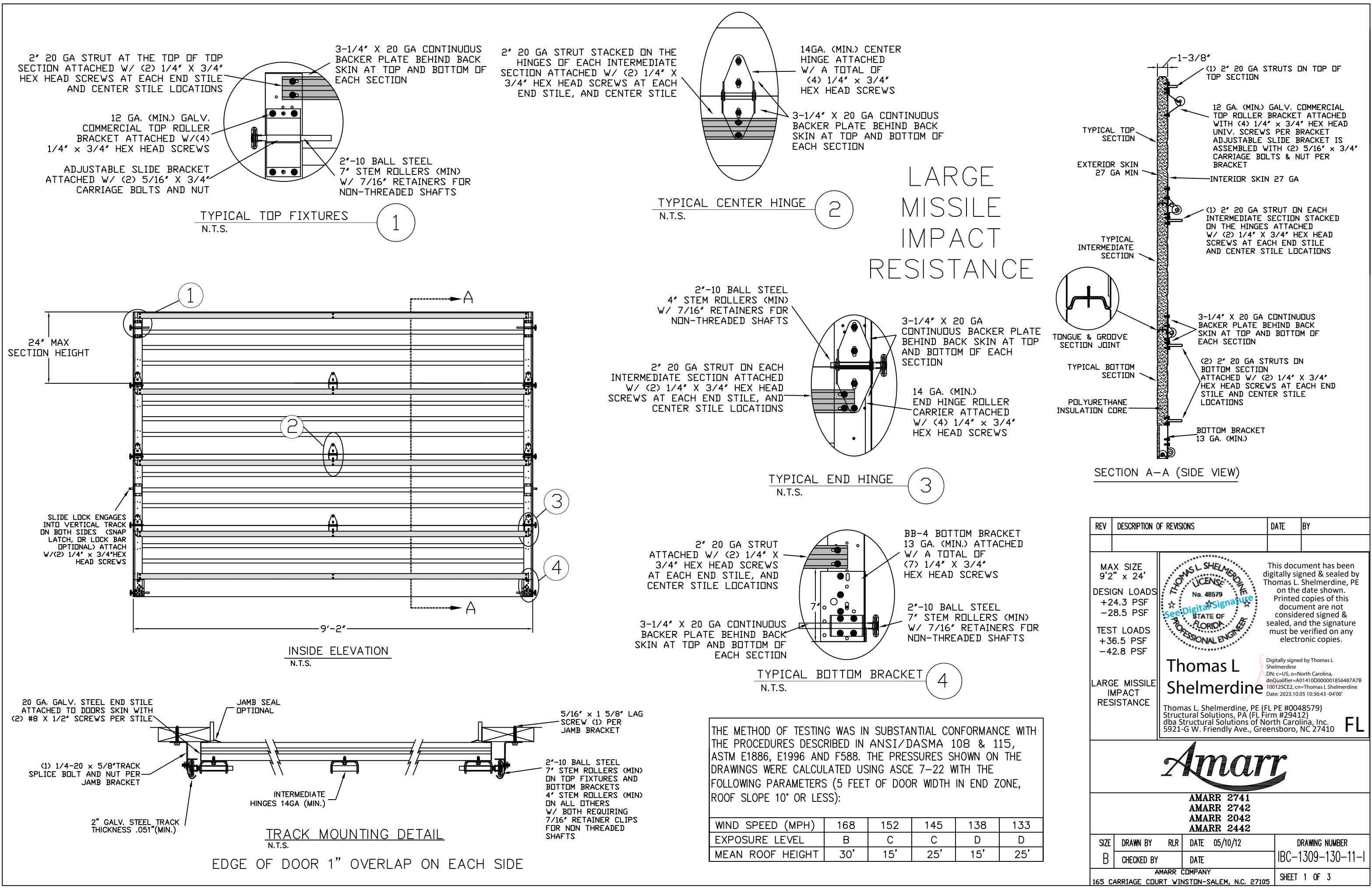




THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN ANSI/DASMA 108 & 115, ASTM E1886, E1996 AND F588. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-22 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10° OR LESS):

