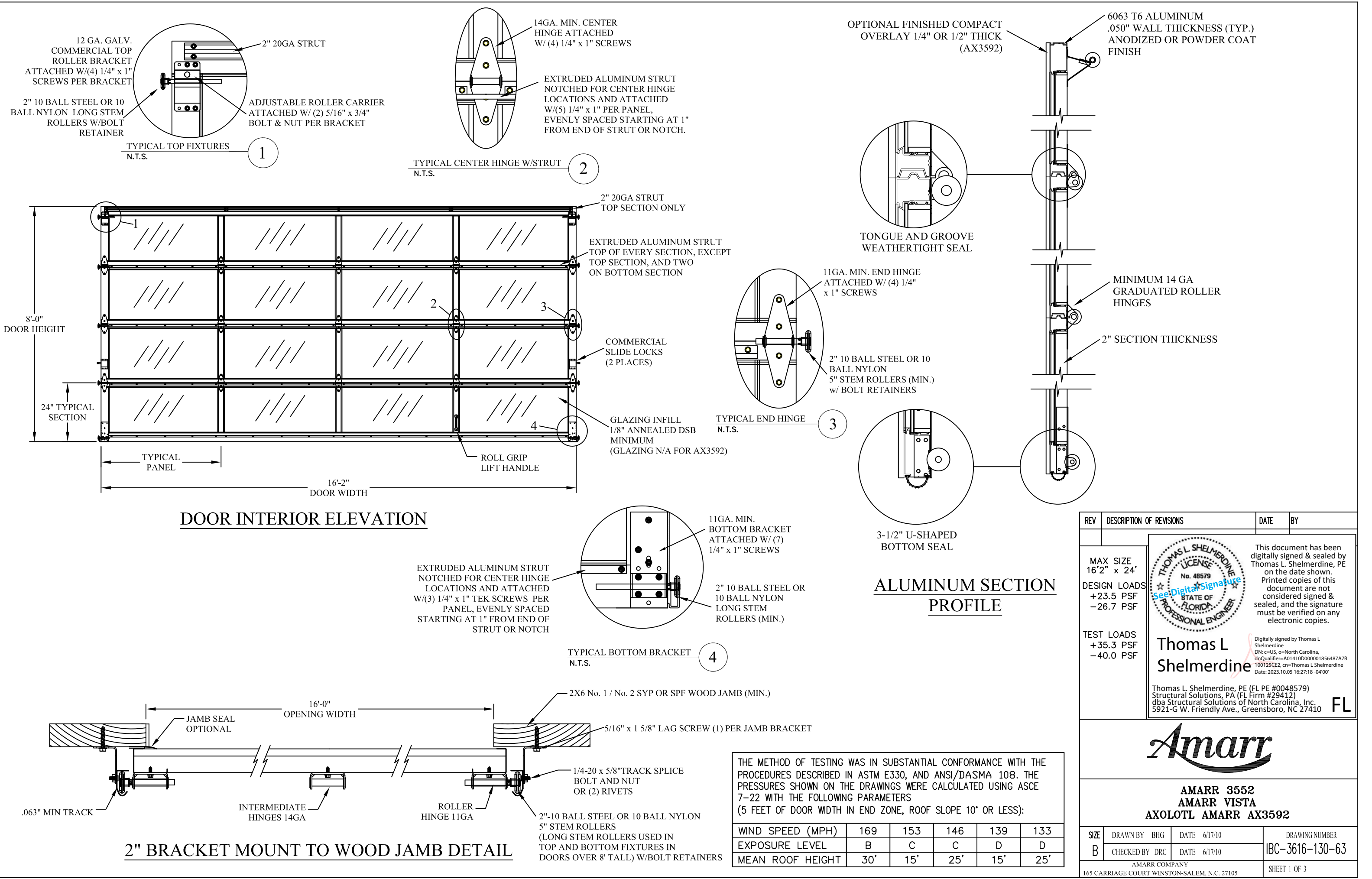




REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
16'2" x 24'

DESIGN LOADS
+23.5 PSF
-26.7 PSF

TEST LOADS
+35.3 PSF
-40.0 PSF

THOMAS L. SHELMERDINE
No. 48579
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=A01410D000001856487A7B
100125CE2, cn=Thomas L. Shelmerdine
Date: 2023.10.05 16:27:18 -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

