

CLOPAY MODELS 84A, 94, 98; IDEAL MODELS 93, 4RST, 4F; HOLMES MODELS 48, 48B

16 GA. GALVANIZED END STILES ATTACHED TO DOOR SKIN WITH PATENTED TOG-L-LOC SYSTEM [(2) AT TOP INSIDE, (2) BOTTOM INSIDE, (4) ALONG OUTSIDE EDGE OF 18" SECTIONS & (6) ALONG OUTSIDE EDGE OF 21" SECTIONS] AND SEPARATE 18 GA. GALV. INNER DOUBLE END STILES ATTACHED TO TOP AND BOTTOM RAIL WITH PATENTED TOG-L-LOC SYSTEM.

ONE INTERMEDIATE STILE BETWEEN EACH EMBOSS LOCATION. ATTACHED W/ PATENTED TOG-L-LOC SYSTEM (TOP & BOT) AND URETHANE ADHESIVE (ALONG CENTER).

ONE ROW OF IMPACT-RESISTANT GLAZING IN EITHER TOP SECTION (SHOWN) OR NEXT-TO-THE-TOP SECTION (NOT SHOWN). MAX. GLAZING SIZE IS 18-1/2" x 11". GLAZING IS INJECTION MOLDED GE LEXAN SLX2432T, AN APPROVED CC2 PLASTIC IN ACCORDANCE WITH IBC/FBC 2606. SEE SECTION B-B FOR ASSEMBLY DETAILS.

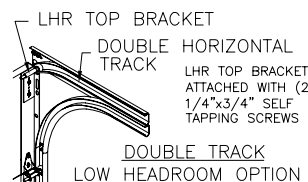
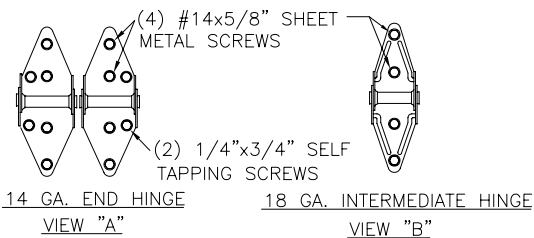
DOOR HEIGHT	NUMBER OF SECTIONS *
6'0" TO 7'0"	4
7'6" TO 8'0"	5
9'0" TO 10'6"	6
10'9" TO 12'3"	7
12'6" TO 14'0"	8
14'3" TO 15'9"	9
16'0"	10

\* SECTIONS ARE EITHER 18" OR 21"

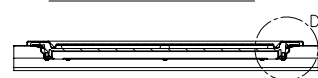
LOCK POSITION (BOTH SIDES). SEE LAYOUT OF EACH LOCK FOR DETAILS.

MAX. DOOR HEIGHT = 16'-0"

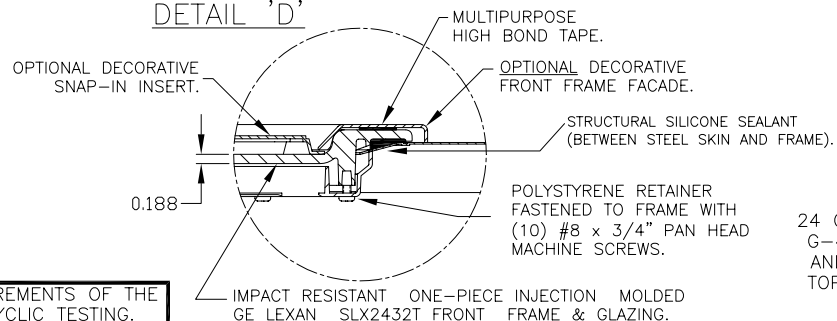
LOCATION OF OPTIONAL VENTS. (MAX SIZE: 60 SQ. INCHES)  
MAX. DOOR WIDTH = 9'-0"  
INSIDE ELEVATION



SECTION B-B



DETAIL 'D'

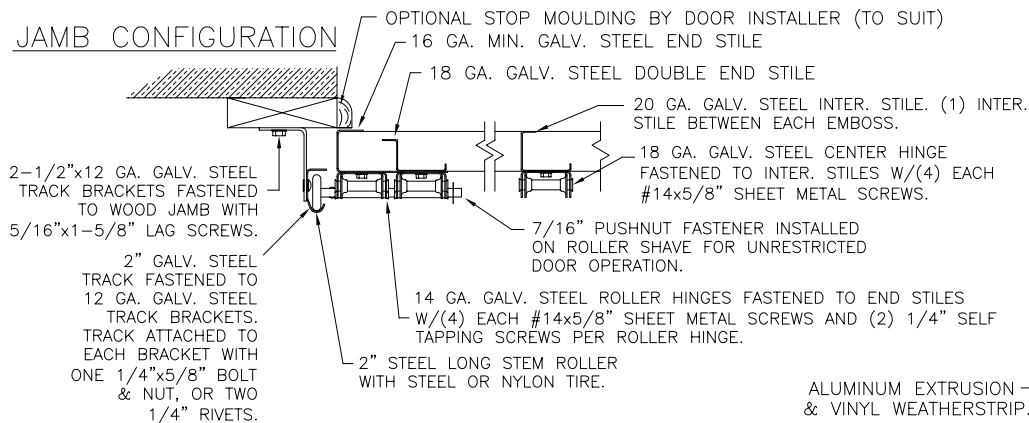


THIS DOOR MEETS THE REQUIREMENTS OF THE LARGE MISSILE IMPACT AND CYCLIC TESTING.

