



**BUILDING CODE COMPLIANCE OFFICE**  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 375-2908

**CONTRACTOR LICENSING SECTION**  
(305) 375-2527 FAX (305) 375-2558

**CONTRACTOR ENFORCEMENT DIVISION**  
(305) 375-2966 FAX (305) 375-2908

**PRODUCT CONTROL DIVISION**  
(305) 375-2902 FAX (305) 372-6339

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

**Florida Shutters, Inc.**  
**1125 Commerce Ave.**  
**Vero Beach ,FL 32960**

Your application for Notice of Acceptance (NOA) of:

**"Impact" Aluminum Colonial Shutter**

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Raul Rodriguez  
Chief Product Control Division

**ACCEPTANCE NO.: 00-0411.09**  
**EXPIRES: 02/08/2004**

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL  
CONDITIONS  
BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.  
Director  
Miami-Dade County  
Building Code Compliance Office

**APPROVED: 02/08/2001**

**Florida Shutters, Inc.**

ACCEPTANCE No. : 00-0411.09

APPROVED : 02/08/2001

EXPIRES : 02/08/2004

**NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS**

**1. SCOPE**

This approves an Extruded Aluminum Hinged Bi-Fold Colonial Shutter, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

**2. PRODUCT DESCRIPTION**

This Extruded Aluminum Hinged Bi-Fold Colonial Shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 1000A, titled " Impact Colonial Shutter ", prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E., dated January 10, 2001, sheets 1 through 7 of 7, bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

**3. LIMITATIONS**

All permanent set components, included but not limited to embedded anchor bolts, threaded cones, metal shields, must be protected against corrosion, contamination and damage at all times.

**4. INSTALLATION**

This Extruded Aluminum Hinged Bi-Fold Colonial Shutter and its components shall be installed in strict compliance with the approved drawings.

**5. LABELING**

Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved".

**6. BUILDING PERMIT REQUIREMENTS**

**6.1** Application for building permit shall be accompanied by copies of the following:

**6.1.1** This Notice of Acceptance.

**6.1.2** Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.

**6.1.3** Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.



\_\_\_\_\_  
Helmy A. Makar, P.E.- Product Control Examiner  
Product Control Division

**Florida Shutters, Inc.**

**ACCEPTANCE No. :** 00-0411.09

**APPROVED :** 02/08/2001

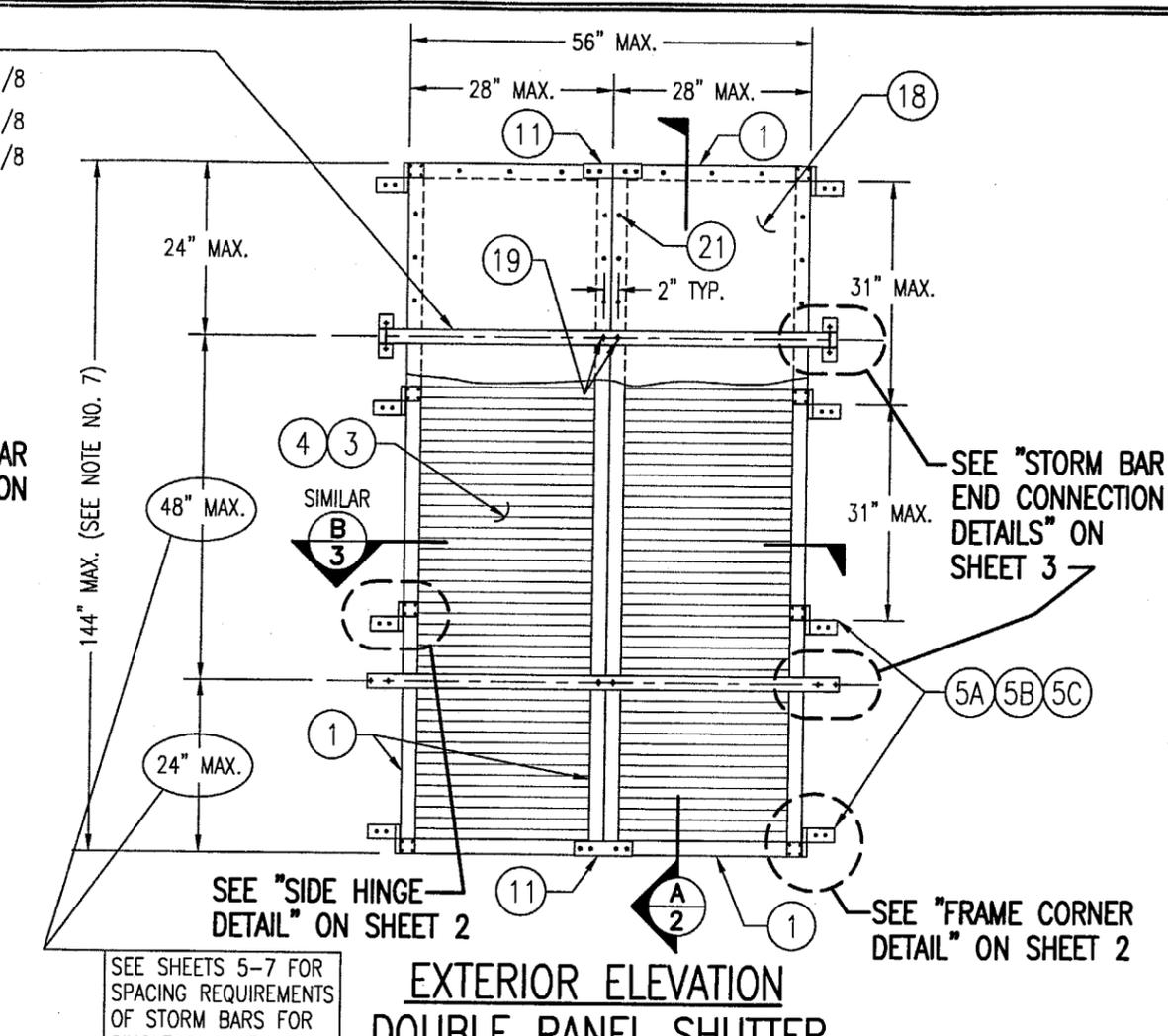
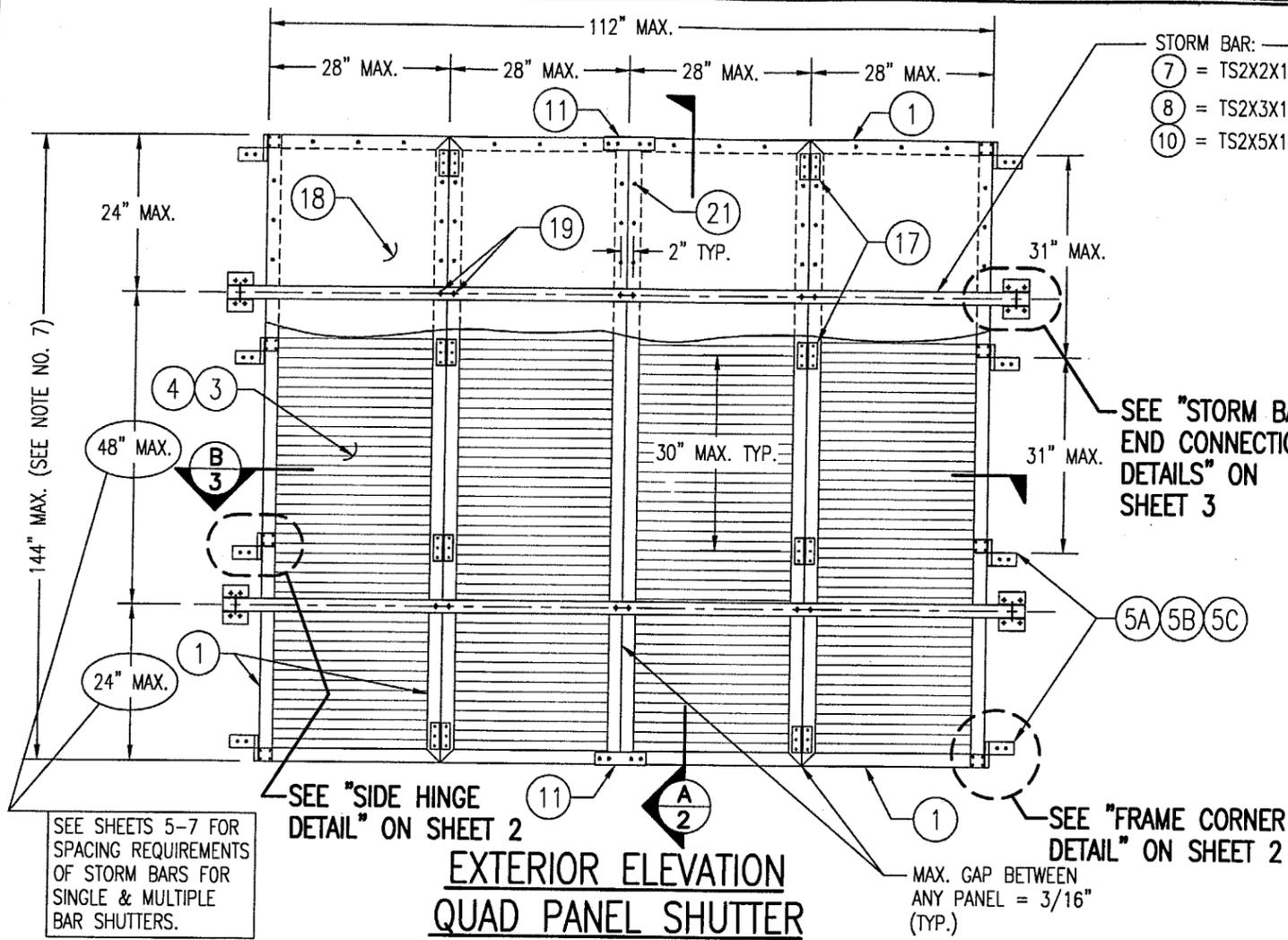
**EXPIRES :** 02/08/2004

