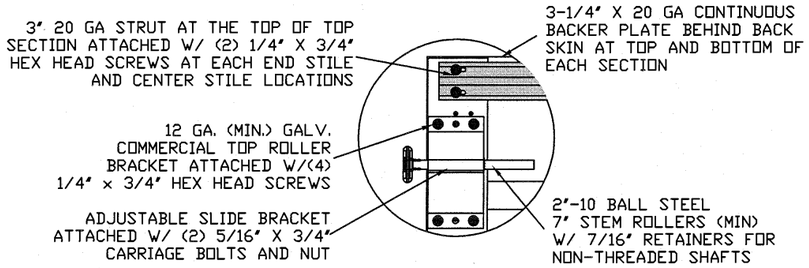
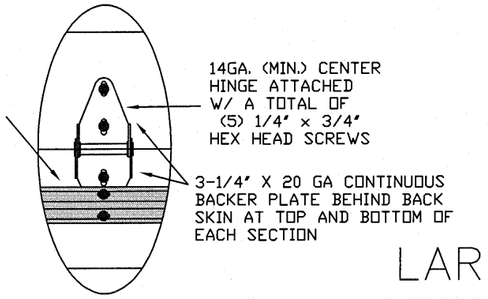
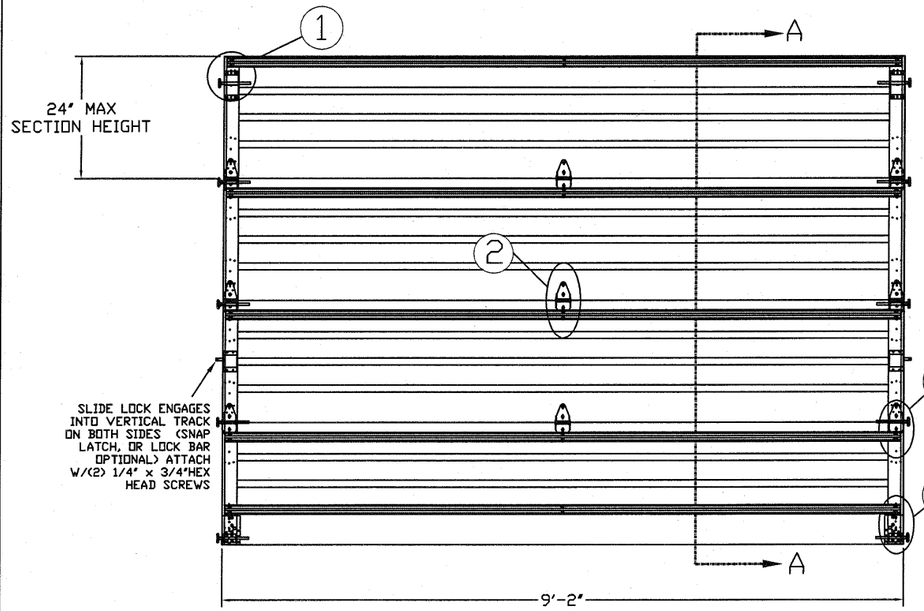


