

MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)

MODELS 524, 520/ 224/ C4ST, COST

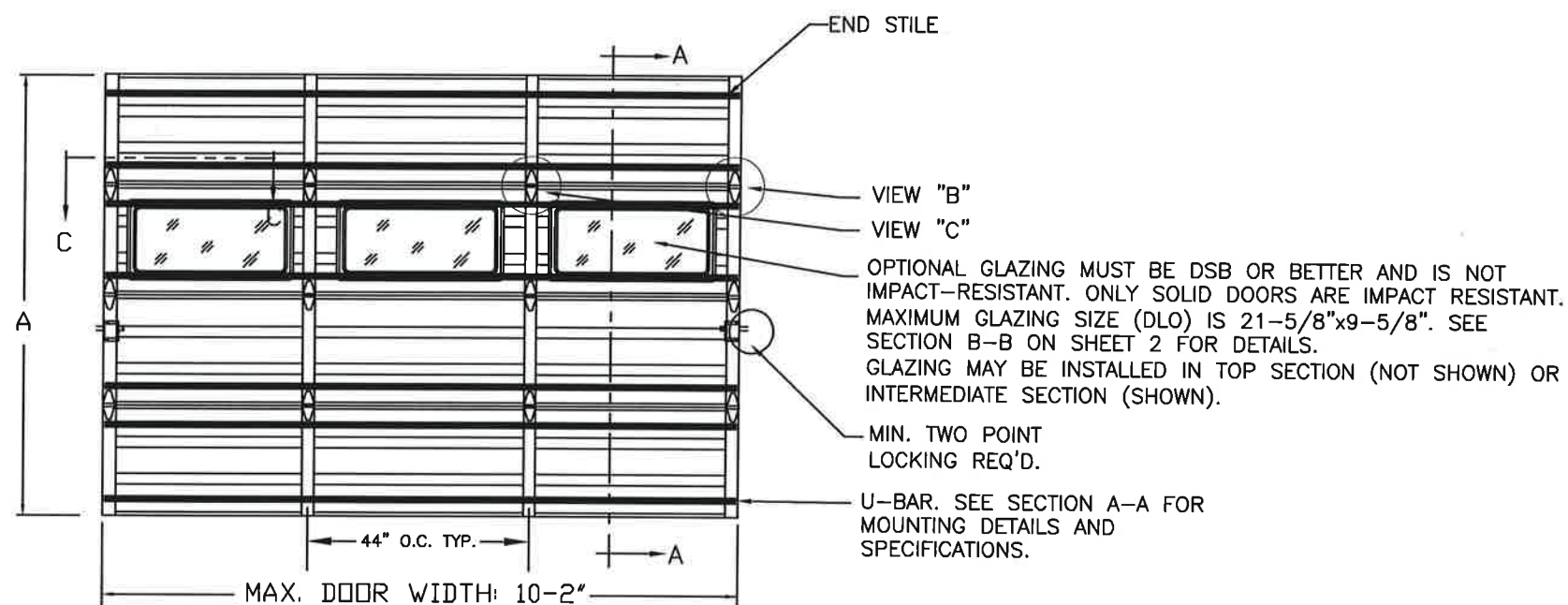
INSULATED MODELS 524S, 520S, 524V/ 224S/ C4SS, COSS, C4SV

SHEET
1 OF 4

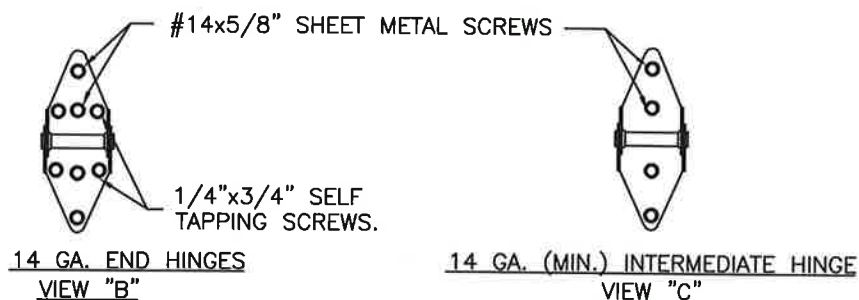
REVISIONS

REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
09	-	7/11/14	-	SH	REVISED LOADS, ROLLERS/STILES ON SHT 4.
10	-	8/10/20	-	SH	UPDATED TITLE BLOCK AND REMOVED WIND CHART

