



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

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

SLAS INC.
13690 SW 142nd Avenue #28
Miami, Florida 33186

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: "Delta-301" Aluminum Accordion Shutter System

APPROVAL DOCUMENT: Drawing No. 10-07, titled "Delta-301 Aluminum Accordion Shutter", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #E dated February 17, 2021, signed and sealed by Jalal Farooq, P.E., on February 18, 2021, 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 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 # 18-0118.01 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.**




H. A. Makar
03/25/2021

NOA No. 21-0219.04
Expiration Date: 09/15/2026
Approval Date: 03/25/2021

SLAS INC.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 11-0112.01**
 - A. DRAWINGS**
 1. *Drawing No. 10-07, titled " Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, prepared by Al-Farooq Corporation, dated December 06, 2010, signed and sealed by Javad Ahmad, P.E., on September 07, 2011.*
 - B. TESTS**
 1. *See Association's generic approval under 10-1211.*
 - C. CALCULATIONS**
 1. *See Association's generic approval under 10-1211.*
 - D. QUALITY ASSURANCE**
 1. *By Miami-Dade County Building and Neighborhood Compliance Department.*
 - E. MATERIAL CERTIFICATIONS**
 1. *See Association's generic approval under 10-1211.*
 - F. STATEMENTS**
 1. *Release letter issued by the Delta Shutter Group & Associates, Inc., dated September 07, 2011, certifying this product to meet the criteria of product tested and approved, and allowing SLAS INC. to use the test results approved under Miami-Dade County Approval No. 10-1211, signed by Ms. Gabriela Gonzalez.*
 2. *Acknowledgment letter by SLAS INC. dated September 07, 2011, signed by Ms. Gabriela Gonzalez.*
 3. *Letter by Al-Farooq Corporation, dated January 07, 2011, certifying that the drawing (No. 10-07) prepared for SLAS INC., signed and sealed by Javad Ahmad, P.E., is engineering wise identical to Delta Shutter's generic drawing (No. 10-05).*
- 2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-0215.04**
 - A. DRAWINGS**
 1. *Drawing No. 10-07, titled "Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #A dated February 01, 2012, signed and sealed by Javad Ahmad, P.E., on March 20, 2012.*
 - B. TESTS**
 1. *See Association's generic approval under 12-0103.*
 - C. CALCULATIONS**
 1. *See Association's generic approval under 12-0103.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

D. QUALITY ASSURANCE

1. *By Miami-Dade County Department OF Permitting, Environment, and Regulatory Affairs.*

E. MATERIAL CERTIFICATIONS

1. *See Association's generic approval under 12-0103.*

F. STATEMENTS

1. *Release letter issued by the Delta Shutter Group & Associates, Inc., dated February 08, 2012, certifying this product to meet the criteria of product tested and approved, and allowing SLAS INC. to use the test results approved under Miami-Dade County Approval No. 12-0103, signed by Ms. Gabriela Gonzalez.*
2. *Acknowledgment letter by SLAS INC., 02/08/2012, signed by Ms. Gabriela Gonzalez.*
3. *Letter by Al-Farooq Corporation, dated March 13, 2012, certifying that the drawing (No. 10-07) prepared for SLAS INC., signed and sealed by Javad Ahmad, P.E., is engineering wise identical to Delta Shutter's generic drawing (No. 10-05).*

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 14-1103.03

A. DRAWINGS:

1. *Drawing No. 10-07, titled "Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated 12/06/2010, last revision #B dated 10/20/2014, signed and sealed by Javad Ahmad, P.E., on 10/28/2014.*

B. TESTS:

1. *None.*

C. CALCULATIONS:

1. *Anchor calculation, dated October 17, 2014, 64 sheets, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., on October 28, 2014.*

D. QUALITY CONTROL


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

E. MATERIAL CERTIFICATION:

1. *None.*

F. OTHERS

1. *Letter prepared by Al-Farooq Corporation, dated October 17, 2014, signed and sealed by Javad Ahmad, P.E., on October 28, 2014, certifying that drawing #10-07 is in compliance with the 2014 Edition of the Florida Building Code.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
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SLAS INC.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 16-0712.01

A. DRAWINGS:

1. *Drawing No. 10-07, titled " Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #C dated July 27, 2016.*

B. TESTS:

1. *None.*

C. CALCULATIONS:

1. *None.*

D. QUALITY CONTROL

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

E. MATERIAL CERTIFICATION:

1. *None.*

F. OTHERS

1. *Letter prepared by Al-Farooq Corporation, dated July 28, 2016, signed and sealed by Javad Ahmad, P.E., on August 01, 2016, certifying that drawing #10-07 is in compliance with the 2014 Edition of the Florida Building Code.*

5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 18-0118.01

A. DRAWINGS:

1. *Drawing No. 10-07, titled " Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #D dated December 05, 2017.*

B. TESTS:

1. *None.*

C. CALCULATIONS:

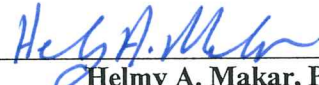
1. *Anchor calculation, dated October 19, 2017, 33 sheets, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., on December 18, 2017.*

D. QUALITY CONTROL

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

E. MATERIAL CERTIFICATION:

1. *None.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. OTHERS

1. *Letter prepared by Al-Farooq Corporation, dated October 19, 2017, signed and sealed by Javad Ahmad, P.E., on December 18, 2017, certifying that drawing #10-07 is in compliance with the 2014 Edition and 2017 Edition of the Florida Building Code.*

6. NEW EVIDENCE SUBMITTED

A. DRAWINGS:

1. *Drawing No. 10-07, titled " Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #E dated February 17, 2021, signed and sealed by Jalal Farooq, P.E., on February 18, 2021.*

B. TESTS:

1. *None.*

C. CALCULATIONS:

1. *Anchor calculation, dated February 10, 2021, 23 sheets, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E., on February 10, 2021.*

D. QUALITY CONTROL

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

E. MATERIAL CERTIFICATION:

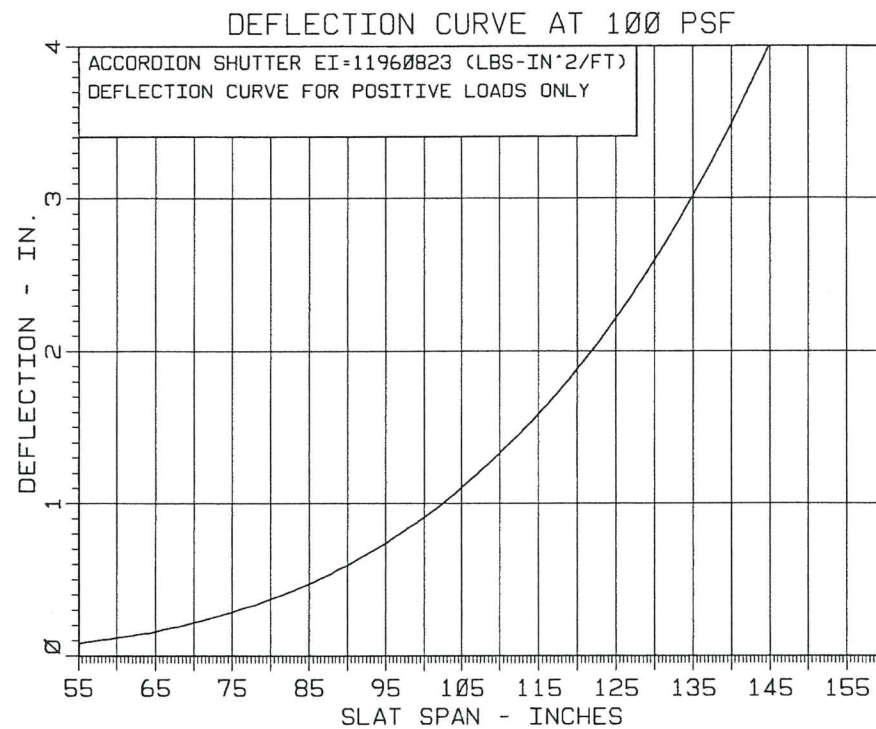
1. *None.*

F. OTHERS

1. *Letter prepared by Al-Farooq Corporation, dated February 10, 2021, signed and sealed by Jalal Farooq, P.E., on February 10, 2021, certifying that drawing #10-07 is in compliance with the 2020 Edition of the Florida Building Code.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
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MINIMUM SEPARATION FROM GLASS			
SEPARATION REQD. DUE TO WIND LOAD USE CHART ABOVE		SEPARATION REQD. DUE TO LARGE MISSILE IMPACT	
SHUTTER SPAN = H =	IN.	FOR SLAT SPANS UPTO	SEPARATION
DESIGN LOAD = Pd =	PSF		
FACTOR = K = Pd/100 =	IN.		
READING FROM SPAN D. CURVE = D =	IN.		
DEFLECTION AT Pd = K*D =	IN.		
MIN. SEPARATION REQD. = K*D+1" =	IN.	96"	2-3/4"
		120"	3-1/4" *
		160"	4-3/8"
FOR INSTALLATIONS UPTO 30' OF GRADE USE MAXIMUM OF WIND LOAD OR IMPACT LOAD REQUIREMENTS SHOWN ABOVE			
FOR INSTALLATIONS ABOVE 30' OF GRADE IGNORE LARGE MISSILE IMPACT REQUIREMENT.			
NOTE: NO PART OF SHUTTER SHALL BE UNDER 30' ABOVE GRADE TO WAIVE LARGE MISSILE IMPACT REQUIREMENT.			

* LIMIT GLASS SEPARATION TO 3-1/2" WHEN CEILING HEADERS WITH BUILT OUT ANGLES ARE USED IN COMBINATION WITH SILL TRACK WITH ADAPTER.

GENERAL NOTES

1. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
2. DESIGN CRITERIA FOR ALUMINUM, MINIMUM MECHANICAL PROPERTIES, AND SAFETY FACTORS ARE IN ACCORDANCE WITH THE "ALUMINUM CONSTRUCTION MANUAL" LATEST EDITION.
3. ALUMINUM ALLOYS: ALL EXTRUSIONS SHALL BE ALLOY AS SHOWN.
4. MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.
5. ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
6. ALL BOLTS SHALL BE STAINLESS STEEL, ALUMINUM ALLOY 2024-T4 OR 7075-T6, OR PLATED STEEL. WING NUTS TO BE OF ZINC ALLOY.
7. DESIGN CRITERIA FOR SLATS: MAX DEFLECTION \leq THE LESSER OF L/30 OR 2".
8. THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.
9. A LOAD DURATION INCREASE IN ALLOWABLE STRESS IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
10. DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

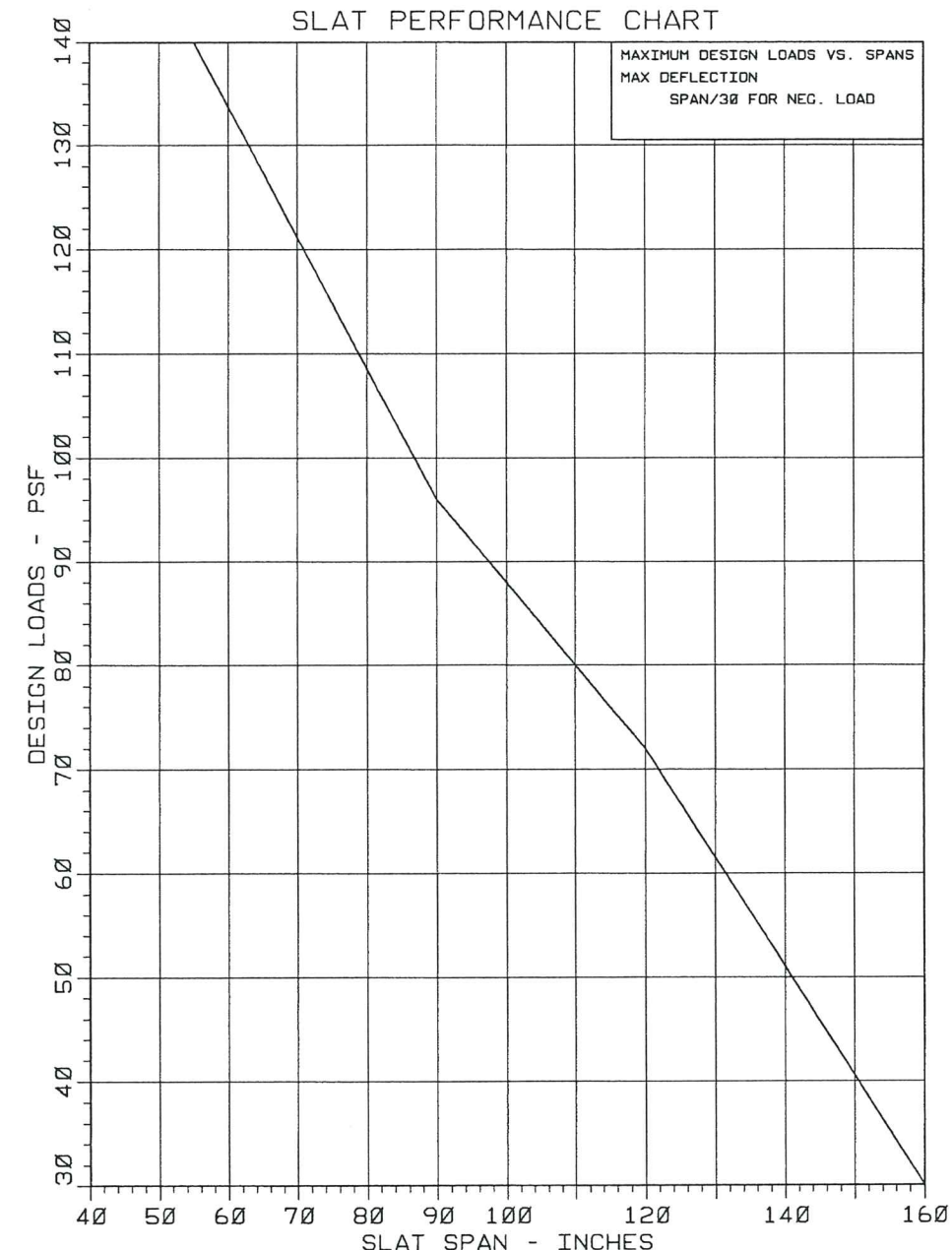
PRODUCT MARKING

A LABEL SHALL BE AFFIXED ON LOCKING MEMBER OF UNIT ABOVE LOCK WITH THE FOLLOWING STATEMENT.

SLAS INC.

'MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED'

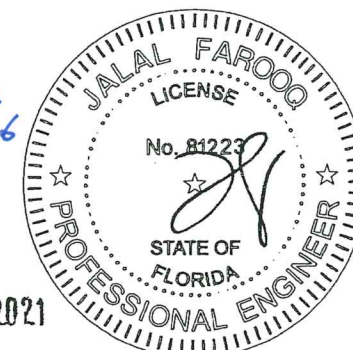
FOR INSTALLATION DETAILS SEE SHEETS 3 THRU 6.



USE SLAT PERFORMANCE CHART TO VERIFY SLAT CAPACITY FOR THE REQUIRED DESIGN LOAD FOR THE PARTICULAR LOCATION.

DESIGN LOADS SHALL BE CALCULATED AS PER REQUIREMENTS OF ASCE 7-10.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 21-0219.04
Expiration Date 09/15/2026
By He G. Miller
Miami Dade Product Control



FEB 18 2021

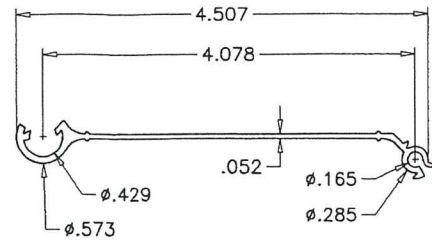
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
(C.A.N. 3538)

DELTA-301 ALUMINUM ACCORDION SHUTTER

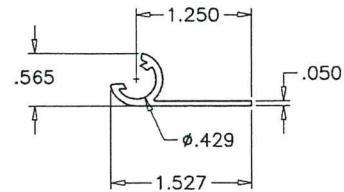
SLAS INC.
13690 S.W. 142 AVE. #28
MIAMI, FL. 33186
TEL(305) 225-1393 FAX(305) 225-1322

no	date	by	description
A	02.01.12		UPDATED TO 2010 FBC
B	10.20.14		UPDATED TO 2014 FBC
C	07.27.16		EDITORIAL CHANGES
D	12.05.17		UPDATED TO 2017 FBC
E	02.17.21		UPDATED TO 2020 FBC

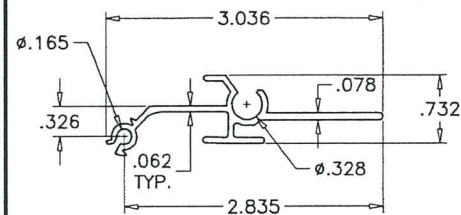
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dr. by: TARIQ
chk. by:
drawing no.
10-07
sheet 1 of 11



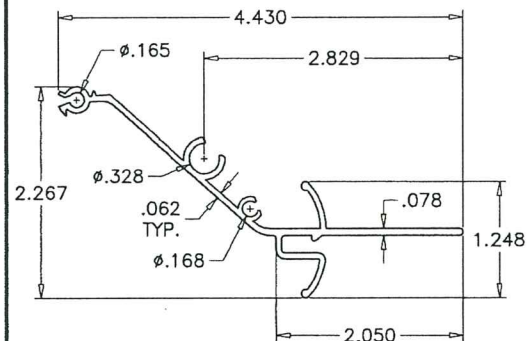
SLAT
6063-T6



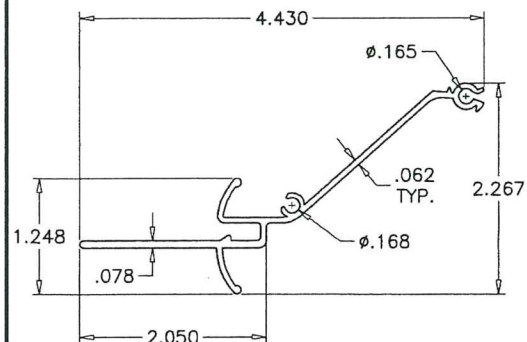
FEMALE END SLAT
6063-T6



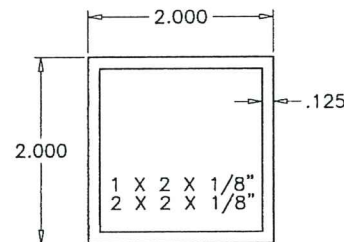
SLANTED LOCKING SLAT
6063-T6



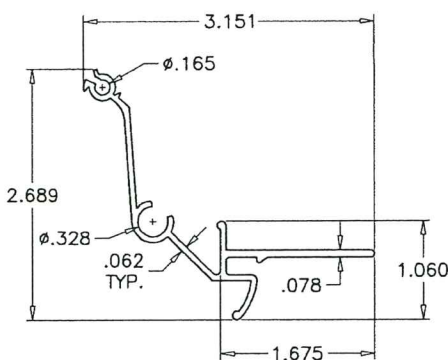
LOCKING SLAT LH
6063-T6



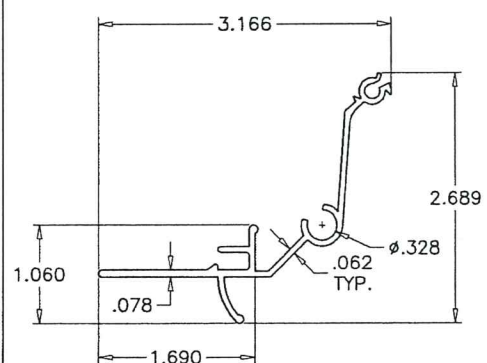
LOCKING SLAT RH
6063-T6



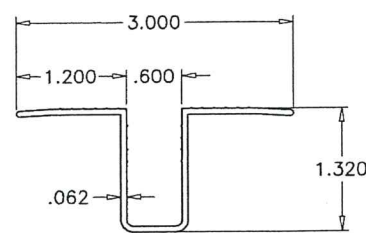
BUILT-OUT TUBES
6063-T6



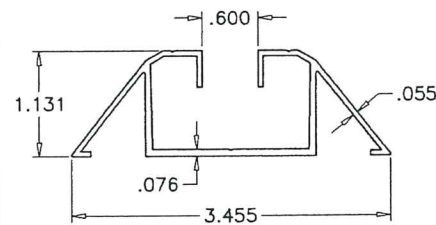
CORNER LOCKING SLAT LH
6063-T6



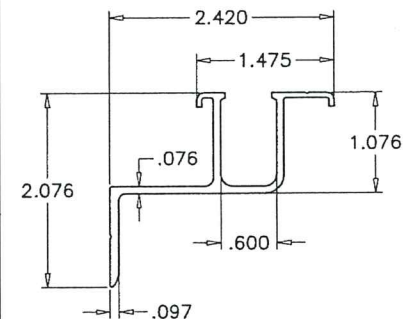
CORNER LOCKING SLAT RH
6063-T6



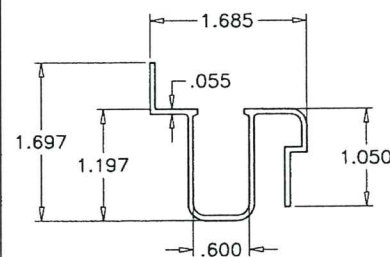
EMBEDDED TRACK
6063-T6



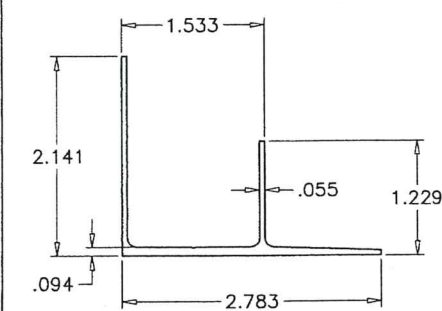
THRESHOLD TRACK
6063-T6



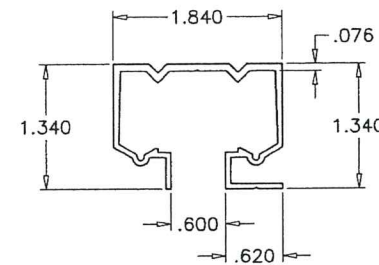
WALL SILL
6063-T6



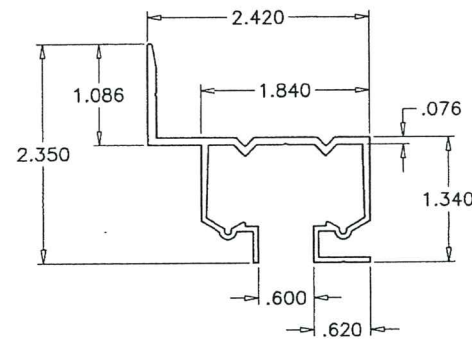
BOTTOM SILL TRACK
6063-T6



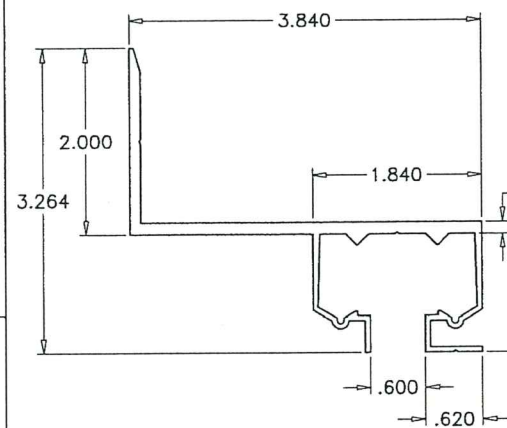
BOTTOM TRACK ADAPTER
6063-T6



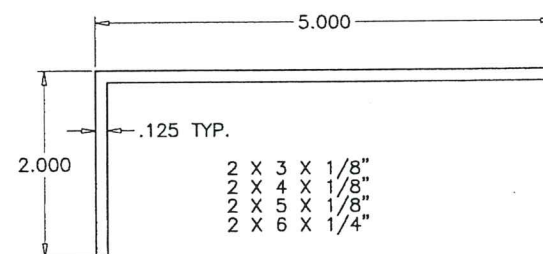
CEILING HEADER
6063-T6



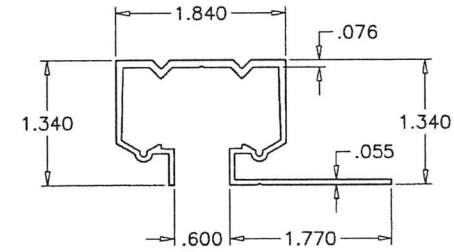
1" BUILT-OUT WALL HEADER
6063-T6



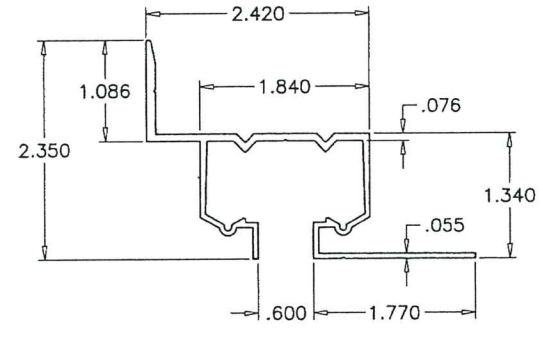
2" BUILT-OUT WALL HEADER
6063-T6



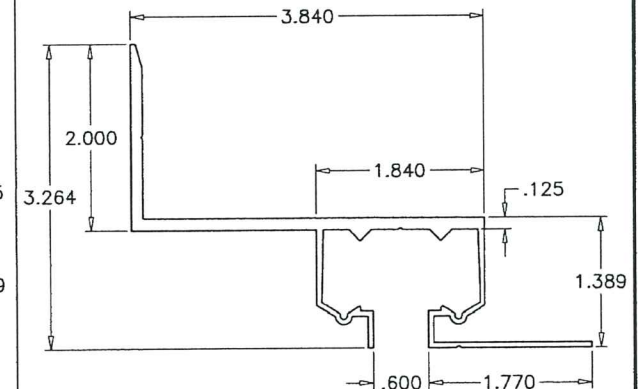
BUILT-OUT ANGLES
6063-T6



ALT. CEILING HEADER
6063-T6

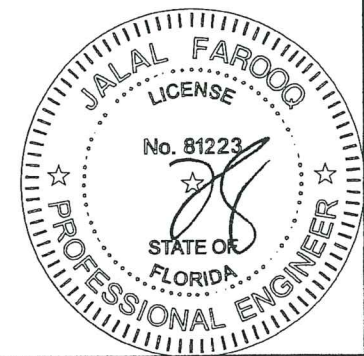


ALT. 1" BUILT-OUT WALL HEADER
6063-T6



ALT. 2" BUILT-OUT WALL HEADER
6063-T6

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 21-0219.04
Expiration Date 09/15/2026
By: *Hes A. M. M.*
Miami Data Product Control



FEB 18 2021

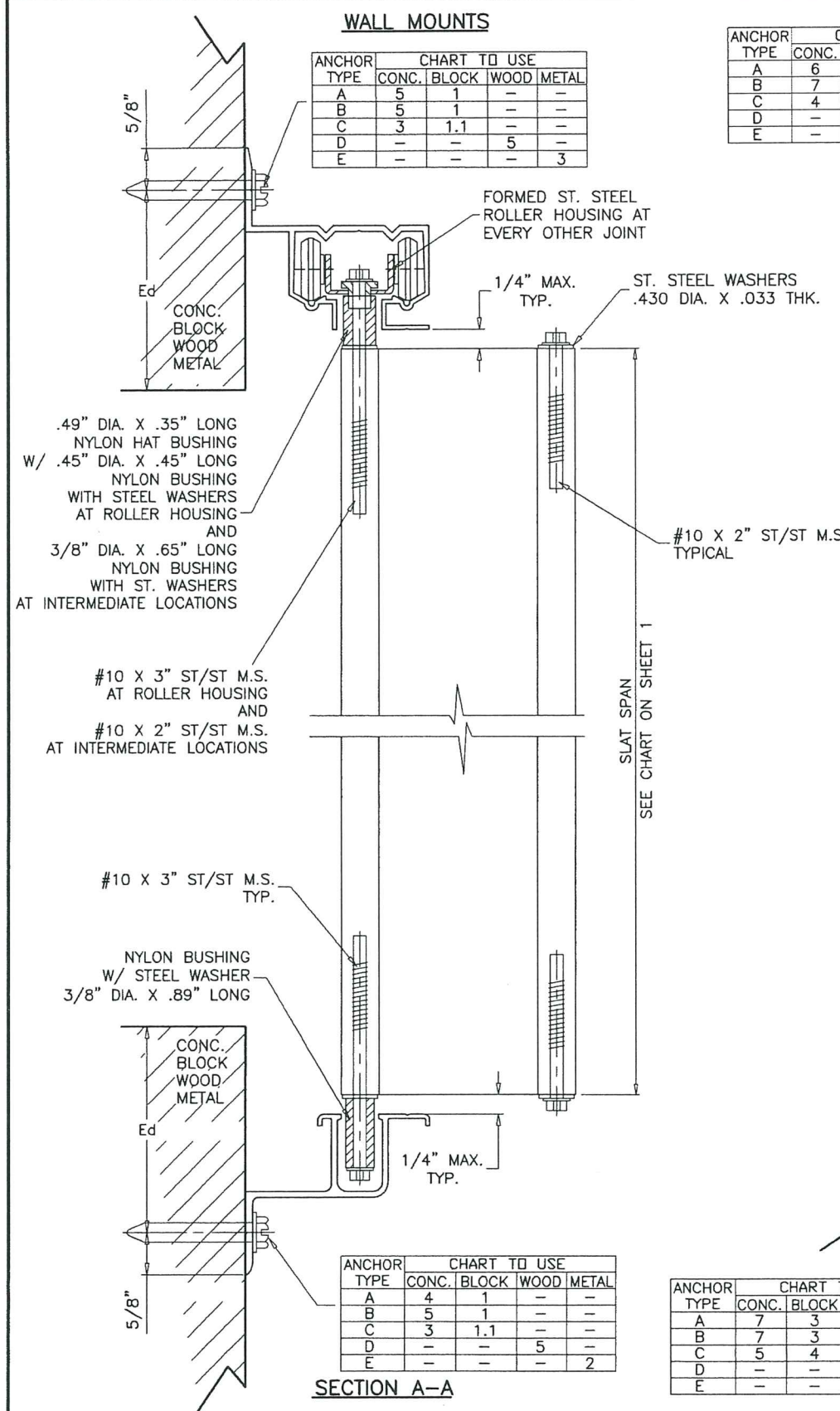
afC
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
ACCORDION/10-07SOSF

