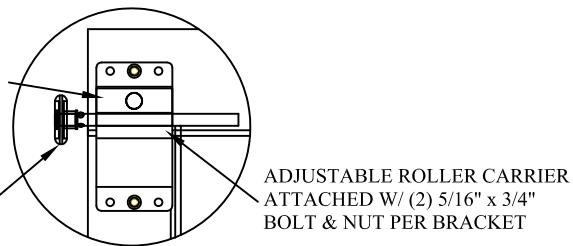
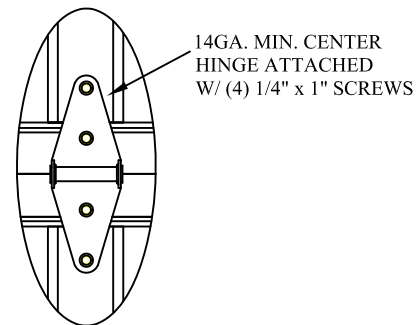


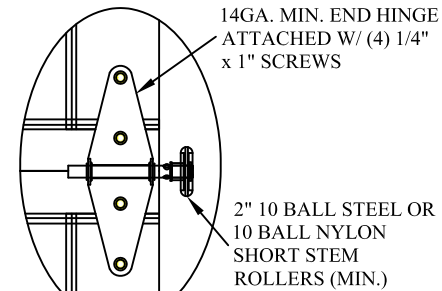
13 GA. GALV. COMMERCIAL TOP ROLLER BRACKET ATTACHED W/(2) 1/4" x 1" SCREWS PER BRACKET



