



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

## NOTICE OF ACCEPTANCE (NOA)

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

**R. B. Aluminum Design, LLC**  
7760 W. 20<sup>th</sup> Avenue Bay#23  
Hialeah, Florida 33016

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section 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 Section (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. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section 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: HPMA / " Performance system 2 " Aluminum Accordion Shutter

**APPROVAL DOCUMENT:** Drawing No. AD15-73, titled " Performance System 2 Accordion Shutter ", sheets 1 through 11 of 11, prepared by MCY Engineering, Inc., dated November 24, 2020, last revision #4 dated November 24, 2020, signed and sealed by Yiping Wang, P.E., on November 30, 2020, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, 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 #18-0410.04 and consists of this page 1, evidence submitted pages E-1, E-2, E-3 & E-4 as well as approval document mentioned above.

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



*Helmy A. Makar*  
01/21/2021

NOA No. 20-1215.04  
Expiration Date: 11/03/2026  
Approval Date: 01/21/2021

**R. B. Aluminum Design, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 06-0710.07**

**A. DRAWINGS**

1. *Drawing No. 06-106, sheets 1 through 6 of 6, titled "Performance System 1 Accordion Shutter", prepared by Tilteco Inc., dated May 4, 2006, signed and sealed by Walter A. Tillit Jr., P.E.*

**B. TESTS**

1. *See Association's generic approval under 05-0323.*

**C. CALCULATIONS**

1. *See Association's generic approval under 05-0323.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 05-0323.*


**F. STATEMENTS**

1. *Release letter issued by the Hurricane Protection Manufacturers Association, Inc., received by our office on June 27, 2006 and signed by Jeffrey T. Robinson, President of the Association, certifying that this product meets the criteria of the product tested under their auspices, and approved under Miami-Dade County Approval # 05-0323.*
2. *Acknowledgment Letter issued by H.P.M.A. dated April 18, 2006, signed by Mr. Enrique Revilla, V. P. of the Association, to confirm, that RB Aluminum Design, L.L.C., is currently a H.P.M.A. member in good standing.*
3. *Acknowledgement Letter issued by RB Aluminum Design, L.L.C., dated May 24, 2006, acknowledging that they are applying under the auspice of the H.P.M.A master file No. 05-0323, signed by Ricardo O. Barufaldi, President.*
4. *Letter issued by Tilteco Inc., dated on June 22, 2006, certifying that the drawing (No. 06-106) prepared for RB Aluminum Design, L.L.C., signed and sealed by Mr. Walter A. Tillit, Jr., P.E., is engineering wise completely identical to H.P.M.A. Miami Dade Approved generic drawing (No. 05-118).*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 07-0604.01**

**A. DRAWINGS**

1. *Drawing No. 07-128, titled " Performance System 2 Accordion Shutter ", sheets 1 through 6 of 6, prepared by Tilteco, Inc., dated May 22, 2007, signed and sealed by Walter A. Tillit Jr., P.E., on May 23, 2007.*

  
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Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.04  
Expiration Date: 11/03/2026  
Approval Date: 01/21/2021

**R. B. Aluminum Design, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS**

1. *See Association's generic approval under 07-2513.*

**C. CALCULATIONS**

1. *See Association's generic approval under 07-2513.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 07-2513.*

**F. STATEMENTS**

1. *Release letter issued by the Hurricane Protection Manufacturers Association, dated 03/06/07, certifying this product to meet the criteria of product tested and approved, and allowing R. B. Aluminum Design LLC to use the test results approved under Miami Dade County Approval #07-2513, signed by Henry Revilla*
2. *Acknowledgment letter by R. B. Aluminum Design LLC, dated May 03, 2007, signed by Mr. Ricardo O. Barufaldi.*
3. *Letter by Tilteco Inc., dated May 23, 2007, signed and sealed by Mr. Walter A. Tillit, Jr., P.E., certifying that the drawing (No. 07-128) prepared for R. B. Aluminum Design LLC is engineering wise identical to HPMA's generic drawing (No. 06-219).*
4. *Acceptance Letter issued to Mr. Ricardo O. Barufaldi on August 12, 2007 and returned signed by Mr. Ricardo O. Barufaldi on August 13, 2007, indicating to please issue the proposed Notice of Acceptance as submitted and reviewed.*

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 16-0614.03**

**A. DRAWINGS**

1. *Drawing No. AD15-73, titled " Performance System 2 Accordion Shutter ", sheets 1 through 10 of 10, prepared by MCY Engineering, Inc., dated May 13, 2010, last rev. #3 dated 03/20/15, signed and sealed by Yiping Wang, P.E., on 11/09/ 15.*

**B. TESTS**

1. *See Association's generic approval under 15-0430.*

**C. CALCULATIONS**

1. *See Association's generic approval under 15-0430.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.04  
Expiration Date: 11/03/2026  
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**R. B. Aluminum Design, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 15-0430.*

**F. STATEMENTS**

1. *Release letter issued by the Hurricane Protection Manufacturers Association, dated 02/09/16, certifying this product to meet the criteria of product tested and approved, allowing R. B. Aluminum Design LLC to use the test results approved under Miami Dade County Approval #15-0430, signed by Henry Revilla.*
2. *Acknowledgment letter by R. B. Aluminum Design LLC, dated Feb. 09, 2016, signed by Mr. Ricardo O. Barufaldi.*
3. *Letter of Compliance by MCY Engineering, Inc., dated Nov. 06, 2015, signed and sealed by Ms. Yiping Wang, P.E., certifying that the drawing (No. AD15-73) prepared for R. B. Aluminum Design LLC is engineering wise identical to HPMA's generic drawing (No. AD10-12).*

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 18-0410.04**

**A. DRAWINGS**

1. *Drawing No. AD15-73, titled " Performance System 2 Accordion Shutter ", sheets 1 through 10 of 10, prepared by MCY Engineering, Inc., dated May 13, 2010, last revision #4 dated 04/24/18, signed and sealed by Yiping Wang, P.E., on 05/07/18.*

**B. TESTS**

1. *See Association's generic approval under 18-0255.*

**C. CALCULATIONS**

1. *See Association's generic approval under 18-0255.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 18-0255.*

**F. STATEMENTS**

1. *Letter of Compliance by MCY Engineering, Inc., dated April 24, 2018, signed and sealed by Ms. Yiping Wang, P.E., certifying that the drawing (No. AD15-73) prepared for R. B. Aluminum Design LLC is in conformance with the FBC, 2017 Edition.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.04  
Expiration Date: 11/03/2026  
Approval Date: 01/21/2021

**R. B. Aluminum Design, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**5. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. AD15-73, titled " Performance System 2 Accordion Shutter ", sheets 1 through 11 of 11, prepared by MCY Engineering, Inc., dated November 24, 2020, last revision #4 dated 01/24/20, signed and sealed by Yiping Wang, P.E., on 11/30/2020.*

**B. TESTS**

1. *See Association's generic approval under 20-1783.*

**C. CALCULATIONS**

1. *See Association's generic approval under 20-1783.*

**D. QUALITY ASSURANCE**

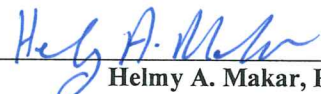
1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 20-1783.*

**F. STATEMENTS**

1. *Letter of Compliance by MCY Engineering, Inc., dated 11/24/2020, signed and sealed by Ms. Yiping Wang, P.E., certifying that the drawing (No. AD15-73) prepared for R. B. Aluminum Design LLC is in conformance with the FBC, 2020 Edition.*



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 20-1215.04  
Expiration Date: 11/03/2026  
Approval Date: 01/21/2021

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND NON-HIGH VELOCITY HURRICANE ZONE (NON-HVHZ) OF THE 7TH EDITION FLORIDA BUILDING CODE (2020).
2. SYSTEM RATED FOR LARGE AND SMALL MISSILE IMPACT.
3. STAINLESS STEEL SHEET METAL SCREWS USED AT LOUVER PIN SHALL BE # 14 x 3", 410-HT MINIMUM SERIES W/ 135.0 ksi YIELD STRENGTH & 180 ksi TENSILE STRENGTH. SCREWS SHALL BE COATED WITH XYLAN 5000 SERIES FLUOROPOLYMER COATINGS AS MANUFACTURED BY WHITFORD Co, BOX 507. WEST CHESTER PA 19381.
4. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY WITH MINIMUM YIELD STRENGTH OF Fy = 31.0 ksi.
5. ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
6. ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
7. WOOD BUCKS BY OTHERS MUST BE SOUTHERN PINE, G = 0.55 AND MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.
8. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.
9. BOLTS TO BE GALVANIZED OR STAINLESS STEEL WITH 36 ksi MINIMUM YIELD STRENGTH.
10. SHUTTER'S COMPONENTS ARE PATENT PENDING.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.
12. A PERMANENT SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED ON THE EXPOSED SURFACE OF THE CENTER MATE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.  
LABEL SHALL READ AS FOLLOWS:  
"PERFORMANCE SYSTEM 2 ACCORDION SHUTTER"  
RB ALUMINUM DESIGN, LLC.  
HIALEAH, FL  
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED  
TEST REPORTS TAS-201 & 203.
13. (a) THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) PREPARED BY THIS ENGINEER IS GENERIC.
- (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS PRODUCT APPROVAL PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
- (c) THIS PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
- (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- (e) THIS P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
14. ULTIMATE LOAD OBTAINED FROM ASCE 7-16, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT.  
THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

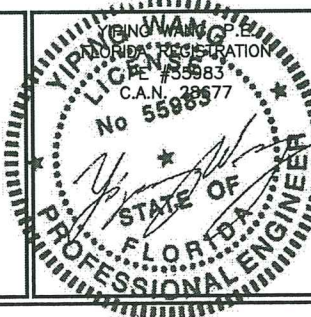
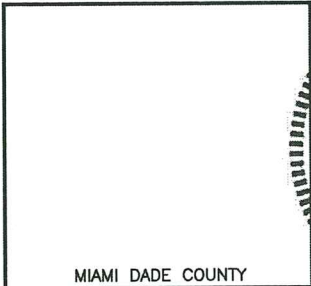
TYPICAL ANCHORS: (SEE CHARTS FOR ANCHOR SPACING)

- TYPE A. 1/4" DIA. ITW TAPCON BY ITW BUILDEX  
Fu = 120 KSI, Fy = 92 KSI  
INTO CONCRETE fc'=3000 PSI  
1-3/4" MIN. EMBED  
2-1/2" MIN. EDGE DISTANCE
- TYPE A1. INTO CONCRETE BLOCK  
1-1/4" MIN. EMBED  
2-1/2" MIN. EDGE DISTANCE
- TYPE B. 1/4"-20 CALK-IN BY 'POWERS' FASTENERS  
INTO CONCRETE fc'=3000 PSI  
7/8" MIN. EMBED  
3" MIN. EDGE DISTANCE
- TYPE B1. INTO CONCRETE BLOCK  
7/8" MIN. EMBED  
3" MIN. EDGE DISTANCE
- TYPE C. 1/4" CRETE-FLEX SS4 MASONRY ANCHOR BY "ELCO" CONSTRUCTION PRODUCTS  
Fu = 120 KSI, Fy = 92 KSI  
INTO CONCRETE fc'=3000 PSI  
1 3/4" MIN. EMBED  
2 1/2" MIN. EDGE DISTANCE
- TYPE C1. INTO CONCRETE BLOCK  
1 1/4" MIN. EMBED  
2 1/2" MIN. EDGE DISTANCE

NOTES:

WHEN EDGE DISTANCE EQUAL OR GREATER THAN 2" AND LESS THAN MIN. EDGE DISTANCE SPECIFIED ABOVE THE ANCHOR SPACE IN ANCHOR CHARTS ON THE DRAWINGS MUST MULTIPLY BY FOLLOWING REDUCTION FACTOR:  
ANCHOR TYPE A, & A1: REDUCTION FACTOR = 0.77  
ANCHOR TYPE B & B1: REDUCTION FACTOR = 0.50  
ANCHOR TYPE C & C1: REDUCTION FACTOR = 0.77  
PLEASE NOTE THIS INSTALLATION ARE ONLY VALID FOR THE RESULTING ANCHOR SPACE EQUAL OR GREATER THAN 3".