**NOTICE OF ACCEPTANCE: STANDARD CONDITIONS**

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
  - a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
  - b. The product is no longer the same product (identical) as the one originally approved.
  - c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
  - d. The engineer, who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
  - a. Unsatisfactory performance of this product or process.
  - b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
6. The Notice of Acceptance number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer needs not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

**END OF THIS ACCEPTANCE**

  
\_\_\_\_\_  
Helmy A. Makar, P.E.- Product Control Examiner  
Product Control Division



STORM BAR:  
 (7) = TS2X2X1/8  
 (8) = TS2X3X1/8  
 (10) = TS2X5X1/8

SEE "STORM BAR  
 END CONNECTION  
 DETAILS" ON  
 SHEET 3

SEE "STORM BAR  
 END CONNECTION  
 DETAILS" ON  
 SHEET 3

SEE "SIDE HINGE  
 DETAIL" ON SHEET 2

SEE "FRAME CORNER  
 DETAIL" ON SHEET 2

SEE "SIDE HINGE  
 DETAIL" ON SHEET 2

SEE "FRAME CORNER  
 DETAIL" ON SHEET 2

SEE SHEETS 5-7 FOR  
 SPACING REQUIREMENTS  
 OF STORM BARS FOR  
 SINGLE & MULTIPLE  
 BAR SHUTTERS.

SEE SHEETS 5-7 FOR  
 SPACING REQUIREMENTS  
 OF STORM BARS FOR  
 SINGLE & MULTIPLE  
 BAR SHUTTERS.

**EXTERIOR ELEVATION  
 QUAD PANEL SHUTTER**

**EXTERIOR ELEVATION  
 DOUBLE PANEL SHUTTER**

SCALE: 1/2"=1'-0"

SCALE: 1/2"=1'-0"

**GENERAL NOTES:**

1. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY UNLESS SHOWN OTHERWISE ON THESE DRAWINGS.
2. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE SHUTTERS.
3. THESE SHUTTER SYSTEMS HAVE BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE 1994 EDITION AND DADE COUNTY PROTOCOLS PA-201, 202 & 203.
4. THESE SHUTTER SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR WIND PRESSURES NOT TO EXCEED THOSE SHOWN IN THE LOAD TABLES.
5. ALL FASTENERS SHALL BE AS SPECIFIED ON THESE DRAWINGS WITH MINIMUM EDGE DISTANCE, SPACINGS & EMBEDMENTS BEING AS SPECIFIED.
6. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI. ALL WOOD SUBSTRATE SHALL BE WITH G = 0.55 MIN.
7. SHUTTER WIDTH SHALL BE RESTRICTED BY THE MAXIMUM DIMENSIONS SHOWN. SHUTTER HEIGHT MAY EXCEED 96" (UP TO 144" MAX.) PROVIDING THE REQUIRED NUMBER & SPACING OF STORM BARS ARE USED.
8. EACH SHUTTER SHALL HAVE A LEGIBLE & READILY VISIBLE MARKING INSTRUCTING THE OWNER/TENANT TO SECURE THE SHUTTER WITH BRACKETS & STORM BARS, PER THE MANUFACTURER'S INSTRUCTIONS, DURING PERIODS OF HURRICANE WARNINGS. THE OWNER/TENANT SHALL BE RESPONSIBLE FOR SECURING THE SHUTTER AS REQUIRED IN THESE APPROVED DRAWINGS.
9. EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS:  
 FLORIDA SHUTTERS, INC.  
 VERO BEACH, FLORIDA  
 MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
10. POSITIVE & NEGATIVE DESIGN WIND LOAD CALCULATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE WIND CODE FOR THE LOCAL JURISDICTION WHERE THE SHUTTERS ARE BEING INSTALLED TO VERIFY THE WIND LOADS ARE LESS THAN OR EQUAL TO THE DESIGN WIND LOAD RATING FOR EACH SHUTTER.

NOTE: SINGLE & THREE PANEL SHUTTERS ARE ALSO PART OF THIS APPROVAL. SINGLE PANEL SHUTTERS WILL COMPLY WITH THE DOUBLE PANEL SHUTTER REQUIREMENTS & THE THREE PANEL SHUTTERS WILL COMPLY WITH THE QUAD PANEL SHUTTER REQUIREMENTS.