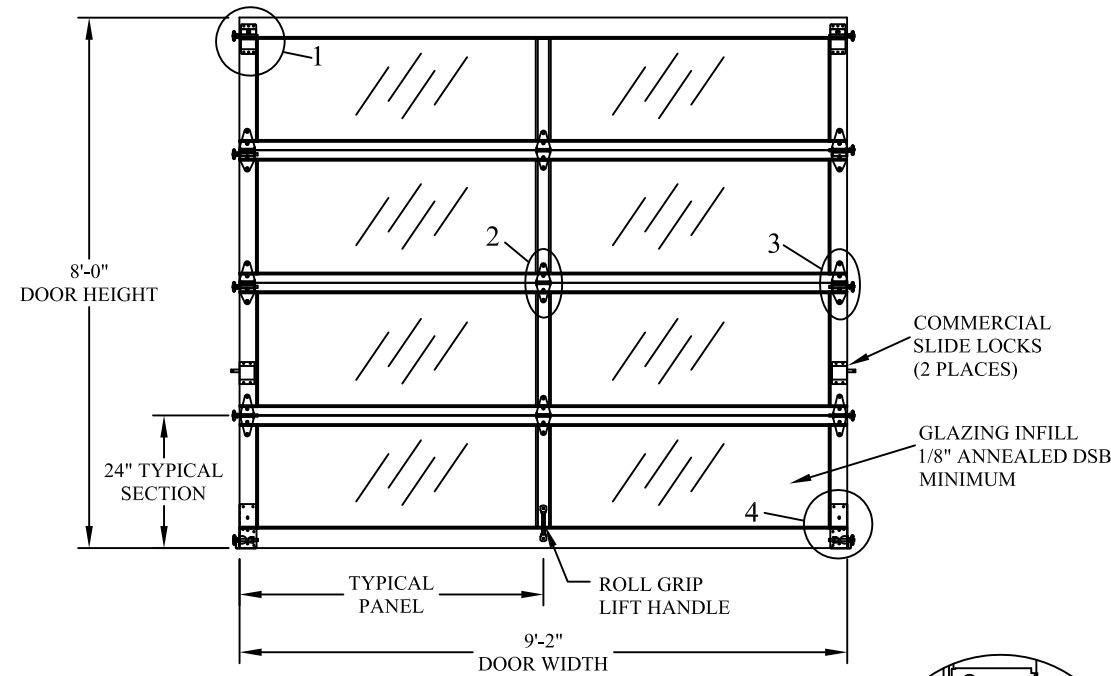
TYPICAL TOP FIXTURES
N.T.S. 1



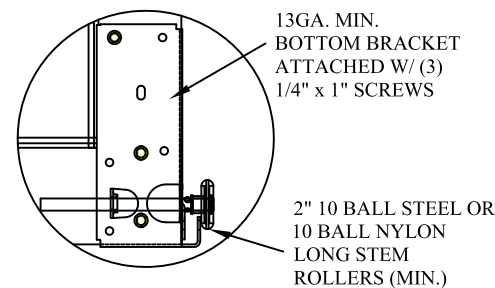
TYPICAL CENTER HINGE
N.T.S. 2



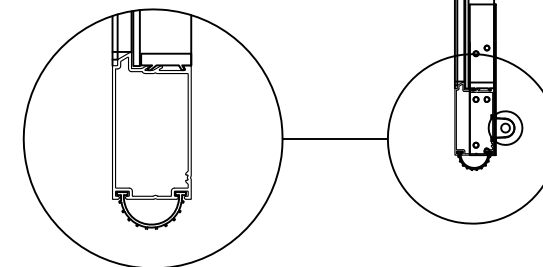
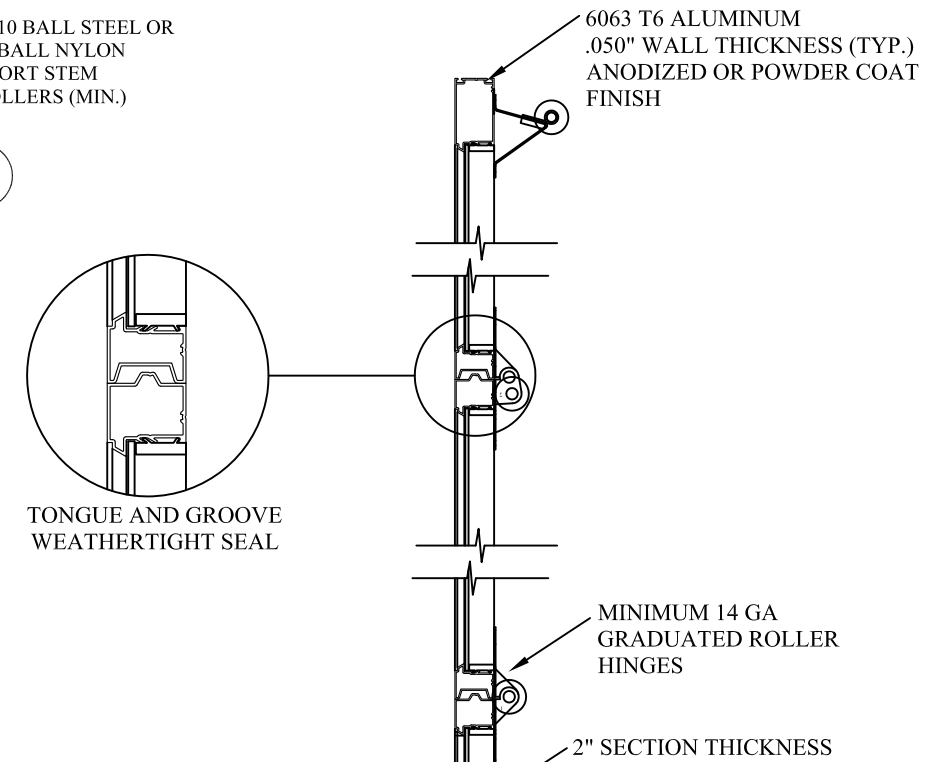
TYPICAL END HINGE
N.T.S. 3



