



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.buildingcodeonline.com

NOTICE OF ACCEPTANCE (NOA)

Roll-a-way by QMI
1661 Glenlake Avenue
Itasca, IL 60143

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: "HT-100" Aluminum Accordion Shutter

APPROVAL DOCUMENT: Drawing No. **08-226**, titled "HT-100 Aluminum Accordion Shutter", sheets 1 through 12 of 12, prepared by EngCo, Inc., dated July 09, 2008, signed and sealed by Pedro De Figueiredo, P.E., on November 19, 2008 bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the 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 NOA #08-0520.05** and consists of this page 1 and evidence submitted pages E-1, E-2, E-3, E-4 & E-5 and approval document mentioned above.

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



Helmy A. Makar
 03/04/2009

NOA No. 08-1208.04
Expiration Date: 04/10/2013
Approval Date: 03/04/2009
Page 1

Roll-a-way by QMI

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #98-0402.09

A. DRAWINGS

1. *Drawing prepared by Knezevich & Associates, Inc., titled "HT100 Accordion Shutter," Drawing No. 98-827, dated July 23, 1996, revision #5 dated April 30, 1998, sheets 1 through 6 of 6, signed and sealed by V. J. Knezevich, P.E.*

B. TESTS

1. *See Association's generic approval under 98-0031.*

C. CALCULATIONS

1. *See Association's generic approval under 98-0031.*

D. MATERIAL CERTIFICATIONS

1. *See Association's generic approval under 98-0031.*

E. STATEMENTS

1. *Release letter issued by the Hi-Tech Shutter Group, Inc., dated June 3, 1998, certifying this product to meet the criteria of product tested and approved, and allowing Valco Enterprises, Ltd., d/b/a Roll-A-Way Storm & Security Shutters, to use the test results approved under Dade County Approval No. 98-0031, signed by Mr. Frank Cornelius.*
2. *Acknowledgment letter by Valco Enterprises, Ltd., d/b/a Roll-A-Way Storm and Security Shutters, dated May 4, 1998, signed by Mr. James R. Quasius.*
3. *Letter by Knezevich & Associates, Inc., dated June 3, 1998, certifying that the drawing (No. 98-827) prepared for Valco Enterprises, Ltd., d/b/a Roll-A-Way Storm & Security Shutters, signed and sealed by Mr. V. J. Knezevich, P.E., is engineering wise identical to Hi-Tech's generic drawing (No. 96-168).*
4. *Letter issued to Mr. Kevin O'Keife on June 10, 1998 and returned signed by Mr. Kevin O'Keife on June 15, 1998, indicating to please issue the proposed Notice of Acceptance as submitted and reviewed.*

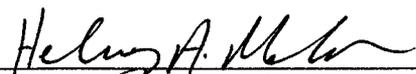
F. OTHER

1. *This approval revises the Notice of Acceptance, No. 97-0225.02, which was issued on April 10, 1997.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #00-0307.01

A. DRAWINGS

1. *Drawing No. 00-827 prepared by Knezevich & Associates, Inc., titled "HT100 Accordion Shutter", dated July 23, 1996, revision #6 dated June 10, 1999, sheets 1 through 6 of 6, signed and sealed by V. J. Knezevich, P.E.*



Helmy A. Makar, P.E., M.S.
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS

1. *See Association's generic approval under 99-0036.*

C. CALCULATIONS

1. *See Association's generic approval under 99-0036.*

D. MATERIAL CERTIFICATIONS

1. *See Association's generic approval under 99-0036.*

E. STATEMENTS

1. Acknowledgment letter by Valco Enterprises, Ltd., dated February 29, 2000, signed by Mr. Don Fowler.
2. *Letter by Knezevich & Associates, Inc., dated April 12, 2000, certifying that the drawing (No. 00-827) prepared for Valco Enterprises, Ltd., signed and sealed by Mr. V. J. Knezevich, P.E., is engineering wise identical to Hi-Tech's generic drawing (No. 96-168).*
3. *Acceptance Letter issued to Mr. Don Fowler on April 10, 2000, and returned signed by Mr. Don Fowler on April 12, 2000, indicating to please issue the proposed Notice of Acceptance as submitted and reviewed.*

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #02-0426.01

A. DRAWINGS

See NOA 00-0307.01

B. TESTS

See NOA 00-0307.01

C. CALCULATIONS

See NOA 00-0307.01

D. MATERIAL CERTIFICATIONS

See NOA 00-0307.01

E. STATEMENTS

See NOA 00-0307.01

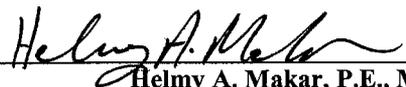
F. OTHER

See NOA 00-0307.01

4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #03-0219.09

A. DRAWINGS

1. *Drawing No.03-804, titled " HT 100 Accordion Shutter ", sheets 1 through 7 of 7, prepared by Knezevich & Associates, Inc., dated October 17, 2002, last revision*



Helmy A. Makar, P.E., M.S.
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Expiration Date: 04/10/2013
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#1 dated December 04, 2002, signed & sealed by V.J. Knezevich, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. MATERIAL CERTIFICATIONS

1. None.

5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 05-1104.01

A. DRAWINGS

1. Drawing No. 05-543, titled " HT-100 Aluminum Accordion Shutter", sheets 1 through 7 of 7, prepared by Thornton-Tomasetti Group, dated September 14, 2005, last revision #0 dated September 14, 2005, signed and sealed by J. W. Knezevich, P.E.

B. TESTS

1. See Association's generic approval under 05-0321.

C. CALCULATIONS

1. See Association's generic approval under 05-0321.

D. QUALITY ASSURANCE

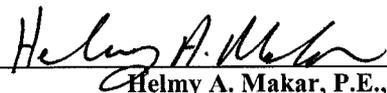
1. By Miami-Dade County Building Code Compliance Office.

E. MATERIAL CERTIFICATIONS

1. See Association's generic approval under 05-0321.

F. STATEMENTS

- 1. Release letter issued by the Hi-Tech Shutter Group, Inc., dated October 05, 2005, certifying this product to meet the criteria of product tested and approved, and allowing Valco Enterprises, Ltd. to use the test results approved under Miami-Dade County Approval No.05-0321, signed by Mr. Frank Cornelius.*
- 2. Acknowledgment letter by Valco Enterprises, Ltd., dated October 25, 2005, signed by Mr. Don Fowler.*
- 3. Letter by Thornton-Tomasetti Group, dated October 21, 2005, certifying that the drawing (No. 05-543) prepared for Valco Enterprises, Ltd., signed and sealed by Mr. J. W. Knezevich, P.E., is engineering wise identical to Hi-Tech's generic drawing (No.05-509).*



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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

6. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL NOA#08-0520.05

A. DRAWINGS

1. *Drawing No. 08-157, titled "HT-100 Aluminum Accordion Shutter", sheets 1 through 7 of 7, prepared by Knezevich Associates Consulting Engineers, dated 09/14/2005, last revision #0 dated 09/14/2005, signed and sealed by V. J. Knezevich, P.E.*

B. TESTS

1. *See Association's generic approval under 05-0321.*

C. CALCULATIONS

1. *See Association's generic approval under 05-0321.*

D. QUALITY ASSURANCE

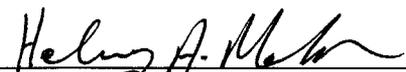
1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *See Association's generic approval under 05-0321.*

F. STATEMENTS

1. *Release letter issued by the Hi-Tech Shutter Group, Inc., dated May 13, 2008, certifying this product to meet the criteria of product tested and approved, and allowing Valco Enterprises, Ltd. to use the test results approved under Miami-Dade County Approval No.05-0321, signed by Mr. Frank Cornelius.*
2. *Acknowledgment letter by Valco Enterprises, Ltd., dated April 30, 2008, signed by Mr. Kevin O'Keife.*
3. *Letter by Knezevich Associates Consulting Engineers, dated May 01, 2008, certifying that the drawing (No. 08-157) prepared for Valco Enterprises, Ltd., signed and sealed by Mr. V. John Knezevich, P.E., is engineering wise identical to Hi-Tech's generic drawing (No.05-509).*



Helmy A. Makar, P.E., M.S.
Product Control Examiner
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Roll-a-way by QMI

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

7. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 08-226, titled "HT-100 Aluminum Accordion Shutter", sheets 1 through 12 of 12, prepared by EngCo, Inc., dated July 09, 2008, signed and sealed by Pedro De Figueiredo, P.E., on November 19, 2008.*

B. TESTS

1. *See Association's generic approval under 08-1006.*

C. CALCULATIONS

1. *See Association's generic approval under 08-1006.*

D. QUALITY ASSURANCE

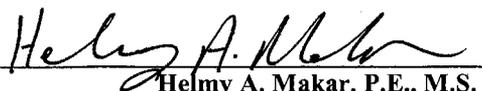
1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *See Association's generic approval under 08-1006.*

F. STATEMENTS

1. *Release letter issued by the Hi-Tech Shutter Group, Inc., dated December 04, 2008, certifying this product to meet the criteria of product tested and approved, and allowing QMI to use the test results approved under Miami-Dade County Approval No. 08-1006, signed by Ms. Maggie Garmendia.*
2. *Acknowledgment letter by Roll-a-way by QMI., dated October 24, 2008, signed by Mr. Donald L. Fowler, P.E.*
3. *Letter by EngCo, Inc., dated November 17, 2008, certifying that the drawing (No. 08-226) prepared for Roll-a-way by QMI, signed and sealed by Mr. Pedro De Figueiredo, P.E., on February 06, 2009, is engineering wise identical to Hi-Tech's generic drawing (No. 08-1006).*



Helmy A. Makar, P.E., M.S.
Product Control Examiner
NOA No. 08-1208.04
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INDICES:

- SHEET 1 -INDICES, GENERAL NOTES, TYPICAL ELEVATION, ALLOWABLE BLADE PRESSURE TABLE 1 AND GLASS SEPARATION TABLE 2
- SHEET 2 -SHUTTER COMPONENTS
- SHEET 3 -SHUTTER COMPONENTS, BLADE ASSEMBLY, ANCHOR SCHEDULE
- SHEET 4 -HORIZONTAL LOCK SECTIONS LOCK
- SHEET 5 -VERTICAL SECTIONS A, A1, D, D1
- SHEET 6 -VERTICAL SECTIONS B, B1, B2, B3
- SHEET 7 -VERTICAL SECTIONS C, C1, E, E1
- SHEET 8 -VERTICAL SECTIONS F, H, G
- SHEET 9 -VERTICAL SECTIONS L, L1
- SHEET 10-VERTICAL SECTIONS I, R
- SHEET 11-HORIZONTAL SECTIONS J, J1, K, K1
- SHEET 12- SPAN TUBE OPTION

GENERAL NOTES:

1- DEFINITION: THIS PRODUCT IS AN ACCORDION TYPE SHUTTER; DESIGNED, CONSTRUCTED AND ERECTED TO EASILY ENCLOSE AN OPENING, PROVIDING PROTECTION FROM HURRICANE FORCE WINDS AND WIND BORNE DEBRIS (LARGE & SMALL MISSILES) WITHIN THE ALLOWABLE DESIGNED PRESSURES AND LIMITATIONS STATED IN THIS APPROVAL.

2- CODE: THIS PRODUCT HAS BEEN TESTED AND DESIGNED IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE UNDER TAS 201, 202 AND 203.

3- POSTING: AT LEAST ONE PERMANENT LEGIBLE DECAL SHALL BE PLACED AT A READILY VISIBLE LOCATION STATING THE FOLLOWING:

*ROLL-A-WAY BY QMI
ITASCA - ILLINOIS
MIAMI-DADE COUNTY PRODUCT APPROVED*

4- LOADS: THE DESIGNED LOAD (BASED ON ASCE 7) MUST BE CALCULATED BY A PROFESSIONAL ARCHITECT OR ENGINEER FOR EACH SPECIFIC PROJECT. THE CALCULATED DESIGNED PRESSURE MUST NOT EXCEED THE ALLOWABLE PRESSURES FOR EACH SHUTTER COMPONENT TO BE USED.

5- MATERIAL: ALL EXTRUDED ALUMINUM SHAPES SHALL BE MADE OF 6063-T6 OR AS NOTED.

6- FASTENERS: ASSEMBLY SCREWS AND ANCHORS SHALL BE AS SPECIFIED IN THE CURRENT SET OF DRAWINGS. INSTALLATION AND LOADS AS PER THIS APPROVAL.

7- USE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, ARCHITECT OR ENGINEER OF RECORD TO VERIFY THE FOLLOWING:

- 7.1- THE STABILITY OF THE STRUCTURE WHERE THE SHUTTER IS TO BE ATTACHED INSURING PROPER ANCHORAGE.
- 7.2- THE SITE SPECIFIC PROJECT CRITERIA SUCH AS BUT NOT LIMITED TO WINDLOADS, LOCAL CODE REQUIREMENTS, DESIGNED PRESSURES ETC.
- 7.3- THAT THIS APPROVAL IS ADEQUATE TO THE SPECIFIC PROJECT.

8- WIND LOAD CALCULATION MUST BE IN COMPLIANCE WITH THE CURRENT ASCE 7 STANDARD. A DIRECTIONALITY FACTOR $K_d = .85$ SHALL BE USED.

TABLE 1
MAXIMUM ALLOWABLE SHUTTER SPAN SCHEDULE

PD	CASES			
	1	2	3	4
30.0	157	148	157	151
38.0	157	132	157	134
40.0	155	128	149	131
48.0	148	117	124	120
52.0	145	112	115	115
56.0	143	108	108	111
61.5	139	103	103	106
63.3	138	102	102	104
66.8	131	99	99	101
67.5	129	99	99	101
71.2	123	96	96	98
75.0	116	92	92	96
81.4	107	84	84	88
86.8	101	79	79	82
91.4	96	75	75	78
100.0	87	69	69	72
110.0	79	62	62	65
120.0	73	57	57	60
130.0	67	53	53	55
140.0	62	49	49	51
150.0	58	46	46	48
160.0	54	43	43	45
170.0	51	40	40	42

TABLE 1 NOTES:

1- CASE 1- ACCORDION SHUTTER SPAN (INCHES) SCHEDULE FOR ALL CONDITIONS EXCEPT C, E AND F MOUNTS

2- CASE 2- ACCORDION SHUTTER SPAN (INCHES) SCHEDULE FOR MOUNTING CONDITIONS TYPE F OR TYPE C WITH SINGLE ANGLE (MAX. 3-3/4' BUILT-OUT)

3- CASE 3- ACCORDION SHUTTER SPAN (INCHES) SCHEDULE FOR MOUNTING CONDITIONS TYPE C WITH DOUBLE 1/8' ANGLES OR SINGLE 1/4' ANGLE (MAX. 3-3/4' BUILT-OUT).

4- CASE 4- ACCORDION SHUTTER SPAN (INCHES) SCHEDULE FOR MOUNTING CONDITIONS TYPE E. (MAX. 9-3/16' BUILT-OUT)

5- PD- DESIGN WIND LOAD (PSF)

6- FOR DESIGN WIND LOADS BETWEEN TABULATED VALUES USE NEXT HIGHER LOAD OR LINEAR INTERPOLATION MAY BE USED TO DETERMINE ALLOWABLE SPANS.

