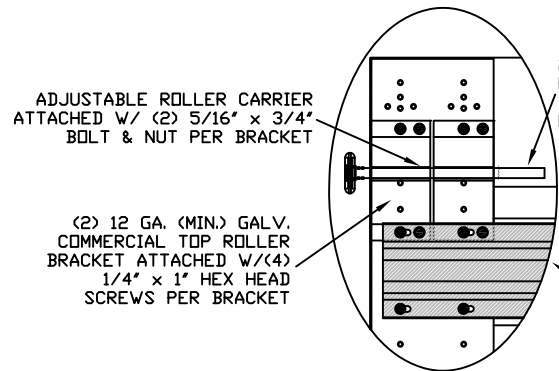
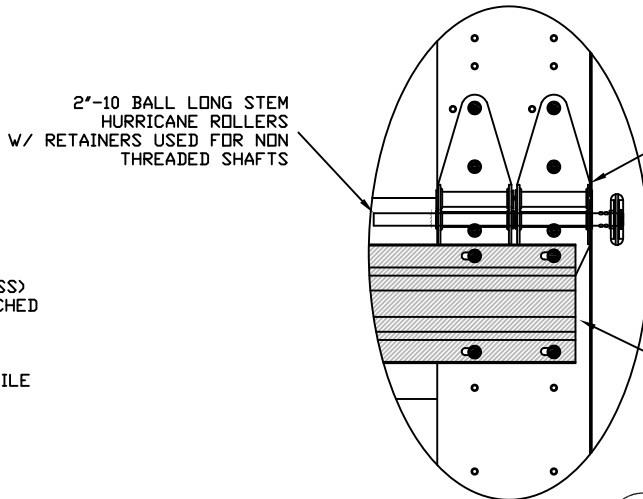




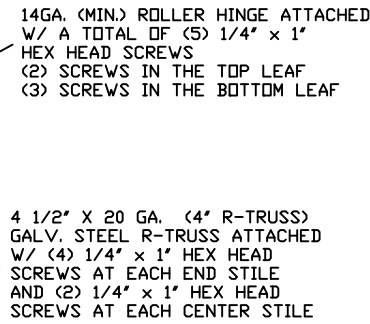
TYPICAL TOP FIXTURES
N.T.S.

1



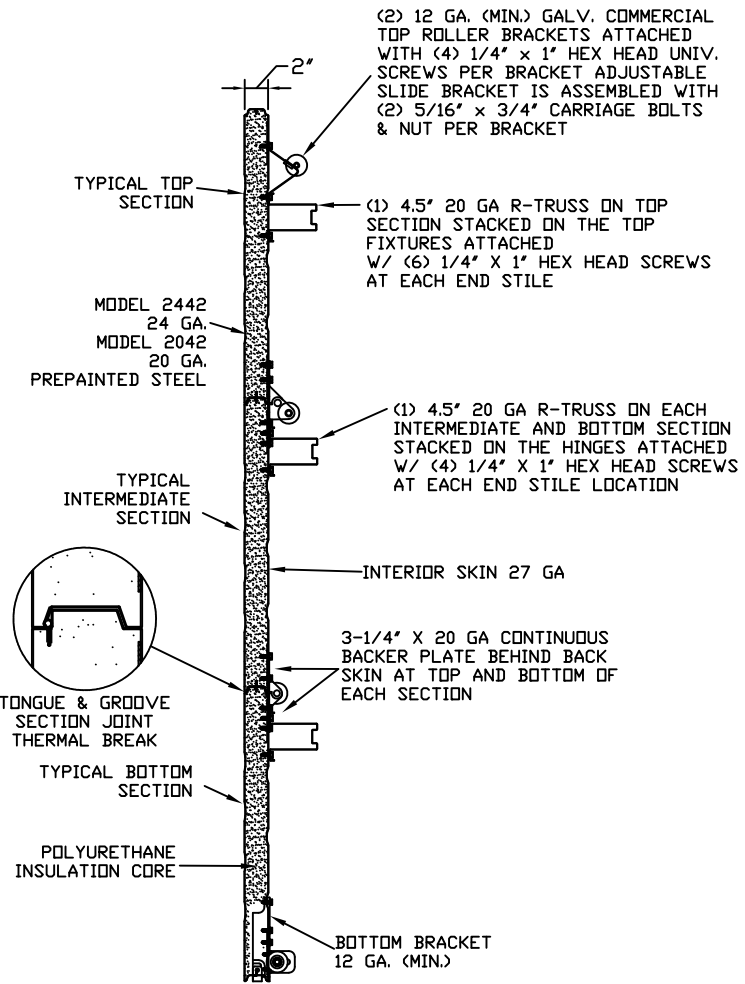
TYPICAL END HINGE
N.T.S.