DOOR INTERIOR ELEVATION

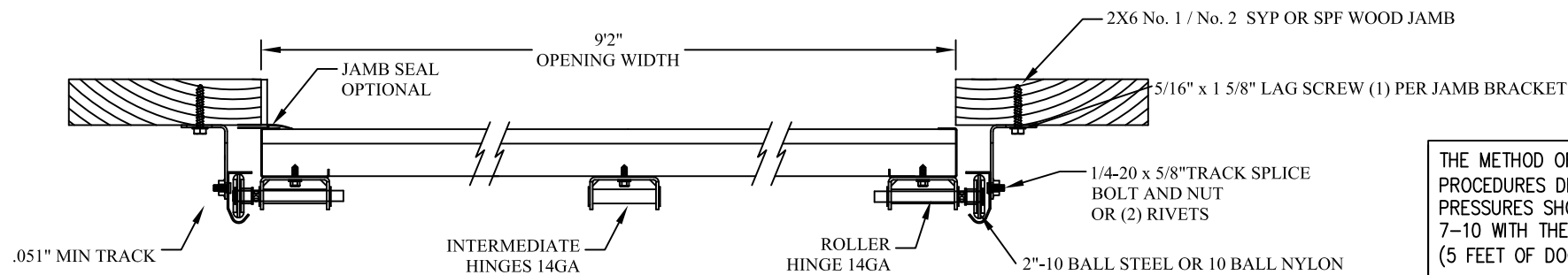


TYPICAL BOTTOM BRACKET
N.T.S. 4



3-1/2" U-SHAPED
BOTTOM SEAL

ALUMINUM SECTION
PROFILE



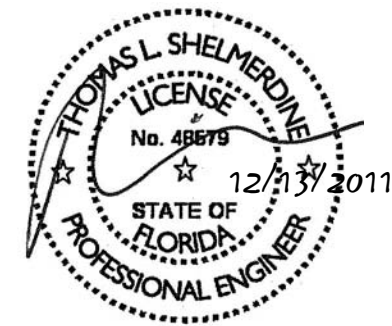
2" BRACKET MOUNT TO WOOD JAMB DETAIL

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN ASTM E330, AND ANSI/DASMA 108-02. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-10 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10° OR LESS):

WIND SPEED (MPH)	180	163	155	148	142
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	UPDATED TO FBC 2010	12/6/11	RLR

MAX SIZE
9'2" x 24'
DESIGN LOADS
+28.2 PSF
-33.1 PSF
TEST LOADS
+42.3 PSF
-49.6 PSF



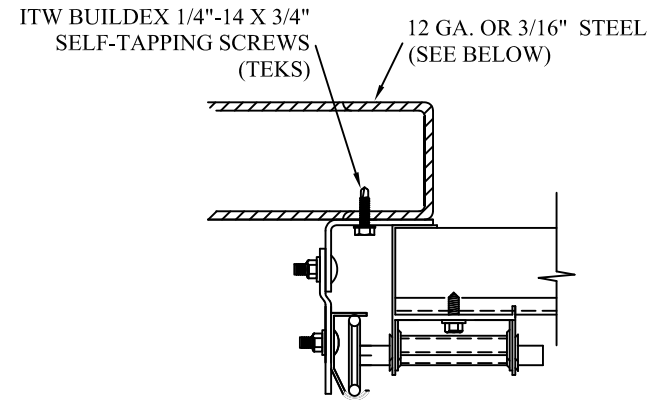
Amarr

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MODEL 3550

SIZE B	DRAWN BY BHG	DATE 4/14/10	DRAWING NUMBER IBC-3609-140-00
	CHECKED BY DRC	DATE 4/14/10	
ENGINEER: THOMAS L. SHELMERDINE P.E. LIC. No. 0048579			SHEET 1 OF 3