TYPICAL ELEVATION

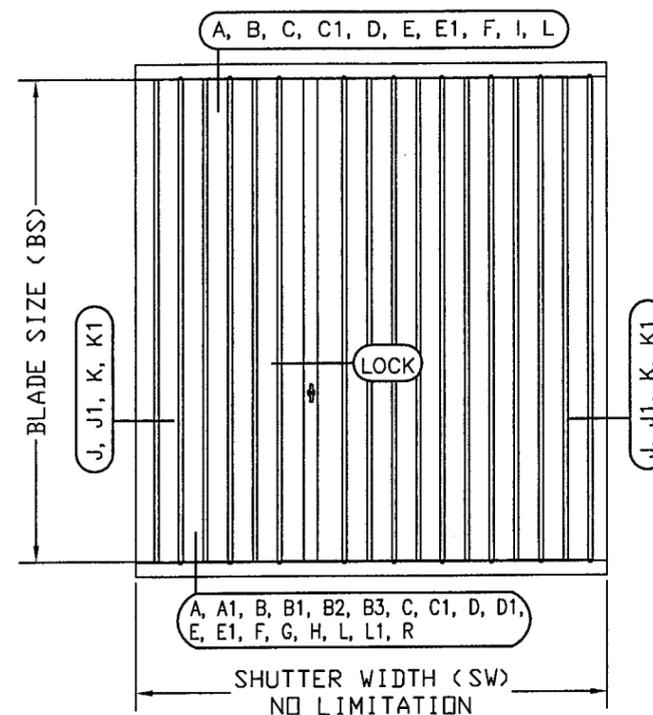


TABLE 2

MINIMUM SHUTTER SEPARATION FROM GLASS SCHEDULE

POSITIVE DESIGNED LOAD (PSF)	ACTUAL SPAN (INCHES)	INSTALLATION LESS THAN OR EQUAL TO 30' ABOVE GRADE	INSTALLATION GREATER THAN 30' ABOVE GRADE
30	84	2-7/8"	1-5/8"
	96	2-7/8"	1-5/8"
	132	3"	2-1/8"
	157	3-3/4"	2-3/4"
40	84	2-7/8"	1-5/8"
	96	2-7/8"	1-5/8"
	132	3"	2-1/4"
	155	3-3/4"	3"
50	84	2-7/8"	1-5/8"
	96	2-7/8"	1-3/4"
	132	3"	2-1/2"
	146	3-3/4"	3"
60	84	2-7/8"	1-5/8"
	96	2-7/8"	1-3/4"
	132	3"	2-3/4"
	140	3-3/4"	3"
70	84	2-7/8"	1-5/8"
	96	2-7/8"	1-7/8"
	115	3"	2-1/4"
	124	3"	2-5/8"
80	84	2-7/8"	1-3/4"
	96	2-7/8"	1-7/8"
	132	3-1/8"	3-1/8"
	84	2-7/8"	1-3/4"
90	96	2-7/8"	2"
	84	2-7/8"	1-3/4"
	96	2-7/8"	2"
100	84	2-7/8"	1-3/4"
	96	2-7/8"	2"

TABLE 2 NOTE:

1- ENTER ON TABLE 2 THE POSITIVE DESIGN WIND LOAD AND THE ACTUAL SPAN TO DETERMINE MINIMUM SHUTTER SEPARATION FROM GLASS.

MANUFACTURER:



1661 GLENLAKE AVE.
ITASCA - IL 60143
TEL.: (630) 529-7111
FAX.: (630) 980-6364

PRODUCT:

HT-100
ACCORDION SHUTTER

Engineering:

EngCo Inc.
CA 8116
6971 W. Sunrise Blvd. 104
Plantation, FL 33313
ENGCO@AOL.COM



NOV 19 2008

Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:

PK DRAFTING & MORE

MIAMI-DADE BCCO:

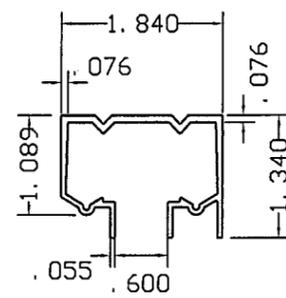
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 08-1208.04
Expiration Date 04/10/2015
By *Helmy A. Nelson*
Miami Dade Product Control
Division

Date: 07/09/08
Scale: NA
Design by: PPMF

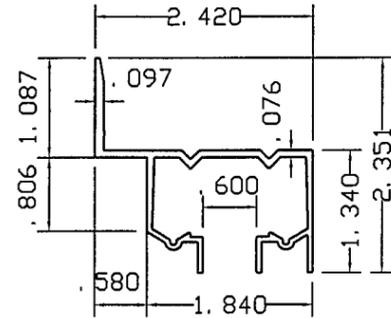
Drawing Number
08-226

Sheet
1 of 12

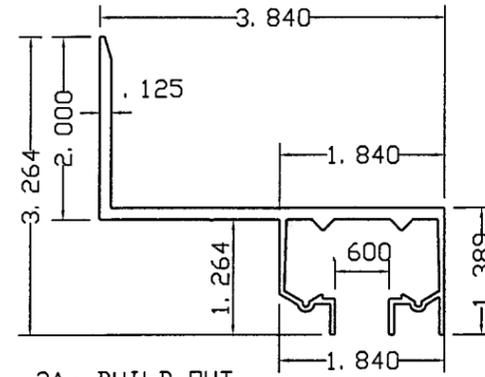
SHUTTER COMPONENTS



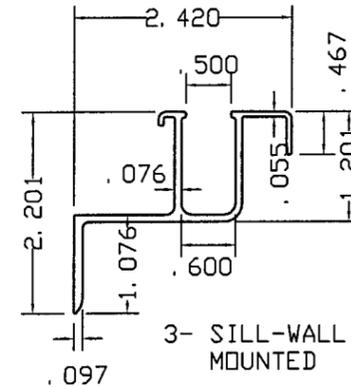
1- HEADER-CLG MOUNTED



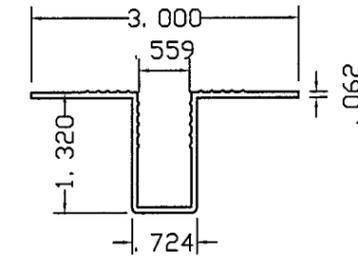
2- HEADER-WALL MOUNTED



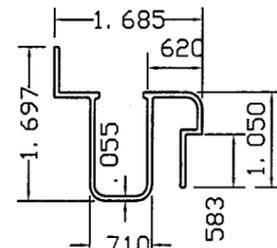
2A- BUILD-OUT WALL HEADER



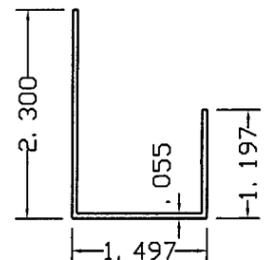
3- SILL-WALL MOUNTED



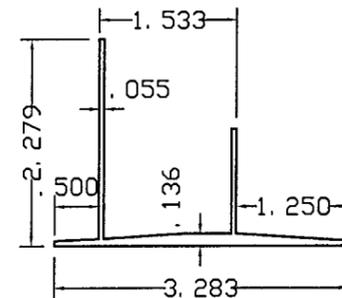
6- RECESS TRACK



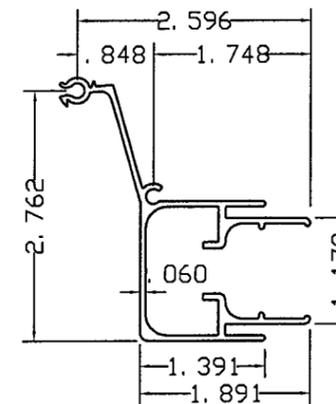
4- ADJ. SILL TOP



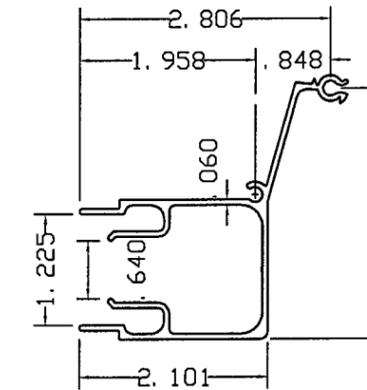
5- ADJ. SILL-BOT



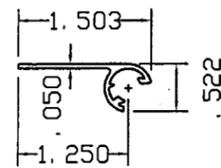
5A- ALTERNATIVE ADJ. SILL-BOT



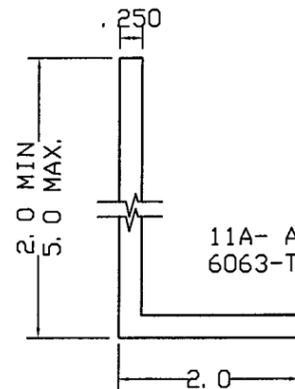
9- CENTER MATE 1



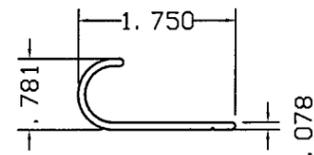
10- CENTER MATE 2



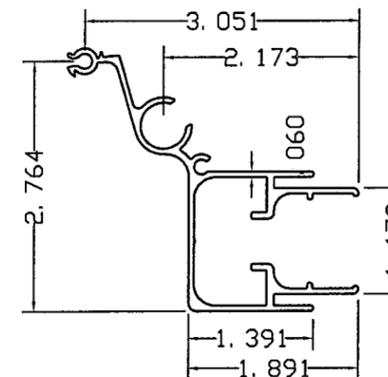
7- FLAT END SLAT



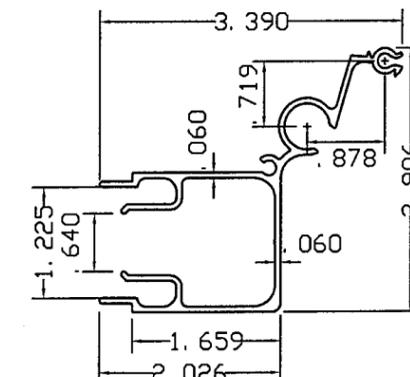
11A- ANGLES 6063-T6



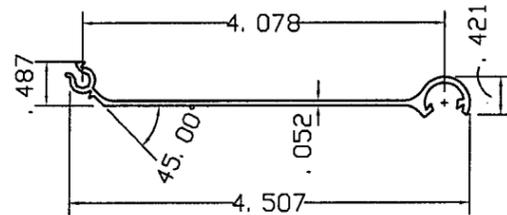
24- OPTIONAL HANDLE



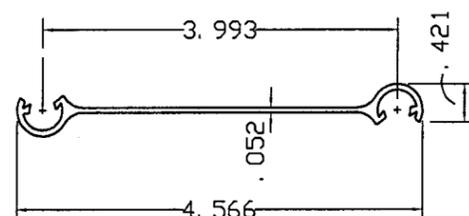
9A- CENTER MATE 1



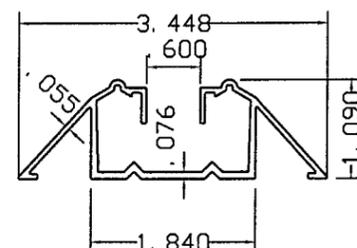
10A- CENTER MATE 2



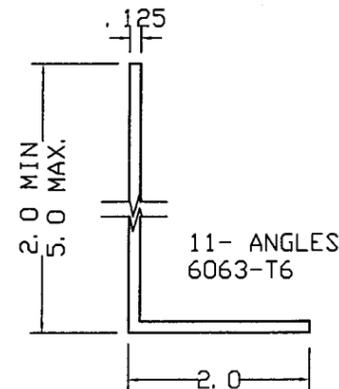
8- TYPICAL SLATS



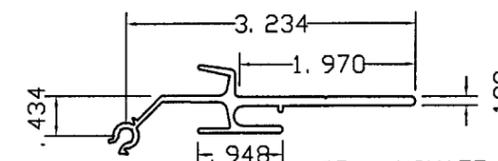
8A- ADAPTER SLAT



16- WALKOVER SILL TRACK



11- ANGLES 6063-T6



9B- UNIMATE

MANUFACTURER:

 B Y 
 1661 GLENLAKE AVE.
 ITASCA - IL 60143
 TEL.: (630) 529-7111
 FAX.: (630) 980-6364

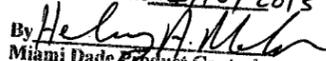
PRODUCT:
HT-100
 ACCORDION SHUTTER

Engineering:
EngCo Inc.
 CA 8116
 6971 W. Sunrise Blvd. 104
 Plantation, FL 33313
 ENGCO@AOL.COM


NOV 19 2008

Engineer Seal
 Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

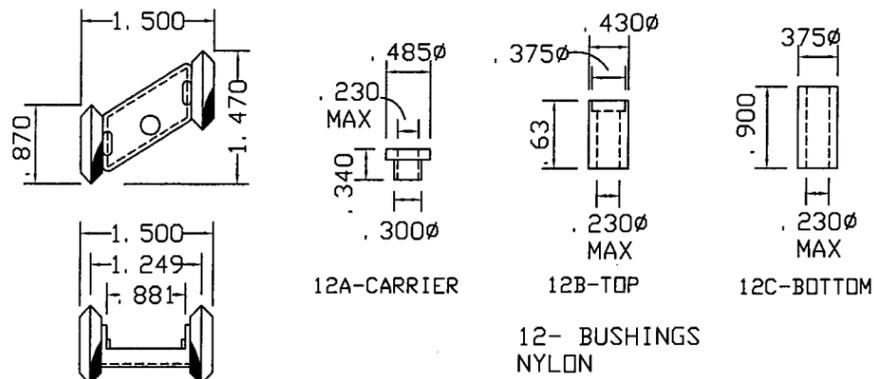
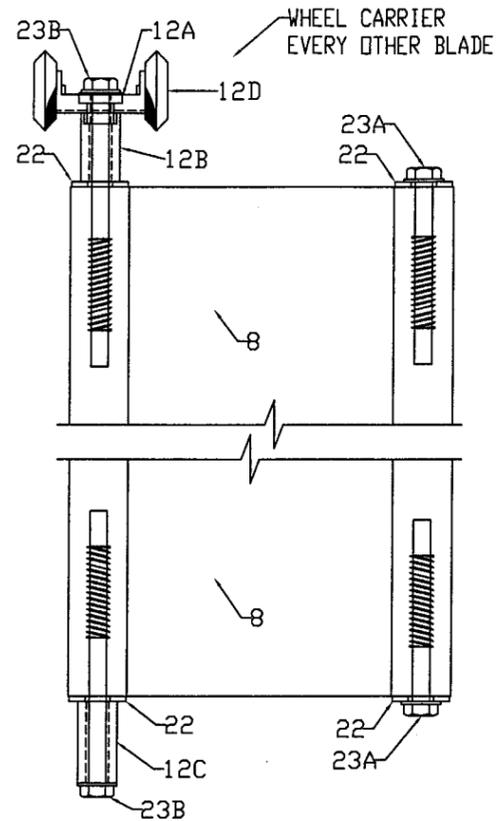
MIAMI-DADE BCCD:
PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 08-1208.04
 Expiration Date 04/10/2013
 By 
 Miami Dade Product Control
 Division

