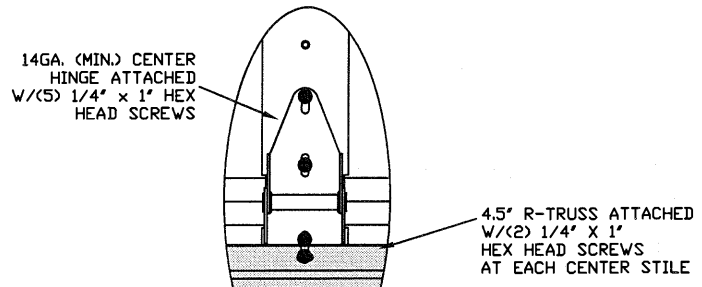
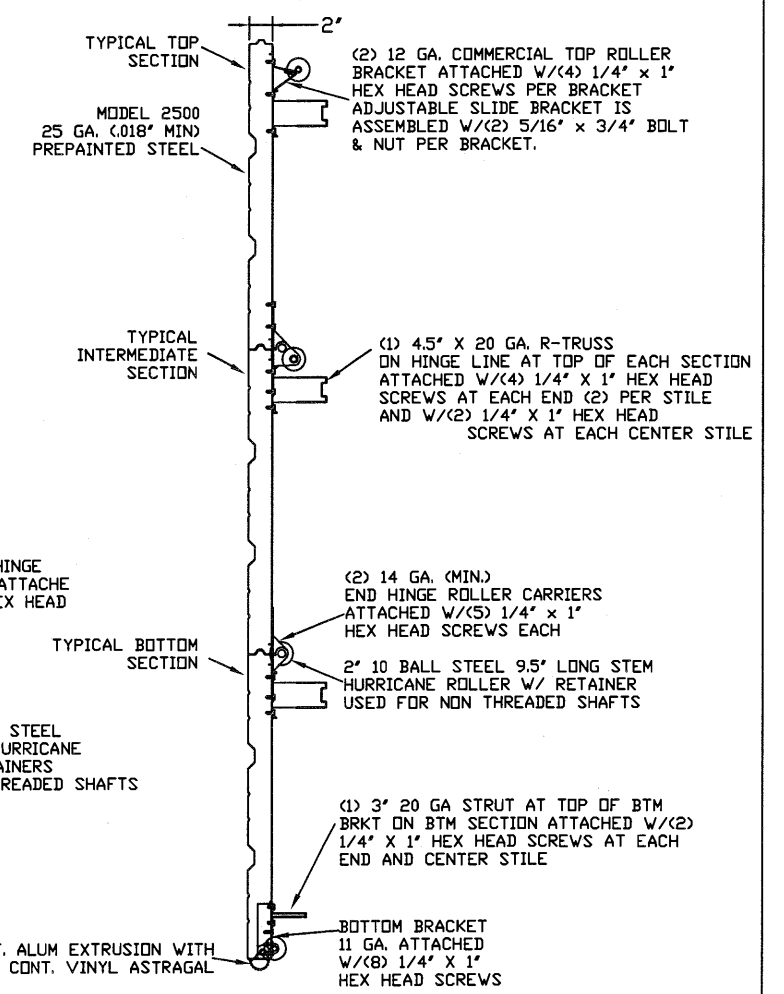


