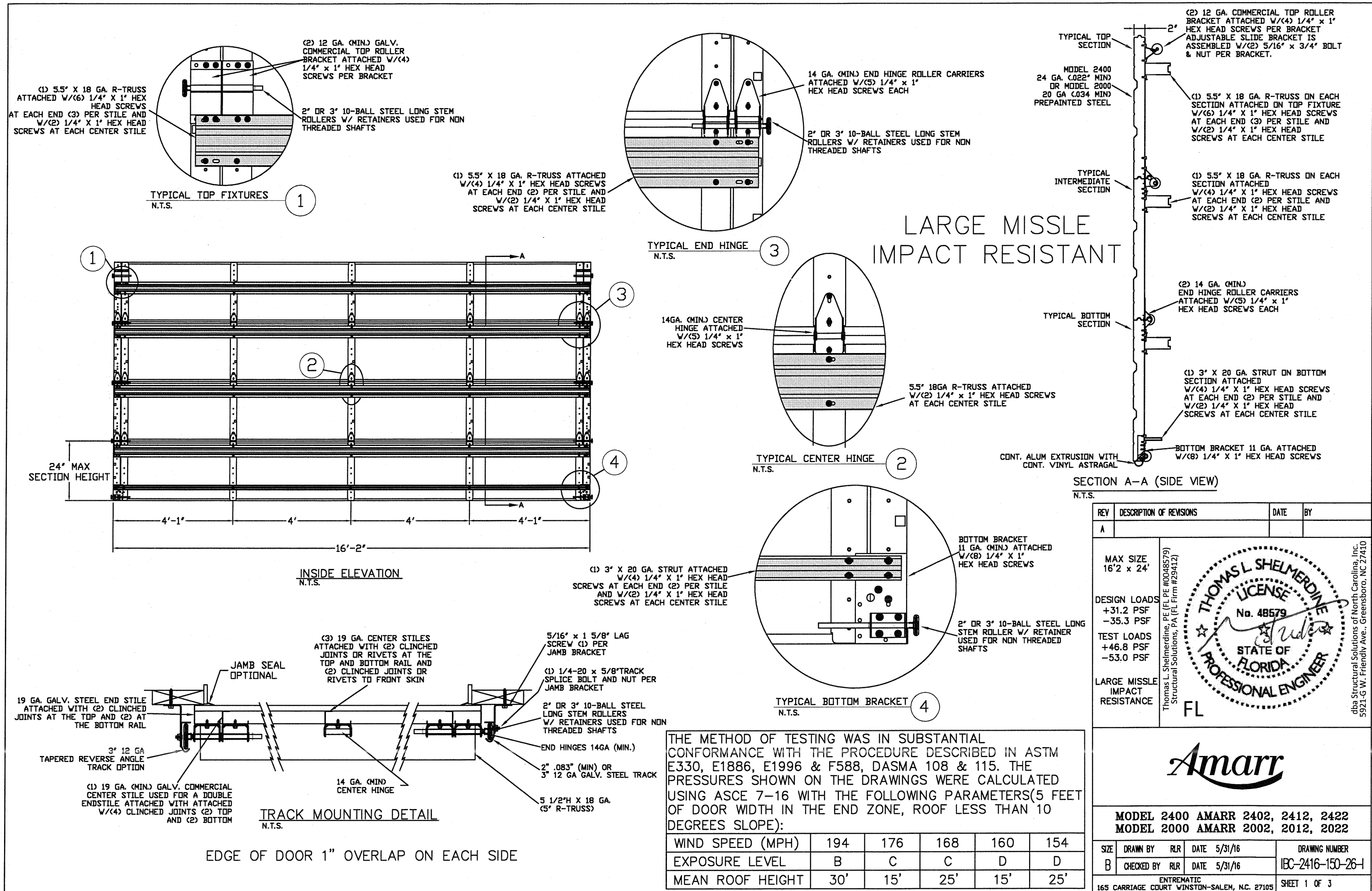
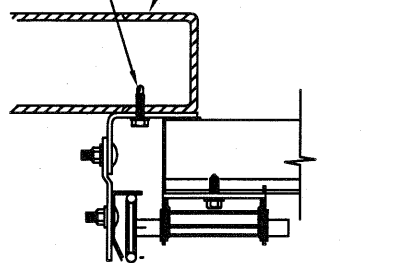




TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS

ITW BUILDDEX 1/4"-14
X 3/4" SELF-TAPPING
SCREWS (TEKS)

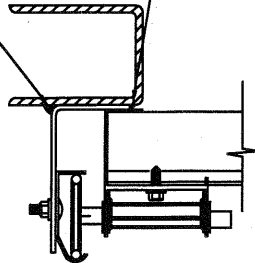


CLIP STYLE REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED ANGLE
MOUNT AVAILABLE

12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6"
FROM ENDS AND 10" O.C.
REFER TO NOTES 1, 2 AND 5

3/16" STEEL FRAMING
569 LBS./SCREW ALLOWABLE LOAD - 6"
FROM ENDS AND 24" O.C.
REFER TO NOTES 1, 2 AND 5

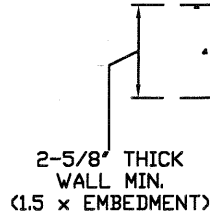
1/8" NOM X 1" LONG
FILLET WELD (E60xx
ELECTRODES MIN.)



REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND
TAPERED ANGLE MOUNT AVAILABLE

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

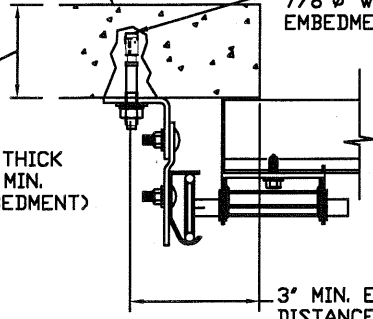
1/4" LONG TACK
WELD SAME SPACING
AS FILLET WELD



2000 PSI MIN.
CONCRETE

2-5/8" THICK
WALL MIN.
(1.5 x EMBEDMENT)

SIMPSON STRONG-TIE
3/8" WEDGE-ALL
EXPANSION ANCHOR WITH
7/8" WASHER. 1-3/4" MIN.
EMBEDMENT



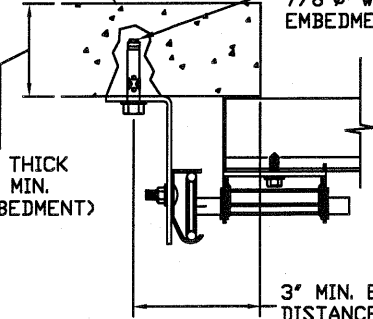
CLIP STYLE CONTINUOUS ANGLE MOUNT SHOWN
BRACKET, REVERSE AND TAPERED ANGLE MOUNT
AVAILABLE

2000 PSI CONCRETE OR GREATER
351 LBS./EXPANSION ANCHOR ALLOWABLE LOAD -
6" FROM ENDS AND 16" O.C.
REFER TO NOTES 1, 2, 3, 4 AND 5

2000 PSI MIN.
CONCRETE

2-5/8" THICK
WALL MIN.
(1.5 x EMBEDMENT)

SIMPSON STRONG-TIE
3/8" SLEEVE-ALL
EXPANSION ANCHOR WITH
7/8" WASHER. 1-3/4" MIN.
EMBEDMENT



CONTINUOUS ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED ANGLE
MOUNT AVAILABLE