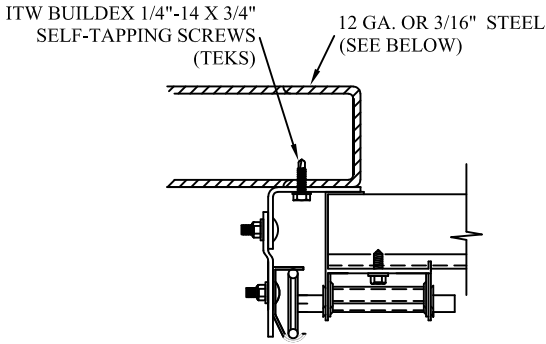
**AMARR 3552
AMARR VISTA
AXOLOTL AMARR AX3592**

SIZE	DRAWN BY	BHG	DATE	6/17/10	DRAWING NUMBER
B	CHECKED BY	DRC	DATE	6/17/10	IBC-3616-130-63

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

SHEET 1 OF 3

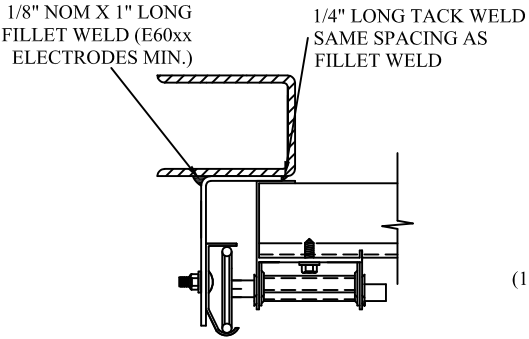
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

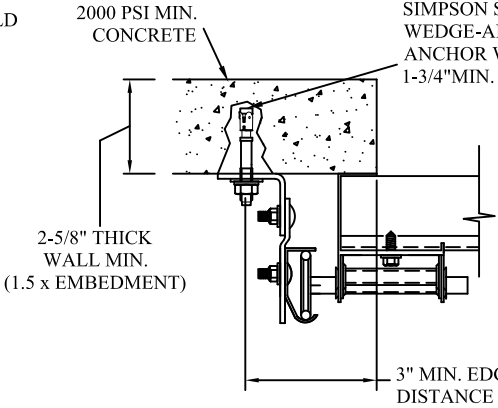
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 12" O.C.
REFER TO NOTES: 1, 2 AND 5

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



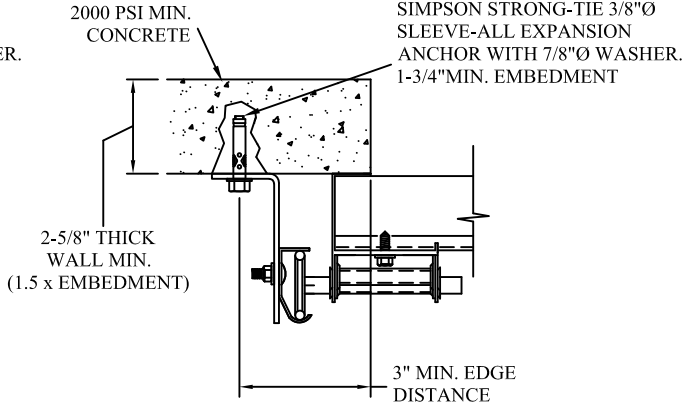
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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



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 18" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



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 18" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

