

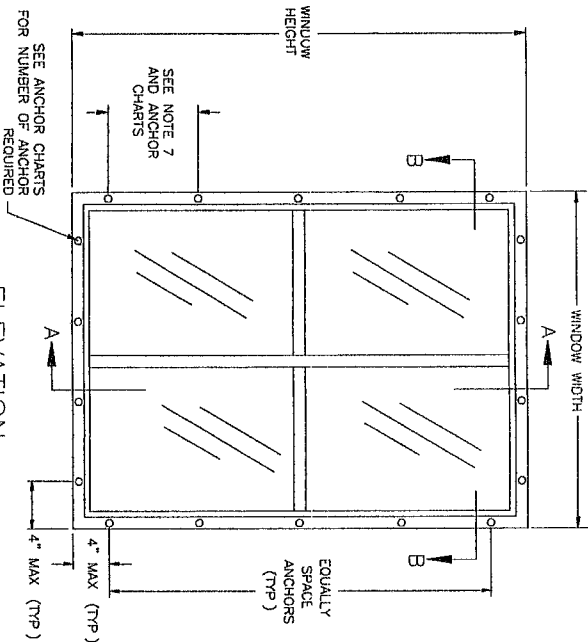
Frame	Const	Aluminum Window
-------	-------	-----------------

Maximum design pressure capacity chart per horizontal rail and vertical mullion loading

Number of anchors for units anchored using 0.120" diameter nail	Total unit width and single unit width (in.)
1	12.0
2	24.0
3	36.0
4	48.0
5	60.0
6	72.0
7	84.0
8	96.0
9	108.0
10	120.0
11	132.0
12	144.0
13	156.0
14	168.0
15	180.0
16	192.0
17	204.0
18	216.0
19	228.0
20	240.0
21	252.0
22	264.0
23	276.0
24	288.0
25	300.0
26	312.0
27	324.0
28	336.0
29	348.0
30	360.0
31	372.0
32	384.0
33	396.0
34	408.0
35	420.0
36	432.0
37	444.0
38	456.0
39	468.0
40	480.0
41	492.0
42	504.0
43	516.0
44	528.0
45	540.0
46	552.0
47	564.0
48	576.0
49	588.0
50	600.0
51	612.0
52	624.0
53	636.0
54	648.0
55	660.0
56	672.0
57	684.0
58	696.0
59	708.0
60	720.0
61	732.0
62	744.0
63	756.0
64	768.0
65	780.0
66	792.0
67	804.0
68	816.0
69	828.0
70	840.0
71	852.0
72	864.0
73	876.0
74	888.0
75	900.0
76	912.0
77	924.0
78	936.0
79	948.0
80	960.0
81	972.0
82	984.0
83	996.0
84	1008.0
85	1020.0
86	1032.0
87	1044.0
88	1056.0
89	1068.0
90	1080.0
91	1092.0
92	1104.0
93	1116.0
94	1128.0
95	1140.0
96	1152.0
97	1164.0
98	1176.0
99	1188.0
100	1200.0

Number of anchors for units anchored using #8 wood screw

SIGNED: 02/16/2012



-
- A circular professional engineer seal for the State of Florida. The outer ring contains the text "FLORIDA PROFESSIONAL ENGINEER" at the bottom and "U.S. & CANADA" at the top. Inside the ring, the words "LICENSE NO." are on the left and "9251" is on the right. The signature "Mark A. Jensen" is written across the center of the seal.

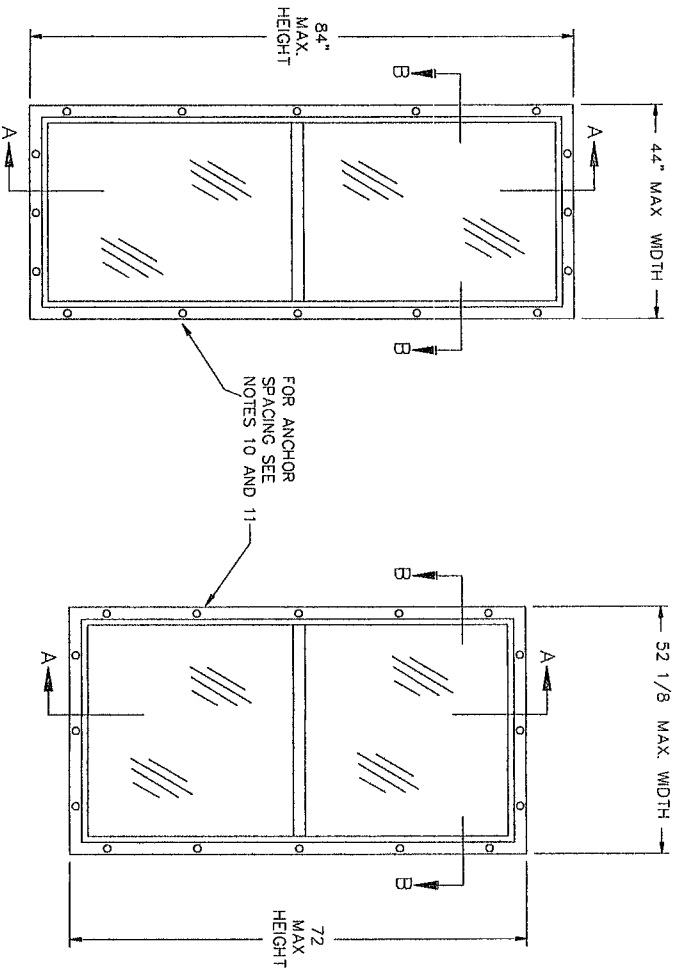
F1 Approval # 15217.13

Frame Const Aluminum windows

REVISIONS		
REV	DESCRIPTION	DATE

GENERAL NOTES

- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF FLORIDA BUILDING CODE.
- 2) OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. OPENING DESIGN IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 3) APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED ON THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
- 4) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4" SHIM WHERE SPACE IS 1/16" OR GREATER OCCURS.
- 5) WINDOW FRAME MATERIAL TO BE ALUMINUM ALLOY 6063-T5.
- 6) USE CAULK BEHIND WINDOW FLANGE AT HEAD, JAMBS AND SILL.
- 7) USE CAULK FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW FLANGE.
- 8) GLASS THICKNESS MAY VARY PER THE REQUIREMENT OF ASTM E1300 GLASS CHARTS.
- 9) WHERE THE WATER RESISTANCE TEST REQUIREMENT OF 15% OF DESIGN LOAD APPLIES, POSITIVE DESIGN LOADS WILL BE LIMITED TO 40PSF DUE TO WATER TEST PRESSURE OF 6.0 PSF ACHIEVED IN TEST CHARTS.
- 10) INSTALL FIN FRAME WINDOW WITH 0.120 DIA. 6d NAILS WITH A MINIMUM 1-1/2" EMBEDMENT INTO FRAMING. FOR NUMBER OF ANCHORS NEEDED REFER TO ANCHOR CHARTS IN SHEET 3. LOCATE ANCHORS 6" MAX. SPACING BETWEEN ANCHORS MUST NOT EXCEED 11".
- 11) INSTALL FIN FRAME WINDOW WITH #8 WOOD SCREW OF SUFFICIENT LENGTH TO ACHIEVE MIN. 1-1/2" EMBEDMENT INTO SUBSTRATE. FOR NUMBER OF ANCHORS REFER TO ANCHOR CHARTS IN SHEET 3. LOCATE ANCHORS 6" MAX. FROM CORNERS. SPACING BETWEEN ANCHORS MUST NOT EXCEED 11".
- 12) IF EXACT WINDOW SIZE IS NOT LISTED IN ANCHOR CHART, USE ANCHOR QUANTITY LISTED WITH NEXT LARGER SIZE FOR THE APPROPRIATE DESIGN PRESSURE REQUIRED.
- 13) ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 14) INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIAL WITH THE FOLLOWING PROPERTIES:
A. WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.46

