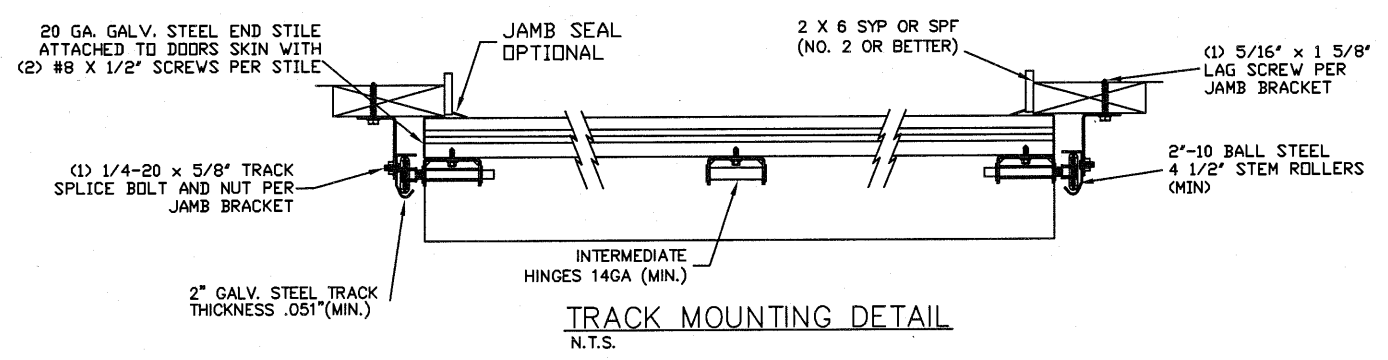
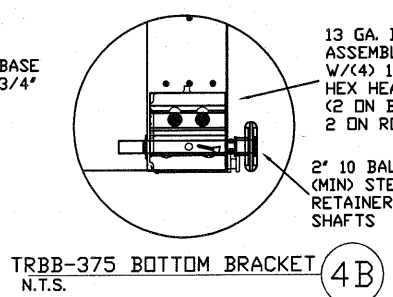
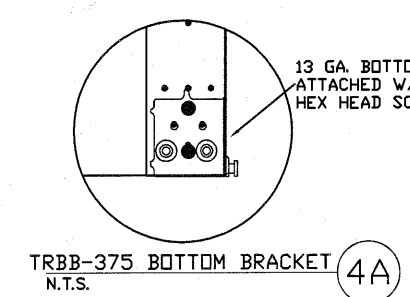