TABLE 2

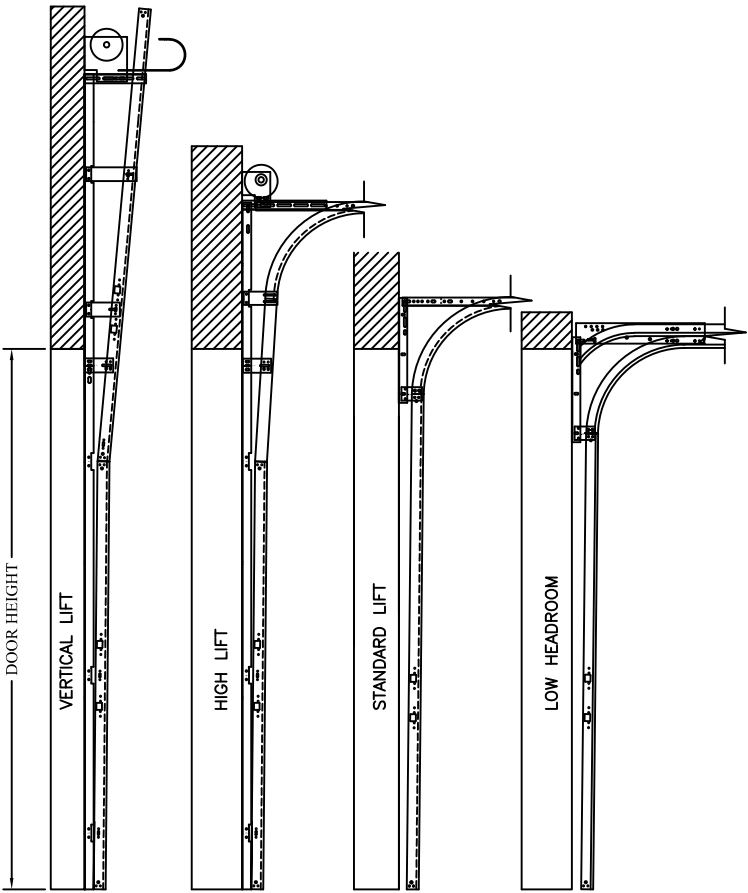
SECTION	
TOP	2"
11TH	3 3/8" AL
10TH	3 3/8" AL
9TH	3 3/8" AL
8TH	3 3/8" AL
7TH	3 3/8" AL
6TH	3 3/8" AL
5TH	3 3/8" AL
4TH	3 3/8" AL
3RD	3 3/8" AL
2ND	3 3/8" AL
BOTTOM	3 3/8" AL
	3 3/8" AL

NOTES:

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

TABLE 1

DOOR HEIGHT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V		SPLICE S
7'	10"	22"	34"	46"	58"																			76"
8'	10"	22"	34"	46"	58"	70"																		88"
9'	10"	22"	34"	46"	58"	70"	82"																	100"
10'	10"	22"	34"	46"	58"	70"	82"	94"																112"
11'	10"	22"	34"	46"	58"	70"	82"	94"	106"															124"
12'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"														136"
13'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"													148"
14'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"												160"
15'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"											172"
16'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"										184"
17'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"									196"
18'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"								208"
19'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"							220"
20'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"						232"
21'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"					244"
22'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"				256"
23'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"			268"
24'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"		280"



2" (.063 MIN.) OR 3" (12 GA. MIN.) VERTICAL TRACK

AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV

DESCRIPTION OF REVISIONS

DATE

BY

MAX SIZE
16'2" x 24'

DESIGN LOADS
+23.5 PSF
-26.7 PSF

TEST LOADS
+35.3 PSF
-40.0 PSF

THOMAS L. SHELMERDINE

LICENSE

No. 48579

See Digital Signature

STATE OF FLORIDA

PROFESSIONAL ENGINEER

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

FL

Amarr

AMARR 3552
AMARR VISTA
AXOLOTL AMARR AX3592

SIZE

DRAWN BY BHG

DATE 6/17/10

DRAWING NUMBER

B

CHECKED BY DRC

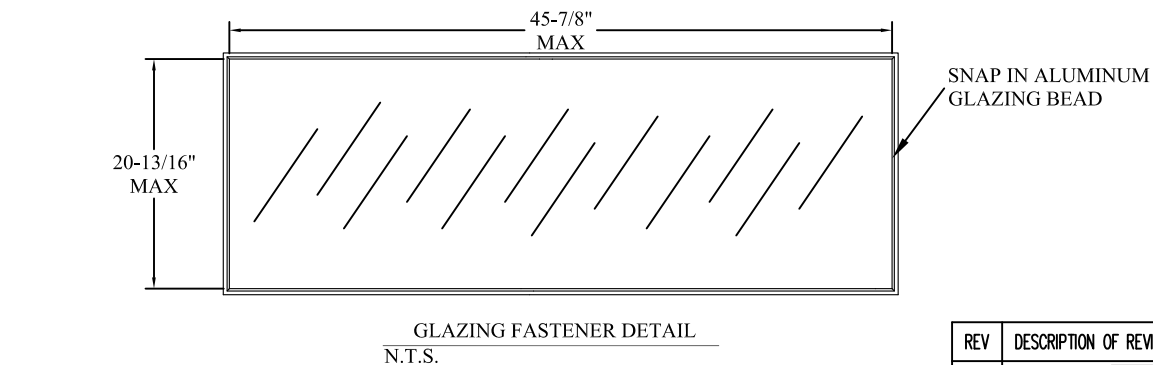
DATE 6/17/10

IBC-3616-130-63

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

SHEET 2 OF 3

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:
+190.0 LBS/FT & -215.8 LBS/FT.
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
5. GLAZING MEETS ASTM E1300-04