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 20-1215-04  
Expiration Date 11/03/2026  
By *Heidi A. Miller*  
Miami Dade Product Control



REVISIONS	
NO.	DATE DESCRIPTION
1	08/05/10 AS PER BCCO COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2011 FBC
4	11/24/20 UPDATE TO 2020 FBC

MCY ENGINEERING, INC.  
GLAZING CONSULTANTS  
12781 Miramar Parkway #301 P.(305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com  
mcy@mcyengineering.com

SYSTEM 2 ALUMINUM ACCORDION SHUTTER  
RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13)  
7760 W 20TH AVE., BAY #23  
HIALEAH, FL 33016  
Tel: (305) 823-7003 Cell: (789) 853-6433

DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-141
DRAWING NO.	AD15-73
	1 OF 11

**A** WALL HEADER (& INVERTED)

**B** CEILING HEADER

**D** FLOOR SILL

**D2** THRESHOLD TRACK

**E** ADJUSTABLE SILL ADAPTOR

**F1** 180° MALE STARTER

**A** WALL HEADER (& INVERTED) (OPTIONAL)

**B** CEILING HEADER (OPTIONAL)

**D** FLOOR SILL (OPTIONAL)

**D2** THRESHOLD TRACK (OPTIONAL)

**E** ADJUSTABLE SILL ADAPTOR (OPTIONAL)

**F1** 180° MALE STARTER (OPTIONAL)

**C** WALL SILL

**A1** CEILING HEADER (& INVERTED) LIGHT DUTY

**A2** WALL HEADER (& INVERTED) LIGHT DUTY

**A3** WALL HEADER (& INVERTED) LIGHT DUTY

**D1** FLOOR SILL

**COMPONENTS**

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No  
Expiration Date

20 - 1215, 04  
NOV 03 2026

By *H. G. A. Miller*  
Miami Date Product Control

MIAMI DADE COUNTY

YIPING WANG  
FLORIDA REGISTRATION  
PE #55983  
C.A.N. #88577  
No 55983

STATE OF FLORIDA  
PROFESSIONAL ENGINEER

SYSTEM 2 ALUMINUM ACCORDION SHUTTER

RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13)  
7760 W 20TH AVE., BAY #23  
HIALEAH, FL, 33016  
Tel: (305) 823 - 7003 Cell: (789) 853 - 6433

DATE 11-24-20  
SCALE  
DRAWN J.S  
PROJECT MCY 15-141

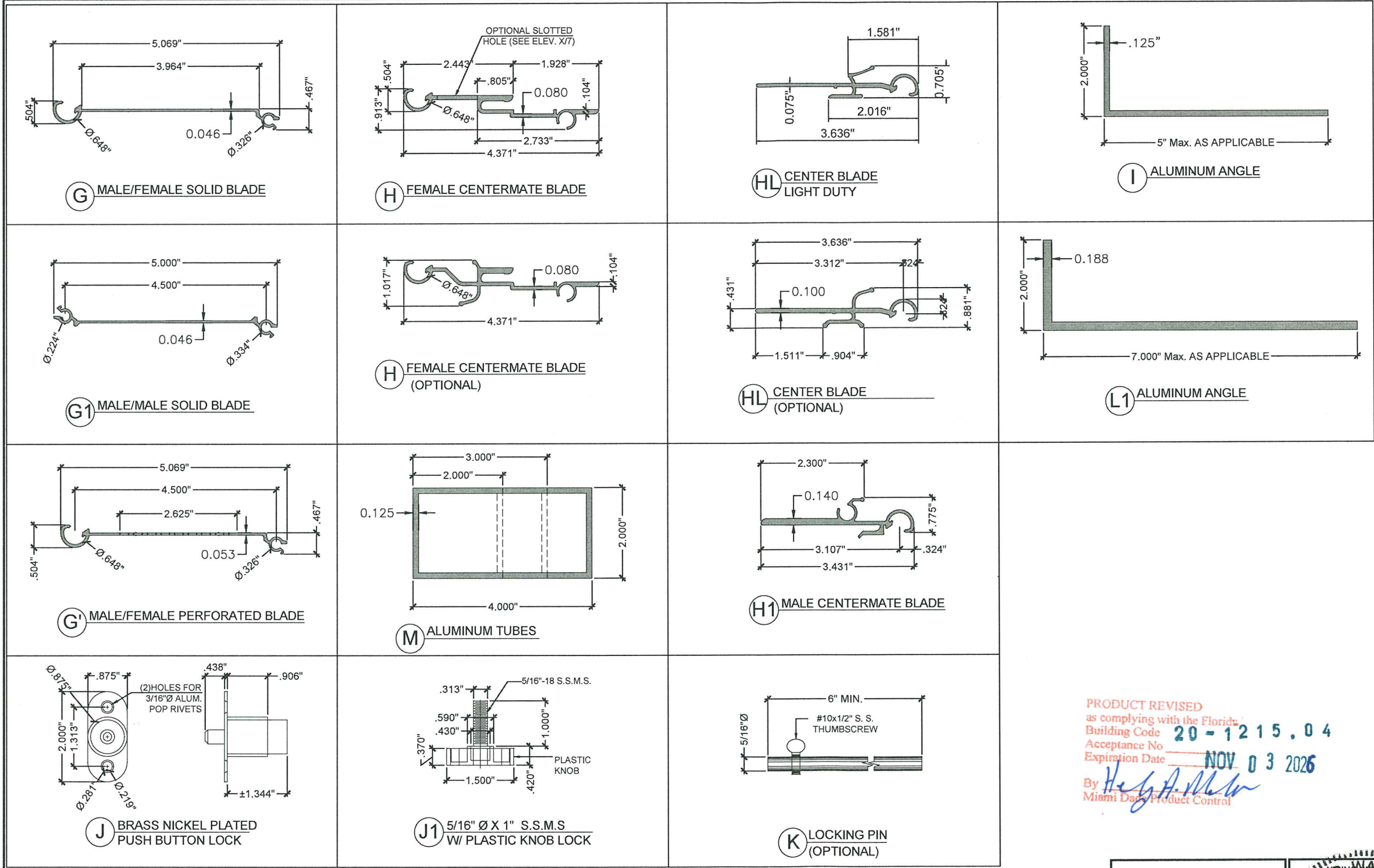
DRAWING NO.  
AD15-73

2 OF 11

REVISIONS

NO	DATE	DESCRIPTION
1	09/25/10	AS PER BCC COMMENTS
2	03/25/12	UPDATE TO 2010 FBC
3	03/20/15	UPDATE TO 2014 FBC
4	11/24/20	UPDATE TO 2020 FBC

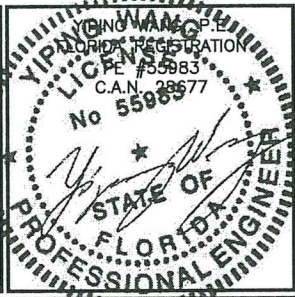
MCY  
12781 Miramar Parkway #301 P. (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com



## COMPONENTS

PRODUCT REVISED  
as complying with the Florida  
Building Code 20-1215.04  
Acceptance No. 20-1215.04  
Expiration Date NOV 03 2026  
By *H. A. M. M.*  
Miami Dade Product Control

MIAMI DADE COUNTY



REVISIONS	
NO.	DATE DESCRIPTION
1	09/05/10 AS PER BECO COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2014 FBC
4	11/24/20 UPDATE TO 2020 FBC

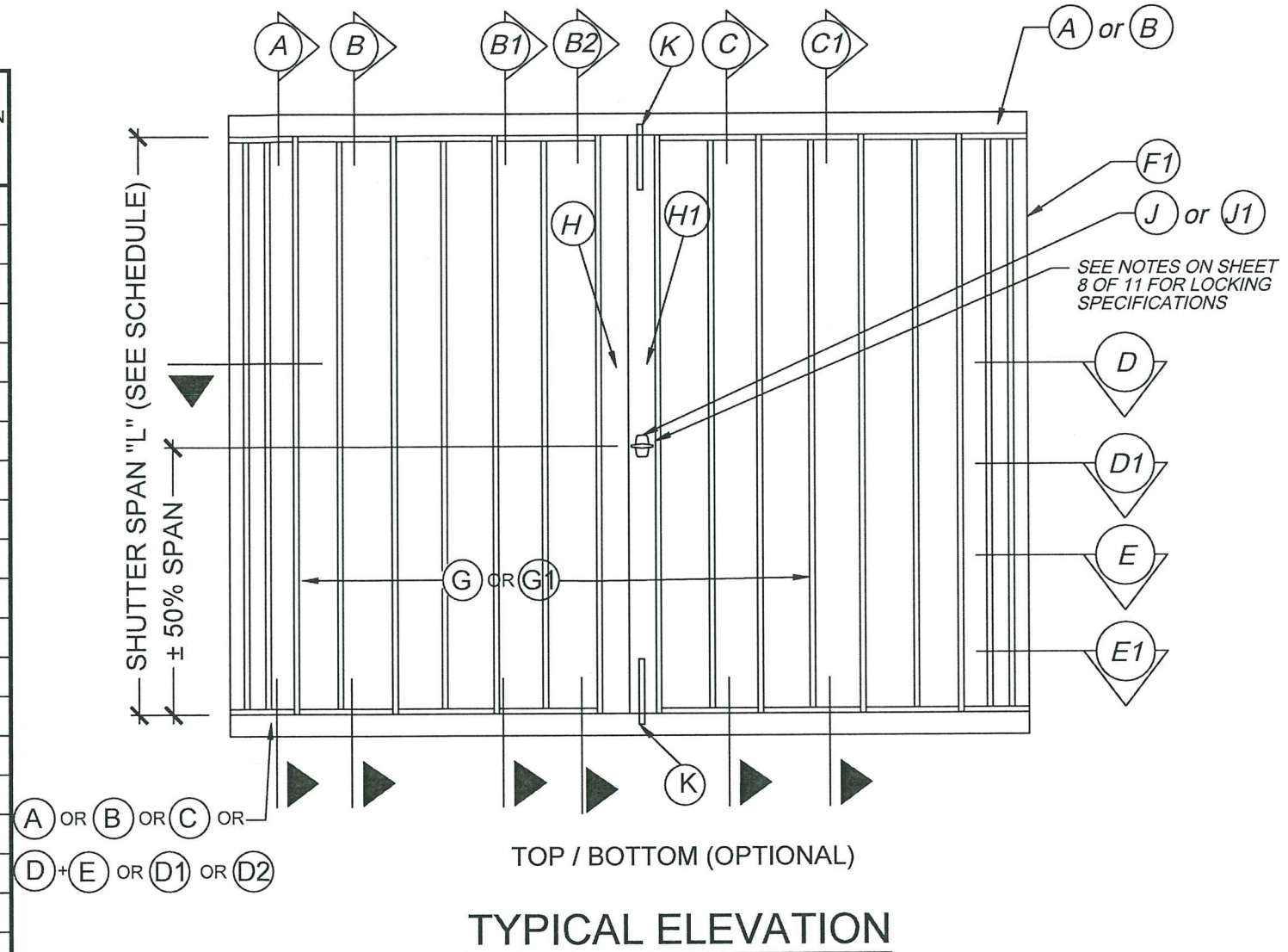
  

<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 Miramar Parkway #301 P. (305) 271-0117 Miramar, FL 33027 www.MCYEngineering.com mcy@mcyengineering.com	
SYSTEM 2 ALUMINUM ACCORDION SHUTTER RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13) 7760 W 20TH AVE., BAY #23 HIALEAH, FL, 33016 Tel: (305) 823-7003 Cell: (789) 853-6433	DRAWING NO. <b>AD15-73</b> 3 OF 11

November 30th, 2020

MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF)  
AND CORRESPONDING MAXIMUM SPAN "L" SCHEDULE.