WIND SPEED (MPH)	168	152	145	138	133
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9'2" x 24'

DESIGN LOADS
+24.3 PSF
-28.5 PSF

TEST LOADS
+36.5 PSF
-42.8 PSF

LARGE MISSILE
IMPACT
RESISTANCE

THOMAS L. SHELDERDINE
LICENSE
No. 48579
FLORIDA
PROFESSIONAL ENGINEER

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Digitally signed by Thomas L. Shelmerdine
DN: c=US, o=North Carolina, dnQualifier=A01410D000001856487A7B00125CE2, cn=Thomas L. Shelmerdine
Date: 2023.10.05 10:36:43 -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

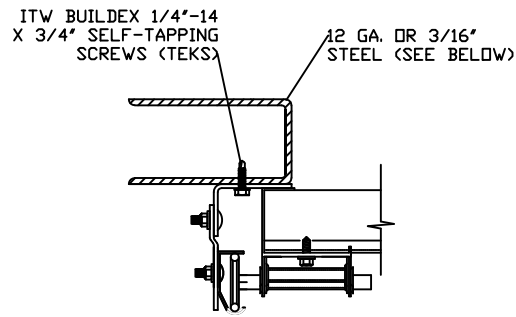
Amarr

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AMARR 2442

SIZE	DRAWN BY	RLR	DATE	05/10/12	DRAWING NUMBER
B	CHECKED BY		DATE		IBC-1309-130-11-I

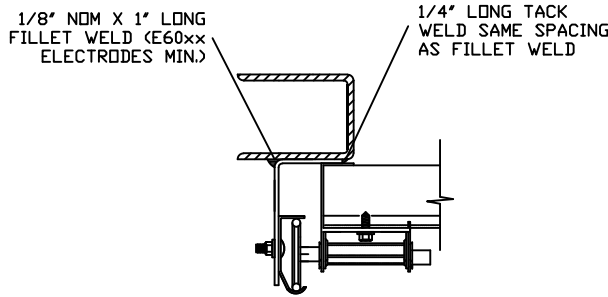
AMARR COMPANY
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

SHEET 1 OF 3



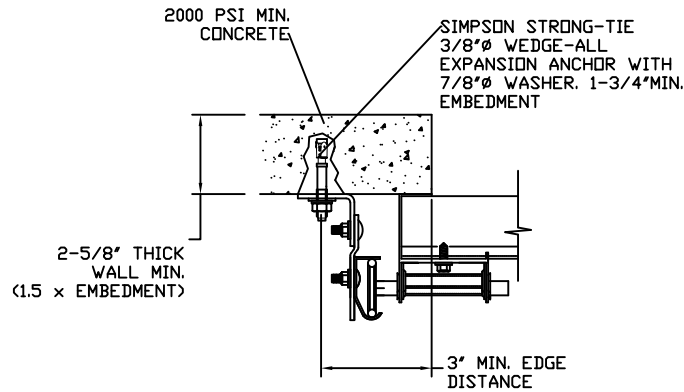
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

12 GA STEEL FRAMING
232 LBS/SCREW ALLOWABLE LOAD - 6' FROM ENDS AND 24' 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



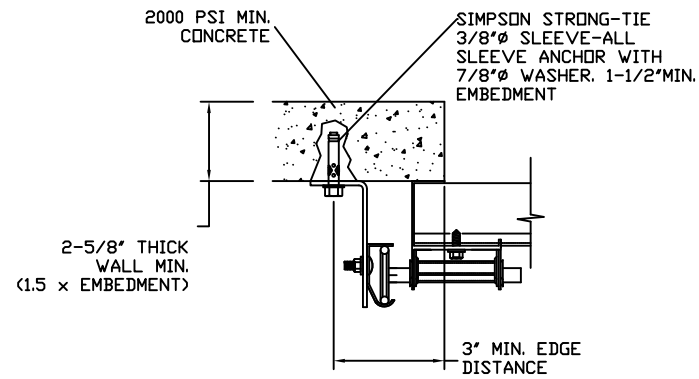
TAPERED REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND REVERSE
ANGLE MOUNT AVAILABLE