3

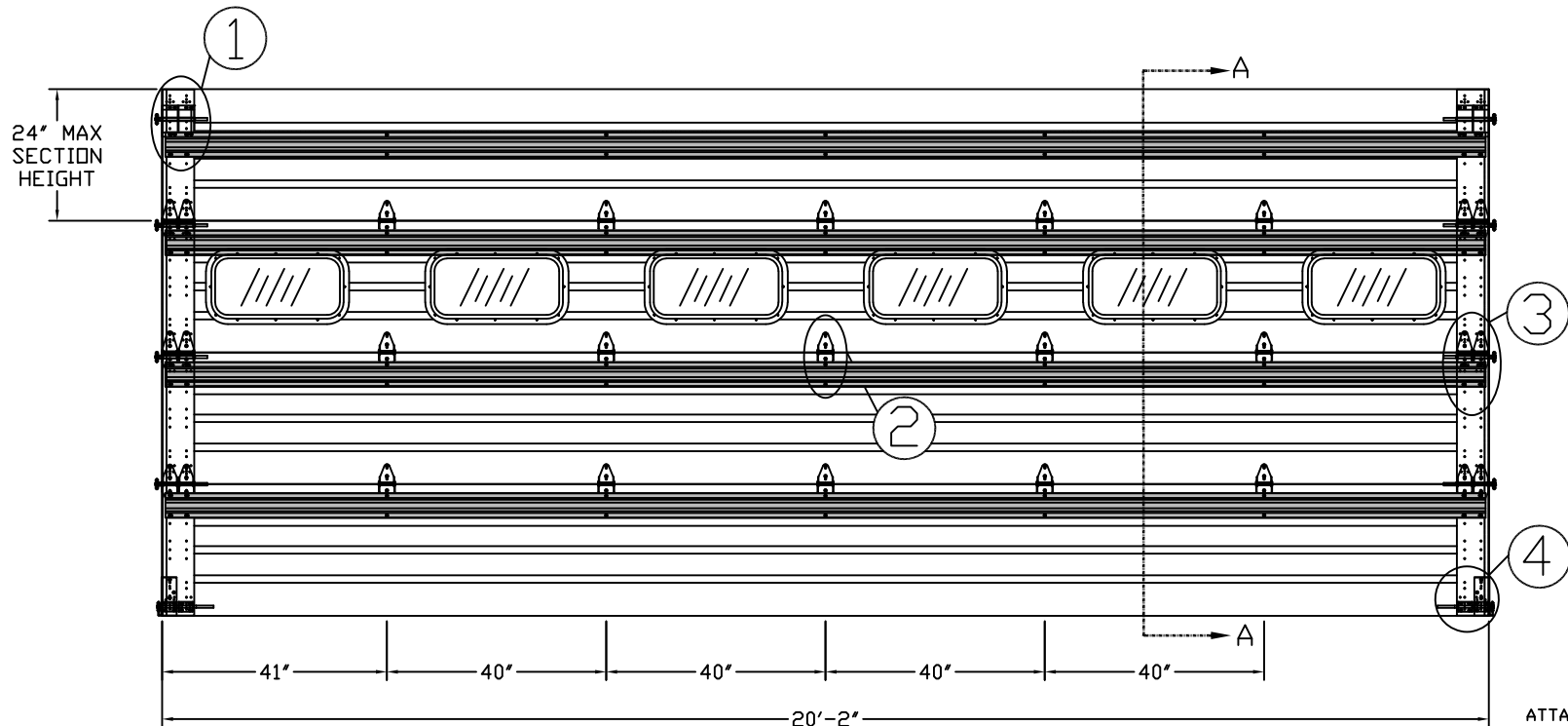


TYPICAL CENTER HINGE
N.T.S.

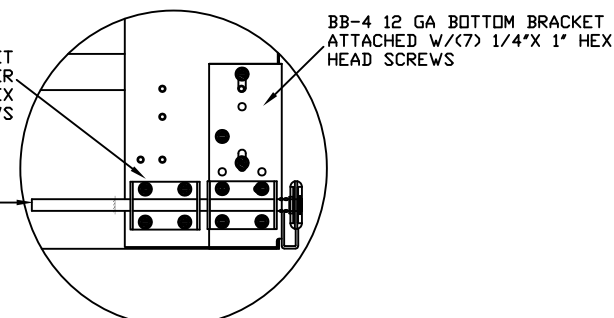
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SECTION A-A (SIDE VIEW)