Section Width (ft)		Center Stile Locations (From Left Edge)			Max Design Loads Allowed	
		1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
9'	4"	36"	76"	-	29.8	33.9
9'	6"	37"	77"	-	29.4	33.4
9'	8"	38"	78"	-	29.0	33.0
9'	10"	39"	79"	-	28.7	32.6
10'	0"	40"	80"	-	28.3	32.2
10'	2"	41"	81"	-	28.0	31.8
10'	4"	42"	82"	-	27.6	31.4
10'	6"	43"	83"	-	27.3	31.0
10'	8"	44"	84"	-	27.0	30.6
10'	10"	45"	85"	-	26.6	30.3
11'	0"	46"	86"	-	26.3	29.9
11'	2"	47"	87"	-	26.0	29.6
11'	4"	48"	88"	-	25.7	29.2
11'	6"	49"	89"	-	25.4	28.9
11'	8"	50"	90"	-	25.2	28.6
11'	10"	51"	91"	-	24.9	28.3
12'	0"	48"	96"	-	23.6	26.8
12'	2"	49"	97"	-	23.3	26.5
12'	4"	50"	98"		23.1	26.2
12'	6"	51"	99"		22.9	26.0
12'	8"	52"	100"		22.6	25.7
12'	10"	53"	101"		22.4	25.5
13'	0"	36"	78"	120"	27.0	33.0
13'	2"	37"	79"	121"	27.0	30.6
13'	4"	38"	80"	122"	27.0	30.6
13'	6"	39"	81"	123"	27.0	30.6
13'	8"	40"	82"	124"	27.0	30.6
13'	10"	41"	83"	125"	27.0	30.6
14'	0"	42"	84"	126"	27.0	30.6
14'	2"	43"	85"	127"	26.6	30.3
14'	4"	44"	86"	128"	26.3	29.9
14'	6"	45"	87"	129"	26.0	29.6
14'	8"	46"	88"	130"	25.7	29.2
14'	10"	47"	89"	131"	25.4	28.9
14'	0"	48"	90"	132"	25.2	28.6
15'	2"	49"	91"	133"	24.9	28.3
15'	4"	50"	92"	134"	24.6	28.0
15'	6"	51"	93"	135"	24.3	27.7
15'	8"	52"	94"	136"	24.1	27.4
15'	10"	53"	95"	137"	23.8	27.1
16'	0"	48"	96"	144"	23.6	26.8
16'	2"	49"	97"	145"	23.5	26.7



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 22" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSEY 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 16" 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 16" O.C. (1 1/4" EMBEDMENT)

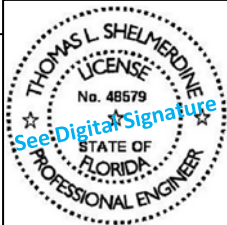
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" x 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT)
(OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
*PREPARATION OF WOOD JAMBS BY OTHERS

The diagrams illustrate four methods of attaching a 2x6 vertical jamb to different structural materials:

- WOOD STRUCTURE:** Shows a cross-section of a wood frame with a 2x6 jamb. A vertical line indicates the jamb's edge. A horizontal dimension line below the jamb shows a minimum 1/2" embedment into the wood structure.
- CONCRETE STRUCTURE:** Shows a cross-section of a concrete wall with a 2x6 jamb. A vertical line indicates the jamb's edge. A horizontal dimension line below the jamb shows a minimum 2-3/4" embedment into the concrete.
- HOLLOW BLOCK STRUCTURE:** Shows a cross-section of a hollow concrete block with a 2x6 jamb. A vertical line indicates the jamb's edge. A horizontal dimension line below the jamb shows a minimum 1-1/2" embedment into the block.
- GROUTED BLOCK STRUCTURE:** Shows a cross-section of a grouted concrete block with a 2x6 jamb. A vertical line indicates the jamb's edge. A horizontal dimension line below the jamb shows a minimum 4" embedment into the block.

Common labels across the diagrams include "EMBEDMENT" on the left and "2X6 JAMB TYP." at the bottom center.

REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE 16'2" x 24' DESIGN LOADS +23.5 PSF -26.7 PSF TEST LOADS +35.3 PSF -40.0 PSF	 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 3552 AMARR VISTA AXOLOTL AMARR AX3592			
SIZE	DRAWN BY BHG	DATE 6/17/10	DRAWING NUMBER
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AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 3 OF 3