

12 GA. GALV. COMMERCIAL TOP ROLLER BRACKET ATTACHED W/(3) 1/4" x 1" SCREWS PER BRACKET

2" 10 BALL STEEL LONG STEM ROLLERS W/ RETAINERS USED FOR NON THREADED SHAFTS

3" 20GA STRUT ATTACHED AT EACH END STILE LOCATION W/(2) 1/4" x 1" SCREWS

ADJUSTABLE ROLLER CARRIER ATTACHED W/ (2) 5/16" x 3/4" BOLT & NUT PER BRACKET

TYPICAL TOP FIXTURES
N.T.S.

1

3" 20GA. STRUT ATTACHED W/ (2) 1/4" x 1" SCREWS AT EACH CENTER STILE

TYPICAL CENTER HINGE
N.T.S.

2

3" 20GA. STRUT ATTACHED W/ (2) 1/4" x 1" SCREWS AT EACH END STILE

TYPICAL END HINGE
N.T.S.

3

14GA. MIN. END HINGE ATTACHED W/ (5) 1/4" x 1" SCREWS

2" 10 BALL STEEL SHORT STEM ROLLERS (MIN.) W/ RETAINERS USED FOR NON THREADED SHAFTS

2" 10 BALL STEEL LONG STEM ROLLERS (MIN.) W/ RETAINERS USED FOR NON THREADED SHAFTS

TYPICAL BOTTOM BRACKET
N.T.S.

4

WEATHERTIGHT JOINT-WEAR SEAL

THERMAL BREAK

27 GAUGE INTERIOR SKIN
24 GAUGE EXTERIOR SKIN

3-1/2" U-SHAPED VINYL BOTTOM SEAL W/ALUMINUM RETAINER

(1) 3" X 20 GA. STRUT AT TOP OF TOP SECTION ATTACHED W/(2) 1/4" X 1" HEX HEAD SCREWS AT EACH END AND CENTER STILE

12GA. (MIN.) TOP FIXTURE ATTACHED W/ (3) 1/4" x 1" HEX HEAD SCREWS EACH

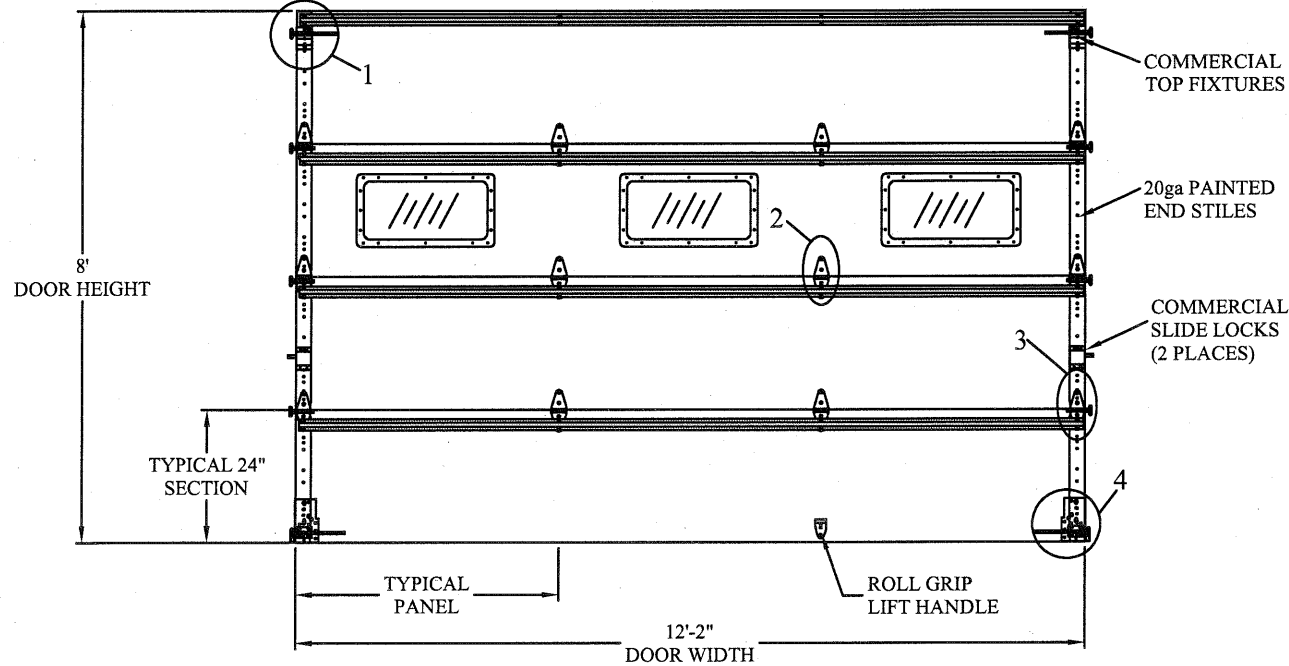
14 GA. (MIN.) END HINGE ROLLER CARRIERS ATTACHED W/ (5) 1/4" x 1" HEX HEAD SCREWS EACH