**MAX. ALLOWABLE DESIGN WIND LOADS**

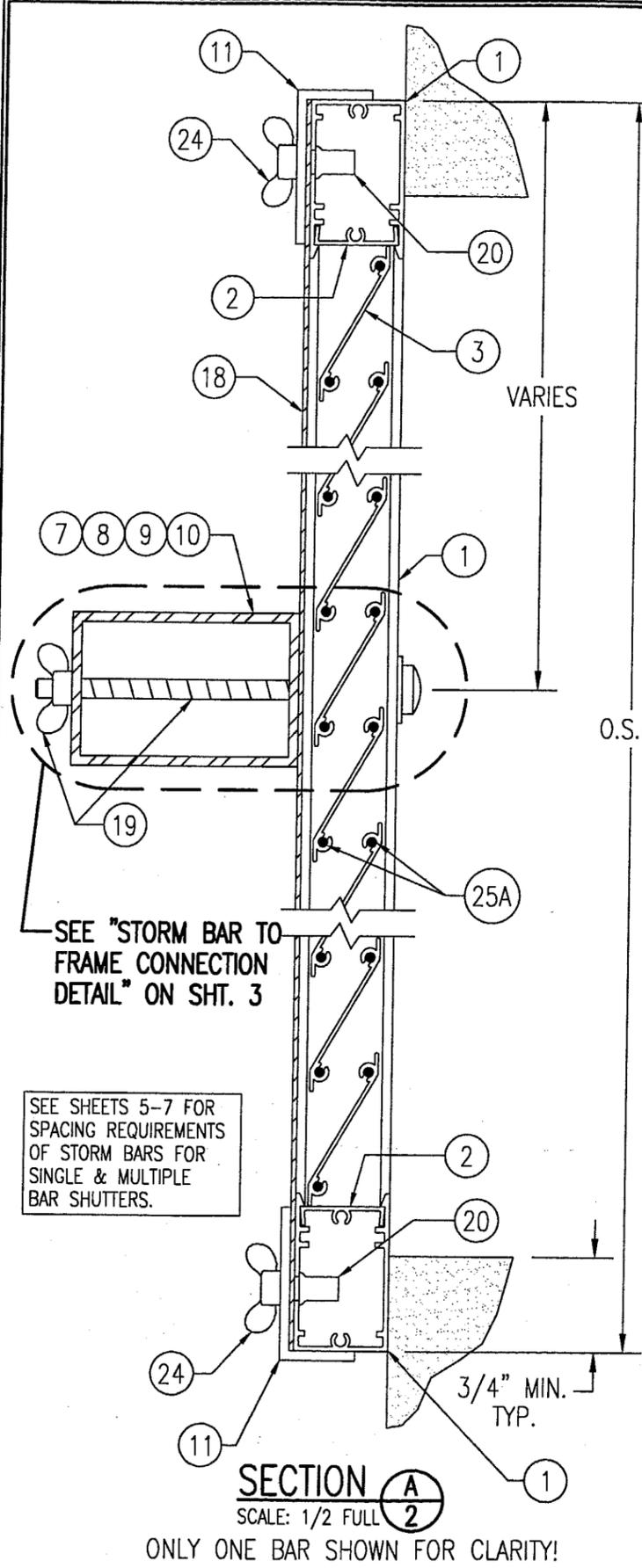
POSITIVE	NEGATIVE
80 PSF	80 PSF

SEE SHUTTER & STORM BAR TABLES ON SHEETS 5-7 FOR REDUCED LOADS AS CONTROLLED BY SHUTTER SPAN, STORM BAR SPAN & STORM BAR SPACING.

STORM BAR NOTE: THE NUMBER OF STORM BARS REQUIRED WITH EACH SHUTTER TYPICALLY VARIES FROM 1 TO 3 & IS DEPENDENT ON SHUTTER SIZE & REQUIRED DESIGN PRESSURE. SEE ELEVATION SKETCHES & LOAD TABLES ON SHEETS 5-7 FOR STORM BAR REQUIREMENTS.

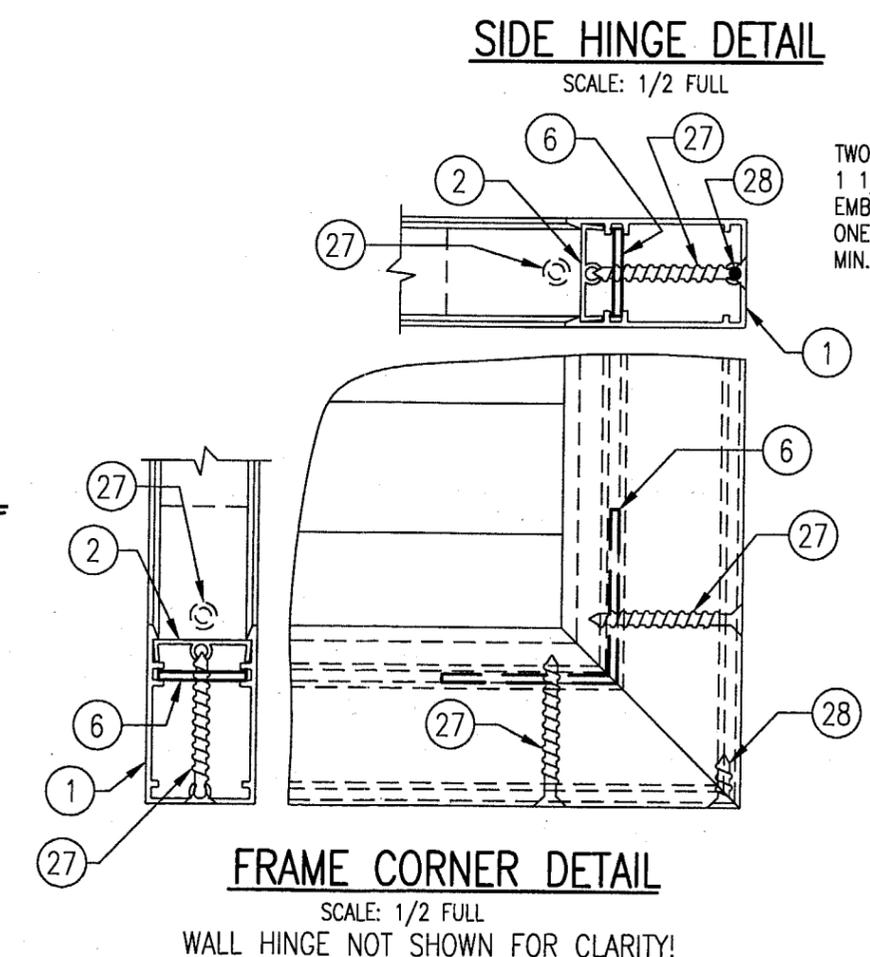
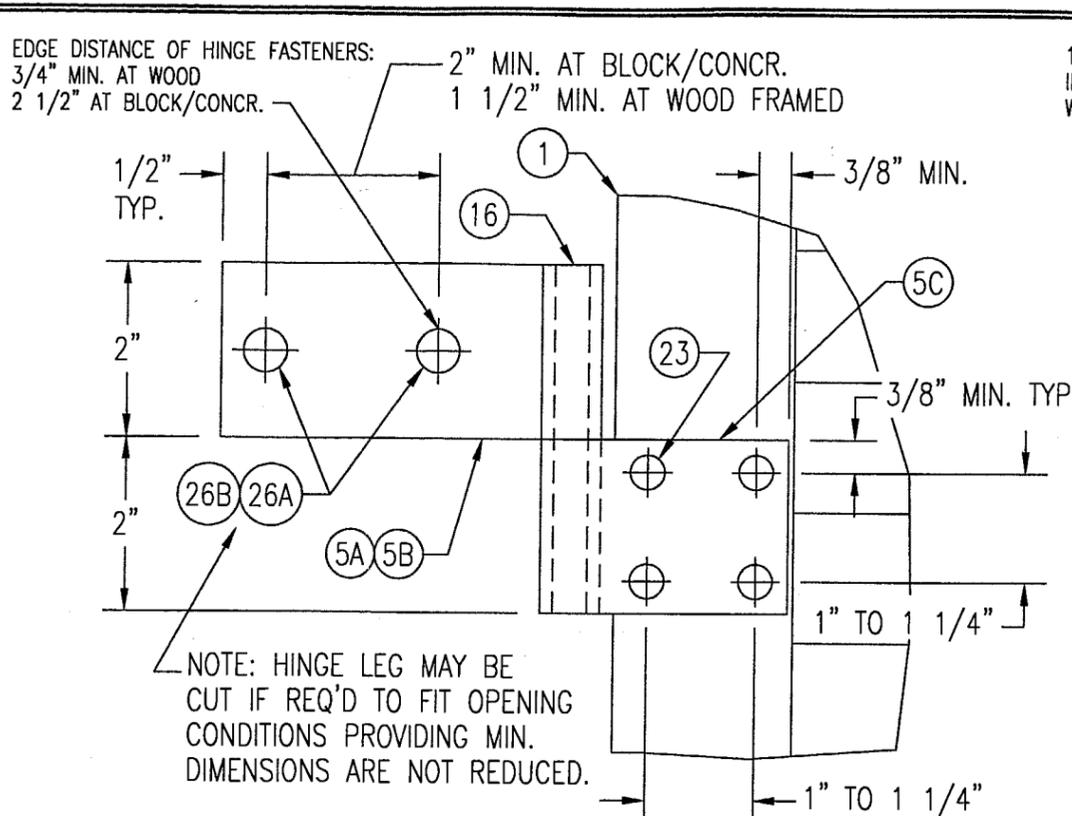
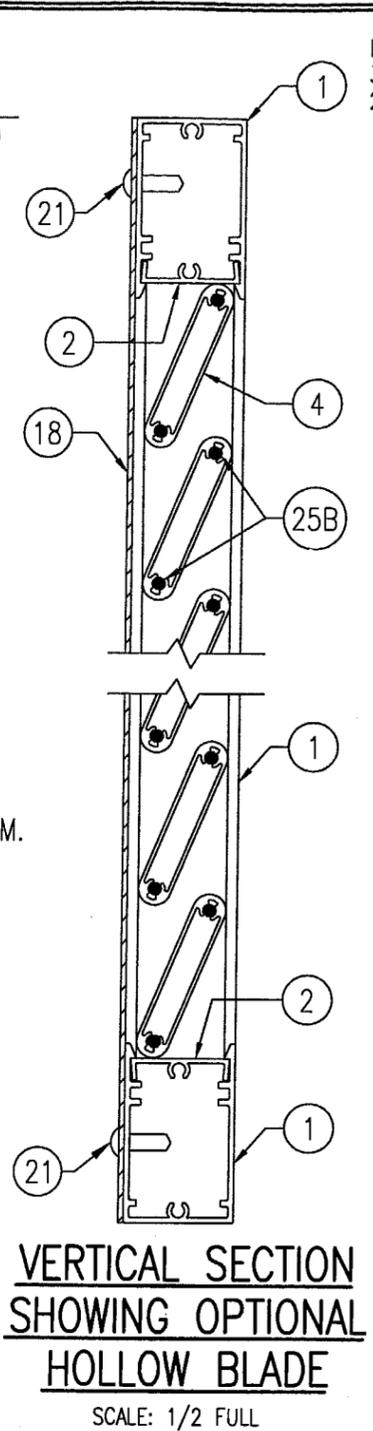
APPROVED AS COMPLYING WITH THE  
 SOUTH FLORIDA BUILDING CODE  
 DATE 02/08/2001  
 BY *Warren W. Schaefer*  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 00-0411.09