DELTA-301 ALUMINUM ACCORDION SHUTTER
SLAS INC.
13690 S.W. 142 AVE. #28
MIAMI, FL. 33186
TEL(305) 225-1393 FAX(305) 225-1322

revisions:	no	date	description
	A	02.01.12	NO CHANGE THIS SHEET
	B	10.20.14	NO CHANGE THIS SHEET
	C	07.27.16	EDITORIAL CHANGES
	D	12.05.17	NO CHANGE THIS SHEET
	E	02.17.21	UPDATED TO 2020 FBC

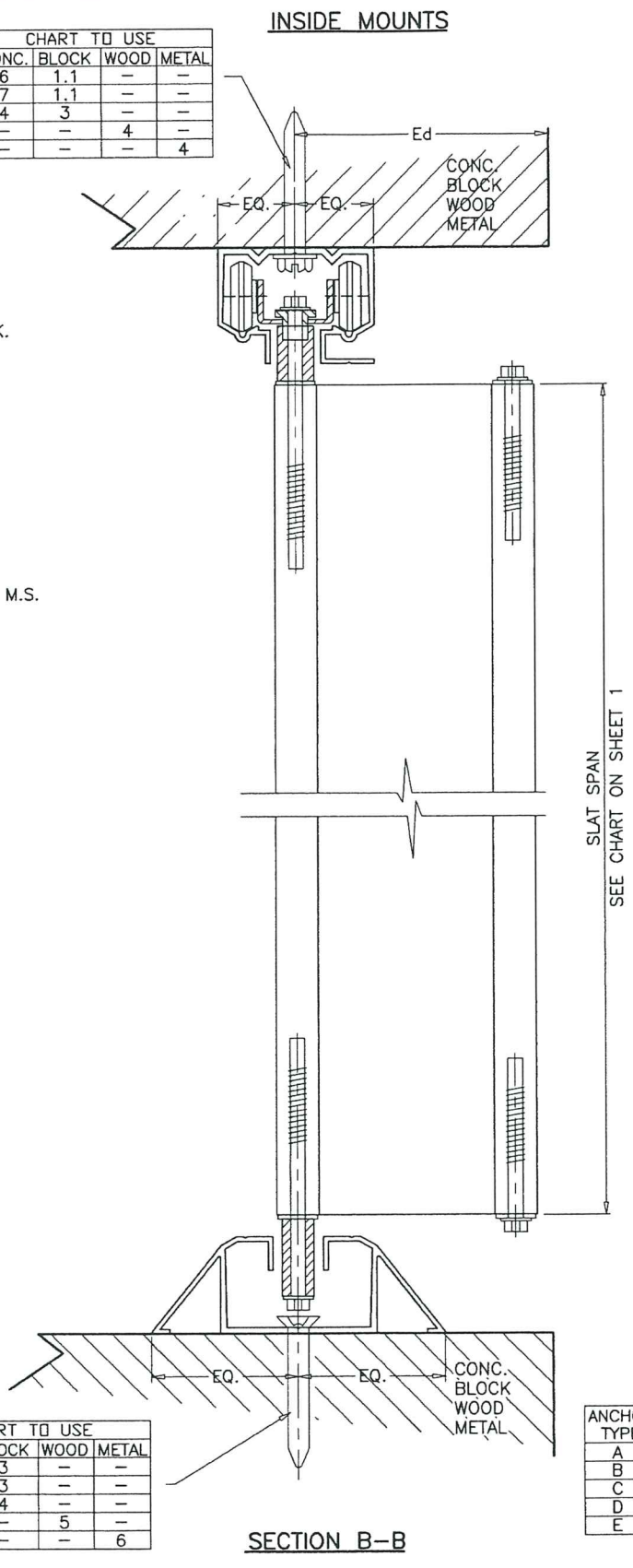
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scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
10-07
sheet 2 of 11



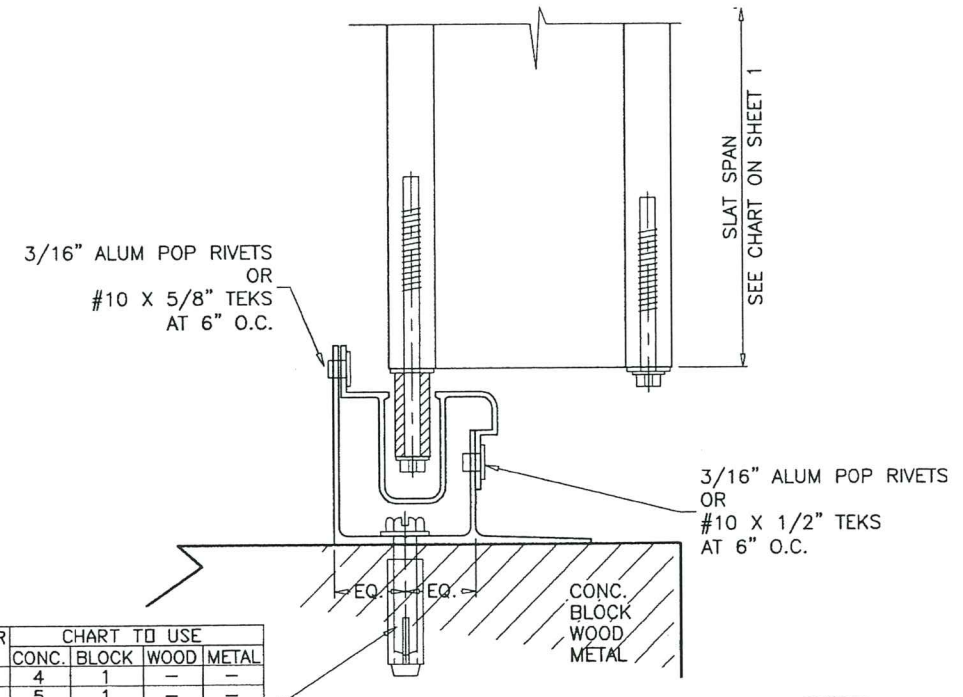
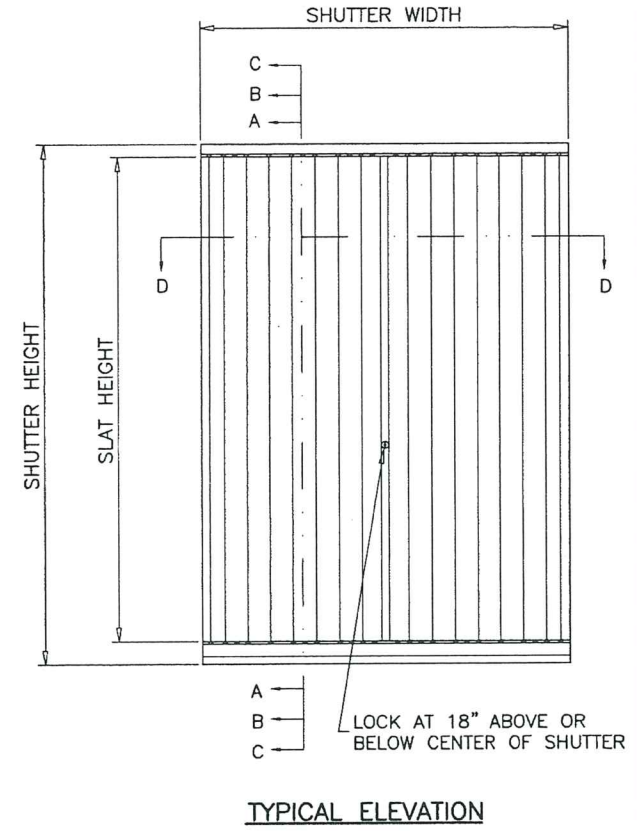
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	5	1	-	-
B	5	1	-	-
C	3	1.1	-	-
D	-	-	5	-
E	-	-	-	3

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	1.1	-	-
B	7	1.1	-	-
C	4	3	-	-
D	-	-	4	-
E	-	-	-	4

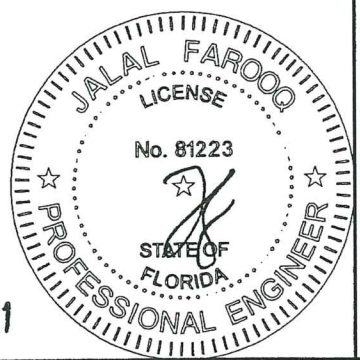


ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	7	3	-	-
B	7	3	-	-
C	5	4	-	-
D	-	-	5	-
E	-	-	-	6

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	1	-	-
B	5	1	-	-
C	3	2	-	-
D	-	-	4	-
E	-	-	-	3



PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 21-0219.04
 Expiration Date 09/15/2026
 By: *Heidi A. Miller*
 Miami Data Product Control



FOR GENERAL NOTES AND EXTRUSION DETAILS SEE SHEETS 1 & 2.
 FOR WOOD INSTALLATIONS SEE SHEET 8.

HEADER AND SILL DETAILS CAN BE USED IN ANY COMBINATIONS.

FEB 18 2021

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978

DELTA-301 ALUMINUM ACCORDION SHUTTER

SLAS INC.
 13690 S.W. 142 AVE. #28
 MIAMI, FL. 33186
 TEL(305) 225-1393 FAX(305) 225-1322

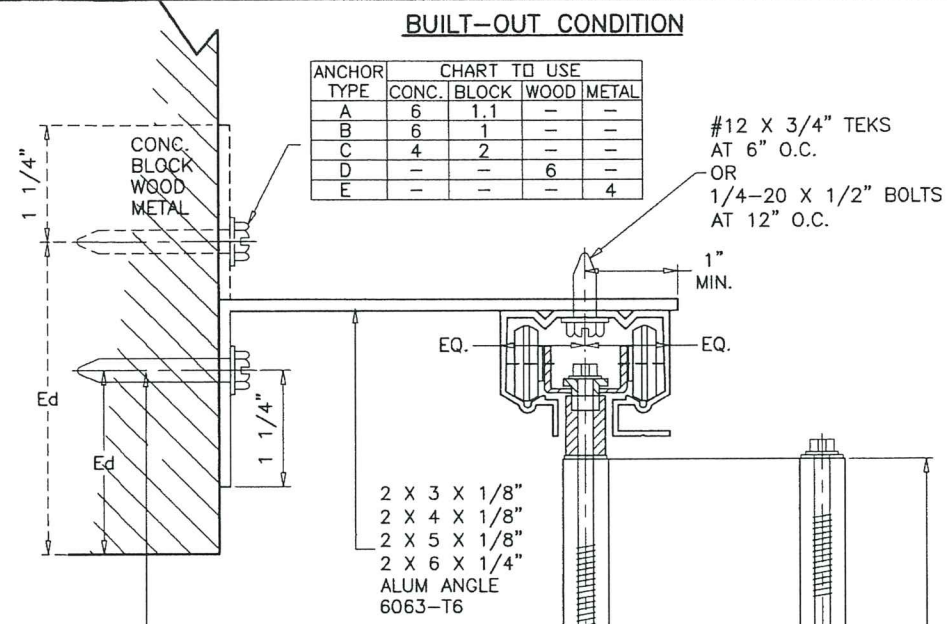
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A	02.01.12		NO CHANGE THIS SHEET
B	10.20.14		UPDATED TO 2014 FBC
C	07.27.16		EDITORIAL CHANGES
D	12.05.17		NO CHANGE THIS SHEET
E	02.17.21		UPDATED TO 2020 FBC

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 dr. by: TARIQ
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10-07

sheet 3 of 11



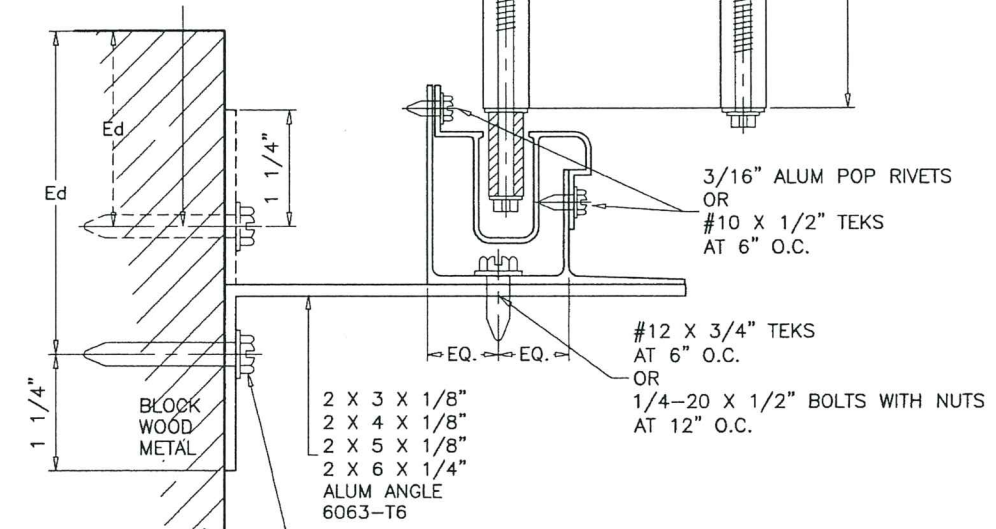
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	CONC.	BLOCK	WOOD	METAL
A	6	1.1	—	—
B	6	1	—	—
C	4	2	—	—
D	—	—	6	—
E	—	—	—	4

#12 X 3/4" TEKS
AT 6" O.C.
OR
1/4-20 X 1/2" BOLTS WITH NUTS
AT 12" O.C.