(1) 3" X 20 GA. STRUT ATTACHED W/(2) 1/4" X 1" HEX HEAD SCREWS AT EACH END AND CENTER STILE AT THE TOP OF EVERY SECTION

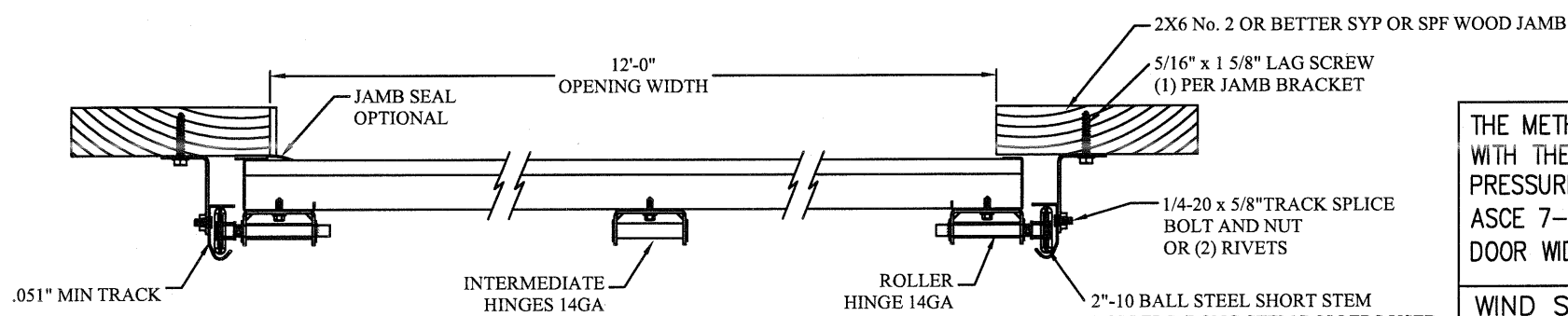
POLYSTYRENE INSULATION

BOTTOM BRACKET 11 GA. (MIN.) ATTACHED W/(7) 1/4" X 1" HEX HEAD SCREWS

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



DOOR INTERIOR ELEVATION
N.T.S.



2" BRACKET MOUNT TO WOOD JAMB DETAIL
N.T.S.