TYPICAL TOP FIXTURES
N.T.S. 1

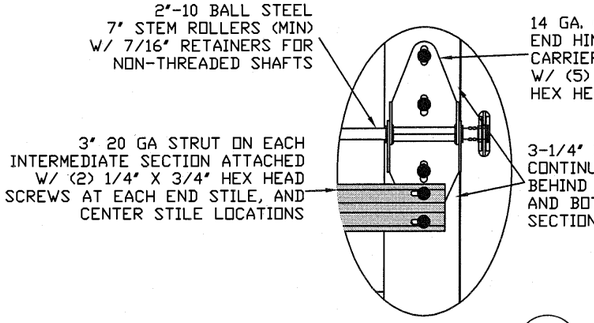


TYPICAL CENTER HINGE
N.T.S. 2

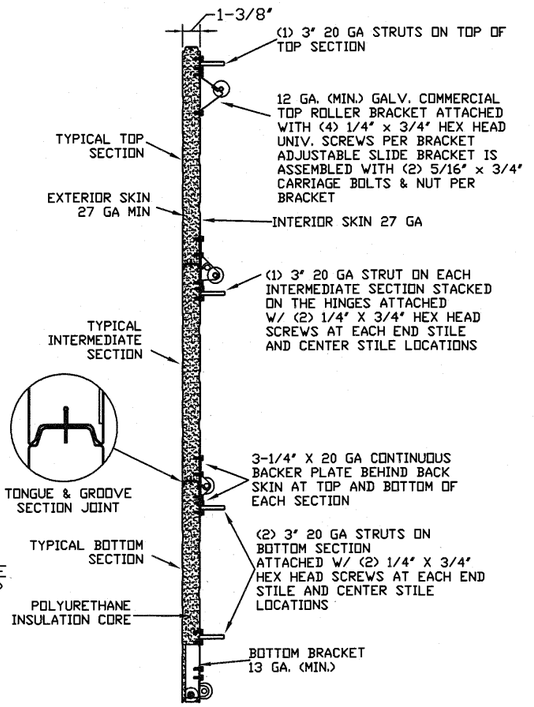
LARGE MISSILE IMPACT RESISTANCE



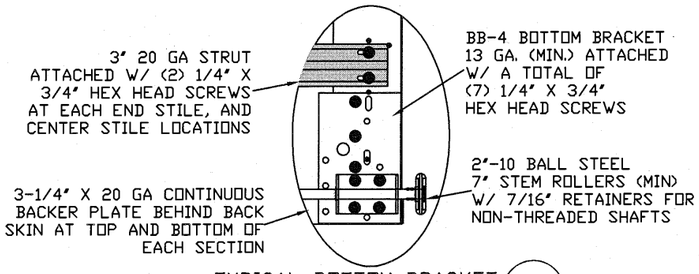
INSIDE ELEVATION
N.T.S.



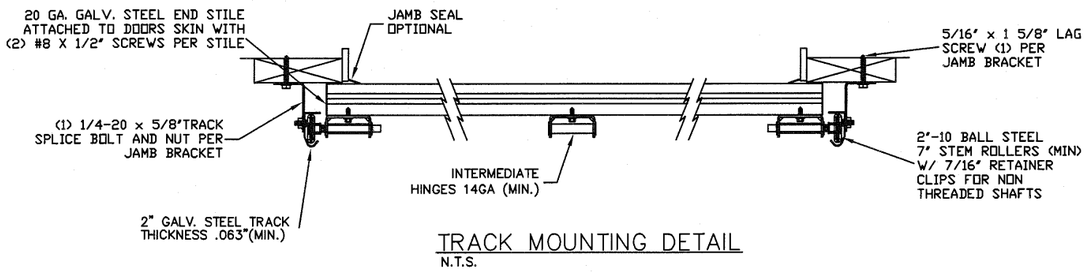
TYPICAL END HINGE
N.T.S. 3



SECTION A-A (SIDE VIEW)
N.T.S.



TYPICAL BOTTOM BRACKET
N.T.S. 4



TRACK MOUNTING DETAIL
N.T.S.

EDGE OF DOOR 1" OVERLAP ON EACH SIDE

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURES DESCRIBED IN ANSI/DASMA 115, ASTM E1886, ASTM E1996 AND ASTM F588. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN END ZONE, ROOF SLOPE 10° OR LESS, I=1.0):

WIND SPEED (MPH)	150	136	129	124	119
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE 9'2" x 24'

DESIGN LOADS
+32.3 PSF
-38.0 PSF

TEST LOADS
+48.5 PSF
-57.0 PSF

LARGE MISSILE IMPACT RESISTANCE

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

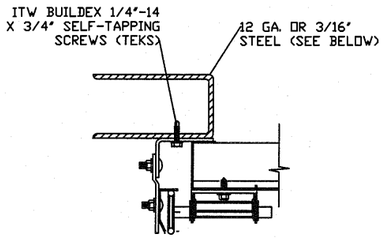
STATE OF TEXAS
THOMAS L. SHELMERDINE
85829
LICENSED
PROFESSIONAL ENGINEER
TX

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

Amarr
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 WWW.AMARR.COM

MODEL 1350 (1-3/8"), MODEL 2700 (2") FLUSH AND RIBBED PANEL

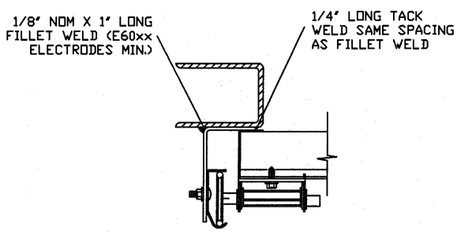
SIZE	DRAWN BY RLR	DATE 01/9/14	DRAWING NUMBER
B	CHECKED BY	DATE	IBC-1309-150-15-I
			SHEET 1 OF 3



