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Product Approval
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 Application Detail

OFFICE OF THE SECRETARY

FL #	FL20400								
Application Type	New								
Code Version	2014								
Application Status	Approved								
Comments									
Archived	<input type="checkbox"/>								
Product Manufacturer	La Finestra, LC								
Address/Phone/Email	2790 NW 104th Court Miami, FL 33172 (305) 599-8093 brunosalvoni@lafinestra.us								
Authorized Signature	Bruno Salvoni brunosalvoni@lafinestra.us								
Technical Representative									
Address/Phone/Email									
Quality Assurance Representative									
Address/Phone/Email									
Category	Windows								
Subcategory	Mullions								
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received								
Florida Engineer or Architect Name who developed the Evaluation Report	Frank L. Bennardo, P.E.								
Florida License	PE-0046549								
Quality Assurance Entity	National Accreditation & Management Institute								
Quality Assurance Contract Expiration Date	04/30/2018								
Validated By	Troy Bishop, P.E. <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received								
Certificate of Independence	FL20400_R0_COI_Indep.pdf								
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM E1886</td> <td>2013</td> </tr> <tr> <td>ASTM E1996</td> <td>2014</td> </tr> <tr> <td>ASTM E330</td> <td>2014</td> </tr> </tbody> </table>	Standard	Year	ASTM E1886	2013	ASTM E1996	2014	ASTM E330	2014
Standard	Year								
ASTM E1886	2013								
ASTM E1996	2014								
ASTM E330	2014								
Equivalence of Product Standards Certified By	Florida Licensed Professional Engineer or Architect FL20400_R0_Equiv_Equiv.pdf								
Sections from the Code									

Product Approval Method

Method 1 Option D

Date Submitted

04/20/2016

Date Validated

04/20/2016

Date Pending FBC Approval

04/24/2016

Date Approved

06/08/2016

Summary of Products

FL #	Model, Number or Name	Description
20400.1	Aluminum Mullions	See mullion span tables and attachment details within product installation instructions.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +100/-100 Other:		Installation Instructions FL20400_R0_II_Dwg.pdf Verified By: Frank L. Bennardo, P.E. PE0046549 Created by Independent Third Party: Yes Evaluation Reports FL20400_R0_AE_Eval.pdf Created by Independent Third Party: Yes

[Back](#) [Next](#)

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Product Approval Accepts:



April 20, 2016

Florida Department of Business and Professional Regulation
1940 North Monroe Street, Tallahassee FL 32399

Regarding: La Finestra, LC
Series Aluminum Mullions
Project #16-3151

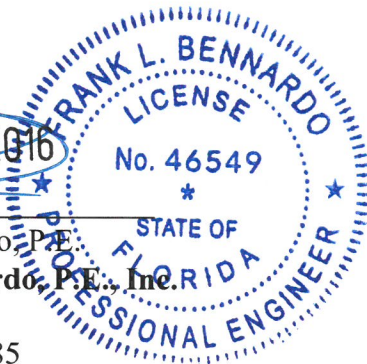
To Whom It May Concern:

Please be advised that the below-signed engineer does not have nor will acquire a financial interest in the company manufacturing or distributing the product(s) for which an evaluation report or validation certification has been prepared, as referenced above. This engineer is not owned, operated, nor controlled by the manufacturer or distributor noted above and does not have any financial interest in any other entity involved in the approval process of the above-noted product(s).

Respectfully,

APR 20 2016

Frank L. Bennardo, P.E.
Frank L. Bennardo, P.E., Inc.
FL PE 0046549
Cert of Auth #9885



April 20, 2016

Florida Department of Business and Professional Regulation
1940 North Monroe Street
Tallahassee, FL 32399

Regarding: La Finestra, LC
Aluminum Mullions
EX #16-3151

To Whom It May Concern:

This office has reviewed test reports showing structural performance of the above-noted product. These test reports pertain to testing performed in accordance with ASTM E1996-14a "Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes". This standard has not been adopted in the Florida Building Code Fifth Edition (2014), but serves as an applicable test method in accordance with ASTM E1996-12, which is adopted in Florida Building Code Fifth Edition (2014) and is adequate for the purpose of determining structural performance of this product.

