



**MIAMI-DADE COUNTY**  
**BUILDING CODE COMPLIANCE OFFICE (BCCO)**  
**PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA**  
**METRO-DADE FLAGLER BUILDING**

**140 WEST FLAGLER STREET, SUITE 1603**  
**MIAMI, FLORIDA 33130-1563**  
**(305) 375-2901 FAX (305) 375-2908**

[www.miamidade.gov](http://www.miamidade.gov)

**NOTICE OF ACCEPTANCE (NOA)**

**Folding Shutter Corporation**  
**7089 Hemstreet Place**  
**West Palm Beach, Florida 33413**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: "Impact" Aluminum Colonial Shutter**

**APPROVAL DOCUMENT:** Drawing No. 1017, titled " Impact Colonial Shutter (Dade) ", sheets 1 through 7 of 7, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 11/22/2000, last revision #A1 dated 10/10/2005, signed & sealed by Warren W. Schaefer, P.E., bearing Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: Large and Small Missile Impact**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA 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 NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews** NOA # **01-0209.09** and consists of this page 1, evidence submitted pages E-1 & E-2 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**

*Helmy A. Makar*  
 12/28/2006

**NOA No 06-0831.03**  
**Expiration Date: 10/25/2011**  
**Approval Date: 12/28/2006**



**Folding Shutter Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 01-0209.09**

**A. DRAWINGS**

1. Drawing No. 1017, titled "Impact Colonial Shutter (Dade)", prepared by W. W. Schaefer Engineering & Consulting, P.A., sheets 1 through 7 of 7, dated November 22, 2000, signed and sealed by Warren W. Schaefer, P.E. on September 24, 2001.

**B. TESTS**

1. Test Report on: 1) Large Missile Impact Test, per PA-201, 2) Cyclic Wind Pressure Test, per PA-203 and 3) Uniform Static Air Pressure test per PA-202, of colonial shutters, prepared by Hurricane Test Laboratory Inc., Report No. **0143-0409-00**, dated January 26, 2001, signed and sealed by Vinu J. Abraham, P.E.
2. Test Report on: 1) Large Missile Impact Test, per PA-201, 2) Cyclic Wind Pressure Test, per PA-203 and 3) Uniform Static Air Pressure test per PA-202, of colonial shutters, prepared by Hurricane Test Laboratory Inc., Report No. **0143-0604-00**, dated January 26, 2001, signed and sealed by Vinu J. Abraham, P.E.

**C. CALCULATIONS**

1. Anchor analysis and calculations dated 11/29/2000, 47 pages, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.

**D. MATERIAL CERTIFICATION**

1. Certified Tensile Test Report No. 0BM-186, prepared by QC Metallurgical Inc., dated 05/24/2001, per ASTM E8-93, signed and sealed by Frank Grate, P.E.
2. Die drawing numbers PH15308, FLD-4132, 15252, 15251, 15100, 15101, FLD-208, FLD-206, FLD-207, FLD-4137, FLD-4138, FLD-4139, FLD-802, FLD-803.

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. 1017, titled "Impact Colonial Shutter (Dade)", sheets 1 through 7 of 7, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 11/22/2000, last revision #A1 dated 10/10/2005, signed & sealed by Warren W. Schaefer, P.E.

**B. TESTS**

1. None.

**C. CALCULATIONS**

1. Anchor analysis and calculations dated 10/11/2005, 16 Pages, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E. on 10/11/2005.



Helmy A. Makar, P. E., M.S.  
Product Control Examiner  
NOA No 06-0831.03  
Expiration Date: 10/25/2011  
Approval Date: 12/28/2006

**Folding Shutter Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

1. *None.*



---

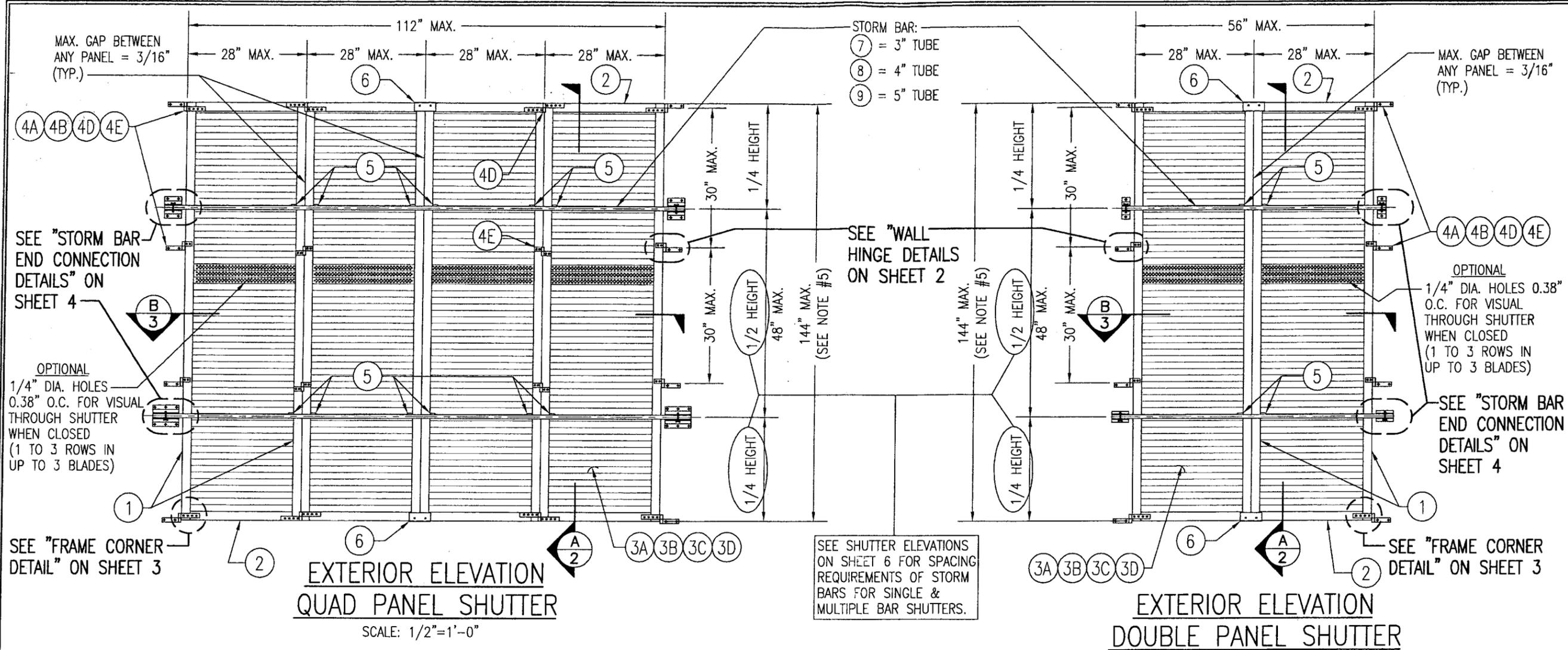
Helmy A. Makar, P. E., M.S.