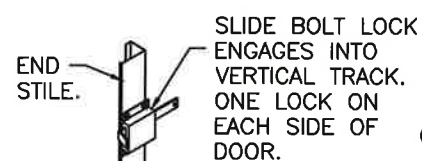
DOOR WIDTH	NUMBER OF CENTER STILES
UP TO 9'-2"	1
9'-3" THRU 12'-2"	2



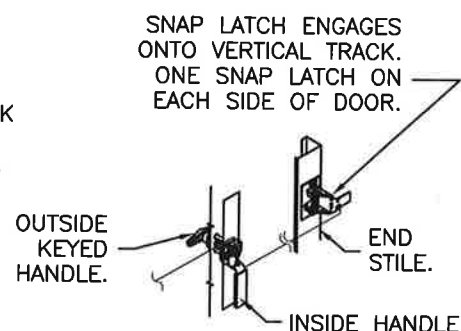
DOOR HEIGHT 'A'	NUMBER OF SECTIONS
UP TO 8'-0"	4
8'-3" THRU 10'-0"	5
10'-3" THRU 12'-0"	6
12'-3" THRU 14'-0"	7
14'-3" THRU 16'-0"	8
16'-3" THRU 18'-0"	9



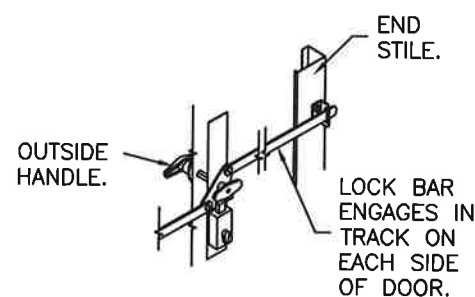
DESIGN ENGINEER:
SCOTT HAMILTON, P.E.
FLORIDA LICENSE No. 63286



INSIDE SLIDE BOLT
LOCK OPTION.



OUTSIDE KEYED LOCK WITH
SNAP LATCH LOCK OPTION.



OUTSIDE KEYED LOCK WITH
LOCK BAR LOCKING.

STANDARD LOADS
DESIGN LOADS: +37.0 P.S.F. & -44.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -66.0 P.S.F.
IMPACT-RATED LOADS
DESIGN LOADS: +37.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise
TOLERANCES are
.0 = ±.031
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2°

Unless Stated Otherwise
DIMENSIONS ARE IN INCHES.

Clopay
CORPORATION

8585 Duke Boulevard
Mason, OH 45040 USA
Tel. No. 513-770-4800
Fax No. 513-770-4853

MANUFACTURING PRODUCT CODE
C-PAN-1E448

PART NO.: N/A

WINDLOAD RATING
W6 DP37

DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 10'2"W (SEE TABLE)

DRAWN BY: SH DATE: 1/10/14 SCALE: NTS DWG. B

CHECKED BY: SH DATE: 1/10/14 SHEET 1 OF 4

DWG. NO.: 102445 - A/B VER: IBC

2 FLORIDA PRODUCT APPROVAL 16848

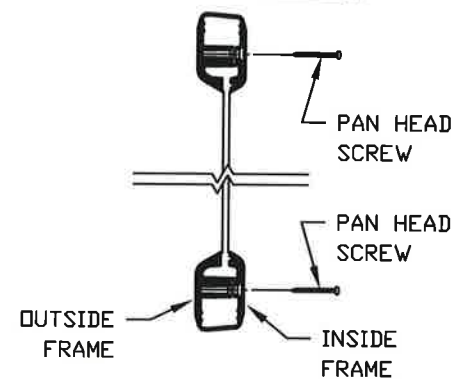
MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)
MODELS 524, 520/ 224/ C4ST, COST
INSULATED MODELS 524S, 520S, 524V/ 224S/ C4SS, COSS, C4SV