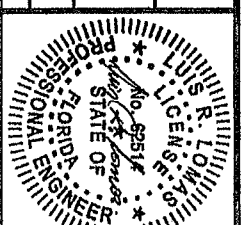


ELEVATION
VIEWED FROM EXTERIOR

DESIGN PRESSURE RATING	IMPACT RATING
±40.0PSF	NONE

SIGNED: 02/16/2012

GENERAL ALUMINUM COMPANY			
1001 W. CROSBY RD CARROLLTON, TX 75006			
SERIES 5000/5300 TILT RECTANGULAR SH 44" X 84" AND 52 1/8" X 72" NON - IMPACT ELEVATION AND GENERAL NOTES			
DRAWN: F.A.	DWG NO. 08-00580	REV -	DATE 10/08/08
SCALE NTS		SHEET 1 OF 3	



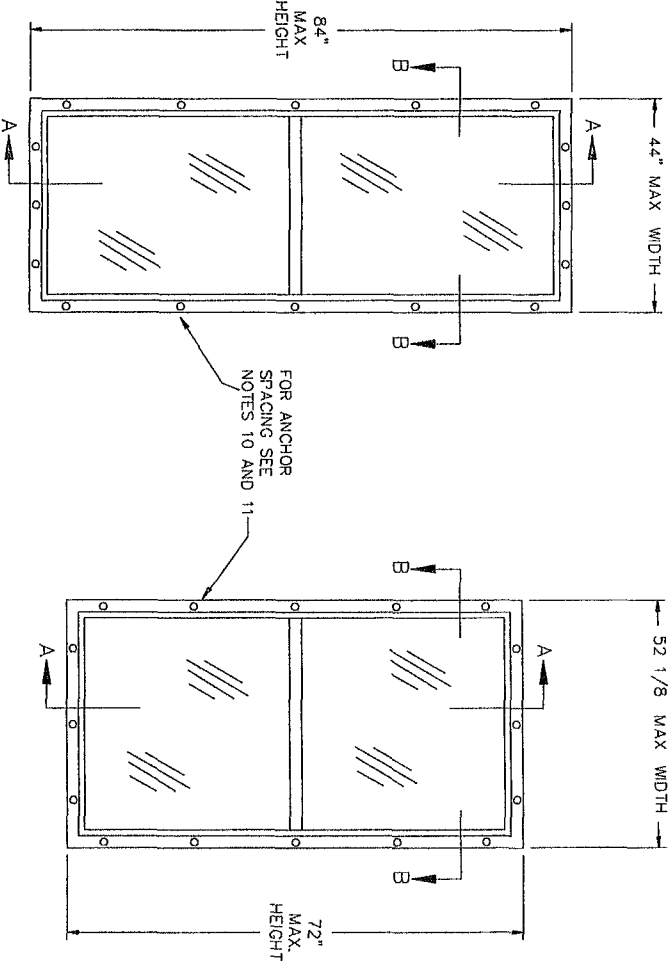
F1 Approval # 15217.13

Frame Const Aluminum windows

REVISIONS		
REV	DESCRIPTION	DATE

GENERAL NOTES

- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF FLORIDA BUILDING CODE
- 2) OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. OPENING DESIGN IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD
- 3) APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED ON THIS PRODUCT IN WIND BORNE DEBRIS REGIONS
- 4) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4" SHIM WHERE SPACE IS 1/16" OR GREATER OCCURS.
- 5) WINDOW FRAME MATERIAL TO BE ALUMINUM ALLOY 6063-T5
- 6) USE CAULK BEHIND WINDOW FLANGE AT HEAD, JAMBS AND SILL.
- 7) USE CAULK FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW FLANGE.
- 8) GLASS THICKNESS MAY VARY PER THE REQUIREMENT OF ASTM E1300 GLASS CHARTS
- 9) WHERE THE WATER RESISTANCE TEST REQUIREMENT OF 15% OF DESIGN LOAD APPLIES, POSITIVE DESIGN LOADS WILL BE LIMITED TO 40PSF DUE TO WATER TEST PRESSURE OF 6.0 PSF ACHIEVED IN TEST
- 10) INSTALL FIN FRAME WINDOW WITH 0.120" DIA. 6d NAILS WITH A MINIMUM 1-1/2" EMBEDMENT INTO FRAMING. FOR NUMBER OF ANCHORS NEEDED REFER TO ANCHOR CHARTS IN SHEET 3. LOCATE ANCHORS 6" MAX. SPACING BETWEEN ANCHORS MUST NOT EXCEED 11"
- 11) INSTALL FIN FRAME WINDOW WITH #8 WOOD SCREW OF SUFFICIENT LENGTH TO ACHIEVE MIN. 1-1/2" EMBEDMENT INTO SUBSTRATE. FOR NUMBER OF ANCHORS REFER TO ANCHOR CHARTS IN SHEET 3. LOCATE ANCHORS 6" MAX. FROM CORNERS. SPACING BETWEEN ANCHORS MUST NOT EXCEED 11"
- 12) IF EXACT WINDOW SIZE IS NOT LISTED IN ANCHOR CHART USE ANCHOR QUANTITY LISTED WITH NEXT LARGER SIZE FOR THE APPROPRIATE DESIGN PRESSURE REQUIRED.
- 13) ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR CD=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 14) INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIAL WITH THE FOLLOWING PROPERTIES:
A. WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.46



ELEVATION
VIEWED FROM EXTERIOR

DESIGN PRESSURE RATING	IMPACT RATING
±40.0PSF	NONE

SIGNED: 02/16/2012

GENERAL ALUMINUM COMPANY
1001 W. CROSBY RD
CARROLLTON, TX 75006

SERIES 5000/5300 TILT RECTANGULAR SH
44" X 84" AND 52 1/8" X 72" NON - IMPACT
ELEVATION AND GENERAL NOTES

SCALE NTS DATE 10/08/08 SHEET 1 OF 3

DESIGNER: F.A. DATE 10/08/08 DWG NO. 08-00580 REV -

PROFESSIONAL ENGINEER
LOUISIANA
No. 52514
STATE OF

E1 Approval # 15217.16

Frame Const Aluminum Windows

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER 2007 FBC	11/05/08	R.L.
B	REVISED PER 2010 CODE	02/15/12	R.L.

