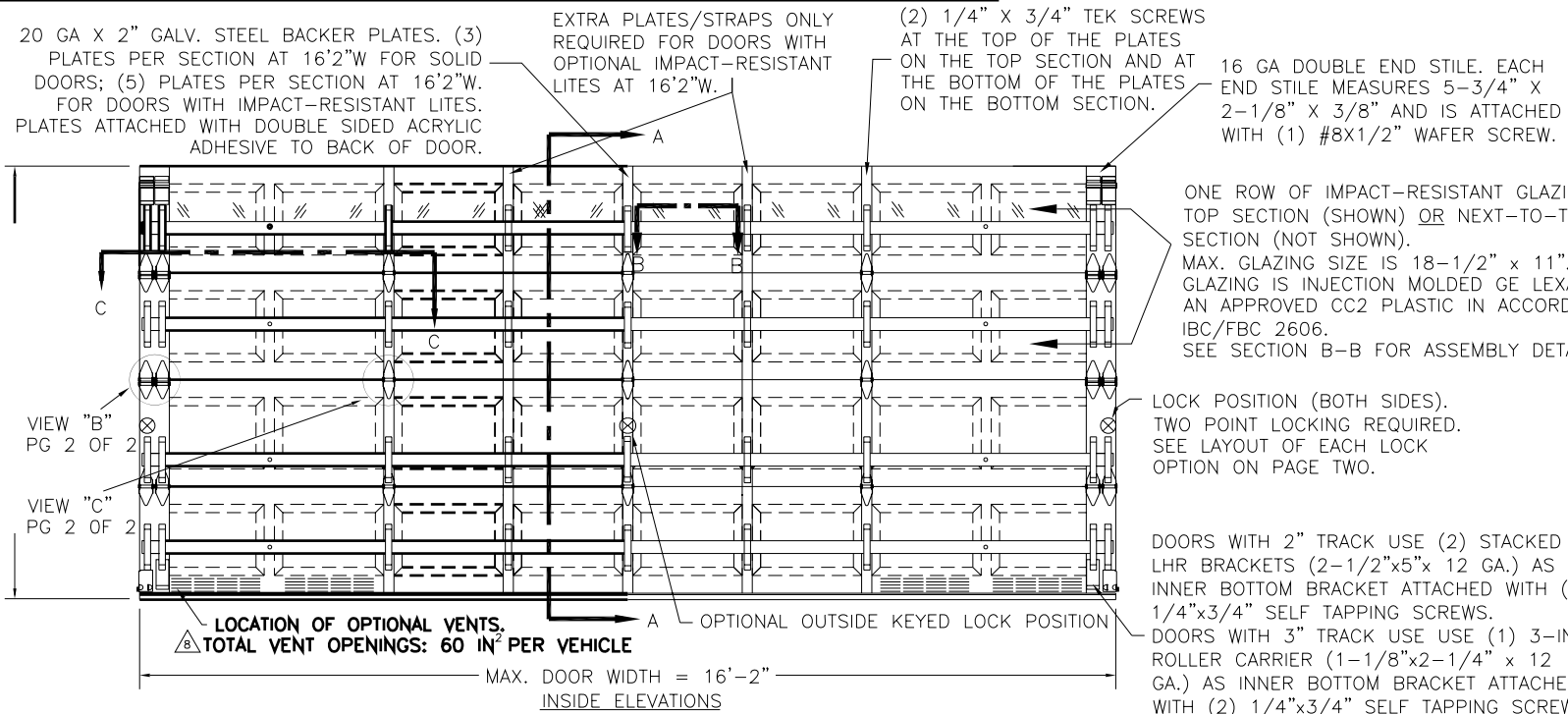


**CLOPAY MODELS 4300, 4301, 4310, 4400, 4401, HDG, HDGL, HDGF
67, 67G, 68, 68G; IDEAL MODELS SP20, SE20, SF20**



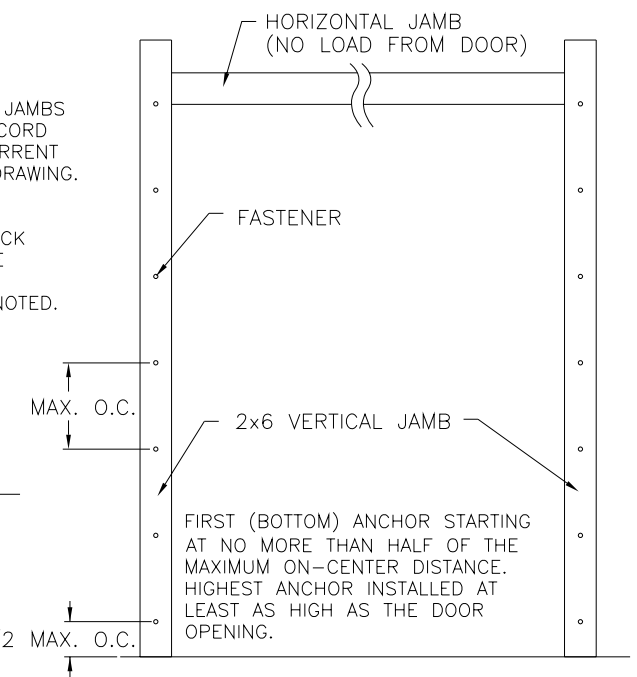
NOTE: SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR THE WIND LOADS SHOWN ON THIS DRAWING.

- 7 2/2004 ADDED EXTENDED HEIGHT MODELS
- 8 7/2005 UPDATED CODE AND FOAM REFERENCES
- 9 11/2007 HOLMES NOW AVAIL UP TO 12'
- 10 05/2008 REVISED FORMAT; ADDED OPTIONAL IMPACT RESISTANT LITES; UPDATED JAMB FASTENERS. DESIGN ENGINEER WAS M. WESTERFIELD. UPDATED QTY OF BACKER PLATES & STRAPS. ADDED NEW HOLMES M/Ns.
- 11 12/2008 MAX HT WAS 12-0; ADDED MPC.

JAMB PREPARATION NOTE
THE METHOD OF ATTACHMENT TO THE SUPPORTING STRUCTURE OF THE PRESSURE TREATED 2x6 WOOD JAMBS SHALL BE APPROVED BY THE PROFESSIONAL OF RECORD FOR THE STRUCTURE AND IN ACCORDANCE WITH CURRENT BUILDING CODES FOR THE LOADS LISTED ON THIS DRAWING. PREPARATION OF JAMBS BY OTHERS.

ALL MOUNTING OF TRACK, ANGLES, HORIZONTAL TRACK SUPPORTS, AND ALL OTHER DOOR HARDWARE TO BE INSTALLED PER CLOPAY INSTALLATION INSTRUCTIONS SUPPLIED WITH DOOR SYSTEM UNLESS OTHERWISE NOTED.

SEE PAGE 2 OF 2 FOR ADDITIONAL DETAILS.



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)	≤ 140	150	150
EXPOSURE LEVEL	B or C	B	C
MEAN ROOF HEIGHT	30'	30'	25'

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

3" GALV. TAPERED STEEL TRACK AND ANGLE. TRACK THICKNESS: 0.101". ANGLE THICKNESS: 0.080". MIN. ANGLE DIMENSIONS 3-1/4" X 2-7/8".

DOOR HEIGHT	VERTICAL TRACK LENGTH
9'-0"	96"
10'-0"	108"
12'-0"	132"
14'-0"	156"
16'-0"	180"

13 GA GALV. STEEL FLAG BRACKET ATTACHED TO JAMB WITH (3) 5/16" X 1-5/8" LAG SCREWS AND TO TRACK WITH (2) 1/4" RIVETS.

2" GALV. STEEL TRACK, TRACK THICKNESS: 0.083".