2 X 3 X 1/8"
2 X 4 X 1/8"
2 X 5 X 1/8"
2 X 6 X 1/4"
ALUM ANGLE
6063-T6

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	7	4	—	—
B	8	3	—	—
C	6	4	—	—
D	—	—	8	—
E	—	—	—	5

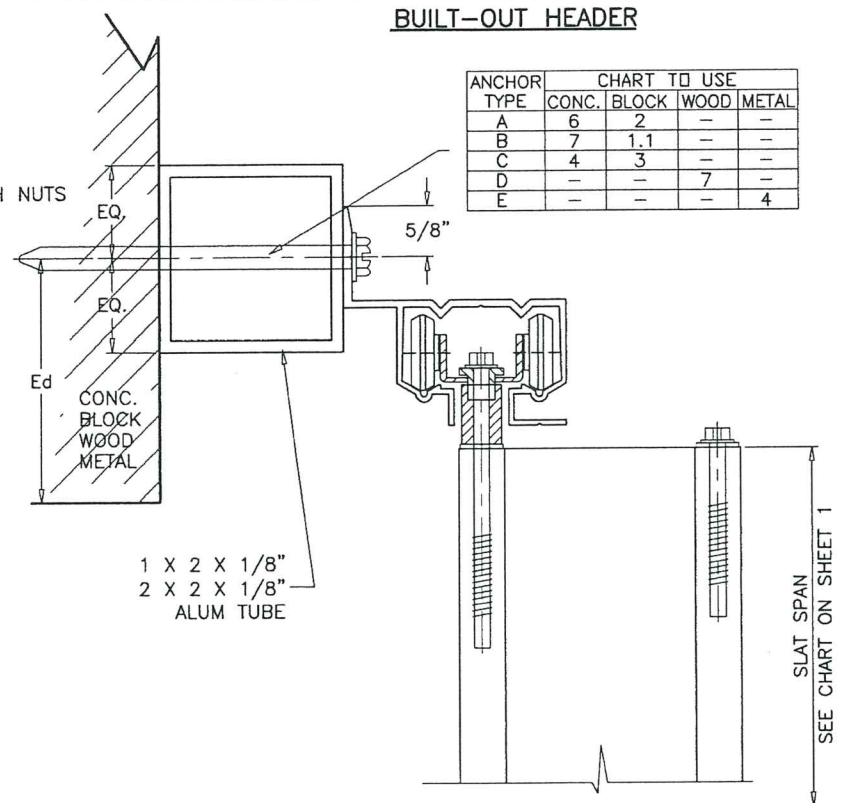
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	1.1	—	—
B	7	1.1	—	—
C	4	3	—	—
D	—	—	7	—
E	—	—	—	4



2 X 3 X 1/8"
2 X 4 X 1/8"
2 X 5 X 1/8"
2 X 6 X 1/4"
ALUM ANGLE
6063-T6

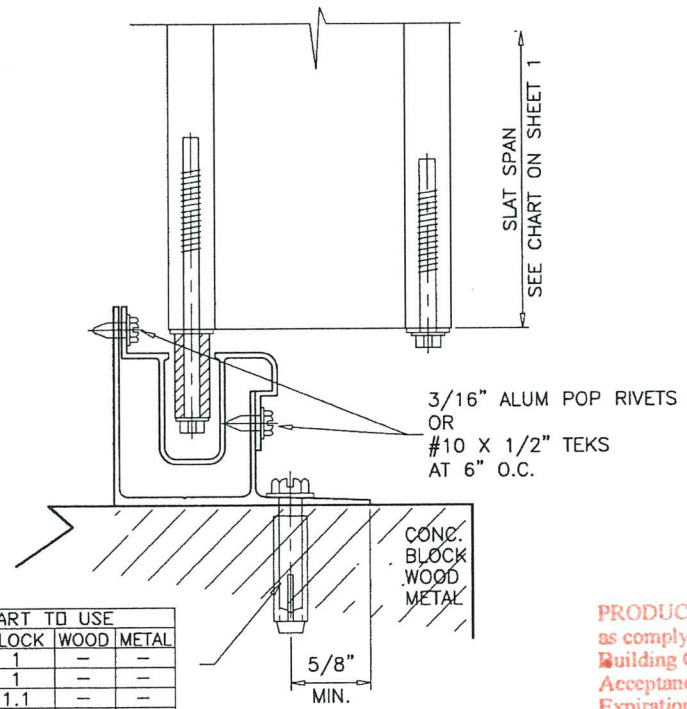
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	5	1.1	—	—
B	6	1	—	—
C	4	1.1	—	—
D	—	—	6	—
E	—	—	—	3

SECTION C-C



ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	2	—	—
B	7	1.1	—	—
C	4	3	—	—
D	—	—	7	—
E	—	—	—	4

1 X 2 X 1/8"
2 X 2 X 1/8"
ALUM TUBE



ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	1	—	—
B	4	1	—	—
C	3	1.1	—	—
D	—	—	4	—
E	—	—	—	3

ADJUSTABLE SILL

HEADER AND SILL DETAILS CAN BE
USED IN ANY COMBINATIONS.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 21-0219-04
Expiration Date 09/15/2026
By H. G. A. M. H.
Miami Door Product Control



FEB 18 2021

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
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DELTA-301 ALUMINUM ACCORDION SHUTTER

SLAS INC.
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MIAMI, FL. 33186
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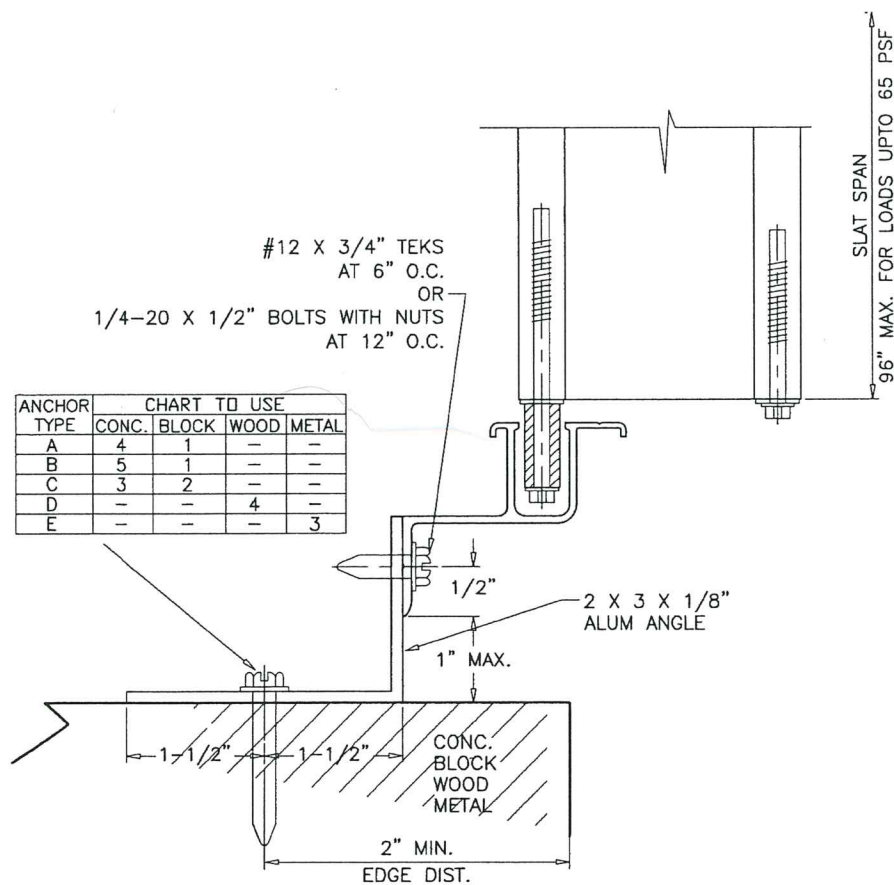
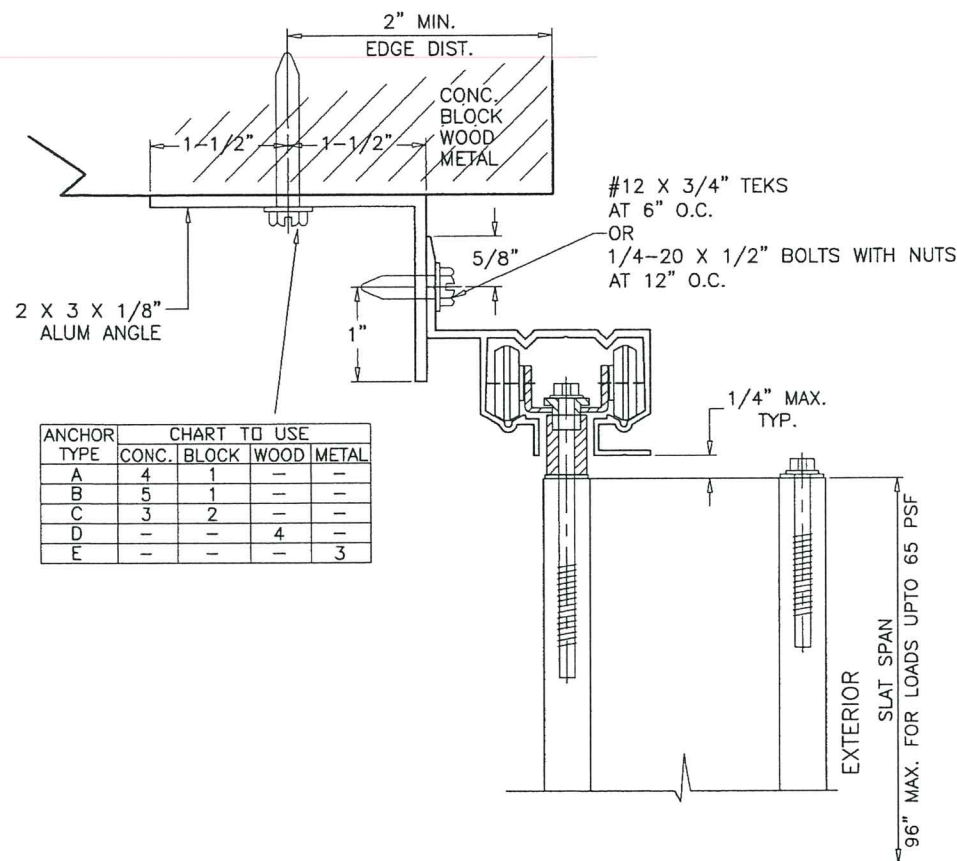
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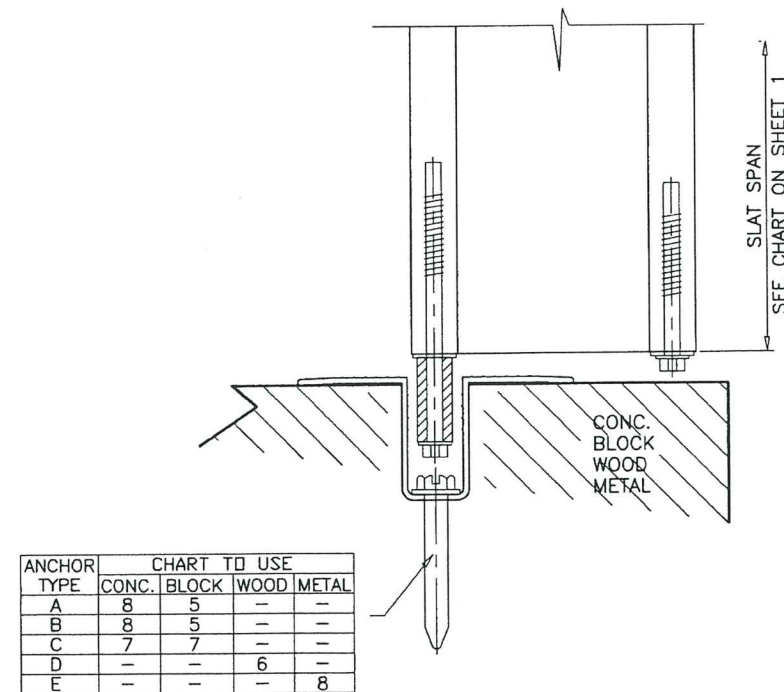
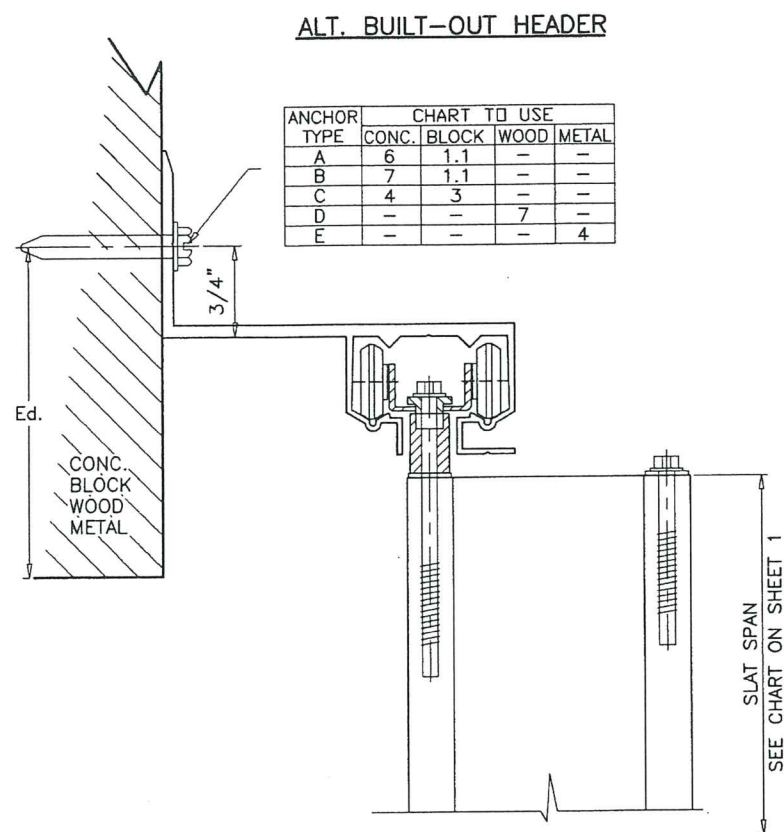
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10-07

sheet 4 of 11

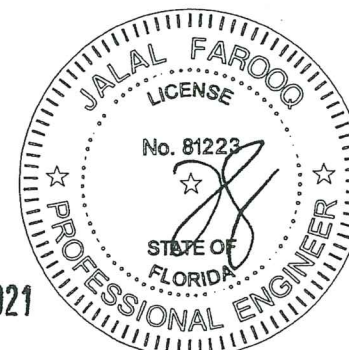


ADJUSTABLE SILL



HEADER AND SILL DETAILS CAN BE USED IN ANY COMBINATIONS.