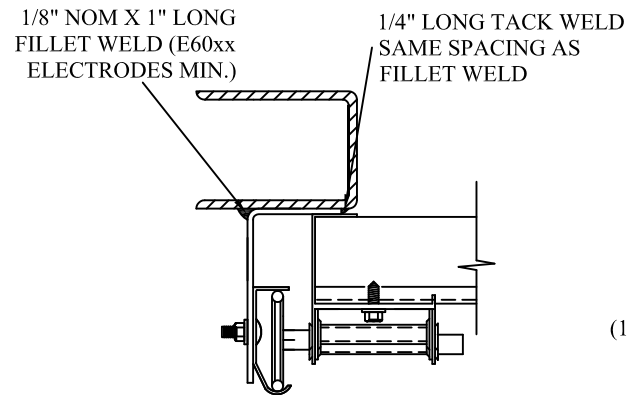
TRACK CONNECTION DIRECTLY TO STRUCTURE OPTIONS



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

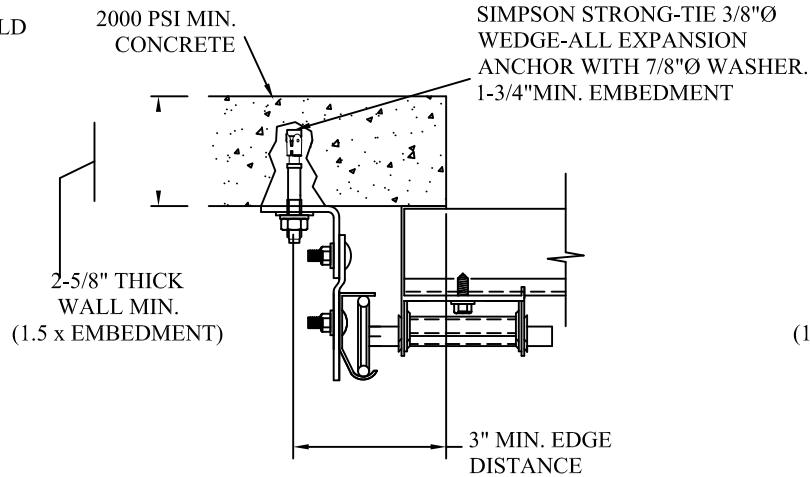
12 GA. STEEL FRAMING
232 LBS./SCREW ALLOWABLE LOAD - 6" FROM ENDS
AND 18" O.C.
REFER TO NOTES: 1, 2 AND 5

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



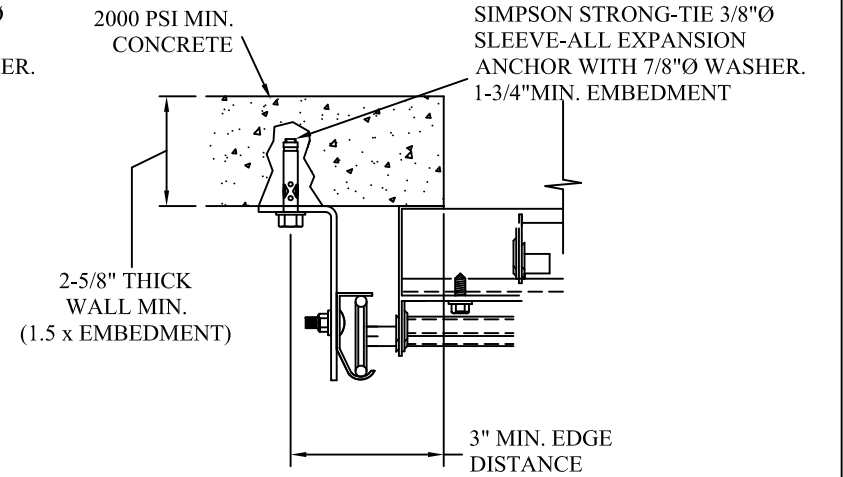
REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND TAPERED
ANGLE MOUNT AVAILABLE