SHEET:
2 OF 4

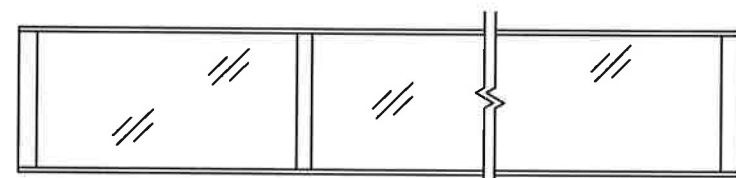
REVISIONS					
REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
10	-	-	-	-	SEE REVISION HISTORY ON SHEET ONE.

STANDARD ASSEMBLY CONSTRUCTION:
OPTIONAL LITES WITH DSB OR TEMPERED INSULATED GLAZING AVAILABLE. OPTIONAL FULL VISION SECTIONS WITH DSB OR BETTER GLAZING AVAILABLE.
THE ENTIRE DOOR ASSEMBLY INSTALLED IN COMPLIANCE WITH THIS SECTION MEETS THE WIND LOAD REQUIREMENTS OF THE FLORIDA BUILDING CODE OR INTERNATIONAL BUILDING CODE BUT DOES NOT MEET THE IMPACT RESISTANT REQUIREMENT FOR WINDBORNE DEBRIS REGIONS (REF. CHAPTER 16 FBC/IBC).

SECTION B-B
(NON-IMPACT-RESISTANT
GLAZING OPTION)



NON-IMPACT-RESISTANT
FULL VISION SECTION OPTION



OPTIONAL ALUMINUM FULL VISION WINDOW LITE SECTIONS AVAILABLE (1/8" DSB, 1/8" ACRYLIC, 1/4" WIRE, 1/2" INSUL.). FULL VISION SECTIONS TO HAVE SAME REINFORCEMENT AS OTHER SECTIONS. OPTIONAL ACRYLIC IS PLASKOLITE OPTIX, AN APPROVED CC2 PLASTIC IN COMPLIANCE WITH IBC/FBC 2606.

IMPACT-RESISTANT CONSTRUCTION:

SOLID DOORS (NO GLAZING) ARE IMPACT-RESISTANT.

THE ENTIRE DOOR ASSEMBLY INSTALLED IN COMPLIANCE WITH THIS SECTION MEETS THE WIND LOAD REQUIREMENTS OF THE FLORIDA BUILDING CODE AND INTERNATIONAL BUILDING CODE AND IS LARGE- AND SMALL-MISSILE IMPACT RESISTANT.

IMPACT-RESISTANT ASSEMBLY DETAILS
DRAWING 102445-A

STANDARD ASSEMBLY DETAILS
DRAWING 102445-B



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

STANDARD LOADS
DESIGN LOADS: +37.0 P.S.F. & -44.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -66.0 P.S.F.
IMPACT-RATED LOADS
DESIGN LOADS: +37.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise
TOLERANCES are
.0 = ±.031
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2"

Unless Stated Otherwise
DIMENSIONS ARE IN INCHES.