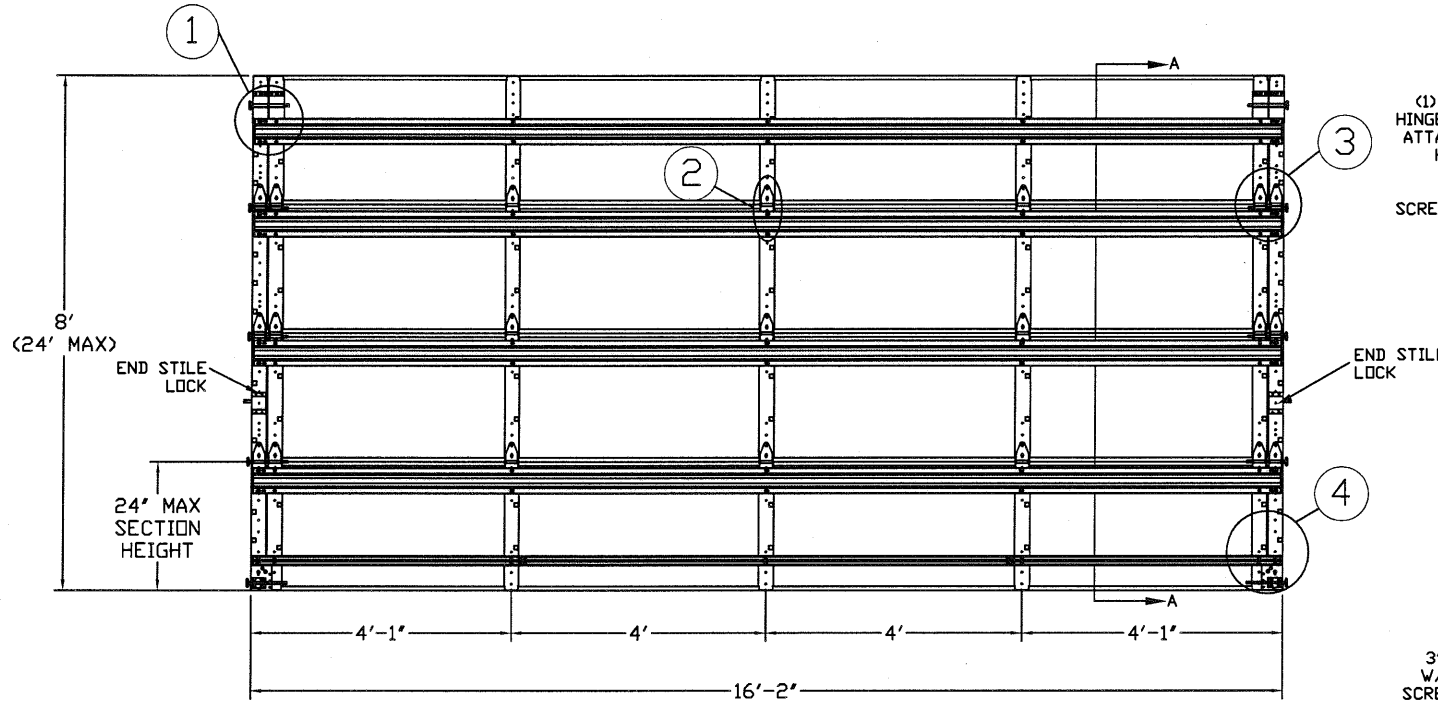
TYPICAL TOP FIXTURES
N.T.S. ①



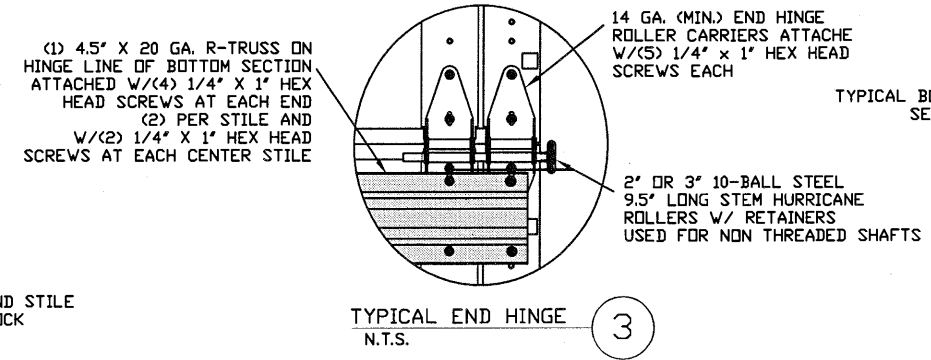
TYPICAL CENTER HINGE
N.T.S. ②



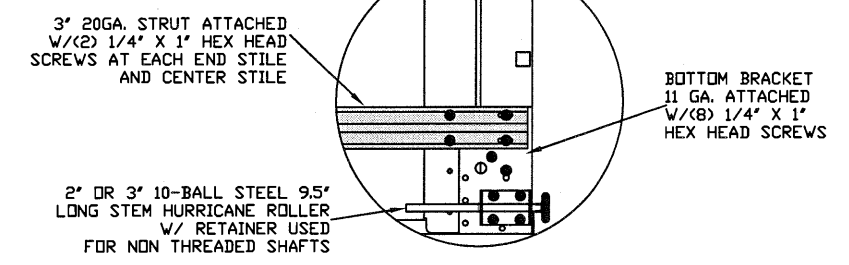
SECTION A-A (SIDE VIEW)
N.T.S.