Date: 07/09/08
 Scale: NA
 Design by: PPMF

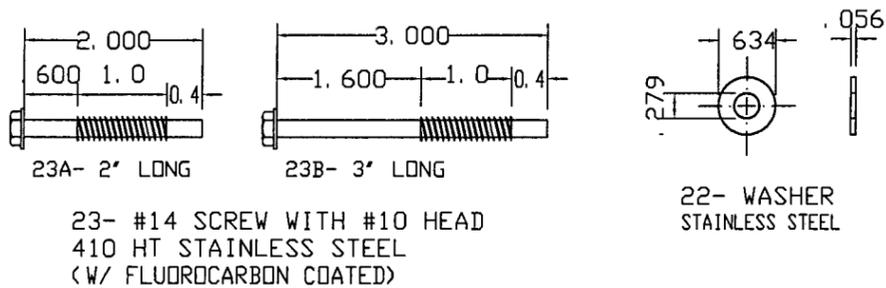
Drawing Number
08-226

Sheet
2 of 12

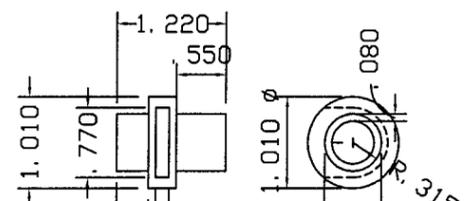
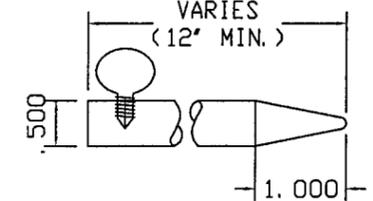
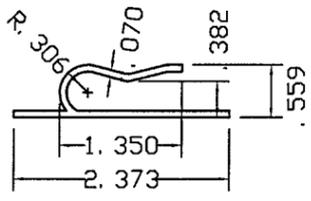
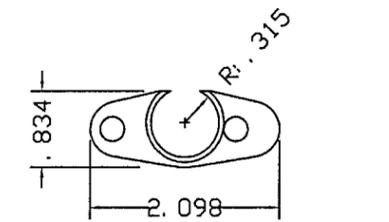
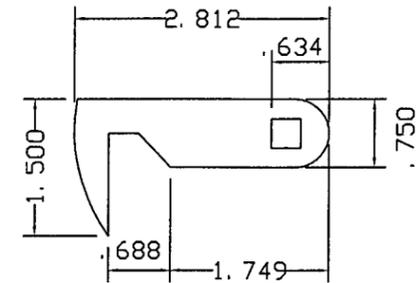
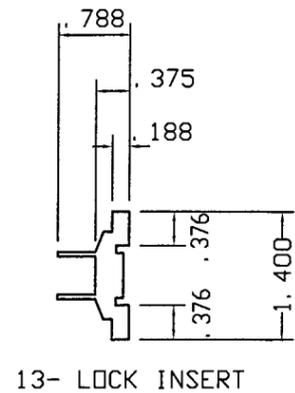
TYPICAL BLADE ASSEMBLY



12D- ROLLER ASSEMBLY



SHUTTER COMPONENTS



13- LOCK INSERT

14- LOCKING ARM
1/8" THICK STAINLESS STEEL

18- HANDLE SHIM
(NYLON)

15- STACK
LOCKING CLIP
6063-T6

14A- LOCKIN PIN
(OPTIONAL) 6063-T6
W/ #6 THUMB SCREW
USED WITH PIECES 9A & 10A

17- LOCKING ARM
ALIGNMENT BUSHING
(NYLON)

ANCHOR SCHEDULE

TYPE	DESCRIPTION	EMB	E. D.
A	1/4" ITW TAPCON INTO 3000 PSI CONCRETE	1.75	3.0
A1	1/4" ELCO ULTRACON INTO 2700 PSI CONCRETE	1.75	2.5
B	1/4-20X1 ALL POINTS INTO 3.0 KSI CONCRETE	0.875	3.0
B1	1/4-20X1 ALL POINTS INTO CONCRETE BLOCK	0.875	3.0
C	5/16" ELCO ULTRACON INTO 3.5 KSI CONCRETE	1.75	3.0
C1	5/16" ELCO ULTRACON INTO CONCRETE BLOCK	1.25	3.0
E	1/4" WOOD LAG SCREW INTO G=.55 WOOD	1.50	0.75

NOTES: ED: EDGE DISTANCE SHALL BE BEYOND WALL DRESSING
EMB: EMBEDMENT SHALL BE BEYOND WALL DRESSING
1/4" TAPCON CAN BE USED IN REPLACE OF 1/4" LAG SCREWS

MANUFACTURER:
Roll-a-way
BY **QMI**
1661 GLENLAKE AVE.
ITASCA - IL 60143
TEL.: (630) 529-7111
FAX.: (630) 980-6364

PRODUCT:
HT-100
ACCORDION SHUTTER

Engineering:
EngCo Inc.
CA 8116
6971 W. Sunrise Blvd. 104
Plantation, FL 33313
ENGCO@AOL.COM

[Signature]
NOV 9 2008

Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

MIAMI-DADE BCCD

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 08-1208-04
Expiration Date 04/10/2013
By *[Signature]*
Miami Dade Product Control
Division

Date: 07/09/08
Scale: NA
Design by: PPMF

Drawing Number
08-226

Sheet
3 of 12

SECTION LOCK
OPTIONS FOR LOCK BLADE ASSEMBLY

MANUFACTURER:
Roll-a-way
BY **QMI**
1661 GLENLAKE AVE.
ITASCA - IL 60143
TEL.: (630) 529-7111
FAX.: (630) 980-6364

PRODUCT:
HT-100
ACCORDION SHUTTER

Engineering:
EngCo Inc.
CA 8116
6971 W. Sunrise Blvd. 104
Plantation, FL 33313
ENGCO@AOL.COM

[Signature]
NOV 9 2008
Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

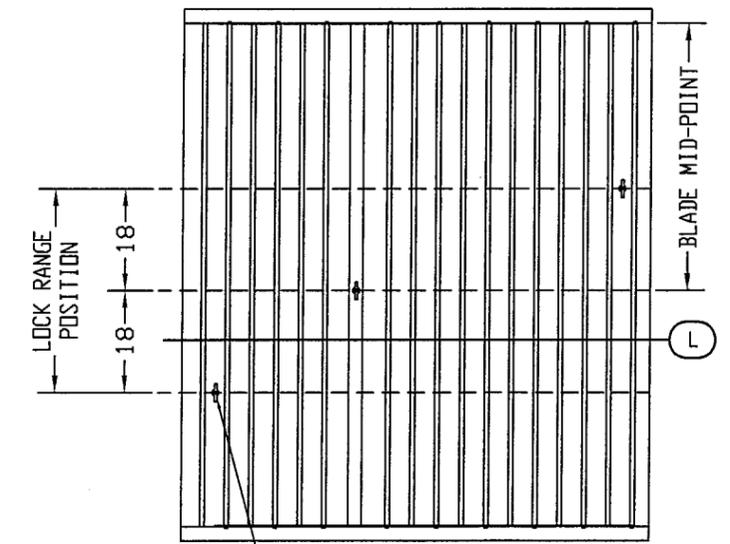
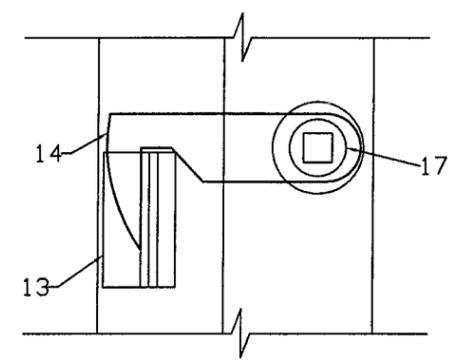
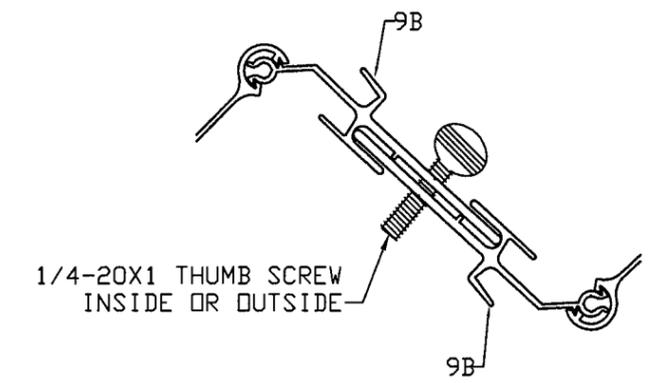
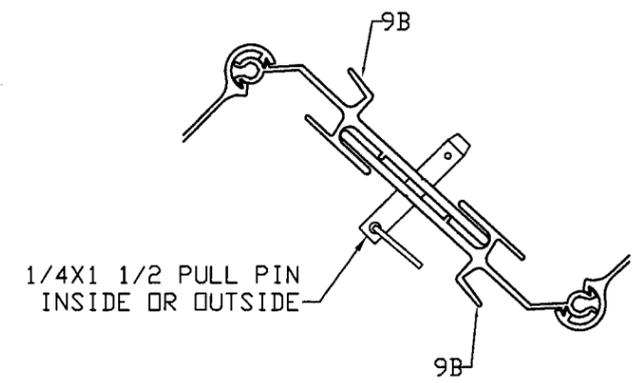
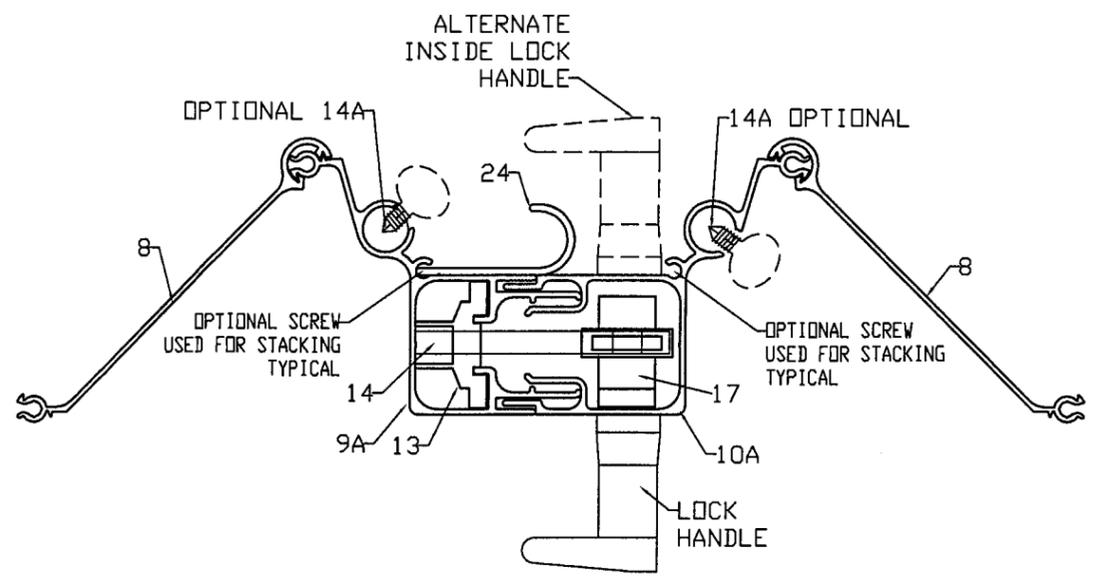
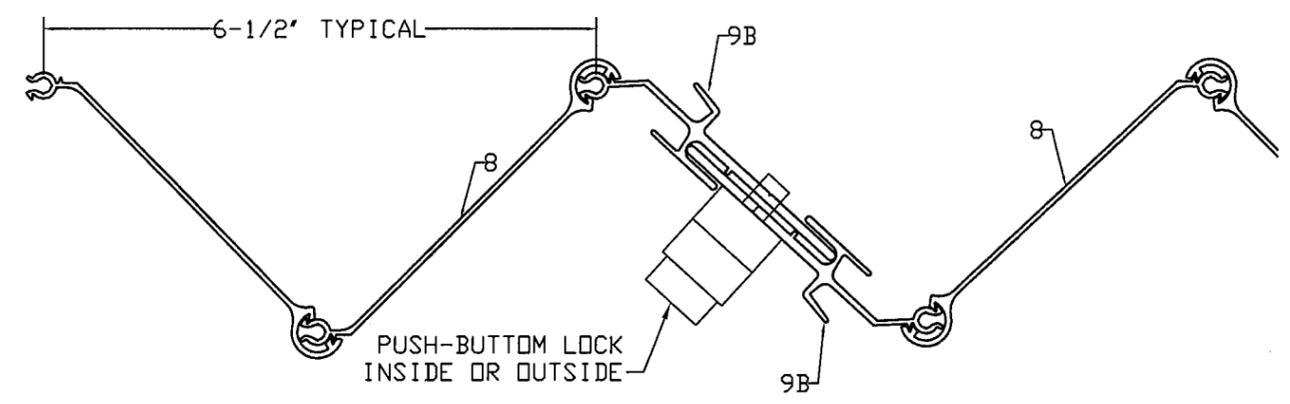
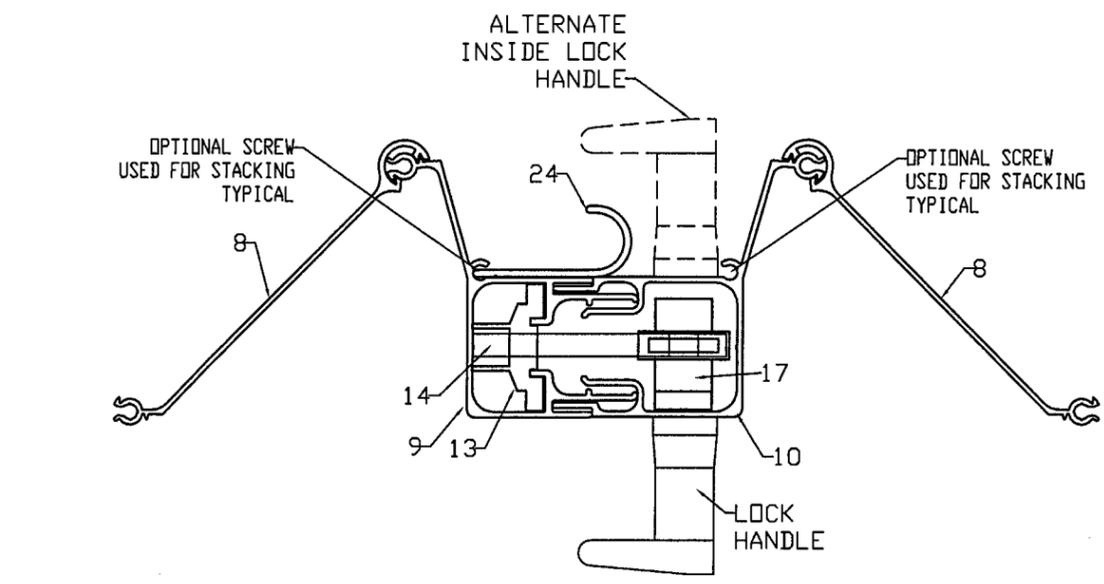
MIAMI-DADE BCCD

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 08-1208-04
Expiration Date 04/10/2013
By *[Signature]*
Miami Dade Product Control
Division

Date: 07/09/08
Scale: NA
Design by: PPMF

Drawing Number
08-226

Sheet
4 of 12



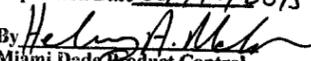
EACH SHUTTER UNIT TO USE A MINIMUM ONE LOCK. LOCKING MECHANISM CAN BE LOCATED 18" ABOVE OR BELOW BLADE MID POINT AND AT ANY HORIZONTAL LOCATION. LOCKING MECHANISM SHALL BE PLACED IN THE LOCKED POSITION TO PROVIDE HURRICANE PROTECTION



NOV 19 2008
 Engineer Seal
 Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

MIAMI-DADE BCCO:

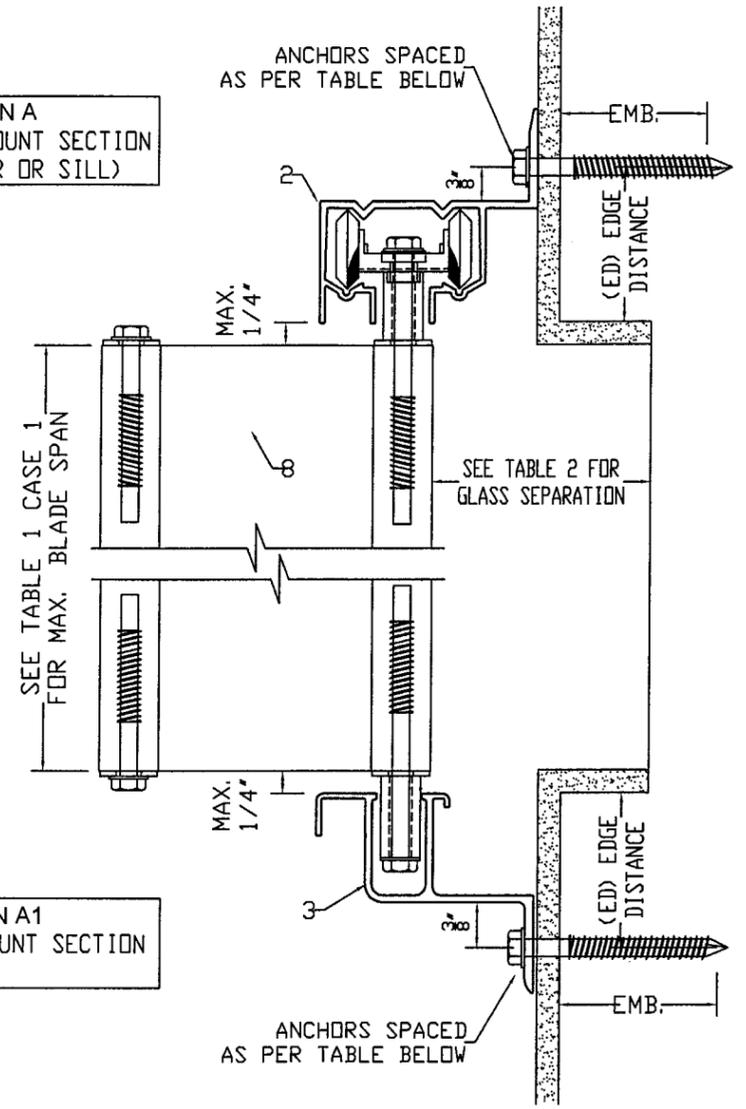
PRODUCT REVISED
 as complying with the Florida
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 Acceptance No 08-1208.04
 Expiration Date 04/10/2013
 By 
 Miami Dade Product Control
 Division

Date: 07/09/08
 Scale: NA
 Design by: PPMF

Drawing Number
08-226

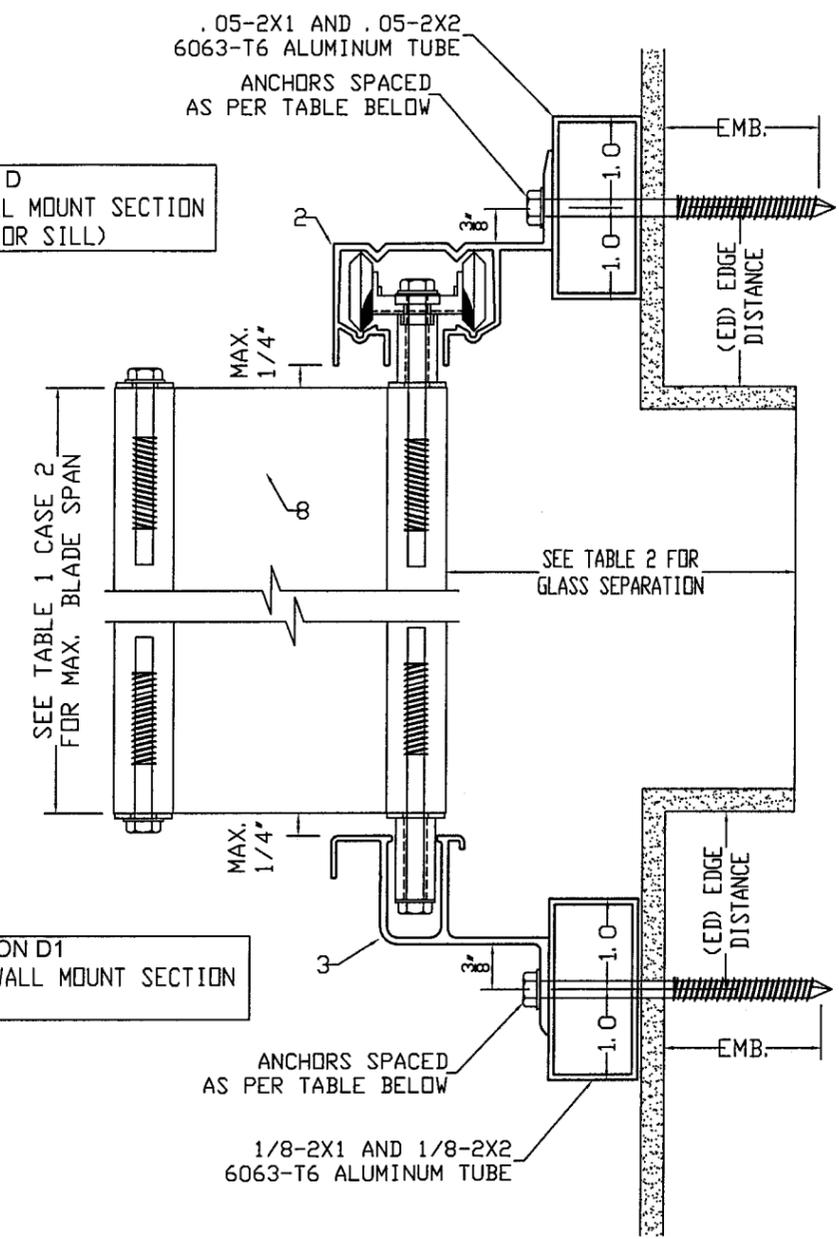
Sheet
 5 of 12

SECTION A
 WALL MOUNT SECTION
 (HEADER OR SILL)



SECTION A1
 SILL MOUNT SECTION
 (SILL)

SECTION D
 TUBE WALL MOUNT SECTION
 (HEADER OR SILL)

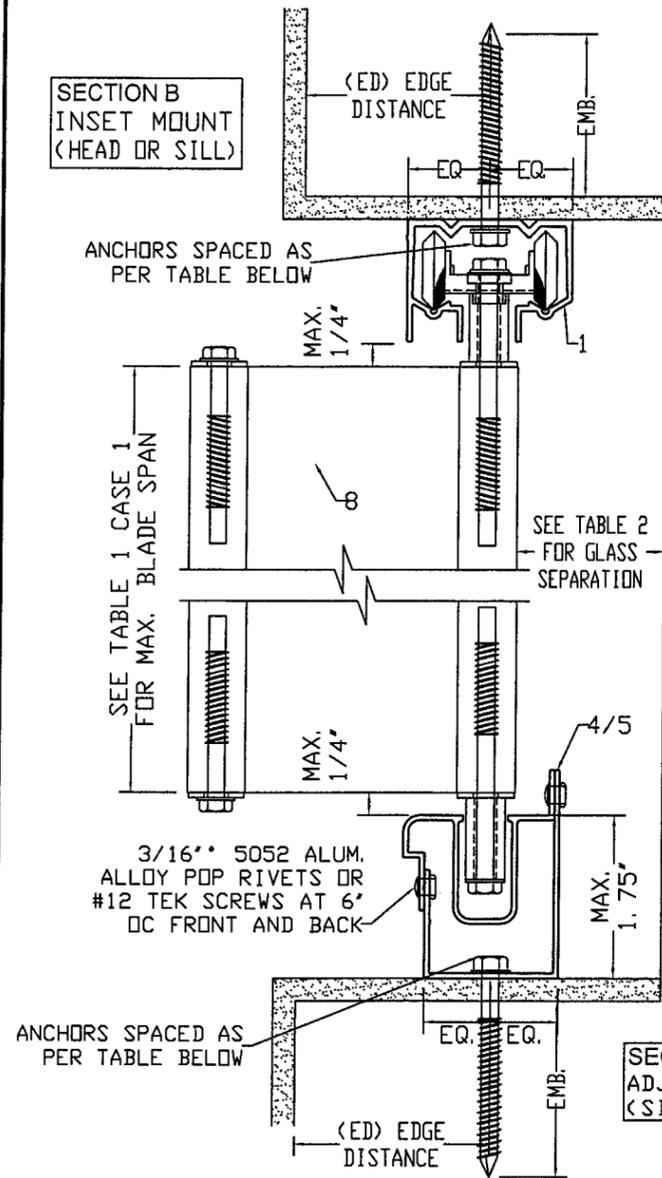


SECTION D1
 TUBE WALL MOUNT SECTION
 (SILL)

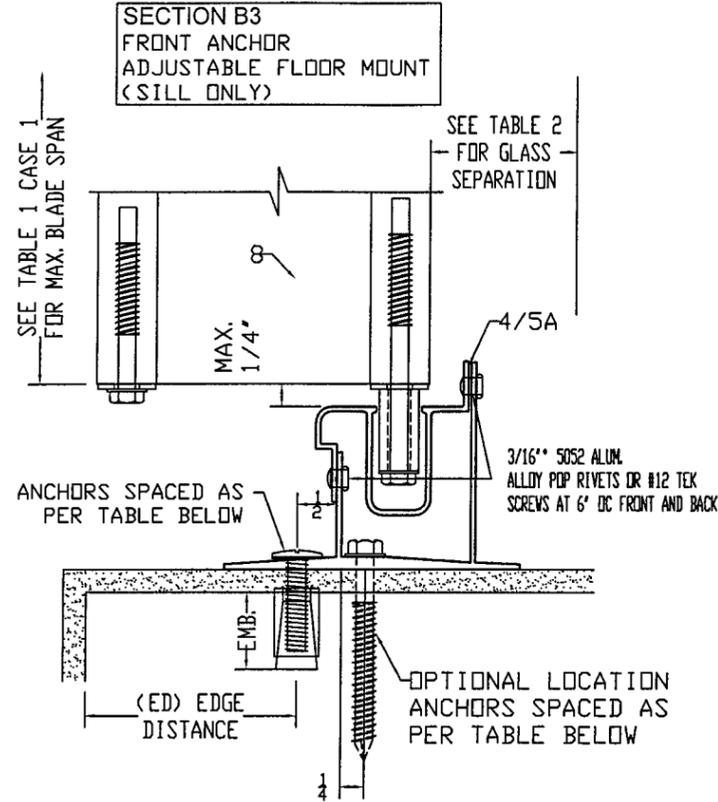
MAX. BLADE SPAN IN INCHES
 ANCHOR TYPE
 DESIGNED PRESSURES IN PSF

		MAXIMUM ANCHOR SPACING IN INCHES ON CENTER																											
		157					108					96					68												
		A	A1	B	B1	C	C1	E	A	A1	B	B1	C	C1	E	A	A1	B	B1	C	C1	E	A	A1	B	B1	C	C1	E
SECTIONS: A-SILL / HEADER A1-SILL	45	5	-	6	4	7	-	5	7	-	9	6	10	-	8	8	-	10	7	12	5	9	12	-	12	10	12	7	12
	57	4	-	4	3	5	-	4	6	-	7	5	8	-	6	7	-	8	5	9	-	7	10	-	11	8	12	6	10
	73	-	-	3	-	-	-	3	4	-	5	4	6	-	5	5	-	6	4	7	-	5	7	-	8	6	10	-	8
	105	-	-	-	-	-	-	-	3	-	3	-	-	-	3	-	-	4	3	5	-	4	5	-	6	4	7	-	5
	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	3	-	-	-	3
SECTIONS: D-SILL / HEADER D1-SILL	45	7	-	8	5	9	-	7	10	-	11	8	12	6	10	11	-	12	9	12	6	12	12	5	12	12	9	12	
	57	5	-	6	4	7	-	5	8	-	9	6	11	-	8	9	-	10	7	12	5	9	12	4	12	10	12	7	12
	73	4	-	5	3	6	-	4	6	-	7	5	8	-	6	7	-	8	5	9	-	7	10	-	11	8	12	6	10
	105	-	-	3	-	-	-	3	4	-	5	3	6	-	4	5	-	5	4	6	-	5	7	-	8	5	9	-	7
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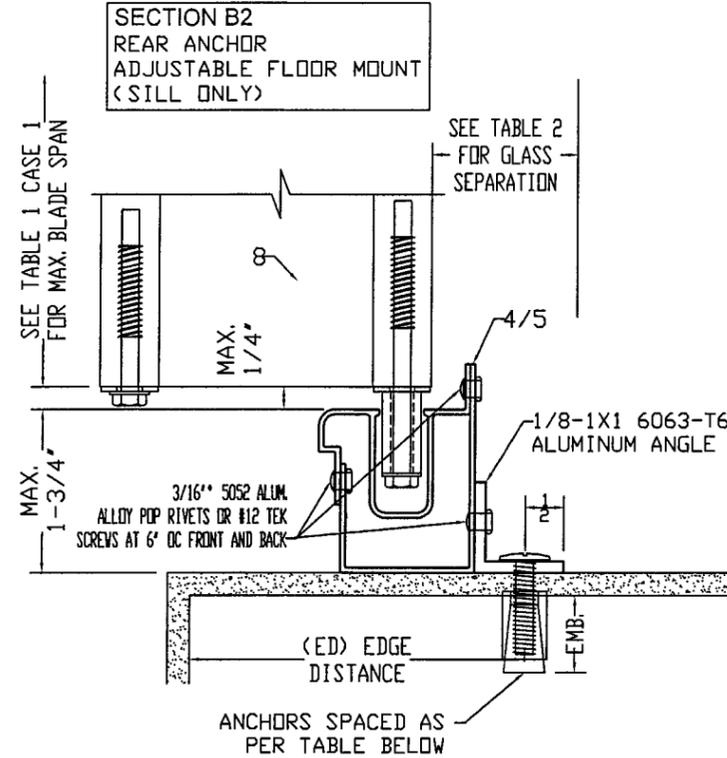
**SECTION B
INSET MOUNT
(HEAD OR SILL)**



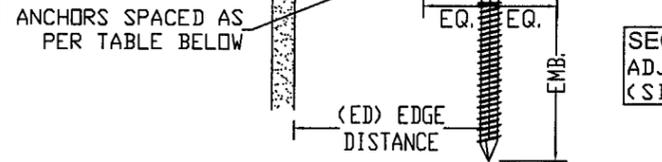
**SECTION B3
FRONT ANCHOR
ADJUSTABLE FLOOR MOUNT
(SILL ONLY)**



**SECTION B2
REAR ANCHOR
ADJUSTABLE FLOOR MOUNT
(SILL ONLY)**



**SECTION B1
ADJUSTABLE FLOOR MOUNT
(SILL ONLY)**



MAX. BLADE SPAN IN INCHES
SEE ANCHOR SCHEDULE ON SHEET 3 FOR ANCHOR TYPE

DESIGNED PRESSURES IN PSF

		MAXIMUM ANCHOR SPACING IN INCHES ON CENTER																											
		157						108						96						68									
		A	A1	B	B1	C	C1	E	A	A1	B	B1	C	C1	E	A	A1	B	B1	C	C1	E	A	A1	B	B1	C	C1	E
SECTION B SILL / HEADER	45	8	-	9	6	12	5	5	11	4	12	10	12	7	8	12	4	12	11	12	8	9	12	6	12	12	12	12	
	57	6	-	7	5	10	-	4	9	-	11	8	12	6	6	10	-	12	9	12	7	7	12	5	12	12	10	10	
	73	5	-	6	4	7	-	3	7	-	8	6	11	-	5	8	-	9	7	12	5	6	11	4	12	10	12	7	8
	105	-	-	4	3	5	-	-	5	-	6	4	8	-	3	5	-	6	4	9	-	4	8	-	9	7	12	5	5
	170	-	-	-	-	-	-	-	-	-	3	-	5	-	-	-	-	4	3	5	-	5	-	6	4	7	-	3	
SECTIONS B1 OR B3 SILL	45	5	-	6	4	8	-	4	8	-	9	6	12	5	6	9	-	10	7	12	5	7	12	4	12	11	12	8	10
	57	4	-	5	3	6	-	3	6	-	7	5	9	-	5	7	-	8	6	10	-	5	10	-	12	8	12	6	8
	73	-	-	4	-	5	-	-	5	-	5	4	7	-	4	5	-	6	4	8	-	4	8	-	9	6	12	5	6
	105	-	-	-	-	-	-	-	-	-	4	-	5	-	-	-	-	4	3	5	-	3	5	-	6	4	8	-	4
	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	5	-	-	
SECTION B2 SILL	45	4	-	4	3	6	-	3	6	-	7	5	8	-	5	6	-	8	5	10	-	5	9	-	11	8	12	6	8
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	105	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	3	-	-	-	-	4	-	4	3	6	-	3
	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	