MAXIMUM DESIGN LOAD "Pd" (PSF)	MAXIMUM SHUTTER SPAN "L" FOR ALL SECTIONS		HVHZ MINIMUM SEPARATION TO GLASS (in.) ALL SECTIONS	NON-HVHZ NO MIN. SEPARATION IS REQUIRED
	VS POSITIVE LOAD	VS NEGATIVE LOAD		
40	13'-2"	14'-1"	3.0	-
45	12'-9"	14'-1"	3.0	-
50	12'-5"	14'-1"	3.0	-
55	12'-2"	13'-5"	3.0	-
60	11'-11"	12'-10"	3.0	-
65	11'-8"	12'-4"	3.0	-
70	11'-5"	11'-11"	3.0	-
75	11'-3"	11'-6"	3.0	-
80	11'-1"	11'-2"	3.0	-
85	10'-10"	10'-10"	3.0	-
90	10'-6"	10'-6"	3.0	-
95	10'-3"	10'-3"	2.875	-
100	10'	10'	2.875	-
105	9'-9"	9'-9"	2.625	-
110	9'-6"	9'-6"	2.5	-
115	9'-4"	9'-4"	2.5	-
120	9'-1"	9'-1"	2.5	-
125	8'-10"	8'-10"	2.5	-
130	8'-6"	8'-6"	2.375	-
135	-	8'-2"	2.375	-
140	-	7'-11"	2.375	-
145	-	7'-7"	2.375	-
150	-	7'-4"	2.375	-
155	-	7'-2"	2.375	-
160	-	6'-11"	2.375	-
165	-	6'-8"	2.375	-
170	-	6'-6"	2.375	-
175	-	6'-4"	2.375	-
180	-	6'-2"	2.375	-
185	-	6'	2.375	-
190	-	5'-10"	2.375	-
195	-	5'-8"	2.375	-



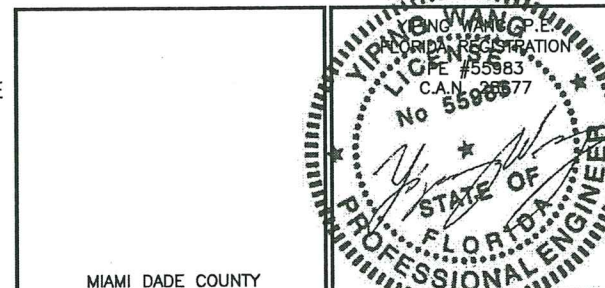
**INSTRUCTION:**

**STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON VELOCITY, BUILDING HEIGHT, WIND ZONE USING APPLICABLY ASCE 7 STANDARD.

**STEP 2** CHECK SHUTTER CAPACITY FOR A GIVEN SHUTTER SPAN USING CHARTS ON SHEET 4. MAX. DESIGN LOAD FROM CHART HAS TO BE GREATER THAN DESIGN WIND LOAD FROM STEP 1.

**STEP 3** USING CHARTS ON SHEET 5 THRU SHEET 11 SELECT ANCHOR TYPE AND SPACING BASED ON DESIGN LOAD AND SHUTTER SPAN FOR THE ANCHOR DETAIL USED.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 20-1215.04  
Expiration Date NOV 03 2026  
By *Heg A. Mohr*  
Miami Dade Product Control



REVISIONS		DESCRIPTION
NO.	DATE	
1	09/05/10	AS PER ICCO COMMENTS
2	03/25/12	UPDATE TO 2010 FBC
3	03/20/15	UPDATE TO 2014 FBC
4	11/24/20	UPDATE TO 2020 FBC

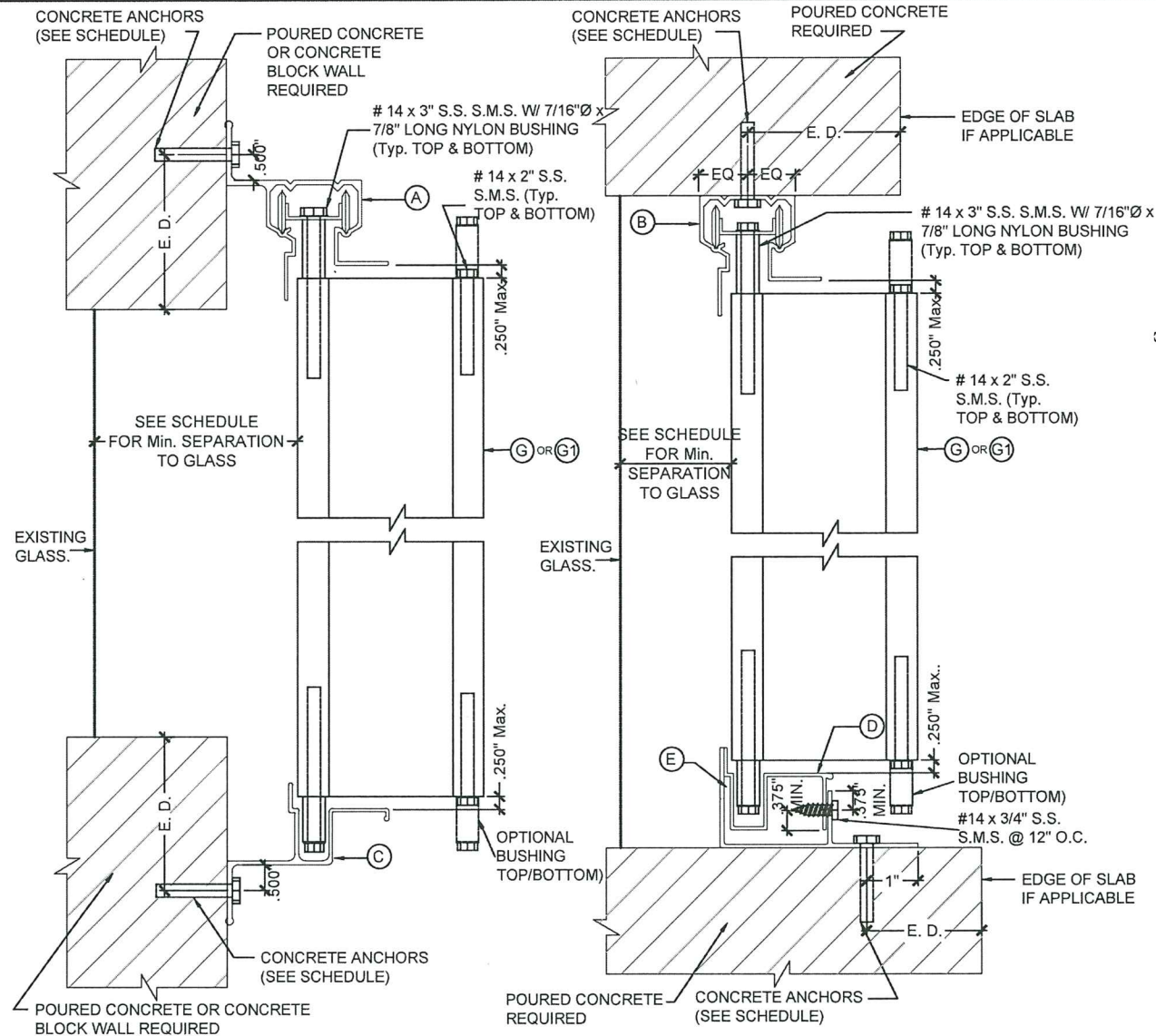
  

<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 Miramar Parkway #301 P. (305) 271-0117 Miramar, FL 33027 www.MCYEngineering.com	SYSTEM 2 ALUMINUM ACCORDION SHUTTER RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13) 7760 W 20TH AVE., BAY #23 HIALEAH, FL, 33016 Tel: (305) 823-7003 Cell: (789) 853-8433
--	--

DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-141
DRAWING NO.	
AD15-73	
4 OF 11	

November 30th, 2020

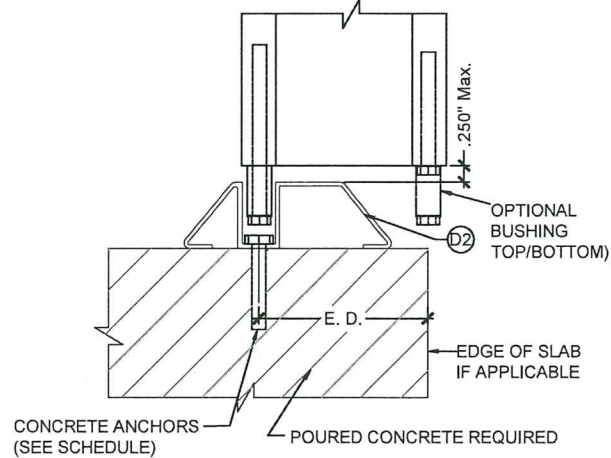


WALL MOUNTING INSTALLATION

CEILING & FLOOR MOUNTING INSTALLATION

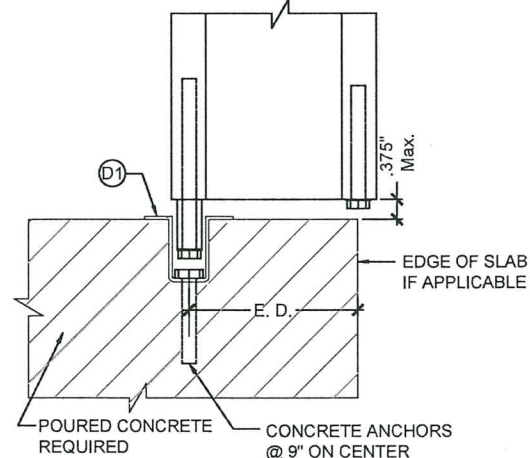
SECTION A

SECTION B



FLOOR MOUNTING INSTALLATION

SECTION B1



FLOOR MOUNTING INSTALLATION

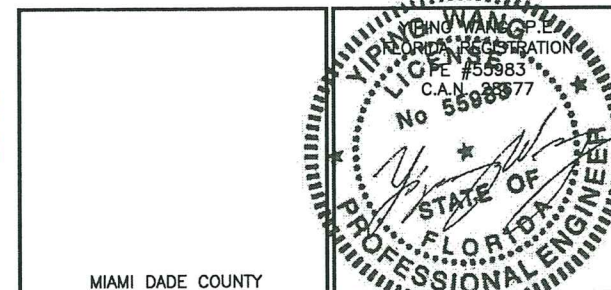
SECTION B2

MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING  
MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION A (TOP/BOTTOM)					SECTION B (TOP/BOTTOM) B1 (BOTTOM)		
		SUBSTRATE CONCRETE			SUBSTRATE BLOCK		SUBSTRATE CONCRETE		
		ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE B1	ANCHOR TYPE C1	ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C
60	60"	9	9	9	4	4.6	6	6	6
	78	9	9	9	3	3.5	6	6	6
	96	8	7.5	8	-	-	6	6	6
	120"	6	6	6.5	-	-	6	6	6
	144"	5	5	5.5	-	-	6	6	6
65	154"	5	4.5	5	-	-	6	6	6
	60"	9	9	9	3.5	4.2	6	6	6
	78	9	8.5	9	-	3.2	6	6	6
	96	7	7	7.5	-	-	6	6	6
	120"	5.5	5.5	6	-	-	6	6	6
70	148"	4.5	4.5	4.5	-	-	6	5.5	6
	60"	9	9	9	3.5	3.9	6	6	6
	78	8	8	8.5	-	3	6	6	6
	96	6.5	6.5	7	-	-	6	6	6
	120"	5.5	5	5.5	-	-	6	6	6
80	143"	4.5	4.5	4.5	-	-	5.5	5.5	6
	60"	9	9	9	3	3.4	6	6	6
	78	7	7	7.5	-	-	6	6	6
	96	6	5.5	6	-	-	6	6	6
	120"	4.5	4.5	5	-	-	6	6	6
100	134"	4	4	4.5	-	-	5.5	5	6
	60"	7.5	7.5	8	-	-	6	6	6
	78	5.5	5.5	6	-	-	6	6	6
	96	4.5	4.5	5	-	-	6	6	6
	120"	3.5	3.5	4	-	-	5	4.5	6
195	60"	3.5	3.5	4	-	-	5	4.5	6
	66"	3.5	3	3.5	-	-	4.5	4	5.5

NOTE:  
FOR LIGHT DUTY SHUTTER ON SHEET 10, MAX. SPACING SHOULD BE LIMITED TO 6" O.C.