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 7-16 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
12'2" x 24'

DESIGN LOADS
+23.8 PSF
-27.3 PSF

TEST LOADS
+35.7 PSF
-41.0 PSF

Thomas L. Shelmerdine, PE (FL PE #0048579)
Structural Solutions, PA (FL Firm #29412)

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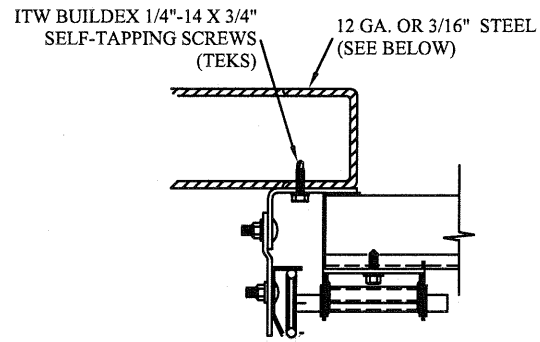
dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

MODEL 1000 AMARR 2432

SIZE B	DRAWN BY	RLR	DATE	12/5/16	DRAWING NUMBER IBC-1012-130-15
	CHECKED BY	RLR	DATE	12/5/16	
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105					

SHEET 1 OF 4

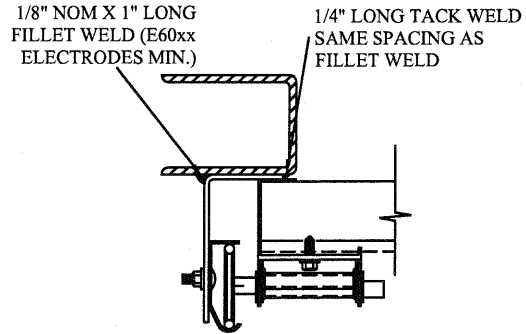
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

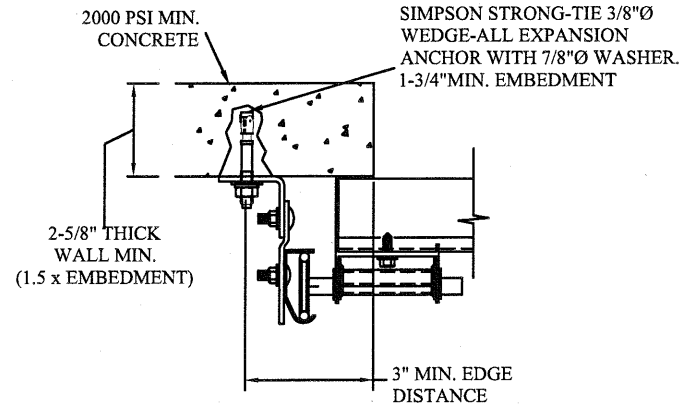
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 18" O.C.
REFER TO NOTES: 1, 2 AND 5

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



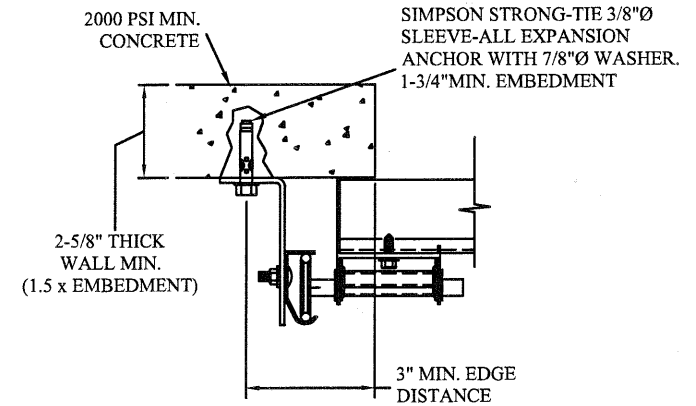
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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 24" 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 24" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5

SPECIFICATIONS AND NOTES

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:
+144.8 LBS/FT & -166.1 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. (.021) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH HAVE (1) 3" 20GA STRUT 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.

