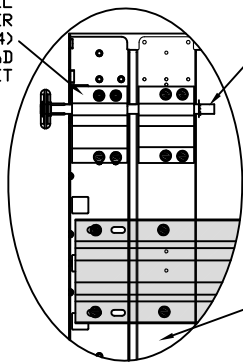


13 GA. (MIN.) GALV. STEEL COMMERCIAL TOP ROLLER BRACKET ATTACHED W/(4) 1/4" x 3/4" HEX HEAD SCREWS PER BRACKET

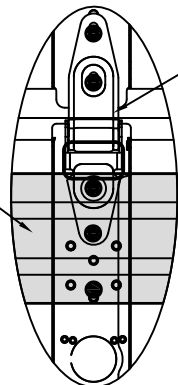
2" 10 BALL STEEL HURRICANE ROLLER W/9.5" STEM AND (1) 7/16" BOLT RETAINER USED FOR NON THREADED SHAFTS ON TOP SECTION



TYPICAL TOP FIXTURES
N.T.S.

5 1/2" 18GA. R-TRUSS ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH CENTER STILE

(2) 20 GA. x 2 5/8" x 20 1/2" UNIVERSAL ENDSTILE ATTACHED W/ (2) TOG-L-LDC OR 1/8" RIVET AT TOP AND BOTTOM OF EACH SECTION



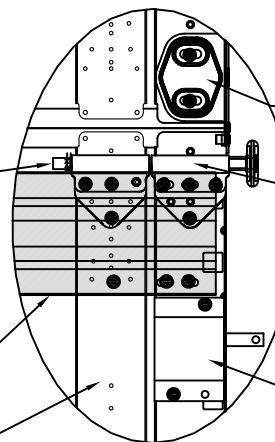
TYPICAL DURASAFE CENTER HINGE
N.T.S.

14GA. DURASAFE CENTER HINGE ATTACHED W/ (4) 1/4" x 3/4" HEX HEAD SCREWS

2" 10 BALL STEEL HURRICANE ROLLER W/9.5" STEM AND (2) 7/16" BOLT RETAINER USED FOR NON THREADED SHAFTS PER INTERMEDIATE ROLLER

5 1/2" H X 18 GA. (5" R-TRUSS) ATTACHED W/(6) 1/4" X 3/4" HEX HEAD SCREWS

20 GA UNIVERSAL STILE



TYPICAL DURASAFE END HINGE
N.T.S.

14 GA. DURASAFE END HINGE ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS

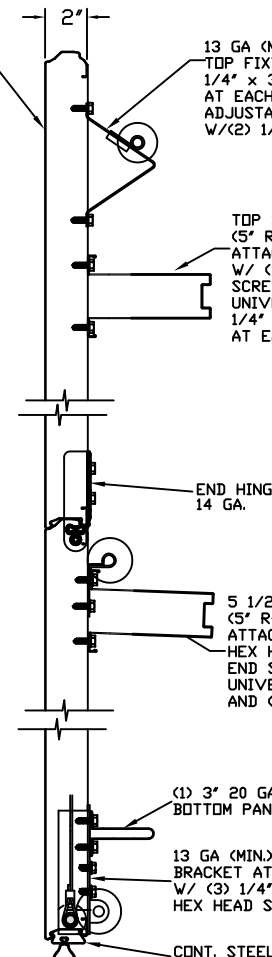
14GA. DURASAFE ROLLER CARRIERS ATTACHED TO END STILE W/ (3) 1/4" x 3/4" HEX HEAD SCREWS PER CARRIER

SLIDE LOCK ENGAGES INTO VERTICAL TRACK ON BOTH SIDES 5/8" MIN (SNAP LATCH, OR LOCK BAR OPTIONAL) ATTACH W/(2) 1/4" x 3/4" HEX HEAD SCREWS