MANUFACTURER:
Rollaway
BY **QMI**

1661 GLENLAKE AVE.
ITASCA - IL 60143
TEL.: (630) 529-7111
FAX.: (630) 980-6364

PRODUCT:
**HT-100
ACCORDION SHUTTER**

Engineering:
EngCo Inc.
CA 8116
6971 W. Sunrise Blvd. 104
Plantation, FL 33313
ENGCO@AOL.COM

NOV 9 2008
Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

MIAMI-DADE BCCD:

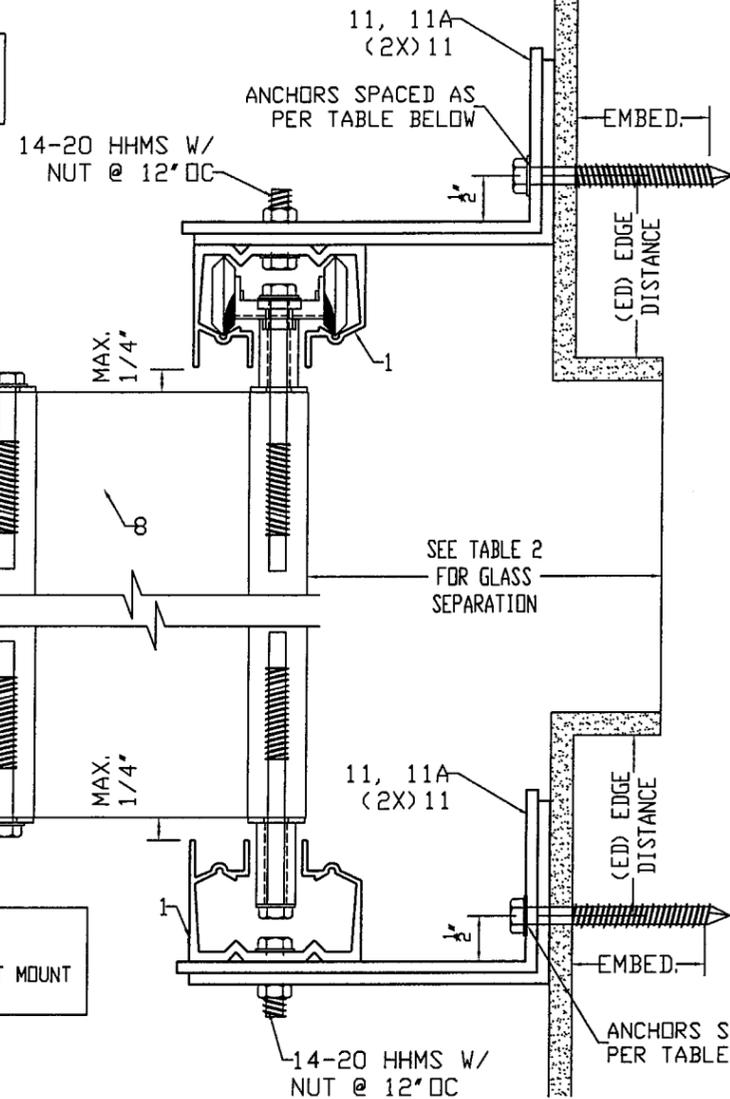
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 08-1208-04
Expiration Date 04/10/2013
By *Heather A. Walker*
Miami Dade Product Control
Division

Date: 07/09/08
Scale: NA
Design by: PPMF

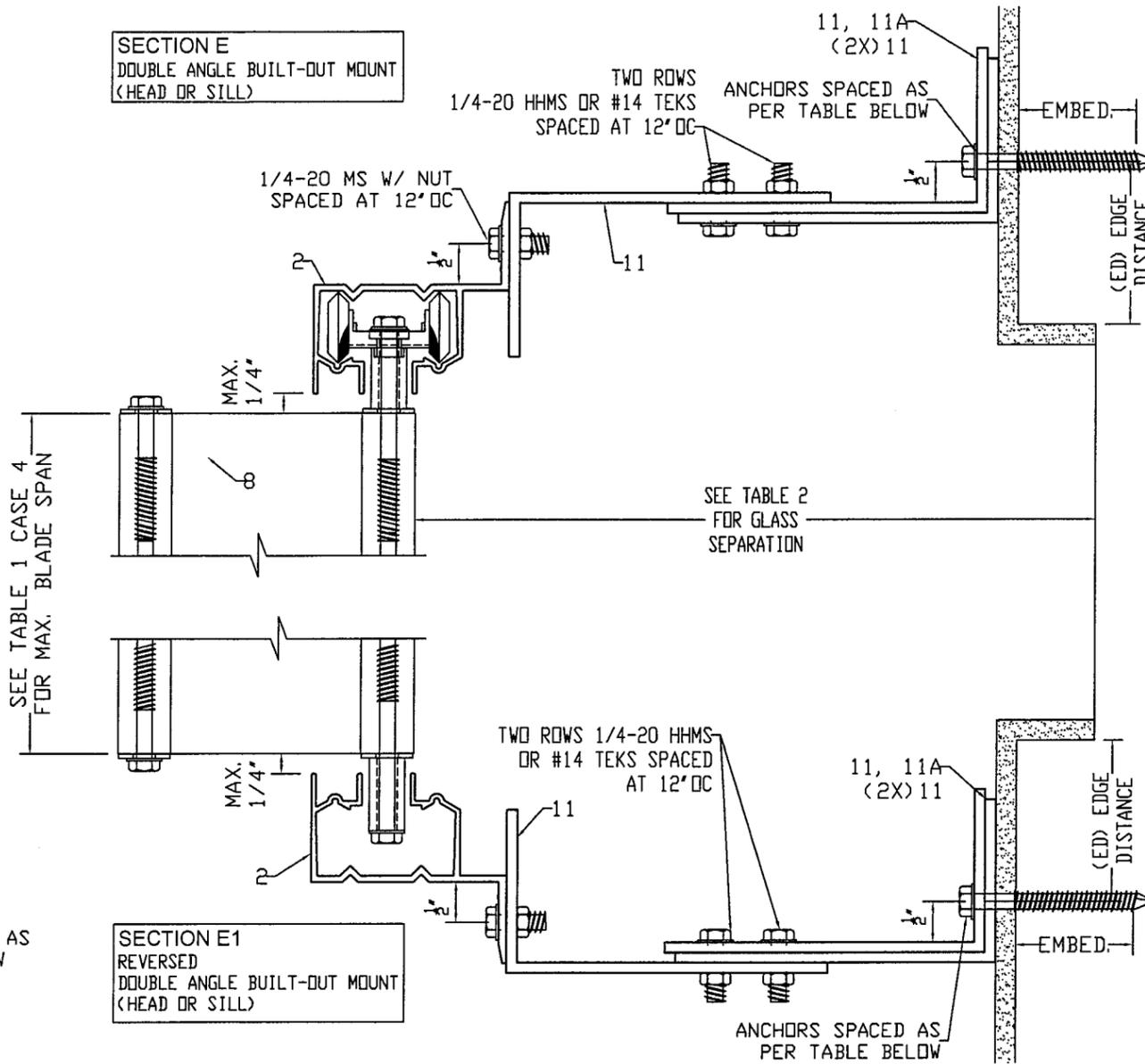
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08-226

Sheet
6 of 12

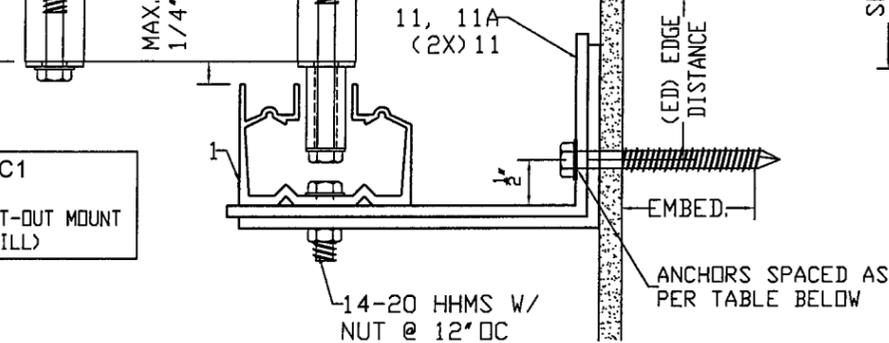
SECTION C
ANGLE BUILT-OUT MOUNT
(HEAD OR SILL)



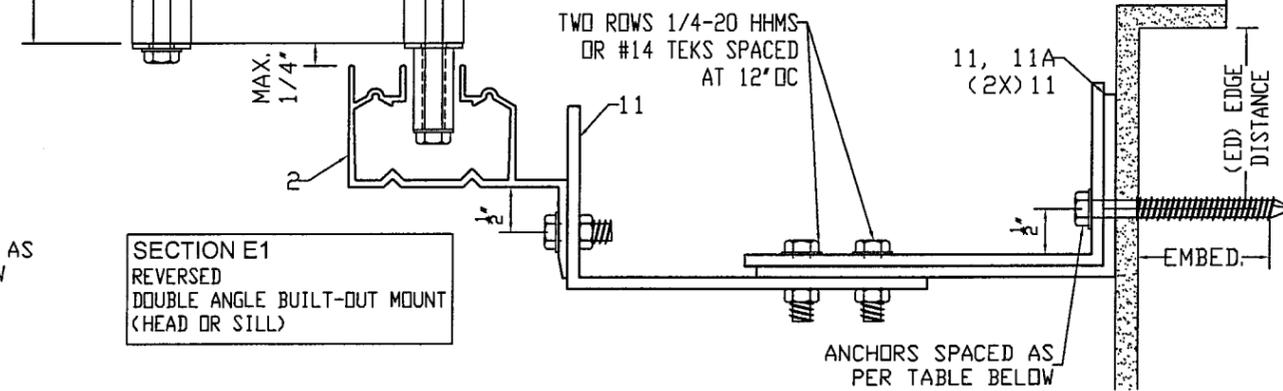
SECTION E
DOUBLE ANGLE BUILT-OUT MOUNT
(HEAD OR SILL)



SECTION C1
REVERSED
ANGLE BUILT-OUT MOUNT
(HEAD OR SILL)



SECTION E1
REVERSED
DOUBLE ANGLE BUILT-OUT MOUNT
(HEAD OR SILL)



FOR MAX. BLADE SPAN:
SEE TABLE 1 CASE 2 FOR 1/8\"/>

SEE TABLE 2
FOR GLASS
SEPARATION

SEE TABLE 1 CASE 4
FOR MAX. BLADE SPAN

SEE TABLE 2
FOR GLASS
SEPARATION

MAX. BLADE SPAN IN INCHES
SEE ANCHOR SCHEDULE ON
SHEET 3 FOR ANCHOR TYPE
DESIGNED PRESSURES IN PSF

MAXIMUM ANCHOR SPACING IN INCHES ON CENTER

	157								108								96								68							
	A	A1	B	B1	C	C1	E		A	A1	B	B1	C	C1	E		A	A1	B	B1	C	C1	E		A	A1	B	B1	C	C1	E	
SECTION C SILL / HEADER	45	7	-	8	6	10	-	7	10	-	12	9	12	6	11	12	-	12	10	12	7	12	12	5	12	12	12	10	12			
	57	5	-	6	4	8	-	6	8	-	9	7	11	5	9	9	-	11	8	12	5	10	12	4	12	11	12	8	12			
	73	4	-	5	3	6	-	4	6	-	7	5	9	-	7	7	-	8	6	10	-	8	10	-	12	8	12	6	11			
	105	-	-	3	-	-	-	3	4	-	5	3	6	-	5	5	-	6	4	7	-	5	7	-	8	6	10	-	8			
170	-	-	-	-	-	-	-	-	-	3	-	-	-	3	-	-	3	-	-	-	3	4	-	5	3	6	-	5				
SECTION C1 SILL / HEADER	45	10	-	11	8	12	6	10	12	4	12	12	12	8	12	12	5	12	12	10	12	9	12	12	7	12	12	12	12			
	57	7	-	9	6	11	-	8	11	-	12	9	12	6	12	12	4	12	10	12	7	12	12	5	12	12	12	11	12			
	73	6	-	7	5	8	-	6	9	-	10	7	12	5	9	10	-	11	8	12	6	10	12	4	12	12	12	8	12			
	105	4	-	5	3	6	-	4	6	-	7	5	8	-	6	7	-	8	5	9	-	7	10	-	11	8	12	6	10			
170	-	-	3	-	-	-	-	-	-	4	3	5	-	4	4	-	5	3	6	-	4	6	-	7	5	8	-	6				
SECTION E SILL / HEADER	45	5	-	6	4	7	-	6	8	-	9	6	11	-	8	9	-	10	7	12	5	9	12	4	12	10	12	7	12			
	57	4	-	5	3	6	-	5	6	-	7	5	9	-	7	7	-	8	6	10	-	8	10	-	12	9	12	6	11			
	73	-	-	4	3	5	-	4	5	-	6	4	7	-	6	6	-	7	5	8	-	6	8	-	10	7	12	5	9			
	105	-	-	3	-	-	-	4	4	-	4	3	5	-	4	4	-	5	3	6	-	5	6	-	7	5	9	-	7			
170	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	3	-	-	-	3	4	-	4	3	5	-	4				
SECTION E1 SILL / HEADER	45	6	-	7	5	9	-	6	9	-	11	8	12	5	10	10	-	12	9	12	6	11	12	4	12	12	12	9	12			
	57	5	-	6	4	7	-	5	7	-	8	6	10	-	8	8	-	9	7	11	5	9	12	-	12	10	12	7	12			
	73	4	-	4	3	5	-	4	5	-	6	4	8	-	6	6	-	7	5	9	-	7	9	-	10	7	12	5	10			
	105	-	-	3	-	-	-	3	4	-	4	3	5	-	4	4	-	5	3	6	-	5	6	-	7	5	9	-	7			
170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	3	4	-	4	3	5	-	4				

MANUFACTURER:
Rollaway
BY **QMI**
1661 GLENLAKE AVE.
ITASCA - IL 60143
TEL.: (630) 529-7111
FAX.: (630) 980-6364

PRODUCT:
HT-100
ACCORDION SHUTTER

Engineering:
EngCo Inc.
CA 8116
6971 W. Sunrise Blvd. 104
Plantation, FL 33313
ENGCO@AOL.COM

NOV 9 2008
Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

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Expiration Date 04/10/2013
By *Heather A. M...*
Miami Dade Product Control
Division

