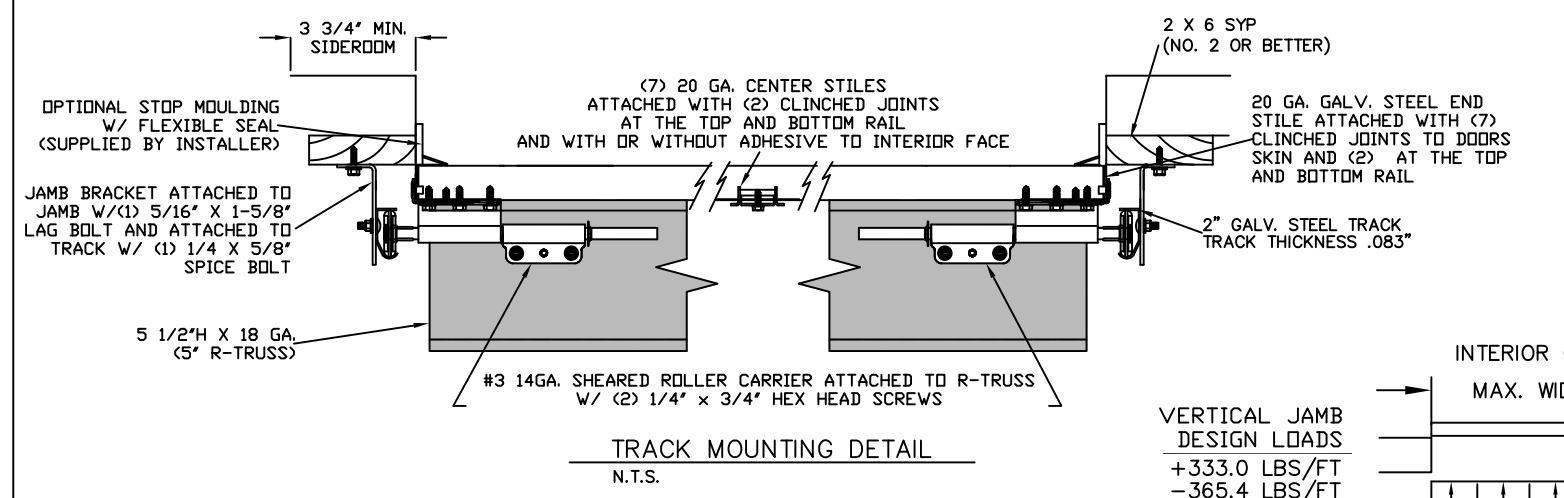


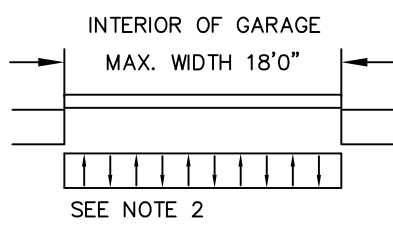
LARGE MISSILE IMPACT RESISTANT

THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330 AND DASMA 108. 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, AND I=1.0):

WIND SPEED (MPH)	155	140	133	127	122
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'



- SPECIFICATIONS AND NOTES**
- 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.
 - EACH VERTICAL JAMBS RECEIVES MAXIMUM DESIGN LOADS OF: +333.0 LBS/FT & -365.4 LBS/FT
 - DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
 - DOOR SECTIONS SHALL BE 25 GA. (MIN.) ROLLED FORMED LIGHT COMMERCIAL QUALITY.
 - SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
 - AMARR MANUFACTURES AND DISTRIBUTES GARAGE DOORS UNDER MANY BRAND LABELS. PLEASE SEE AMARR-MANUFACTURED PRIVATE LABEL CHART FOR REFERENCE OF EQUIVALENT PRODUCTS FOR WINDLOAD APPROVAL.
 - REFER TO TABLES ON THE PAGE 3 FOR ADDITIONAL DOOR WIDTHS
 - PANEL STAMP DOES NOT EFFECT WINDLOAD CAPABILITIES.