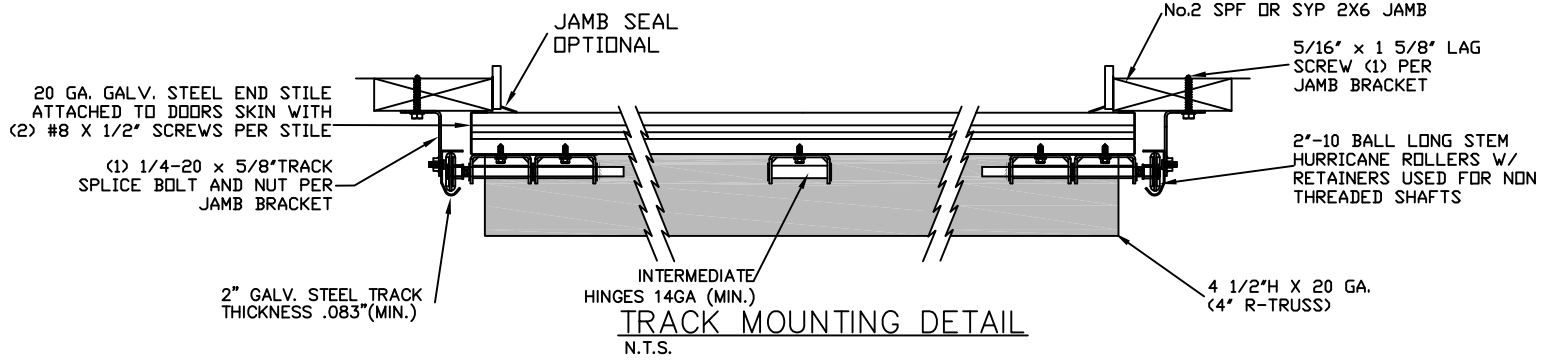


INSIDE ELEVATION
N.T.S.



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 ANSI/DASMA 108. 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
20'2 x 24'

DESIGN LOADS
+22.9 PSF
-27.0 PSF

TEST LOADS
+34.4 PSF
-40.5 PSF

THOMAS L. SHELDERDINE
LICENSE
No. 48579
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

FL

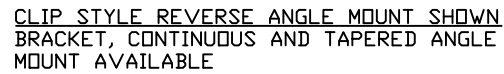
Amarr

AMARR 2442
AMARR 2042

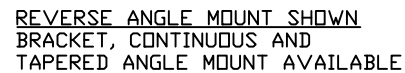
SIZE B	DRAWN BY DRC	DATE 12/31/24	DRAWING NUMBER IBC-4220-130-24
CHECKED BY RLR	DATE 08/08/25		

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

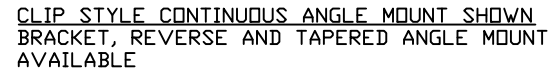
SHEET 1 OF 4



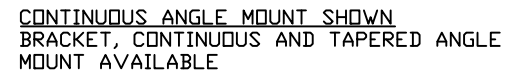
3/16" STEEL FRAMING
569 LBS./SCREW ALLOWABLE LOAD - 6"
FROM ENDS AND 24" O.C.
REFER TO NOTES: 1, 2 AND 5



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

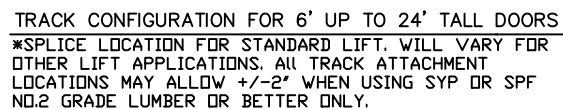


2000 PSI CONCRETE OR GREATER
351 LBS./EXPANSION ANCHOR ALLOWABLE LOAD -
6" FROM ENDS AND 18" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