Clopay
CORPORATION

8585 Duke Boulevard
Mason, OH 45040 USA
Tel. No. 513-770-4800
Fax No. 513-770-4853

DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 10'2"W (SEE TABLE)			
DRAWN BY: SH	DATE: 1/10/14	SCALE: NTS	DWG. B
CHECKED BY: SH	DATE: 1/10/14	SHEET 2 OF 4	SIZE
DWG. NO.: 102445 - A/B		VER: IBC	

MANUFACTURING PRODUCT CODE
C-PAN-1E448
PART NO.: N/A

WINDLOAD RATING
W6 DP37

MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)

MODELS 524, 520/ 224/ C4ST, COST

INSULATED MODELS 524S, 520S, 524V/ 224S/ C4SS, COSS, C4SV

SHEET:
3 OF 4

REVISIONS

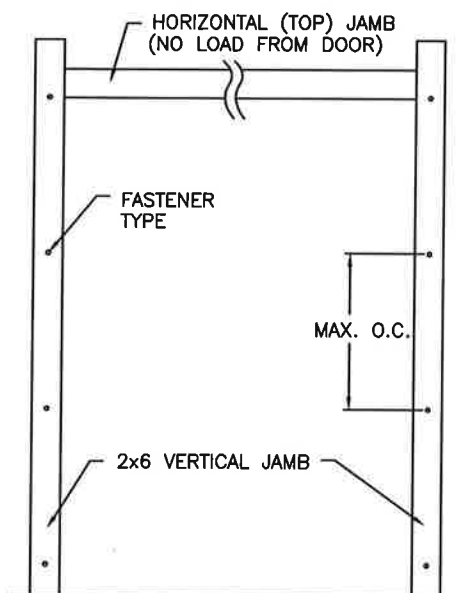
REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
10	-	-	-	-	SEE REVISION HISTORY ON SHEET ONE.

JAMB TO SUPPORTING STRUCTURE ATTACHMENT

NOTES:

1. 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.
2. EACH VERTICAL JAMB SEES A MAXIMUM DESIGN LOAD OF +185 LB & -220 LB. PER LINEAR FOOT OF JAMB.
3. ALL JAMB FASTENERS MAY BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
4. 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.

NOTE: 2x6 WOOD JAMBS ARE NOT REQUIRED WITH CONTINUOUS ANGLE MOUNT TRACK. HOWEVER, IF DESIRED ON STEEL JAMBS OR CONCRETE OR BLOCK WALLS, APPROVED FASTENERS AS DETAILED BELOW SHOULD BE INCREASED IN LENGTH BY 1-1/2" AND INSTALLED DIRECTLY THROUGH THE ANGLE AND 2x6 WOOD JAMBS INTO THE STEEL JAMBS OR CONCRETE OR BLOCK WALLS. ANCHORS CAN BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE. CONTINUOUS ANGLE TRACK CAN BE ANCHORED DIRECTLY TO GROUT REINFORCED BLOCK WALL OR 3,000 PSI MIN. CONCRETE COLUMN OR STEEL JAMBS.



FASTENER ATTACHMENT TO SUPPORTING STRUCTURE SCHEDULES

BUILDING TYPE	FASTENER TYPE	MAXIMUM ON-CENTER DISTANCE BETWEEN FASTENERS*	STEEL WASHERS REQUIRED?
HOLLOW BLOCK WALL	1/4" x 1-1/4" MIN. EMBED ULTRACON CONCRETE ANCHOR	9"	1" O.D.
GROUT FILLED BLOCK WALL	1/4" x 1-3/4" MIN. EMBED ULTRACON CONCRETE ANCHOR	14-3/4"	1" O.D.
2000 PSI MIN. CONCRETE	1/4" x 1" MIN. EMBED ULTRACON CONCRETE ANCHOR	12-3/4"	1" O.D.
2000 PSI MIN. CONCRETE	1/4" x 1" MIN. EMBED TAPCON CONCRETE ANCHOR	7-1/2"	1" O.D.
2000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED WEJ-IT ANKR TITE SLEEVE ANCHOR	24"	INCLUDED
4000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED WEJ-IT ANKR TITE SLEEVE ANCHOR	24"	INCLUDED
WOOD FRAME (SYP 0.55 SG)	1/2" x 3" LAG SCREW (ASTM A307, GRADE A) 1-5/8" EMBED INTO STRUCTURE	24"	1" O.D.
14GA STEEL (0.060" MIN.)	1/4"-14 x 1" ITW BUILDDEX TEKS SELF-DRILLING FASTENER	12-1/4"	1" O.D.
12GA STEEL (0.105" MIN.)	1/4"-14 x 1" ITW BUILDDEX TEKS SELF-DRILLING FASTENER	21-1/2"	1" O.D.
1/8" STEEL	1/4"-14 x 1" ITW BUILDDEX TEKS SELF-DRILLING FASTENER	24"	1" O.D.