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



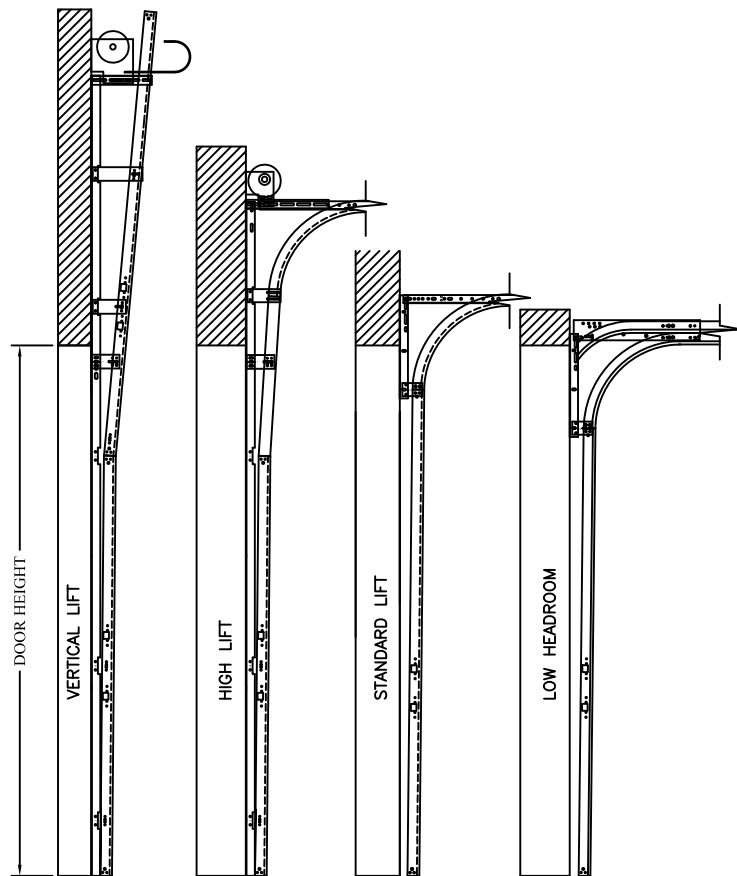
CLIP STYLE CONTINUOUS ANGLE MOUNT SHOWN
BRACKET, REVERSE AND TAPERED ANGLE MOUNT
AVAILABLE

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



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

AVAILABLE TRACK CONFIGURATIONS
N.T.S.

NOTES:

1. ANCHORS TO BE EVENLY SPACED BETWEEN THE HEADER AND FLOOR.
2. 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.
3. MIN. EDGE DISTANCE OF 3" REQUIRED.
4. USE WASHERS PROVIDED BY THE ANCHOR MANUFACTURER.
5. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS IN ADDITION TO OTHER LOADS.
6. MOST GARAGE DOOR TRACK IS GALVANIZED STEEL. USE ALL NECESSARY PRECAUTIONS WHEN WELDING GALVANIZED STEEL.
7. ALL WELDS SHOULD BE PERFORMED BY A CERTIFIED WELDER OR INSPECTED BY A CERTIFIED WELDING INSPECTOR TO VERIFY THE INTEGRITY OF THE WELD.
8. FILLET WELDS TO HAVE A STRAIGHT OR CONVEX FACE SURFACE.
9. TACK WELD TOE OF ANGLE AT SAME SPACING TO PREVENT ROTATION OF TRACK ANGLE.