24 GA. (MIN.) EXTERIOR SKIN W/BAKED ON POLYESTER FINISH

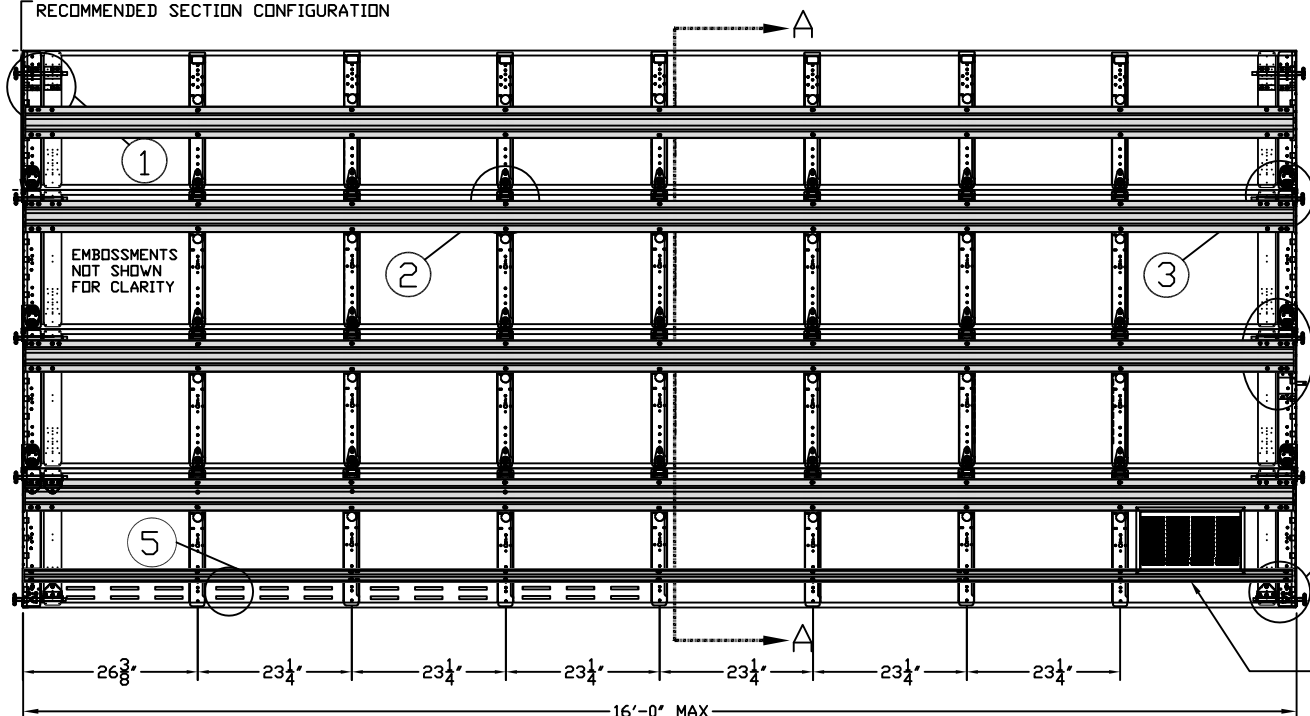
13 GA (MIN) COMMERCIAL TOP FIXTURE ATTACHED W/(4) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END STILE ADJUSTABLE SLIDE BRACKET ATTACHED W/(2) 1/4" x 1/2" BOLT AND NUTS

TOP SECTION 5 1/2" H X 18 GA. (5" R-TRUSS) GALV. STEEL R-TRUSS ATTACHED IN CENTER OF SECTION W/ (3) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END STILE AND UNIVERSAL STILE AND (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH CENTER STILE



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

SEE (TABLE 1) ON PAGE 3 FOR RECOMMENDED SECTION CONFIGURATION



INSIDE ELEVATION
N.T.S.