* 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.
MINIMUM DISTANCE BETWEEN CENTER OF ANCHOR AND EDGE OF CONCRETE BLOCK: 2-1/2", EXCLUDING STUCCO THICKNESS.

SECTIONS ARE 1-7/8" THICK PANELS ROLL FORMED OF .022" MIN. HOT DIPPED G-40 GALVANIZING, ROLL FORMED STEEL.

ADJUSTABLE TOP ROLLER BRACKET OF 12 GA. GALV. STEEL, INSTALLED ON DOOR WITH (4) #14 X 5/8" LG SHEET METAL SCREWS

TONGUE & GROOVE JOINT.

END HINGE. SEE DETAILS AT VIEW "B" ON SHEET 1.

VIEW "E"
3" TALL 50 KSI U-BAR 20 GA. GALV. STEEL.

3" x 20GA. STEEL U-BARS IN A 2-1-2-1 PATTERN, STARTING WITH THE BOTTOM SECTION. ATTACHED WITH (2) 1/4"x3/4" SELF-TAPPING SCREWS PER HINGE LOCATION. (SEE VIEW "E")

(2) STACKED LHR BRACKETS USED AS INNER BOTTOM BRACKET (NOT SHOWN).

BOTTOM SECTION REINFORCED WITH TEMPERED ALUMINUM EXTRUSION WITH INTEGRAL RETAINER FOR FLEXIBLE VINYL ASTRAGAL

BOTTOM ROLLER BRACKET OF 12 GA. MIN. GALV. STEEL, FASTENED WITH (4) #14 X 5/8" LG SHT. MTL. SCREWS

SECTION A-A (SIDE VIEW)

STANDARD LOADS

DESIGN LOADS: +37.0 P.S.F. & -44.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -66.0 P.S.F.
IMPACT-RATED LOADS
DESIGN LOADS: +37.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise
TOLERANCES are

.0 = ±.031
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2°

Unless Stated Otherwise
DIMENSIONS ARE IN INCHES.

Clopay
CORPORATION

8585 Duke Boulevard
Mason, OH 45040 USA
Tel. No. 513-770-4800
Fax No. 513-770-4853

MANUFACTURING PRODUCT CODE

C-PAN-1E448

PART NO.: N/A

WINDLOAD RATING

W6 DP37

DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 10'2"W (SEE TABLE)

DRAWN BY: SH	DATE: 1/10/14	SCALE: NTS	DWG. SIZE B
CHECKED BY: SH	DATE: 1/10/14	SHEET 3 OF 4	
DWG. NO.: 102445 - A/B	VER: IBC		



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

MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)