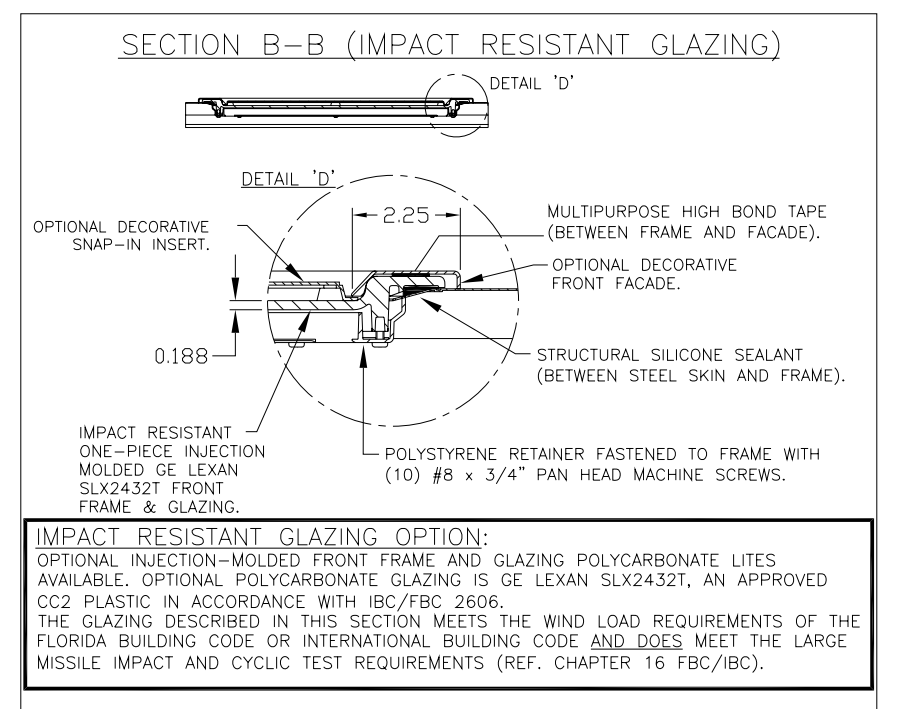
TYP. 2-1/2" X 12 GA GALV. STEEL TRACK BRACKETS, ATTACHED TO JAMB WITH (1) 5/16" X 1-5/8" LAG SCREW PER TRACK BRACKET.

SEE DETAILS ON JAMB CONFIGURATION.

TABLE 1

DOOR HEIGHT	NUMBER OF SECTIONS*
6'0" TO 7'0"	4
7'6" TO 8'9"	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

* SECTION ARE EITHER 18" OR 21" HIGH



IMPACT RESISTANT GLAZING OPTION:
OPTIONAL INJECTION-MOLDED FRONT FRAME AND GLAZING POLYCARBONATE LITES AVAILABLE. OPTIONAL POLYCARBONATE GLAZING IS GE LEXAN SLX2432T, AN APPROVED CC2 PLASTIC IN ACCORDANCE WITH IBC/FBC 2606. THE GLAZING DESCRIBED IN THIS SECTION MEETS THE WIND LOAD REQUIREMENTS OF THE FLORIDA BUILDING CODE OR INTERNATIONAL BUILDING CODE AND DOES MEET THE LARGE MISSILE IMPACT AND CYCLIC TEST REQUIREMENTS (REF. CHAPTER 16 FBC/IBC).

DESIGN LOADS: +46.6 P.S.F. & -52.0 P.S.F.
TEST LOADS: +70.0 P.S.F. & -78.0 P.S.F.

MANUFACTURING PRODUCT CODE
MPC: DSIE-1F171

DESIGN ENGINEER:
SCOTT HAMILTON, P.E.
FLORIDA LICENSE No. 63286

DESIGN ENGINEER:
MARK W. WESTERFIELD, P.E.
FL P.E. # 48495, NC P.E.
#23832, TX P.E. #91513

CLOPAY MODELS 4300, 4301, 4310, 4400, 4401, HDG, HDGL, HDGF
 HOLMES MODELS 66, 66G, 67, 67G, 68, 68G; IDEAL MODELS SP20, SE20, SF20
JAMB TO SUPPORTING STRUCTURE ATTACHMENT

REV	DATE	DESCRIPTION
11	--	SEE REVISION HISTORY ON PAGE ONE.