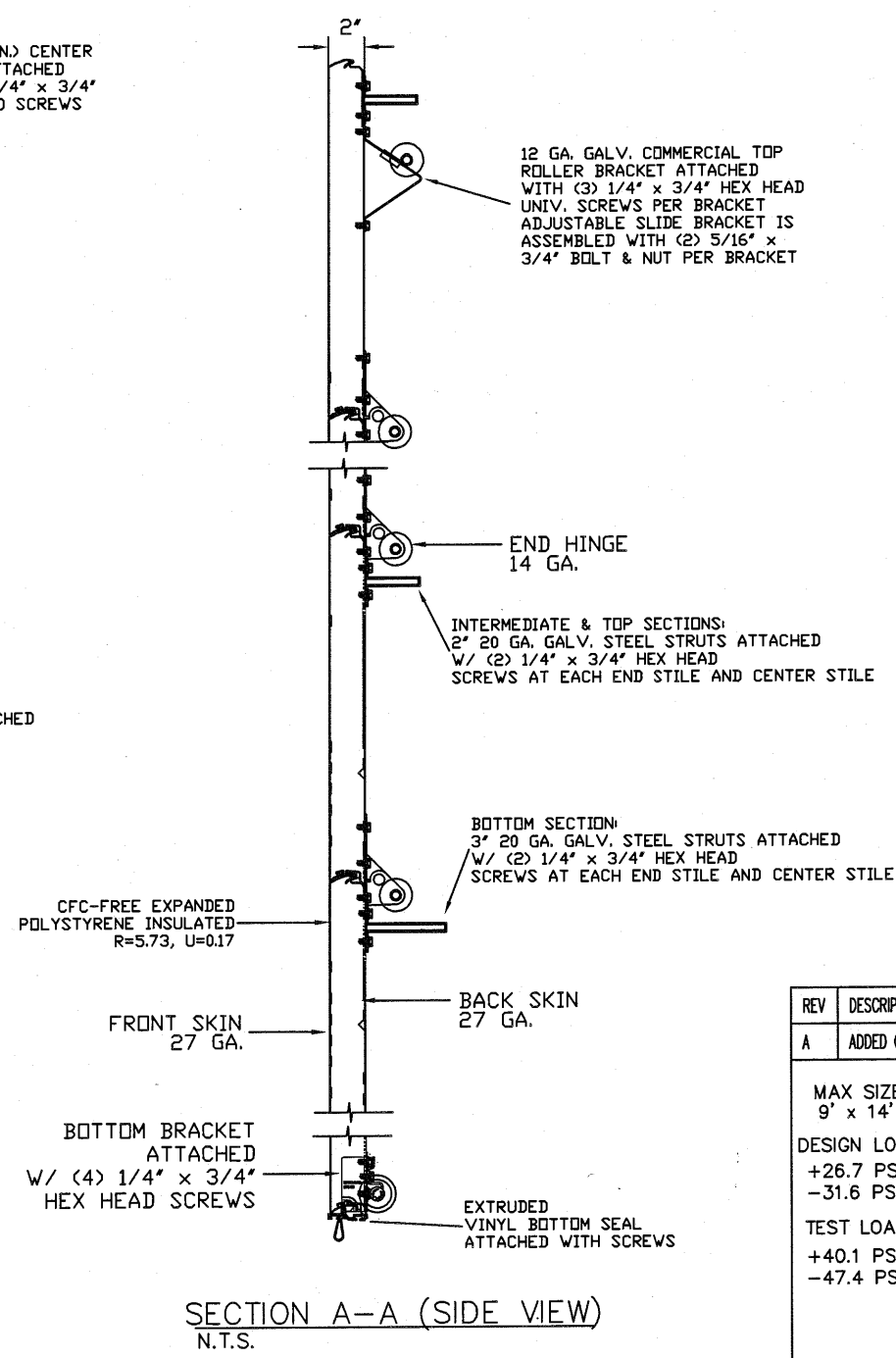
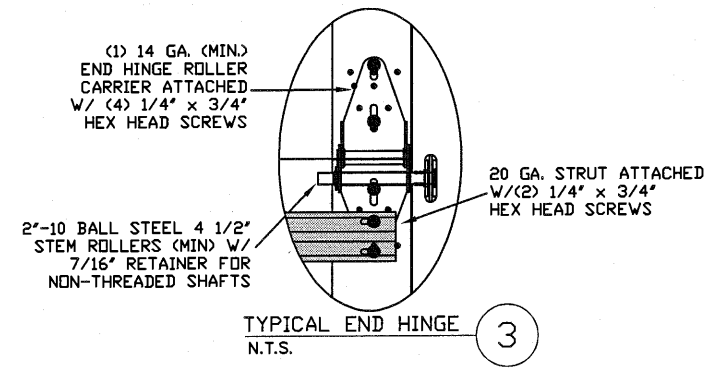