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)

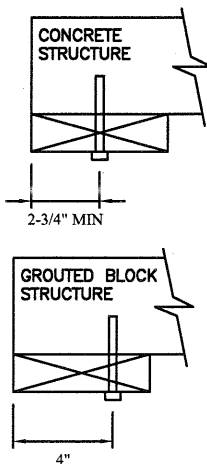
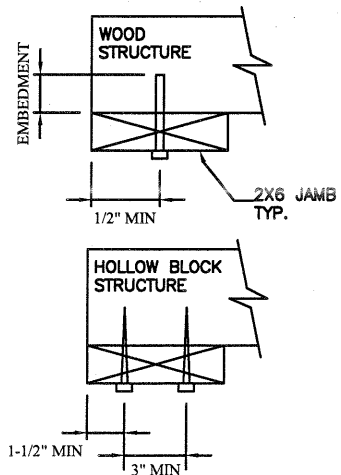
2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)

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)

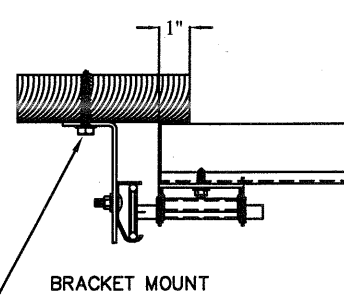
*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.

*PREPARATION OF WOOD JAMBS BY OTHERS

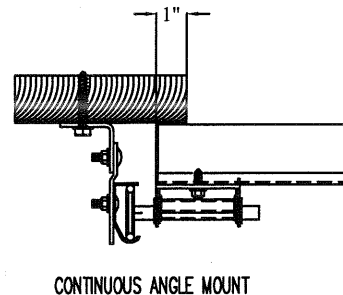


TRACK CONNECTION TO WOOD JAMB OPTIONS

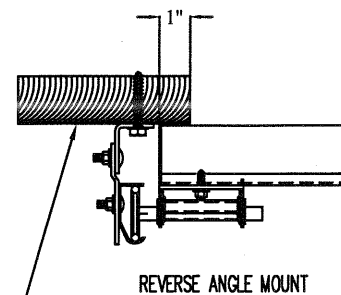
FOR LAG SCREWS & BRACKET SPACING SEE PAGE 4 FOR TRACK CONFIGURATION DETAIL



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

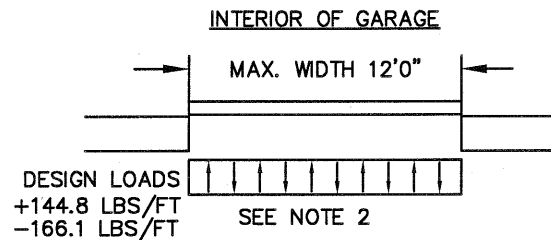


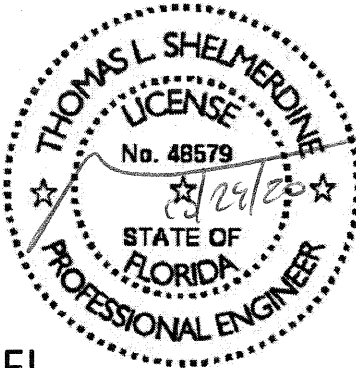
CONTINUOUS ANGLE MOUNT

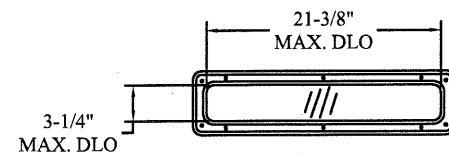
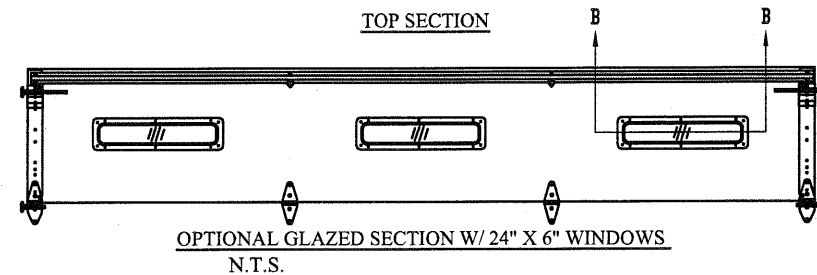