- 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.
 - EACH VERTICAL JAMB SEES A MAXIMUM DESIGN LOAD OF +372.8 LB & -416 LB. PER LINEAR FOOT OF 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) 2x6 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_b) FOR DOORS UP TO 8'0" HIGH OR (4) 2x6 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_b) FOR DOORS UP TO 12'0" HIGH. 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 TIE 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 AND IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

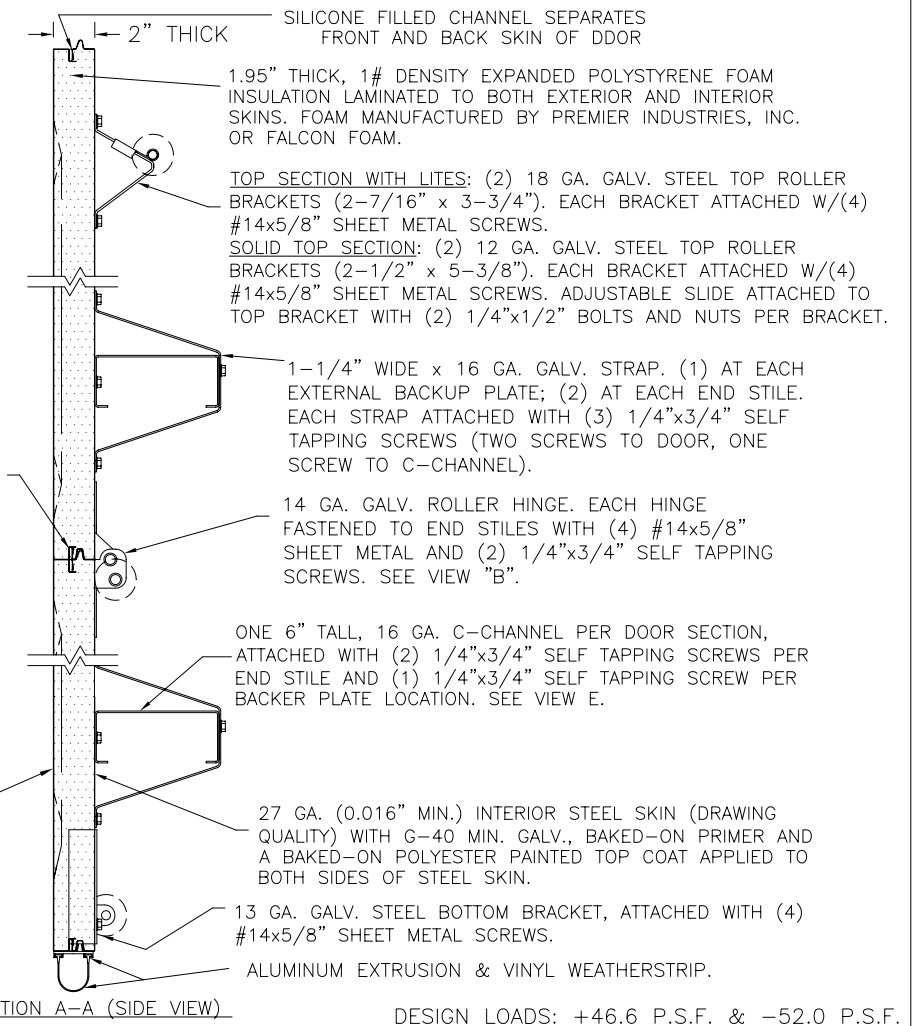
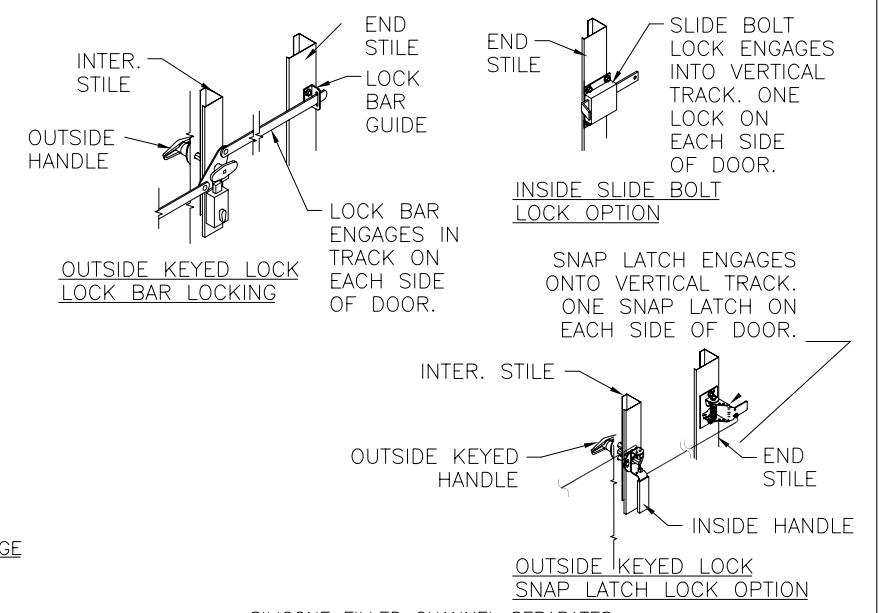
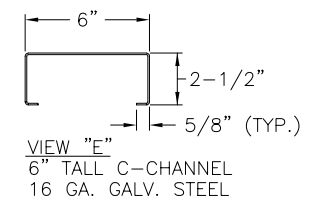
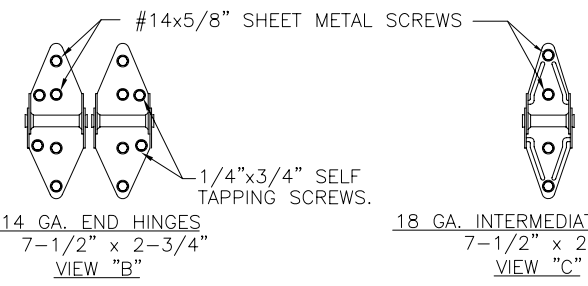
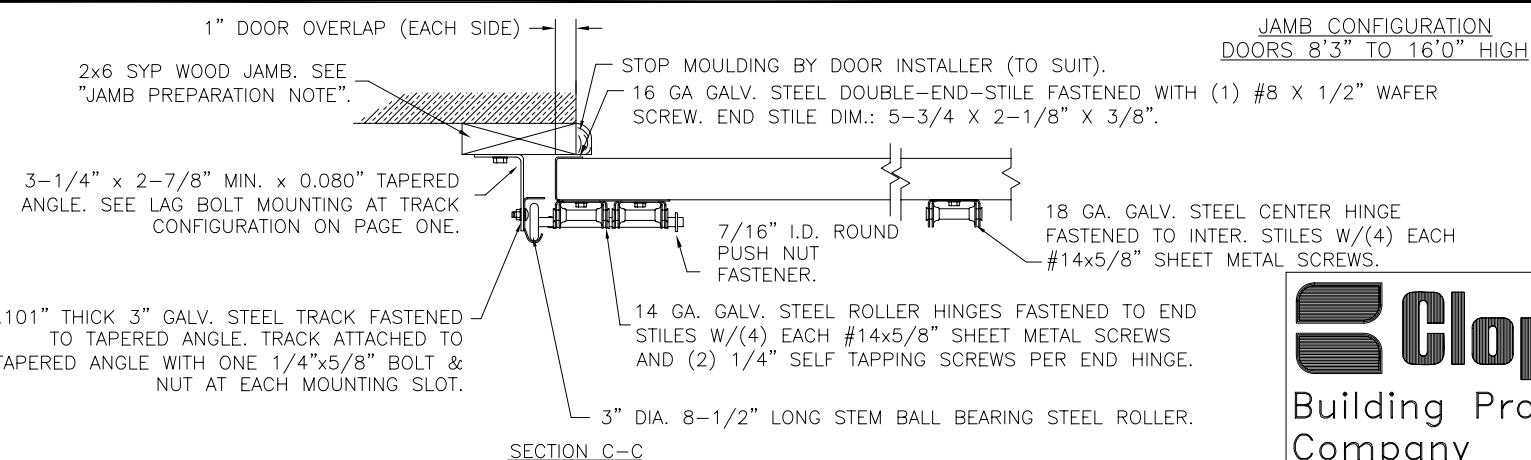
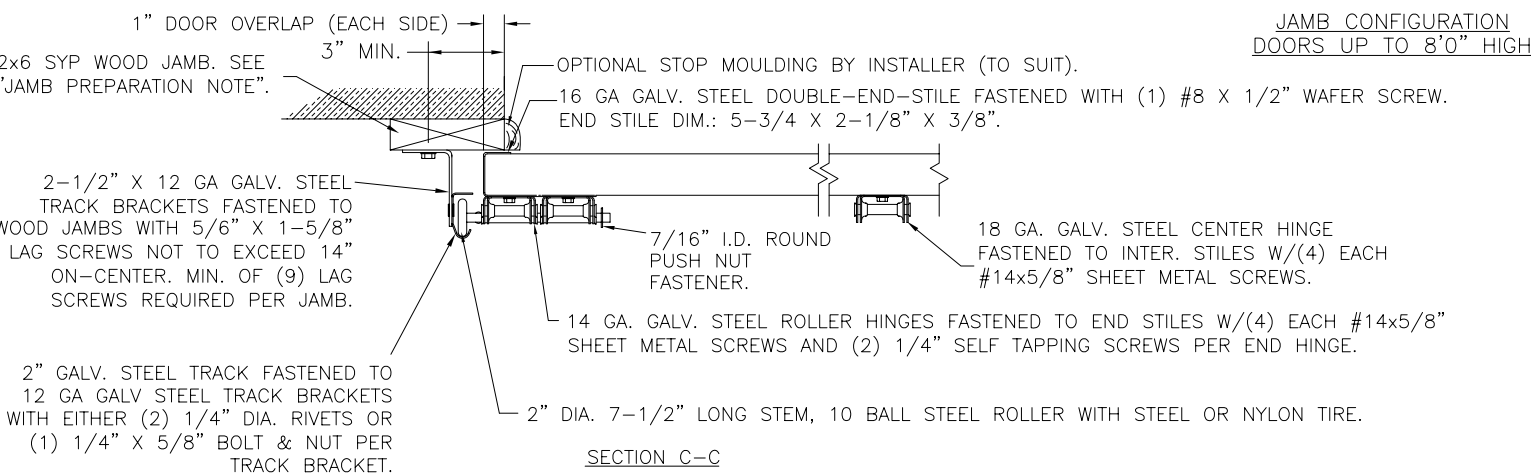
2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