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

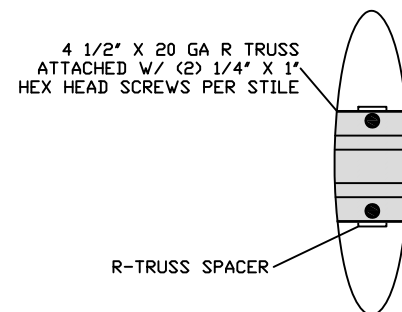
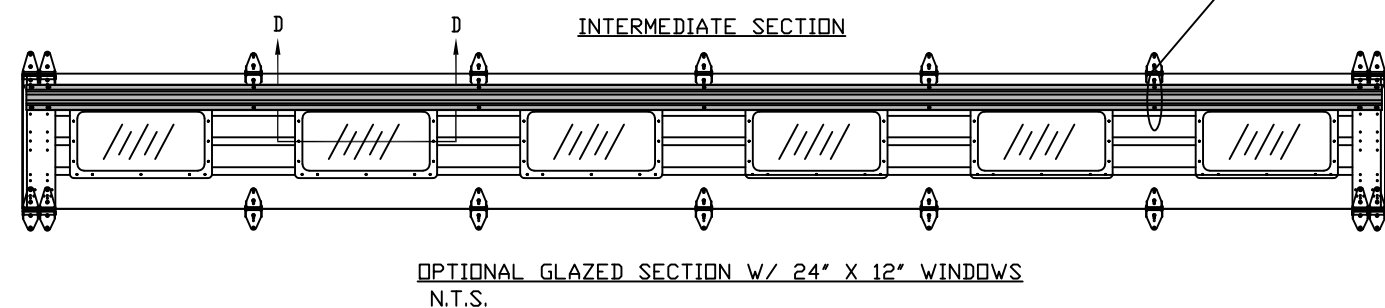
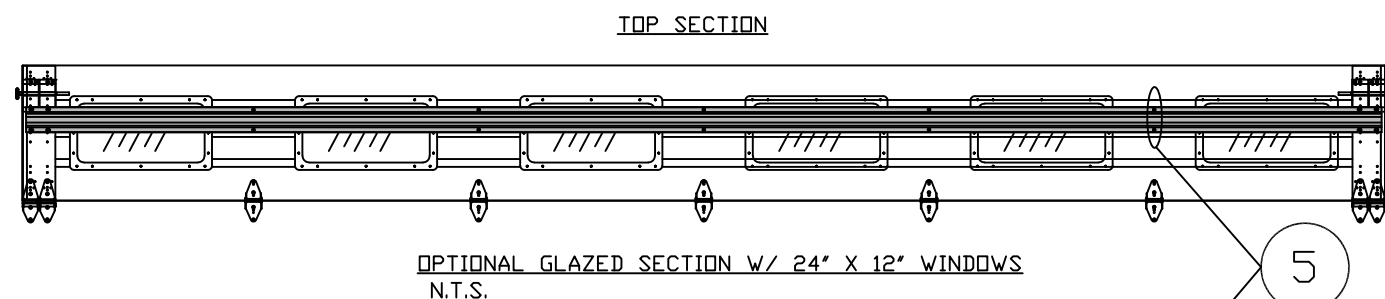
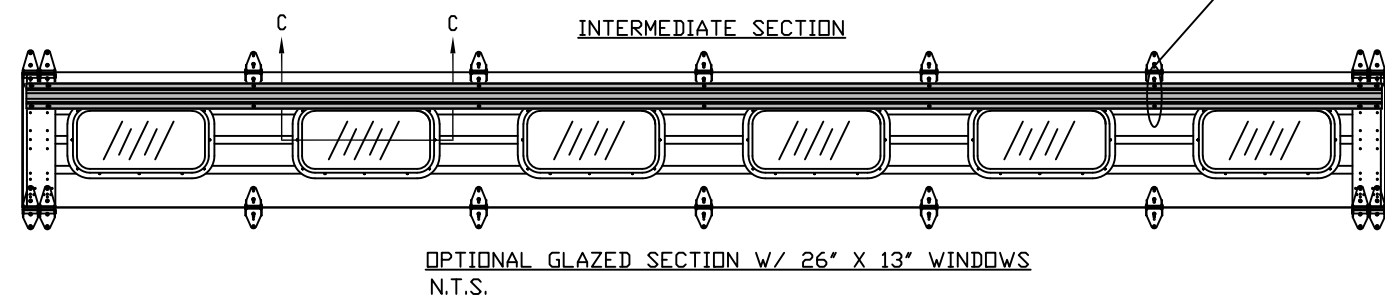
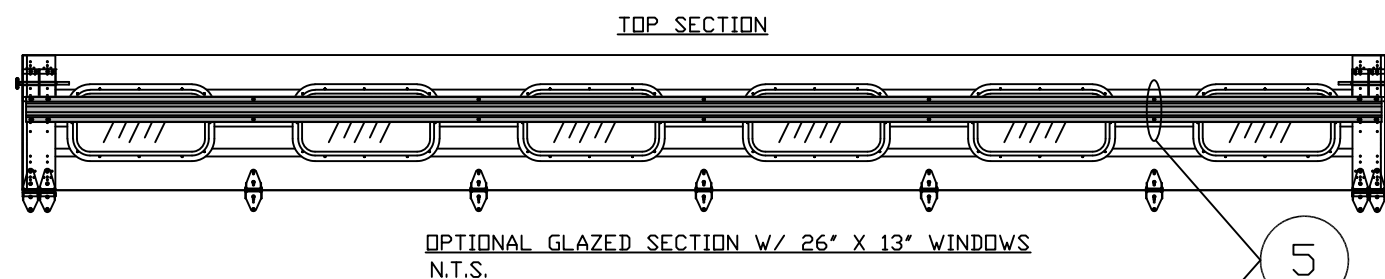
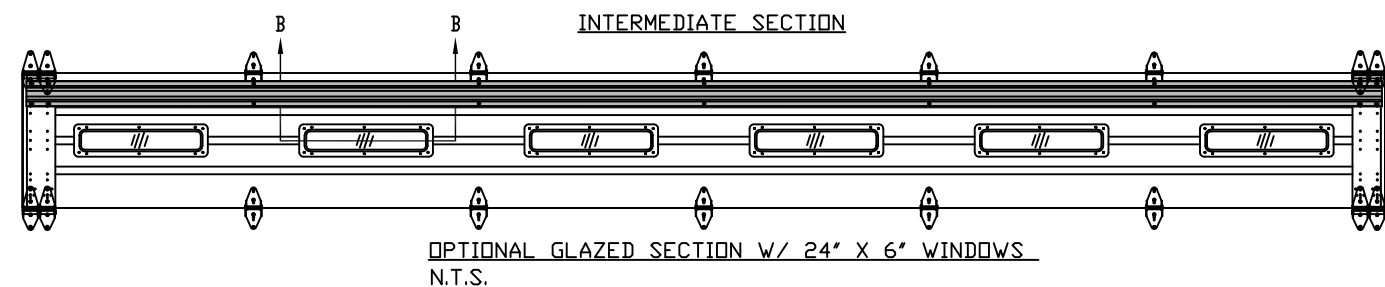
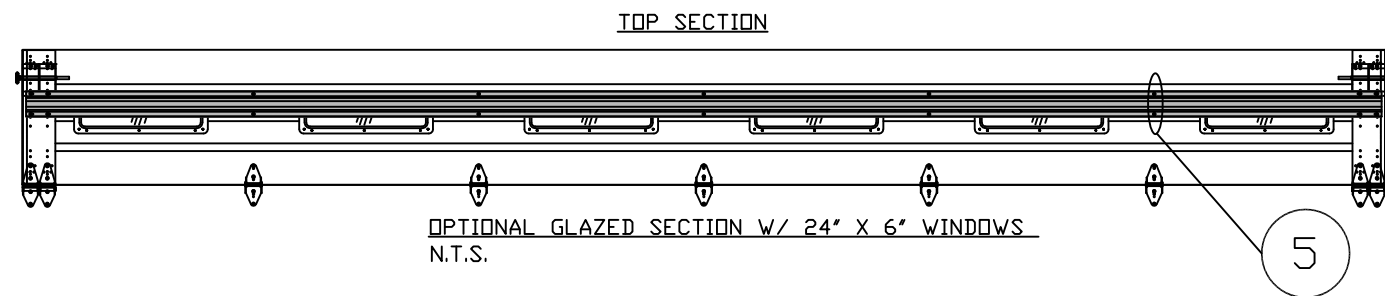
- NOTES:
1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
 2. FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
 3. MIN. EDGE DISTANCE OF 3" REQUIRED.
 4. USE WASHERS PROVIDED BY THE ANCHOR 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.