MODELS 524, 520/ 224/ C4ST, COST

INSULATED MODELS 524S, 520S, 524V/ 224S/ C4SS, COSS, C4SV

SHEET:
4 OF 4

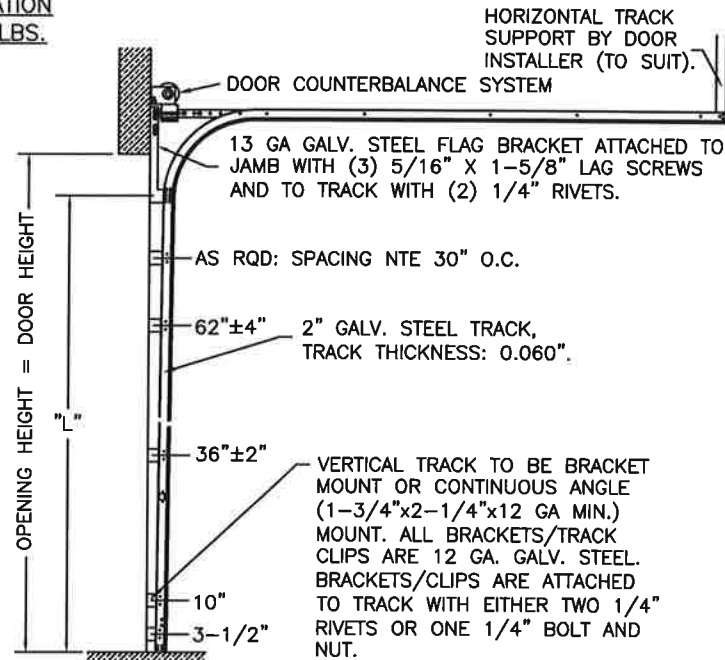
REVISIONS

REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
10	-	-	-	-	SEE REVISION HISTORY ON SHEET ONE.

2" TRACK CONFIGURATION
DOORS UP TO 800 LBS.

NOTE DOUBLE TRACK HEADROOM, HI-LIFT TRACK, FOLLOW-THE- ROOF TRACK, AND VERTICAL LIFT TRACK ARE AVAILABLE OPTIONS.

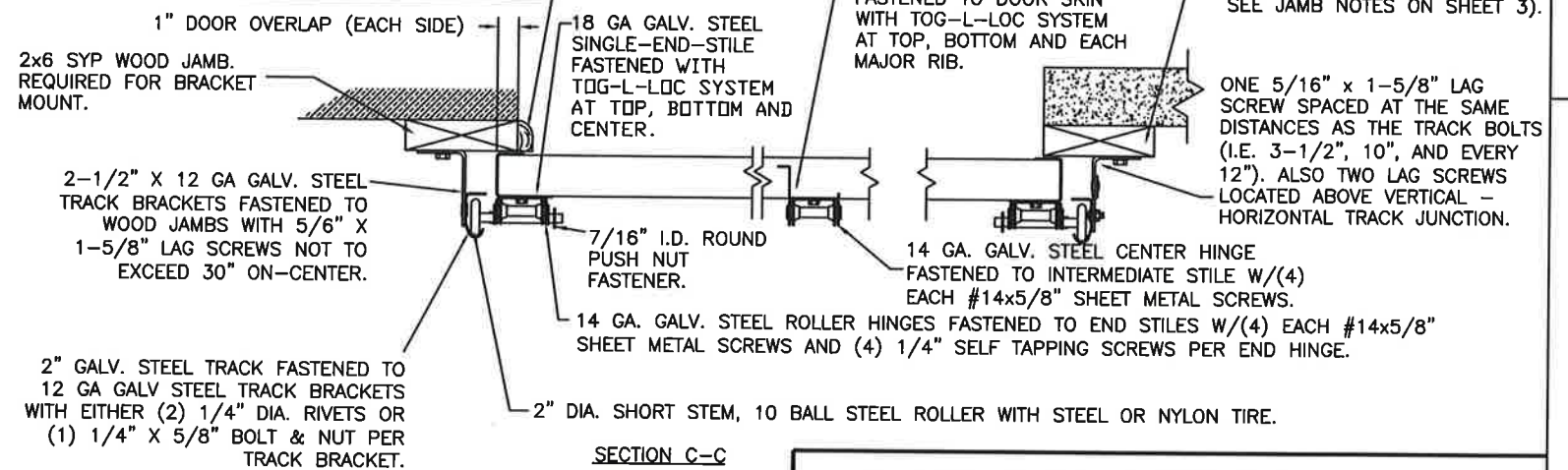
TRACK CONFIGURATION ABOVE THE DOOR OPENING DOES NOT AFFECT THE WIND LOAD RATING.