REVERSE ANGLE MOUNT

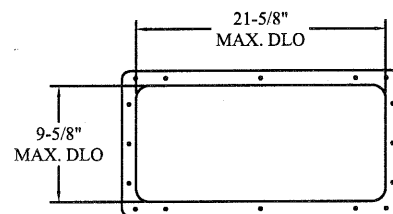
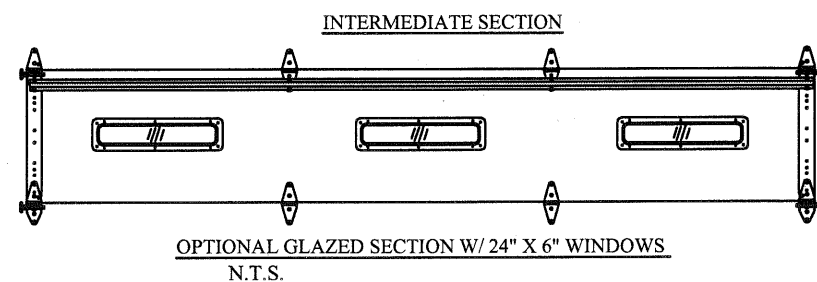
2x6 WOOD JAMB SYP OR SPF
(NO.2) OR BETTER (TYP.)



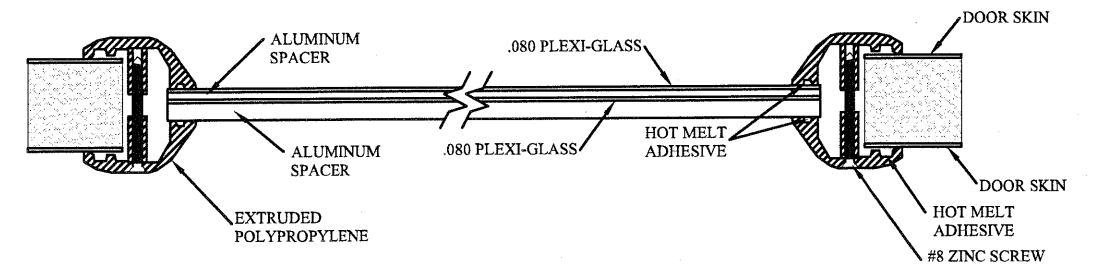
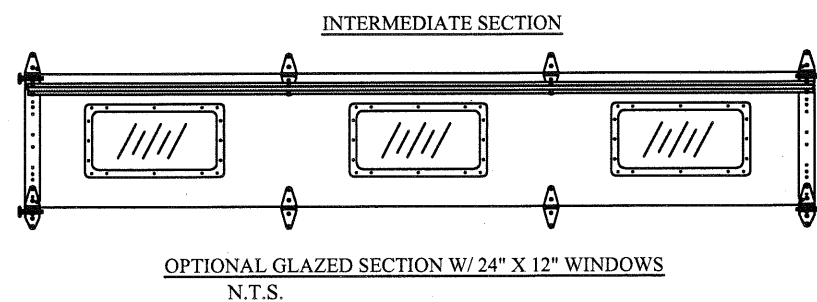
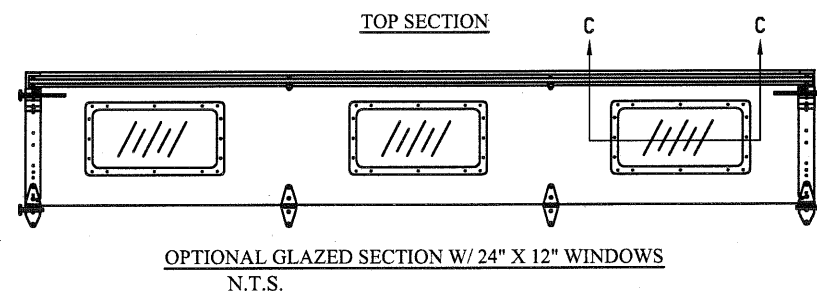
REV	DESCRIPTION OF REVISIONS	DATE	BY
MAX SIZE 12'2" x 24' DESIGN LOADS +23.8 PSF -27.3 PSF TEST LOADS +35.7 PSF -41.0 PSF		Thomas L. Shelmerdine, PE (FL PE #00048579) Structural Solutions, PA (FL Firm #29412)  FL dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410	
			