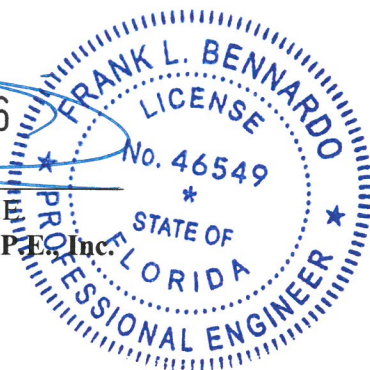
This office has reviewed test reports showing structural performance of the above-noted product. These test reports pertain to testing performed in accordance with ASTM E1886-13 "Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missiles and Exposed to Cyclic Pressure Differentials". This standard has not been adopted in the Florida Building Code Fifth Edition (2014), but serves as an applicable test method in accordance with ASTM E1886-05, which is adopted in Florida Building Code Fifth Edition (2014) and is adequate for the purpose of determining structural performance of this product.

This office has reviewed test reports showing structural performance of the above-noted product. These test reports pertain to testing performed in accordance with ASTM E330-14 "Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference". This standard has not been adopted in the Florida Building Code Fifth Edition (2014), but serves as an applicable test method in accordance with ASTM E330-02, which is adopted in Florida Building Code Fifth Edition (2014) and is adequate for the purpose of determining structural performance of this product.

Respectfully,

APR 20 2016

Frank L. Bennardo, P.E.
Frank L. Bennardo, P.E., Inc.
FL PE 0046549
Cert of Auth #9885



Product Evaluation Report

April 20, 2016

Application Number: FL#20400.1-R0
EX Project Number: 16-3151

Product Manufacturer: La Finestra, LC
Manufacturer Address: 2790 NW 104TH Court.
Miami, FL 33172

Product Name & Description: Aluminum Mullions

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1(d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with the Florida Building Code Fifth Edition (2014) and is, for the purpose intended, at least equivalent to that required by the Code. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX drawing #16-3151 titled "Aluminum Mullions", sheets 1- 14, prepared by Engineering Express, signed & sealed by Frank L. Bennardo, P.E. is an integral part of this Evaluation Report.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with TAS 202 & ASTM E330-14 test standards per test report(s) HETI-16-5019, HETI-16-5030, by Hurricane Engineering and Testing, Inc.

Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201 & 203 and ASTM E 1886-13a & ASTM E 1996-14 test standards per test report(s) HETI-16-5019, HETI-16-5030 by Hurricane Engineering and Testing, Inc.

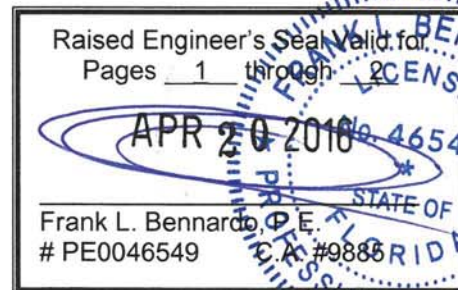
Tensile Tests have been tested in accordance with ASTM E 8-15 H test standards per test reports T-307, T-308, T-312, T-313

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Anchor Spacing
2. Maximum Allowable Size/Pressure Combinations
3. Glass Capacity
4. Anchor Capacity

No 33% increase in allowable stress has been used in the design of each product.



Impact Resistance:

Large and Small Missile Impact Resistance has been demonstrated as evidenced in previously listed test reports, and is accounted for in the engineering design of this product.

Wind Load Resistance

Each product has been designed to resist wind loads as indicated in the design schedule(s) on its respective Product Evaluation Document (i.e. engineering drawing).

Installation

Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document (i.e. engineering drawing), along with all components noted therein.