DOOR HEIGHT	"L"
6'-6"	70"
7'-0"	76"
7'-6"	82"
8'-0"	88"
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"
16'-6"	190"
17'-0"	196"
17'-6"	202"
18'-0"	208"

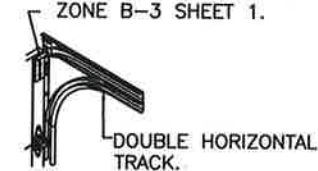
JAMB CONFIGURATION
DOORS UP TO 800 LBS.

BRACKET MOUNT JAMB CONFIGURATION



LHR BRACKET (2-1/2" x 5-3/4" x 12GA) ATTACHED WITH (2) 1/4" x 3/4" SELF TAPPING SCREWS. NOTE THAT LHR BRACKETS ARE ALSO USED WITH "DOUBLE END STILE" AS SHOWN IN ZONE B-3 SHEET 1.

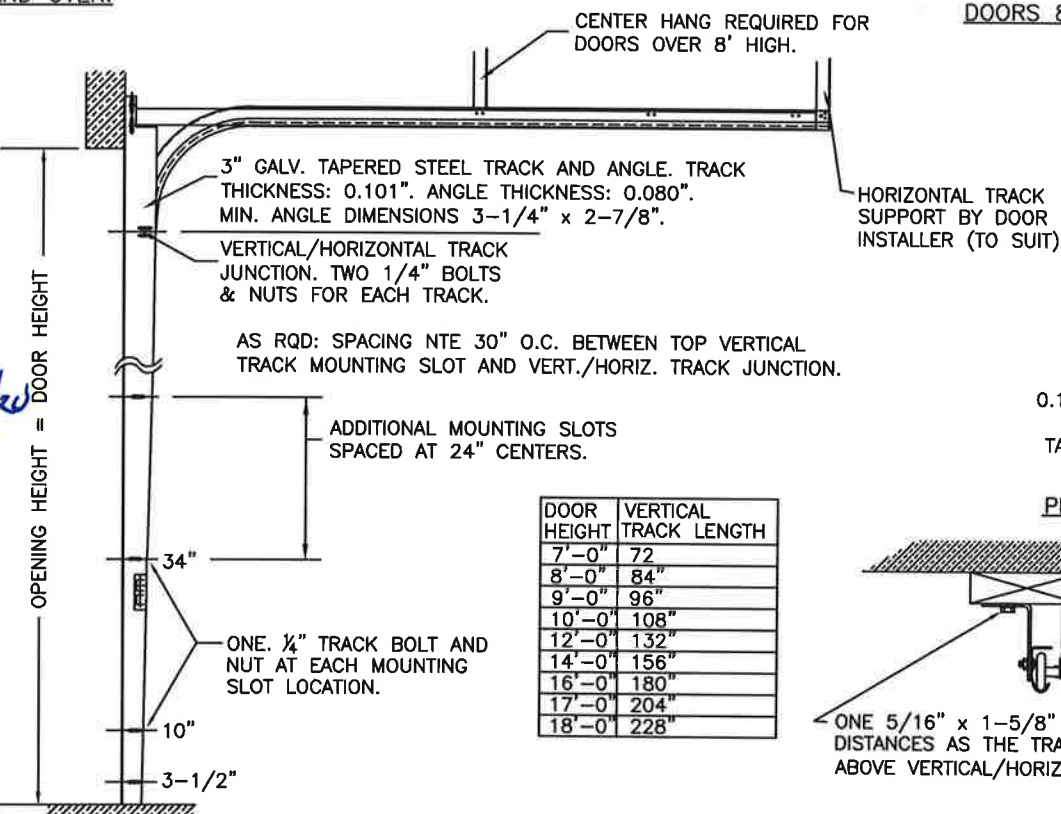
DOUBLE TRACK LOW HEADROOM OPTION (AVAIL. FOR BOTH 2" AND 3" TRACK)



3" TRACK CONFIGURATION
DOORS 800 LBS AND OVER.