PRODUCT REVISED  
as complying with the Florida  
Building Code 20-1215.04  
Acceptance No. NOV 03 2026  
Expiration Date  
By *H. G. A. Miller*  
Miami Door Product Control



MIAMI DADE COUNTY

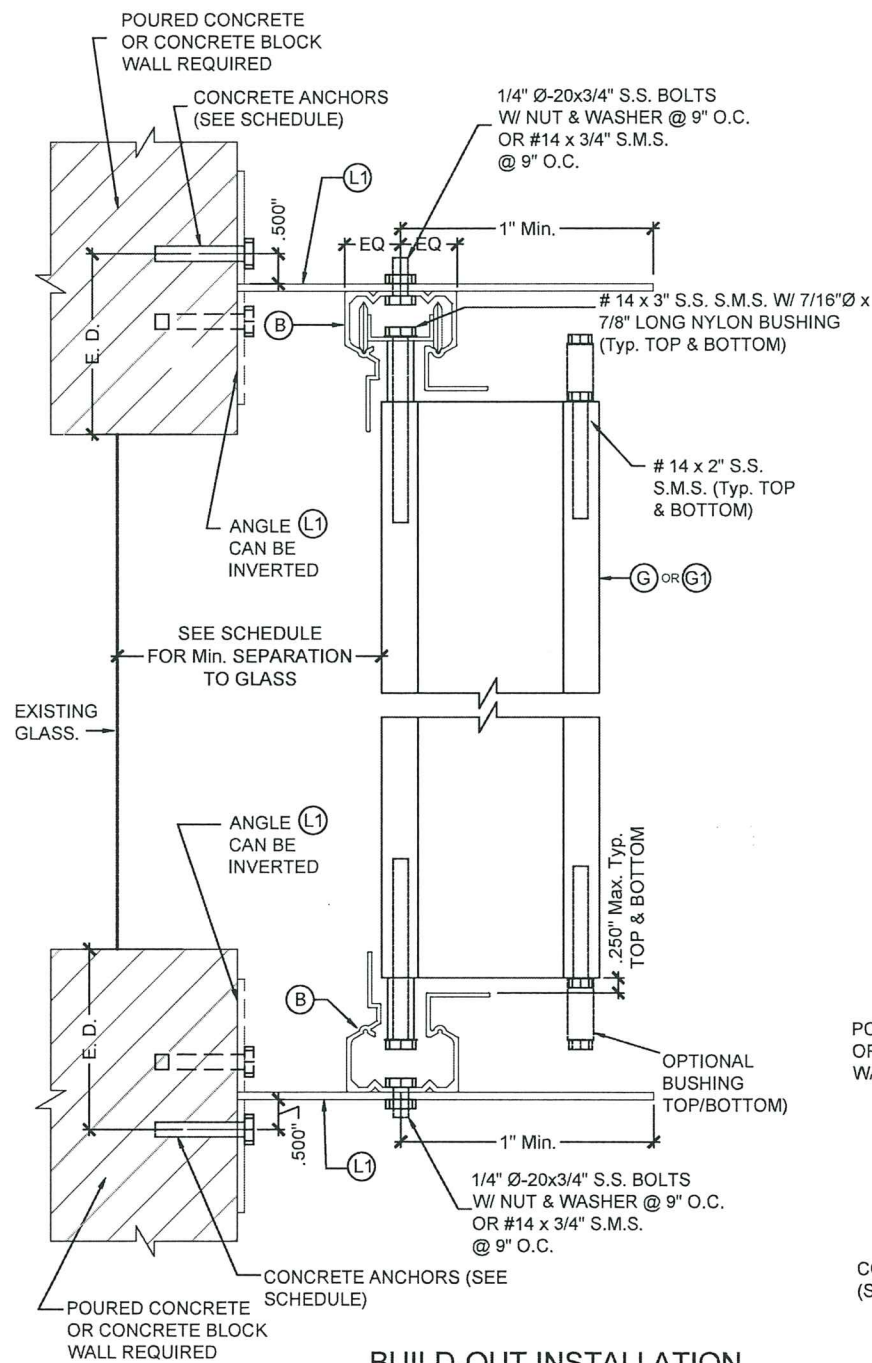
REVISIONS	
NO.	DESCRIPTION
1	09/05/10 AS PER BECO COMMENTS
2	02/26/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2014 FBC
4	11/24/20 UPDATE TO 2020 FBC

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 Miramar Parkway #301 P. (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com

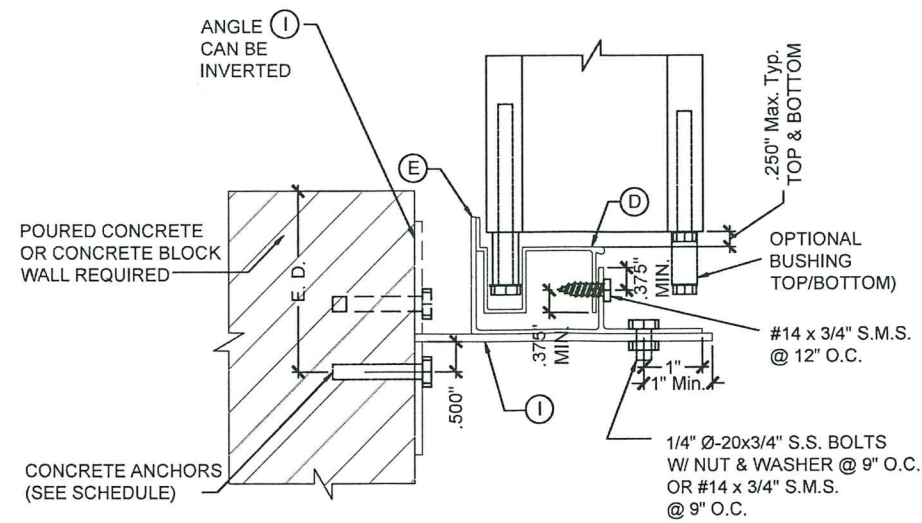
SYSTEM 2 ALUMINUM ACCORDION SHUTTER  
RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13)  
7760 W 20TH AVE., BAY #23  
HIALEAH, FL 33016  
Tel: (305) 823-7003 Cell: (789) 853-6433

DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-141
DRAWING NO.	AD15-73
	5 OF 11

November 30th, 2020



**BUILD-OUT INSTALLATION  
SECTION C**



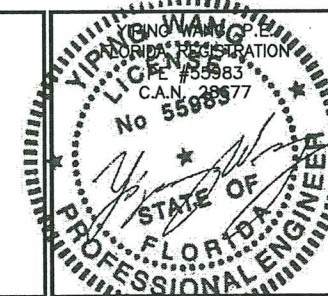
**BUILD-OUT INSTALLATION  
SECTION C1**

**MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING  
MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +**

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION C TOP/BOTTOM						SECTION C1 BOTTOM					
		SUBSTRATE CONCRETE			SUBSTRATE BLOCK			SUBSTRATE CONCRETE			SUBSTRATE BLOCK		
		ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE A1	ANCHOR TYPE B1	ANCHOR TYPE C1	ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE A1	ANCHOR TYPE B1	ANCHOR TYPE C1
60	60"	6	6	6	4	5.5	8.1	6	6	6	4	6	8.1
	78"	6	6	6	3	4.5	6.3	6	6	6	3	4.5	6.3
	96"	6	6	6	-	3.5	5.1	6	6	6	-	4	5.1
	120"	6	6	6	-	-	4.1	6	6	6	-	3	4.1
	144"	6	6	6	-	-	3.4	6	6	6	-	-	3.4
65	154"	6	6	6	-	-	3.2	6	6	6	-	-	3.2
	60"	6	6	6	3.7	5	7.5	6	6	6	3.7	5.5	7.5
	78"	6	6	6	-	4	5.8	6	6	6	-	4.5	5.8
	96"	6	6	6	-	3	4.7	6	6	6	-	3.5	4.7
	120"	6	6	6	-	-	3.8	6	6	6	-	-	3.8
70	148"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
	60"	6	6	6	3.4	5	7	6	6	6	3.4	5.5	7
	78"	6	6	6	-	3.5	5.4	6	6	6	-	4	5.4
	96"	6	6	6	-	3	4.4	6	6	6	-	3	4.4
	120"	6	6	6	-	-	3.5	6	6	6	-	-	3.5
80	143"	6	6	6	-	-	-	6	6	6	-	-	-
	60"	6	6	6	-	4	6.1	6	6	6	-	4.5	6.1
	78"	6	6	6	-	3	4.7	6	6	6	-	3.5	4.7
	96"	6	6	6	-	-	3.8	6	6	6	-	3	3.8
	120"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
100	134"	6	5.5	6	-	-	-	6	6	6	-	-	-
	60"	6	6	6	-	3.5	4.9	6	6	6	-	3.5	4.9
	78"	6	6	6	-	-	3.8	6	6	6	-	-	3.8
	96"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
	120"	5	5	5.5	-	-	-	5	5.5	6	-	-	-
195	60"	5	5	5.5	-	-	-	5	5.5	6	-	-	-
	66"	4.5	4.5	5	-	-	-	5	5	5.5	-	-	-

PRODUCT REVISED  
as complying with the Florida  
Building Code 20-1215.04  
Acceptance No  
Expiration Date NOV 03 2026  
By *He G. A. M. L.*  
Miami Dade Product Control