Product Control Examiner

NOA No 06-0831.03

Expiration Date: 10/25/2011

Approval Date: 12/28/2006



**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 2004 FLORIDA BUILDING CODE (FBC) AND FBC PROTOCOLS TAS-201, 202 & 203 INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
4. 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.
5. EACH SHUTTER SHALL HAVE A LEGIBLE & READILY VISIBLE MARKING INSTRUCTING THE OWNER/TENNANT TO SECURE THE SHUTTER WITH BRACKETS & STORM BARS, PER THESE APPROVED DRAWINGS, DURING PERIODS OF HURRICANE WARNINGS.
6. EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS:  
 FOLDING SHUTTER CORPORATION  
 WEST PALM BEACH, FLORIDA  
 MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
7. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
8. ALL WOOD SUBSTRATE SHALL HAVE MIN. G = 0.55 DENSITY.
9. SHUTTERS MUST BE PLACED SUCH THAT THE MINIMUM DISTANCE BETWEEN THE SHUTTER AND THE GLASS IT PROTECTS IS 2.625" (2 5/8").

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.

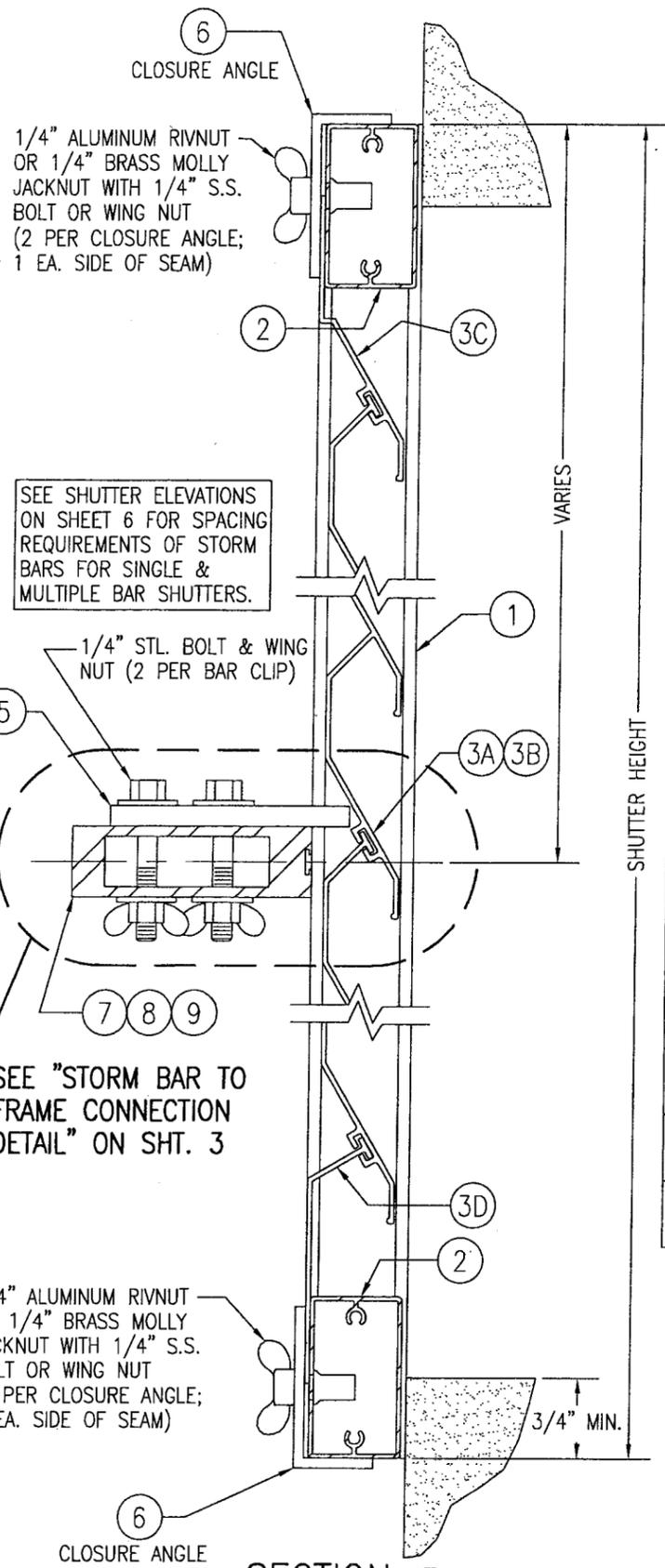
MAX. ALLOWABLE DESIGN WIND LOADS	
POSITIVE	NEGATIVE
80 PSF	80 PSF

SEE SHUTTER ELEVATIONS ON SHEET 6 & STORM BAR LOAD TABLES ON SHEET 7 FOR LOADS AS CONTROLLED BY SHUTTER SPAN & STORM BAR SPACING.

STORM BAR NOTE: THE NUMBER OF STORM BARS REQUIRED WITH EACH SHUTTER TYPICALLY VARIES FROM 1 TO 4 & IS DEPENDENT ON SHUTTER SIZE & REQUIRED DESIGN PRESSURE. SEE ELEVATION SKETCHES & LOAD TABLES ON SHEETS 6 & 7 FOR STORM BAR REQUIREMENTS.

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No. 06-0831.03  
 Expiration Date 10/25/2011  
 By *Heather A. Mader*  
 Miami Dade Product Control Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 11/22/00
DATE 10/10/05	
BY WWS	
REVISION DESCRIPTION	
NO. AT	DATE
1	10/10/05
2	
3	
4	
5	
6	
7	
8	
9	
DRAWING TITLE IMPACT COLONIAL SHUTTER (DADE)	
MANUFACTURER FOLDING SHUTTER CORPORATION 7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING NO. 1017	
REV. A	
SHEET NO. 1 OF 7	



SEE SHUTTER ELEVATIONS ON SHEET 6 FOR SPACING REQUIREMENTS OF STORM BARS FOR SINGLE & MULTIPLE BAR SHUTTERS.

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

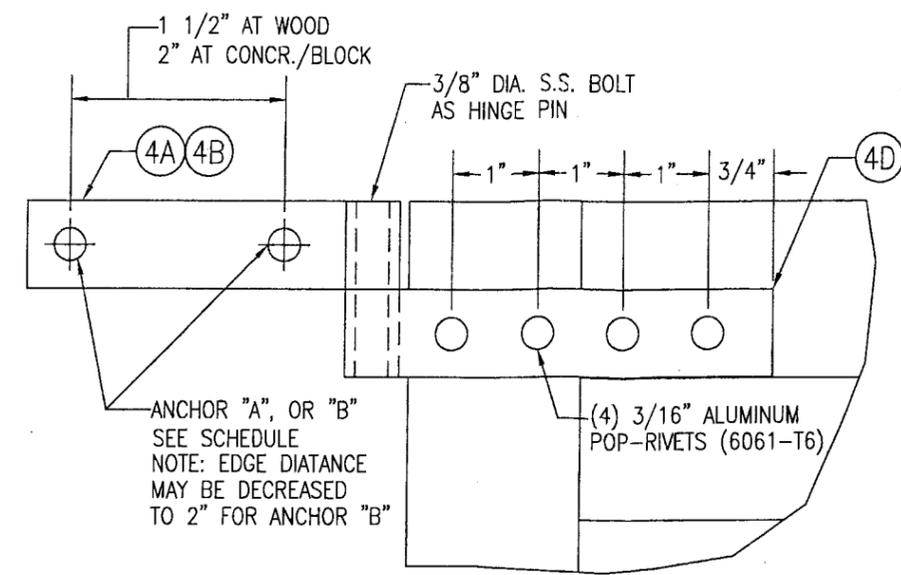
1/4" ALUMINUM RIVNUT OR 1/4" BRASS MOLLY JACKNUT WITH 1/4" S.S. BOLT OR WING NUT (2 PER CLOSURE ANGLE; 1 EA. SIDE OF SEAM)