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Miami Dade Product Control



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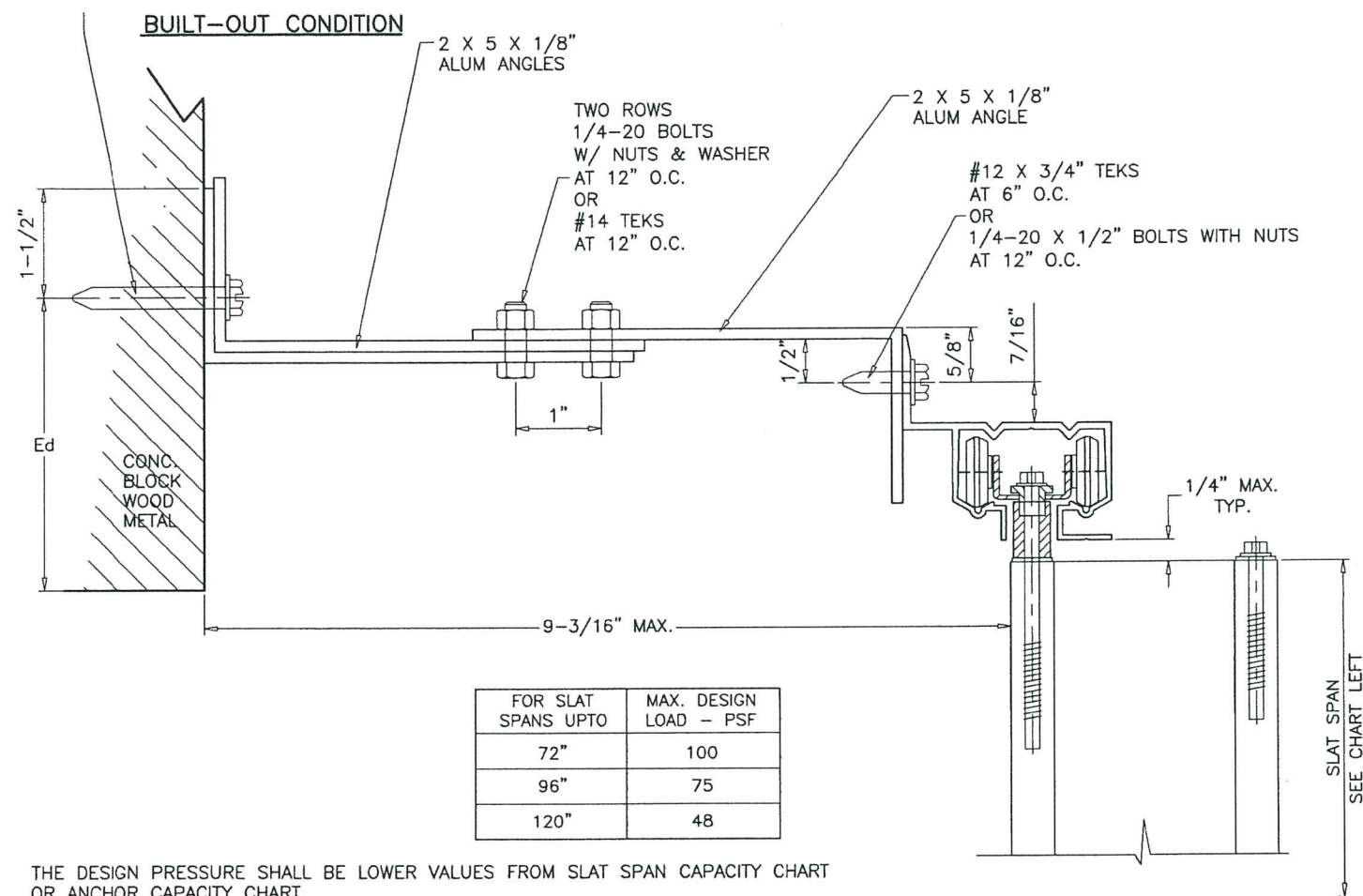
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10-07

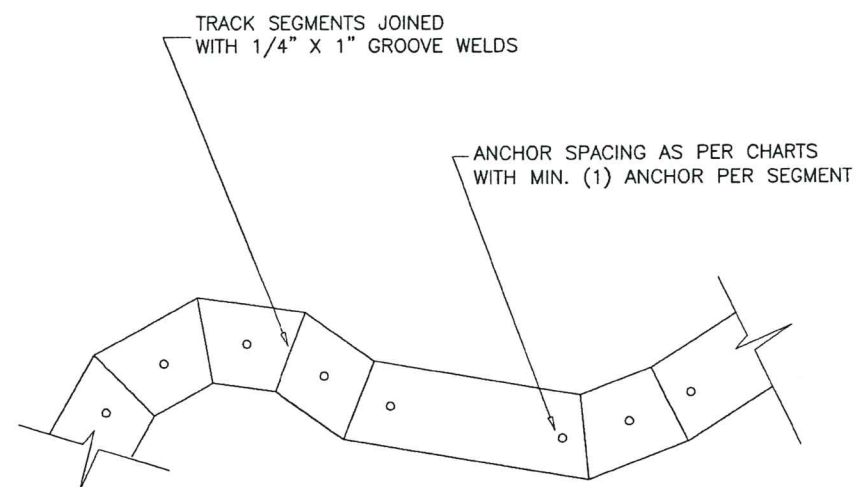
sheet 5 of 11

ANCHOR TYPE	ANCHOR SPACING INCHES															
	UPTO 40 PSF				UPTO 50 PSF				UPTO 60 PSF				UPTO 70 PSF			
A	8.3	—	—	—	6.6	—	—	—	5.5	—	—	—	4.7	—	—	—
B	9	—	—	—	7.2	—	—	—	6.0	—	—	—	5.2	—	—	—
D	—	—	11.1	—	—	—	8.9	—	—	—	7.4	—	—	6.3	—	—
E	—	—	—	5.3	—	—	—	4.3	—	—	—	3.6	—	—	—	3

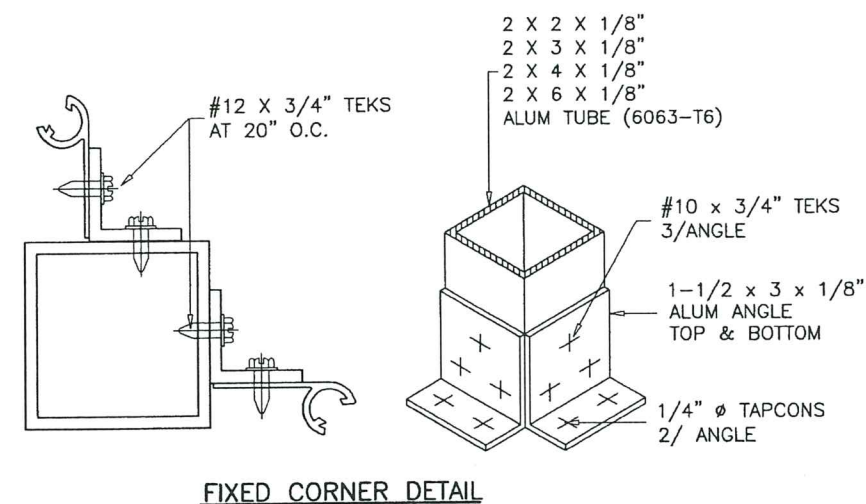


FOR SLAT SPANS UPTO	MAX. DESIGN LOAD - PSF
72"	100
96"	75
120"	48

THE DESIGN PRESSURE SHALL BE LOWER VALUES FROM SLAT SPAN CAPACITY CHART OR ANCHOR CAPACITY CHART.



CURVED TRACK OPTION WITH SEGMENTED SECTIONS



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By *Heg A. M. M.*
Miami Date Product Control



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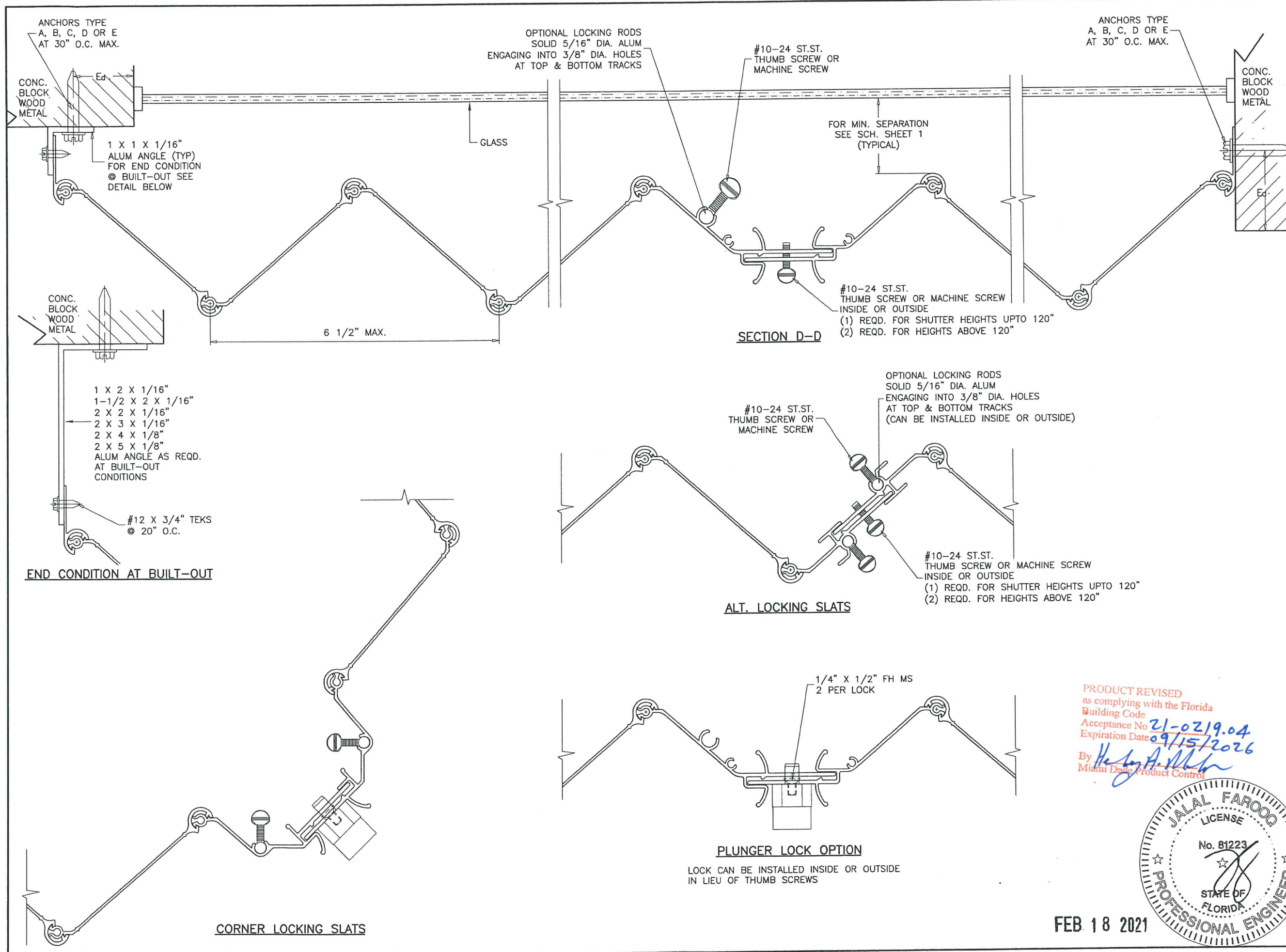
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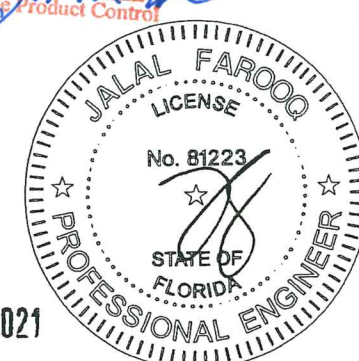
21-0219.04
09/15/2026

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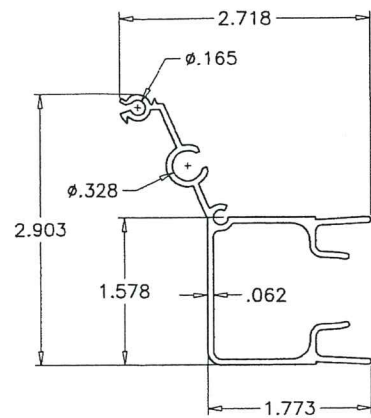
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chk. by:

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10-07
sheet 7 of 11

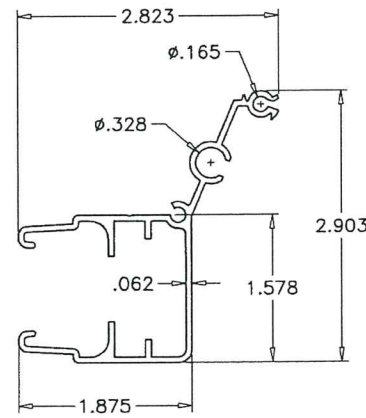
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Acceptance No. 21-0219.04
Expiration Date 09/15/2026
By *Heidi A. Miller*
Miami Dade Product Control



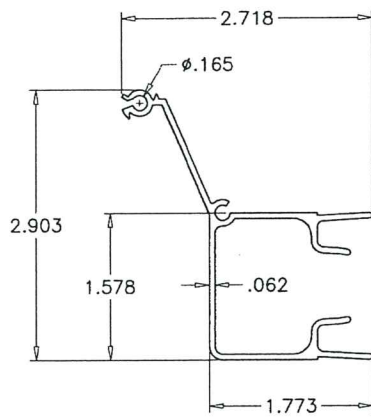
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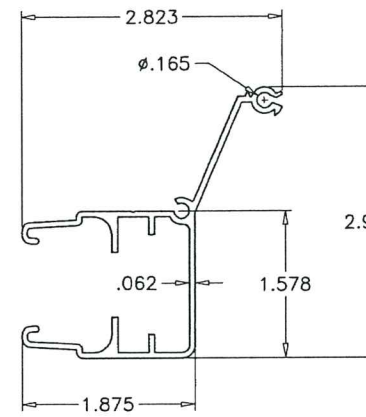
FEMALE LOCKING SLAT TYPE 1
6063-T6