TABLE 1

DOOR HEIGHT	TRACK ATTACHMENT											SPLICE
	A	B	C	D	E	F	G	H	I	J	K	
7	10'	38"	*57"									76"
8	10'	34"	58"									88"
9	10'	34"	58"	82"								100"
10	10'	34"	58"	82"								112"
11	10'	34"	58"	82"	106"							124"
12	10'	34"	58"	82"	106"							136"
13	10'	34"	58"	82"	106"	130"						148"
14	10'	34"	58"	82"	106"	130"						160"
15	10'	34"	58"	82"	106"	130"	154"					172"
16	10'	34"	58"	82"	106"	130"	154"					184"
17	10'	34"	58"	82"	106"	130"	154"	178"				196"
18	10'	34"	58"	82"	106"	130"	154"	178"				208"
19	10'	34"	58"	82"	106"	130"	154"	178"	202"			220"
20	10'	34"	58"	82"	106"	130"	154"	178"	202"			232"
21	10'	34"	58"	82"	106"	130"	154"	178"	202"	226"		244"
22	10'	34"	58"	82"	106"	130"	154"	178"	202"	226"		256"
23	10'	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"	268"
24	10'	34"	58"	82"	106"	130"	154"	178"	202"	226"	250"	280"
* Field Installed												

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	UPDATED TO FBC 2010	12/6/11	RLR

MAX SIZE
9'2" x 24'
DESIGN LOADS
+28.2 PSF
-33.1 PSF
TEST LOADS
+42.3 PSF
-49.6 PSF



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MODEL 3550

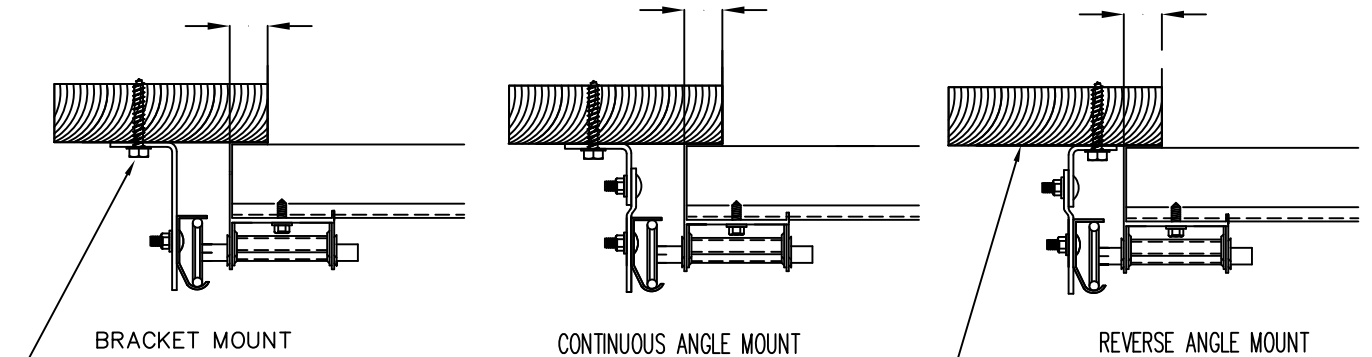
SIZE	DRAWN BY BHG	DATE 4/14/10	DRAWING NUMBER IBC-3609-140-00
	B	CHECKED BY DRC	
ENGINEER: THOMAS L. SHELMERDINE P.E. LIC. No. 0048579			SHEET 2 OF 3

SPECIFICATIONS

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:
+129.3 LBS/FT & -151.7 LBS/FT.
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE TABLE 1