**SECTION A**  
SCALE: 1/2 FULL

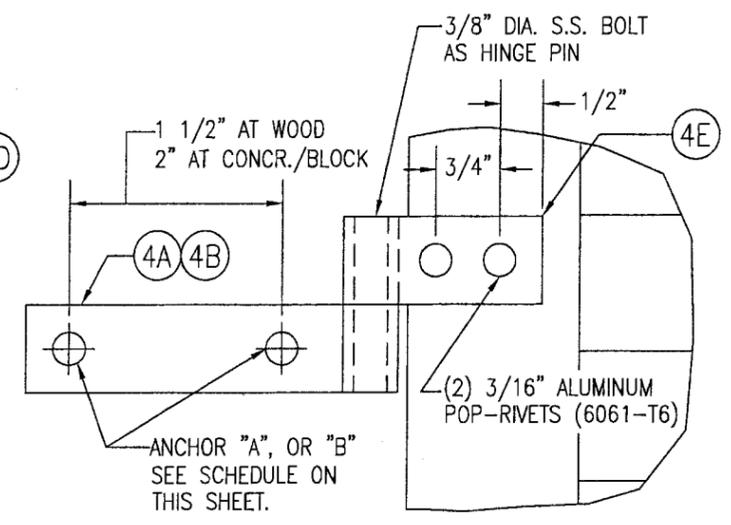
ONLY ONE BAR SHOWN FOR CLARITY!

ANCHOR SCHEDULE				
ANCHOR NO.	ANCHOR TYPE	SUBSTRATE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
A	NO. 12 S.S. SMS SCREW	WOOD	1 3/4"	3/4"
B	1/4" TAPCON	CONCRETE OR FILLED BLOCK	1 3/4"	3"
C	1/4-20 RAWL CAULK-IN	CONCRETE/BLOCK	7/8"	3"
D	1/4-20 PANELMATE (MALE OR FEMALE)	WOOD	1 7/8"	3/4"
E	1/4-20 PANELMATE (MALE OR FEMALE)	CONCRETE/BLOCK	1 1/4"	3"

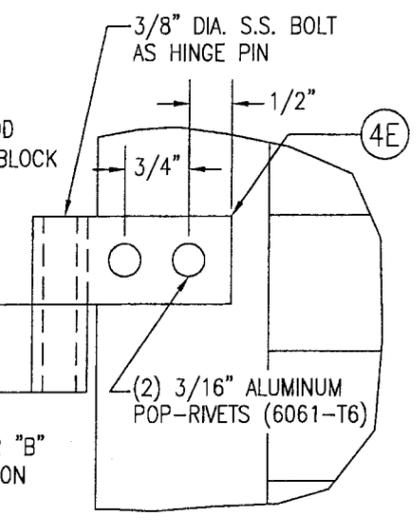
NOTE: 1/4" STL. OR S.S. BOLTS SHALL BE USED WITH ANCHORS C, D & E.



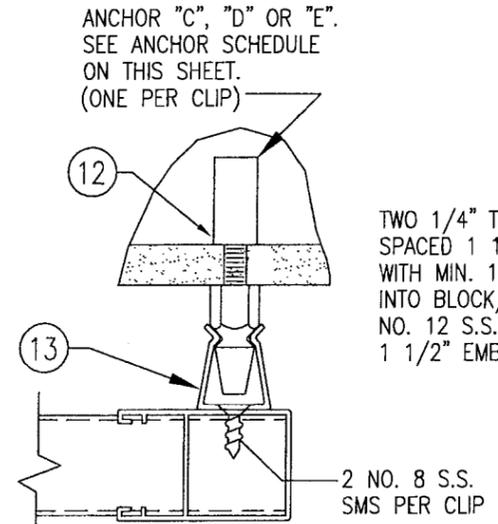
**TOP & BOTTOM HINGE**  
BOTTOM HINGE IS MIRRORED



**WALL HINGE DETAILS**  
SCALE: 1/2 FULL SIZE

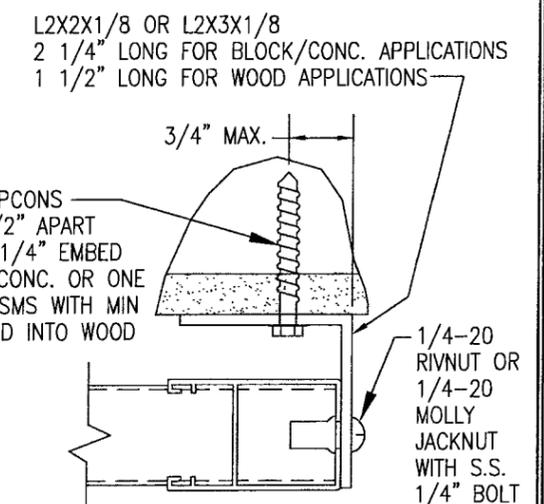


**MIDDLE HINGE**  
TOP HINGE IS MIRRORED



**TYPICAL WHEN REQ'D TO RESIST PRESSURES FROM 75 MPH WIND SPEEDS IN OPEN POSITION.**  
**STANDARD WALL CLIP DETAIL**

POSITIONED BETWEEN EACH HINGE (MAX. 30" O.C.)  
SHUTTERS MUST BE CLOSED & SECURED WHEN WIND SPEEDS ARE IN EXCESS OF 75 MPH.

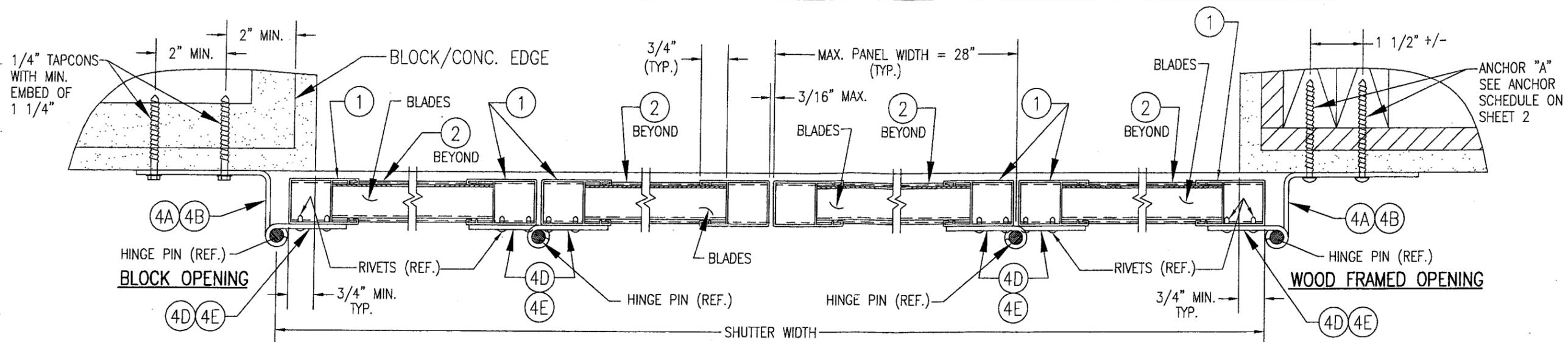


**TYPICAL WHEN REQ'D TO RESIST HURRICANE PRESSURES UP TO +/-80 PSF WHEN IN THE OPEN POSITION**  
**OPTIONAL WALL CLIP DETAIL**

POSITIONED BETWEEN EACH HINGE (MAX. 30" O.C.)