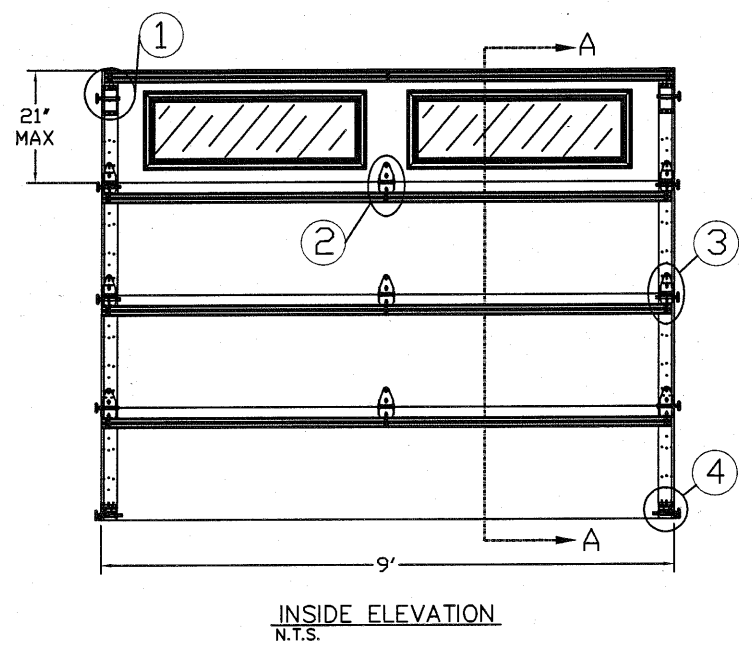
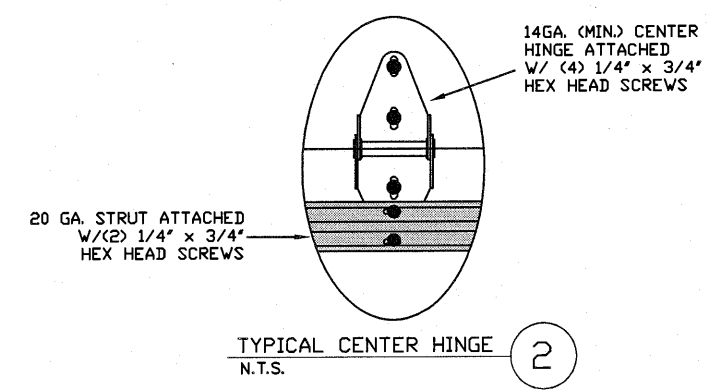
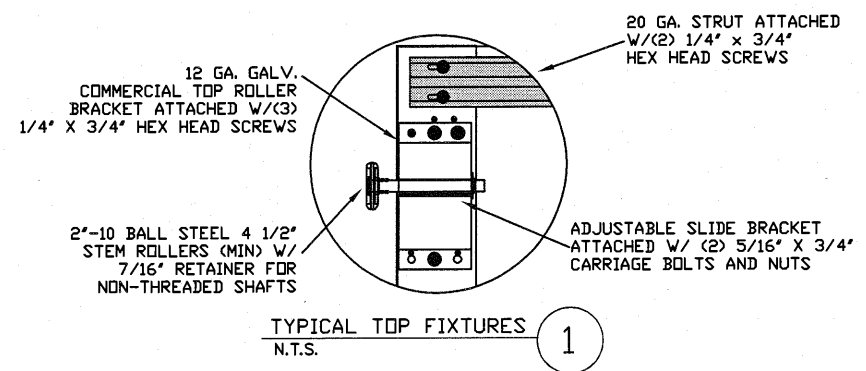