REV	DESCRIPTION OF REVISIONS	DATE	BY
A	WIND SPEED TABLE & TRACK CONFIGURATIONS	05/1/12	RLR

MAX. SIZE, WIDTH 18', HEIGHT 14'

SIZES SUBJECT TO WEIGHT LIMITATIONS

DESIGN LOADS
+37.0 PSF
-40.6 PSF

TEST LOADS
+55.5 PSF
-60.9 PSF

LARGE MISSILE IMPACT RESISTANT

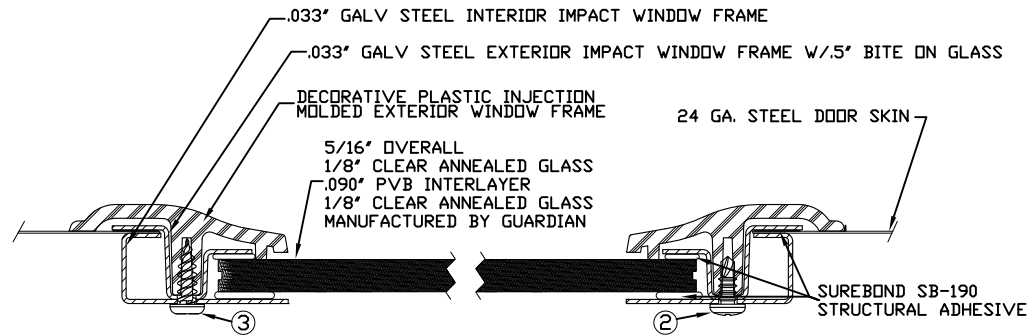
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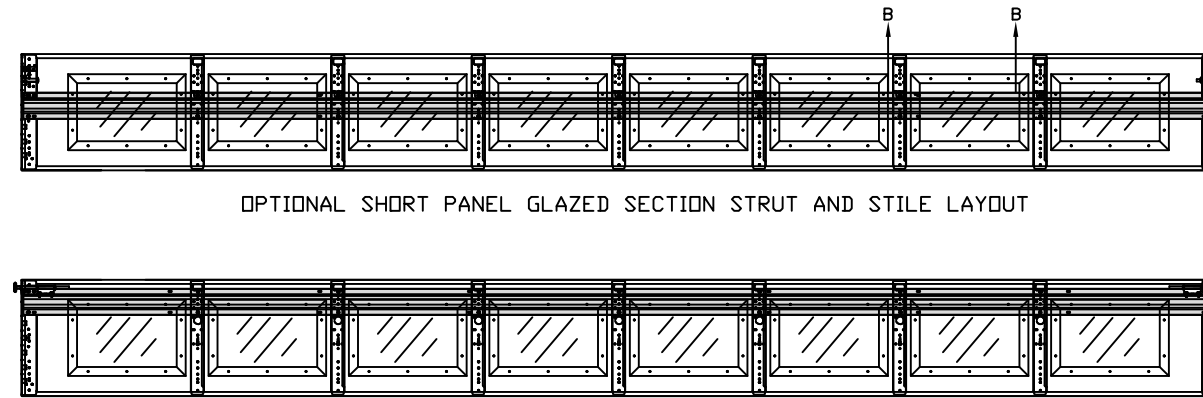
SIZE	DRAWN BY	DRC	DATE	DRAWING NUMBER
B	BHG	BHG	03/18/10	IRC-6018-155-26-1