MIAMI DADE COUNTY

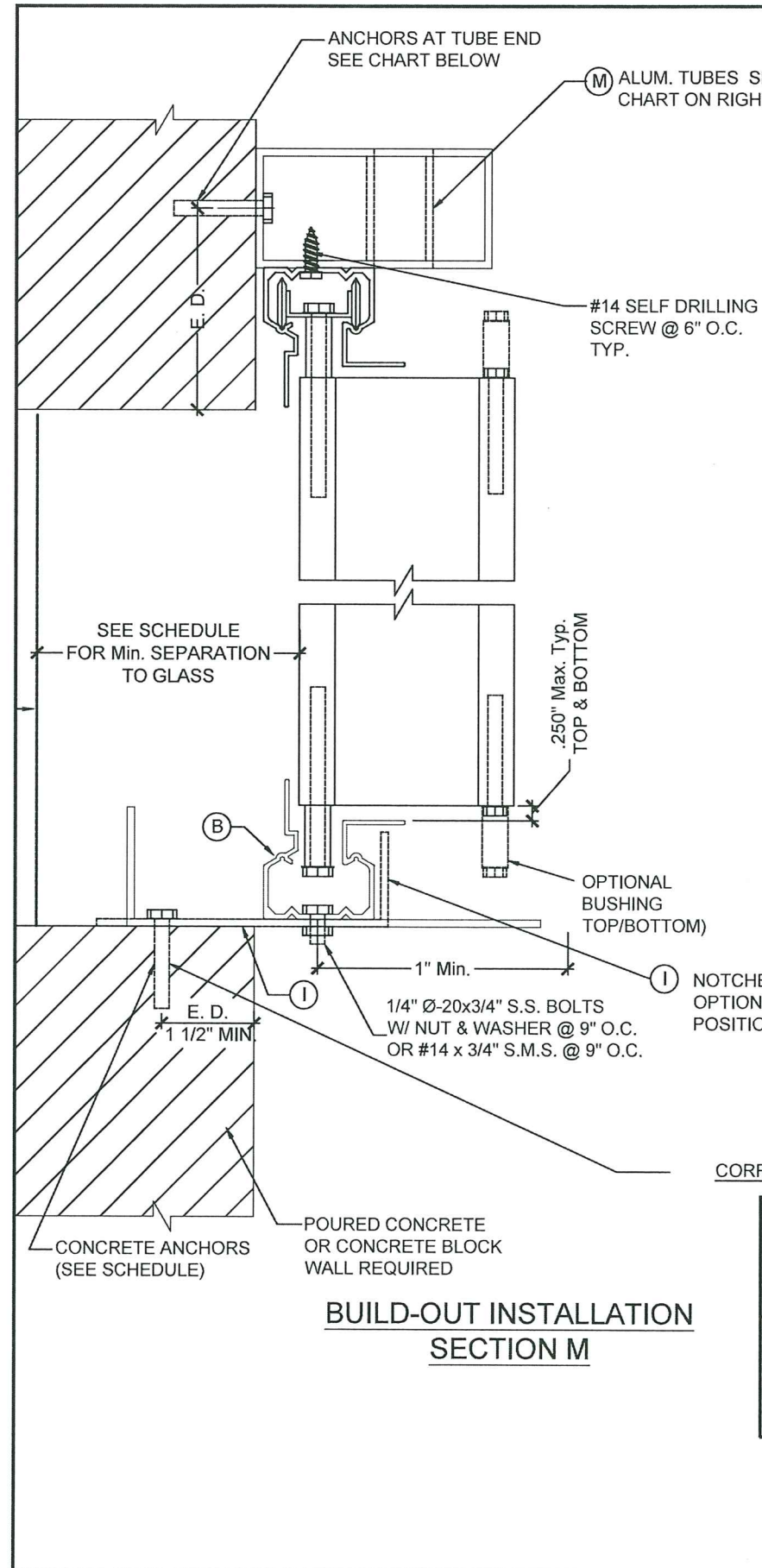


REVISIONS	
NO.	DATE DESCRIPTION
1	08/08/10 AS PER BCCO COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2014 FBC
4	11/24/20 UPDATE TO 2020 FBC

**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 Miramar Parkway #301 P. (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com

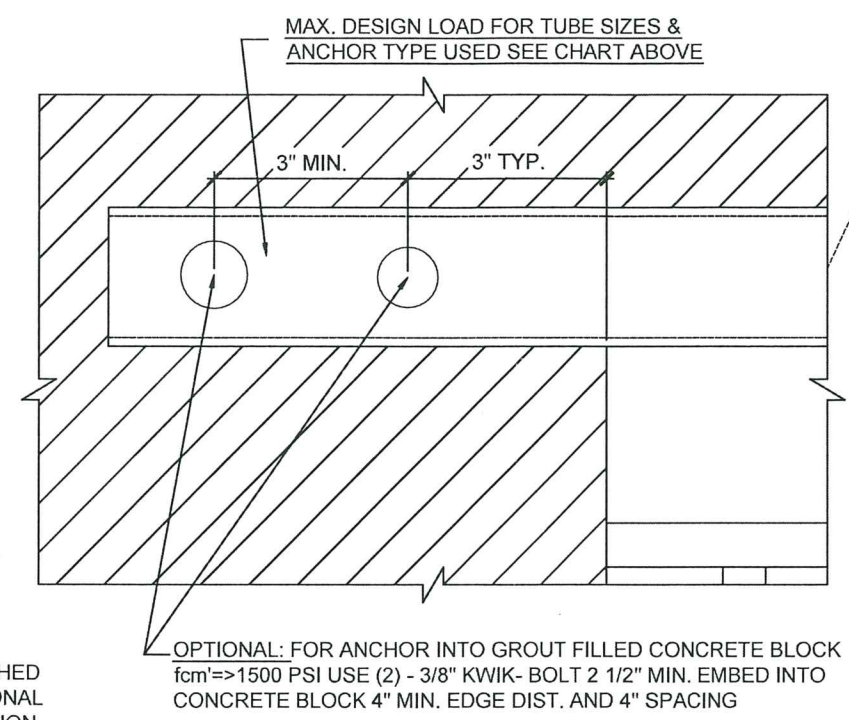
**SYSTEM 2 ALUMINUM ACCORDION SHUTTER**  
RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13)  
7760 W 20TH AVE., BAY #23  
HIALEAH, FL, 33016  
Tel: (305) 823-7003 Cell: (789) 853-6433

DATE	11-24-20
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DRAWN	J.S
PROJECT	MCY 15-141
DRAWING NO.	AD15-73
8 OF 11	



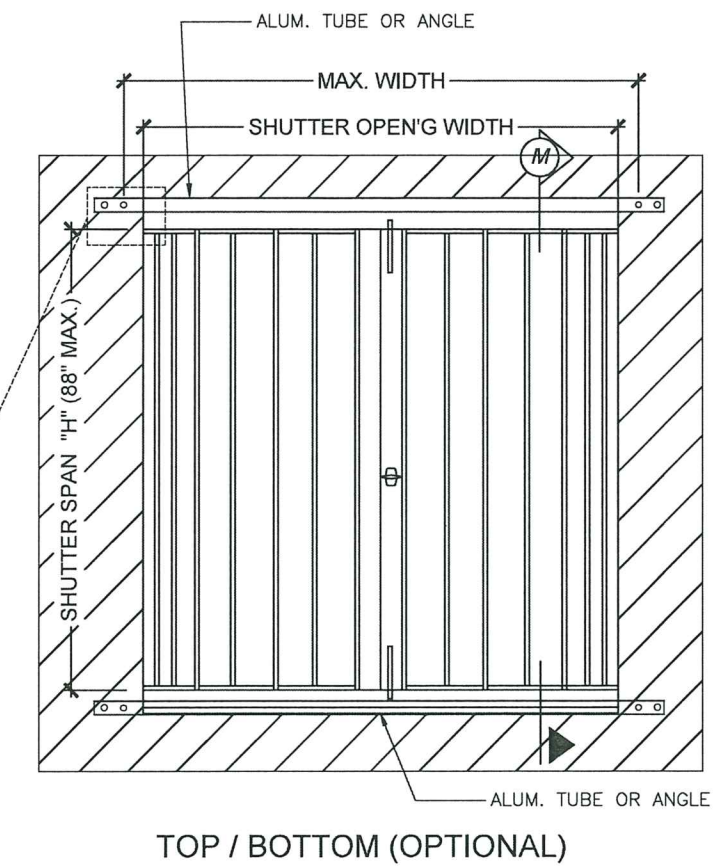
**BUILD-OUT INSTALLATION  
SECTION M**

ALUM. TUBE SIZE	OPEN'G WIDTH	MAX. HEIGHT	DESIGN LOAD (PSF)	
			ANCHOR TYPE "A"	ANCHOR TYPE "C"
2"x2"x1/8"	42"	88"	65	65
2"x3"x1/8"	60"	88"	65	65
2"x4"x1/8"	78"	88"	57.3	62
	78"	84"	60	65
	78"	77"	65	65



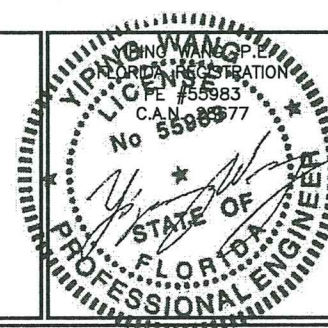
**MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND  
CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +**

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION M BOTTOM	
		SUBSTRATE CONCRETE	
		ANCHOR SPACING ( in.)	
		ANCHOR TYPE A	ANCHOR TYPE C
65	60"	8.5	9
	72"	7	7.5
	84"	6	6.5
	88"	5.5	6



**PRODUCT REVISED**  
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Expiration Date NOV 03 2026  
By *H. G. A. Miller*  
Miami Dade Product Control

MIAMI DADE COUNTY

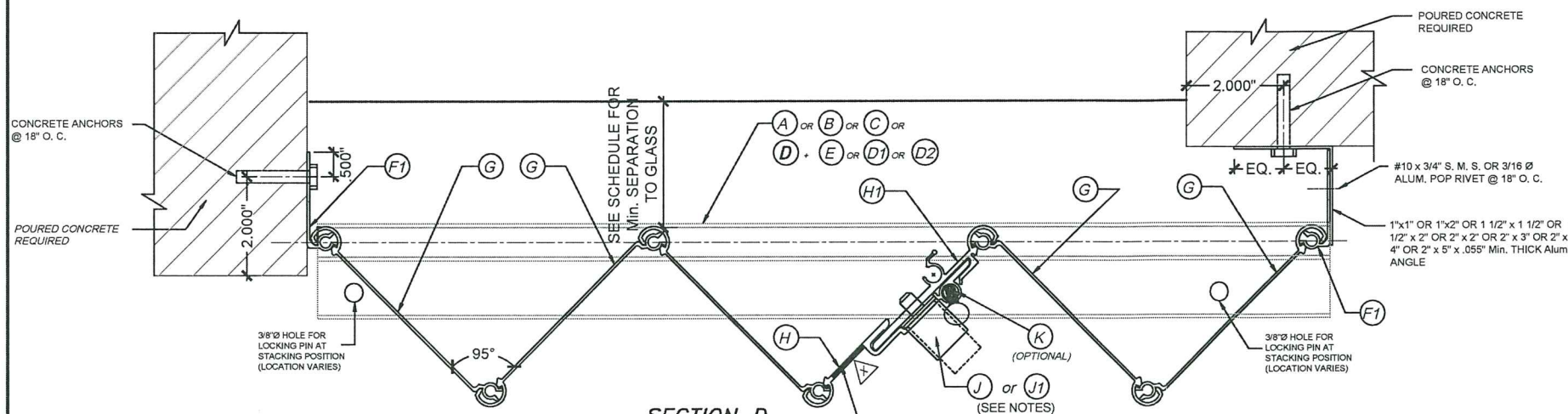


REVISIONS		NO. DATE		DESCRIPTION	
1	08/25/15	AS PER BCCO COMMENTS			
2	03/25/17	UPDATE TO 2010 FBC			
3	03/25/15	UPDATE TO 2014 FBC			
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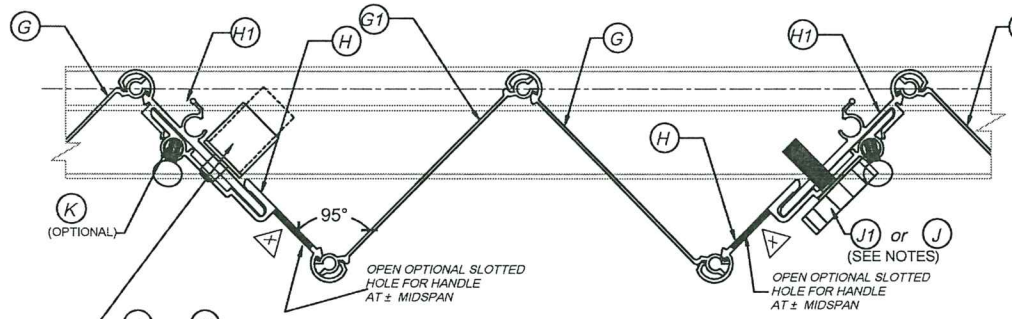
**MCY ENGINEERING, INC.**  
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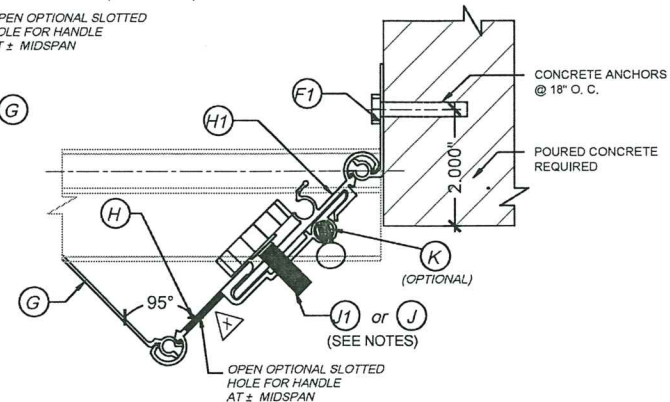
DATE	11-24-20
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DRAWN	J.S
PROJECT	MCY 15-141
DRAWING NO.	AD15-73
	7 OF 11