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 01/10/01	
NO.	REVISION DESCRIPTION	DATE	BY
(DADE)			
DRAWING TITLE		IMPACT COLONIAL SHUTTERS	
CONSULTANTS		W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.	
MANUFACTURER		FLORIDA SHUTTERS, INC.	
		1125 COMMERCE AVENUE VERO BEACH, FL 32960 (561)569-2200	
		800 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
CERTIFICATION		JAN 10 2001	
		<i>Warren W. Schaefer</i>	
		WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO.		REV.	
1000A			
SHEET NO.			
1		OF 7	



SEE "STORM BAR TO FRAME CONNECTION DETAIL" ON SHT. 3

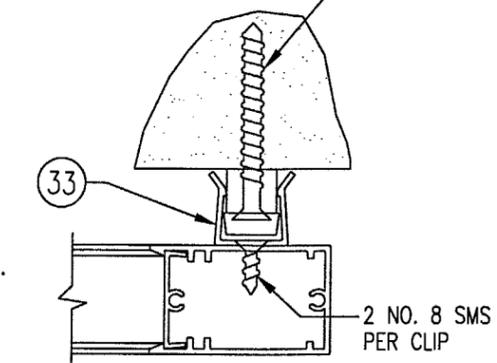
SEE SHEETS 5-7 FOR SPACING REQUIREMENTS OF STORM BARS FOR SINGLE & MULTIPLE BAR SHUTTERS.



EDGE DISTANCE OF HINGE FASTENERS:  
3/4" MIN. AT WOOD  
2 1/2" AT BLOCK/CONCR.

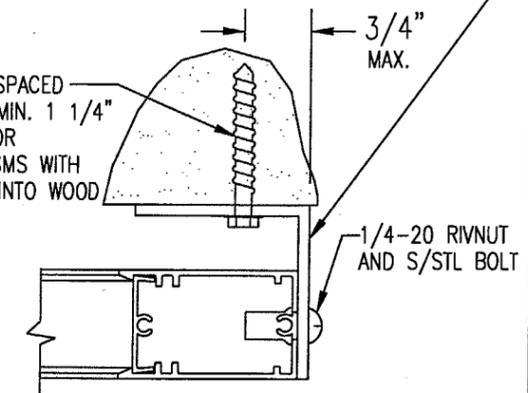
2" MIN. AT BLOCK/CONCR.  
1 1/2" MIN. AT WOOD FRAMED

1/4" TAPCON WITH MIN. 1 1/4" EMBED INTO BLOCK OR NO. 12 S/STL SMS WITH 1 1/2" EMBED INTO WOOD.



TYPICAL REQUIRED IN THE OPEN POSITION (SEE GENERAL NOTE #8)  
**WALL CLIP DETAIL**  
POSITIONED BETWEEN EACH HINGE (MAX. 31" O.C.)

