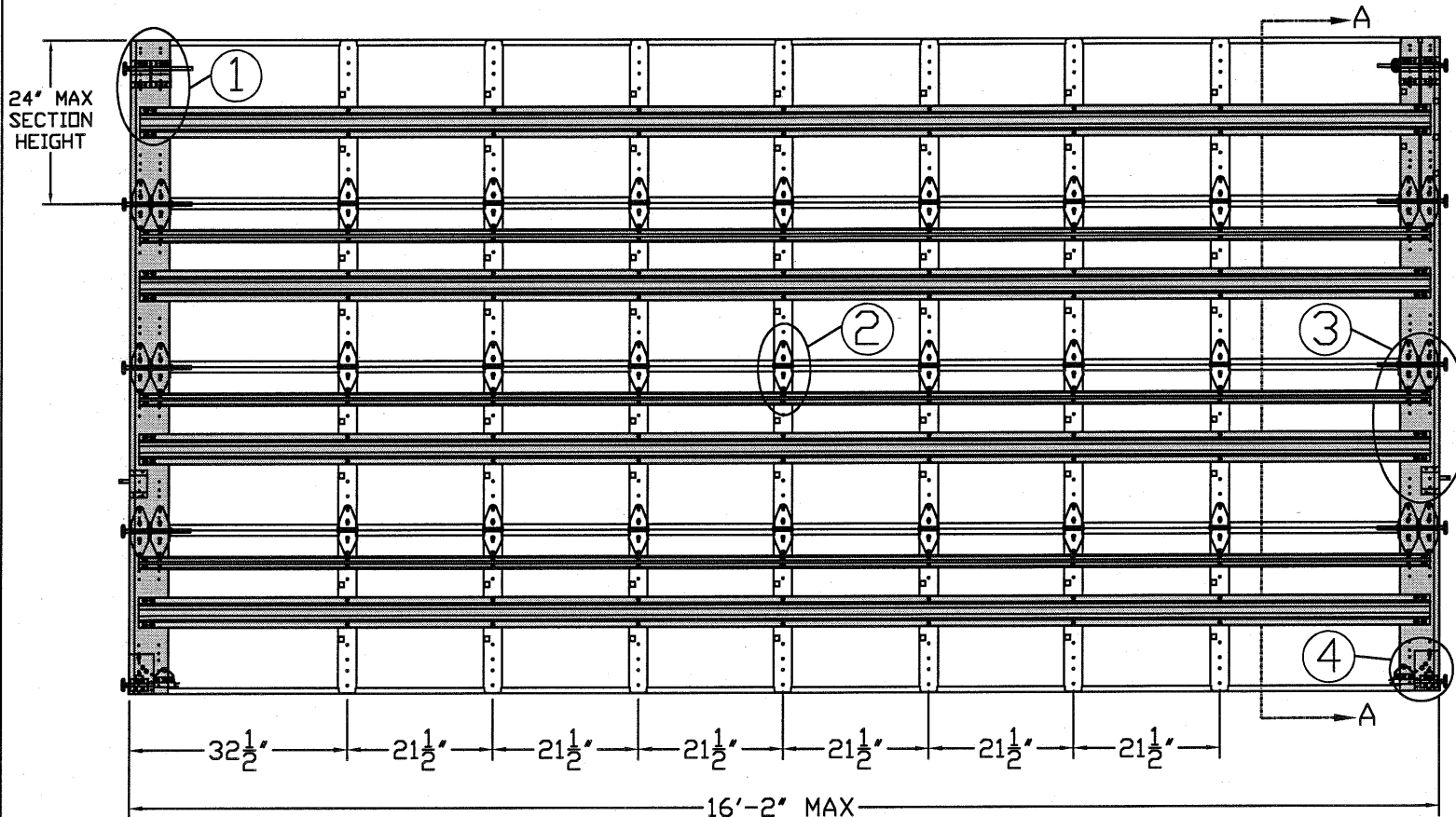




THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330, E1886, E1996, F588 AND ANSI/DASMA 108, 115. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-16 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF SLOPE <= 10 DEGREES):

WIND SPEED (MPH)	233	212	201	192	185
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'



REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZES
WIDTH 16'-2"
HEIGHT 24'

DESIGN LOADS
+45.0 PSF
-52.0 PSF

LARGE MISSILE
IMPACT
RESISTANCE

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

FL

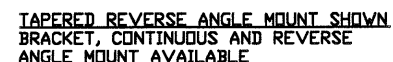
dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