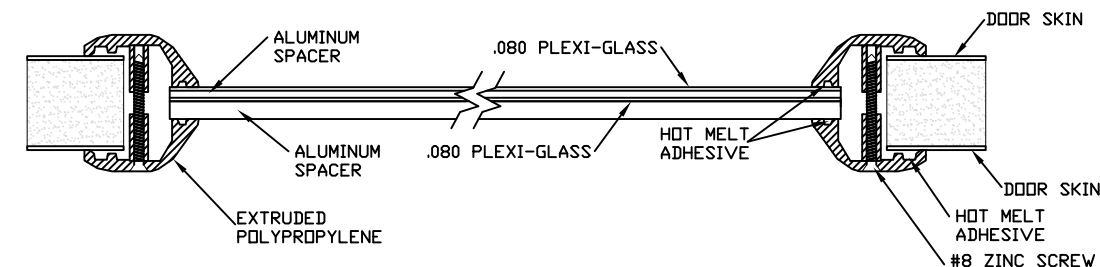
DOOR																								SPLICE
HEIGHT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	S
7'	10"	22"	34"	46"	58"																			76"
8'	10"	22"	34"	46"	58"	70"	82"																	88"
9'	10"	22"	34"	46"	58"	70"	82"	94"																100"
10'	10"	22"	34"	46"	58"	70"	82"	94"	106"															112"
11'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"														124"
12'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"													136"
13'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"												148"
14'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"											160"
15'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"										172"
16'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"									184"
17'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"								196"
18'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"							208"
19'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"						220"
20'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"					232"
21'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"				244"
22'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"			256"
23'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"		268"
24'	10"	22"	34"	46"	58"	70"	82"	94"	106"	118"	130"	142"	154"	166"	178"	190"	202"	214"	226"	238"	250"	262"	274"	280"