Maximum design pressure capacity chart per horizontal rail and vertical mullion loading

Height (in)		Total unit width and single unit width (in)															
		35.50	47.50	55.50	63.50	72.00	80.00	88.00	96.00	104.00	112.00	120.00	128.00	136.00	144.00	152.00	160.00
35.50	Pos	17.75	19.75	21.75	23.75	25.75	27.75	29.75	31.75	33.75	35.75	37.75	39.75	41.75	43.75	45.75	47.75
	Neg	17.75	19.75	21.75	23.75	25.75	27.75	29.75	31.75	33.75	35.75	37.75	39.75	41.75	43.75	45.75	47.75
47.50	Pos	23.75	25.75	27.75	29.75	31.75	33.75	35.75	37.75	39.75	41.75	43.75	45.75	47.75	49.75	51.75	53.75
	Neg	23.75	25.75	27.75	29.75	31.75	33.75	35.75	37.75	39.75	41.75	43.75	45.75	47.75	49.75	51.75	53.75
55.50	Pos	29.75	31.75	33.75	35.75	37.75	39.75	41.75	43.75	45.75	47.75	49.75	51.75	53.75	55.75	57.75	59.75
	Neg	29.75	31.75	33.75	35.75	37.75	39.75	41.75	43.75	45.75	47.75	49.75	51.75	53.75	55.75	57.75	59.75
63.50	Pos	35.75	37.75	39.75	41.75	43.75	45.75	47.75	49.75	51.75	53.75	55.75	57.75	59.75	61.75	63.75	65.75
	Neg	35.75	37.75	39.75	41.75	43.75	45.75	47.75	49.75	51.75	53.75	55.75	57.75	59.75	61.75	63.75	65.75
72.00	Pos	41.75	43.75	45.75	47.75	49.75	51.75	53.75	55.75	57.75	59.75	61.75	63.75	65.75	67.75	69.75	71.75
	Neg	41.75	43.75	45.75	47.75	49.75	51.75	53.75	55.75	57.75	59.75	61.75	63.75	65.75	67.75	69.75	71.75

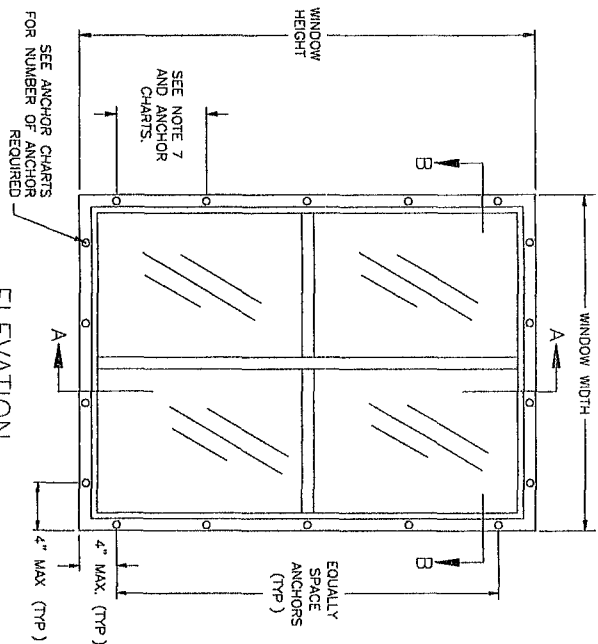
Number of anchors for units anchored using 0.120" diameter nail

Height (in)		Total unit width and single unit width (in)															
		35.50	47.50	55.50	63.50	72.00	80.00	88.00	96.00	104.00	112.00	120.00	128.00	136.00	144.00	152.00	160.00
35.50	Pos	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Neg	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
47.50	Pos	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Neg	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
55.50	Pos	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Neg	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
63.50	Pos	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Neg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
72.00	Pos	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	Neg	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

Number of anchors for units anchored using #8 wood screw

Height (in)		Total unit width and single unit width (in)															
		35.50	47.50	55.50	63.50	72.00	80.00	88.00	96.00	104.00	112.00	120.00	128.00	136.00	144.00	152.00	160.00
35.50	Pos	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Neg	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
47.50	Pos	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Neg	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
55.50	Pos	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Neg	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
63.50	Pos	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Neg	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
72.00	Pos	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	Neg	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

ELEVATION
VIEWED FROM EXTERIOR



- NOTES:
- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
 - 2) OPENING TO BE DESIGNED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. OPENING DESIGN IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
 - 3) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STRUCTURAL INTEGRITY OF WINDOW OPENING AND ALL WOOD FRAMING AROUND WINDOW.
 - 4) WINDOW FRAME MATERIAL TO BE ALUMINUM ALLOY 6063.
 - 5) ALL FASTENERS NUTS AND WASHERS SHALL BE MADE OF CORROSION RESISTANT MATERIAL.
 - 6) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM STACK TO BE 1/4" SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
 - 7) INSTALL UNITS IN SPRUCE PINE FIR USING 120" DIAMETER NAIL OR #8 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE 1 1/2 MIN. EMBEDMENT SEE CHARTS FOR NUMBER OF ANCHORS.
 - 8) APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED ON THIS PRODUCT FOR WIND BORNE DEBRIS REGIONS.
 - 9) GASK BEHIND WINDOW FLANGE AT HEAD SILL AND JAMBS.
 - 10) USE GASK FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW.
 - 11) WHERE WATER RESISTANCE TEST REQUIREMENT OF 15% OF DESIGN LOAD APPLIES. POSITIVE DESIGN PRESSURE IS LIMITED TO 40PSF DUE TO WATER TEST PRESSURE OF 6PSF ACHIEVED IN TEST.
 - 12) IF EXACT WINDOW SIZE IS NOT LISTED USE NEXT LARGER SIZE FOR THE APPROPRIATE DESIGN PRESSURE.
 - 13) UNITS MUST BE GLAZED IN ACCORDANCE WITH ASTM E1300.
 - 14) ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.8 WAS USED FOR WOOD ANCHOR CALCULATIONS.