MODEL 2400 AMARR 2402, 2412, 2422			
MODEL 2000 AMARR 2002, 2012, 2022			
SIZE	DRAWN BY	R/LR	DATE 5/30/13
B	CHECKED BY	R/LR	DATE 5/30/13
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IEC-2416-180-26-I SHEET 1 OF 3



12 GA STEEL FRAMING
232 LBS/SCREW ALLOWABLE LOAD - 3" FROM ENDS AND 6" O.C.
REFER TO NOTES: 1, 2 AND 5

3/16" STEEL FRAMING
569 LBS/SCREW ALLOWABLE LOAD - 6" FROM ENDS AND 18" O.C.
REFER TO NOTES: 1, 2 AND 5



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



2000 PSI CONCRETE OR GREATER
351 LBS/EXPANSION ANCHOR ALLOWABLE LOAD - 6" FROM ENDS AND 10" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

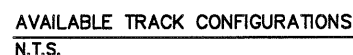
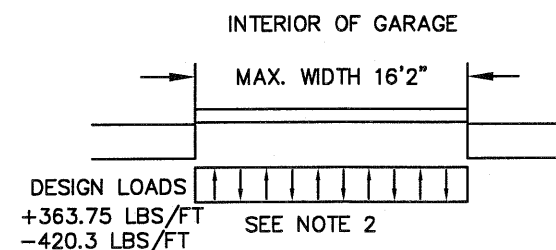


2000 PSI CONCRETE OR GREATER
336 LBS/SLEEVE ANCHOR ALLOWABLE LOAD - 6" FROM ENDS AND 10" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

SPECIFICATIONS AND NOTES

1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. 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.
3. MIN. EDGE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS IN ADDITION TO OTHER LOADS.
6. MOST GARAGE DOOR TRACK IS GALVANIZED STEEL. USE ALL NECESSARY PRECAUTIONS WHEN WELDING GALVANIZED STEEL.
7. ALL WELDS SHOULD BE PERFORMED BY A CERTIFIED WELDER OR INSPECTED BY A CERTIFIED WELDING INSPECTOR TO VERIFY THE INTEGRITY OF THE WELD.
8. FILLET WELDS TO HAVE A STRAIGHT OR CONVEX FACE SURFACE.
9. TACK WELD TOE OF ANGLE AT SAME SPACING TO PREVENT ROTATION OF TRACK ANGLE.

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:
+363.75 LBS/FT AND -420.3 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 24 GA. (.022) MIN. EXTERIOR SKIN ROLLED FORMED, GALVANIZED W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24' HIGH USE (1) 5 1/2" R-TRUSS PER SECTION AND (1) 3" 20 GA STRUT ON BOTTOM AND INTERMEDIATE SECTIONS
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.



2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE

5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS
THEN 12" 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 22" 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)

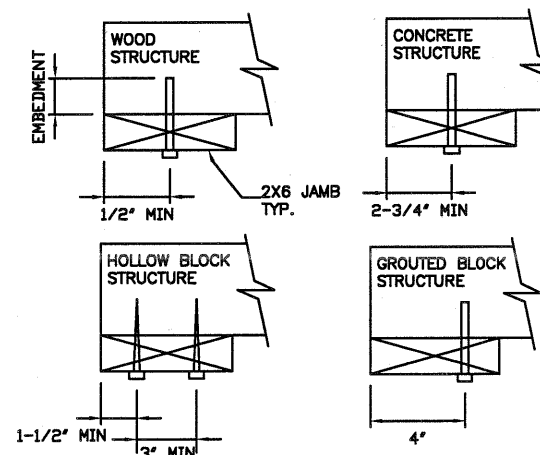
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)

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

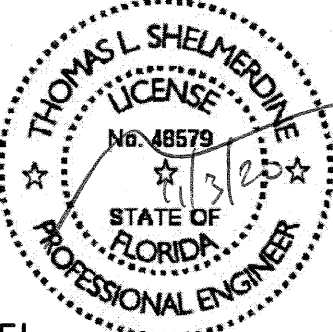
(OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.