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

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

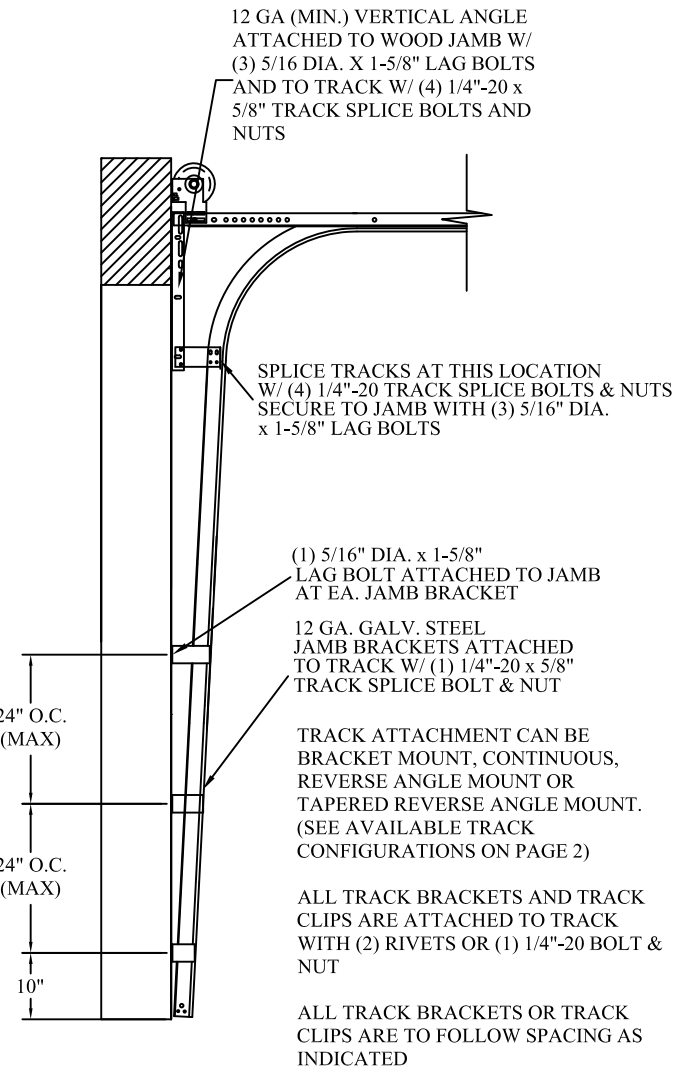
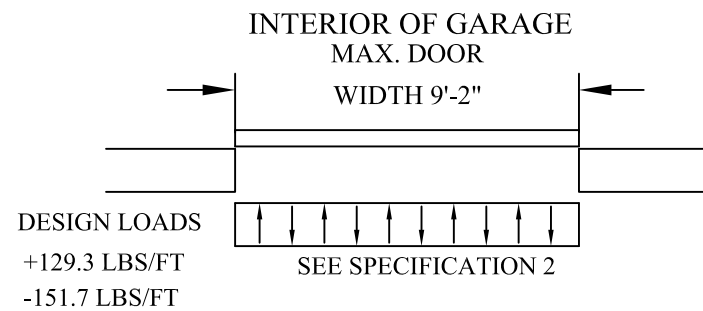


TABLE 2

Section Width (ft)	Center Stile (in)	Max Design Loads Allowed	
		1st (in)	Negative (PSF)
8'	0"	48"	32.1
8'	2"	49"	31.4
8'	4"	50"	30.8
8'	6"	51"	30.2
8'	8"	52"	29.6
8'	10"	53"	29.1
9'	0"	54"	28.5
9'	2"	55"	28.2

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)

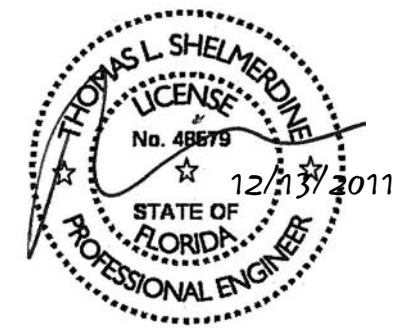
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 24" O.C. (1 1/2" EMBEDMENT)
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 24" O.C. (1 1/4" EMBEDMENT)

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

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	UPDATED TO FBC 2010	12/6/11	RLR

MAX SIZE
9'2" x 24'
DESIGN LOADS
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-33.1 PSF
TEST LOADS
+42.3 PSF
-49.6 PSF



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MODEL 3550

SIZE	DRAWN BY BHG	DATE 4/14/10	DRAWING NUMBER
B	CHECKED BY DRC <td>DATE 4/14/10</td> <td>IBC-3609-140-00</td>	DATE 4/14/10	IBC-3609-140-00

ENGINEER: THOMAS L. SHELME RDINE P.E. LIC. No. 0048579 SHEET 3 OF 3