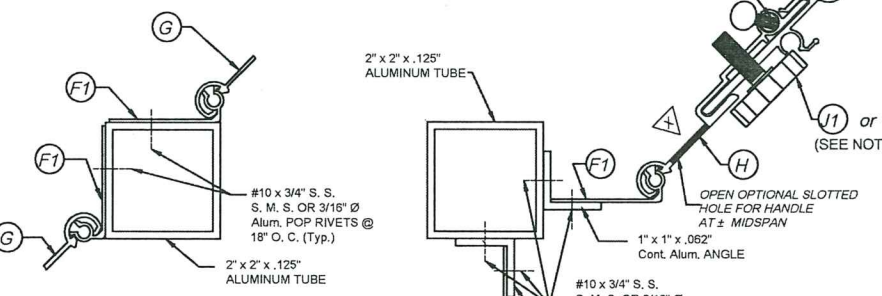
**SECTION D**  
SCALE: 3/8" = 1"



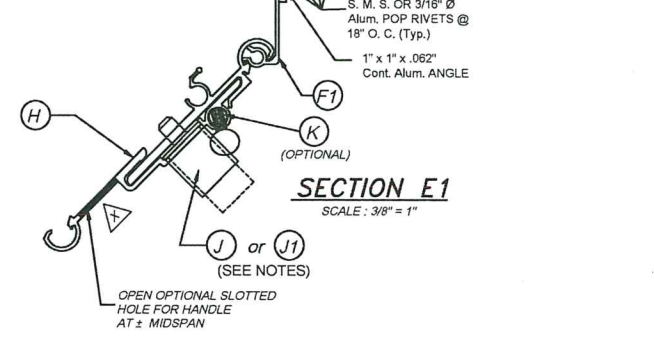
**SECTION D1 (& MULTIPLE SHUTTERS)**  
SCALE: 3/8" = 1"



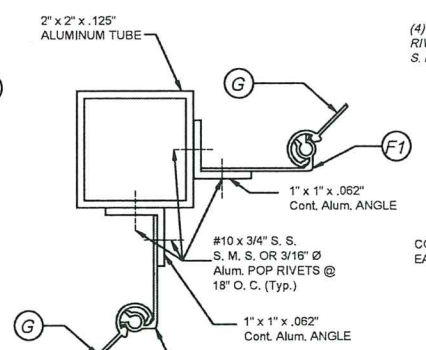
**ONE SIDED SECTION: END CONNECTION DETAIL**  
SCALE: 3/8" = 1"



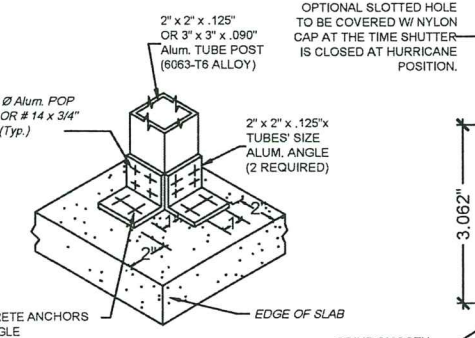
**SECTION E**  
SCALE: 3/8" = 1"



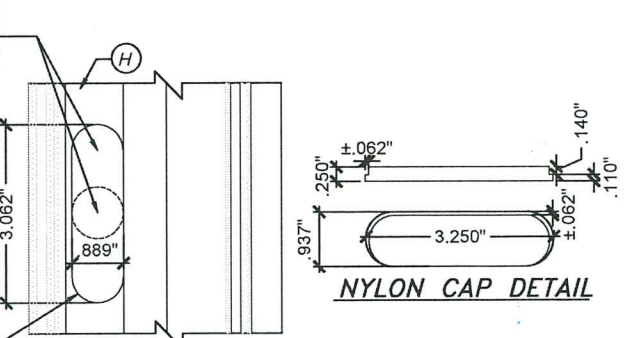
**SECTION E1**  
SCALE: 3/8" = 1"



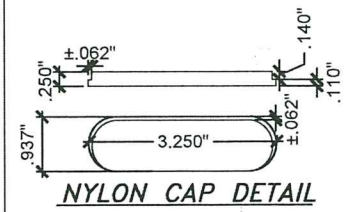
**SECTION E2**  
SCALE: 3/8" = 1"



**ISOMETRIC (CORNER POST)**  
(Typ. AT TOP & BOTTOM SLABS)



**ELEVATION X**



**NYLON CAP DETAIL**

**NOTES FOR LOCKING OF (H) & (H1)**

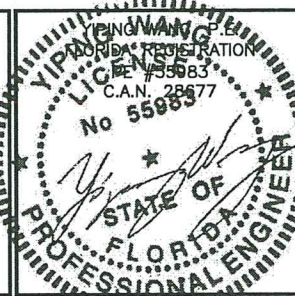
1-PUSH BOTTOM LOCK (J) MAY BE USED FOR INSTALLATIONS SECURED FROM THE OUTSIDE OR INSIDE OF SHUTTER. WHEN INSTALLING (J) FROM THE OUTSIDE, A 7/8"Ø HOLE SHALL BE DRILLED AT (H) AND (J) MUST BE RIVETED FROM THE BACK OF (H) TO THE FRONT W/ (2)3/16"Ø ALUM. POP RIVETS. A 3/8"Ø HOLE MUST THEN BE DRILLED AT (H1) TO ALLOW FOR (J)'S PIN TO PASS THRU. WHEN INSTALLING (J) FROM THE INSIDE, (J) MUST BE RIVETED TO (H1) W/ (2)3/16"Ø ALUM. POP RIVETS. A 3/8"Ø HOLE MUST THEN BE DRILLED THRU (H) AND (H1) TO ALLOW FOR (J)'S PIN TO PASS THRU.

2-5/16"x1" LOCK (J1) MAY BE USED ALTERNATIVELY TO (J) LOCK FOR INSTALLATIONS SECURED FROM THE OUTSIDE OR INSIDE OF SHUTTER. IN THIS CASE, A 5/16"Ø HOLE SHALL BE DRILLED THRU (H) AND (H1). HOLE DRILLED TO (H1) SHALL BE TAPPED TO ACCEPT 18 THREADS PER INCH MACHINE SCREW.

**NOTE:**  
END CONDITIONS SHOWN CAN BE INTERCHANGEABLE.

PRODUCT REVISED  
as complying with the Florida  
Building Code 20-1215.04  
Acceptance No NOV 03 2026  
Expiration Date  
By Hege A. Malm  
Miami Code Product Control

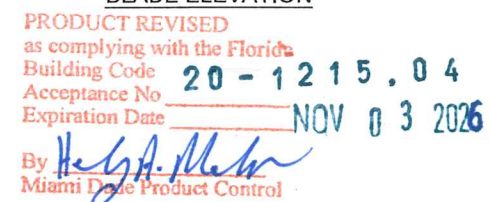
MIAMI DADE COUNTY



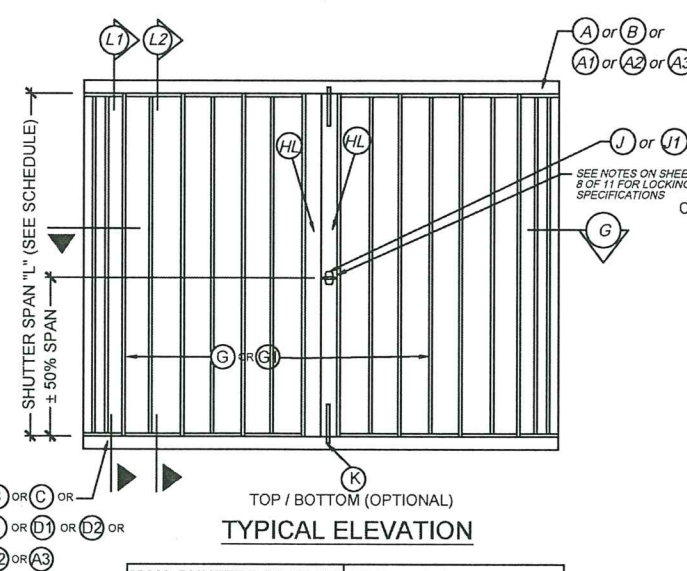
REVISIONS		<div> <div>MCY</div> <div>ENGINEERING, INC.</div> <div>GLAZING CONSULTANTS</div> <div>12781 Miramar Parkway #301 P. (305) 271-0117</div> <div>Miramar, FL 33027</div> <div>www.MCYEngineering.com</div> <div>mcyc@mcycengineering.com</div> </div>
NO.	DATE	
1	08/05/10	
2	03/25/12	
3	03/20/15	
4	11/24/20	
		<div> <div>DATE</div> <div>11-24-20</div> </div> <div> <div>SCALE</div> <div></div> </div> <div> <div>DRAWN</div> <div>J.S</div> </div> <div> <div>PROJECT</div> <div>MCY 15-141</div> </div> <div> <div>DRAWING NO.</div> <div>AD15-73</div> </div> <div> <div>8 OF 11</div> </div>