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

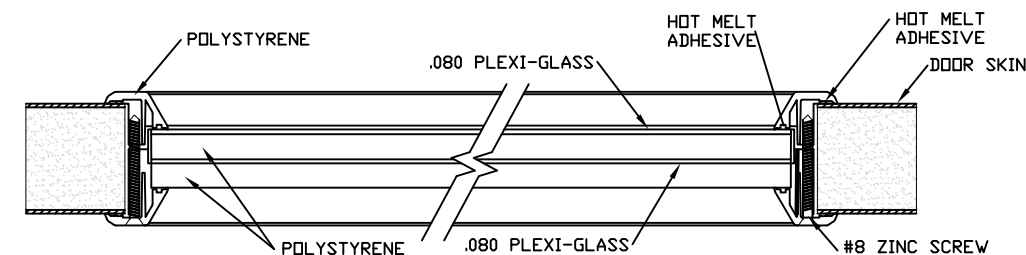
REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 20'2" x 24' DESIGN LOADS +22.9 PSF -27.0 PSF TEST LOADS +34.4 PSF -40.5 PSF		 This document has been digitally signed & sealed by Thomas L. Shelmerdine, PE on the date shown. Printed copies of this document are not considered signed & sealed, and the signature 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 2442 AMARR 2042			
SIZE	DRAWN BY	DRC	DATE 12/31/24
B	CHECKED BY	RLR	DATE 08/08/25
AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-4220-130-24 SHEET 2 OF 4



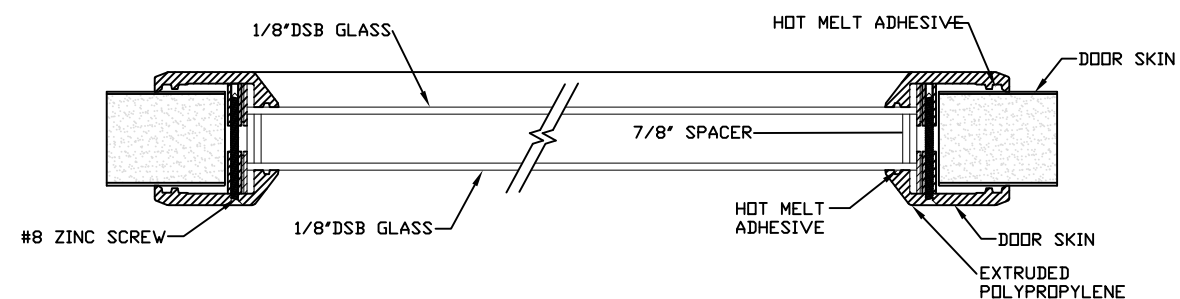
R-TRUSS SPACER
N.T.S.



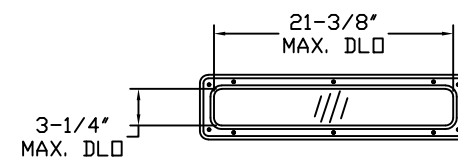
SECTION B-B 24" X 6" WINDOW DETAIL W/ .080 PLEXI-GLASS
N.T.S.



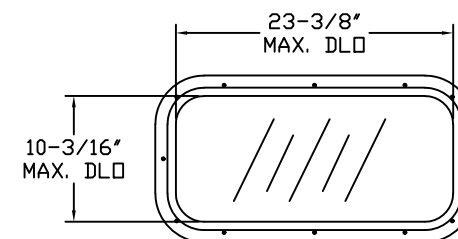
SECTION C-C 26" X 13" WINDOW DETAIL W/ INSULATED PLEXI-GLASS
N.T.S.



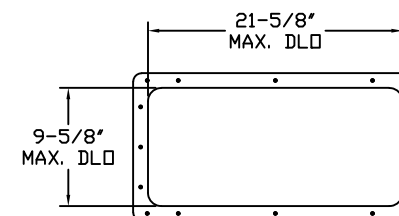
SECTION D-D 24" X 12" WINDOW DETAIL W/ 1-1/8" INSULATED GLASS
N.T.S.