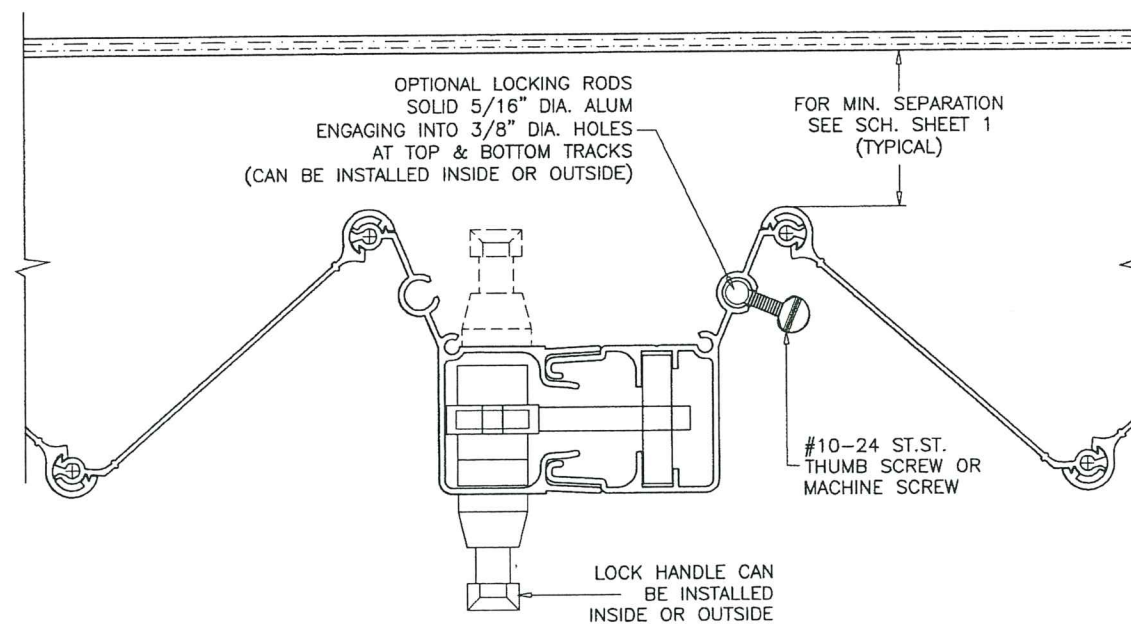
MALE LOCKING SLAT TYPE 1
6063-T6



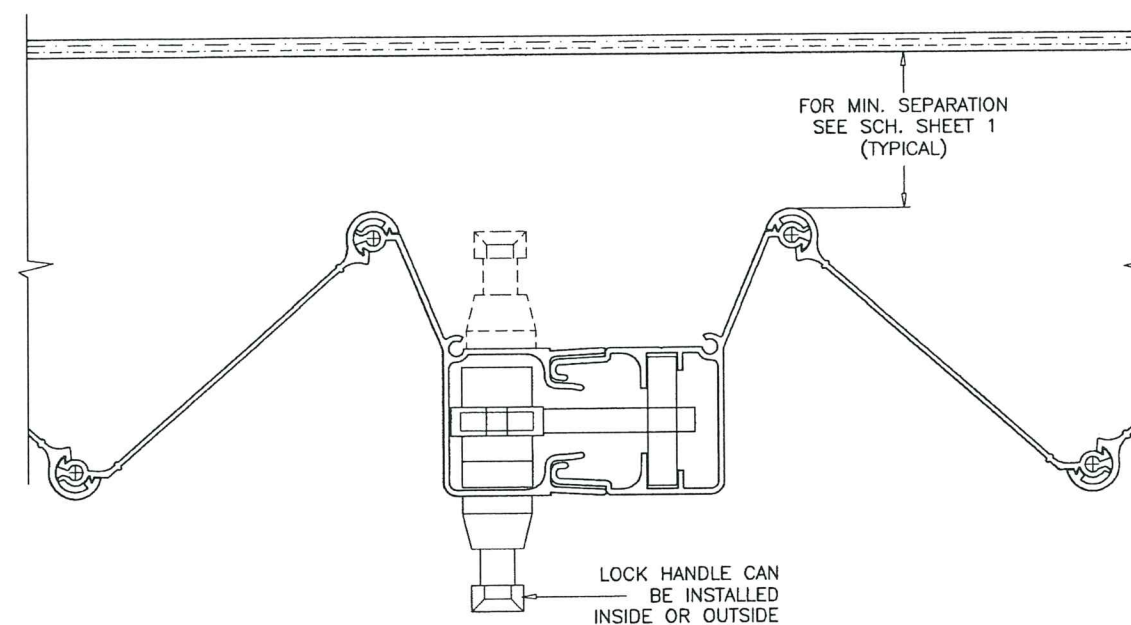
FEMALE LOCKING SLAT TYPE 2
6063-T6



MALE LOCKING SLAT TYPE 2
6063-T6



ALT. LOCKING SLATS TYPE 1



ALT. LOCKING SLATS TYPE 2

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By: *H. A. M. W.*
Miami Data Product Control

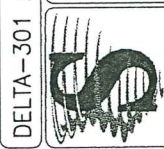


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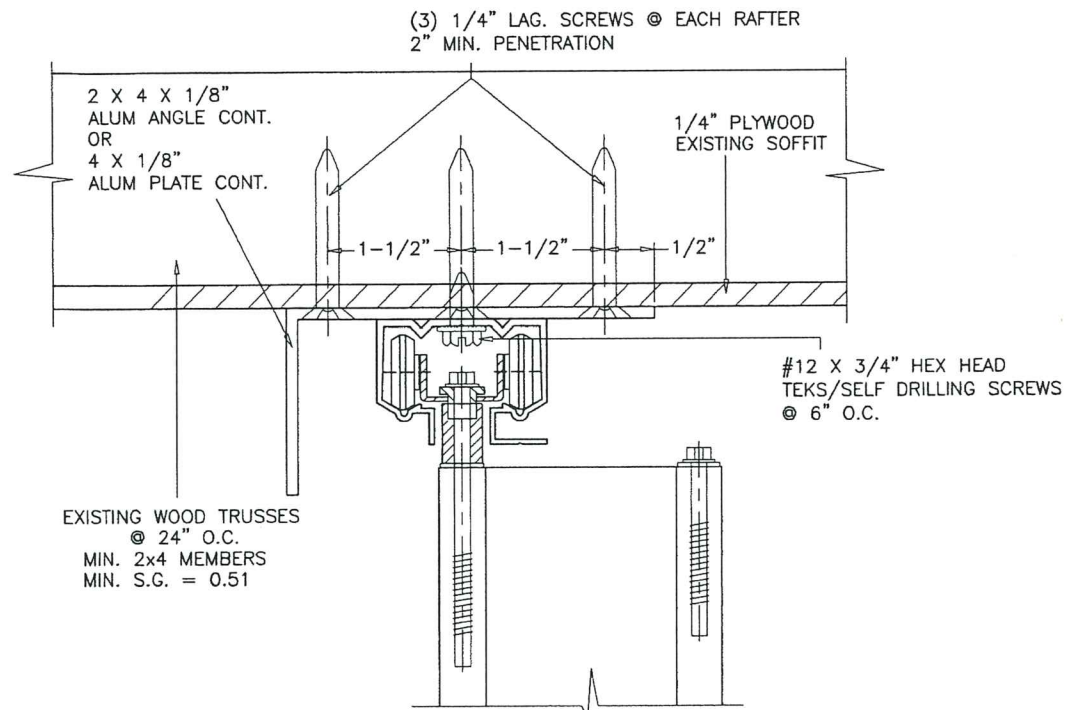
DELTA-301 ALUMINUM ACCORDION SHUTTER
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MIAMI, FL. 33186
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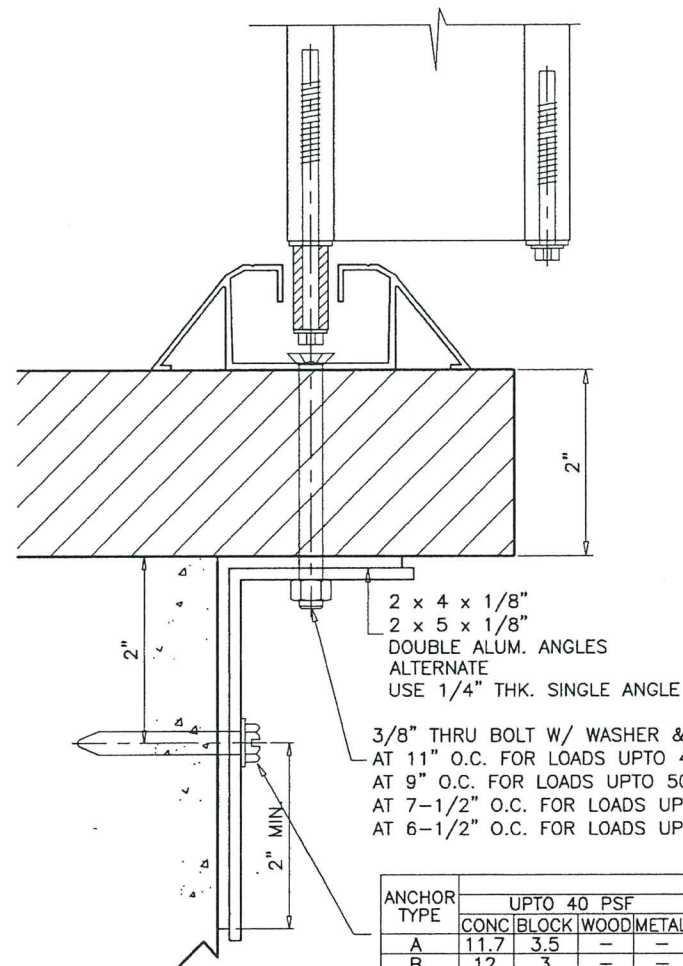
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sheet 7.1 of 11

ACCORDION/10-07SOSF



HEADER CONNECTION TO WOOD TRUSSES

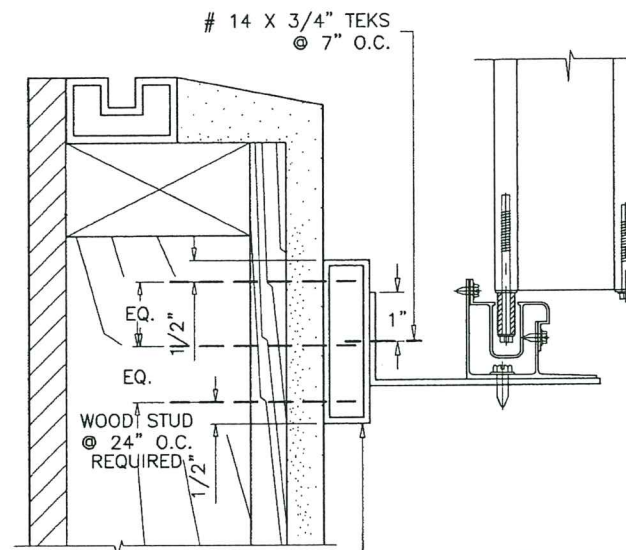
FOR SHUTTER HEIGHT OF 72" MAX. DESIGN LOAD = 72 PSF
 FOR SHUTTER HEIGHT OF 84" MAX. DESIGN LOAD = 62 PSF
 FOR SHUTTER HEIGHT OF 96" MAX. DESIGN LOAD = 54 PSF
 FOR SHUTTER HEIGHT OF 108" MAX. DESIGN LOAD = 48 PSF



COUNTER TOP CONDITION

(PASS THRU WINDOW)
 MAX SHUTTER HEIGHT = 6 FT.

ANCHOR TYPE	ANCHOR SPACING INCHES							
	UPTO 40 PSF		UPTO 50 PSF		UPTO 60 PSF		UPTO 70 PSF	
	CONC	BLOCK	WOOD	METAL	CONC	BLOCK	WOOD	METAL
A	11.7	3.5	—	9.3	—	7.8	—	6.7
B	12	3	—	10.2	—	8.5	—	7.3
D	—	—	12	—	12	—	10.4	8.9
E	—	—	7.5	—	—	6	—	4.3



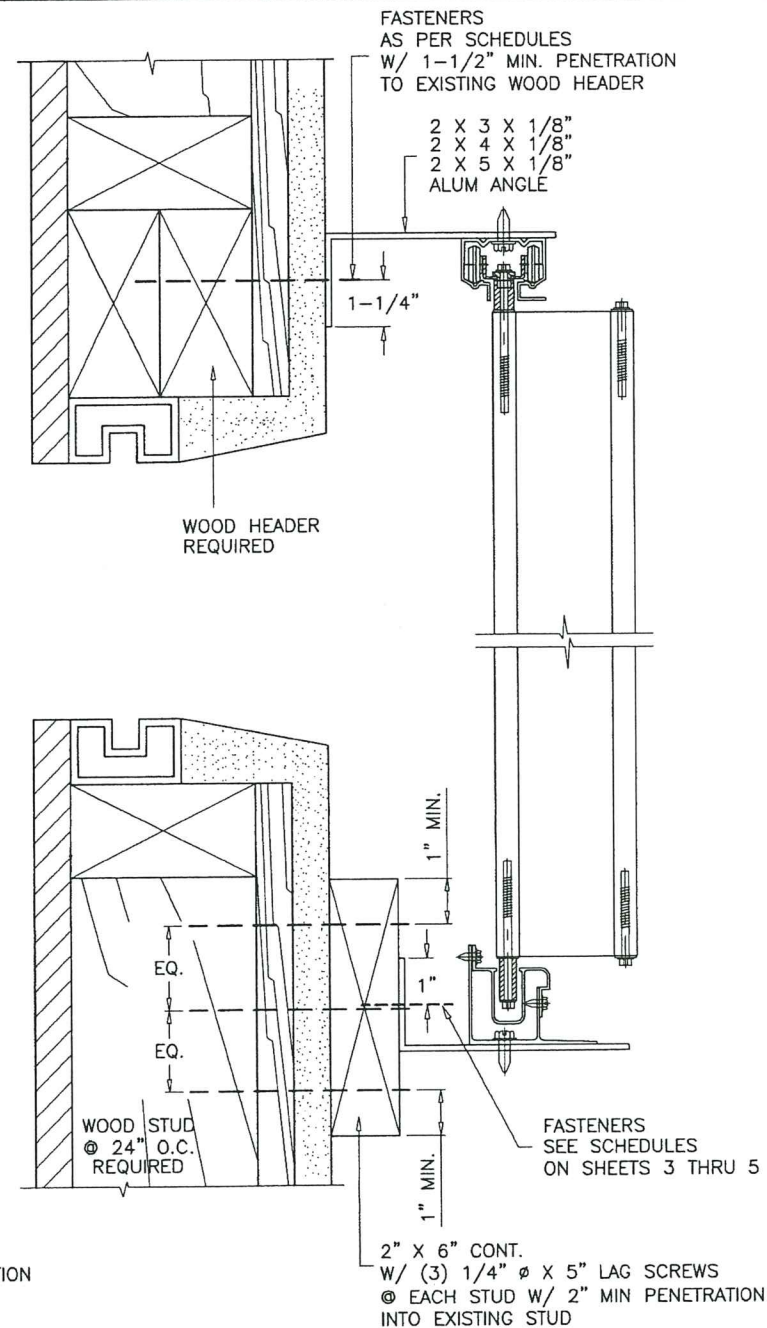
1" X 4" X 1/8" CONT. ALUM TUBE
 W/ (3) 1/4" Ø X 4" LAG SCREWS
 @ EACH STUD W/ 2" MIN PENETRATION
 INTO EXISTING STUD

FOR SHUTTER HEIGHT OF 84" MAX. DESIGN LOAD = 62 PSF
 FOR SHUTTER HEIGHT OF 96" MAX. DESIGN LOAD = 54 PSF
 FOR SHUTTER HEIGHT OF 108" MAX. DESIGN LOAD = 48 PSF
 FOR SHUTTER HEIGHT OF 120" MAX. DESIGN LOAD = 43 PSF

INSTALLATION DETAIL ON EXISTING WOOD BUCKS SCALE: 1/4"=1"

ABOVE DETAILS SHOWS CONNECTION OF 2X6 BUCK & 1X4 ALUM TUBE TO WOOD STUDS TO PROVIDE A CONTINUOUS SURFACE FOR SHUTTER INSTALLATION.