MODEL 1000 AMARR 2432			
SIZE	DRAWN BY	RLR	DATE 12/5/16
B	CHECKED BY	RLR	DATE 12/5/16
ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			DRAWING NUMBER IBC-1012-130-15 SHEET 2 OF 4



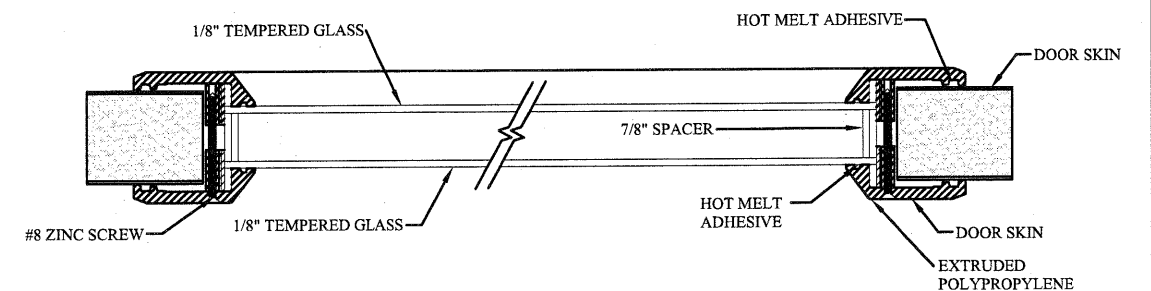
24" X 6" DAY LIGHT OPENING AND FASTENER DETAIL
N.T.S.



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



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



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

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MAX SIZE, 12'2" x 24' DESIGN LOADS +23.8 PSF -27.3 PSF TEST LOADS +35.7 PSF -41.0 PSF Thomas L. Shelmerdine, PE (FL PE #00048579) Structural Solutions, PA (FL Firm #29412) Thomas L. Shelmerdine, Inc. dba Structural Solutions of North Carolina, Inc. 5921-G W. Friendly Ave., Greensboro, NC 27410			
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ENTREMATIC 165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105			SHEET 3 OF 4

Section Width (ft)		Center Stile Locations		Max Design Loads Allowed	
		1st (in)	2nd (in)	Positive (PSF)	Negative (PSF)
6'	0"	36"	-	32.0	36.7
6'	2"	37"	-	31.1	35.7
6'	4"	38"	-	30.3	34.8
6'	6"	39"	-	29.5	33.9
6'	8"	40"	-	28.8	33.1
6'	10"	41"	-	28.1	32.2
7'	0"	42"	-	27.4	31.5
7'	2"	43"	-	26.8	30.7
7'	4"	44"	-	26.2	30.0
7'	6"	45"	-	25.6	29.4
7'	8"	46"	-	25.0	28.7
7'	10"	47"	-	24.5	28.1
8'	0"	48"	-	24.0	27.5
9'	4"	36"	76"	30.2	34.6
9'	6"	37"	77"	29.8	34.2
9'	8"	38"	78"	29.4	33.7
9'	10"	39"	79"	29.0	33.3
10'	0"	40"	80"	28.7	32.9
10'	2"	41"	81"	28.3	32.5
10'	4"	42"	82"	27.8	31.9
10'	6"	43"	83"	27.4	31.4
10'	8"	44"	84"	27.0	30.9
10'	10"	45"	85"	26.5	30.5
11'	0"	46"	86"	26.1	30.0
11'	2"	47"	87"	25.8	29.5
11'	4"	48"	88"	25.4	29.1
11'	6"	49"	89"	25.0	28.7
11'	8"	50"	90"	24.6	28.3
11'	10"	51"	91"	24.3	27.9
12'	0"	48"	96"	23.9	27.4
12'	2"	49"	97"	23.8	27.3