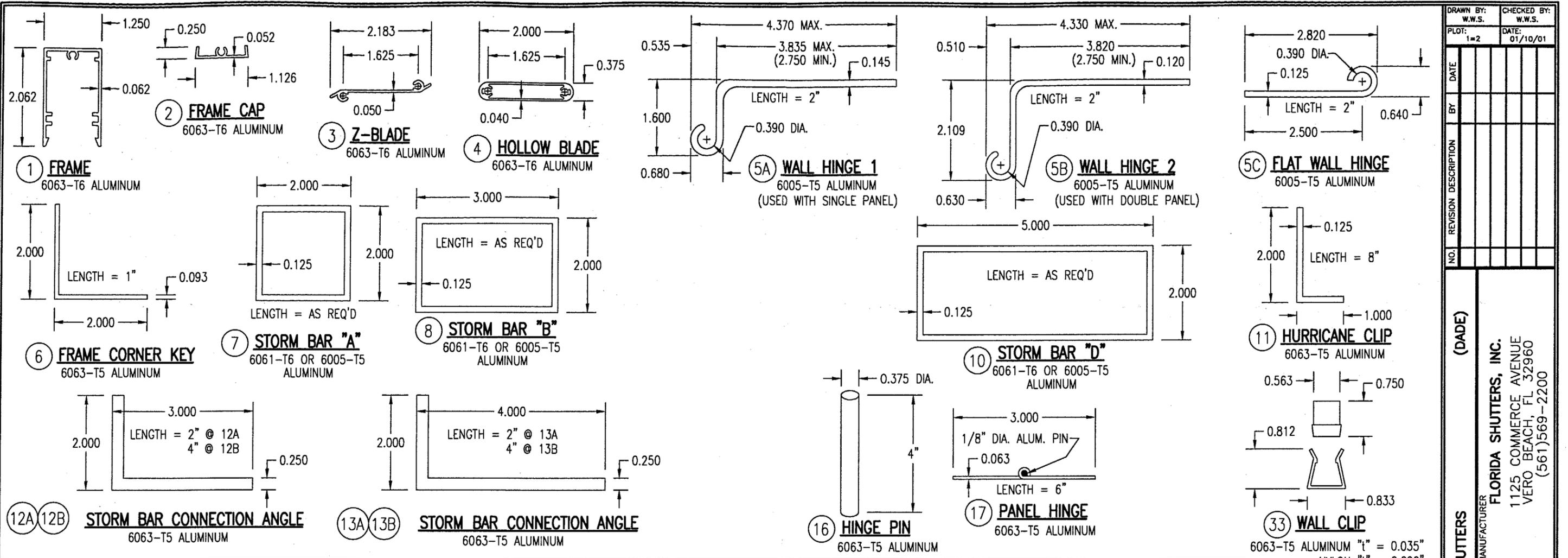
L2X2X1/8 OR L2X3X1/8  
3" LONG FOR BLOCK APPLICATIONS  
1 1/2" LONG FOR WOOD APPLICATIONS



TYPICAL REQUIRED IN THE OPEN POSITION (SEE GENERAL NOTE #8)  
POSITIONED BETWEEN EACH HINGE (MAX. 31" O.C.)  
**(THE MAX. PRESSURE FOR THIS CONNECTION IS 80 PSF)**  
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE 02/08/2001  
BY *Warren W. Schaefer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0411.09

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 01/10/01
DATE	BY
REVISION DESCRIPTION	NO.
(DADE)	
IMPACT COLONIAL SHUTTERS	
CONSULTANTS	MANUFACTURER
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	FLORIDA SHUTTERS, INC. 1125 COMMERCE AVENUE VERO BEACH, FL 32960 (561)569-2200
CERTIFICATION	
JAN 10 2001	
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO.	REV.
1000A	
SHEET NO.	
2	OF 7





MATERIAL LIST					
NO.	DESCRIPTION	NOTES	NO.	DESCRIPTION	NOTES
1	SHUTTER FRAME	6063-T6 ALUMINUM	17	SHUTTER PANEL HINGE	6063-T5 ALUMINUM; 6" LONG PIANO HINGE
2	FRAME CAP	6063-T6 ALUMINUM	18	0.050" THICK ALUMINUM HURRICANE SHEET	3003-H14 ALUMINUM; CUT TO FRAME SIZE
3	Z-BLADE	6063-T6 ALUMINUM	19	1/4" STL BOLT OR THREADED ROD W/WING NUT	NOT REQ'D AT SINGLE BAR SHUTTERS
4	HOLLOW BLADE	6063-T6 ALUMINUM	20	1/4" MOLLY JACK NUT OR 6061-T6 RIVNUT	FOR HURRICANE CLIP BOLTS & STORM BAR THROUGH BOLTS
5A	WALL HINGE TYPE 1	6005-T5 ALUMINUM; USED WITH SINGLE PANELS	21	3/16" 5052 ALUMINUM POP RIVETS	POSITIONED AT FRAME CORNERS & 6" MAX. O.C.
5B	WALL HINGE TYPE 2	6005-T5 ALUMINUM; USED WITH DOUBLE HINGED PANELS	22	NO. 6 X 5/8" S/STL SMS SCREWS	6 PER PIANO HINGE (3 PER HINGE LEAF)
5C	FLAT WALL HINGE	6005-T5 ALUMINUM; FASTENS TO SHUTTER FRAME	23	NO. 6 X 5/8" S/STL SMS SCREWS	4 PER WALL HINGE INTO SHUTTER FRAME
6	L2X2X0.093 FRAME CORNER KEY	6063-T5 ALUMINUM; PLACED AT EA. FRAME CORNER	24	1/4" X 1" STEEL BOLT OR WING BOLT	4 PER HURRICANE CLIP INTO SHUTTER RIVNUTS
7	TS2X2X1/8 STORM BAR	6061-T6 OR 6005-T5 ALUMINUM	25A	NO. 6 X 5/8" S/STL P.H. SMS	SECURES Z-BLADE END TO FRAME CAP (2 PER BLADE END)
8	TS3X2X1/8 STORM BAR	6061-T6 OR 6005-T5 ALUMINUM	25B	NO. 8 X 5/8" S/STL P.H. SMS	HOLLOW BLADE END TO FRAME CAP (2 PER BLADE END)
10	TS5X2X1/8 STORM BAR	6061-T6 OR 6005-T5 ALUMINUM	26A	1/4" X MIN. 1 3/4" TAPCON BY ITW	2 PER WALL HINGE INTO BLOCK/CONCR. WALL MIN. 1 3/4"
11	L2X1X1/8 HURRICANE CLIP 8" LONG	6063-T5 ALUMINUM; LOCKS SHUTTERS CLOSED	26B	NO. 12 X MIN 2" S/STL SMS	2 PER WALL HINGE INTO WOOD FRAMING MIN. 1 1/2"
12A	L3X2X1/4 STORM BAR END CONNECTOR	6063-T5 ALUMINUM; 2" LONG; USED WITH-OUT BUILD-OUT	27	NO. 6 X 1 3/4" S/STL F.H. SMS	2 PER FRAME CORNER INTO CORNER KEY
12B	L3X2X1/4 STORM BAR END CONNECTOR	6063-T5 ALUMINUM; 4" LONG; USED WITH-OUT BUILD-OUT	28	NO. 6 X 5/8" S/STL F.H. SMS	1 PER FRAME CORNER INTO FRAME SCREW BOSS
13A	L4X2X1/4 STORM BAR END CONNECTOR	6063-T5 ALUMINUM; 2" LONG; USED WITH BUILD-OUT	29	1/4" X MIN. 3" STL. BOLT W/WING NUT	1 PER STORM BAR END THROUGH END ANGLES & BAR
13B	L4X2X1/4 STORM BAR END CONNECTOR	6063-T5 ALUMINUM; 4" LONG; USED WITH BUILD-OUT	30A	1/4-20 RAWL CAULK-IN	EMBED FULL ANCHOR BODY INTO BLOCK/CONCR.
14	OPEN		30B	1/4-20 MALE OR FEMALE PANEL MATE	EMBED MIN. 1 5/8" INTO WOOD & 1 1/2" INTO BLOCK/CONC.
15	OPEN		31	1/4" STL BOLT OR THREADED ROD W/ WINGNUT	ANCHORS STORM BAR ENDS TO WALL ANCHORS
16	3/8" DIA. X 4" LONG HINGE PIN	6063-T5 ALUMINUM	32	1/4-20 STEEL BOLT	ANCHORS STORM BAR END CLIPS TO WALL ANCHORS
			33	6063-T6 ALUMINUM OR NYLON WALL CLIP	ONE BETWEEN EACH WALL HINGE (31" O.C. MAX.)