Each product component shall be of the material specified in that product's respective Product Evaluation Document (i.e. engineering drawing).

Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Product Evaluation Document (i.e. engineering drawing) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

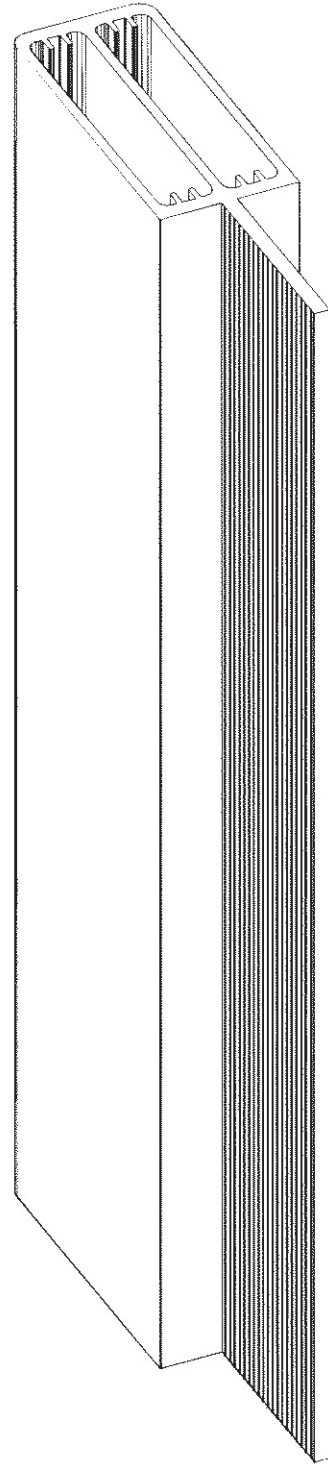
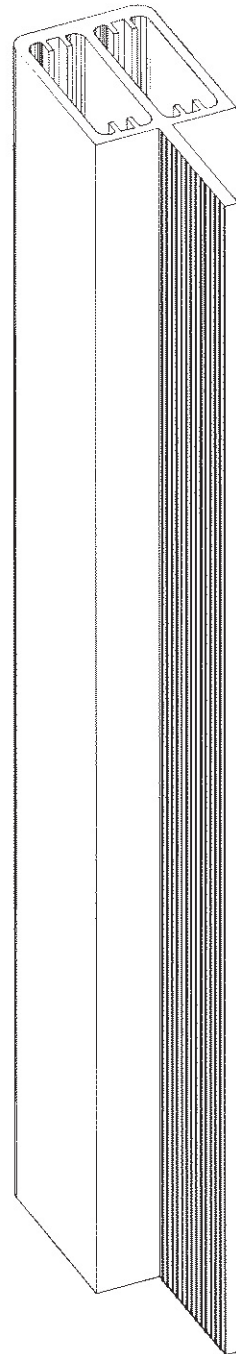
All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times.

Each product has been designed for use within and outside of the High Velocity Hurricane Zone (HVHZ).