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

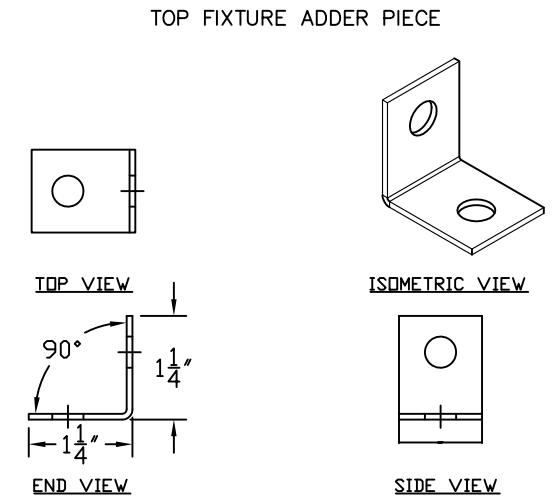


2. 3/16" X 1/2" SCREW - USED TO FASTEN THE STEEL EXTERIOR IMPACT WINDOW FRAME TO THE STEEL INTERIOR IMPACT WINDOW FRAME.
3. 11/64" X 1/2" SCREW - USED TO FASTEN DECORATIVE PLASTIC MOLDED WINDOW FRAME TO THE ASSEMBLY

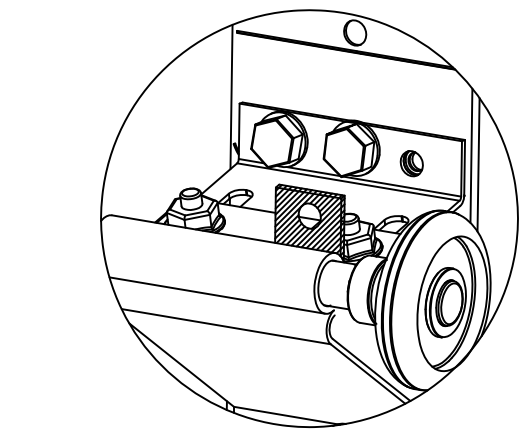
SECTION B-B IMPACT WINDOW DETAIL
N.T.S.