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



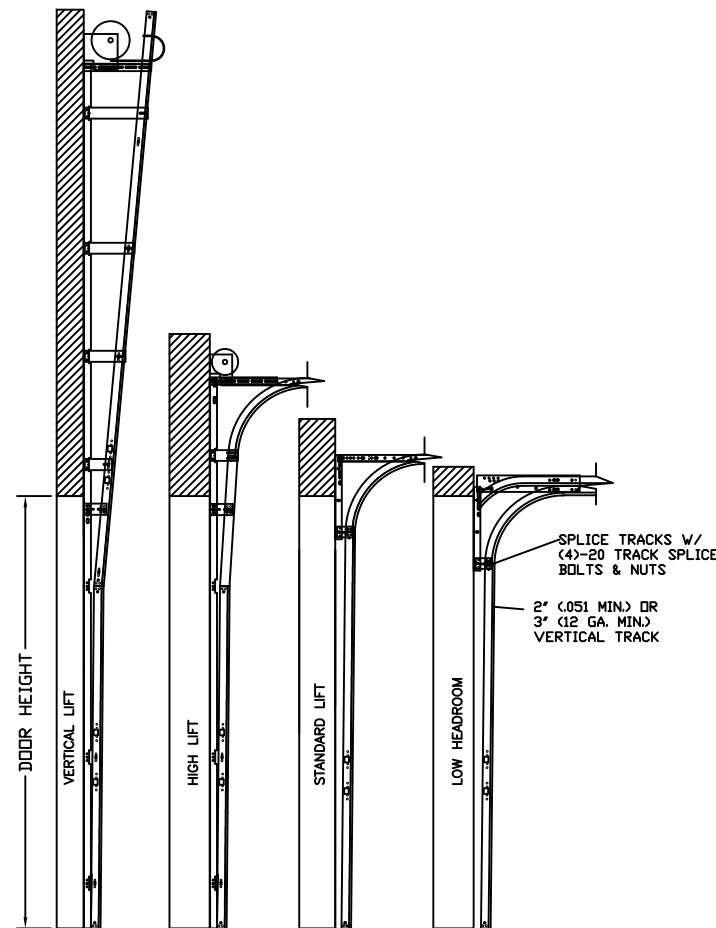
CONTINUOUS ANGLE MOUNT SHOWN
BRACKET MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
351 LBS/EXPANSION ANCHOR ALLOWABLE LOAD - 6' FROM ENDS AND 24' O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



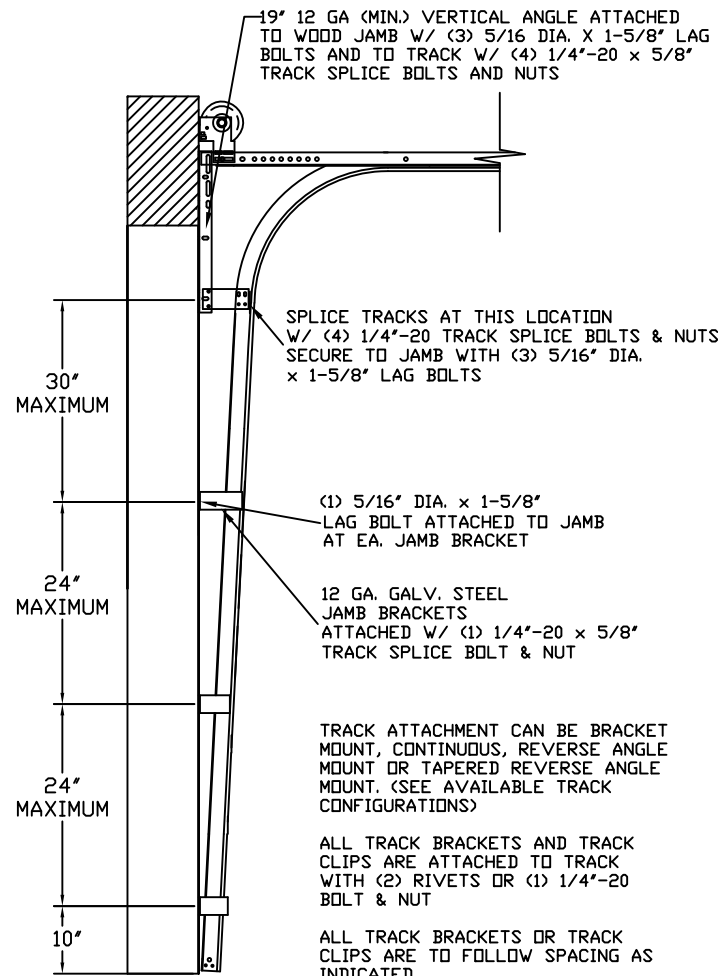
BRACKET MOUNT SHOWN
CONTINUOUS MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
336 LBS/SLEEVE ANCHOR ALLOWABLE LOAD - 6' FROM ENDS AND 24' O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