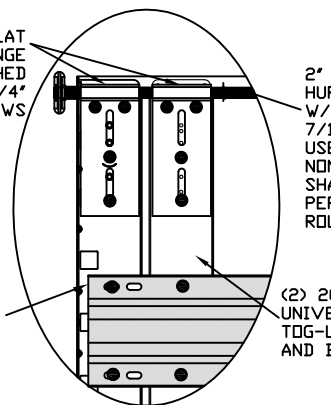
13 GA. GALV. FLAT LEAF HINGE BRACKET ATTACHED W/(4) 1/4" x 3/4" HEX HEAD SCREWS

2" 10 BALL STEEL HURRICANE ROLLER W/9.5" STEM AND (2) 7/16" BOLT RETAINER USED FOR NON THREADED SHAFTS PER INTERMEDIATE ROLLER

5 1/2" 18GA. R-TRUSS ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT EACH END STILE ON TOP SECTION

(2) 20 GA. x 2 5/8" x 20 1/2" UNIVERSAL ENDSTILE ATTACHED W/ (2) TOG-L-LDC OR 1/8" RIVET AT TOP AND BOTTOM OF EACH SECTION

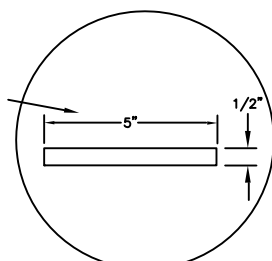
ALT. LOW HEADROOM TOP FIXTURE
N.T.S.



VENTS PROVIDE 70 sq. in. (62 sq. in. FOR OPTIONAL VENT) OF UNOBSTRUCTED AIR FLOW EACH.

LARGE MISSILE IMPACT RESISTANT

TWO (2) ROWS OF THREE (3) VENTS EQUALS 15 SQ. INCHES



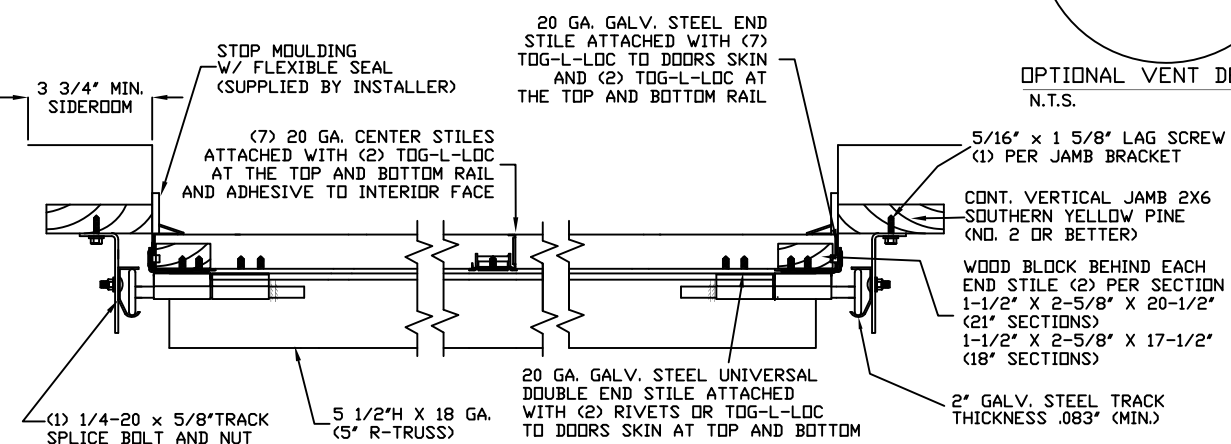
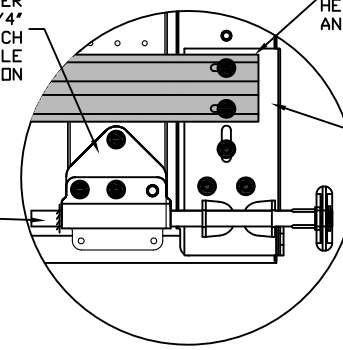
OPTIONAL VENT DETAIL
N.T.S.

#1 14 GA. ROLLER CARRIER ATTACHED W/(3) 1/4" x 3/4" HEX HEAD SCREWS AT EACH DOUBLE END STILE ON BOTTOM SECTION

3" 20GA. STRUT ATTACHED W/(2) 1/4" x 3/4" HEX HEAD SCREWS AT END AND EACH CENTER STILE

2" 10 BALL STEEL HURRICANE ROLLER W/9.5" STEM AND (1) 7/16" BOLT RETAINER USED FOR NON THREADED SHAFTS ON BOTTOM SECTION

TYPICAL BOTTOM BRACKET
N.T.S.



TRACK MOUNTING DETAIL
N.T.S.