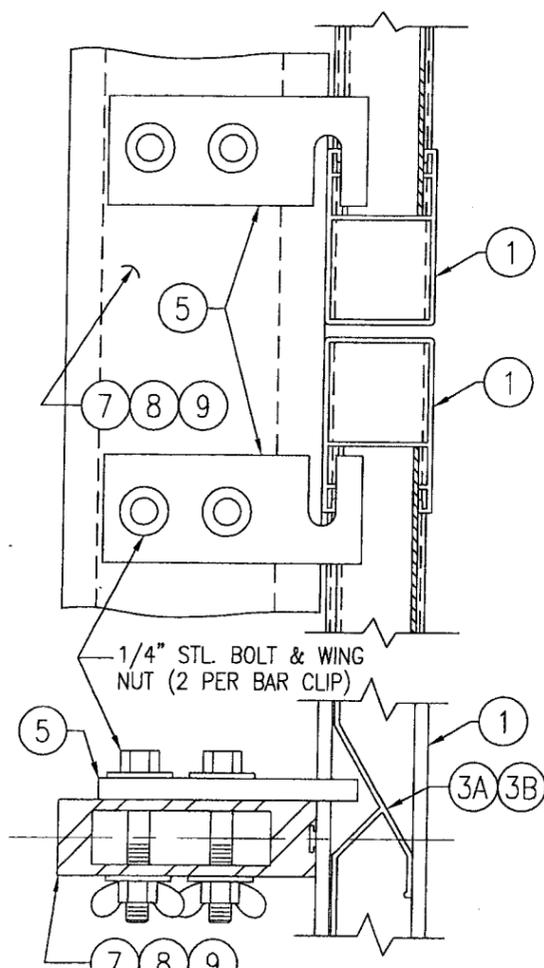
PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No. 06-0831.03  
Expiration Date 10/25/2011  
By *Helmy A. M. M.*  
Miami Dade Product Control Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 11/22/00
NO.	REVISION DESCRIPTION
DATE	BY
IMPACT COLONIAL SHUTTER (DADE)	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903	
MANUFACTURER <b>FOLDING SHUTTER CORPORATION</b> 7089 HEMSTREET PLACE WEST PALM BEACH, FLORIDA 33413 561-683-4811	
CERTIFICATION AUG 09 2006	WAKREY, W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1017	REV. A
SHEET NO. 2 OF 7	

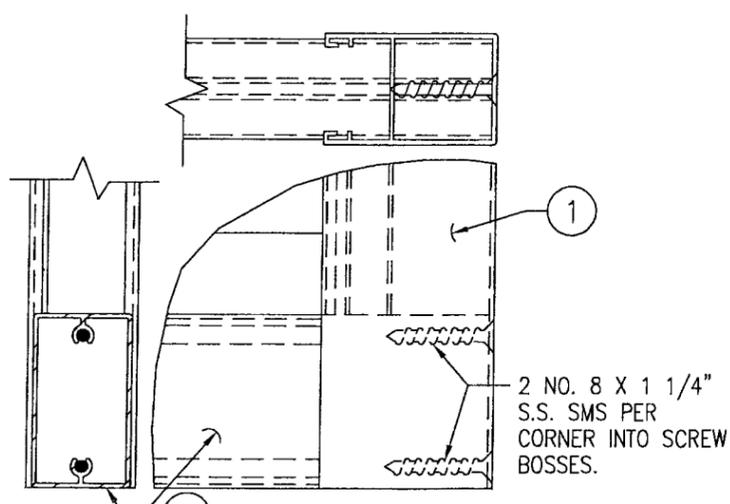


SECTION B  
SCALE: 1/3 FULL

STORM BAR NOT SHOWN FOR CLARITY!



STORM BAR TO FRAME CONNECTION DETAIL  
SCALE: 1/2 FULL



FRAME CORNER DETAIL  
SCALE: 1/2 FULL SIZE

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 11/22/00
NO.	REVISION DESCRIPTION

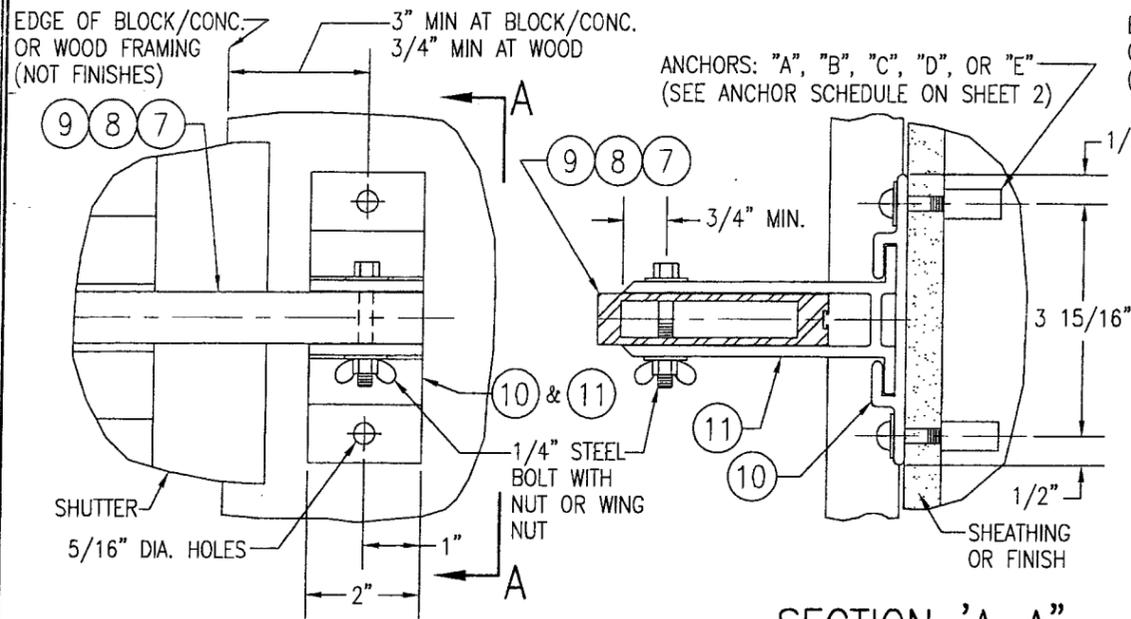
DRAWING TITLE: **IMPACT COLONIAL SHUTTER (DADE)**

MANUFACTURER:  
**FOLDING SHUTTER CORPORATION**  
7089 HEMSTREET PLACE  
WEST PALM BEACH, FLORIDA 33413  
561-683-4811

CONSULTANTS:  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4902 FAX: 561-775-4903