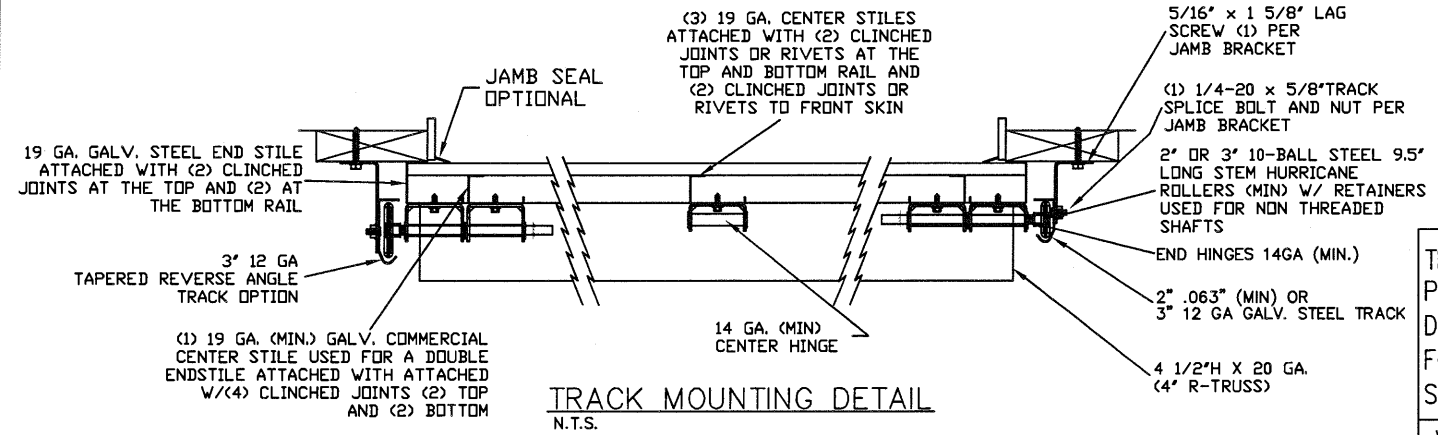
INSIDE ELEVATION
N.T.S.



TYPICAL END HINGE
N.T.S. ③



TYPICAL BOTTOM BRACKET
N.T.S. ④



TRACK MOUNTING DETAIL
N.T.S.

EDGE OF DOOR 1" OVERLAP ON EACH SIDE

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN DASMA 108. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10° OR LESS, AND I=1.0):

WIND SPEED (MPH)	130	118	112	107	103
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 16'2 x 24'

DESIGN LOADS +23.3 PSF -26.3 PSF

TEST LOADS +35.0 PSF -39.5 PSF

Thomas L. Shelmerdine, PE (TX PE #85829) Structural Solutions, PA (TX Firm #F-004063)

STATE OF TEXAS
THOMAS L. SHELMERDINE
85829
LICENSED PROFESSIONAL ENGINEER
TX

5921-G W. Friendly Ave., Greensboro, NC 27410

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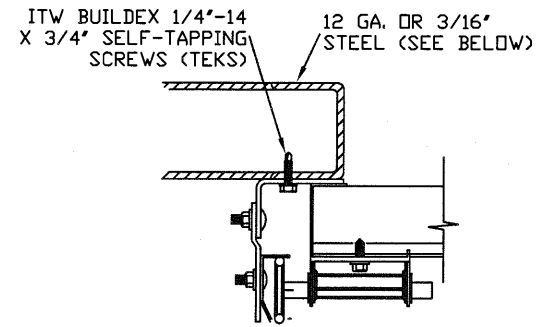
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

AMARR MODEL 2500 (25GA)
AMARR MODEL 2400 (24GA)
AMARR MODEL 2000 (20GA)

SIZE	DRAWN BY	RS	DATE	1/22/15	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	1/22/15	IBC-2516-130-24

SHEET 1 OF 4

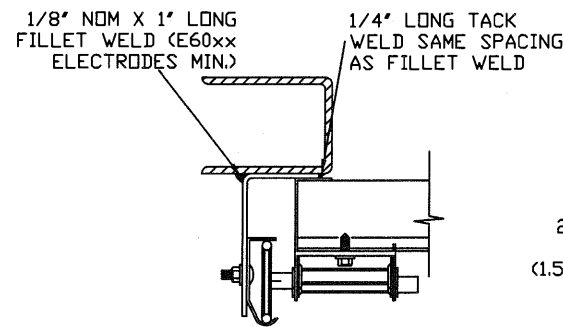
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