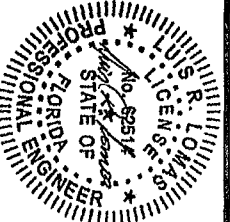
Horizontal		Window Horizontal Call Size	Window Horizontal I/P
3-0	35 1/2	3-4	39 1/2
4-0	47 1/2	4-8	55 1/2
5-0	59 1/2	5-4	63 1/2
SPCL	72		

Vertical		Window Vertical Call Size	Window Vertical I/P
2-4	27 1/2	3-0	35 1/2
3-8	43 1/2	4-0	47 1/2
4-4	51 1/2	4-6	59 1/2
SPCL	72		

GENERAL ALUMINUM
COMPANY OF TEXAS, LP
1001 W. CROSBY RD. CARROLLTON, TX 75006

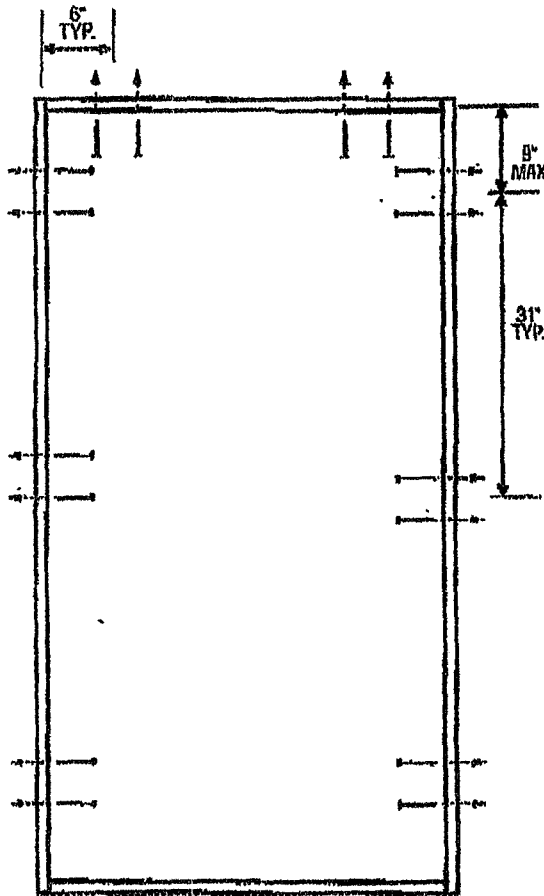
SERIES 5000/5300 (MULL TWIN) SH TILT WINDOW
RECTANGULAR - 72 X 72
ELEVATION, DP CHARTS AND NOTES

DATE: 10/25/07
SHEET 1 OF 2



SIGNED: 02/16/2012

SINGLE DOOR



FI* 4940.01

Minimum Fastener Count

- 6 per vertical framing member for 7'0" height and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 4 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"



Test Data Review Certificate #3026447A, #3026447B, #3026447C and COP/Tag Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITIS/WT website (www.citsonko.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

Latching Hardware:

- ¹ Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline.
- ² Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline OR that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel -- (1) at top and (1) at bottom.
- ³ Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel -- (1) at top and (1) at bottom.
- ⁴ Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel -- (1) at top and (1) at bottom.

Hardware requirements not footnoted on COP documents shall comply with Item 1 as shown above.

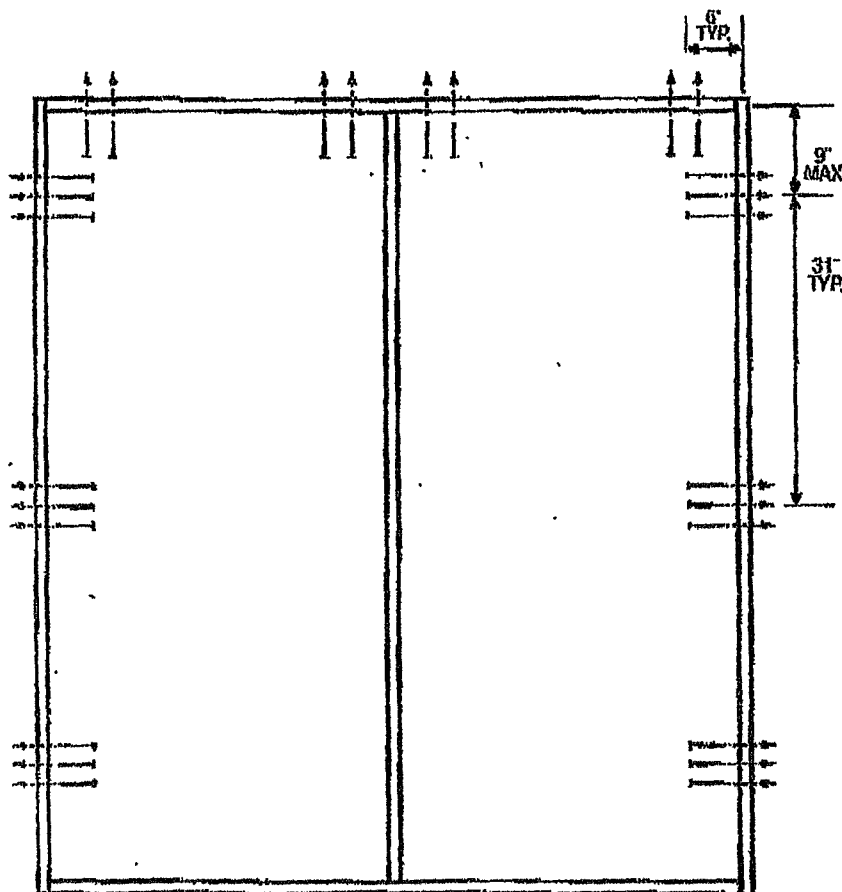
Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include 10d common nails. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The common nail single shear design values come from ANSI/AP & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

XX
Unit

MID-WL-MA0002-02

DOUBLE DOOR



F1# 6015.1

Minimum Fastener Count:

- 6 per vertical framing member for 7'0" heights and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"



Test Data Review Certificate #3028447A, #3028447D, #3028447C and COP/Text Report Validation #3028447A-001, 002, 003, 004; #3028447B-001, 002, 003, 004; #3028447D-001, 002, 003, 004 provides additional information - available from the ITSWH website (www.itswh.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

Latching Hardware:

- ¹ Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline.
- ² Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline OR that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel - (1) at top and (1) at bottom.
- ³ Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel - (1) at top and (1) at bottom.
- ⁴ Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel - (1) at top and (1) at bottom.

Hardware requirements not footnoted on COP documents shall comply with item 1 as shown above.

Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 wood screws and 10d common nails. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw and common nail single shear design values come from ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

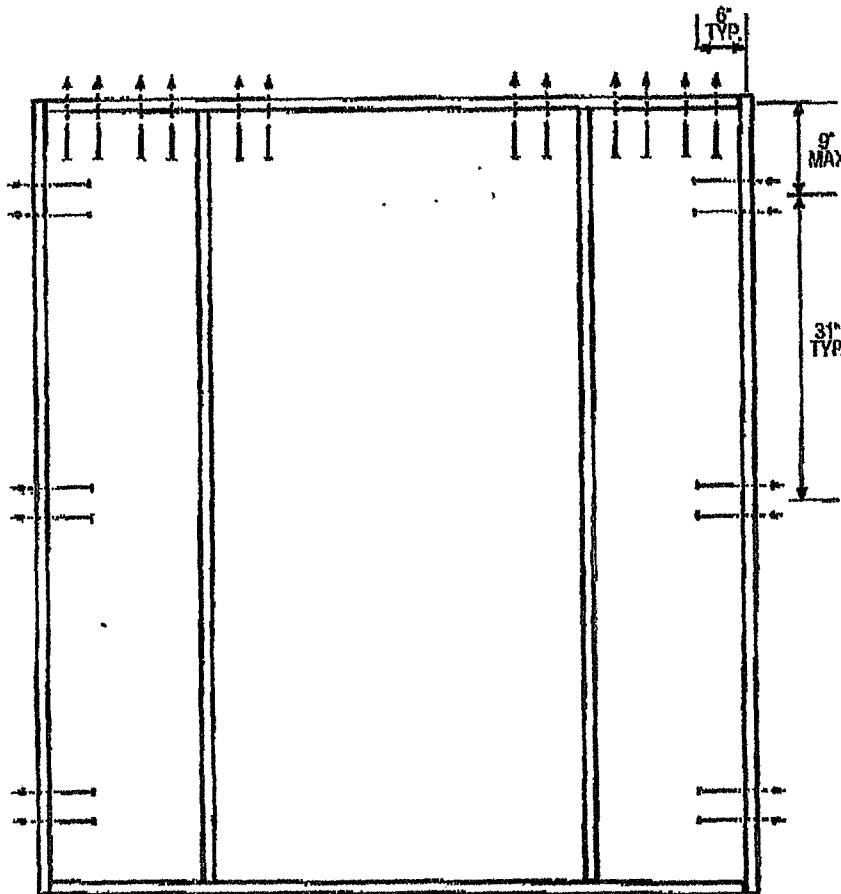
2

October 27, 2003

Our continuing program of product improvement meets specifications, design and product detail subject to change without notice.

Masonite®

SINGLE DOOR WITH 2 SIDELITES



FL # 4940.2

Minimum Fastener Count

- 6 per vertical framing member for 7'0" heights and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 12 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"



Test Data Review Certificate #3028447A; #3028447B; #3028447C and GOF/For Report Validation Matrix #3028447A-001, 002, 003, 004; #3028447B-001, 002, 003, 004; #3028447C-001, 002, 003, 004 provides additional information - available from the IFS/VRT website (www.ifsenviro.com), the Macorite website (www.macorite.com) or the Masonite Technical Center.

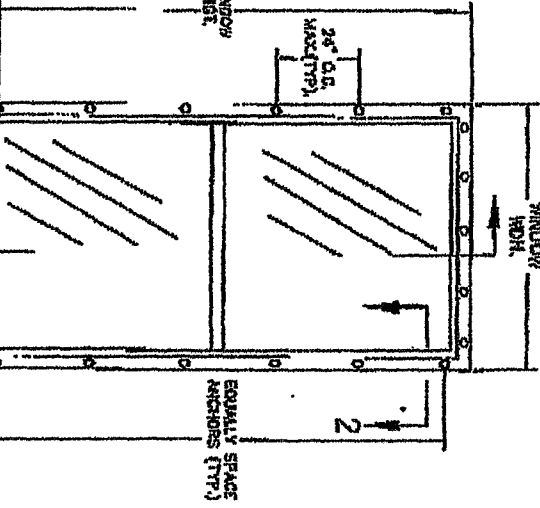
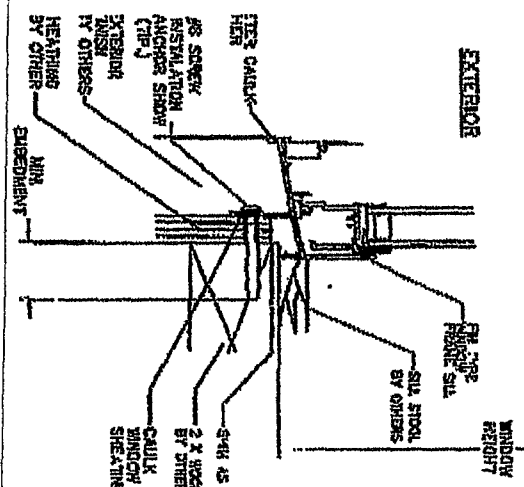
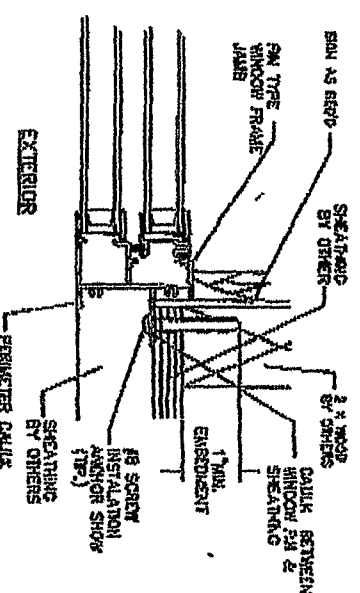
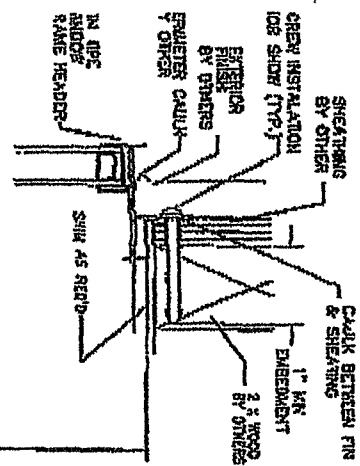
Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline.
- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline OR that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel - (1) at top and (1) at bottom.
- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel - (1) at top and (1) at bottom.
- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel - (1) at top and (1) at bottom.

Hardware requirements not footnoted on COP documents shall comply with Item 1 as shown above.

Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include 10d common nails. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The common nail single shear design values come from ANSI/APA & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.



SECTION 1

ELEVATION

VIEWED FROM EXTERIOR

1. NOTES:
 A. IF USED FOR LEAKAGE, ADD FRAME MATERIAL ALLOW 20%
 B. FOR WINDOW FRAME AT LEAD, SEE & USES.
 C. FOR WINDOW FRAME AT LEAD, SEE & USES.
 D. FOR WINDOW FRAME AT LEAD, SEE & USES.
 E. FOR WINDOW FRAME AT LEAD, SEE & USES.
 F. FOR WINDOW FRAME AT LEAD, SEE & USES.
 G. FOR WINDOW FRAME AT LEAD, SEE & USES.
 H. FOR WINDOW FRAME AT LEAD, SEE & USES.
 I. FOR WINDOW FRAME AT LEAD, SEE & USES.
 J. FOR WINDOW FRAME AT LEAD, SEE & USES.
 K. FOR WINDOW FRAME AT LEAD, SEE & USES.
 L. FOR WINDOW FRAME AT LEAD, SEE & USES.
 M. FOR WINDOW FRAME AT LEAD, SEE & USES.
 N. FOR WINDOW FRAME AT LEAD, SEE & USES.
 O. FOR WINDOW FRAME AT LEAD, SEE & USES.
 P. FOR WINDOW FRAME AT LEAD, SEE & USES.
 Q. FOR WINDOW FRAME AT LEAD, SEE & USES.
 R. FOR WINDOW FRAME AT LEAD, SEE & USES.
 S. FOR WINDOW FRAME AT LEAD, SEE & USES.
 T. FOR WINDOW FRAME AT LEAD, SEE & USES.
 U. FOR WINDOW FRAME AT LEAD, SEE & USES.
 V. FOR WINDOW FRAME AT LEAD, SEE & USES.
 W. FOR WINDOW FRAME AT LEAD, SEE & USES.
 X. FOR WINDOW FRAME AT LEAD, SEE & USES.
 Y. FOR WINDOW FRAME AT LEAD, SEE & USES.
 Z. FOR WINDOW FRAME AT LEAD, SEE & USES.