THIS DOOR MEETS OR EXCEEDS THE DESIGN LOADS FOR THE WIND SPEEDS LISTED BELOW ACCORDING TO THE FLORIDA BLDG. CODE OR IBC (ASCE7) FOR THE FOLLOWING CONDITIONS: 1) ENCLOSED BUILDING, 2) DOOR HAS 2' OF WIDTH IN BUILDING'S END ZONE, 3) IMPORTANCE FACTOR OF 1.0, 4) ANY ROOF SLOPE, AND 5) 50% SAFETY FACTOR.

WIND SPEED (MPH)	≤ 150
EXPOSURE LEVEL	B or C
MEAN ROOF HEIGHT	30'

JAMB CONFIGURATION



JAMB TO SUPPORTING STRUCTURE ATTACHMENT

NOTES:

- ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE TRACK AND THEN FROM THE TRACK TO THE 2x6 VERTICAL SYP (GRADE #2 OR BETTER) JAMBS. NO LOAD FROM THE DOOR IS TRANSFERRED TO THE HORIZONTAL (TOP) JAMB.
- ALL JAMB FASTENERS MAY BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
- A 1/3 STRESS INCREASE FOR WIND LOAD WAS NOT USED IN THE CALCULATION OF ALLOWABLE LOADS FOR ANCHORS AND FASTENERS FOR STEEL, CONCRETE AND MASONRY.

WOOD FRAME BUILDINGS

STUD WALLS OF DOOR OPENING SHALL BE FRAMED SOLID BY NOT LESS THAN (3) 2x4 [OPENINGS UP TO 9'0"W] OR (3) 2x6 [OPENINGS UP TO 18'0"W] PRESSURE TREATED SYP (GRADE #2 OR BETTER) WOOD STUDS OF A STRESS GRADE NOT LESS THAN 1200 PSI NOMINAL EXTREME FIBER STRESS IN BENDING (F<sub>b</sub>). STUD WALLS TO BE CONTINUOUS FROM FOOTING TO TIE BEAMS.

BLOCK WALL OR CONCRETE

2x6 SYP (GRADE #2 OR BETTER) WOOD JAMB SHALL BE ANCHORED TO GROUT REINFORCED BLOCK WALL OR CONCRETE COLUMN. BLOCK WALL CELLS SHALL BE FILLED WITH CONCRETE AND REINFORCED WITH REINFORCING BARS EXTENDING INTO THE FOOTING AND INTO THE BEAMS. ALL BARS SHALL BE CONTINUOUS FROM THE TIE BEAMS TO FOOTING PER BLOCK WALL OR CONCRETE COLUMN. BLOCK WALLS AND CONCRETE COLUMNS TO BE DESIGNED BY THE BUILDING ENGINEER OR ARCHITECT OF RECORD.

2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT (NOT TO BE USED FOR ATTACHMENT OF TRACK BRACKETS)

BUILDING TYPE	FASTENER TYPE	MAXIMUM * ON CENTER DISTANCE BETWEEN FASTENERS	STEEL WASHERS REQUIRED?
C-90 BLOCK (HOLLOW OR GROUTED)	1/4" x 3" (1-1/4" EMBED) ITW TAPCON CONCRETE ANCHOR (2-1/2" MIN. EDGE DISTANCE)	7"	1" O.D.
2,000 PSI MIN. CONCRETE	1/4" x 4" (1-3/4" EMBED) ITW TAPCON CONCRETE ANCHOR (2-1/2" MIN. EDGE DISTANCE)	14-1/4"	1" O.D.
3,000 PSI MIN. CONCRETE	1/2" x 4" (2-1/4" EMBED) SIMPSON STRONG-TIE WEDGE-ALL WEDGE ANCHOR (2" MIN. EDGE DISTANCE)	14-1/2"	INCLUDED
2,000 PSI MIN. CONCRETE	1/2" x 4" (2-1/2" EMBED) WEJ-IT SLEEVE ANCHOR (2-1/2" MIN. EDGE DISTANCE)	16"	INCLUDED
WOOD FRAME	1/2" x 4" (1-5/8" EMBED) LAG SCREW (ASTM A307, GRADE A) (2-1/2" MIN. EDGE DISTANCE)	16-3/4"	1" O.D.