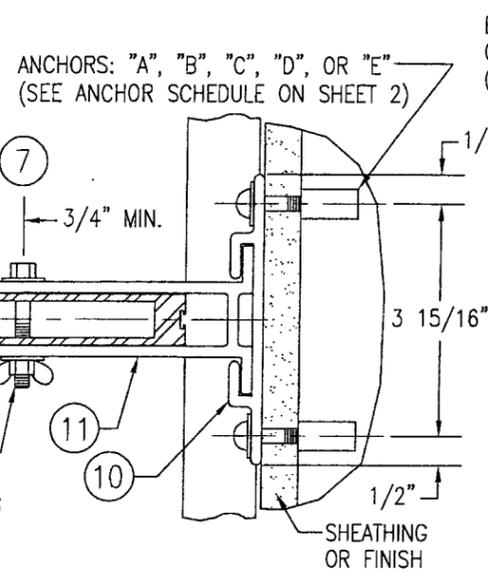
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. **06-0831.03**  
Expiration Date **10/25/2011**  
By *Helmut A. Meier*  
Miami Dade Product Control  
Division

CERTIFICATION AUG 09 2006	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. <b>1017</b>	REV. <b>A</b>
SHEET NO. <b>3 OF 7</b>	



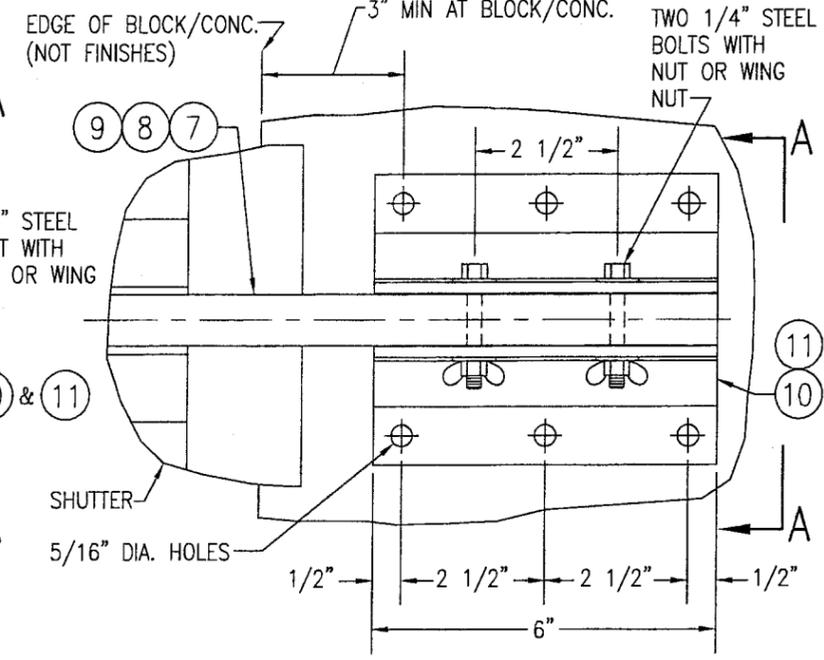
**STORM BAR END CONNECTION "A"**

SCALE: 1/3 FULL SIZE



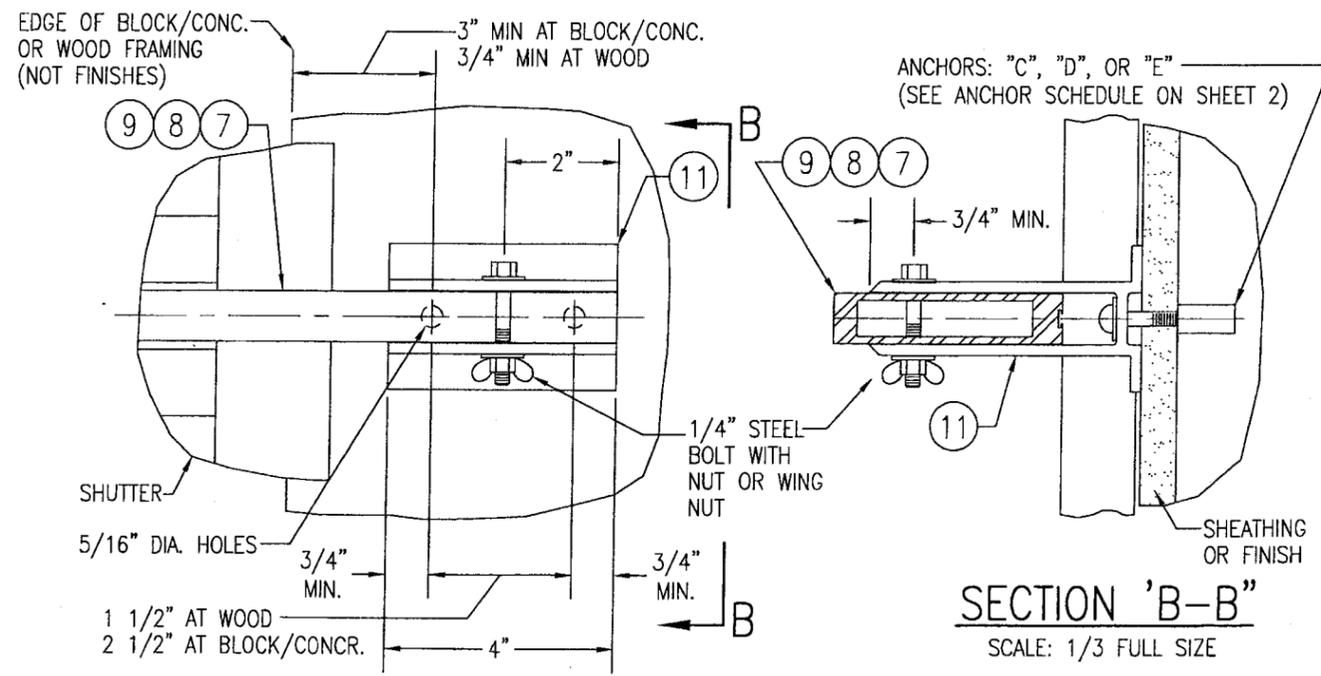
**STORM BAR END CONNECTION "C"**

SCALE: 1/3 FULL SIZE



**STORM BAR END CONNECTION "D"**

SCALE: 1/3 FULL SIZE



**STORM BAR END CONNECTION "B"**

SCALE: 1/3 FULL SIZE

**SECTION "B-B"**

SCALE: 1/3 FULL SIZE

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No 06-0831.03  
 Expiration Date 10/25/2011  
 By *Helmut A. Mader*  
 Miami Dade Product Control  
 Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-3	DATE: 11/22/00
NO.	REVISION DESCRIPTION