FOR INSTALLATION DETAILS OF HEADER/SILL TO CONTINUOUS WOOD MEMBERS SEE SHEETS 3 THRU 6.



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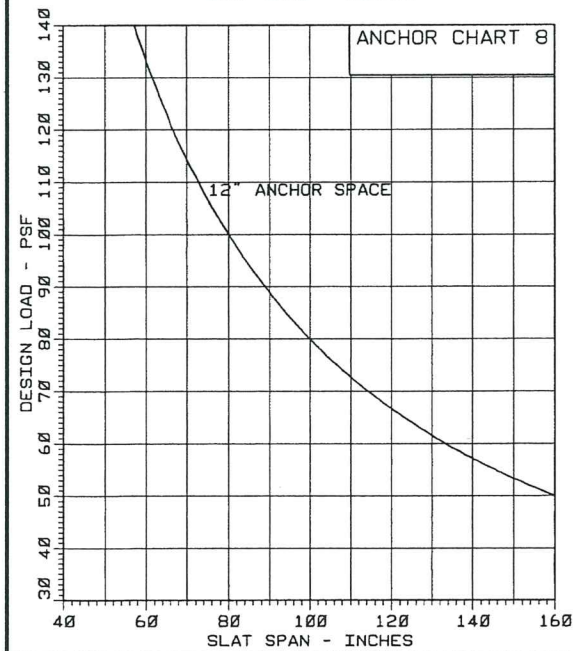
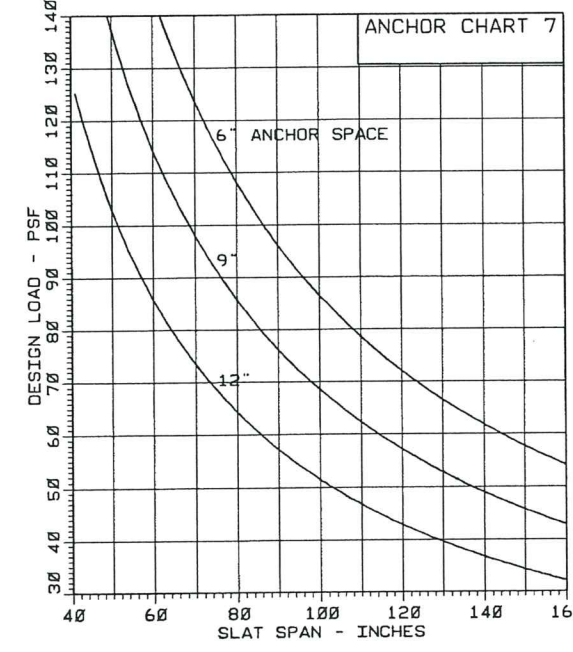
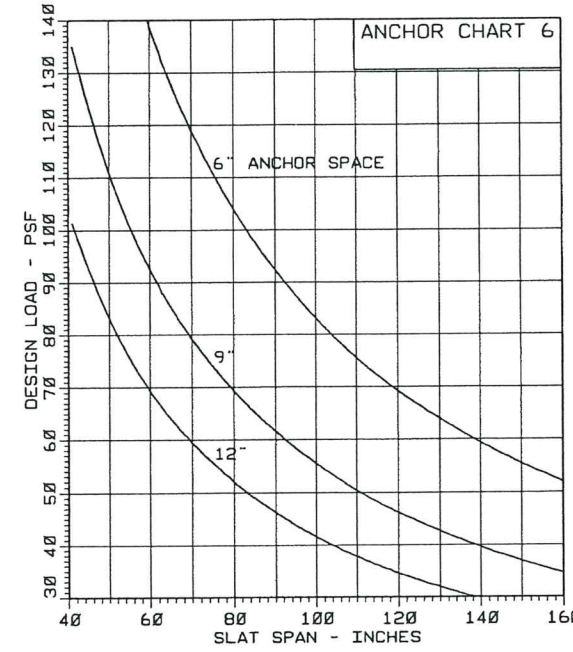
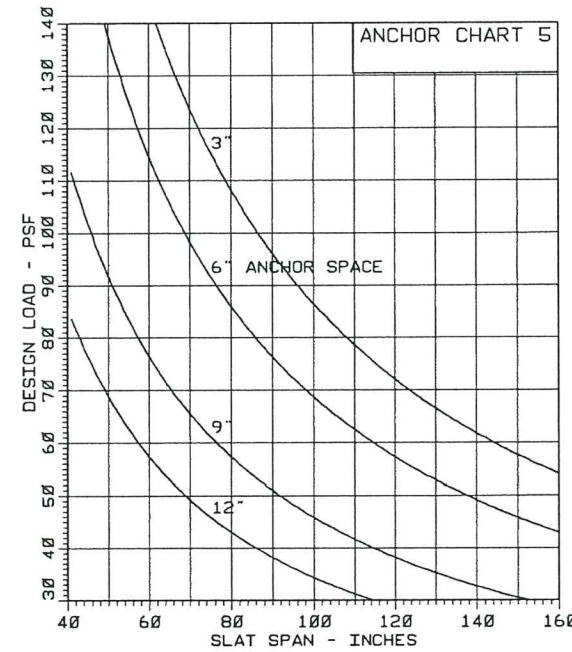
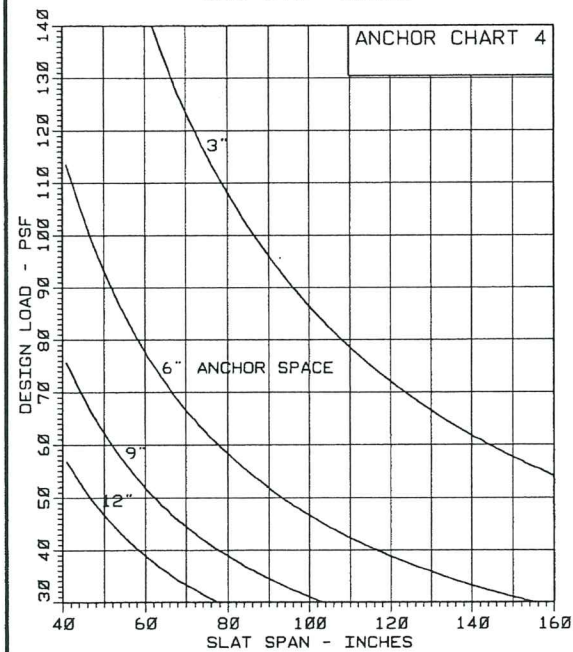
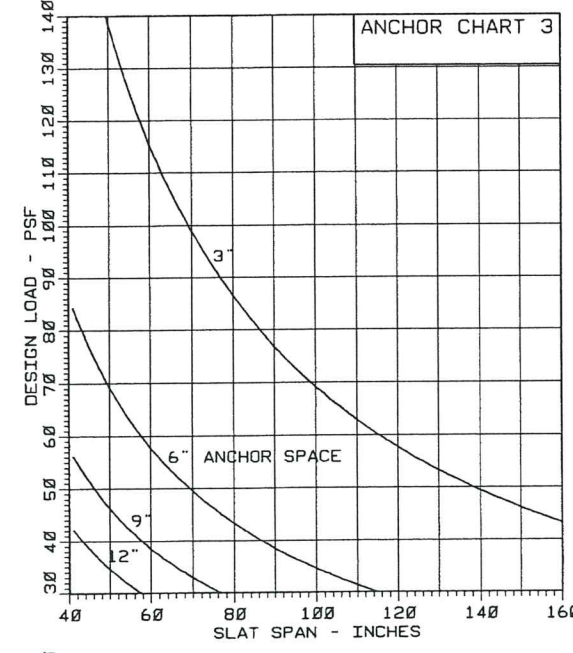
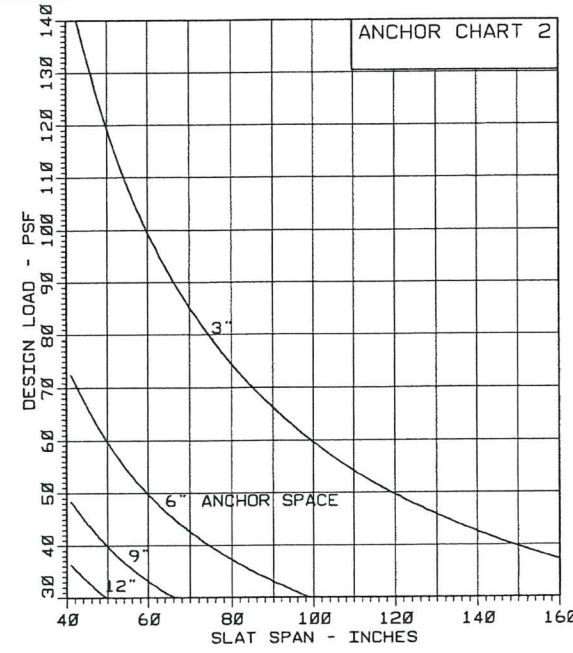
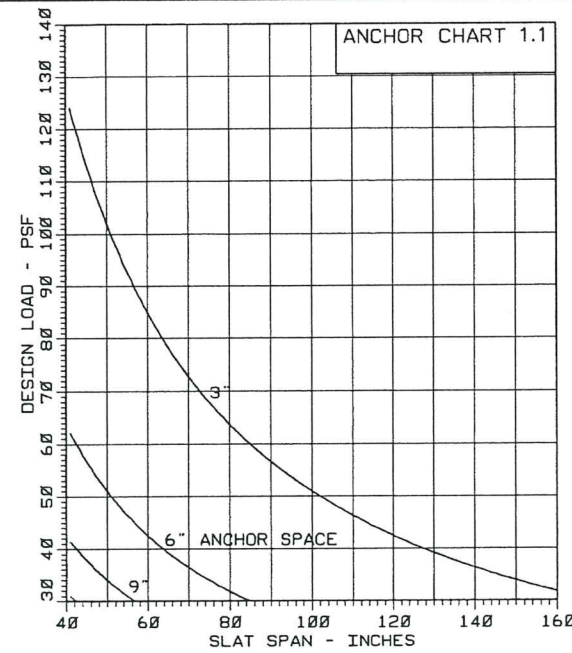
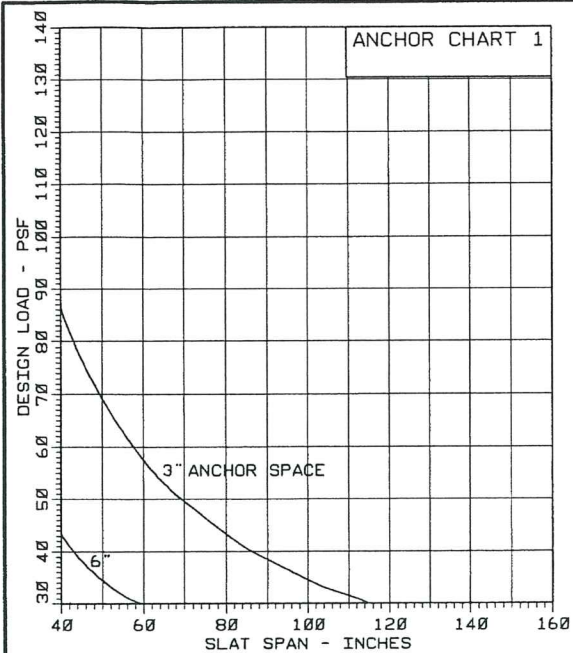
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 sheet 8 of 11



TYPICAL ANCHORS:

- ANCHOR (A) = **1/4" DIA. ULTRACON+ BY 'DEWALT'** ($F_u=164$ KSI, $F_y=148$ KSI)
 1-3/4" EMBEDMENT INTO 3000 PSI CONC., 2-1/2" MIN. EDGE DIST.
 1-1/4" EMBEDMENT INTO C-90 BLOCK, 2-1/2" MIN. EDGE DIST.
- ANCHOR (B) = **1/4" DIA. TAPCON BY 'ITW'** ($F_u=125$ KSI, $F_y=100$ KSI)
 1-3/4" EMBEDMENT INTO 3000 PSI CONC., 2-1/2" MIN. EDGE DIST.
 1-1/4" EMBEDMENT INTO C-90 BLOCK, 2" MIN. EDGE DIST.
- ANCHOR (C) = **1/4" DIA. CALK-IN ANCHOR BY 'DEWALT'**
 TOTAL ANCHOR BODY INTO 3000 PSI CONC., 2-1/2" MIN. EDGE DIST.
 TOTAL ANCHOR BODY INTO C-90 BLOCK, 2-1/2" MIN. EDGE DIST.
- ANCHOR (D) = **1/4" DIA. LAG SCREWS**
 1-1/2" MIN. PENETRATION INTO WOOD (S.G.=0.55), 1" MIN. EDGE DIST.
- ANCHOR (E) = **1/4" DIA. KWIK-FLEX SELF DRILLING SCREWS BY 'HILTI'** ($F_u=120$ KSI, $F_y=92$ KSI)
 INTO METAL STRUCTURES
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. ($F_y = 36$ KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

NOTE: ANCHORS EMBEDMENT SHOWN IS BEYOND WALL & FLOOR COVERINGS (STUCCO, TILES, ETC.)