LARGE MISSILE IMPACT RESISTANCE



THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN DASMA 108-05 & 115-05, AND ASTM E330-02, E1886-05, E1996-09, & F588-07. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE 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
A	ADDED GLAZING OPTIONS	10/21/13	RLR

MAX SIZE 9' x 14'	Thomas L. Shelmerdine, PE (TX PE #85829) Structural Solutions, PA (TX Firm #004063)		5921-G W. Friendly Ave., Greensboro, NC 27410
DESIGN LOADS +26.7 PSF -31.6 PSF			
TEST LOADS +40.1 PSF -47.4 PSF			
LARGE MISSILE IMPACT RESISTANCE			

Amarr

165 CARRIAGE COURT WINSTON-SALEM, NC. 27105 WWW.AMARR.COM

MODEL #1600 LINCOLN 3000
MODEL #1650 HILLCREST 3000

SIZE	DRAWN BY	RLR	DATE	03/27/12	DRAWING NUMBER
B	CHECKED BY		DATE		IRC-1609-130-15-1

SHEET 1 OF 3

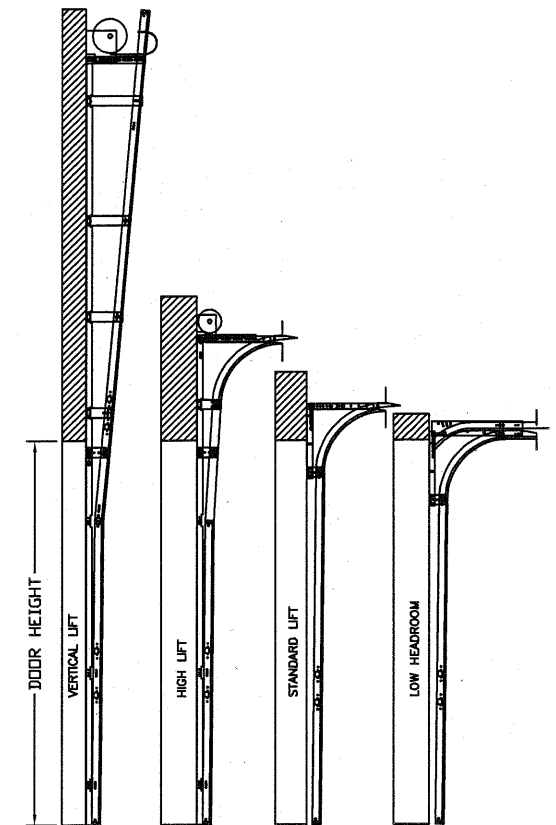
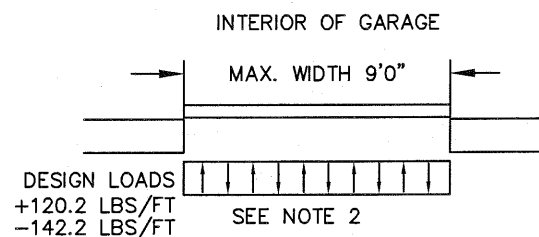
TABLE 1

HEIGHT	TRACK ATTACHMENT								SPLICE
	A	B	C	D	E	F	G	H	
6' 0"	3.5"	21"	42"						64"
6' 6"	3.5"	21"	42"	63"					70"
7' 0"	3.5"	21"	42"	63"					76"
7' 6"	3.5"	21"	42"	63"					82"
8' 0"	3.5"	21"	42"	63"	84"				88"
8' 6"	3.5"	21"	42"	63"	84"				94"
9' 0"	3.5"	21"	42"	63"	84"				100"
9' 6"	3.5"	21"	42"	63"	84"				106"
10' 0"	3.5"	21"	42"	63"	84"	105"			112"
10' 6"	3.5"	21"	42"	63"	84"	105"			118"
11' 0"	3.5"	21"	42"	63"	84"	105"			124"
11' 6"	3.5"	21"	42"	63"	84"	105"	126"		130"
12' 0"	3.5"	21"	42"	63"	84"	105"	126"		136"
12' 6"	3.5"	21"	42"	63"	84"	105"	126"		142"
13' 0"	3.5"	21"	42"	63"	84"	105"	126"		148"
13' 6"	3.5"	21"	42"	63"	84"	105"	126"	147"	154"
14' 0"	3.5"	21"	42"	63"	84"	105"	126"	147"	160"