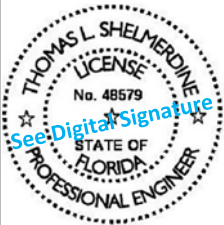


AVAILABLE TRACK CONFIGURATIONS
N.T.S.

- 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.



TRACK CONFIGURATION FOR 6' UP TO 24' TALL DOORS

REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE, 9'2" x 24" DESIGN LOADS +24.3 PSF -28.5 PSF TEST LOADS +36.5 PSF -42.8 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		
 AMARR 2741 AMARR 2742 AMARR 2042 AMARR 2442			
SIZE	DRAWN BY	RLR	DATE 05/10/12
B	CHECKED BY		DATE
AMARR COMPANY			DRAWING NUMBER
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			IBC-1309-130-11-I
			SHEET 2 OF 3

TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE SHEET 2 TRACK CONFIGURATION DETAIL

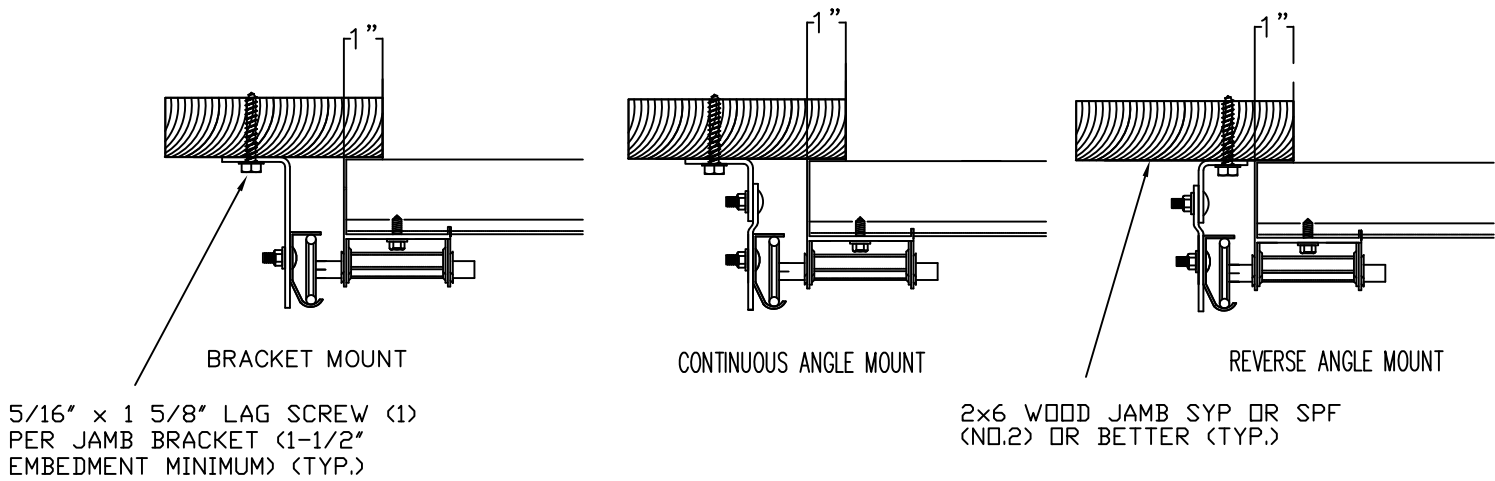


TABLE 1

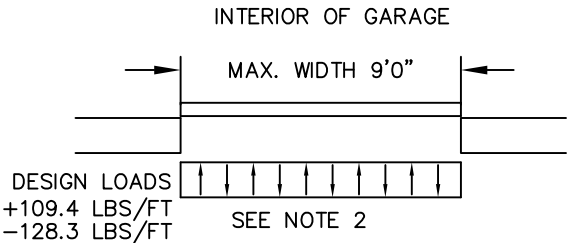
Section Width (ft)		Center Stile Locations 1st (in)	Max Design Loads Allowed	
			Positive (PSF)	Negative (PSF)
6'	0"	36.000	36.9	43.3
7'	0"	42.000	31.6	37.1
7'	2"	43.000	30.9	36.2
7'	4"	44.000	30.2	35.4
7'	6"	45.000	29.5	34.6
7'	8"	46.000	28.9	33.9
7'	10"	47.000	28.2	33.1
8'	0"	48.000	27.7	32.4
8'	2"	49.000	27.1	31.8
8'	4"	50.000	26.5	31.1
8'	6"	51.000	26.0	30.5
8'	8"	52.000	25.5	29.9
8'	10"	53.000	25.0	29.4
9'	0"	54.000	24.6	28.8
9'	2"	55.000	24.3	28.5