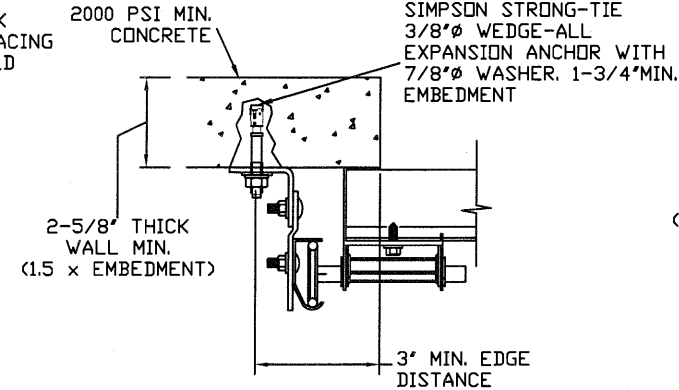
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6'
FROM ENDS AND 12' O.C.
REFER TO NOTES: 1, 2 AND 5

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



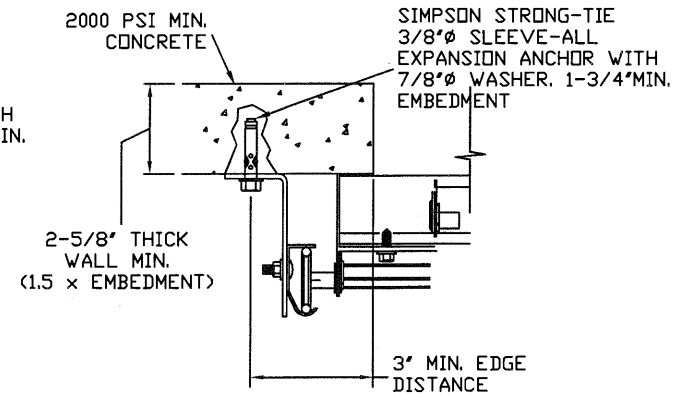
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND
TAPERED ANGLE MOUNT AVAILABLE

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

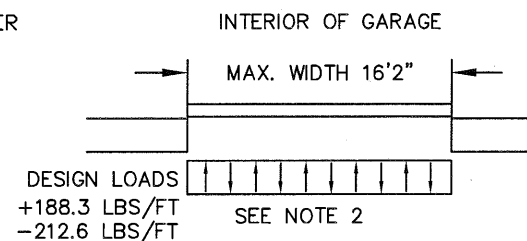
2000 PSI CONCRETE OR GREATER
336 LBS./EXPANSION ANCHOR ALLOWABLE
LOAD - 6' FROM ENDS AND 18' O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

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:
+188.3 LBS/FT AND -212.6 LBS/FT
- DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
- DOOR SECTIONS SHALL BE 25 GA. (.018) MIN. EXTERIOR SKIN ROLLED FORMED, GALVANIZATION W/ BAKED ON POLYESTER FINISH
- DOORS UP TO 24' HIGH USE (1) 4 1/2" R-TRUSS PER SECTION AND (1) 3" 20GA STRUT ON TOP OF THE BOTTOM BRACKET.
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

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. EDGE 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.



WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

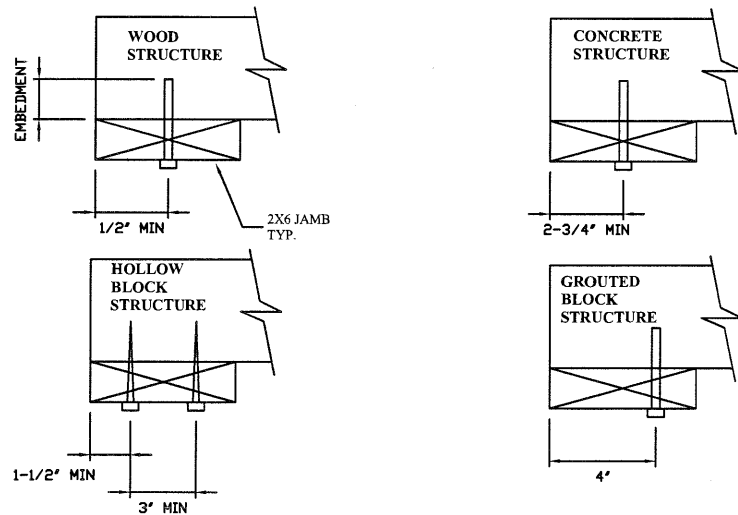
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)

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 22" 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 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)