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330, AND TAS 201, 201, 203. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE):

WIND SPEED (MPH)	174	158	150	143	137
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

REV	DESCRIPTION OF REVISIONS	DATE	BY
B	ADDED TITLE BLOCK TO PAGE 2	7/3/07	BHG
C	CORRECTED WOOD BLOCK NOTE	9/13/07	BHG
D	REVISED NOTE 8	12/15/08	CBT
E	UPDATED WJATS AND ADDED ASCE MPH DETAIL	12/2/11	RLR

MAX SIZE 16' x 14'
DESIGN LOADS +47.5 PSF -52.0 PSF
LARGE MISSILE IMPACT RESISTANCE



Amarr

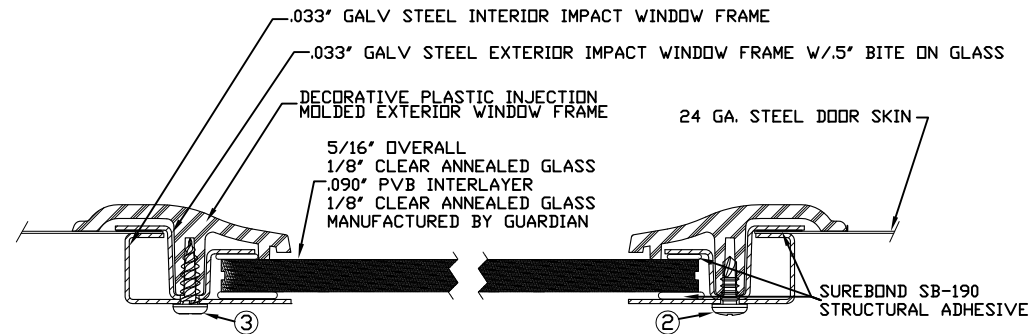
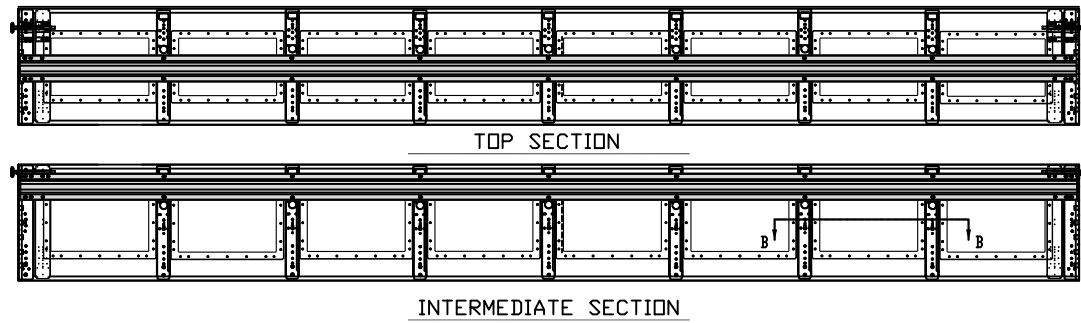
165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105 WWW.AMARR.COM