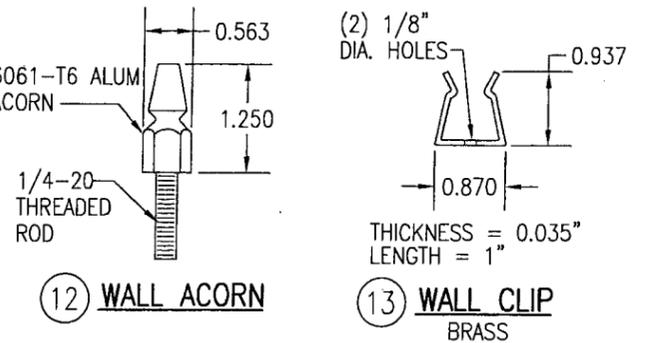
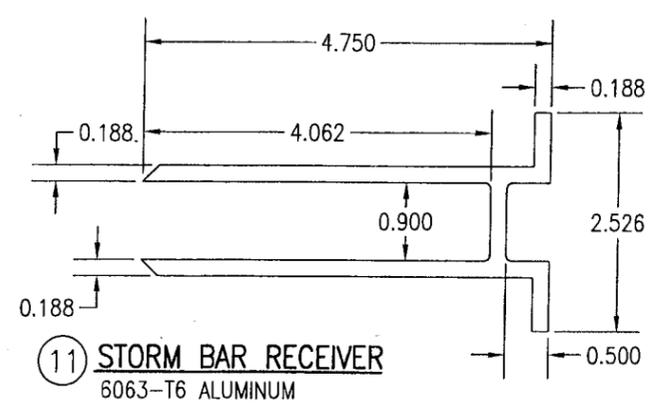
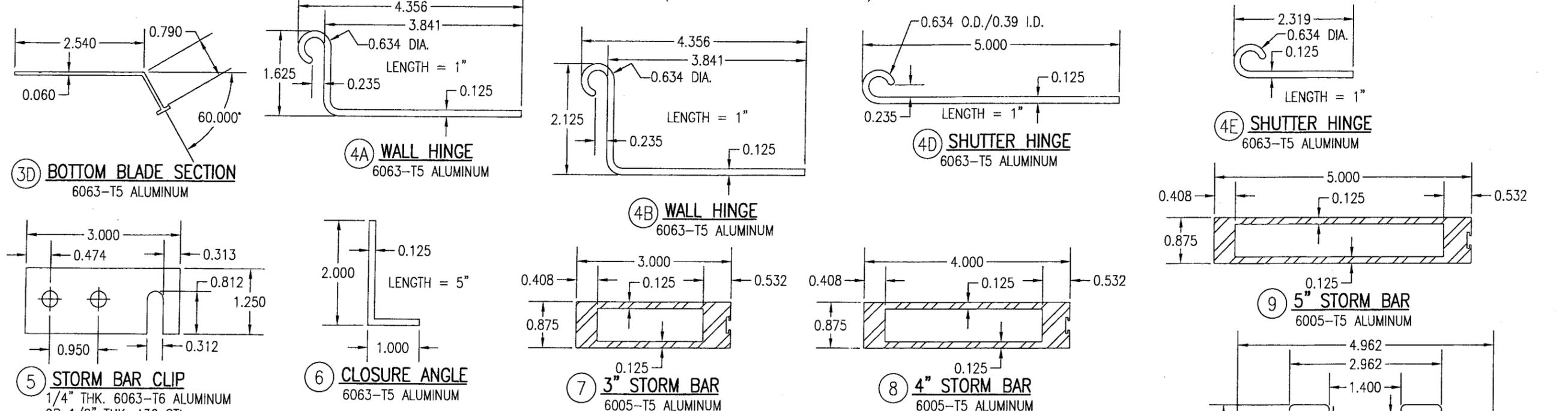
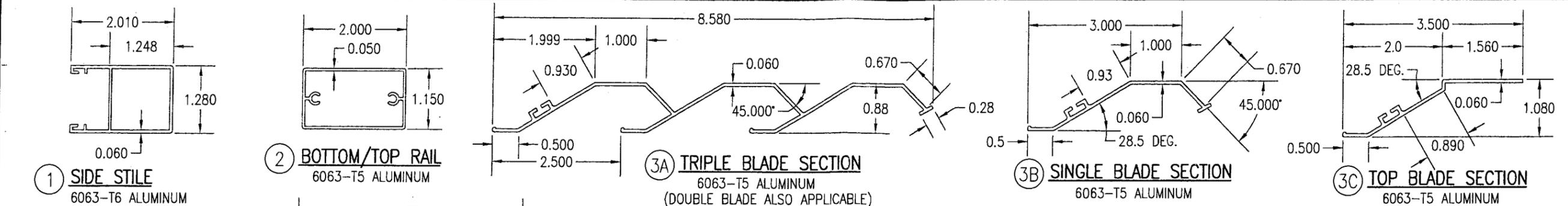
DRAWING TITLE: **IMPACT COLONIAL SHUTTER (DADE)**  
 MANUFACTURER: **FOLDING SHUTTER CORPORATION**  
 7089 HEMSTREET PLACE  
 WEST PALM BEACH, FLORIDA 33413  
 561-683-4811

CONSULTANTS: **W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
 8895 N. MILITARY TRAIL, SUITE C-204  
 PALM BEACH GARDENS, FL 33410  
 PHONE: 561-775-4802 FAX: 561-775-4803

CERTIFICATION: **AUG 09 2006**  
 WARREN W. SCHAEFER, P.E.  
 P.E. NO. 44135

DRAWING NO. 1017	REV. A
SHEET NO. 4 OF 7	

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 11/22/00
NO.	REVISION DESCRIPTION



MATERIAL LIST		
NO.	DESCRIPTION	NOTES
1	SIDE STILE	
2	TOP & BOTTOM RAIL	
3A	DOUBLE OR TRIPLE BLADE SECTION	MAIN BLADE SECTION
3B	SINGLE BLADE SECTION	USED AS FILLER WHEN REQUIRED
3C	TOP SHUTTER BLADE	
3D	BOTTOM SHUTTER BLADE	
4A	WALL HINGE	USED WITH SINGLE PANEL
4B	WALL HINGE	USED WITH DOUBLE PANEL
4D	SHUTTER HINGE	USED AT TOP & BOTTOM OF SHUTTER
4E	SHUTTER HINGE	USED FOR MIDDLE HINGES
5	STORM BAR CLIP	SECURES STORM BAR TO SHUTTER PANEL FRAMES
6	CLOSURE ANGLE	SECURES SHUTTER SHUT
7	3" STORM BAR	
8	4" STORM BAR	
9	5" STORM BAR	
10	STORM BAR RECEIVER PLATE	GRABS THE STORM BAR END CONNECTOR
11	STORM BAR RECEIVER	
12	WALL ACORN	USED TO SECURE SHUTTER IN OPEN POSITION
13	WALL CLIP	USED TO SECURE SHUTTER IN OPEN POSITION

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

PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 06-0831-03 Expiration Date 10/25/2011  
By *Helmut A. Miller*  
Miami Date Product Control Division