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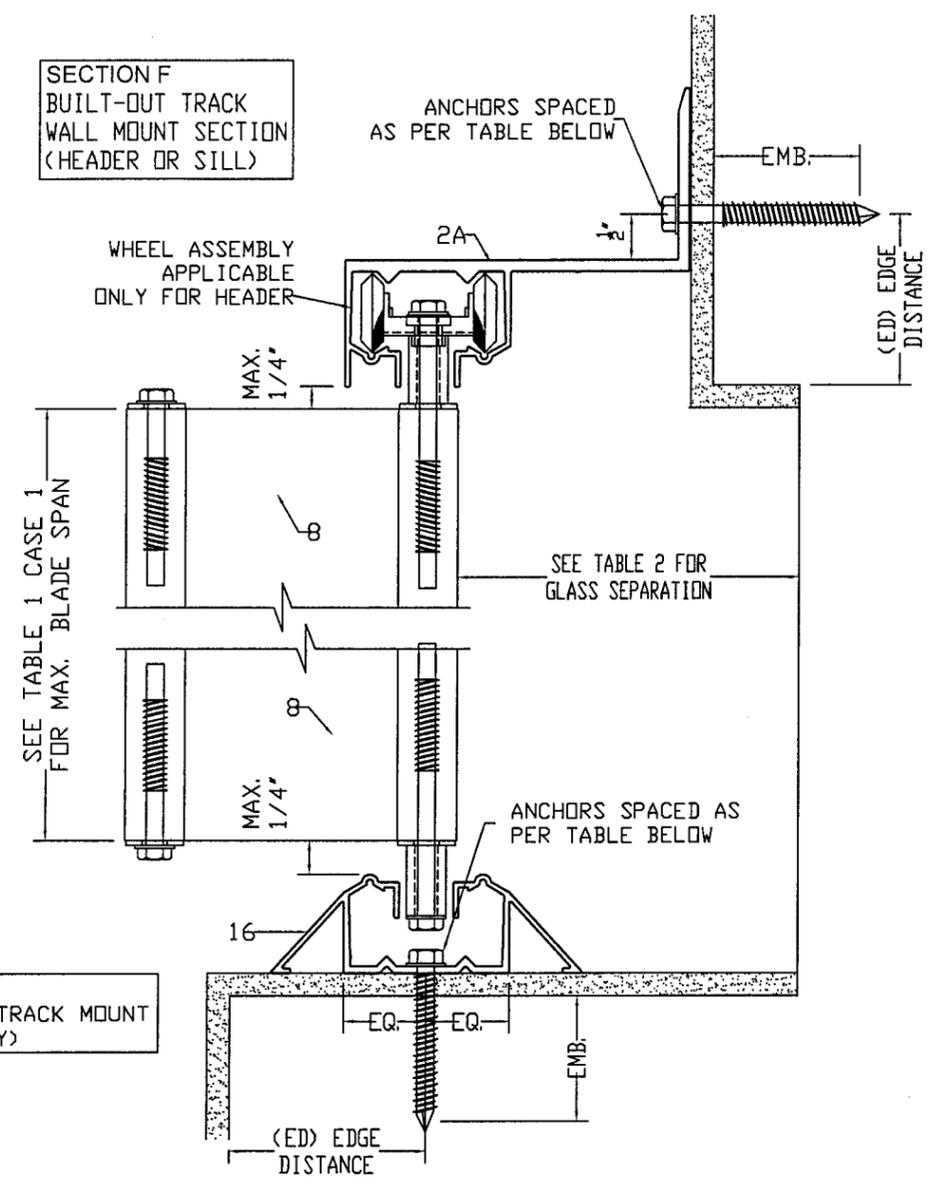
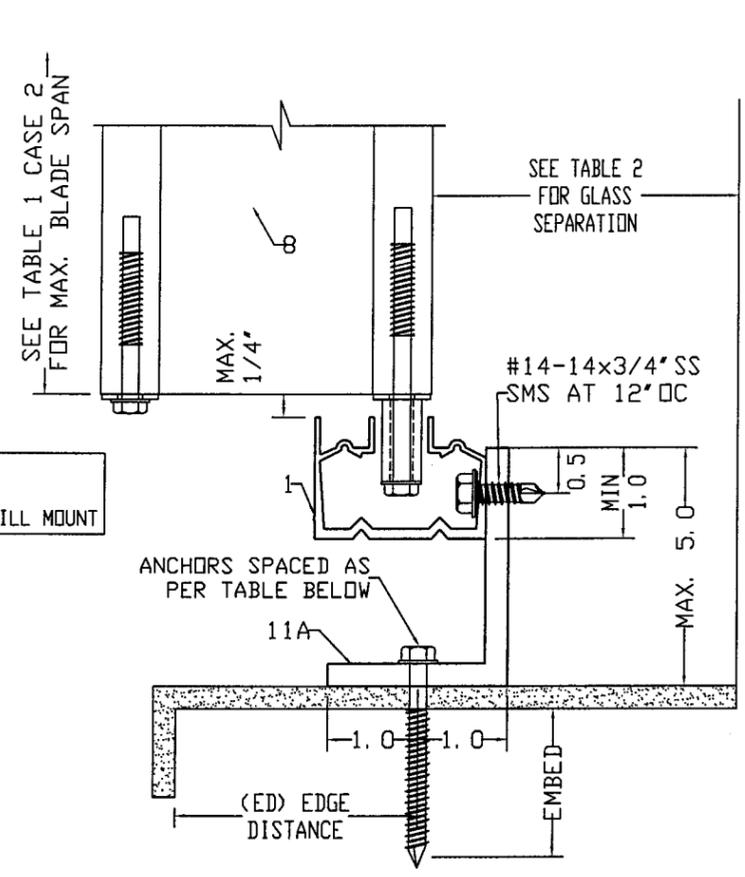
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08-226

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8 of 12



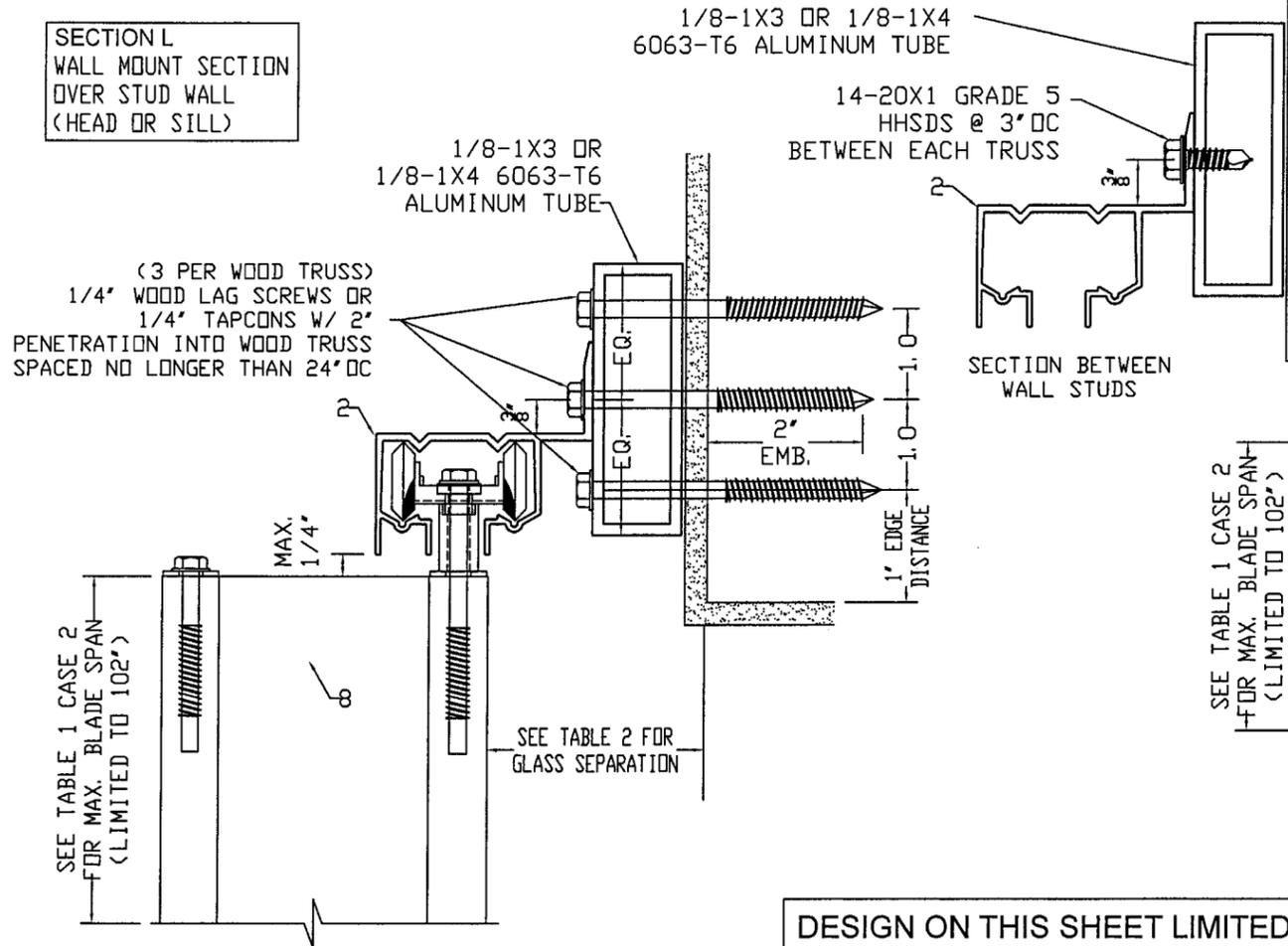
SECTION G
 WALKOVER TRACK MOUNT
 (SILL ONLY)

MAX. BLADE SPAN IN INCHES
 SEE ANCHOR SCHEDULE ON SHEET 3 FOR ANCHOR TYPE
 DESIGNED PRESSURES IN PSF

MAXIMUM ANCHOR SPACING IN INCHES ON CENTER

	157								108								96								68							
	A	A1	B	B1	C	C1	E		A	A1	B	B1	C	C1	E		A	A1	B	B1	C	C1	E		A	A1	B	B1	C	C1	E	
SECTION G SILL	45	12	4	12	10	12	9	7	12	7	12	12	12	12	11	12	8	12	12	12	12	12	12	12	11	12	12	12	12	12	12	12
	57	9	-	12	8	12	7	6	12	5	12	12	12	10	8	12	6	12	12	12	11	10	12	9	12	12	12	12	12	12	12	
	73	7	-	9	6	12	5	4	11	4	12	9	12	8	6	12	5	12	11	12	9	7	12	7	12	12	12	12	12	11	11	
	105	5	-	6	4	9	-	3	7	-	9	6	12	5	4	8	-	10	7	12	6	5	12	4	12	10	12	8	7	7	7	
170	-	-	4	-	5	-	-	4	-	5	4	8	-	2	5	-	6	4	9	3	3	7	-	9	6	12	5	4	4	4		
SECTION F HEADER / SILL	45	8	-	9	7	11	5	8	12	-	12	10	12	7	12	12	4	12	11	12	8	12	12	6	12	12	12	11	12	12	12	
	57	6	-	7	5	9	-	7	9	-	11	8	12	5	10	10	-	12	9	12	6	11	12	4	12	12	12	9	12	12	12	
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170	-	-	-	-	-	-	2	-	-	3	-	-	-	3	-	-	4	3	5	-	4	5	-	6	4	7	-	5	5	5		
SECTION H 5" SILL	45	-	-	3	-	-	-	-	4	-	5	3	6	-	4	5	-	5	4	7	-	4	7	-	8	6	10	-	6	6	6	
	57	-	-	-	-	-	-	-	-	-	4	3	5	-	3	4	-	4	3	5	-	3	5	-	6	4	8	-	5	5	5	
	73	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	3	-	-	-	-	4	-	5	3	6	-	4	4	4	
	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	
170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SECTION H 3" SILL	45	4	-	5	3	6	-	3	6	-	7	5	9	-	5	7	-	8	6	11	-	6	10	-	12	8	12	6	9	9	9	
	57	-	-	4	3	5	-	3	5	-	6	4	7	-	4	5	-	6	5	8	-	5	8	-	9	7	12	5	7	7	7	
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170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-		

SECTION L
WALL MOUNT SECTION
OVER STUD WALL
(HEAD OR SILL)

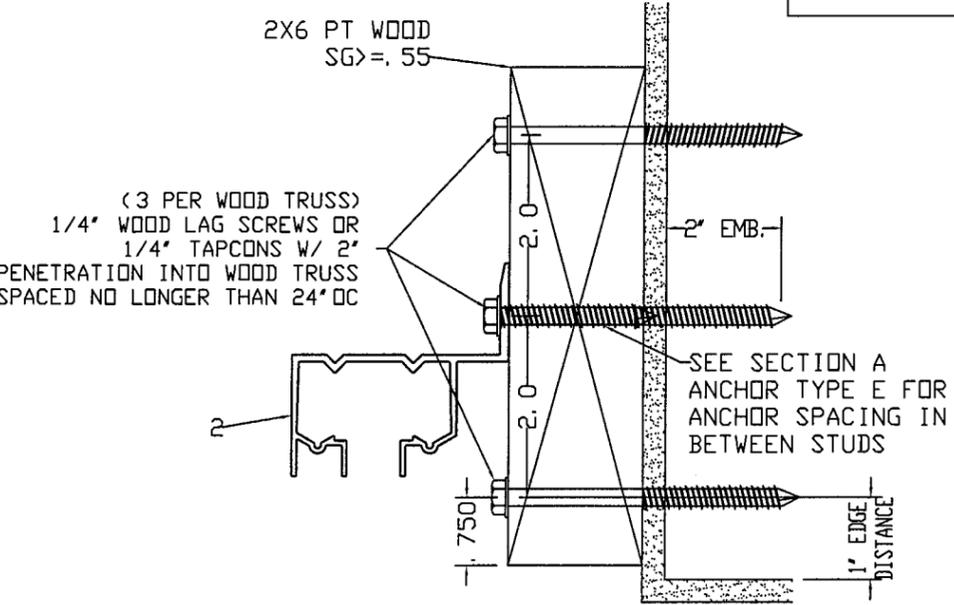


(3 PER WOOD TRUSS)
1/4\"/>

SEE TABLE 1 CASE 2
FOR MAX. BLADE SPAN
(LIMITED TO 102\")

SEE TABLE 2 FOR
GLASS SEPARATION

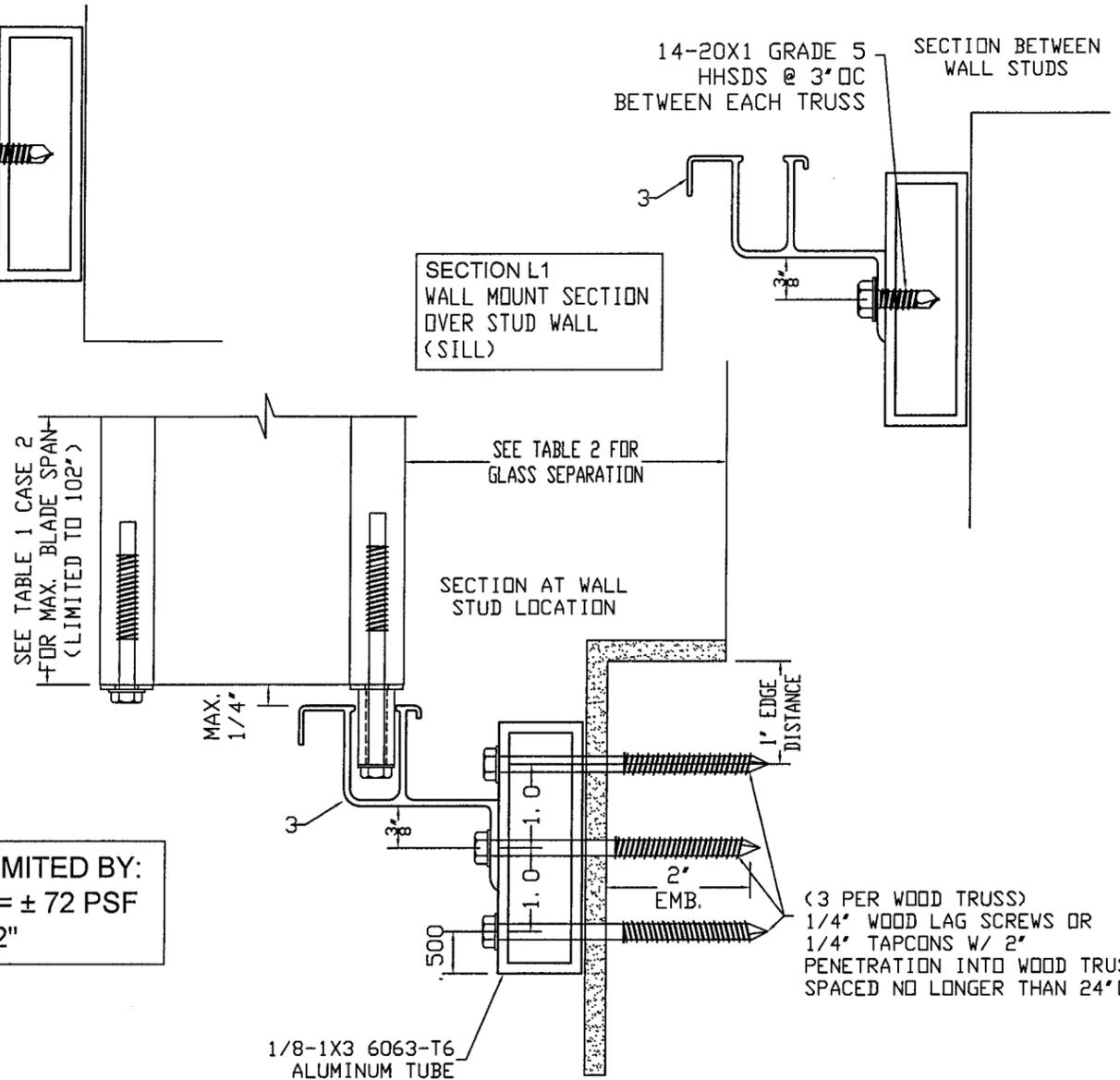
DESIGN ON THIS SHEET LIMITED BY:
MAX. DESIGN PRESSURE = ± 72 PSF
MAX. BLADE = 102\"/>