MODEL 950 HERITAGE 1000, 2000
MODEL 655 OAK SUMMIT (24g) 1000, 2000
SHORT, LONG, FLUSH, & OAK SUMMIT PANELS

SIZE	DRAWN BY	SKW	DATE	02/28/07	DRAWING NUMBER
B	CHECKED BY	BHG	DATE	01/07	IRC-9516-175-26-1

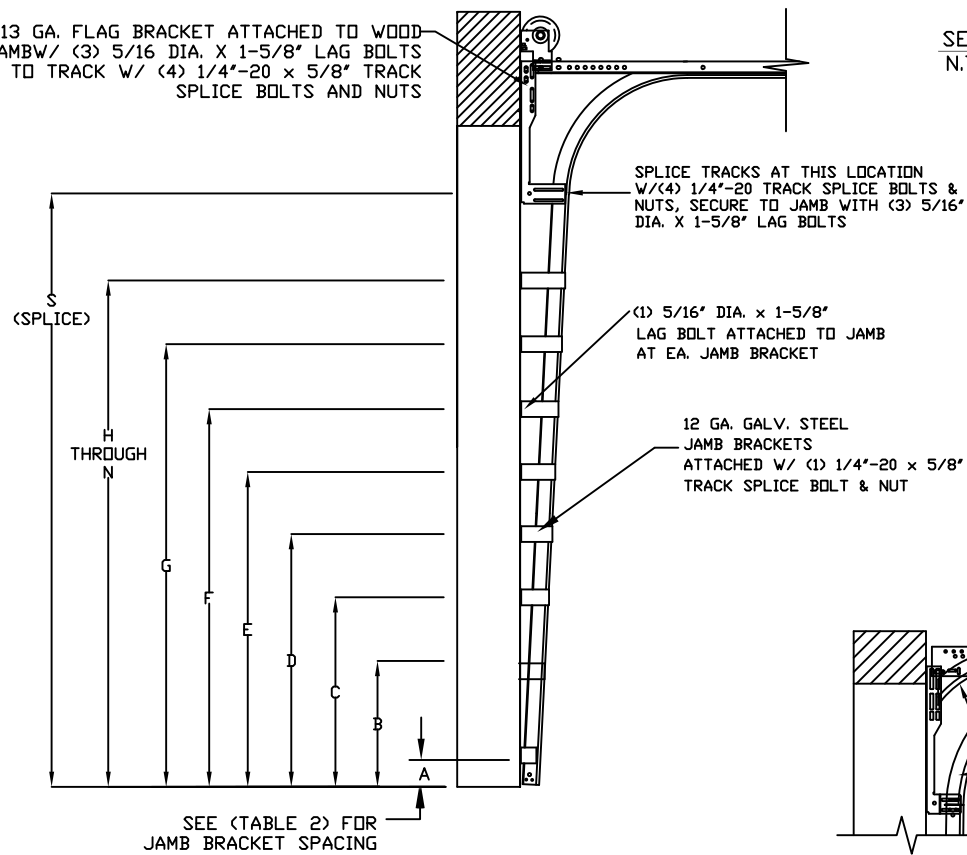
ENGINEER: THOMAS L. SHLME RDINE P.E. LIC. No. 0048579 SHEET 1 OF 3

GLAZING OPTION DETAIL
N.T.S.
GLAZING MEETS ASTM E1300-04

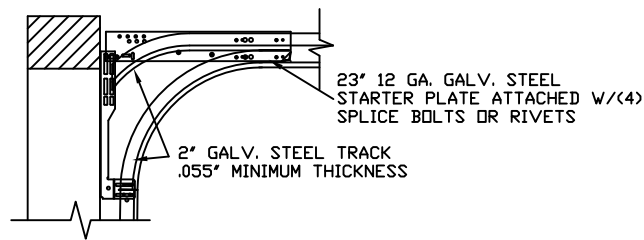


2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE PLASTIC MOLDED WINDOW FRAME TO THE ASSEMBLY

13 GA. FLAG BRACKET ATTACHED TO WOOD JAMB W/ (3) 5/16 DIA. X 1-5/8" LAG BOLTS AND TO TRACK W/ (4) 1/4"-20 X 5/8" TRACK SPLICE BOLTS AND NUTS



SECTION B-B IMPACT WINDOW DETAIL
N.T.S.



LOW HEADROOM TRACK OPTION
N.T.S.