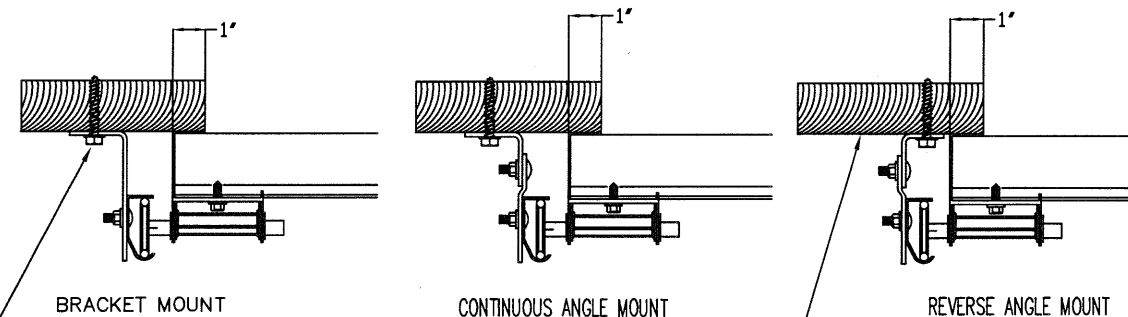
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT)
(OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

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



TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE PAGE 4 FOR TRACK CONFIGURATION DETAIL



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.)

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE, 16'2" x 24"

DESIGN LOADS
+23.3 PSF
-26.3 PSF

TEST LOADS
+35.0 PSF
-39.5 PSF

TX

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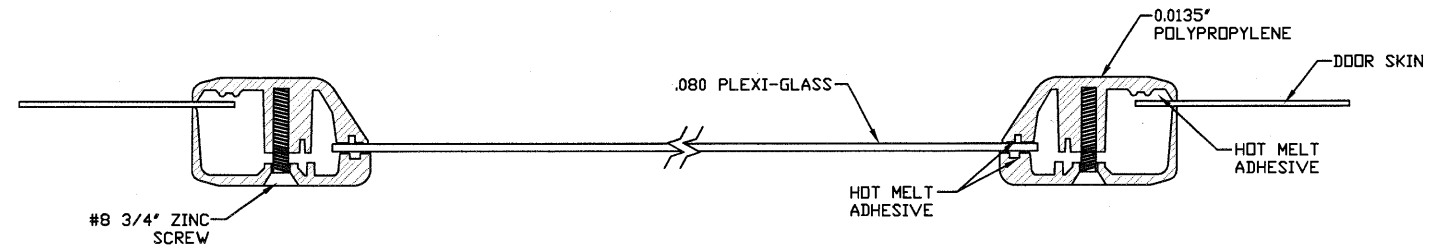
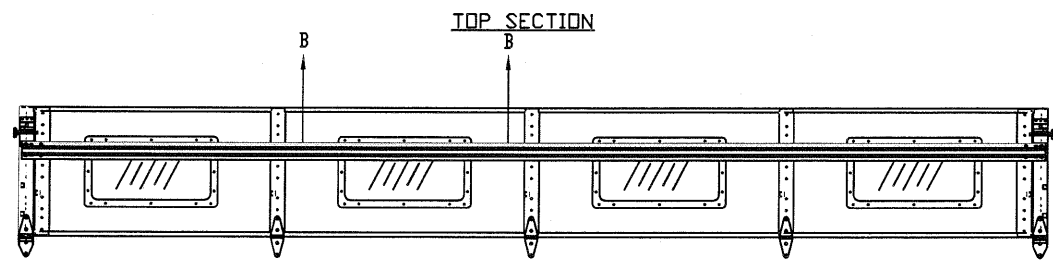
ENTRE//MATIC