24" X 6" DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



26" X 13" DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



24" X 12" DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 20'2 x 24' DESIGN LOADS +22.9 PSF -27.0 PSF TEST LOADS +34.4 PSF -40.5 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			
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AMARR COMPANY 165 CARRIAGE COURT WINSTON-SALEM, NC. 27105			SHEET 3 OF 4

WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

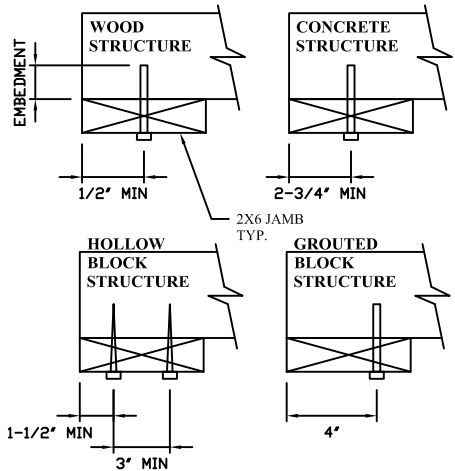
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 20" O.C. (1 1/2" EMBEDMENT)

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 18" 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)

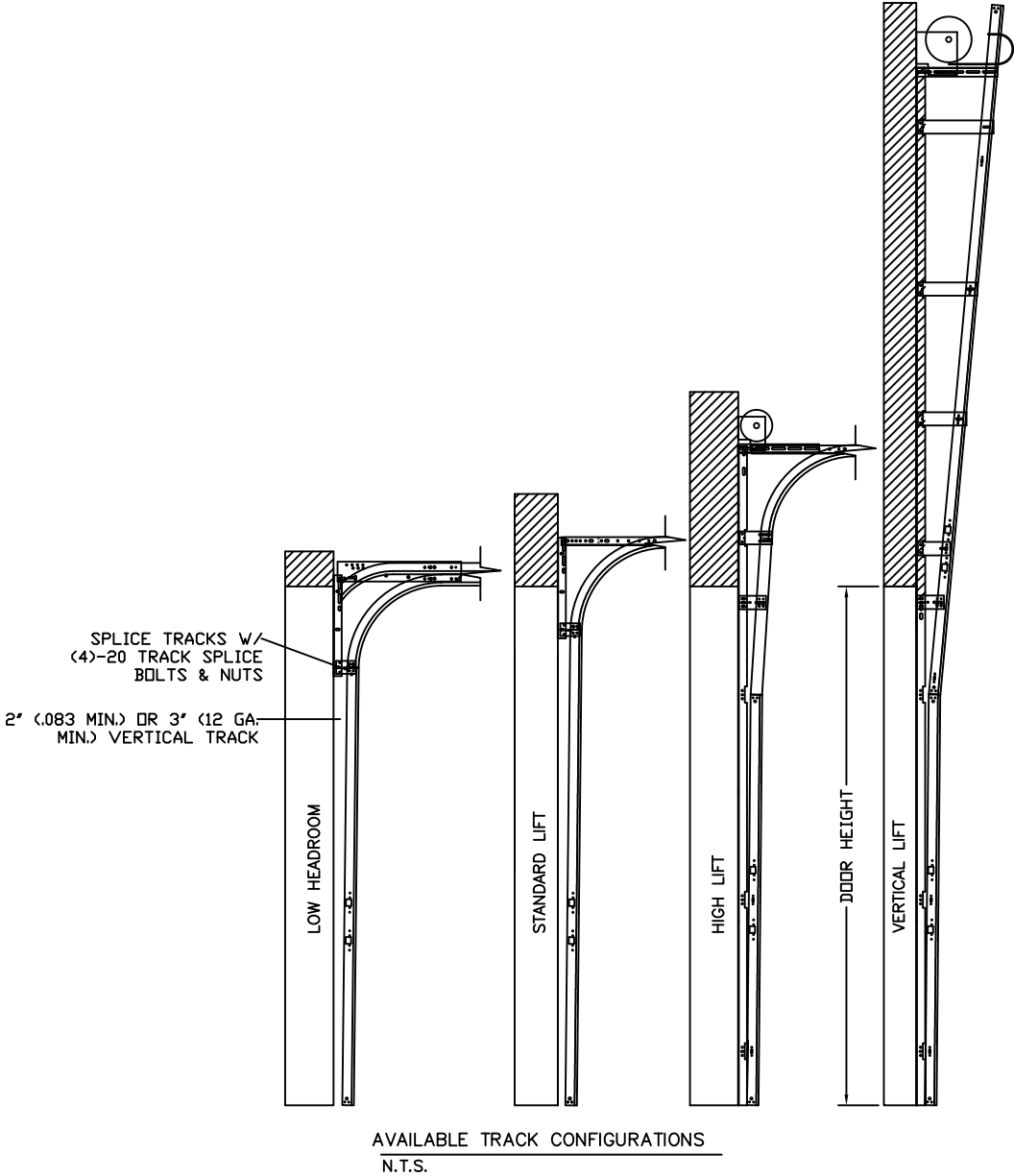
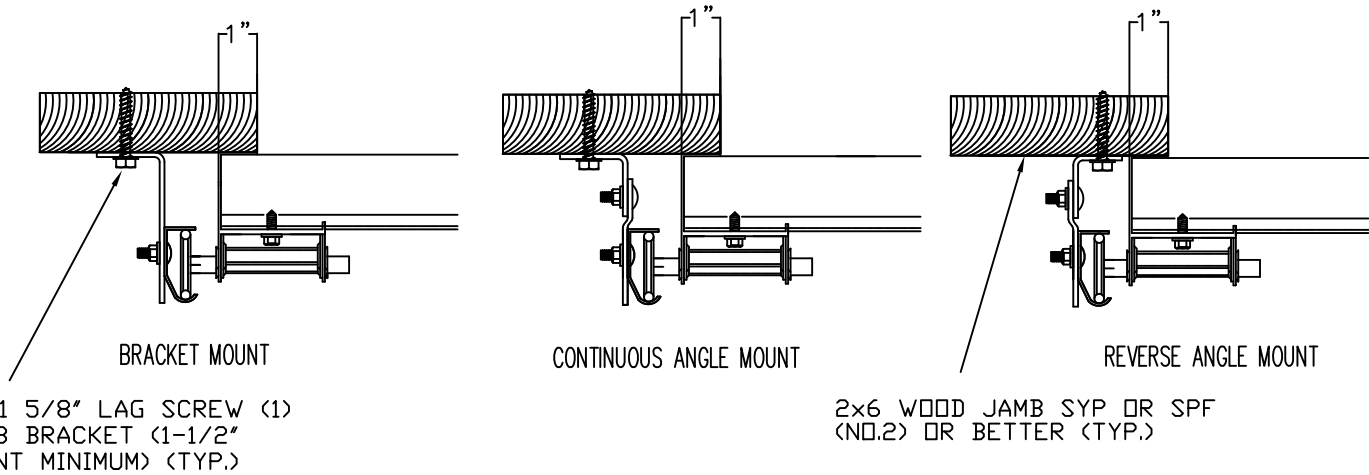
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 22" O.C. (1 1/4" EMBEDMENT) (OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