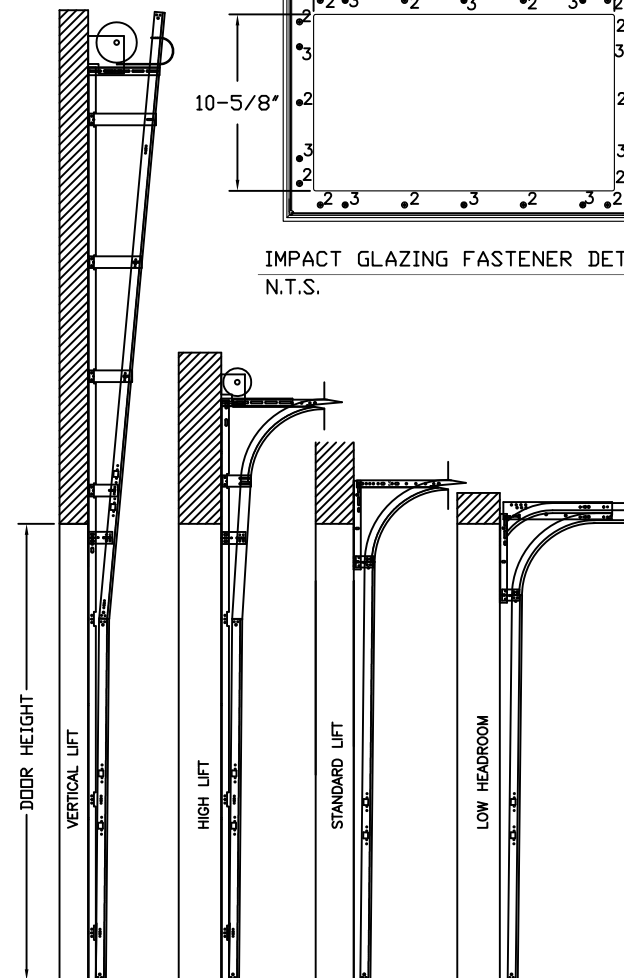
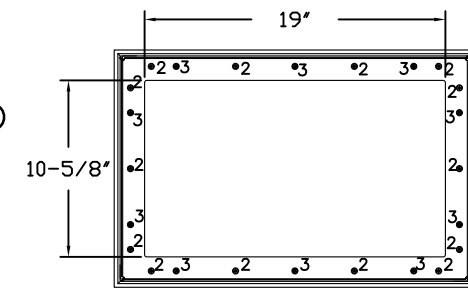
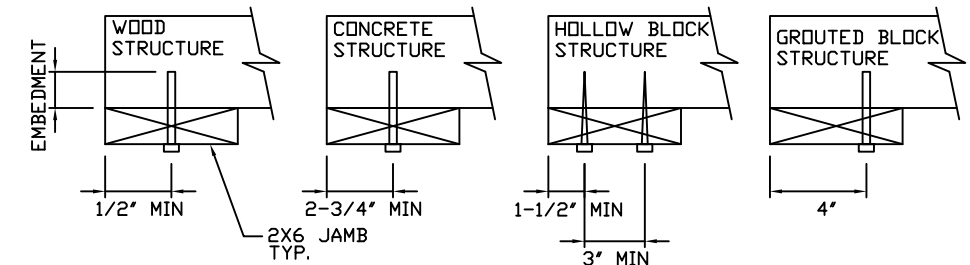
STANDARD TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS
N.T.S.

WOOD JAMB ATTACHMENT TO STRUCTURE

- 2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 12" 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 10" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS THEN 20" 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 8" 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 8" 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 12" 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



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
B	ADDED TITLE BLOCK TO PAGE 2	7/3/07	BHG
C	CORRECTED WOOD BLOCK NOTE	9/13/07	BHG
D	REVISED NOTE 8	12/15/08	CBT
E	UPDATED WJATS AND ADDED ASCE MPH DETAIL	12/2/11	RLR

MAX SIZE
16' x 14'

DESIGN LOADS
+47.5 PSF
-52.0 PSF

LARGE MISSILE
IMPACT
RESISTANCE



Amarr

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

MODEL 950 HERITAGE 1000, 2000
MODEL 655 OAK SUMMIT (24g) 1000, 2000
SHORT, LONG, FLUSH, & OAK SUMMIT PANELS

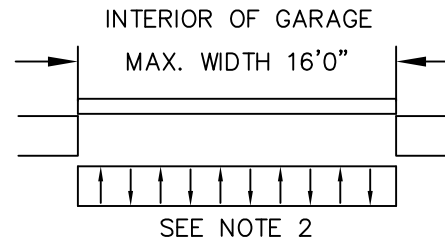
SIZE	DRAWN BY	SKW	DATE	02/28/07	DRAWING NUMBER
B	CHECKED BY	BHG	DATE	01/07	IRC-9516-175-26-1