OPTIONAL INSTALLATION
WITH 2X6 PT WOOD (SG >= .55)
SECTION AT WALL STUD LOCATION

SEE TABLE 1 CASE 2
FOR MAX. BLADE SPAN
(LIMITED TO 102\")

SECTION L1
WALL MOUNT SECTION
OVER STUD WALL
(SILL)



14-20X1 GRADE 5
HSSDS @ 3' OC
BETWEEN EACH TRUSS

SECTION BETWEEN
WALL STUDS

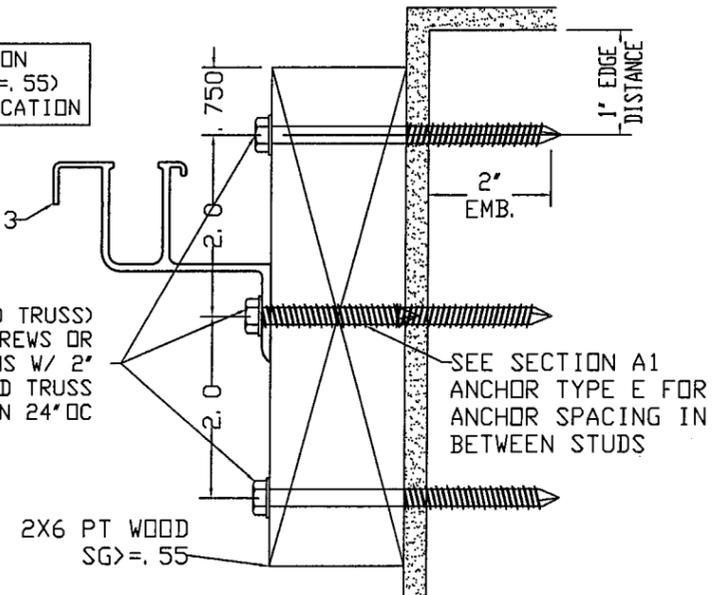
SEE TABLE 2 FOR
GLASS SEPARATION

SECTION AT WALL
STUD LOCATION

(3 PER WOOD TRUSS)
1/4\"/>

OPTIONAL INSTALLATION
WITH 2X6 PT WOOD (SG >= .55)
SECTION AT WALL STUD LOCATION

(3 PER WOOD TRUSS)
1/4\"/>



SEE SECTION A1
ANCHOR TYPE E FOR
ANCHOR SPACING IN
BETWEEN STUDS

MANUFACTURER:
Roll-a-way
BY **QMI**
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TEL.: (630) 529-7111
FAX.: (630) 980-6364

PRODUCT:
HT-100
ACCORDION SHUTTER

Engineering:
EngCo Inc.
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NOV 19 2008

Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

MIAMI-DADE BCCD:

PRODUCT REVISED
as complying with the Florida
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Acceptance No 08-1208.04
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By *Helmut A. Weber*
Miami Dade Product Control
Division

Date: 07/09/08
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08-226

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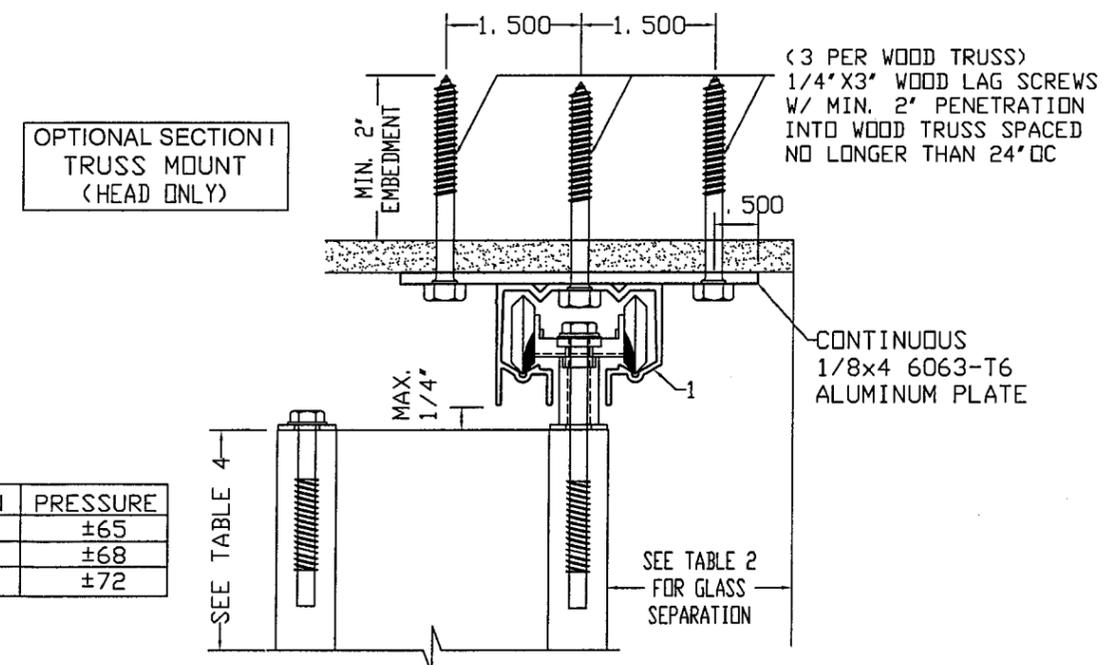
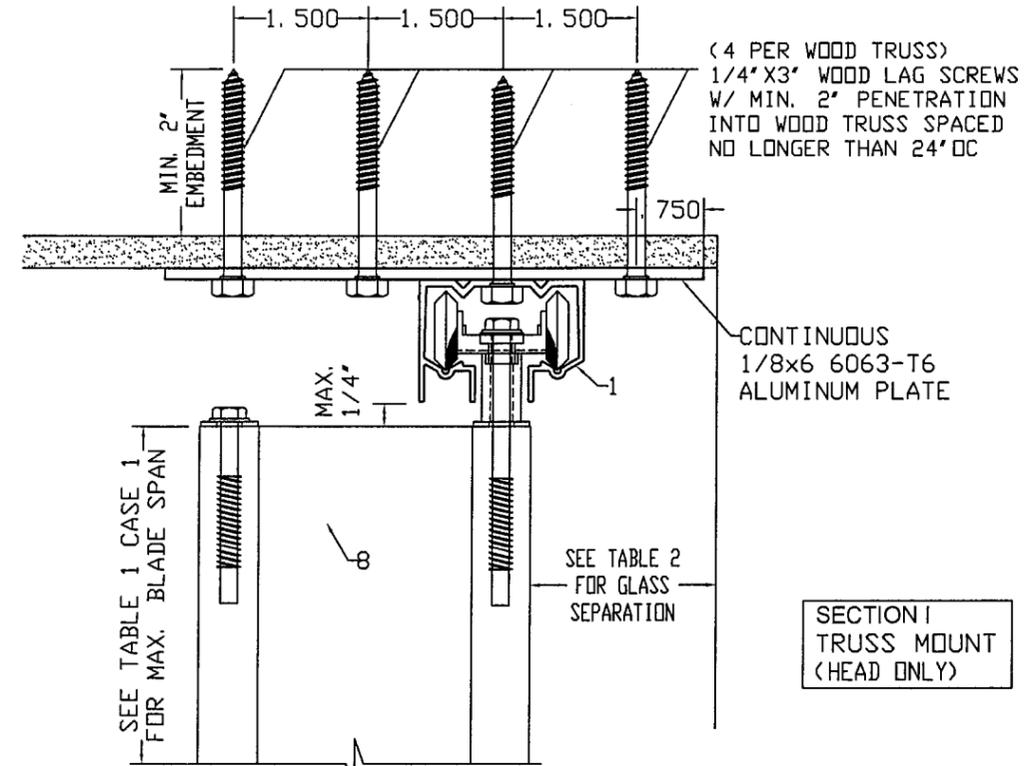
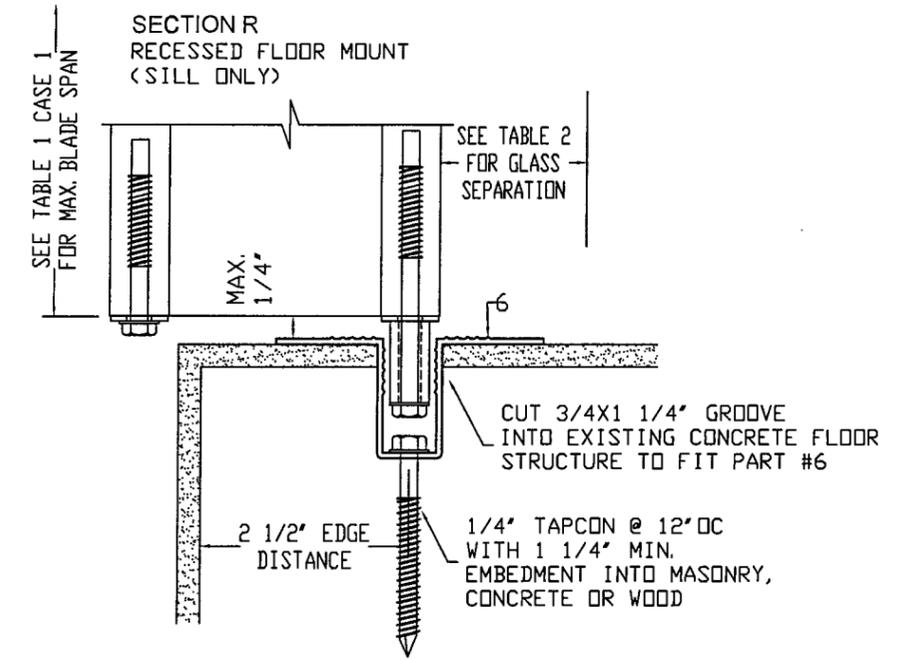
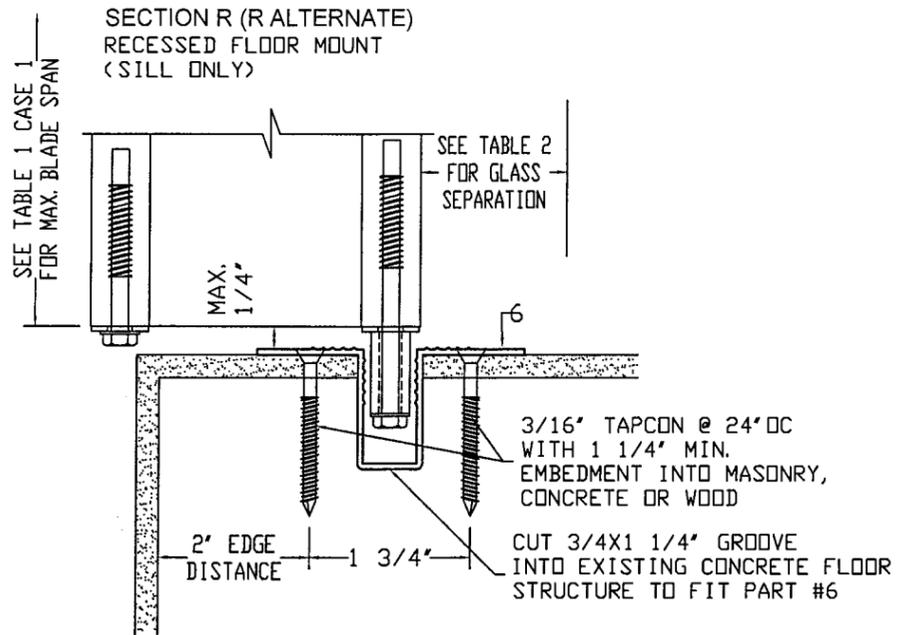
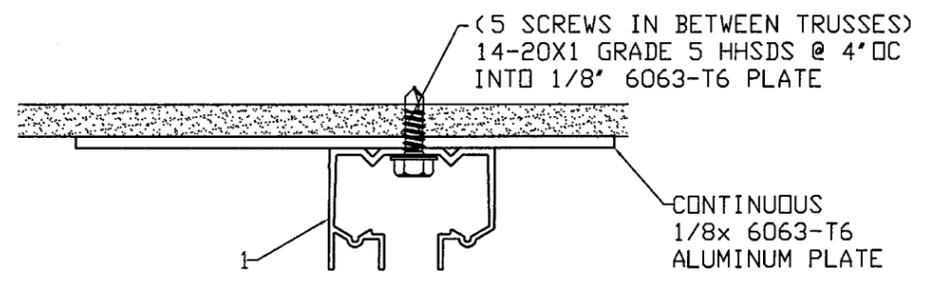


TABLE 4

BLADE SPAN	PRESSURE
102"	±65
96"	±68
92"	±72



MANUFACTURER:
Rollaway
B Y **QMI**
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Plantation, FL 33313
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[Signature]
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Engineer Seal
Pedro De Figueiredo, PE 52609

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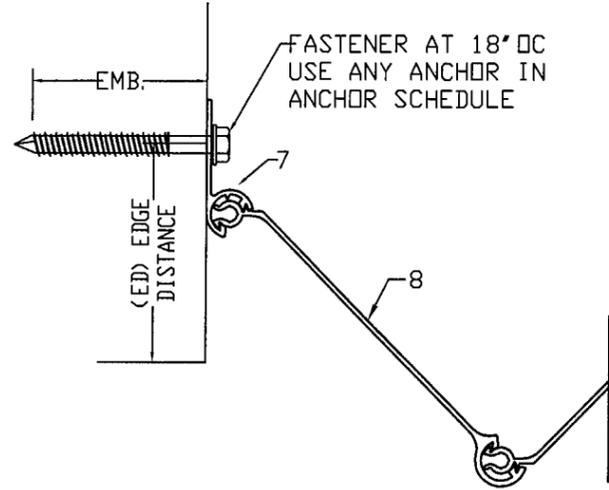
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By: *[Signature]*
Miami Dade Product Control
Division