14 GA. (MIN.) FLAG BRACKET ATTACHED TO WOOD JAMB
W/(3) 5/16 DIA. X 1-5/8" LAG BOLTS AND TO TRACK W/(4) 1/4"-20 x 5/8" TRACK SPLICE BOLTS AND NUTS

14 GA. SPLICE BRACKET ATTACHED TO WOOD JAMB W/ (1) 5/16 DIA. X 1-5/8" LAG BOLT AND TO TRACK W/ (4) 1/4"-20 x 5/8" TRACK SPLICE BOLTS AND NUTS

(1) 5/16" DIA. x 1-5/8" LAG BOLT ATTACHED TO JAMB AT EA. JAMB BRACKET

12 GA. GALV. STEEL

JAMB BRACKETS ATTACHED W/(1) 1/4"-20 x 5/8" TRACK SPLICE BOLT & NUT

TRACK ATTACHMENT CAN BE BRACKET MOUNT, CONTINUOUS, REVERSE ANGLE MOUNT OR TAPERED REVERSE ANGLE MOUNT. (SEE AVAILABLE TRACK CONFIGURATIONS ON THIS PAGE)

ALL TRACK BRACKETS AND TRACK CLIPS ARE ATTACHED TO TRACK WITH (2) RIVETS OR (1) 1/4"-20 BOLT & NUT

ALL TRACK BRACKETS OR TRACK CLIPS ARE TO FOLLOW SPACING AS INDICATED

D-L

C

B

A

DOOR HEIGHT

VERTICAL LIFT

HIGH LIFT

STANDARD LIFT

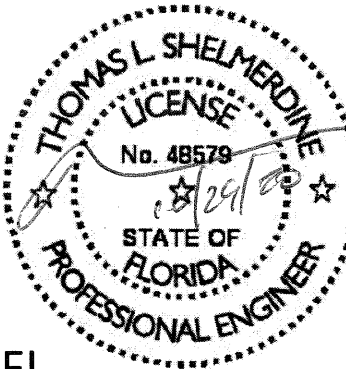
LOW HEADROOM

SPLICE TRACKS W/ (4)-20 TRACK SPLICE BOLTS & NUTS

2" (.051 MIN.) OR 3" (12 GA. MIN.) VERTICAL TRACK

DOOR HEIGHT		TRACK ATTACHMENT												TYPICAL SPLICE
		A	B	C	D	E	F	G	H	I	J	K	L	
7'	0"	10.0"	34"	58"										76"
7'	6"	10.0"	34"	58"										82"
8'	0"	10.0"	34"	58"	82"									88"
8'	6"	10.0"	34"	58"	82"									94"
9'	0"	10.0"	34"	58"	82"									100"
9'	6"	10.0"	34"	58"	82"									106"
10'	0"	10.0"	34"	58"	82"	106"								112"
11'	0"	10.0"	34"	58"	82"	106"								124"
12'	0"	10.0"	34"	58"	82"	106"	130"							136"
13'	0"	10.0"	34"	58"	82"	106"	130"							148"
14'	0"	10.0"	34"	58"	82"	106"	130"	154"						160"
15'	0"	10.0"	34"	58"	82"	106"	130"	154"						172"
16'	0"	10.0"	34"	58"	82"	106"	130"	154"	178"					184"
17'	0"	10.0"	34"	58"	82"	106"	130"	154"	178"					196"
18'	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"				208"
19'	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"				220"
20'	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"			232"
21	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"			244"
22	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"		256"
23	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"		268"
24	0"	10.0"	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"	274"	280"

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ENTREMATIC

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

SHEET 4 OF 4