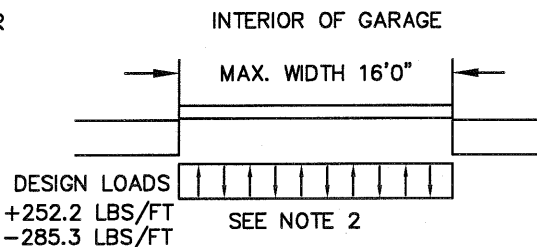
2000 PSI CONCRETE OR GREATER
336 LBS./EXPANSION ANCHOR ALLOWABLE LOAD -
6" FROM ENDS AND 16" O.C.
REFER TO NOTES 1, 2, 3, 4 AND 5

SPECIFICATIONS AND NOTES

NOTES:

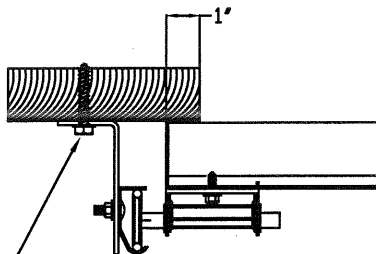
1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
3. MIN. EGDE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.
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: +252.2 LBS/FT AND -285.3 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, GALVANIZATION W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24' HIGH USE (1) 5 1/2" R-TRUSS ON EACH SECTION AND (1) 3" STRUT ON 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.

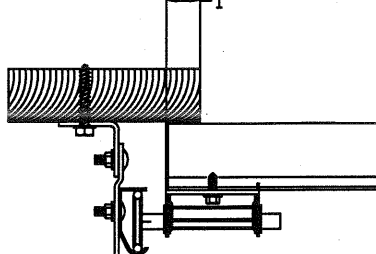


TRACK CONNECTION TO WOOD JAMB OPTIONS

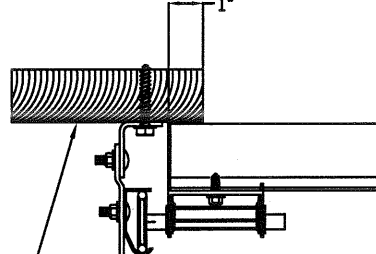
FOR LAG SCREWS & BRACKET SPACING SEE TABLE 2 ON PAGE 3



BRACKET MOUNT



CONTINUOUS ANGLE MOUNT



REVERSE ANGLE MOUNT

5/16" x 1 5/8" LAG SCREW (1)
PER JAMB BRACKET (1-1/2"
EMBEDMENT MINIMUM) (TYP.)

2x6 WOOD JAMB SYP
(NO.2) OR BETTER (TYP.)

WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

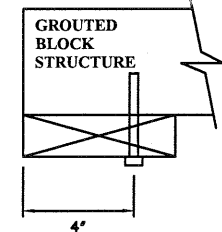
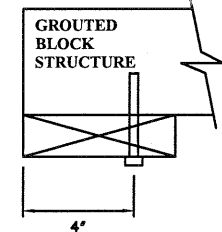
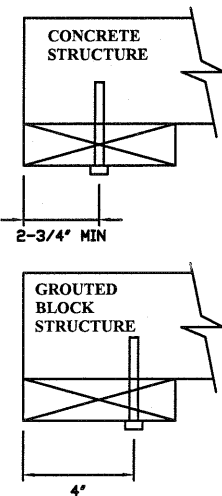
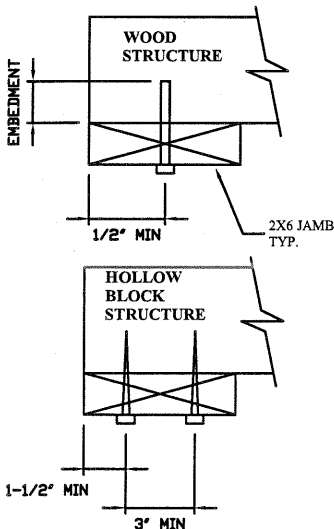
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 18" O.C. (1 1/2" EMBEDMENT)