Date: 07/09/08
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Design by: PPMF

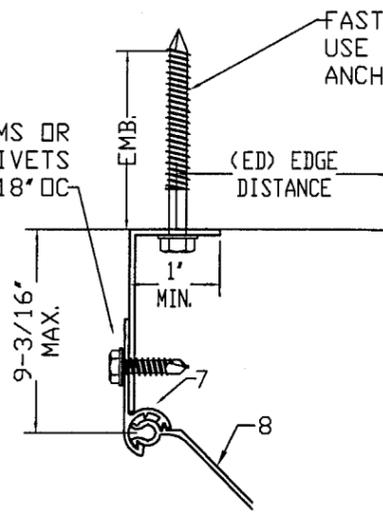
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10 of 12

SECTION J
JAMB CLOSURE
INSET MOUNT

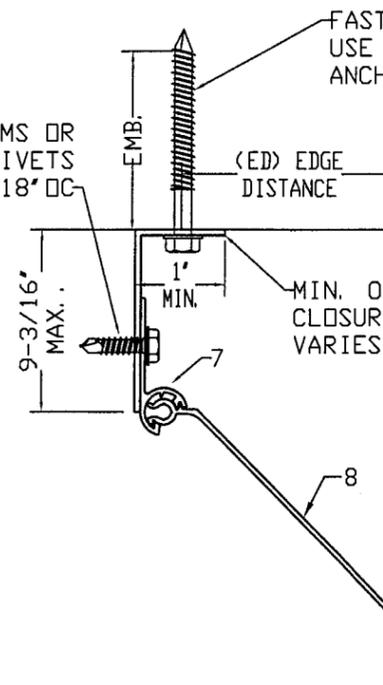


#10X3/4" SS SMS OR
3/16" POP RIVETS
SPACED AT 18" OC



SECTION J1
JAMB CLOSURE
WALL MOUNT

#10X3/4" SS SMS OR
3/16" POP RIVETS
SPACED AT 18" OC

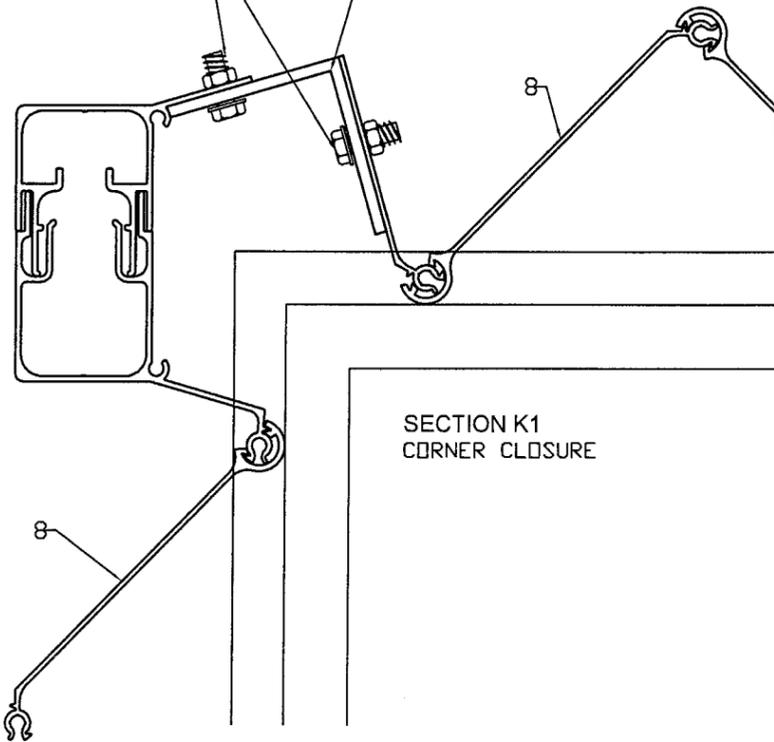


FASTENER AT 24" OC
USE ANY ANCHOR IN
ANCHOR SCHEDULE

MIN. 0.055" THICK ALUMINUM
CLOSURE ANGLES
VARIES SIZES ANGLE 6063-T6

1/4-20 THMS W/
NUT & LOCK WASHERS
SPACED AT 24" OC

1/8-2X2
ALUM. ANGLE



SECTION K1
CORNER CLOSURE

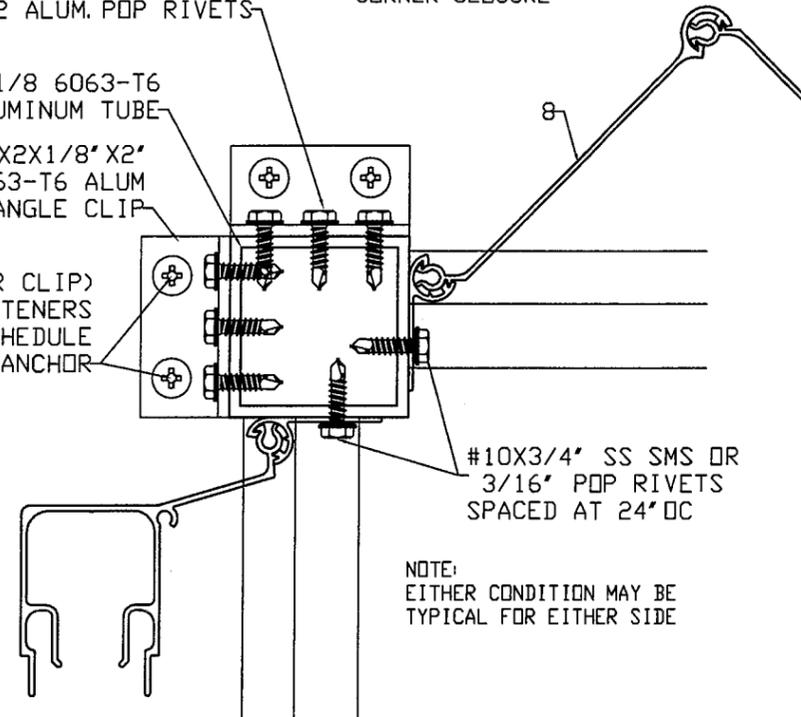
(3) #10 TEK SCREWS OR
3/16" 5052 ALUM. POP RIVETS

2X2X1/8 6063-T6
ALUMINUM TUBE

1X2X1/8" X2"
6063-T6 ALUM
ANGLE CLIP

(2 PER CLIP)
1/4" FASTENERS
SEE ANCHOR SCHEDULE
FOR ACCEPTABLE ANCHOR

SECTION K
CORNER CLOSURE



#10X3/4" SS SMS OR
3/16" POP RIVETS
SPACED AT 24" OC

NOTE:
EITHER CONDITION MAY BE
TYPICAL FOR EITHER SIDE

MANUFACTURER:



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Plantation, FL 33313
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Engineer Seal
Pedro De Figueiredo, PE 52609

DRAFTING:
PK DRAFTING & MORE

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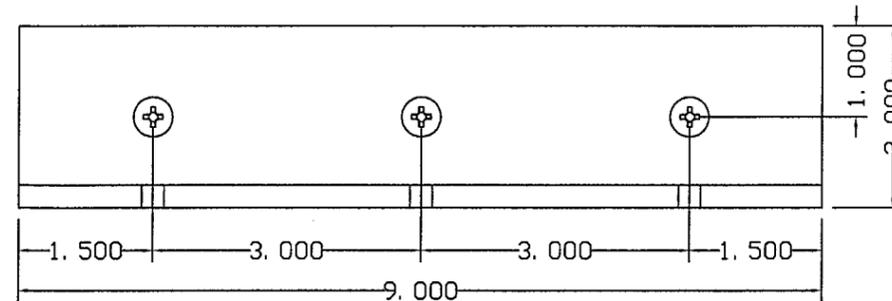
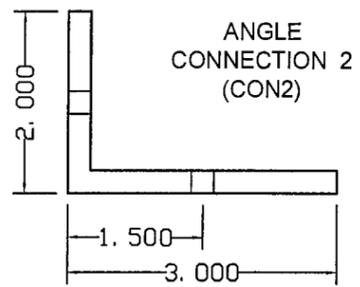
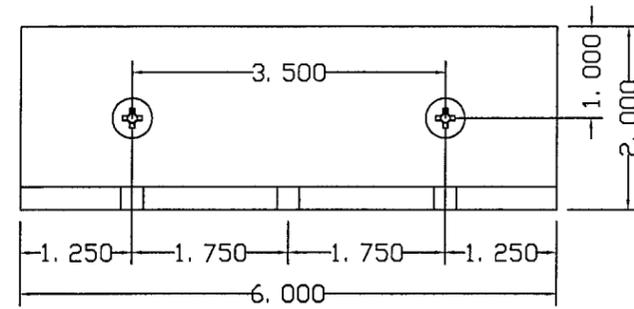
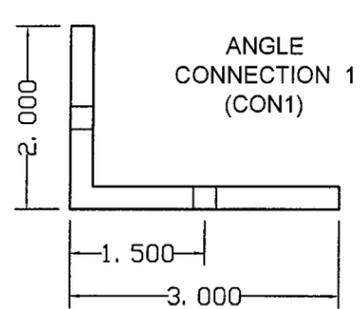
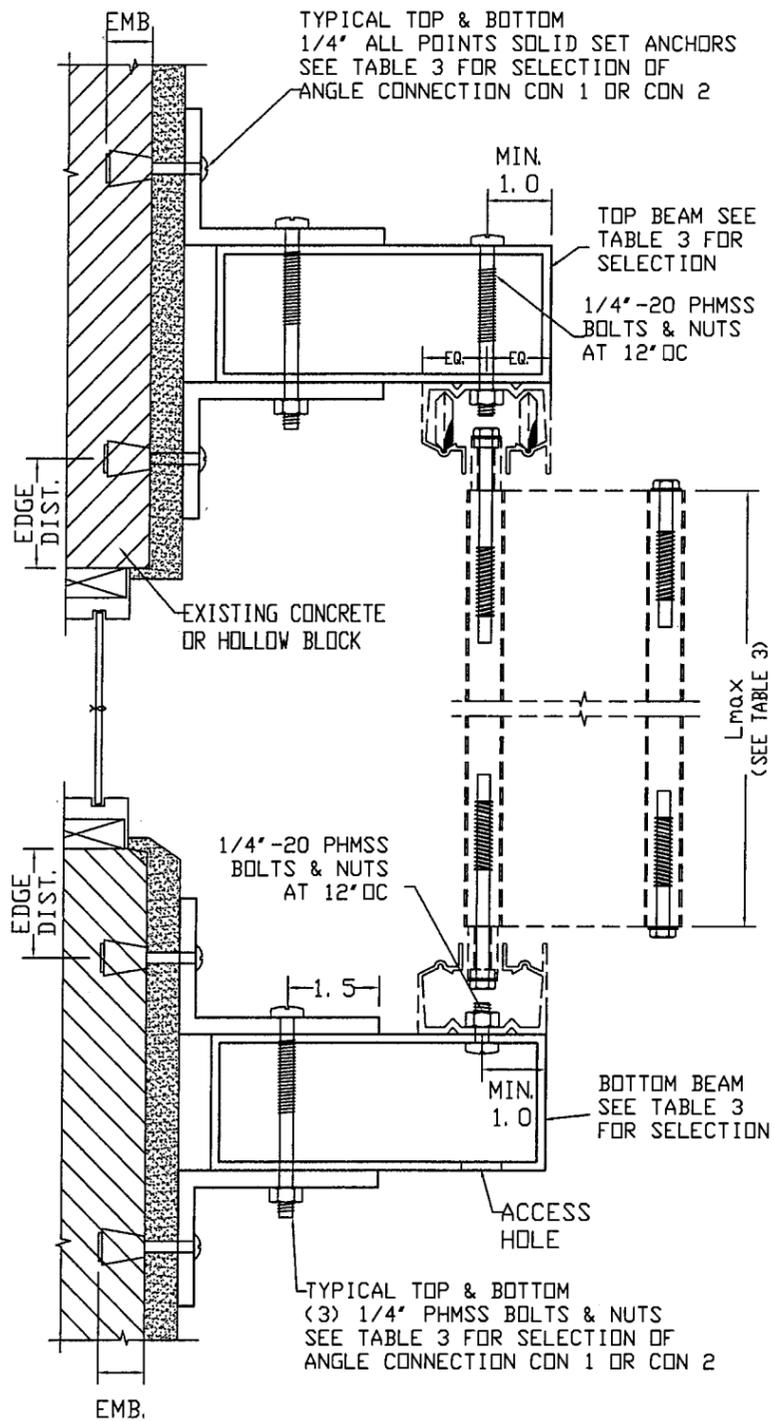
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Miami Dade Product Control
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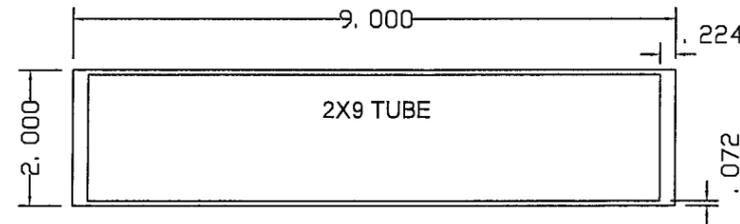
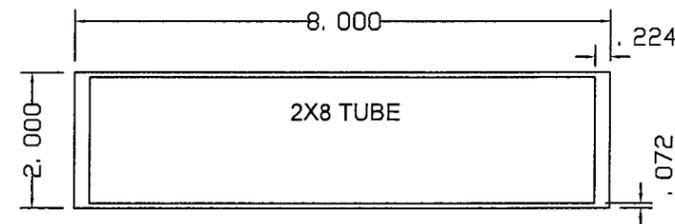
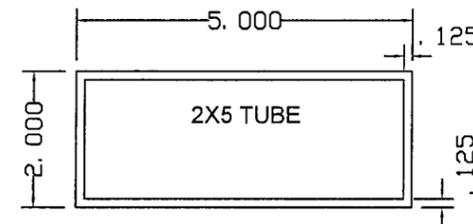
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SPAN TUBES SECURING INSET
MOUNT SECTION OPTION
MAX. PRESSURE 72 PSF



ANGLE NOTE:
2X3X1/4 6063-T6 ALUMINUM ALLOY ANGLE TOP & BOTTOM
CON 1- USE 6' LONG ANGLES WHEN TWO ANCHORS ARE REQUIRED
CON 2- USE 9' LONG ANGLES WHEN THREE ANCHORS ARE REQUIRED



BEAM SIZE (IN)	SHUTTER SPAN (IN)	TOP BEAM		BOTTOM BEAM	
		BEAM LENGTH (IN)	CON TYPE	BEAM LENGTH (IN)	CON TYPE
2X5	60	98	CON 1	113	CON 1
	96	87	CON 1	97	CON 1
	120	82	CON 1	90	CON 1
2X8	60	100	CON 1	168	CON 1
	96	89	CON 1	138	CON 2
	120	84	CON 1	124	CON 2
2X9	60	100	CON 1	185	CON 1
	96	91	CON 1	148	CON 2
	120	86	CON 2	133	CON 2

TABLE 3 NOTES:
1- TOP AND BOTTOM BEAMS MAY BE USED TOGETHER OR IN COMBINATION WITH OTHER MOUNTING CONDITIONS. THE LESSER DESIGN PRESSURE AND SPAN WILL GOVERN.
2- WHERE IF USED TOGETHER BEAM LENGTH MUST BE LIMITED BY THE TOP BEAM LENGTH.

DESIGN ON THIS SHEET LIMITED BY:
MAX. DESIGN PRESSURE = ± 72 PSF
MAX. BLADE = 120"

MANUFACTURER:
Roll-a-way
BY **QMI**
1661 GLENLAKE AVE.
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Miami Dade Product Control
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