ENGINEER: THOMAS L. SHELMERDINE P.E. LIC. No. 0048579 SHEET 2 OF 3

TABLE 1

DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
14' 0"	21"	21"	21"	21"	21"	21"	21"	21"
13' 6"	21"	21"	21"	21"	21"	18"	18"	21"
13' 0"	21"	21"	21"	18"	18"	18"	18"	21"
12' 6"	21"	18"	18"	18"	18"	18"	18"	21"
12' 0"	21"	21"	21"	21"	21"	18"	21"	
11' 6"	21"	21"	21"	18"	18"	18"	21"	
11' 0"	21"	18"	18"	18"	18"	18"	21"	
10' 6"	21"	21"	21"	21"	21"	21"		
10' 0"	21"	21"	21"	18"	18"	21"		
9' 6"	21"	18"	18"	18"	18"	21"		
9' 0"	18"	18"	18"	18"	18"	18"		
8' 6"	21"	21"	21"	18"	21"			
8' 0"	21"	18"	18"	18"	21"			
7' 6"	18"	18"	18"	18"	18"			
7' 0"	21"	21"	21"	21"				
6' 6"	21"	18"	18"	21"				

VERTICAL JAMB DESIGN LOADS
+380.0 LBS/FT
-416.0 LBS/FT



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: +380.0 LBS/FT & -416.0 LBS/FT
3. DOOR AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
4. DOOR SECTIONS SHALL BE 24 GA. (.022) MIN. EXTERIOR SKIN ROLLED FORMED, W/ BAKED ON POLYESTER FINISH
5. DOORS UP TO 7'0" HIGH CONSIST OF (4) SECTIONS AS SHOWN. USE (1) 5.5" R-TRUSS PER SECTION AND (1) 3" 20 GA. STRUT ON BOTTOM SECTION
6. DOORS OVER (4) SECTIONS REFER TO TABLE 1
7. SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.

TABLE 2

DOOR HEIGHT	TRACK ATTACHMENT														SPLICE	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N		S
6' 6"	3"	14"	27"	38"	46"	56"	64"									70"
7'	3"	14"	27"	38"	46"	56"	68"									76"
7' 6"	3"	14"	27"	38"	46"	56"	68"	78"								82"
8'	3"	14"	27"	38"	46"	56"	68"	78"								88"
8' 6"	3"	14"	27"	38"	46"	56"	68"	78"	88"							94"
9'	3"	14"	27"	38"	46"	56"	68"	78"	88"							100"
9' 6"	3"	14"	27"	38"	46"	56"	68"	78"	88"	98"						106"
10'	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"						112"
10' 6"	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	110"					118"
11'	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	110"					124"
11' 6"	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	110"	120"				130"
12'	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	110"	122"				136"
12' 6"	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	109"	122"	132"			142"
13'	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	114"	122"	134"			148"
13' 6"	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	109"	122"	134"	144"		154"
14'	3"	14"	27"	38"	46"	56"	68"	78"	88"	100"	114"	122"	134"	146"		160"

ALL TRACK ATTACHMENT SPACING +/-2" ALLOWED WITH SYP NO. 2 OR BETTER ONLY

REV	DESCRIPTION OF REVISIONS	DATE	BY
B	ADDED TITLE BLOCK TO PAGE 2	7/3/07	BHG
C	CORRECTED WOOD BLOCK NOTE	9/13/07	BHG
D	REVISED NOTE 8	12/15/08	CBT
E	UPDATED WJATS AND ADDED ASCE MPH DETAIL	12/2/11	RLR

MAX SIZE
16' x 14'
DESIGN LOADS
+47.5 PSF
-52.0 PSF
LARGE MISSILE
IMPACT
RESISTANCE



Amarr

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

**MODEL 950 HERITAGE 1000, 2000
MODEL 655 OAK SUMMIT (24g) 1000, 2000
SHORT, LONG, FLUSH, & OAK SUMMIT PANELS**

SIZE	DRAWN BY	SKW	DATE	02/28/07	DRAWING NUMBER
B	CHECKED BY	BHG	DATE	01/07	IRC-9516-175-26-1
ENGINEER: THOMAS L. SHELME RDINE P.E. LIC. No. 0048579					SHEET 3 OF 3