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

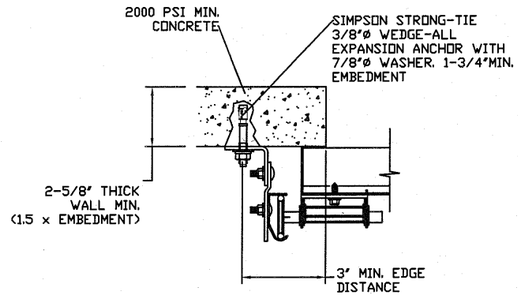
12 GA STEEL FRAMING
232 LBS/SCREW ALLOWABLE LOAD - 6" FROM ENDS AND 18" O.C.
REFER TO NOTES: 1, 2 AND 5

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



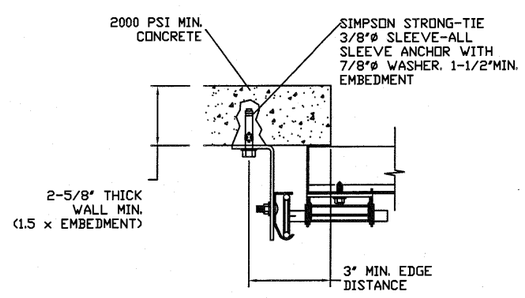
TAPERED REVERSE ANGLE MOUNT SHOWN
BRACKET, CONTINUOUS AND REVERSE
ANGLE MOUNT AVAILABLE

STEEL FRAMING 12GA OR GREATER
1590 LBS/in ALLOWABLE LOAD - 6" FROM ENDS AND 24" O.C.
REFER TO NOTES: 1, 2, 5, 6, 7, 8 AND 9



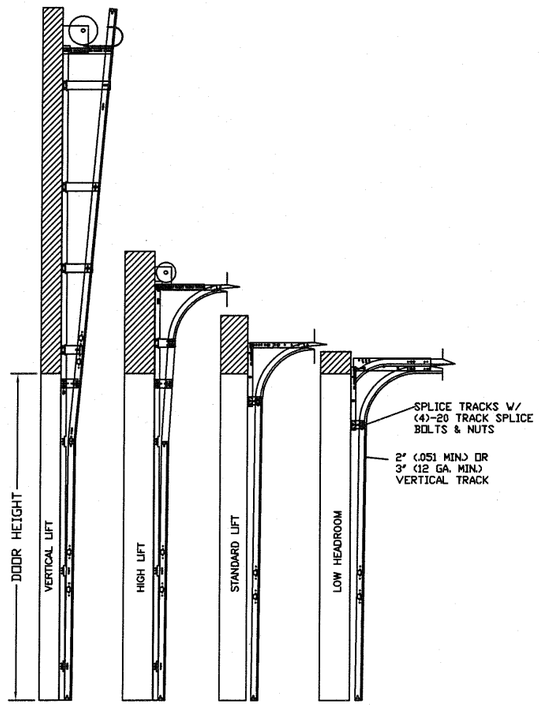
CONTINUOUS ANGLE MOUNT SHOWN
BRACKET MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
351 LBS/EXSPANSION ANCHOR ALLOWABLE LOAD - 6" FROM ENDS AND 24" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



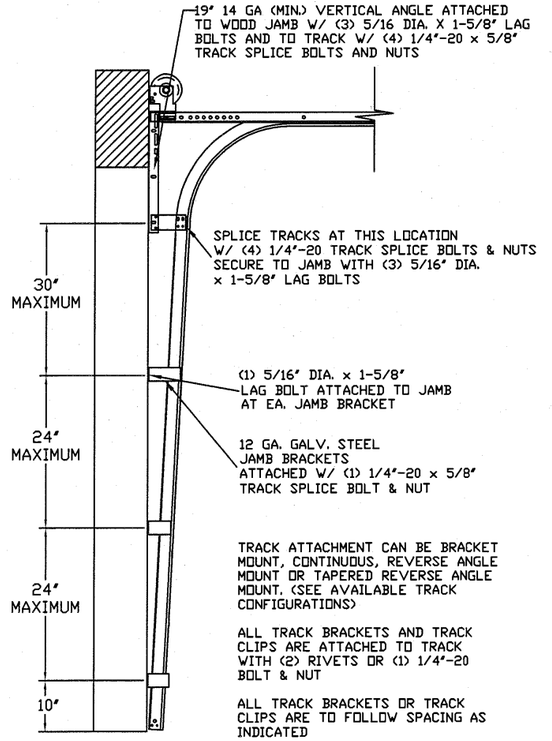
BRACKET MOUNT SHOWN
CONTINUOUS MOUNT AVAILABLE

2000 PSI CONCRETE OR GREATER
336 LBS/SLEEVE ANCHOR ALLOWABLE LOAD - 6" FROM ENDS AND 24" O.C.
REFER TO NOTES: 1, 2, 3, 4 AND 5



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. EGDE 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.