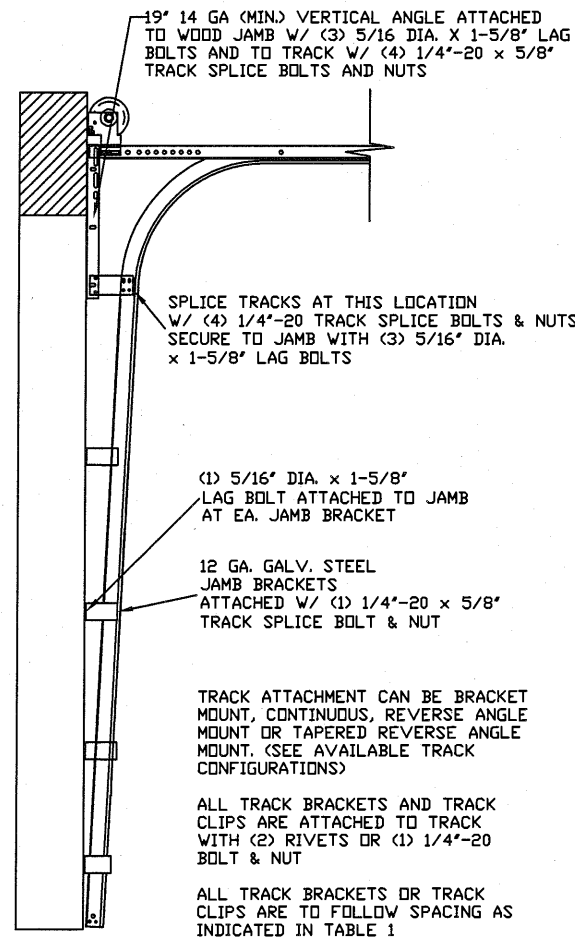
ALL TRACK ATTACHMENT SPACING +/- 2" ALLOWED WITH SYP OR SPF NO. 2 OR BETTER ONLY

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: +120.2 LBS/FT & -142.2 LBS/FT.
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27GA MIN. INTERIOR AND 27GA MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH.
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
6. PANEL STAMP DOES NOT AFFECT WINDLOAD CAPABILITIES.



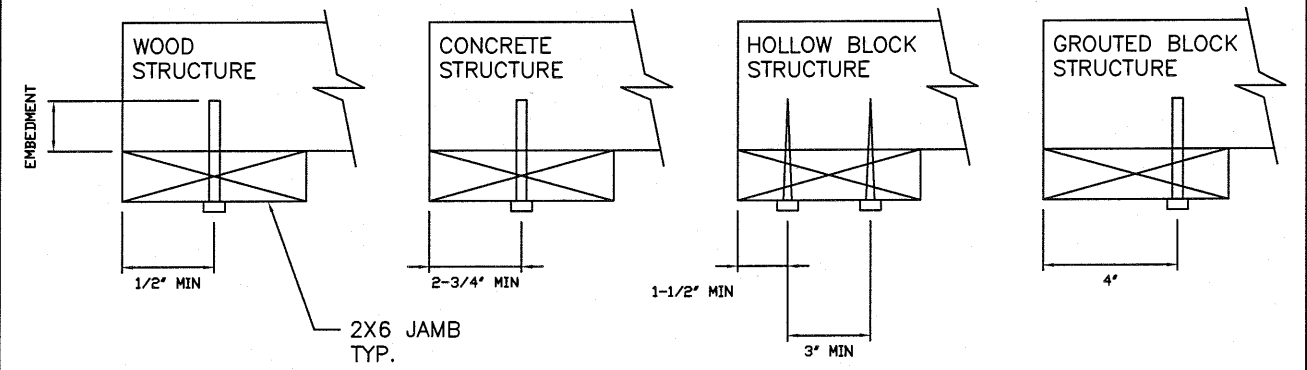
AVAILABLE TRACK CONFIGURATIONS
N.T.S.



TRACK CONFIGURATION FOR UP TO 14' TALL DOORS
N.T.S.

WOOD JAMB ATTACHMENT TO STRUCTURE

- 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



REV	DESCRIPTION OF REVISIONS	DATE	BY
A	ADDED GLAZING OPTIONS	10/21/13	RLR

MAX SIZE 9' x 14'