TOWNE HALL, BRIDGE COMMUNITARIAN, MAINVIEW & RECORDS CHAIRS FOR CONVENT, LAMBERT SERIES 2000/2000											
NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL	NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	1/2" x 1										



YOUSSEF, A.M. P.E.
 CONSULTING ENGINEER
 12345 Main Street
 Suite 100
 Miami, FL 33101
 Phone: 305-123-4567
 Florida License # 12345

PROJECT: WINDOW FRAME
 DRAWING: WINDOW FRAME
 DATE: 02/10/02
 BY: [Signature]
 CHECKED: [Signature]

SECTION 1

Hartman
Senior
SECTION 2

ELEVATION
VIEWED FROM EXTERIOR

- 1) SHALE OF 2000' FROM LEVELER.
- 2) WINDOW FRAME MATERIAL, BALDY 5065.
- 3) CHALK BEHIND WINDOW FRAME AT HEAD, SILL & JAMB.
- 4) CHALK FOR PERIMETER SEAL, REMOVED EXTERIOR OF WINDOW FR.
- 5) DESIGN PRESSURES SHOWN ARE BASED ON RAILROAD CARPORT ONLY. DESIGN PRESSURES MUST BE DETERMINED FOR ASP-CL-20 & 55 CHART AT THE RAILWAY YARD. MUST BE USED FOR 2500'4' HIGHER WATER RESISTANCE TEST REQUIREMENT OF 15% OF DESIGN LOAD APPLIES. FORTUNE DESIGN LOADS WILL BE LIMITED TO 40% FOR USE TO MEET TEST PRESSURE OF 5.4 PCY. ACHIEVED ON TEST.
- 6) INSTALLATION: FR. FRAME WINDOW IN 2000' FROM ORIGIN WITH TWO BY FOUR STUDS USED. 1000'4' BOLTS OR STEELBOLTS OF SUFFICIENT LENGTH TO PROVIDE FULL ENGAGEMENT UP TO SUBGRADE.
- 7) IF EXACT WINDOW SIZE IS NOT USED IN ARCHIT. CHART, USE EXACT QUANTITY LISTED WITH SDC-1 LARGER SIZE.

[illegible][illegible]

GENERAL ALUMINUM LC 2004 FLORIDA CERTIFICATION OUTLINE

7/30/2007

FL #	CATEGORY	SERIES	MAX SIZE/GLASS	DP
5170.1 R-1	Patio Doors	420/430/440	144 x 96	+40/-40
5170.2	Patio Doors	600 (USE FL8919)	144 x 96	+35/-35
5170.3	Patio Doors	600 (USE FL8919)	144 x 80	+40/-40
6805.1	Patio Doors	420/430/440	182 x 80	+35/-35
7555.1	Mulls - Horizontal	1445/1445-2/1447/1447-2/5347/5347-2/5547/5547-2		
7555.2	Mulls - Vertical	1442/1445/1445-2/1447/1447-2/1448/5347/5347-2/5348/5547/5547-2/5548		
8164.1	Fixed - Aluminum	1100	73 x 73 Temp 3/16	+60/-60
8164.2	Fixed - Aluminum	1100	96 x 48 Temp 3/16	+60/-60
8164.3	Fixed - Aluminum	1100	73 x 61 Anld 3/16	+50/-50
8164.4	Fixed - Aluminum	1100	96 x 48 Anld 3/16	+40/-40
8164.5	Fixed - Aluminum	1100 Twinned	72 x 72 DSB	+40/-40
8164.6	Fixed - Aluminum	1100 TDL	73 x 61 DSB	+40/-40
8164.7	Fixed - Aluminum	1350	73 x 73 3/16	+40/-40
8164.8	Fixed - Aluminum	1450	73 x 73 Temp 3/16	+60/-60
8164.9	Fixed - Aluminum	1450	96 x 48 Temp 3/16	+60/-60
8164.10	Fixed - Aluminum	1450	73 x 61 Anld 3/16	+50/-50
8164.11	Fixed - Aluminum	1450	96 x 48 Anld 3/16	+40/-40
8164.12	Fixed - Aluminum	1450 TDL	73 x 61 DSB	+40/-40
8164.13	Fixed - Aluminum	1550/1570	73 x 73 IG Temp 3/16	+60/-60
8164.14	Fixed - Aluminum	1550/1570	96 x 48 IG Temp 3/16	+60/-60
8164.15	Fixed - Aluminum	1550/1570	73 x 61 IG Anld 3/16	+50/-50
8164.16	Fixed - Aluminum	1550/1570	96 x 48 IG Anld 3/16	+40/-40
8164.17	Fixed - Aluminum	1650/1670	73 x 73 IG Anld 3/16	+40/-40
8164.18	Fixed - Aluminum	1900/1970	96 x 48 IG Temp 3/16	+60/-60
8164.19	Fixed - Aluminum	1800/1970	73 x 73 IG Temp 3/16	+60/-60
8164.20	Fixed - Aluminum	1900/1970	96 x 48 IG Anld 3/16	+40/-40
8164.21	Fixed - Aluminum	1900/1970	73 x 61 IG Anld 3/16	+50/-50
8164.22	Fixed - Aluminum	1900/1970 Twinned	72 x 72 IG DSB	+40/-40
8164.23	Fixed - Aluminum	5000/5300/5350	72 x 72 IG 3/16	+40/-40
8164.24	Fixed - Aluminum	5000/5300/5350	96 x 48 IG 3/16	+40/-40
8164.25	Fixed - Aluminum	5000/5300/5350 Twinned	72 x 72 IG DSB	+40/-40
8164.26	Fixed - Vinyl	7000/7100	72 x 72 IG 3/16	+40/-40

ALUMINUM MOUNTING FLANGE (NAILING FIN) WINDOW INSTALLATION INSTRUCTIONS

ROUGH OPENING PREPARATION

1. Rough opening should be sized one-half inch ($\frac{1}{2}$ ") larger than the window size in width and height. Provide a minimum of one-quarter inch ($\frac{1}{4}$ ") clearance at the top (head) and one-eighth inch ($\frac{1}{8}$ ") clearance on each side (jamb) of the unit. Improperly sized rough openings will not allow the window to function as was intended.