OPTIONAL SHORT PANEL GLAZED SECTION STRUT AND STILE LAYOUT



TOP FIXTURE ADDER PIECE
TOP VIEW
END VIEW
ISOMETRIC VIEW
SIDE VIEW



REV	DESCRIPTION OF REVISIONS	DATE	BY
A	WIND SPEED TABLE & TRACK CONFIGURATIONS	05/1/12	RLR

MAX SIZE
WIDTH 18'
HEIGHT 14'
SIZES SUBJECT TO WEIGHT LIMITATIONS

DESIGN LOADS
+37.0 PSF
-40.6 PSF

TEST LOADS
+55.5 PSF
-60.9 PSF

LARGE MISSILE IMPACT RESISTANT

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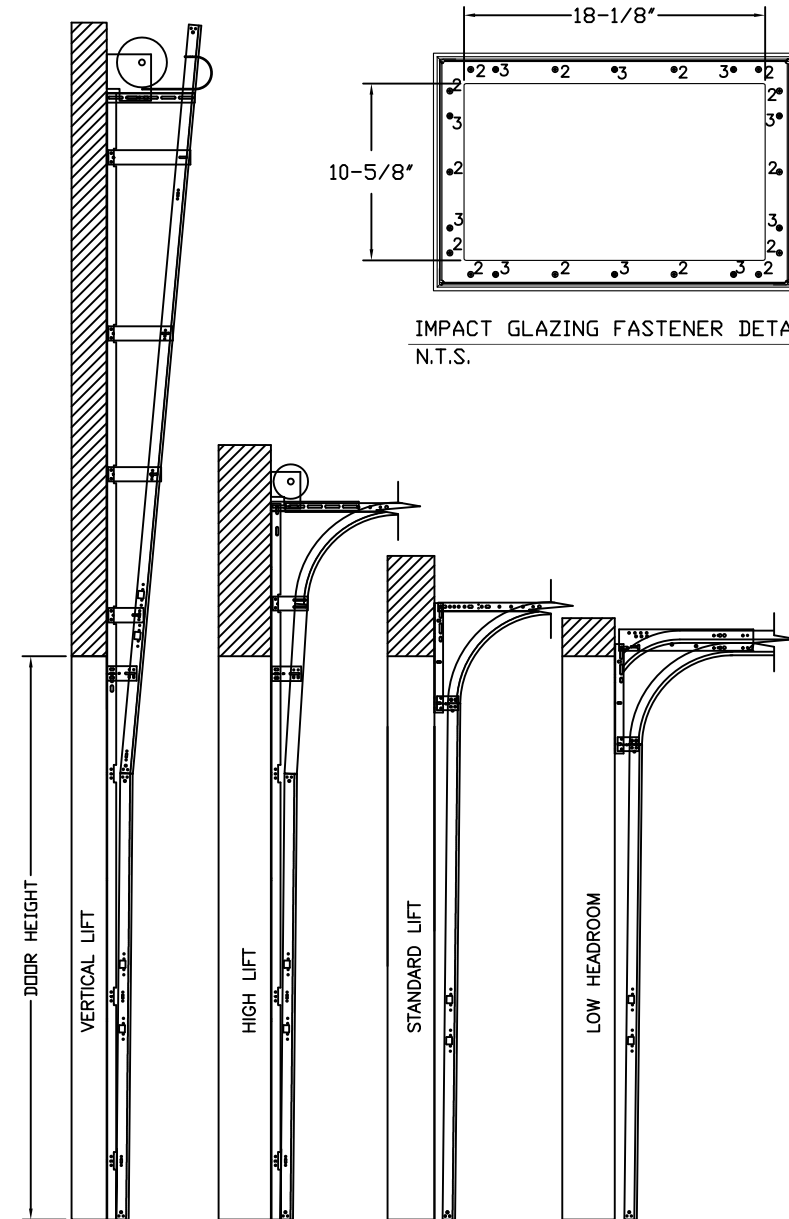
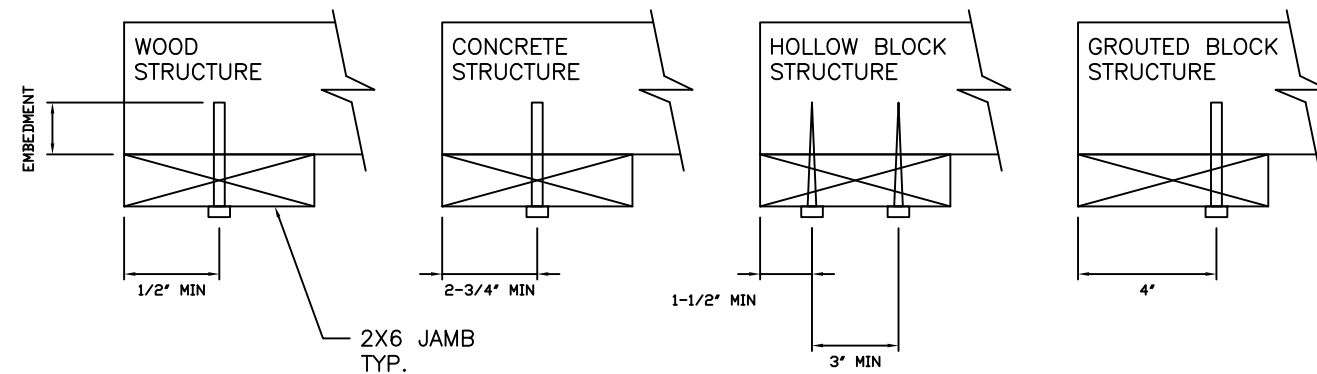
SIZE	DRAWN BY	DRC	DATE	03/18/10	DRAWING NUMBER IRC-6018-155-26-1
B	CHECKED BY	BHG	DATE	03/18/10	