DESIGN LOADS
+26.7 PSF
-31.6 PSF

TEST LOADS
+40.1 PSF
-47.4 PSF

LARGE MISSILE IMPACT RESISTANCE

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

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

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

165 CARRIAGE COURT WINSTON-SALEM, NC. 27105 WWW.AMARR.COM

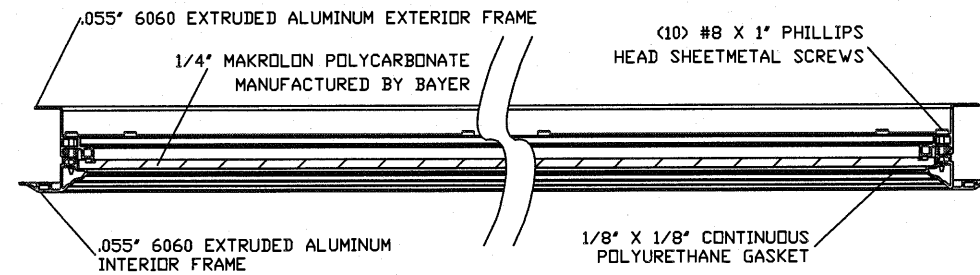
MODEL #1600 LINCOLN 3000
MODEL #1650 HILLCREST 3000

SIZE	DRAWN BY	RLR	DATE	03/27/12	DRAWING NUMBER
B	CHECKED BY		DATE		IRC-1609-130-15-1

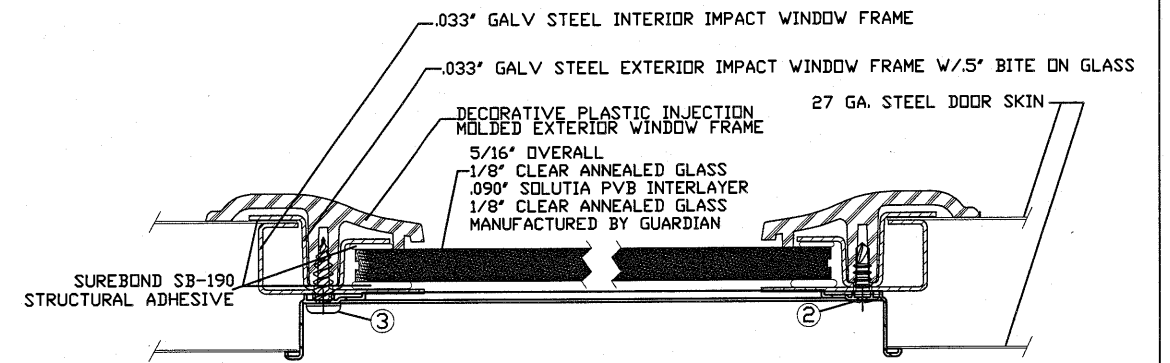
SHEET 2 OF 3

TABLE 2

DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
6' 0"	18"	18"	18"	18"				
6' 6"	21"	18"	18"	21"				
7' 0"	21"	21"	21"	21"				
7' 6"	18"	18"	18"	18"	18"			
8' 0"	21"	18"	18"	18"	21"			
8' 6"	21"	21"	21"	18"	21"			
9' 0"	18"	18"	18"	18"	18"	18"		
9' 6"	21"	18"	18"	18"	18"	21"		
10' 0"	21"	21"	21"	18"	18"	21"		
10' 6"	21"	21"	21"	21"	21"	21"		
11' 0"	21"	18"	18"	18"	18"	18"	21"	
11' 6"	21"	21"	21"	18"	18"	18"	21"	
12' 0"	21"	21"	21"	21"	21"	18"	21"	
12' 6"	21"	18"	18"	18"	18"	18"	18"	21"
13' 0"	21"	21"	21"	18"	18"	18"	18"	21"
13' 6"	21"	21"	21"	21"	21"	18"	18"	21"
14' 0"	21"	21"	21"	21"	21"	21"	21"	21"



SECTION B-B IMPACT WINDOW DETAIL
N.T.S.