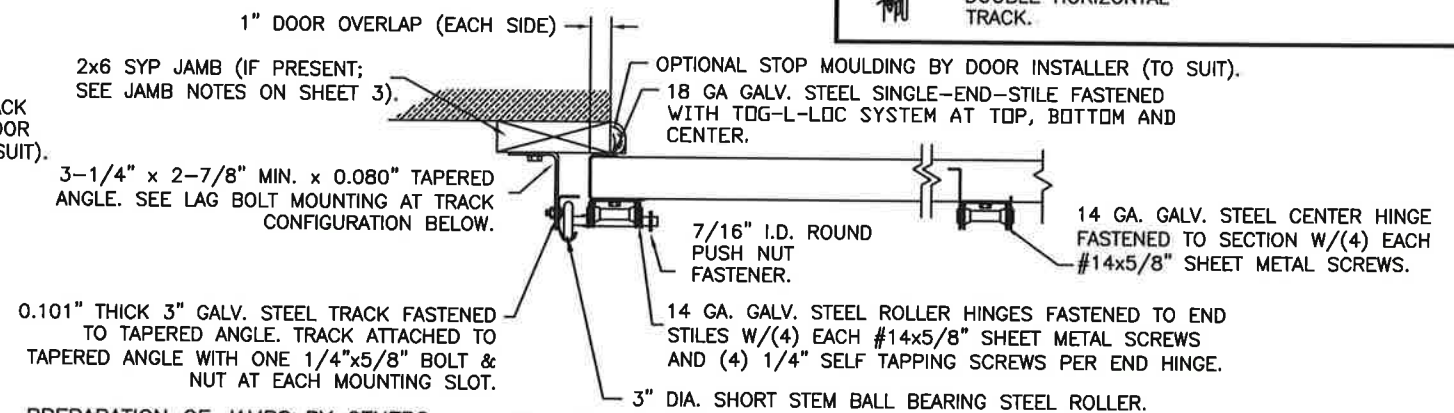
NOTE DOUBLE TRACK HEADROOM, HI-LIFT TRACK, FOLLOW-THE- ROOF TRACK, AND VERTICAL LIFT TRACK ARE AVAILABLE OPTIONS.

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



DOOR HEIGHT	VERTICAL TRACK LENGTH
7'-0"	72"
8'-0"	84"
9'-0"	96"
10'-0"	108"
12'-0"	132"
14'-0"	156"
16'-0"	180"
17'-0"	204"
18'-0"	228"

JAMB CONFIGURATION
DOORS 800 LBS AND OVER.



STANDARD LOADS
DESIGN LOADS: +37.0 P.S.F. & -44.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -66.0 P.S.F.
IMPACT-RATED LOADS
DESIGN LOADS: +37.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +55.5 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise
TOLERANCES are
.0 = ±.031
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2'

Unless Stated Otherwise
DIMENSIONS ARE IN INCHES.

Clopay
CORPORATION

8585 Duke Boulevard
Mason, OH 45040 USA
Tel. No. 513-770-4800
Fax No. 513-770-4853

MANUFACTURING PRODUCT CODE
C-PAN-1E448

PART NO.: N/A

WINDLOAD RATING
W6 DP37

DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 10'2"W (SEE TABLE)

DRAWN BY: SH DATE: 1/10/14 SCALE: NTS DWG. B

CHECKED BY: SH DATE: 1/10/14 SHEET 4 OF 4

DWG. NO.: 102445 - A/B VER: IBC



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