(NOT TO BE USED FOR ATTACHMENT OF TRACK ANGLE TO 2x6 VERTICAL JAMBS OR SUPPORTING STRUCTURE)

BUILDING TYPE	FASTENER TYPE	MAXIMUM ON-CENTER DISTANCE BETWEEN FASTENERS*	STEEL WASHERS REQUIRED?
BLOCK WALL	1/4" x 1-1/4" MIN. EMBED TAPCON CONCRETE ANCHOR	4-1/2"	1" O.D.
2000 PSI MIN. CONCRETE	1/4" x 1-3/4" MIN. EMBED TAPCON CONCRETE ANCHOR	12-1/2"	1" O.D.
3000 PSI MIN. CONCRETE	1/2" x 1-3/4" MIN. EMBED SIMPSON STRONG-TIE WEDGE-ALL WEDGE ANCHOR	12-1/2"	INCLUDED
2000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED SLEEVE ANCHOR	14"	INCLUDED
WOOD FRAME (SYP 0.55 SG)	1/2" x 3" LAG SCREW (ASTM A307, GRADE A) 1-5/8" EMBED INTO STRUCTURE	14-1/2"	1" O.D.

MINIMUM DISTANCE BETWEEN CENTER OF ANCHOR AND EDGE OF CONCRETE BLOCK: 3", EXCLUDING STUCCO THICKNESS.

* 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. CLOPAY DOES NOT SUPPLY JAMB ATTACHMENT FASTENERS.



DESIGN ENGINEER:
 MARK W. WESTERFIELD, P.E.
 FL P.E. # 48495, NC P.E. #23832, TX P.E. #91513

TOLERANCES Unless Stated Otherwise	.00 = ±.03	MANUFACTURING PRODUCT CODE MPC: DSIE-1F171	PAGE: 2 OF 2	MAX. SIZE 16'2"W x 12'0"H
	.000 = ±.015	DATE: 7/6/95	DESCRIPTION: M/N 4300/01/10, 4400/01, HDG/L/F, 66/7/8/G	
	.0000 = ±.007	DESIGN ENGINEER: SCOTT HAMILTON, P.E. FLORIDA LICENSE No. 63286	DRAWING NUMBER: 101488	VER: IBC
	Degrees = ±1/2°	CLOPAY BUILDING PRODUCTS 8585 DUKE BLVD. MASON, OHIO 45040 (513) 770-4800		