*PREPARATION OF WOOD JAMBS BY OTHERS



REV	DESCRIPTION OF REVISIONS	DATE	BY

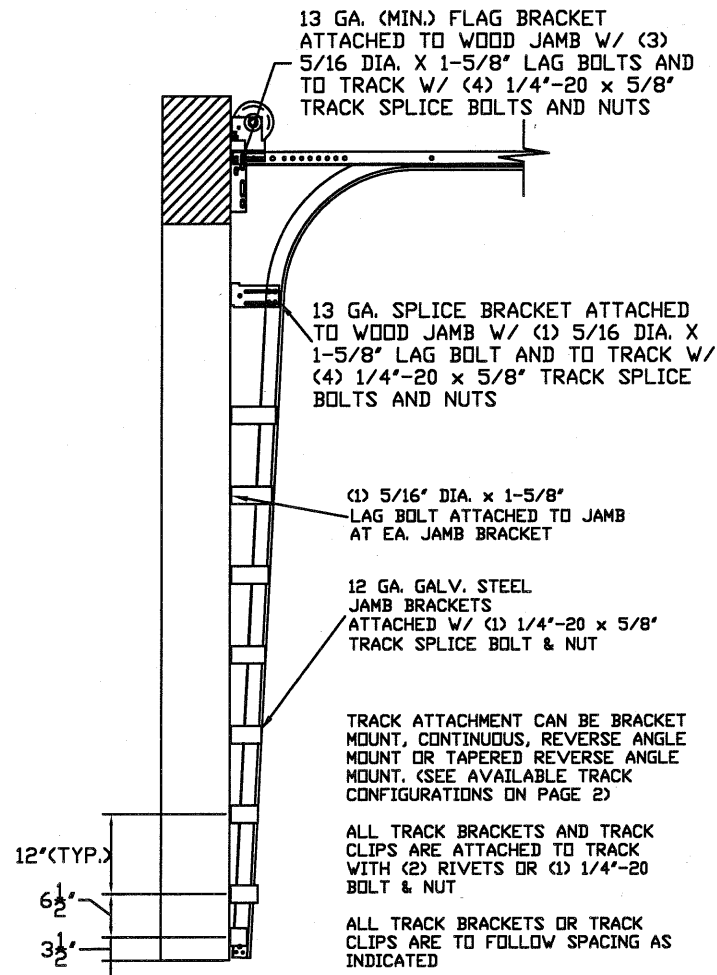
MAX. SIZES WIDTH 16'-2" HEIGHT 24' DESIGN LOADS +45.0 PSF -52.0 PSF LARGE MISSILE IMPACT RESISTANCE	Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) FL	 Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412) dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410
---	---	---



MODEL 2400 AMARR 2402, 2412, 2422 MODEL 2000 AMARR 2002, 2012, 2022			
---	--	--	--

SIZE B	DRAWN BY	RLR	DATE	5/30/13	DRAWING NUMBER IBC-2416-180-26-
	CHECKED BY	RLR	DATE	5/30/13	

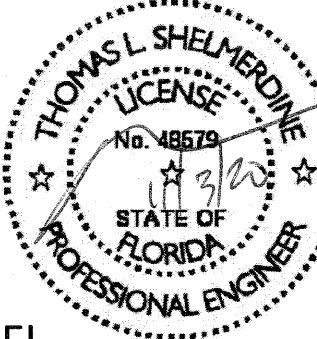
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, NC. 27105		SHEET 2 OF 3
--	--	---------------------



TRACK CONFIGURATION FOR UP TO 24' TALL DOORS
SEE TABLE 1 ON PAGE 3

TABLE 1

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	W	
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"
11' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"													124"
12' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"												136"
13' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"											148"
14' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"										160"
15' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"									172"
16' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"								184"
17' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"							196"
18' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"						208"
19' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"					220"
20' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"				232"
21' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"			244"
22' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"		256"
23' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"	268"
24' 0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"	280"

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZES WIDTH 16'-2 HEIGHT 24'	DESIGN LOADS +45.0 PSF -52.0 PSF	LARGE MISSILE IMPACT RESISTANCE	Thomas L. Shelmerdine, PE (FL PE #0048579) Structural Solutions, PA (FL Firm #29412)  FL Thomas L. Shelmerdine, Inc. dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410
			
MODEL 2400 AMARR 2402, 2412, 2422 MODEL 2000 AMARR 2002, 2012, 2022			
SIZE	DRAWN BY	R.L.R.	DATE 5/30/13
B	CHECKED BY	R.L.R.	DATE 5/30/13
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IEC-2416-180-26-I SHEET 3 OF 3