TRACK CONFIGURATION FOR 6' UP TO 24' TALL DOORS

REV	DESCRIPTION OF REVISIONS	DATE	BY

MAX SIZE
9'2" x 24'

DESIGN LOADS
+32.3 PSF
-38.0 PSF

TEST LOADS
+48.5 PSF
-57.0 PSF

LARGE MISSILE
IMPACT
RESISTANCE

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

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MODEL 1350 (1-3/8"), MODEL 2700 (2")
FLUSH AND RIBBED PANEL

SIZE	DRAWN BY RLR	DATE 01/9/14	DRAWING NUMBER
B	CHECKED BY	DATE	IBC-1309-150-15-I
			SHEET 2 OF 3

TRACK CONNECTION TO WOOD JAMB OPTIONS

FOR LAG SCREWS & BRACKET SPACING SEE SHEET 2 TRACK CONFIGURATION DETAIL

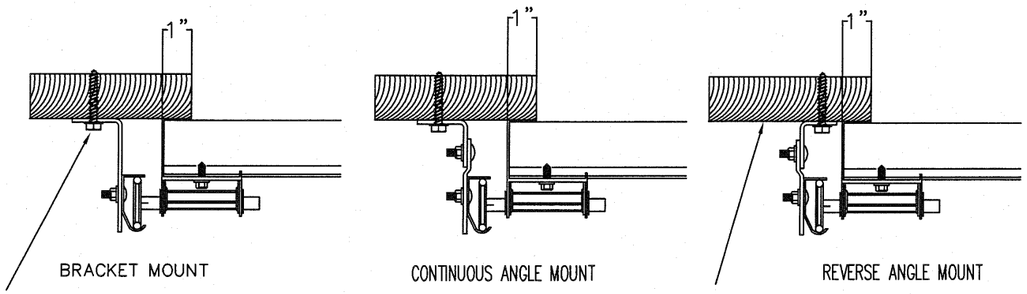
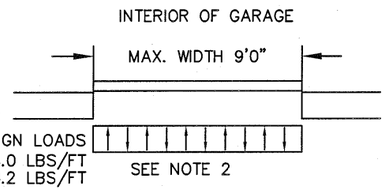


TABLE 1

Section Width (ft)		Center Stile Locations 1st (in)
6'	0"	36.000
7'	0"	42.000
7'	2"	43.000
7'	4"	44.000
7'	6"	45.000
7'	8"	46.000
7'	10"	47.000
8'	0"	48.000
8'	2"	49.000
8'	4"	50.000
8'	6"	51.000
8'	8"	52.000
8'	10"	53.000
9'	0"	54.000
9'	2"	55.000



WOOD JAMB ATTACHMENT TO STRUCTURE (OPTIONAL)

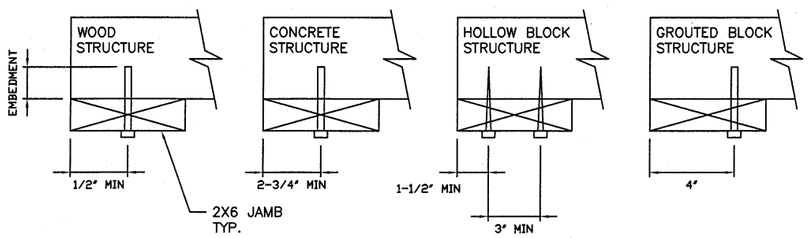
2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)

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



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: +148.0 LBS/FT & -174.2 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 27 GA MIN. INTERIOR AND EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 24'0" HIGH REQUIRE (2) 3" 20 GA STRUTS ON BOTTOM, (1) 3" 20 GA STRUT ON EACH INTERMEDIATE, AND (1) 3" 20 GA STRUT ON TOP SECTION.
6. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTRED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

REV	DESCRIPTION OF REVISIONS	DATE	BY

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9'2" x 24'

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-38.0 PSF

TEST LOADS
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LARGE MISSILE IMPACT RESISTANCE

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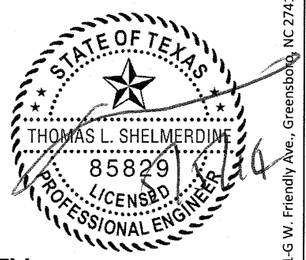

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