2. Sheathing and house wrap should be installed around the perimeter of the rough opening before window installation or the attachment of flashing. Flashing materials must meet a minimum water resistance of 24 hours in accordance with ASTM-D779 and be a minimum of nine inches (9") wide. GA recommends the use of appropriate self-adhering flashing. All notations on flashing placement and installation are based on the use of appropriate nine inch (9") self-adhering flashing.

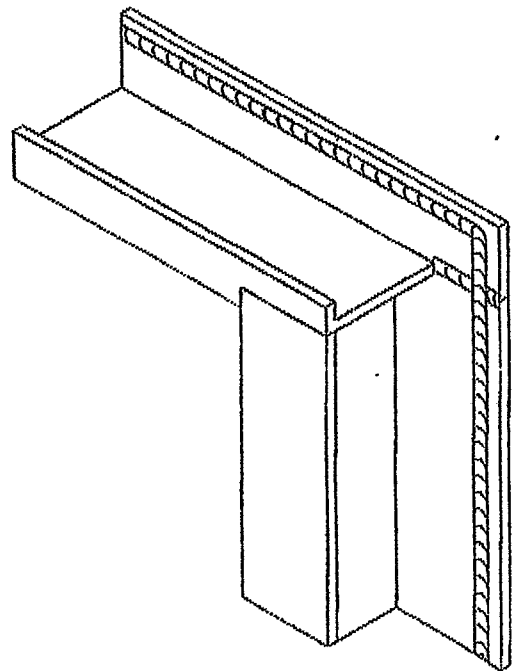
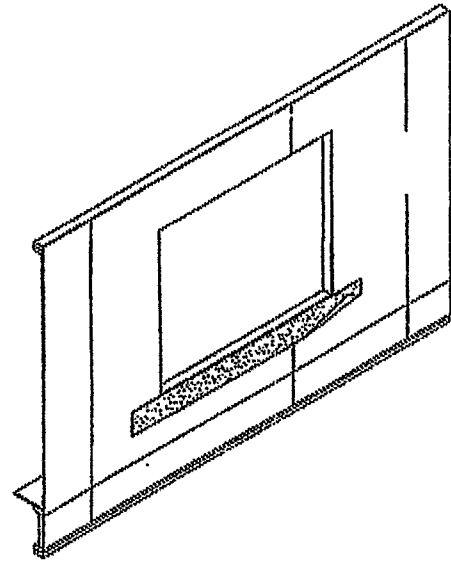
3. Attach a strip of flashing material horizontally along the bottom face (sill) of the rough opening. Sill flashing length should be equal to the rough opening width plus two times the flashing width. The sill flashing should be long enough to extend nine inches (9") beyond both jambs of the rough opening.

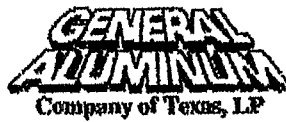
4. Regarding building sequence, the roof should be installed before windows are installed. This will prevent any problems from header deflection. If windows are installed before the roof loads have been applied and the header deflects, serious problems such as stress cracks and window frame deflection may occur which will void the window warranty. If windows must be installed before the roof loads have been applied, then the size of the headers must be large enough to limit the amount of deflection.

WINDOW PREPARATION

5. The operable sash of the window must remain closed and locked during the entire installation process.

6. Apply a three-eighths inch ($\frac{3}{8}$ ") nominal continuous bead of sealant to the interior perimeter of the mounting flange (nailing fin) and along the seams of all joints at the corners. It is important to properly select and apply sealant. Refer to ASTM standards C1193 and C1299 for information on sealant selection and use. If in doubt as to compatibility, use a silicone or polyurethane sealant rated to ASTM C920 Class 25.





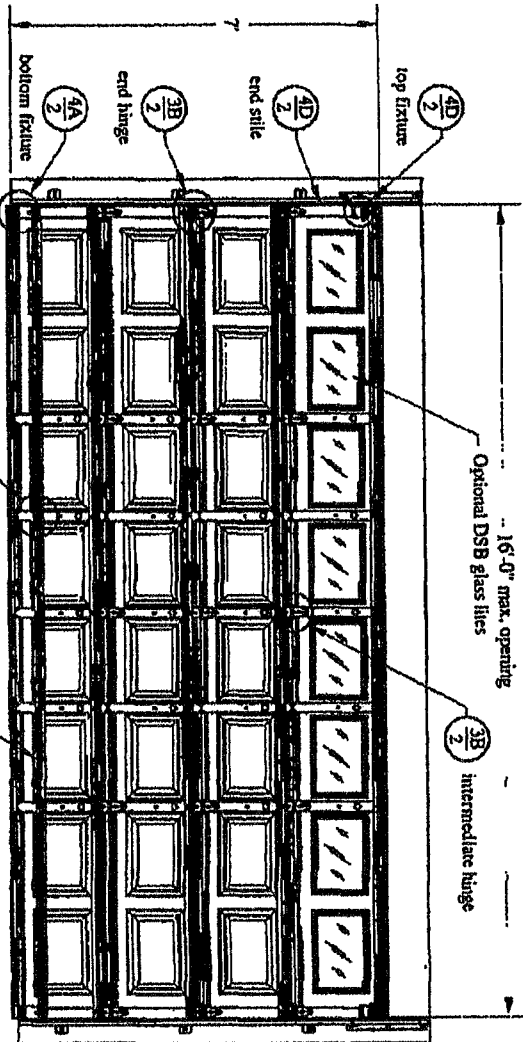
FLORIDA BUILDING CODE

FL Number	Items	Category	Subcategory	Validated By	Status	Date Approved
FL 8359 New	14	Windows	Single Hung		Approved	May 30, 2007
FL 8177 New	2	Windows	Single Hung		Approved	February 6, 2007
FL 8704 New	2	Windows	Single Hung		Approved	May 8, 2007
FL 8909 New	1	Windows	Single Hung Impact	Keystone C. Inc.	Approved	June 27, 2007
FL 8175 New	6	Windows	Horiz. Slider		Approved	February 6, 2007
FL 8908 New	1	Windows	Horiz. Slider Impact	Keystone C. Inc.	Approved	June 27, 2007
FL 8164 New	26	Windows	Fixed		Approved	February 6, 2007
FL 8910 New	1	Windows	Fixed Impact	Keystone C. Inc.	Approved	June 27, 2007
FL 8705 New	2	Windows	Casement		Approved	May 8, 2007
FL 8170 Rev.	3	Exterior Doors	Patio Door		Approved	July 12, 2006
FL 8808 New	1	Exterior Doors	Patio Door		Approved	July 12, 2006
FL 8919 New	4	Exterior Doors	Patio Door		Approved	June 27, 2007
FL 7585 New	2	Windows	Mullions	Rene J. Quiroga	Approved	October 11, 2006
FL 8805 New	8	Windows	Mullions	Joseph A Raed	Approved	June 27, 2007