TABLE 2

SECTION	STRUT SIZE
12TH	2"
11TH	2"
10TH	2"
9TH	2"
8TH	2"
7TH	2"
6TH	2"
5TH	2"
4TH	2"
3RD	2"
2ND	2"
BOTTOM	2"

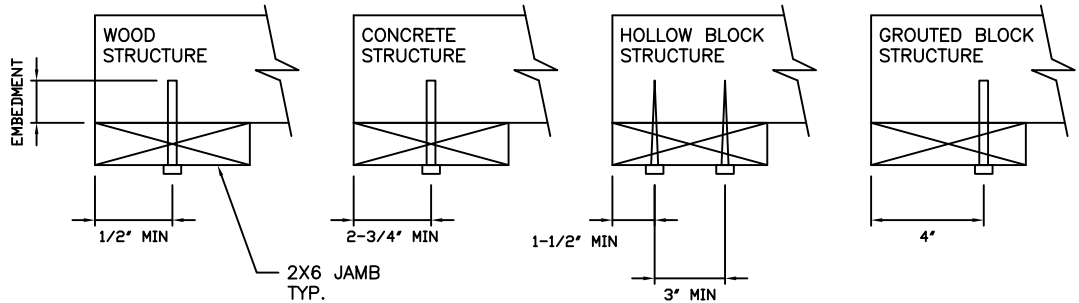
AMARR 2741 ONLY AVAILABLE UP TO 14'

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 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 24" 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 24" 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



SPECIFICATIONS AND NOTES

- 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.
- EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +109.4 LBS/FT & -128.3 LBS/FT
- DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
- DOOR SECTIONS SHALL BE 27 GA MIN. INTERIOR AND EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
- DOORS UP TO 24'0" HIGH REQUIRE (2) 2" 20 GA STRUTS ON BOTTOM, (1) 2" 20 GA STRUT ON EACH INTERMEDIATE, AND (1) 2" 20 GA STRUT ON TOP SECTION.
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTRED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE, 9'2" x 24'	DESIGN LOADS +24.3 PSF -28.5 PSF	TEST LOADS +36.5 PSF -42.8 PSF	LARGE MISSILE IMPACT RESISTANCE
THOMAS L. SHELDERDINE 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. 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