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

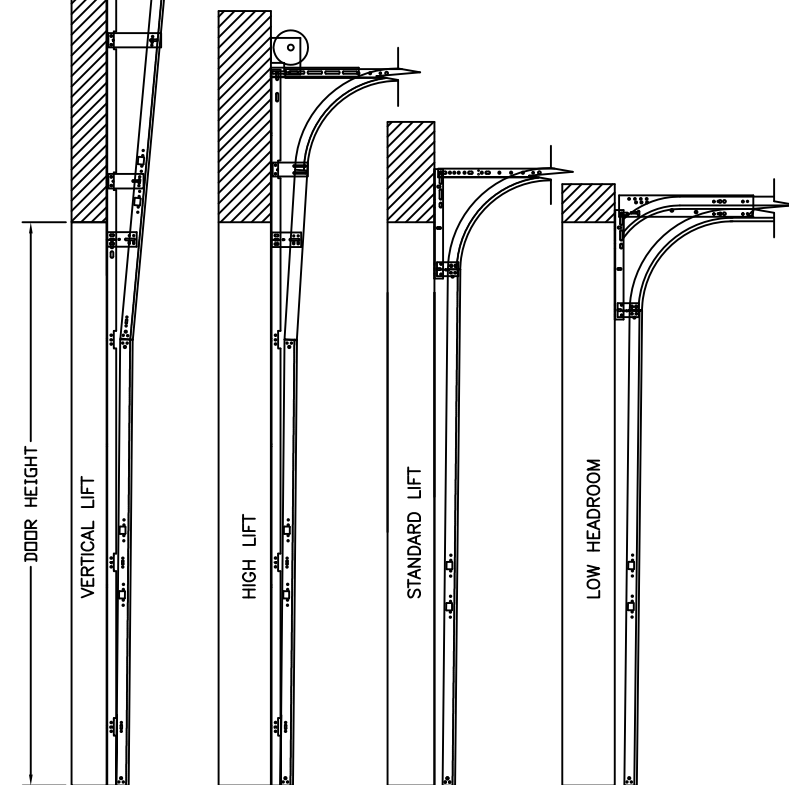
WOOD JAMB ATTACHMENT TO STRUCTURE

- 2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE**
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 14" 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 12" 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 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 14" 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



IMPACT GLAZING FASTENER DETAIL
N.T.S.



AVAILABLE TRACK CONFIGURATIONS
N.T.S.

TABLE 1

HEIGHT	TRACK ATTACHMENT								SPLICE
	A	B	C	D	E	F	G	H	
6' 0"	3.5"	18"	36"	54"					64"
6' 6"	3.5"	21"	38"	58"					70"
7' 0"	3.5"	21"	42"	63"					76"
7' 6"	3.5"	18"	36"	54"	72"				82"
8' 0"	3.5"	21"	39"	58"	75"				88"
8' 6"	3.5"	21"	42"	63"	81"				94"
9' 0"	3.5"	18"	36"	54"	72"	90"			100"
9' 6"	3.5"	21"	39"	57"	75"	93"			106"
10' 0"	3.5"	21"	42"	63"	81"	99"			112"
10' 6"	3.5"	21"	42"	63"	84"	105"			118"
11' 0"	3.5"	21"	39"	57"	75"	93"	111"		124"
11' 6"	3.5"	21"	42"	63"	81"	99"	117"		130"
12' 0"	3.5"	21"	42"	63"	84"	105"	123"		136"
12' 6"	3.5"	18"	36"	57"	75"	93"	111"	129"	142"
13' 0"	3.5"	21"	42"	63"	81"	99"	117"	135"	148"
13' 6"	3.5"	21"	42"	63"	84"	105"	123"	141"	154"
14' 0"	3.5"	21"	42"	63"	84"	105"	126"	147"	160"