June 27, 2007

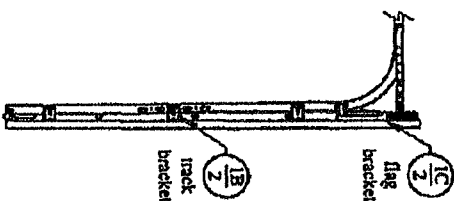
LESTER'S CARPORT DOORS
PO BOX 765
GAINESVILLE, FL 32602

FL 10474.19



door height	section	quantity	strut quantity	bracket quantity per side
6'-6" to 7'-0"	4	5	3	3
7'-6" to 8'-0"	5	6	4	4
8'-3" to 8'-9"	5	6	4	4
9'-0" to 10'-6"	6	7	5	5
10'-9" to 12'-3"	7	8	6	6
12'-6" to 14'-0"	8	9	7	7

Refer to Supplemental Instructions for strut placement on doors over 7'-0" high



Door Model	Gauge	Decimals
2250/2251	25	.0185
2240/2241	24	.0225

Window Restriction: Standard window options are available.

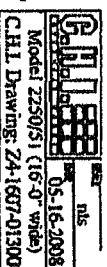
This door has been tested in accordance with ANSI/DASMA 108-2002 & 108-2005
Design Pressure (DP): 22.2 psf / 24.7 mcg
Test Pressure (TP): 33.3 psf / 37.1 mcg
Per 2007 FBC Table 1609.4(1), DP meets or exceeds basic wind speed of:
V = 120 MPH for Exposure B and mean roof height of 30' or less
V = 101 MPH for Exposure C and mean roof height of 30' or less
Maximum door size: 16'-0" wide by 14'-0" tall
Glazing and door have not been tested for windborne debris.
Wood buck and supporting structural elements shall be designed by a registered professional engineer for wind loads shown on this drawing.
If door is not electrically operated, a lock must be installed.

Professional Engineer's seal provided
only for verification of windload
construction details

John E. Spence, P.E.
1411 LeMay Street #203
Carrollton, Texas 75007
Florida P.E. # 51737
page 1 of 2

Details for door heights up to 14'-0" are contained in the
Supplemental Instructions, which are required in addition to
this drawing for installation. Do not install door using only
this drawing.

FL 10474



Southern Yellow Pine specific gravity = Spruce Pine fir specific gravity = 0.42; Lag screw 3/8" dia x 3" long; must co Washer: 1-1/8" O.D. / 3/8" I.D. min; an Pre-drill 1/4" dia pilot holes for lag screw 1-1/2" minimum lag screw edge distance 1-1/2" minimum embedment required. Maximum spacing shown in chart. Less used to avoid interference with door car Spring pad connection not included. Maximum load per jamb = 0.5 x door w

Door Width	Zone / Max Positive Pressure	Maximum Fastener On-Center Spacing	Spruce Pine
9	Zone 1 / 12.5	24	24
	Zone 2 / 15.9	24	24
	Zone 3 / 19.5	24	24
	Zone 4 / 23.2	24	24
	Zone 5 / 27.3	24	24
10	Zone 6 / 31.4	24	24
	Zone 7 / 35.0	24	24
	Zone 8 / 38.7	24	24
	Zone 9 / 42.3	24	24
	Zone 10 / 46.2	24	24

John E. Seaberg
John E. Seaberg, P.E.
1411 Lakeway Street #205
Carrollton, Texas 75007
Florida P.E. # 51737

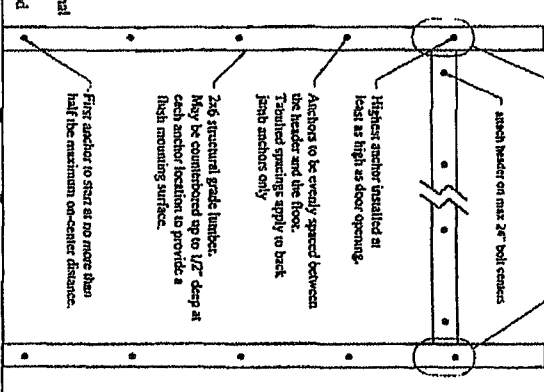
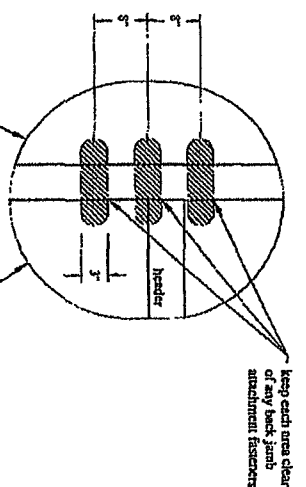
2000 psi minimum poured concrete wall; allowable load per anchor = 280 lbs. Grout-filled (min 2000 psi concrete) C90 block; allowable load per anchor = 134 lbs. Southern Yellow Pine specific gravity = 0.42 Spruce Pine Fir specific gravity = 0.42 Anchor: 1/4" dia x 3" long ITW Ramsar / Redhead Tapcon Washer: 1" O.D. / 3/8" I.D. min; must conform to ANSI B18.22.1 type B. 2-1/2" minimum lag screw edge distance required. 1-1/2" minimum embedment required. Maximum spacing shown in chart. Lesser spacing may be used to avoid interference with door component system. Spring pad connection not included. Maximum load per jamb = 0.5 x door width x max. positive pressure x door height

Door Width	Zone / Max Positive Pressure	Maximum Fastener On-Center Spacing	2000 PSI Concrete
9	Zone 1 / 12.5	24	24
	Zone 2 / 15.9	24	24
	Zone 3 / 19.5	22	24
	Zone 4 / 23.2	16	24
	Zone 5 / 27.3	16	24
10	Zone 6 / 31.4	14	24
	Zone 7 / 35.0	12	21
	Zone 8 / 38.7	11	20
	Zone 9 / 42.3	10	17
	Zone 10 / 46.2	9	15

* 2000 psi minimum poured concrete wall. Wood back jamb material & the limiting factor in faster spacing.

John E. Seaberg
John E. Seaberg, P.E.
1411 Lakeway Street #205
Carrollton, Texas 75007
Florida P.E. # 51737

Alternative design may be approved by a registered professional engineer. Supporting structural elements shall be designed by a registered professional engineer for wind loads in addition to other loads. Calculation reference: DASMA TDS #61A, 2005 A&EPA NDS for Wood Construction and ITW Ramsar / Redhead data.



Attaching backs to Block

SCALE: none
DATE: 02-12-2008
Back Jamb Attachment Detail
Self-Tapping Concrete Anchor
C.H.I. Drawing: BJA-002-03

LEST 3 GARAGE DOORS
PO BOX 763
GAINESVILLE, FL 32602

FL 10474.21