DRAWING TITLE: **IMPACT COLONIAL SHUTTER (DADE)**

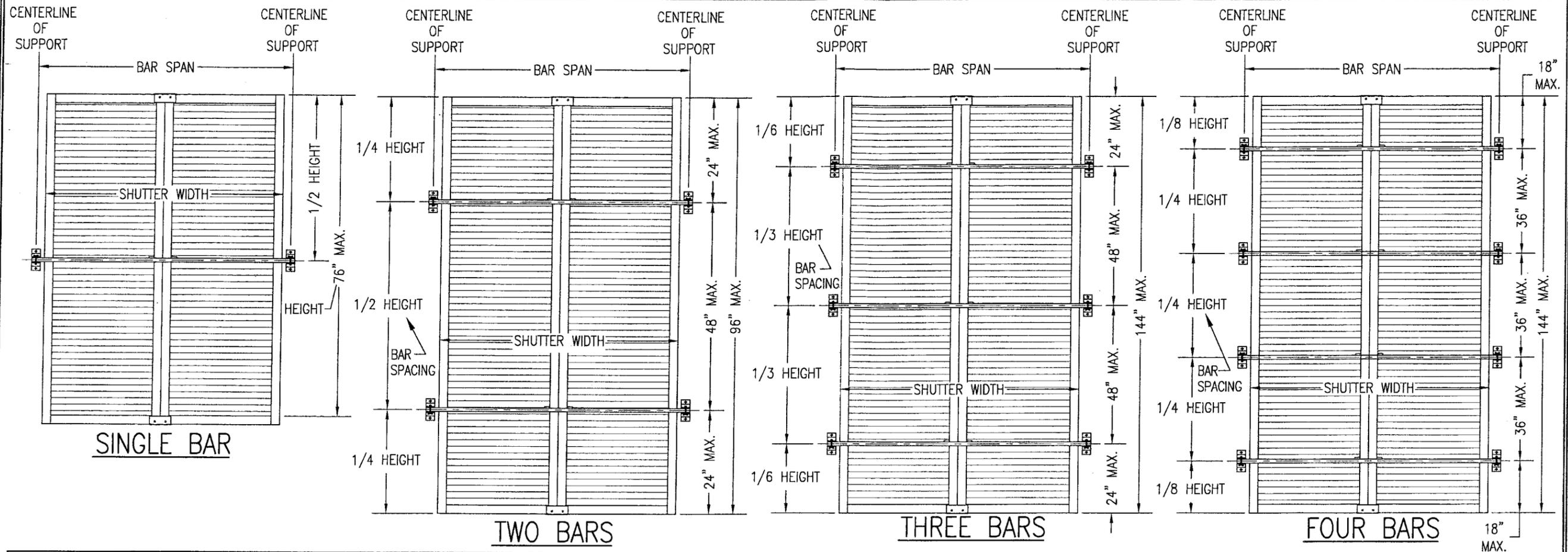
CONSULTANTS: **W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4802 FAX: 561-775-4803

MANUFACTURER: **FOLDING SHUTTER CORPORATION**  
7089 HEMSTREET PLACE  
WEST PALM BEACH, FLORIDA 33413  
561-683-4811

CERTIFICATION: **AUG 09 2006**

DRAWING NO. **1017** REV. **A**

SHEET NO. **5** OF **7**



DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 11/22/00
DATE	
BY	
NO.	REVISION DESCRIPTION

DRAWING TITLE: **IMPACT COLONIAL SHUTTER (DADE)**  
 MANUFACTURER: **FOLDING SHUTTER CORPORATION**  
 7089 HEMSTREET PLACE  
 WEST PALM BEACH, FLORIDA 33413  
 561-683-4811

CONSULTANTS: **W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.**  
 8895 N. MILITARY TRAIL, SUITE C-204  
 PALM BEACH GARDENS, FL 33410  
 PHONE: 561-775-4902 FAX: 561-775-4903

CERTIFICATION: **AUG 09 2000**  
 By *Helmut A. Mahr*  
 Miami Dad Product Control Division  
 P.E. NO. 44135  
 DRAWING NO. **1017** REV. **A**  
 SHEET NO. **6** OF **7**

**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 76" OR LESS, GO TO THE PRESSURE TABLE ON THIS SHEET. IF THE REQUIRED LOADS ARE LESS THAN OR EQUAL TO THOSE IN THE TABLE, ONLY ONE BAR IS REQUIRED. IF NOT, MORE THAN ONE BAR IS REQUIRED.
4. IF THE SHUTTER HEIGHT IS GREATER THAN 76", DO NOT USE THE TABLE ON THIS SHEET & GO TO THE STORM BAR LOAD TABLES ON SHEET 7.
5. IF ONLY ONE BAR IS REQUIRED, GO TO THE STORM BAR LOAD TABLES ON SHEET 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 SHEET 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".

**ALLOWABLE PRESSURE TABLE FOR SINGLE BAR SHUTTERS**

SHUTTER HEIGHT	PRESSURE (PSF)	
	POSITIVE	NEGATIVE
54" & LESS	80.0	80.0
58"	75.4	75.4
62"	66.0	66.0
66"	58.3	58.3
70"	51.8	51.8
74"	46.3	46.3
76"	40.0	40.0

**SINGLE BAR SHUTTER PRESSURE TABLE NOTES:**

1. THE SHUTTER MUST BE PLACED A MIN. DISTANCE OF 2.5" AWAY FROM THE GLASS IT PROTECTS.
2. SEE INSTRUCTIONS ON THIS SHEET FOR USE OF ALL LOAD TABLES.

PRODUCT REVISED as complying with the Florida Building Code  
 Acceptance No. **06-0831-03**  
 Expiration Date: **10/25/2011**  
 By *Helmut A. Mahr*  
 Miami Dad Product Control Division

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

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

SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN)	ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BAR END CONNECTIONS				
		3" BAR	4" BAR	5" BAR	CONN "A" & "B"		CONN "C"		CONN "D"
					WOOD	BLOCK	WOOD	BLOCK	BLOCK
36	36	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	42	80.0	80.0	80.0	80.0	75.4	80.0	80.0	80.0
	48	80.0	80.0	80.0	80.0	66.0	80.0	80.0	80.0
	* 58	80.0	80.0	80.0	80.0	54.6	80.0	80.0	80.0
	* 66	80.0	80.0	80.0	80.0	48.0	80.0	80.0	80.0
	* 76	80.0	80.0	80.0	73.6	41.7	80.0	80.0	80.0
42	30	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	36	80.0	80.0	80.0	80.0	75.4	80.0	80.0	80.0
	42	80.0	80.0	80.0	80.0	64.7	80.0	80.0	80.0
	48	80.0	80.0	80.0	80.0	56.6	80.0	80.0	80.0
	* 58	80.0	80.0	80.0	80.0	46.8	80.0	80.0	80.0
	* 66	80.0	80.0	80.0	72.6	41.1	80.0	80.0	80.0
* 76	80.0	80.0	80.0	63.1	35.7	80.0	74.0	80.0	
48	30	80.0	80.0	80.0	80.0	79.2	80.0	80.0	80.0
	36	80.0	80.0	80.0	80.0	66.0	80.0	80.0	80.0
	42	80.0	80.0	80.0	80.0	56.6	80.0	80.0	80.0
	48	80.0	80.0	80.0	80.0	49.5	80.0	80.0	80.0
	* 58	80.0	80.0	80.0	72.3	41.0	80.0	80.0	80.0
	* 66	80.0	80.0	80.0	63.5	36.0	80.0	74.5	80.0
* 76	79.8	80.0	80.0	55.2	31.3	80.0	64.7	80.0	
54	24	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	30	80.0	80.0	80.0	80.0	70.4	80.0	80.0	80.0
	36	80.0	80.0	80.0	80.0	58.7	80.0	80.0	80.0
	42	80.0	80.0	80.0	80.0	50.3	80.0	80.0	80.0
	48	80.0	80.0	80.0	73.1	44.0	80.0	80.0	80.0
	* 58	80.0	80.0	80.0	64.3	36.4	80.0	75.4	80.0
* 66	75.5	80.0	80.0	56.5	32.0	80.0	66.3	80.0	
* 76	65.5	80.0	80.0	49.1	27.8	77.5	57.5	80.0	
60	24	80.0	80.0	80.0	80.0	79.2	80.0	80.0	80.0
	30	80.0	80.0	80.0	80.0	63.4	80.0	80.0	80.0
	36	80.0	80.0	80.0	80.0	52.8	80.0	80.0	80.0
	42	80.0	80.0	80.0	75.2	45.3	80.0	80.0	80.0
	48	80.0	80.0	80.0	65.8	39.6	80.0	80.0	80.0
	* 58	71.8	80.0	80.0	57.8	32.8	80.0	67.9	80.0
* 66	63.1	80.0	80.0	50.8	28.8	80.0	59.6	80.0	
* 76	54.8	80.0	80.0	44.1	25.0	69.8	51.8	77.7	
66	24	80.0	80.0	80.0	80.0	72.0	80.0	80.0	80.0
	30	80.0	80.0	80.0	80.0	57.6	80.0	80.0	80.0
	36	80.0	80.0	80.0	79.7	48.0	80.0	80.0	80.0
	42	80.0	80.0	80.0	68.4	41.1	80.0	80.0	80.0
	48	73.6	80.0	80.0	59.8	36.0	80.0	74.5	80.0
	* 58	60.9	80.0	80.0	52.6	29.8	80.0	61.7	80.0
* 66	53.5	80.0	80.0	46.2	26.2	73.1	54.2	80.0	
* 76	46.5	75.0	80.0	40.1	22.7	63.4	47.1	70.6	
72	24	80.0	80.0	80.0	80.0	66.0	80.0	80.0	80.0
	30	80.0	80.0	80.0	80.0	52.8	80.0	80.0	80.0
	36	80.0	80.0	80.0	73.1	44.0	80.0	80.0	80.0
	42	72.2	80.0	80.0	62.7	37.7	80.0	78.1	80.0
	48	63.2	80.0	80.0	54.8	33.0	80.0	68.3	80.0
	* 58	52.3	80.0	80.0	48.2	27.3	76.2	56.6	80.0