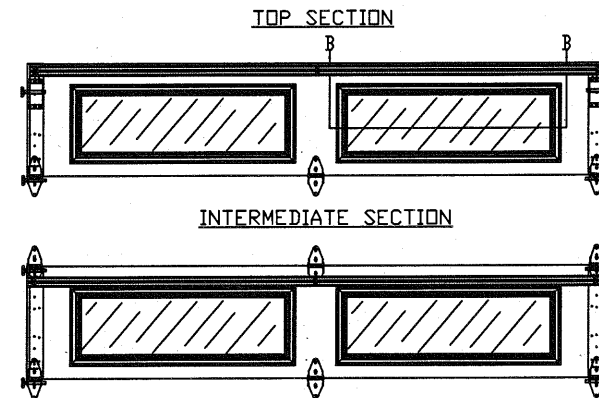


2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE PLASTIC MOLDED WINDOW FRAME TO THE ASSEMBLY

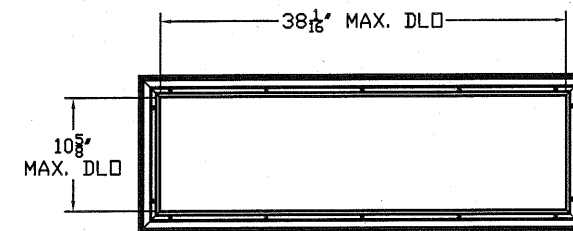
SECTION C-C IMPACT WINDOW DETAIL
N.T.S.

TABLE 3

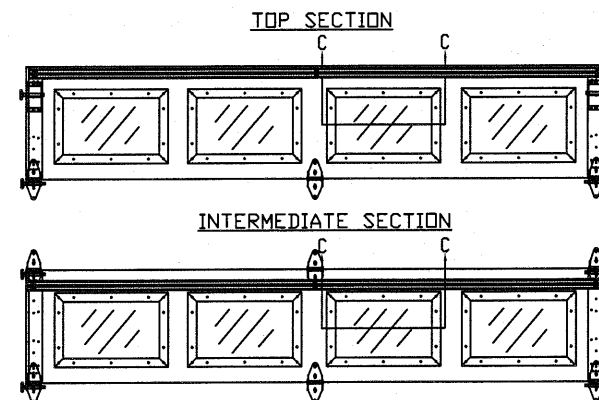
Section	Panel Type	Center Stile Location (Measured from Left Edge)	
		1st (in)	2nd (in)
6' 0"	Short	24.406	47.594
7' 0"	Short	29.200	54.800
7' 2"	Short	30.200	55.800
7' 4"	Short	31.200	56.800
7' 6"	Short	32.200	57.800
7' 6"	Long	45.000	
7' 8"	Short	32.200	60.000
7' 8"	Long	46.000	
7' 10"	Short	33.000	61.000
7' 10"	Long	47.000	
8' 0"	Short	48.000	
8' 0"	Long	48.000	
8' 2"	Short	49.000	
8' 2"	Long	49.000	
8' 4"	Short	50.000	
8' 4"	Long	50.000	
8' 6"	Short	51.000	
8' 6"	Long	51.000	
8' 8"	Short	52.000	
8' 8"	Long	52.000	
8' 10"	Short	53.000	
8' 10"	Long	53.000	
9' 0"	Short	54.000	
9' 0"	Long	54.000	



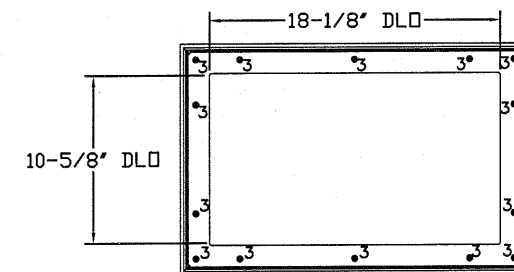
OPTIONAL LONG PANEL GLAZED SECTION STRUT AND STILE LAYOUT
N.T.S.



LONG PANEL GLAZING FASTENER DETAIL
N.T.S.



OPTIONAL SHORT PANEL GLAZED SECTION STRUT AND STILE LAYOUT
N.T.S.



IMPACT GLAZING FASTENER DETAIL
N.T.S.
GLAZING MEETS ASTM E1300-04

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MAX SIZE 9' x 14'
 DESIGN LOADS +26.7 PSF -31.6 PSF
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SHEET 3 OF 3