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

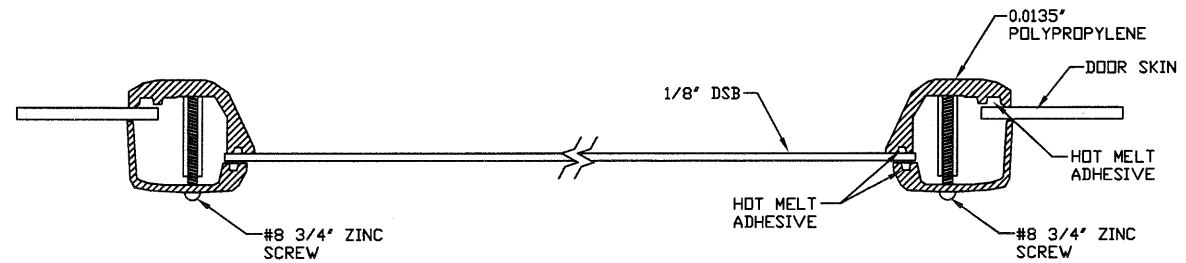
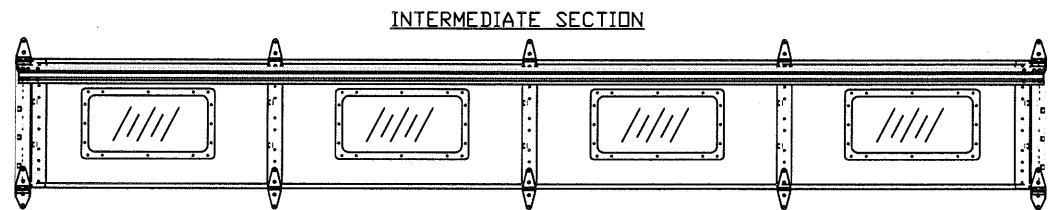
AMARR MODEL 2500 (25GA)
AMARR MODEL 2400 (24GA)
AMARR MODEL 2000 (20GA)

SIZE	DRAWN BY	RS	DATE	1/22/15	DRAWING NUMBER	IBC-2516-130-24
B	CHECKED BY	RLR	DATE	1/22/15		

SHEET 2 OF 4

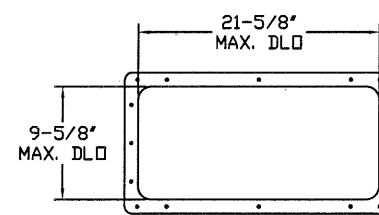
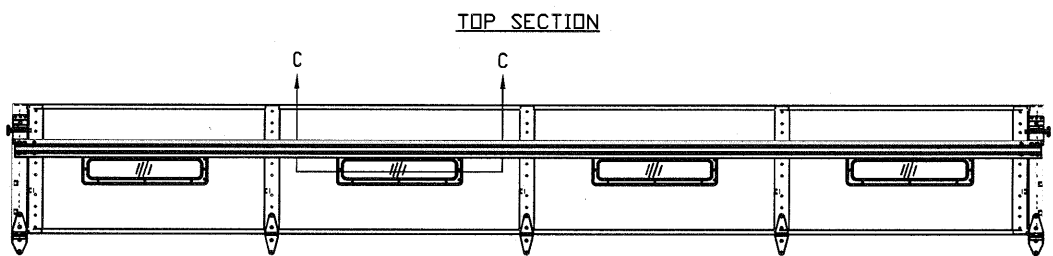


SECTION B-B 24' X 12' WINDOW DETAIL W/ .080 PLEXI-GLASS
N.T.S.

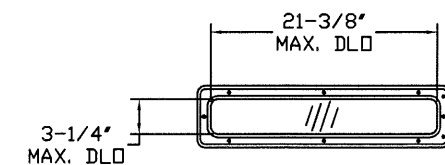
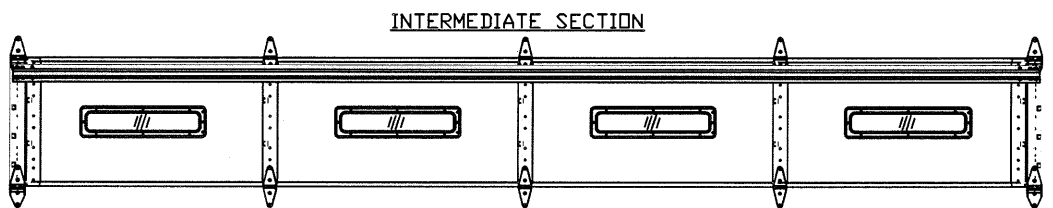


SECTION C-C 24' X 6' WINDOW DETAIL W/ 1/8' DSB
N.T.S. (ALSO AVAILABLE WITH .080' PLEXI-GLASS)

OPTIONAL GLAZED SECTION W/ 24' X 12' WINDOWS AND R-TRUSS LAYOUT
N.T.S.



24' X 12' DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



24' X 6' DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.