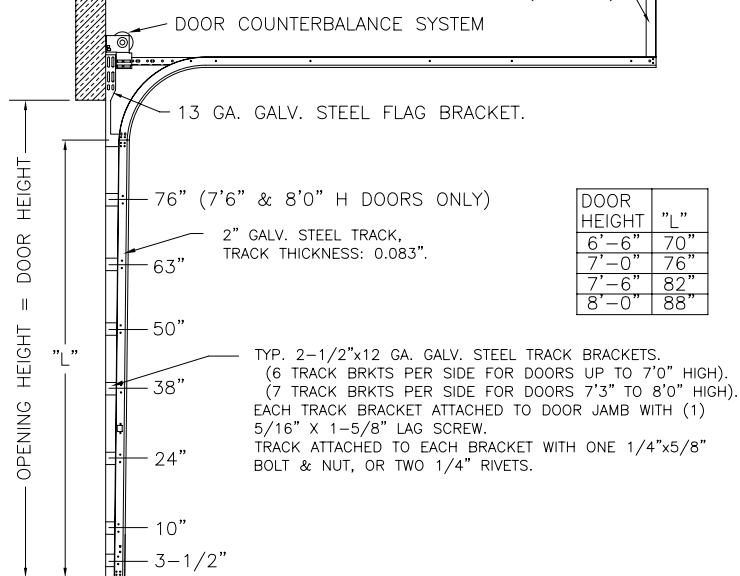
\* - FIRST ANCHOR/SCREW STARTING FROM BOTTOM AT NO MORE THAN HALF OF MAXIMUM ON CENTER DISTANCE. HIGHEST ANCHOR/SCREW INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING HEIGHT.

TRACK CONFIGURATION

DOORS UP TO 8'0" HIGH

TRACK CONFIGURATION ABOVE THE DOOR OPENING DOES NOT AFFECT THE WIND LOAD RATING.

HORIZONTAL TRACK SUPPORT BY DOOR INSTALLER (TO SUIT)



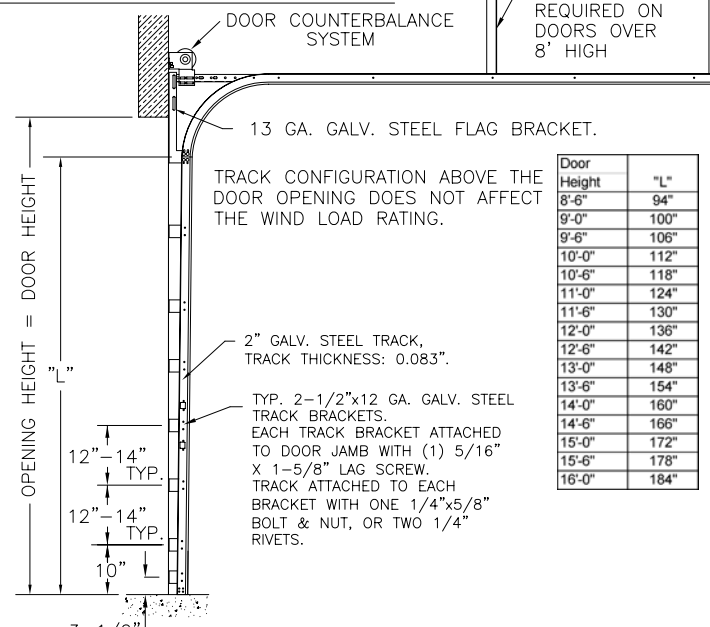
DOOR HEIGHT	"L"
6'-6"	70"
7'-0"	76"
7'-6"	82"
8'-0"	88"

TRACK CONFIGURATION

DOORS UP TO 16'0" HIGH

HORIZONTAL TRACK SUPPORT BY DOOR INSTALLER (TO SUIT)

CENTER HANG REQUIRED ON DOORS OVER 8' HIGH



Door Height	"L"
8'-6"	94"
9'-0"	100"
9'-6"	106"
10'-0"	112"
10'-6"	118"
11'-0"	124"
11'-6"	130"
12'-0"	136"
12'-6"	142"
13'-0"	148"
13'-6"	154"
14'-0"	160"
14'-6"	166"
15'-0"	172"
15'-6"	178"
16'-0"	184"

SCOTT HAMILTON, P.E.  
FLORIDA P.E. No. 63286

DESIGN LOADS: +62.0 PSF & -72.0 PSF.  
TEST LOADS: +93.0 PSF & -108.0 PSF.



CLOPAY BUILDING PRODUCTS COMPANY  
8585 DUKE BLVD.  
MASON, OH 45040  
(513) 770 - 4800

MANUFACTURING PRODUCT CODE PAN-2F143	CLOPAY WINDLOAD RATING W9	MAXIMUM DOOR SIZE: 9'0"W x 16'0"H
DATE: 11/18/96	DESCRIPTION: SINGLE-CAR STEEL PAN GARAGE DOOR WITH OPT. IMPACT RESIST. LITES	VER: IBC
DRAWN BY: MWW	DRAWING NUMBER: B 101706	
CHECKED BY:		