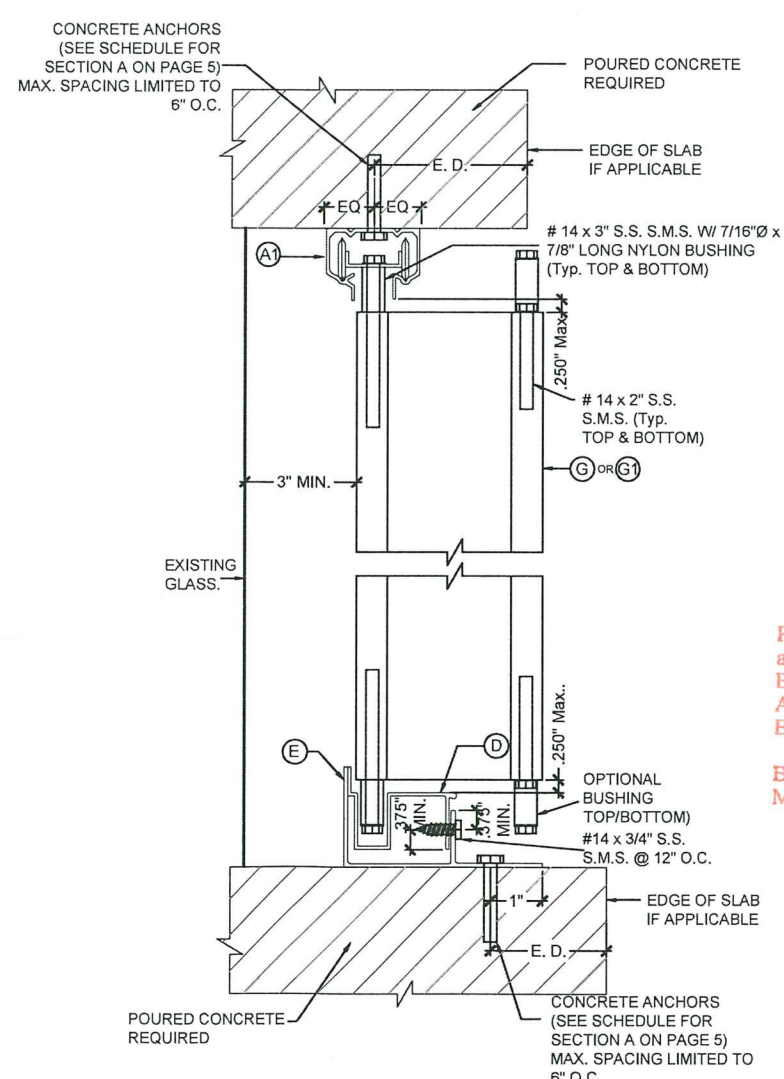
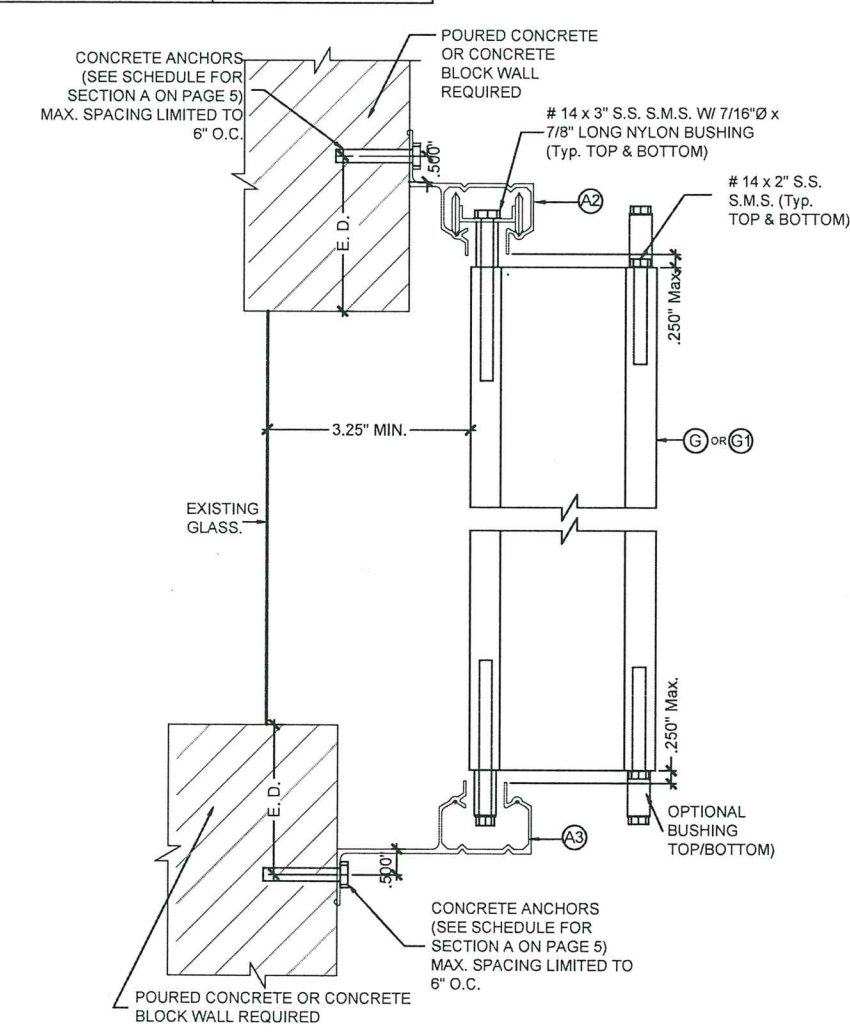
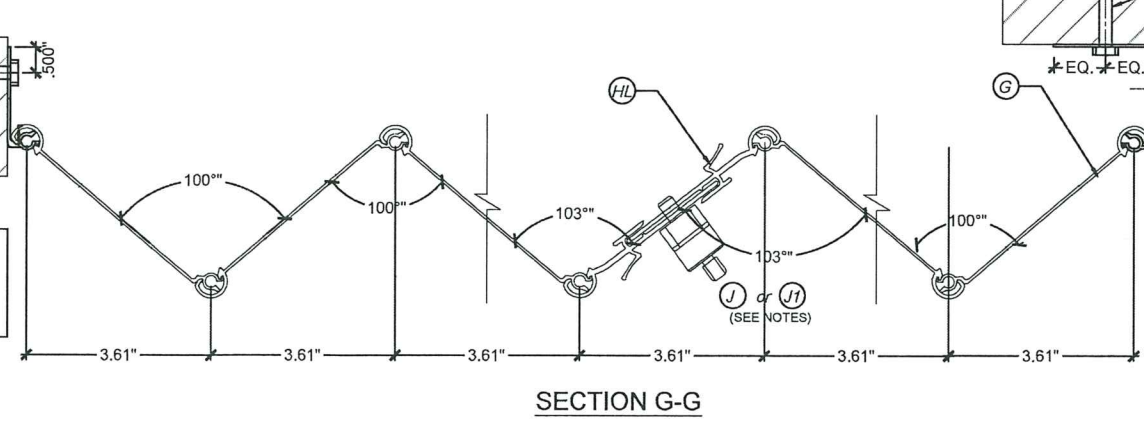
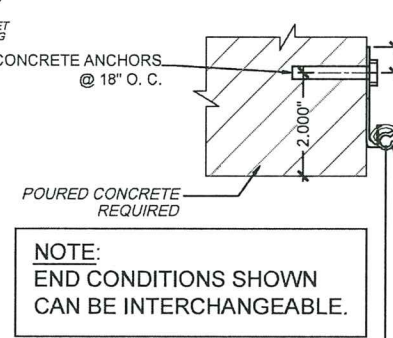
SECTION S-S THRU G MALE/FEMALE BLADE



MIAMI DADE COUNTY



# **LIGHT DUTY SHUTTER WALL MOUNT, CEILING AND FLOOR INSTALLATIONS** **W/ A1, A2, A3 TRACKS, CENTERMATE HL & BLADES G, G1**



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 20-1215.04  
Expiration Date NOV 03 2026  
By *H. A. M.*  
Miami Data Product Control

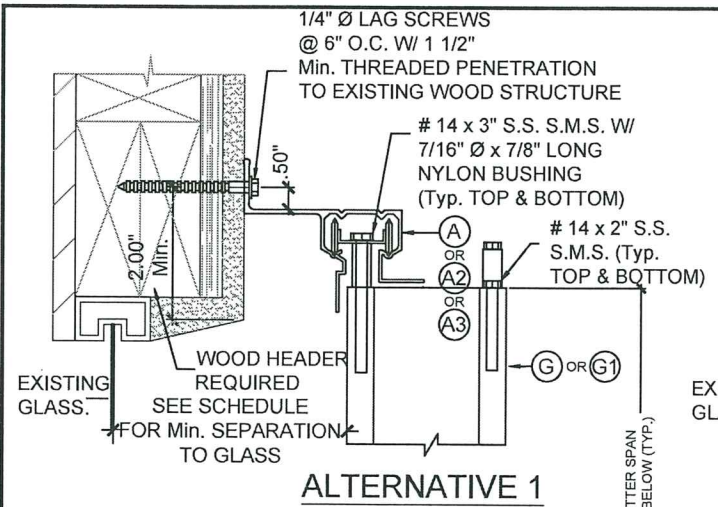


REVISIONS	
NO.	DATE
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2	03/25/12 UPDATE TO 2010 FBC
3	09/20/15 UPDATE TO 2014 FBC
4	11/24/20 UPDATE TO 2020 FBC

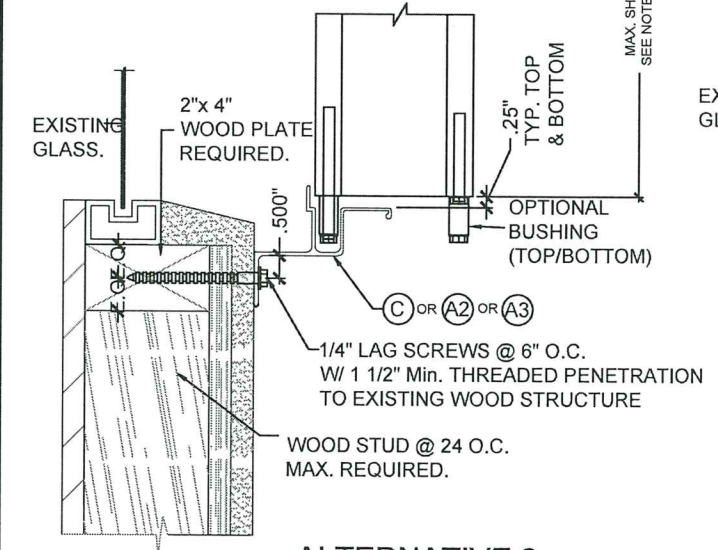
**MCY ENGINEERING, INC.**  
GLAZING CONSULTANTS  
12781 Miramar Parkway #301 P. (305) 271-0117  
Miramar, FL 33027  
www.MCYEngineering.com mcy@mcyengineering.com

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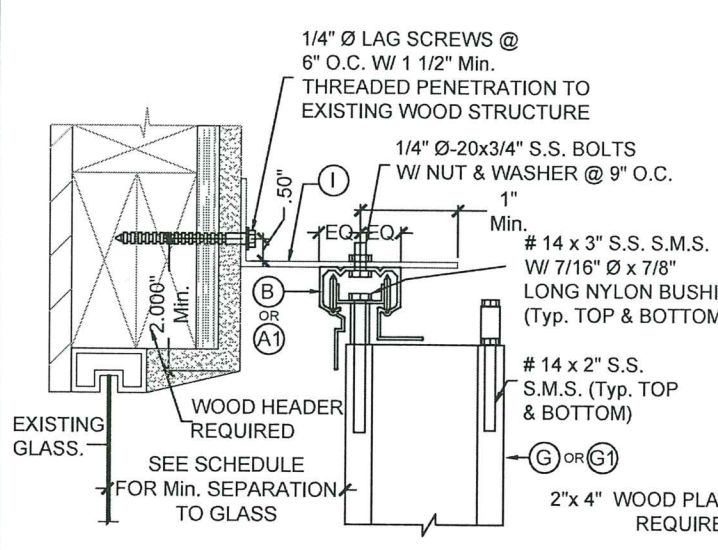
DATE	11-24-20
SCALE	
DRAWN	J.S
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	10 OF 11



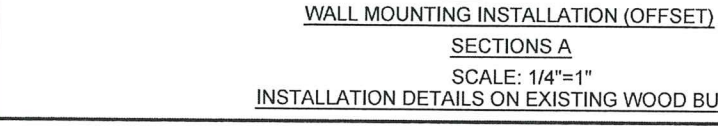
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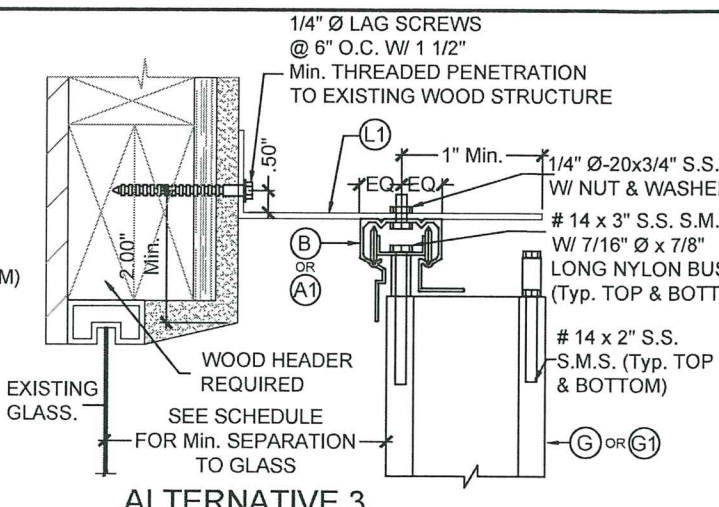
ALTERNATIVE 2