PRODUCT REVISED
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 Expiration Date 09/15/2026
 By: *H. A. M.*
 Miami Dade Product Control

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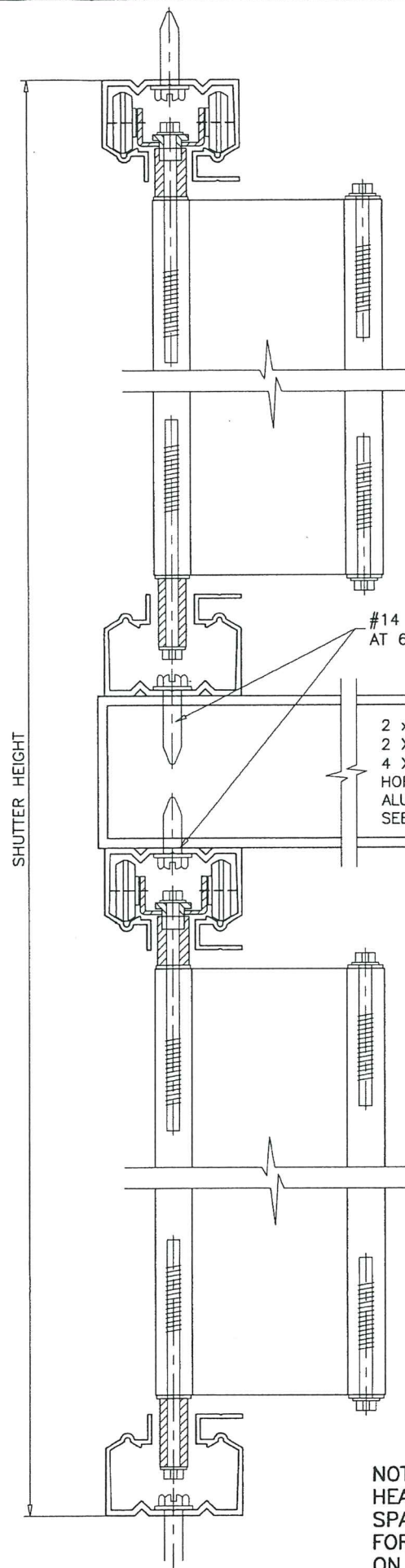
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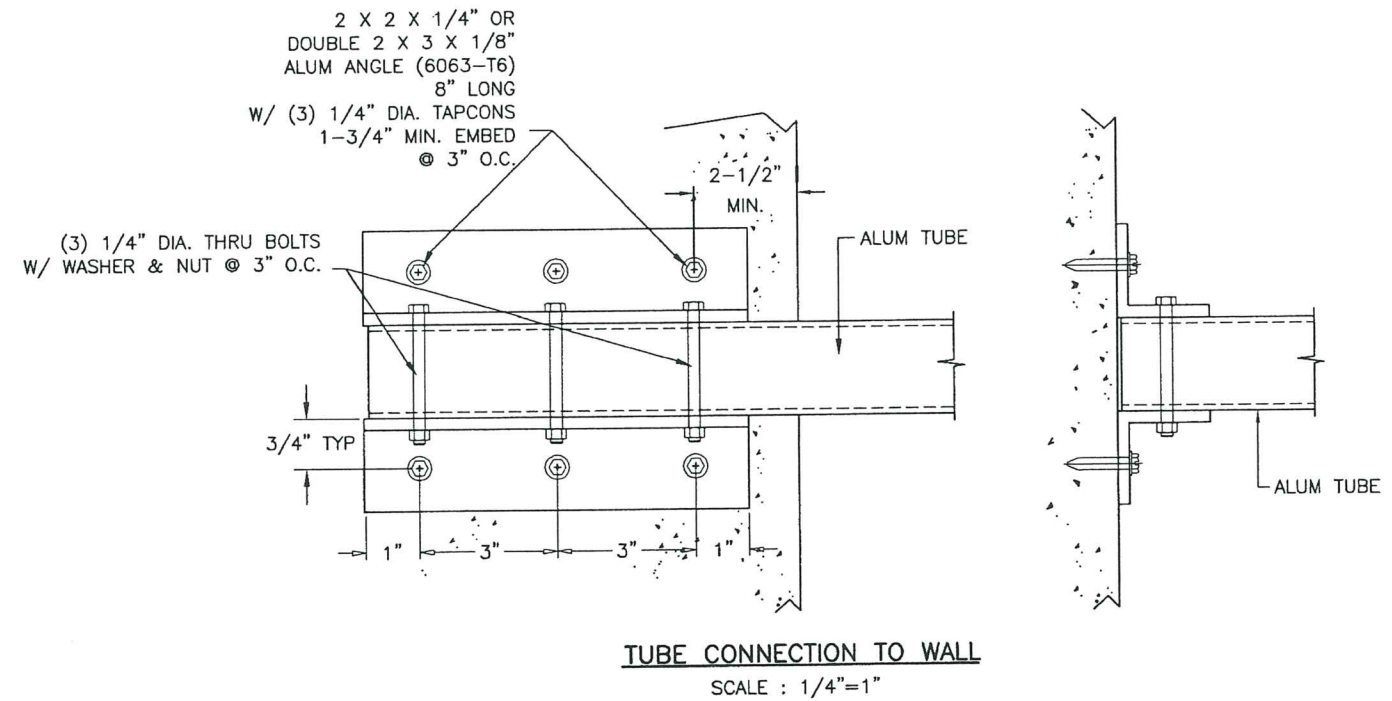
date: 12-06-10
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 dr. by: TARIQ
 chk. by:



#14 X 5/8" TEKS
AT 6" O.C.

2 x 5 x 1/8"
2 x 8 x 1/8"
4 x 8 x 3/16"
HORIZONTAL TUBE
ALUMINUM (6063-T6)
SEE SHEET 11 FOR CAPACITY

NOTE:
HEAD AND SILL TRACKS CAN BE USED IN ANY COMBINATIONS AT
SPAN TUBE.
FOR TRACK CONNECTIONS TO ALUMINUM TUBE SEE ANCHOR CHARTS
ON SHEETS 3 THRU 6.



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 21-0219.04
Expiration Date 09/15/2026
By: *Hegda*
Miami Dade Product Control



FEB 18 2021

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
ACCORDION/10-07SOSF

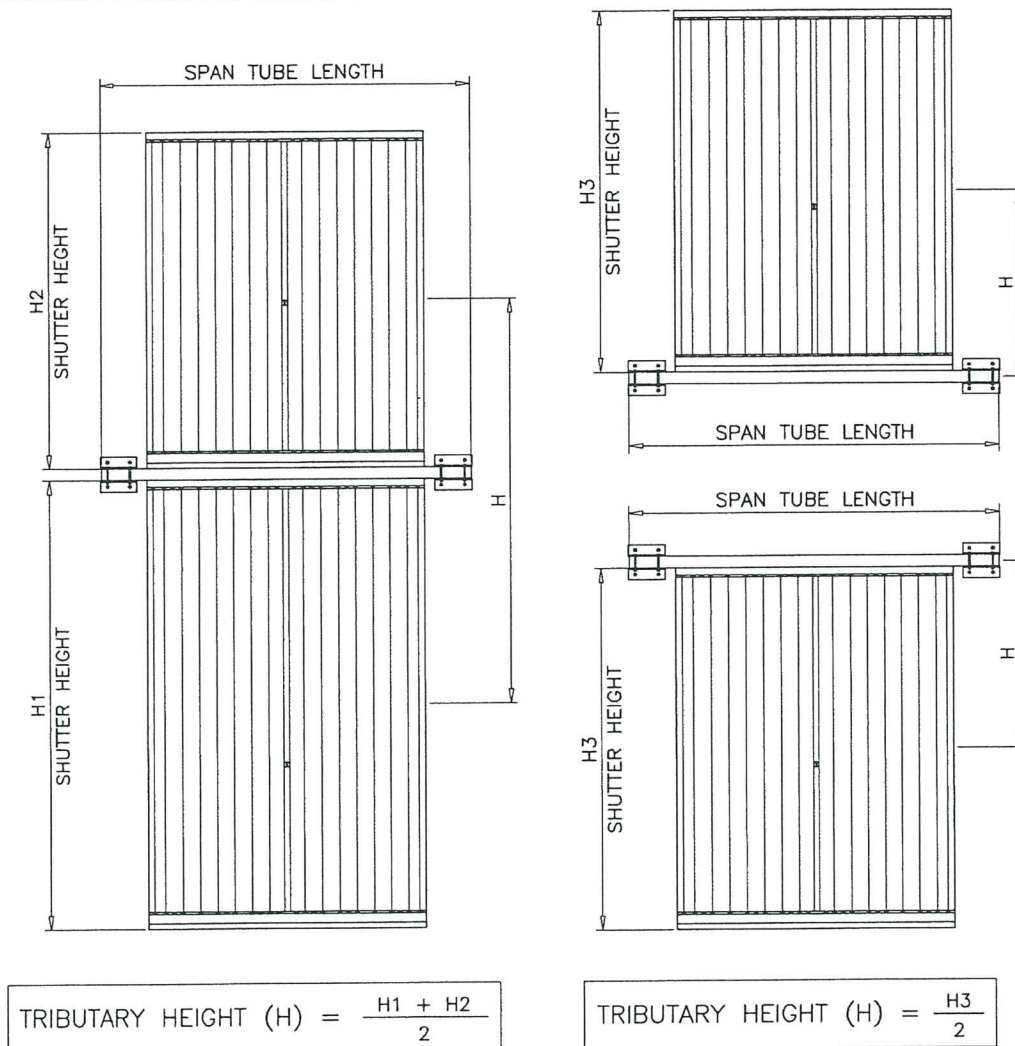
DELTA-301 ALUMINUM ACCORDION SHUTTER
SLAS INC.
13690 S.W. 142 AVE. #28
MIAMI, FL. 33186
TEL(305) 225-1393 FAX(305) 225-1322

revisions:	no	date	by	description
	A	02.01.12		NO CHANGE THIS SHEET
	B	10.20.14		NO CHANGE THIS SHEET
	C	07.27.16		EDITORIAL CHANGES
	D	12.05.17		UPDATED TO 2017 FBC
	E	02.17.21		UPDATED TO 2020 FBC

date: 12-06-10
scale: 1/2" = 1"
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chk. by:
drawing no.
10-07
sheet 10 of 11

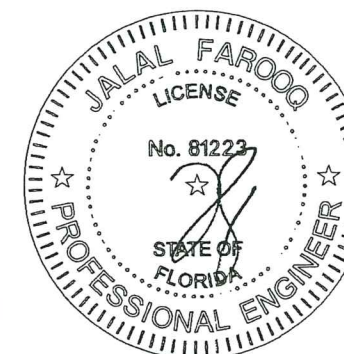
DESIGN LOAD CAPACITY - PSF				
TRIBUTARY HEIGHT (H)	SPAN TUBE LENGTH	2 X 5 X 1/8" ALUM TUBE	2 X 8 X 1/8" ALUM TUBE	4 X 8 X 3/16" ALUM TUBE
48"	96"	73.5	100.0	100.0
60"		58.8	100.0	100.0
72"		49.0	100.0	100.0
84"		42.0	86.8	100.0
96"		36.7	75.9	100.0
108"		32.7	67.5	100.0
120"		-	60.7	100.0
132"		-	55.2	100.0
144"		-	50.6	100.0
156"		-	46.7	100.0
160"		-	45.6	100.0
48"	102"	63.3	100.0	100.0
60"		50.7	100.0	100.0
72"		42.2	89.3	100.0
84"		36.2	76.6	100.0
96"		31.7	67.0	100.0
108"		-	59.5	100.0
120"		-	53.6	100.0
132"		-	48.7	100.0
144"		-	44.7	99.5
156"		-	41.2	91.8
160"		-	40.2	89.6
48"	108"	53.4	100.0	100.0
60"		42.7	95.2	100.0
72"		35.6	79.4	100.0
84"		30.5	68.0	100.0
96"		-	59.5	100.0
108"		-	52.9	100.0
120"		-	47.6	100.0
132"		-	43.3	96.6
144"		-	39.7	88.6
156"		-	36.6	81.7
160"		-	35.7	79.7
48"	114"	45.4	100.0	100.0
60"		36.3	85.1	100.0
72"		30.3	70.9	100.0
84"		-	60.8	100.0
96"		-	53.2	100.0
108"		-	47.3	100.0
120"		-	42.6	95.2
132"		-	38.7	86.5
144"		-	35.5	79.8
156"		-	32.7	73.2
160"		-	31.9	71.4
48"	120"	38.9	95.7	100.0
60"		31.1	76.5	100.0
72"		33.6	63.8	100.0
84"		-	54.7	100.0
96"		-	47.8	100.0
108"		-	42.5	95.2
120"		-	38.3	85.7
132"		-	34.8	77.9
144"		-	31.9	71.4
156"		-	-	65.9
160"		-	-	64.3

DESIGN LOAD CAPACITY - PSF				
TRIBUTARY HEIGHT (H)	SPAN TUBE LENGTH	2 X 5 X 1/8" ALUM TUBE	2 X 8 X 1/8" ALUM TUBE	4 X 8 X 3/16" ALUM TUBE
48"	126"	-	86.5	100.0
60"		-	69.2	100.0
72"		-	57.6	100.0
84"		-	49.4	100.0
96"		-	43.2	97.0
108"		-	38.4	86.2
120"		-	34.6	77.6
132"		-	31.4	70.5
144"		-	-	64.6
156"		-	-	59.7
160"		-	-	58.2
48"	132"	-	78.5	100.0
60"		-	62.8	100.0
72"		-	52.3	100.0
84"		-	44.9	100.0
96"		-	39.2	88.2
108"		-	34.9	78.4
120"		-	31.4	70.5
132"		-	-	64.1
144"		-	-	58.8
156"		-	-	54.3
160"		-	-	52.9
48"	138"	-	71.6	100.0
60"		-	57.2	100.0
72"		-	47.7	100.0
84"		-	40.9	92.0
96"		-	35.8	80.5
108"		-	31.8	71.6
120"		-	-	64.4
132"		-	-	58.5
144"		-	-	53.7
156"		-	-	49.5
160"		-	-	48.3
48"	144"	-	65.5	100.0
60"		-	52.4	100.0
72"		-	43.7	98.4
84"		-	37.4	84.3
96"		-	32.7	73.8
108"		-	-	65.6
120"		-	-	59.0
132"		-	-	53.7
144"		-	-	49.2
156"		-	-	45.4
160"		-	-	44.3



TYPICAL ELEVATIONS

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 By: *[Signature]*
 Miami Data Product Control



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 ENGINEERS & PRODUCT DEVELOPMENT
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ACCORDION/10-07SOSF

DELTA-301 ALUMINUM ACCORDION SHUTTER

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 13690 S.W. 142 AVE. #28
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drawing no. 10-07				
sheet 11 of 11				