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 20" 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
A			
MAX SIZE 16'2 x 24' DESIGN LOADS +31.2 PSF -35.3 PSF TEST LOADS +46.8 PSF -53.0 PSF LARGE MISSILE IMPACT RESISTANCE Thomas L. Shelmerdine, PE (FL #00048579) Structural Solutions, PA (FL Firm #29412) FL FL Amarr MODEL 2400 AMARR 2402, 2412, 2422 MODEL 2000 AMARR 2002, 2012, 2022 SIZE B DRAWN BY RLR DATE 5/31/16 CHECKED BY RLR DATE 5/31/16 DRAWING NUMBER IBC-2416-150-26-1 ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 SHEET 2 OF 3			

TABLE 1

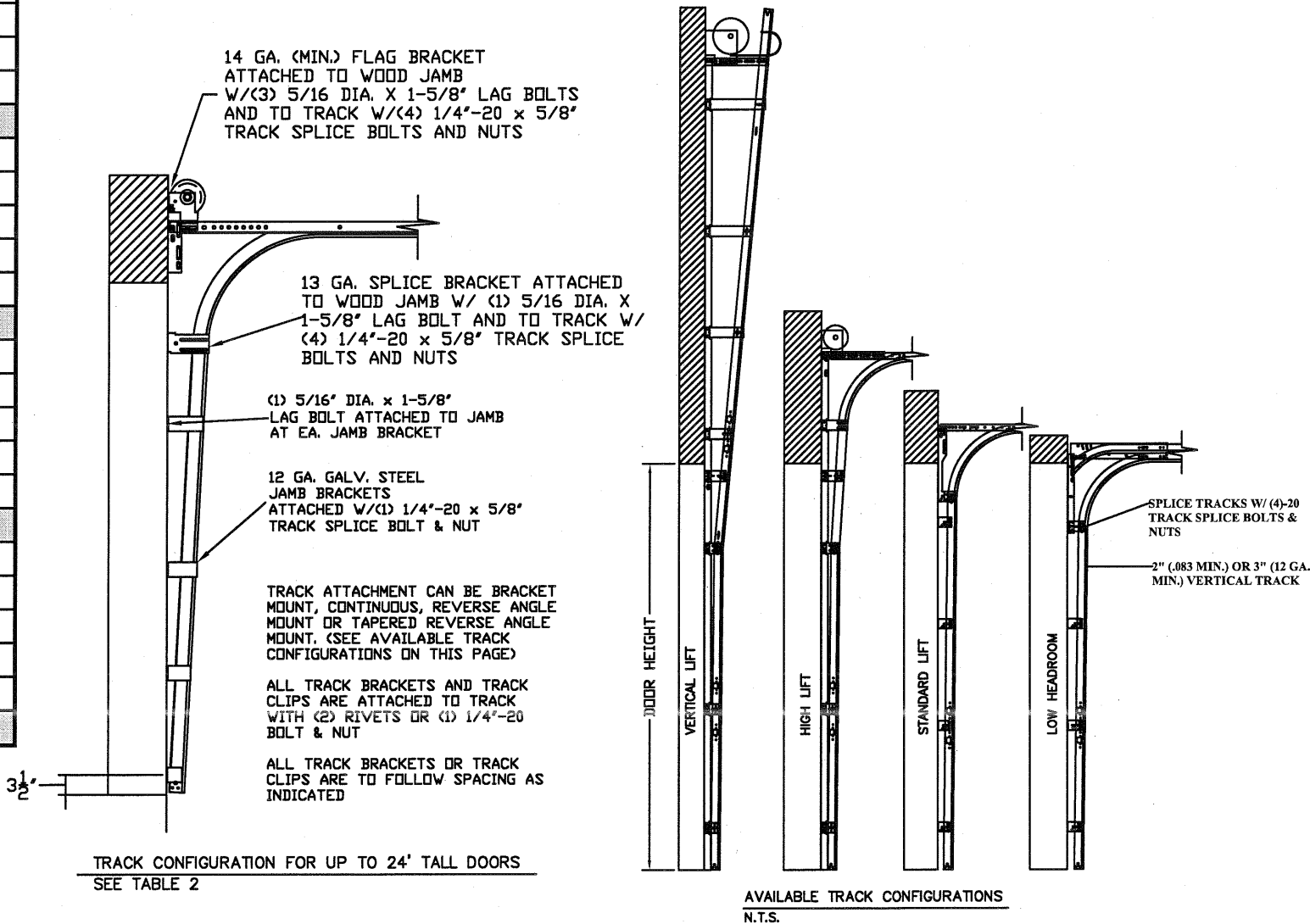
Section Width (ft)		Center Stile Locations (Measured from Left Edge)			Max Design Loads Allowed	
		1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
9'	4"	36"	76"	-	39.6	44.8
9'	6"	37"	77"	-	39.1	44.2
9'	8"	38"	78"	-	38.6	43.6
9'	10"	39"	79"	-	38.1	43.1
10'	0"	40"	80"	-	37.6	42.5
10'	2"	41"	81"	-	37.1	42.0
10'	4"	42"	82"	-	36.7	41.5
10'	6"	43"	83"	-	36.2	41.0
10'	8"	44"	84"	-	35.8	40.5
10'	10"	45"	85"	-	35.4	40.0
11'	0"	46"	86"	-	35.0	39.6
11'	2"	47"	87"	-	34.6	39.1
11'	4"	48"	88"	-	34.2	38.7
11'	6"	49"	89"	-	33.8	38.2
11'	8"	50"	90"	-	33.4	37.8
11'	10"	51"	91"	-	33.0	37.4
12'	0"	48"	96"	-	31.3	35.4
13'	0"	36"	78"	120"	35.8	40.5
13'	2"	37"	79"	121"	35.8	40.5
13'	4"	38"	80"	122"	35.8	40.5
13'	6"	39"	81"	123"	35.8	40.5
13'	8"	40"	82"	124"	35.8	40.5
13'	10"	41"	83"	125"	35.8	40.5
14'	0"	42"	84"	126"	35.8	40.5
14'	2"	43"	85"	127"	35.4	40.0
14'	4"	44"	86"	128"	35.0	39.6
14'	6"	45"	87"	129"	34.6	39.1
14'	8"	46"	88"	130"	34.2	38.7
14'	10"	47"	89"	131"	33.8	38.2
15'	0"	48"	90"	132"	33.4	37.8
15'	2"	49"	91"	133"	33.0	37.4
15'	4"	50"	92"	134"	32.7	37.0
15'	6"	51"	93"	135"	32.3	36.6
15'	8"	52"	94"	136"	32.0	36.2
15'	10"	53"	95"	137"	31.6	35.8
16'	0"	48"	96"	144"	31.3	35.4
16'	2"	49"	97"	145"	31.2	35.3

*FOR WIDTHS 12'-2" TO 12'-10" CONTACT ENGINEERING FOR STILE PLACEMENT

TABLE 2

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"																		76"
7'	6"	3.5"	10"	22"	34"	46"	58"																		82"
8'	0"	3.5"	10"	22"	34"	46"	58"	70"																	88"
8'	6"	3.5"	10"	22"	34"	46"	58"	70"	82"																94"
9'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"																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"															112"
11'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"														124"
12'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"													136"
13'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"												148"
14'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"											160"
15'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"										172"
16'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"									184"
17'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"								196"
18'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"							208"
19'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"						220"
20'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"					232"
21'	0"	3.5"	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"				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"			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"		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"

ALL TRACK ATTACHMENTS +/- 2" ALLOWED USING SYP OR SPF NO.2 OR BETTER ONLY



REV	DESCRIPTION OF REVISIONS	DATE	BY
A			

MAX SIZE
16'2 x 24'

DESIGN LOADS
+31.2 PSF
-35.3 PSF

TEST LOADS
+46.8 PSF
-53.0 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

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

SIZE	DRAWN BY	RLR	DATE	5/31/16	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	5/31/16	IBC-2416-150-26-1

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

SHEET 3 OF 3