NOTE: ALL DETAILS ARE DRAWN TO 1/2 FULL SIZE UNLESS NOTED OTHERWISE.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE 02/08/2001  
BY *Helmut A. Mohr*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0411-09

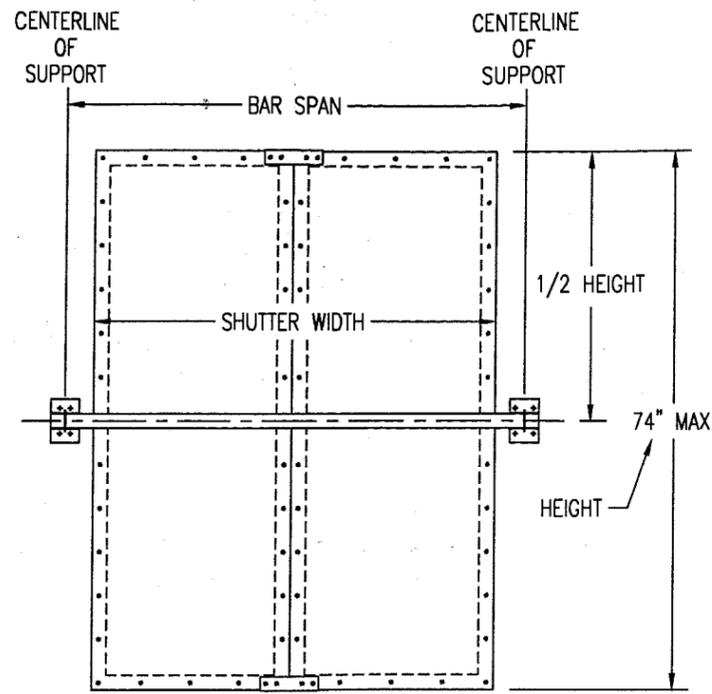
CERTIFICATION  
JAN 10 2001  
WARREN W. SCHAEFER, P.E.  
P.E. NO. 44135

DRAWING TITLE: IMPACT COLONIAL SHUTTERS  
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
600 SANDTREE DRIVE, SUITE 203B  
PALM BEACH GARDENS, FL 33403  
PHONE: 561-775-4902 FAX: 561-775-4903

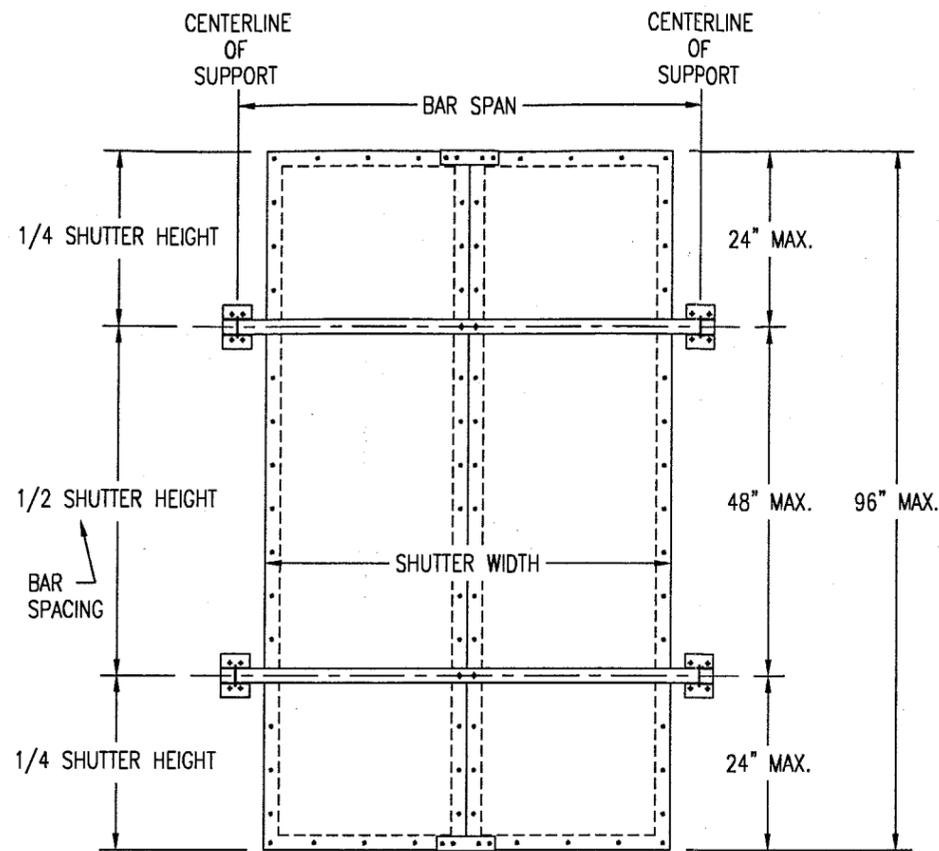
MANUFACTURER: FLORIDA SHUTTERS, INC.  
1125 COMMERCE AVENUE  
VERO BEACH, FL 32960  
(561)569-2200

DRAWING NO. 1000A  
SHEET NO. 4 OF 7

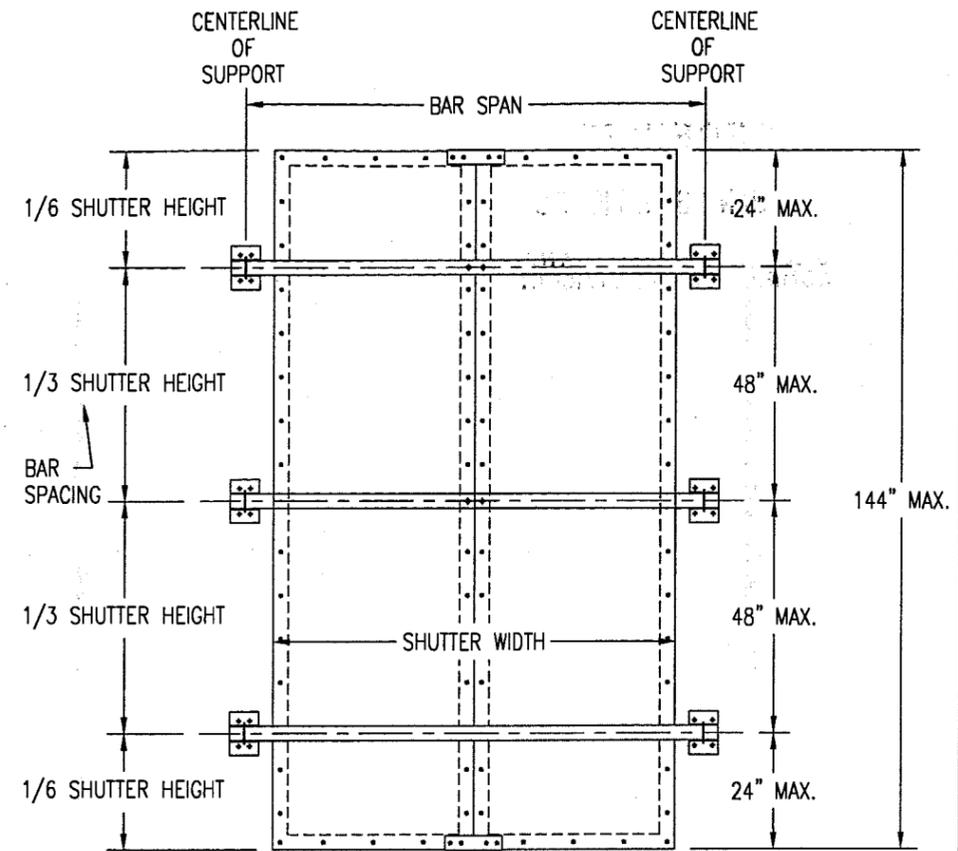
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 01/10/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	