OPTIONAL GLAZED SECTION W/ 24' X 6' WINDOWS AND R-TRUSS LAYOUT
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
	MAX SIZE 16'2 x 24' DESIGN LOADS +23.3 PSF -26.3 PSF TEST LOADS +35.0 PSF -39.5 PSF		
	Thomas L. Shelmerdine, PE (TX PE #85829) Structural Solutions, PA (TX Firm #F-004063)		
	ENTRE//MATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 AMARR MODEL 2500 (25GA) AMARR MODEL 2400 (24GA) AMARR MODEL 2000 (20GA)		
	SIZE DRAWN BY RS DATE 1/22/15 B CHECKED BY RLR DATE 1/22/15		DRAWING NUMBER IBC-2516-130-24 SHEET 3 OF 4

5921-G W. Friendly Ave., Greensboro, NC 27410

TABLE 1

Section Width (ft)	Center Stile Locations (Measured from Left)			Max Design Loads Allowed	
	1st (in)	2nd (in)	3rd (in)	Positive (PSF)	Negative (PSF)
9' 4"	36"	76"	-	29.5	33.3
9' 6"	37"	77"	-	29.2	32.9
9' 8"	38"	78"	-	28.8	32.5
9' 10"	39"	79"	-	28.4	32.1
10' 0"	40"	80"	-	28.1	31.7
10' 2"	41"	81"	-	27.7	31.3
10' 4"	42"	82"	-	27.4	30.9
10' 6"	43"	83"	-	27.0	30.5
10' 8"	44"	84"	-	26.7	30.2
10' 10"	45"	85"	-	26.4	29.8
11' 0"	46"	86"	-	26.1	29.5
11' 2"	47"	87"	-	25.8	29.1
11' 4"	48"	88"	-	25.5	28.8
11' 6"	49"	89"	-	25.2	28.5
11' 8"	50"	90"	-	24.9	28.2
11' 10"	51"	91"	-	24.7	27.8
12' 0"	48"	96"	-	23.4	26.4
13' 0"	36"	78"	120"	26.7	30.2
13' 2"	37"	79"	121"	26.7	30.2
13' 4"	38"	80"	122"	26.7	30.2
13' 6"	39"	81"	123"	26.7	30.2
13' 8"	40"	82"	124"	26.7	30.2
13' 10"	41"	83"	125"	26.7	30.2
14' 0"	42"	84"	126"	26.7	30.2
14' 2"	43"	85"	127"	26.4	29.8
14' 4"	44"	86"	128"	26.1	29.5
14' 6"	45"	87"	129"	25.8	29.1
14' 8"	46"	88"	130"	25.5	28.8
14' 10"	47"	89"	131"	25.2	28.5
15' 0"	48"	90"	132"	24.9	28.2
15' 2"	49"	91"	133"	24.7	27.8
15' 4"	50"	92"	134"	24.4	27.5
15' 6"	51"	93"	135"	24.1	27.2
15' 8"	52"	94"	136"	23.9	27.0
15' 10"	53"	95"	137"	23.6	26.7
16' 0"	48"	96"	144"	23.4	26.4
16' 2"	49"	97"	145"	23.3	26.3