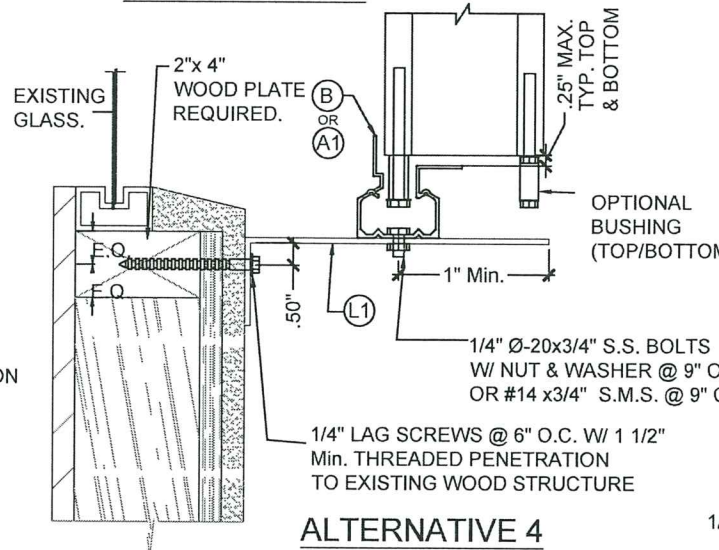
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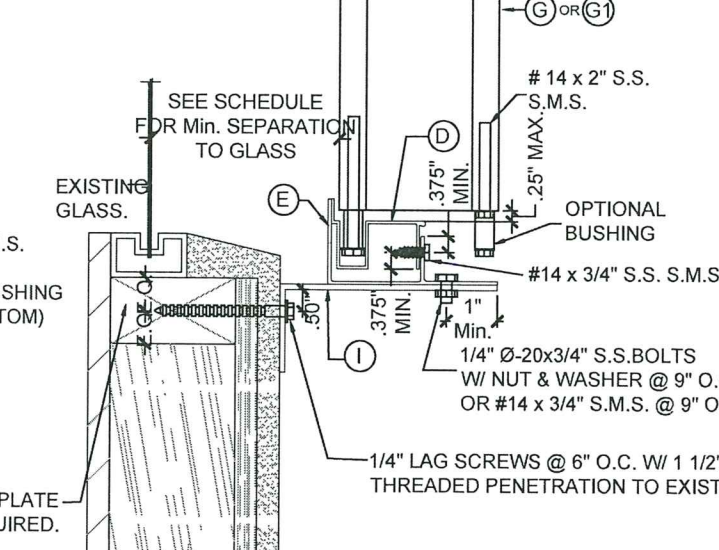
ALTERNATIVE 4



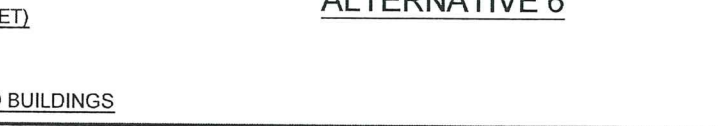
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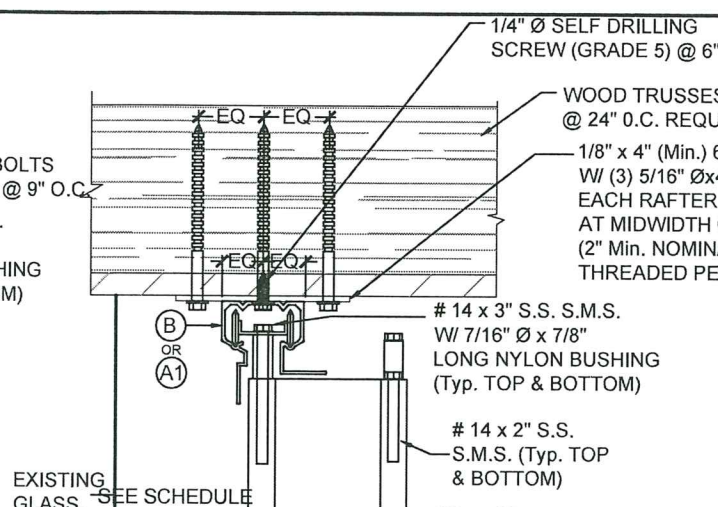
ALTERNATIVE 6



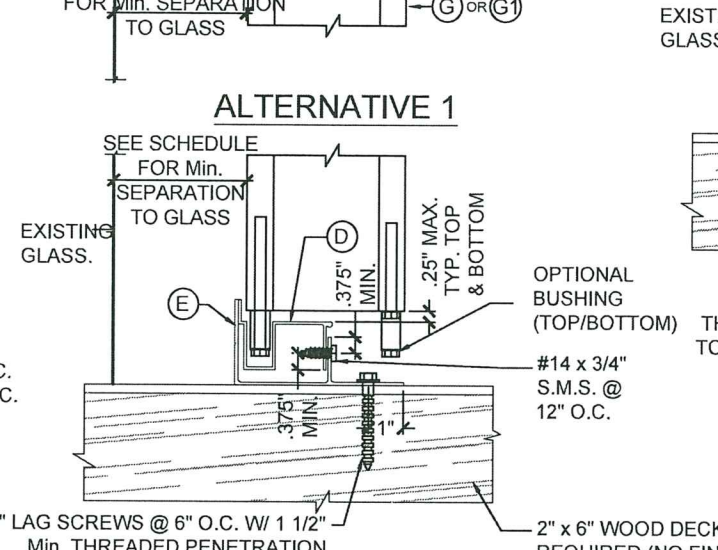
ALTERNATIVE 7



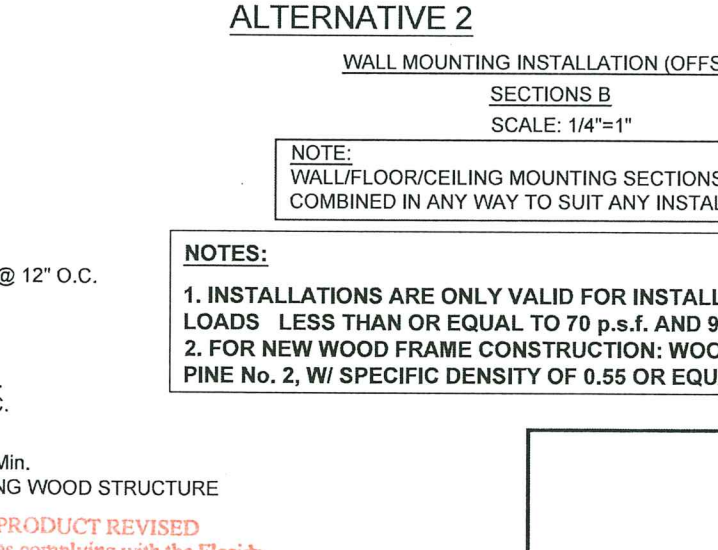
ALTERNATIVE 8



ALTERNATIVE 9



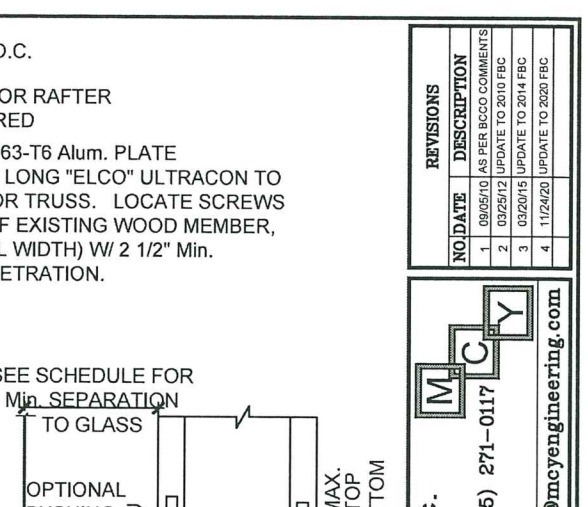
ALTERNATIVE 10



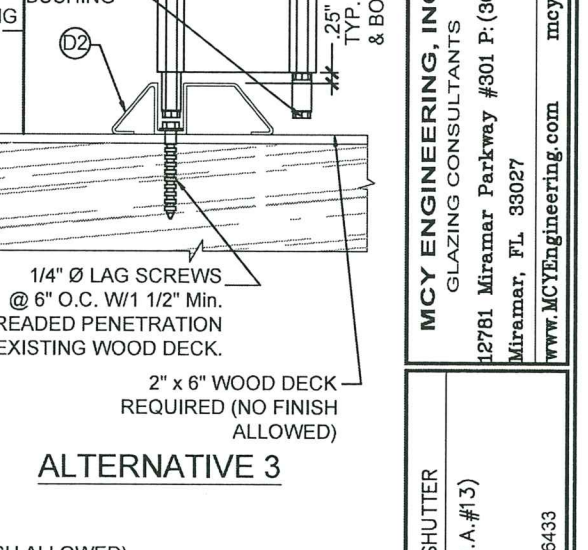
ALTERNATIVE 11



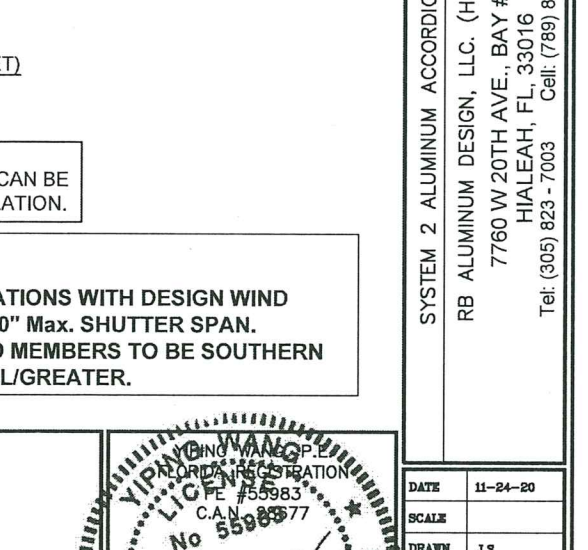
ALTERNATIVE 12



ALTERNATIVE 13



ALTERNATIVE 14



ALTERNATIVE 15

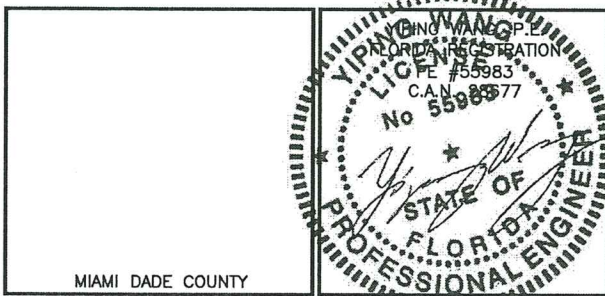


ALTERNATIVE 16

NOTE:  
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

- NOTES:**
1. INSTALLATIONS ARE ONLY VALID FOR INSTALLATIONS WITH DESIGN WIND LOADS LESS THAN OR EQUAL TO 70 p.s.f. AND 9'-0" Max. SHUTTER SPAN.
  2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL/GREATER.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 20-1215.04  
Expiration Date NOV 03 2026  
By *Hedy A. M...*  
Miami Dept Product Control



REVISIONS	
NO.	DATE
1	09/05/10 AS PER BCCO COMMENTS
2	03/25/12 UPDATE TO 2010 FBC
3	03/20/15 UPDATE TO 2014 FBC
4	11/24/20 UPDATE TO 2020 FBC

<b>MCY ENGINEERING, INC.</b> GLAZING CONSULTANTS 12781 Miramar Parkway #301 P: (305) 271-0117 Miramar, FL 33027 www.MCYEngineering.com mcy@mcyengineering.com	
SYSTEM 2 ALUMINUM ACCORDION SHUTTER RB ALUMINUM DESIGN, LLC. (H.P.M.A.#13) 7760 W 20TH AVE., BAY #23 HIALEAH, FL 33016 Tel: (305) 823-7003 Cell: (786) 853-6433	
DATE	11-24-20
SCALE	
DRAWN	J.S
PROJECT	MCY 15-141
DRAWING NO.	AD15-73
11 OF 11	