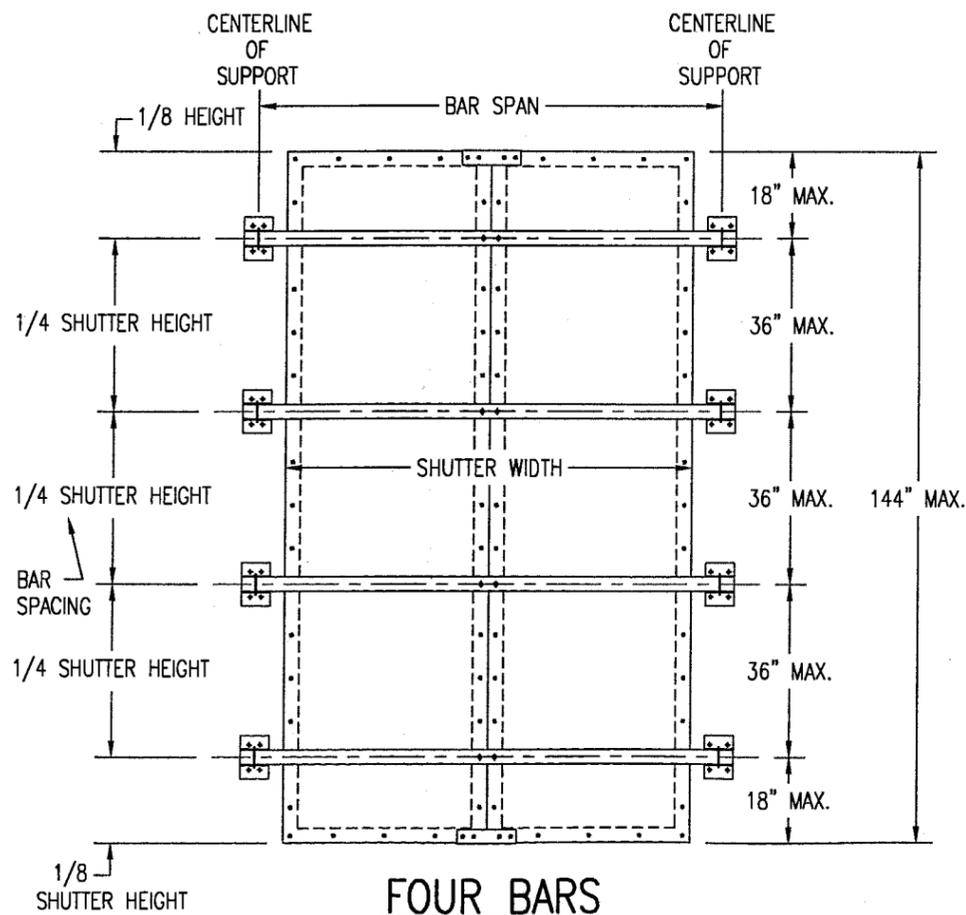
**SINGLE BAR**



**TWO BARS**



**THREE BARS**



**FOUR BARS**

**ALLOWABLE PRESSURE TABLE FOR SINGLE BAR SHUTTERS**

SHUTTER HEIGHT	PRESSURE (PSF)	
	POSITIVE	NEGATIVE
54" & LESS	80.0	80.0
56"	77.0	77.0
58"	74.0	74.0
60"	71.0	71.0
62"	68.0	68.0
64"	65.0	65.0
66"	60.0	60.0
68"	55.0	55.0
70"	49.7	50.0
72"	44.4	45.0
74"	39.8	40.0

**PRESSURE TABLE NOTES:**

1. THE SHUTTER MUST BE PLACED A MIN. DISTANCE OF 2.125" AWAY FROM THE GLASS.
2. SEE INSTRUCTIONS ON SHEET 7 FOR USE OF ALL LOAD TABLES.

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE 02/08/2001  
 BY *Warren W. Schaefer*  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 00-0411.09

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(DATE)	
IMPACT COLONIAL SHUTTERS	
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FLORIDA SHUTTERS, INC. 1125 COMMERCE AVENUE VERO BEACH, FL 32960 (561)569-2200	
CONSULTANTS	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING TITLE	
IMPACT COLONIAL SHUTTERS	
CERTIFICATION	
JAN 10 2001	
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1000A	REV.
SHEET NO. 5	OF 7

PRESSURE LOAD TABLE FOR STORM BARS & BAR END CONNECTIONS							
SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN) *	ALLOWABLE PRESSURES (PSF) FOR BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY CONNECTIONS		
		TS2X2X1/8	TS3X2X1/8	TS5X2X1/8	CONN "A"		CONN "B" & "C"
					WOOD/BLOCK/CONC.	WOOD	
36	48	80	80	80	80	80	80
	54	80	80	80	80	80	78
	60	80	80	80	80	80	70
	66	80	80	80	80	80	64
	72	80	80	80	80	78	58
	74	80	80	80	80	76	57
42	42	80	80	80	80	80	80
	48	80	80	80	80	80	71
	54	80	80	80	80	80	67
	60	80	80	80	80	80	60
	66	79	80	80	80	73	55
	72	72	80	80	80	67	50
74	70	80	80	80	65	49	
48	36	80	80	80	80	80	80
	42	80	80	80	80	80	71
	48	80	80	80	80	80	62
	54	77	80	80	80	78	58
	60	70	80	80	80	70	53
	66	63	80	80	80	64	48
	72	58	80	80	80	58	44
	74	56	80	80	80	57	43
54	30	80	80	80	80	80	80
	36	80	80	80	80	80	73
	42	77	80	80	80	80	63
	48	67	80	80	80	73	55
	54	60	80	80	80	69	52
	60	54	80	80	80	62	47
	66	49	80	80	80	56	43
	72	45	80	80	80	52	39
	74	43	80	80	80	48	38
60	24	80	80	80	80	80	80
	30	70	80	80	80	80	66
	36	62	80	80	80	80	66
	42	53	80	80	80	75	57
	48	47	80	80	80	66	50
	54	42	80	80	80	62	47
	60	37	80	80	80	56	42
	66	34	78	80	79	51	38
	72	31	72	80	73	47	35
	74	30	70	80	71	45	34
66	24	67	80	80	80	80	80
	30	54	80	80	80	80	72
	36	45	80	80	80	80	60
	42	39	80	80	80	68	51
	48	34	80	80	80	60	45
	54	30	80	80	80	56	43
	60	-	73	80	79	51	38
	66	-	66	80	72	46	35
	72	-	61	80	66	42	32
	74	-	59	80	64	41	31

PRESSURE LOAD TABLE FOR STORM BARS & BAR END CONNECTIONS							
SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN)	ALLOWABLE PRESSURES (PSF) FOR BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY CONNECTIONS		
		TS2X2X1/8	TS3X2X1/8	TS5X2X1/8	CONN "A"		CONN "B" & "C"
					WOOD/BLOCK/CONC.	WOOD	
72	24	50	80	80	80	80	80
	30	40	80	80	80	80	66
	36	33	80	80	80	73	55
	42	-	77	80	80	63	47
	48	-	67	80	80	55	41
	54	-	60	80	80	52	39
	60	-	54	80	73	47	35
	66	-	49	80	66	42	32
	72	-	45	80	60	39	29
	74	-	44	80	59	38	-
78	24	-	80	80	80	80	76
	30	-	80	80	80	80	61
	36	-	68	80	80	67	51
	42	-	58	80	80	58	44
	48	-	51	80	79	51	38
	54	-	45	80	74	48	36
	60	-	41	80	67	43	32
	66	-	37	80	61	39	29
	72	-	34	80	56	36	-
	74	-	33	80	54	35	-
84	24	-	78	80	80	80	71
	30	-	62	80	80	75	57
	36	-	52	80	80	63	47
	42	-	44	80	80	54	40
	48	-	39	80	73	47	35
	54	-	35	80	69	44	33
	60	-	31	80	62	40	30
	66	-	-	80	57	36	-
	72	-	-	80	52	33	-
	74	-	-	80	50	32	-
90	24	-	61	80	80	80	66
	30	-	49	80	80	70	53
	36	-	41	80	80	58	44
	42	-	35	80	78	50	38
	48	-	30	80	68	44	33
	54	-	-	80	64	41	31
	60	-	-	80	58	37	-
	66	-	-	80	53	34	-
	72	-	-	74	48	31	-
	74	-	-	72	47	30	-

LOAD TABLE CONTINUED ON SHEET 7

NOTE: SEE INSTRUCTIONS ON SHEET 7 FOR USE OF ALL LOAD TABLES!