*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 TABLE 1



SPECIFICATIONS

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: +230.9 LBS/FT & -272.3 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. (.0216) MIN. EXTERIOR SKIN ROLLFORMED, W/BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH USE (1) 4 1/2" R-TRUSS PER 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.

TABLE 2

Section Width		Center Stile Locations (Measured from Left Edge)					Max Design Loads Allowed	
(ft)	(in)	1st (in)	2nd (in)	3rd (in)	4th (in)	5th (in)	Positive (PSF)	Negative (PSF)
19'	4	36	76	116	156	196	23.1	27.3
19'	6	37	77	117	157	197	23.1	27.3
19'	8	38	78	118	158	198	23.1	27.3
19'	10	39	79	119	159	199	23.1	27.3
20'	0	40.0	80	120	160	200	23	27.2
20'	2	41.0	81	121	161	201	22.9	27

FOR DOOR SIZES LESS THAN 19'4 CONTACT ENGINEERING

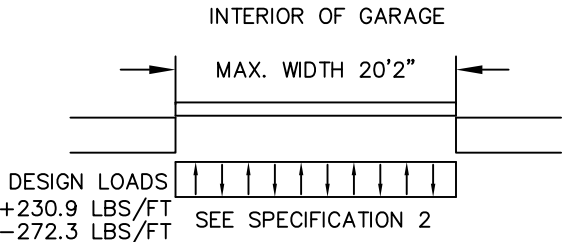


TABLE 3

SECTION	STRUT SIZE
12TH	4.5"
11TH	4.5"
10TH	4.5"
9TH	4.5"
8TH	4.5"
7TH	4.5"
6TH	4.5"
5TH	4.5"
4TH	4.5"
3RD	4.5"
2ND	4.5"
BOTTOM	4.5"

REV	DESCRIPTION OF REVISIONS	DATE	BY		
MAX SIZE 20'2 x 24'		THOMAS L. SHELMERDINE LICENSE No. 48579 FL 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			
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