SHUTTER WIDTH (IN)	HEIGHT OR BAR SPACING (IN)	ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BARS			ALLOWABLE PRESSURE (PSF) AS CONTROLLED BY BAR END CONNECTIONS				
		3" BAR	4" BAR	5" BAR	CONN "A" & "B"		CONN "C"		CONN "D"
					WOOD	BLOCK	WOOD	BLOCK	BLOCK
72	* 66	46.0	74.2	80.0	42.4	24.0	67.0	49.7	74.5
	* 76	39.9	64.5	80.0	36.8	20.8	58.2	43.2	64.7
78	24	80.0	80.0	80.0	80.0	60.9	80.0	80.0	80.0
	30	80.0	80.0	80.0	80.0	48.7	80.0	80.0	80.0
	36	73.2	80.0	80.0	67.5	40.6	80.0	80.0	80.0
	42	62.7	80.0	80.0	57.8	34.8	80.0	72.1	80.0
	48	54.9	80.0	80.0	50.6	30.5	80.0	63.1	80.0
	* 58	45.4	73.3	80.0	44.5	25.2	70.3	52.2	78.3
* 66	39.9	64.5	80.0	39.1	-	61.8	45.9	68.8	
* 76	34.7	56.0	80.0	34.0	-	53.7	39.8	59.8	
84	24	80.0	80.0	80.0	80.0	56.6	80.0	80.0	80.0
	30	64.3	80.0	80.0	75.2	45.3	80.0	80.0	80.0
	36	53.6	80.0	80.0	62.7	37.7	80.0	78.1	80.0
	42	45.9	80.0	80.0	53.7	32.3	80.0	66.9	80.0
	48	40.2	77.7	80.0	47.0	28.3	78.9	58.6	80.0
	* 58	35.3	64.3	80.0	41.3	-	65.3	48.5	72.7
* 66	31.1	56.5	79.5	36.3	-	57.4	42.6	63.9	
* 76	27.0	49.1	69.0	31.5	-	49.8	37.0	55.5	
90	24	62.8	80.0	80.0	80.0	52.8	80.0	80.0	80.0
	30	50.2	80.0	80.0	70.2	42.2	80.0	80.0	80.0
	36	41.8	80.0	80.0	58.5	35.2	80.0	72.9	80.0
	42	35.9	75.6	80.0	50.1	30.2	80.0	62.5	80.0
	48	31.4	66.1	80.0	43.9	26.4	73.7	54.7	80.0
	* 58	27.6	58.1	79.9	38.6	-	61.0	45.2	67.9
* 66	-	51.1	70.2	33.9	-	53.6	39.8	59.6	
* 76	-	43.3	61.0	29.4	-	46.5	34.5	51.8	
96	24	49.7	80.0	80.0	80.0	49.5	80.0	80.0	80.0
	30	39.8	80.0	80.0	65.8	39.6	80.0	80.0	80.0
	36	33.1	69.8	80.0	54.8	33.0	80.0	68.3	80.0
	42	28.4	59.9	80.0	47.0	28.3	78.9	58.6	80.0
	48	-	52.4	80.0	41.1	-	69.1	51.3	76.9
	* 58	-	46.1	71.1	36.2	-	57.2	42.4	63.6
* 66	-	40.5	62.5	31.8	-	50.2	37.3	55.9	
* 76	-	35.1	54.3	27.6	-	43.6	32.4	48.6	
102	24	39.9	80.0	80.0	77.4	46.6	80.0	80.0	80.0
	30	31.9	67.2	80.0	61.9	37.3	80.0	77.2	80.0
	36	26.6	56.0	80.0	51.6	31.1	80.0	64.3	80.0
	42	-	48.0	80.0	44.2	26.6	74.3	55.1	80.0
	48	-	42.0	74.1	38.7	-	65.0	48.2	72.4
	* 58	-	36.9	63.7	34.0	-	53.8	39.9	59.9
* 66	-	32.5	56.0	29.9	-	47.3	35.1	52.6	
* 76	-	28.2	48.6	26.0	-	41.1	30.5	45.7	
112	24	-	59.7	80.0	70.5	42.4	80.0	80.0	80.0
	30	-	47.8	80.0	56.4	33.9	80.0	70.3	80.0
	36	-	39.8	70.2	47.0	28.3	78.9	58.6	80.0
	42	-	34.1	60.2	40.3	-	67.7	50.2	75.3
	48	-	29.8	52.6	35.2	-	59.2	43.9	65.9
	* 58	-	26.2	46.3	31.0	-	49.0	36.4	54.5
* 66	-	-	40.7	27.2	-	43.1	31.9	47.9	
* 76	-	-	35.3	23.7	-	37.4	27.7	41.6	

**NOTE:**  
ALL VALUES LISTED IN TABLES FOR BLOCK ARE ALSO APPLICABLE FOR CONCRETE.

1. ALL PRESSURES ARE FOR BOTH POSITIVE & NEGATIVE AND ARE PSF.
  2. REF. SHEET 4 FOR CONNECTION TYPES & DETAILS.
- \* = APPLIES TO SINGLE BAR SHUTTERS ONLY

**NOTE: SEE INSTRUCTIONS ON SHEET 6 FOR USE OF ALL LOAD TABLES!**

PRODUCT REVISED  
as complying with the Florida Building Code  
Acceptance No. 06-0831-03  
Expiration Date 10/25/2011  
By Heidi A. Miller  
Miami Data Product Control Division

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=1		DATE: 11/22/00	
DATE			
BY			
REVISION DESCRIPTION			
NO.			
DRAWING TITLE: <b>IMPACT COLONIAL SHUTTER (DADE)</b>			
MANUFACTURER: <b>FOLDING SHUTTER CORPORATION</b>			
7089 HEMSTREET PLACE, WEST PALM BEACH, FLORIDA 33413 561-683-4811			
CONSULTANTS: <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b>			
8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903			
DRAWING NO. <b>1017</b> REV. <b>A</b>			
SHEET NO. <b>7</b> OF <b>7</b>			