1. ALL PRESSURES ARE FOR BOTH POSITIVE & NEGATIVE AND ARE PSF.
  2. PRESSURES ARE LIMITED TO MAX. 80 PSF AS CONTROLLED BY TESTING.
  3. REF. SHEET 3 FOR CONNECTION TYPES.
  4. THE SHUTTERS MUST BE POSITIONED MINIMUM 2.125" FROM THE GLASS THEY PROTECT.
- \* MAXIMUM SHUTTER HEIGHT A SINGLE STORM BAR SHUTTER IS 74".  
MAXIMUM BAR SPACING FOR A MULTI STORM BAR SHUTTER IS 48".

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 02/08/2001  
BY *Warren W. Schaeffer*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0411.09

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=1	DATE: 01/10/01
NO.	REVISION DESCRIPTION
DATE	BY
(DADE)	
IMPACT COLONIAL SHUTTERS	
MANUFACTURER	
FLORIDA SHUTTERS, INC. 1125 COMMERCE AVENUE VERO BEACH, FL 32960 (561)569-2200	
CONSULTANTS	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING TITLE	
CERTIFICATION	
JAN 10 2001	
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1000A	REV.
SHEET NO.	
6 OF 7	

**PRESSURE LOAD TABLE FOR STORM BARS & BAR END CONNECTIONS**

SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN)	ALLOWABLE PRESSURES (PSF) FOR BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY CONNECTIONS		
		TS2X2X1/8	TS3X2X1/8	TS5X2X1/8	CONN "A"		CONN "B" & "C"
					WOOD/BLOCK/CONC.	WOOD	
96	24	-	48	80	80	80	62
	30	-	39	80	80	66	50
	36	-	32	80	80	55	41
	42	-	-	80	73	47	35
	48	-	-	80	64	41	31
	54	-	-	78	60	39	29
	60	-	-	70	54	35	-
	66	-	-	64	49	32	-
	72	-	-	58	45	29	-
74	-	-	-	57	44	-	
102	24	-	39	80	80	77	58
	30	-	31	80	80	62	47
	36	-	-	80	80	52	39
	42	-	-	80	69	44	33
	48	-	-	70	60	39	29
	54	-	-	62	57	37	-
	60	-	-	56	51	33	-
	66	-	-	51	47	30	-
	72	-	-	47	43	27	-
74	-	-	45	42	-	-	
108	24	-	31	80	80	73	55
	30	-	-	80	80	58	44
	36	-	-	76	76	49	37
	42	-	-	65	65	42	31
	48	-	-	57	57	37	28
	54	-	-	51	54	35	-
	60	-	-	46	48	31	-
	66	-	-	41	44	28	-
	72	-	-	38	40	-	-
74	-	-	37	39	-	-	
112	24	-	-	80	80	70	53
	30	-	-	80	80	56	42
	36	-	-	66	73	47	35
	42	-	-	57	63	40	30
	48	-	-	50	55	35	-
	54	-	-	44	52	33	-
	60	-	-	40	47	30	-
	66	-	-	36	42	27	-
	72	-	-	33	39	-	-
74	-	-	32	38	-	-	

**LOAD TABLE INSTRUCTIONS:**

1. DETERMINE THE SIZE OF THE SHUTTER.
2. DETERMINE WHAT THE REQUIRED DESIGN POSITIVE & NEGATIVE WIND LOADS ARE FOR THE SHUTTER.
3. IF THE SHUTTER HEIGHT IS 74" OR LESS, GO TO THE PRESSURE TABLE ON SHEET 5. IF THE REQUIRED LOADS ARE LESS THAN OR EQUAL TO THOSE IN THE TABLE, ONLY ONE BAR IS REQUIRED (USE THE PRESSURE TABLE ON SHEET 5). IF NOT, MORE THAN ONE BAR IS REQUIRED.
4. IF THE SHUTTER HEIGHT IS GREATER THAN 74", DO NOT USE THE TABLE ON SHEET 5 & GO TO THE STORM BAR LOAD TABLES ON SHEETS 6 & 7.
5. IF ONLY ONE BAR IS REQUIRED, GO TO THE STORM BAR LOAD TABLES ON SHEETS 6 & 7. FIND THE APPLICABLE SHUTTER WIDTH IN THE 1ST COLUMN & SHUTTER HEIGHT IN THE 2ND COLUMN. GO ACROSS THE STORM BAR COLUMNS UNTIL YOU HAVE A BAR WHICH MEETS THE REQUIRED PRESSURE. THEN GO ACROSS THE CONNECTION COLUMNS UNTIL YOU HAVE A CONNECTION THAT MEETS THE REQUIRED PRESSURE. USE THAT BAR & THAT CONNECTION. NOTE THAT IF YOU DECIDE THAT THE BAR &/OR CONNECTION IS TOO LARGE FOR YOUR LIKING, ADD A BAR & GO TO INSTRUCTION NUMBER 6 BELOW.
6. IF MORE THAN ONE BAR IS REQUIRED, GO TO THE STORM BAR LOAD TABLES ON SHEETS 6 & 7. FIND THE APPLICABLE SHUTTER WIDTH IN THE 1ST COLUMN & STORM BAR SPACING IN THE 2ND COLUMN. GO ACROSS THE STORM BAR COLUMNS UNTIL YOU HAVE A BAR WHICH MEETS THE REQUIRED PRESSURE. THEN GO ACROSS THE CONNECTION COLUMNS UNTIL YOU HAVE A CONNECTION THAT MEETS THE REQUIRED PRESSURE. USE THAT BAR & THAT CONNECTION. NOTE THAT IF YOU DECIDE THAT THE BAR &/OR CONNECTION IS TOO LARGE FOR YOUR LIKING, ADD ANOTHER BAR & START AGAIN WITH INSTRUCTION NUMBER 6.

**NOTE THAT WHEN MORE THAN ONE BAR IS USED WITH ONE SHUTTER, THE MAXIMUM BAR SPACING MAY NOT EXCEED 48".**

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1-1		DATE: 01/10/01	
DATE	BY	REVISION DESCRIPTION	NO.
(DATE)			
IMPACT COLONIAL SHUTTERS			
MANUFACTURER			
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1125 COMMERCE AVENUE VERO BEACH, FL 32960 (561)569-2200			
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DRAWING TITLE			
IMPACT COLONIAL SHUTTERS			
CERTIFICATION			
JAN 10 2001			
APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE			
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PRODUCT CONTROL DIVISION			
BUILDING CODE COMPLIANCE OFFICE			
ACCEPTANCE NO. 00-0411-09			
DRAWING NO.		REV.	
1000A			
SHEET NO.			
7 OF 7			

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
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