ALL TRACK ATTACHMENT SPACING +/- (1/2)" WITH SYP NO. 2 OR BETTER ONLY

TABLE 2

Section	Panel Type	Center Stile Locations (Measured from Left Edge)						
		1st (in)	2nd (in)	3rd (in)	4th (in)	5th (in)	6th (in)	7th (in)
16' 2	Short	26.91	50.27	73.64	97.00	120.36	143.73	167.09
16' 2	Long	28.25	51.17	74.08	97.00	119.92	142.83	165.75
16' 2	Bead	24.63	48.75	72.88	97.00	121.13	145.25	169.38
16' 4	Short	27.91	51.27	74.64	98.00	121.36	144.73	168.09
16' 4	Long	29.25	52.17	75.08	98.00	120.92	143.83	166.75
16' 4	Bead	24.63	49.08	73.54	98.00	122.46	146.92	171.38
16' 6	Short	28.91	52.27	75.64	99.00	122.36	145.73	169.09
16' 6	Long	27.51	51.34	75.17	99.00	122.83	146.66	170.49
16' 6	Bead	24.63	49.42	74.21	99.00	123.79	148.59	173.38
16' 8	Short	27.01	51.34	75.67	100.00	124.33	148.66	172.99
16' 8	Long	28.30	52.20	76.10	100.00	123.90	147.80	171.70
16' 8	Bead	24.88	49.92	74.96	100.00	125.04	150.09	175.13
16' 10	Short	26.75	51.50	76.25	101.00	125.75	150.50	175.25
16' 10	Long	29.30	53.20	77.10	101.00	124.90	148.80	172.70
16' 10	Bead	24.86	50.15	75.57	101.00	126.29	151.59	176.88
17' 0	Short	29.01	53.34	77.67	102.00	126.33	150.66	174.99
17' 0	Long	30.30	54.20	78.10	102.00	125.90	149.80	173.70
17' 0	Bead	25.38	50.92	76.46	102.00	127.54	153.09	178.63
17' 2	Short	28.00	53.00	78.00	103.00	128.00	153.00	178.00
17' 2	Long	31.30	55.20	79.10	103.00	126.90	150.80	174.70
17' 2	Bead	25.63	51.42	77.21	103.00	128.79	154.59	180.38
17' 4	Short	29.00	54.00	79.00	104.00	129.00	154.00	179.00
17' 4	Long	32.30	56.20	80.10	104.00	127.90	151.80	175.70
17' 4	Bead	25.88	51.92	77.96	104.00	130.04	156.09	182.13
17' 6	Short	30.00	55.00	80.00	105.00	130.00	155.00	180.00
17' 6	Long	33.30	57.20	81.10	105.00	128.90	152.80	176.70
17' 6	Bead	26.13	52.42	78.71	105.00	131.29	157.59	183.88
17' 8	Short	29.20	54.80	80.40	106.00	131.60	157.20	182.80
17' 8	Long	30.70	55.80	80.90	106.00	131.10	156.20	181.30
17' 8	Bead	26.38	52.92	79.46	106.00	132.54	159.09	185.63
17' 10	Short	30.20	55.80	81.40	107.00	132.60	158.20	183.80
17' 10	Long	30.88	56.25	81.63	107.00	132.38	157.75	183.13
17' 10	Bead	26.63	53.42	80.21	107.00	133.79	160.59	187.38
18' 0	Short	31.88	57.25	82.63	108.00	133.38	158.75	184.13
18' 0	Long	32.70	57.80	82.90	108.00	133.10	158.20	183.30
18' 0	Bead	26.88	53.92	80.96	108.00	135.04	162.09	189.13

TABLE 3

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

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	WIND SPEED TABLE & TRACK CONFIGURATIONS	05/1/12	RLR

MAX SIZE WIDTH 18' HEIGHT 14'
SIZES SUBJECT TO WEIGHT LIMITATIONS
DESIGN LOADS +37.0 PSF -40.6 PSF
TEST LOADS +55.5 PSF -60.9 PSF
LARGE MISSILE IMPACT RESISTANT

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SIZE	DRAWN BY	DRC	DATE	03/18/10	DRAWING NUMBER
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ENGINEER: THOMAS L. SHLMERDINE P.E. LIC. No. 0048579 SHEET 3 OF 3