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

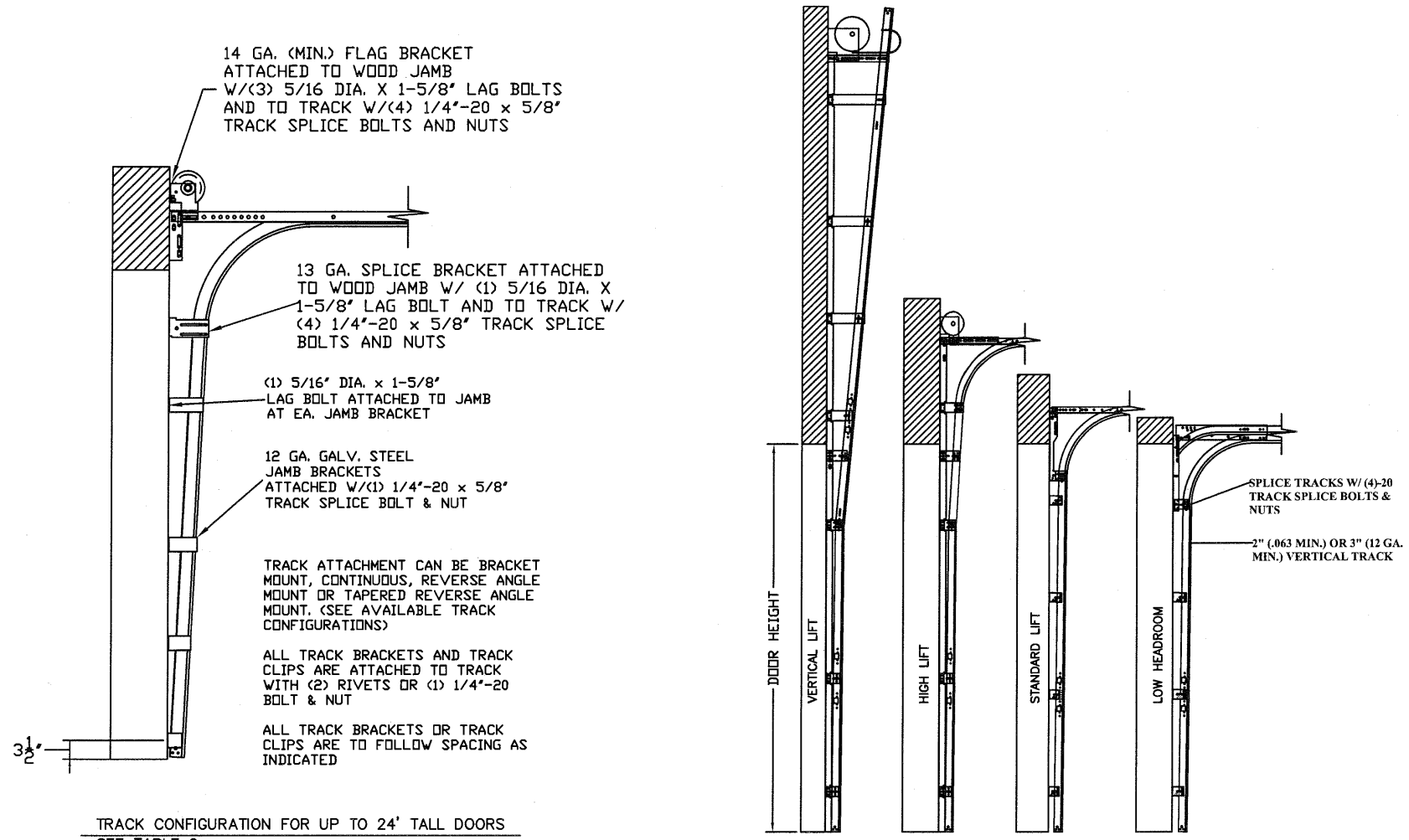


TABLE 2

DOOR HEIGHT	TRACK ATTACHMENT											TYPICAL SPLICE
	A	B	C	D	E	F	G	H	I	J	K	
7' 0"	3.5"	22"	44"									
7' 6"	3.5"	22"	44"	68"								
8' 0"	3.5"	22"	44"	75"								
8' 6"	3.5"	22"	44"	75"								
9' 0"	3.5"	22"	44"	75"	92"							
9' 6"	3.5"	22"	44"	68"	92"							
10' 0"	3.5"	22"	44"	68"	92"							
11' 0"	3.5"	22"	44"	68"	92"	116"						
12' 0"	3.5"	22"	44"	68"	92"	116"						
13' 0"	3.5"	22"	44"	68"	92"	116"	140"					
14' 0"	3.5"	22"	44"	68"	92"	116"	140"					
15' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"				
16' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"				
17' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"			
18' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"			
19' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"	212"		
20' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"	212"		
21' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"	212"	236"	
22' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"	212"	236"	
23' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"	212"	236"	260"
24' 0"	3.5"	22"	44"	68"	92"	116"	140"	164"	188"	212"	236"	260"

ALL TRACK ATTACHMENTS +/- 2" ALLOWED USING SYP OR SPF NO.2 OR BETTER ONLY.
AMARR MODEL 2500 ONLY AVAILABLE UP TO 14'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE: 16'2" x 24'

DESIGN LOADS: +23.3 PSF, -26.3 PSF

TEST LOADS: +35.0 PSF, -39.5 PSF

Thomas L. Shelmerdine, PE (TX PE #85829)
Structural Solutions, PA (TX Firm #F-004063)

STATE OF TEXAS
THOMAS L. SHELMERDINE
85829
LICENSED PROFESSIONAL ENGINEER
TX

ENTRE//MATIC

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

AMARR MODEL 2500 (25GA)
AMARR MODEL 2400 (24GA)
AMARR MODEL 2000 (20GA)

SIZE	DRAWN BY	RS	DATE	1/22/15	DRAWING NUMBER
B	CHECKED BY	RLR	DATE	1/22/15	IBC-2516-130-24

SHEET 4 OF 4

5921-G W. Friendly Ave., Greensboro, NC 27410