LA FINESTRA, LC

SERIES ALUMINUM MULLIONS

LARGE MISSILE IMPACT RESISTANT



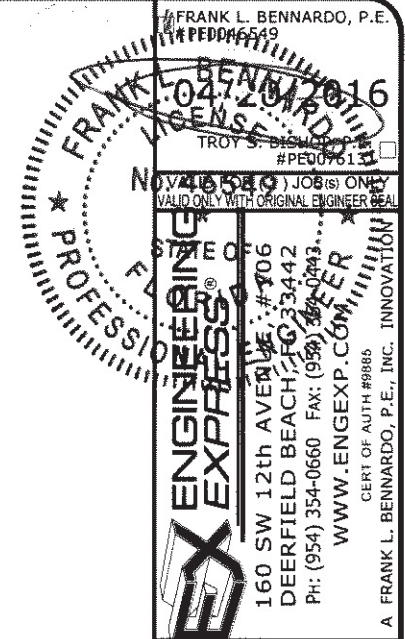
GENERAL NOTES

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201 / 202 / 203 & ASTM E1300-09 STANDARDS.
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR $C_d=1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
3. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE SPECIFIC LOAD WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE FLORIDA BUILDING CODE BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.
4. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
5. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
6. ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
7. EXTERIOR SEAM OF FRAME CORNERS, INSTALLATION SCREWS, AND GLAZING BEAD ENDS SHALL BE SEALED WITH SILICONE.
8. ALL DISSIMILAR MATERIALS SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE FLORIDA BUILDING CODE.
12. APPROVED FOR SMALL AND LARGE MISSILE IMPACT APPLICATIONS.
13. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
14. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
15. ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

HURRICANE ENGINEERING & TESTING INC LAB REPORT NUMBERS
HEITI-16-530, 16-T312, 16-T313, 16-5019, T-307 & T308

TO BE USED WITH LA FINESTRA
PRODUCTS ONLY

FL#-20400.1-R0



LA FINESTRA, LC
2790 NW 104TH COURT
DORAL, FL
(305) 599-8093

FLORIDA PRODUCT APPROVAL DERIVED ALUMINUM MULLIONS
2790 NW 104TH COURT, MIAMI, FL
FBC 5TH EDITION (2014) PRODUCT APPROVAL # 20400.1-R0

REMARKS	INIT	ISSUE	DATE
			02/22/16

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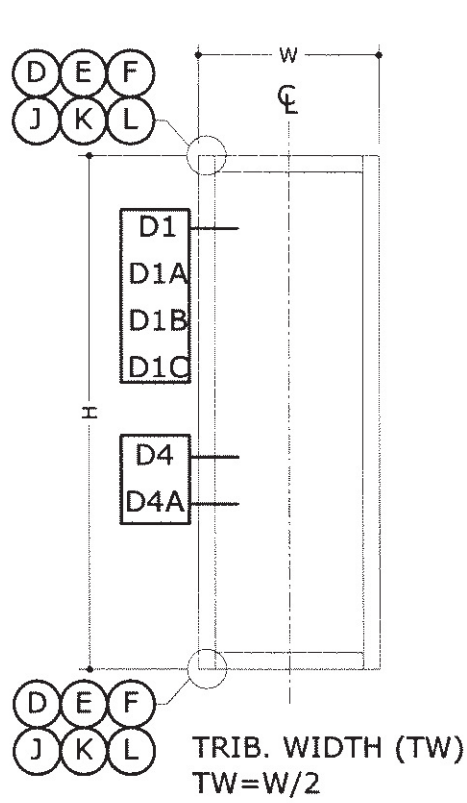
16-3151

SCALE: SEE DETAILS 01

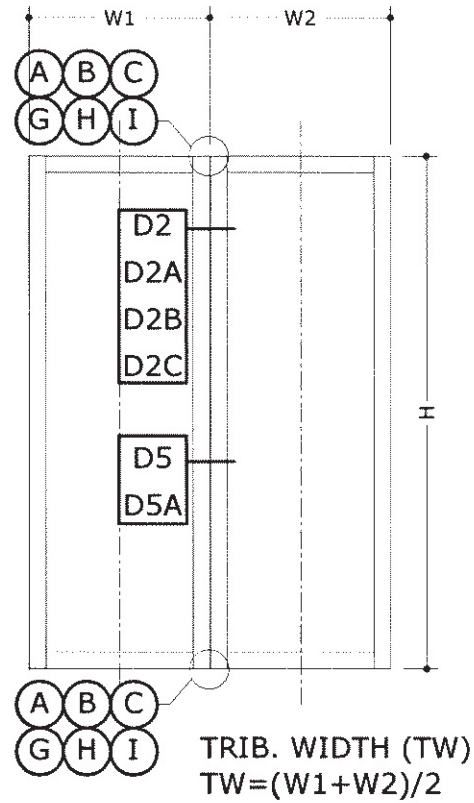
PAGE DESCRIPTION:

1 of 14

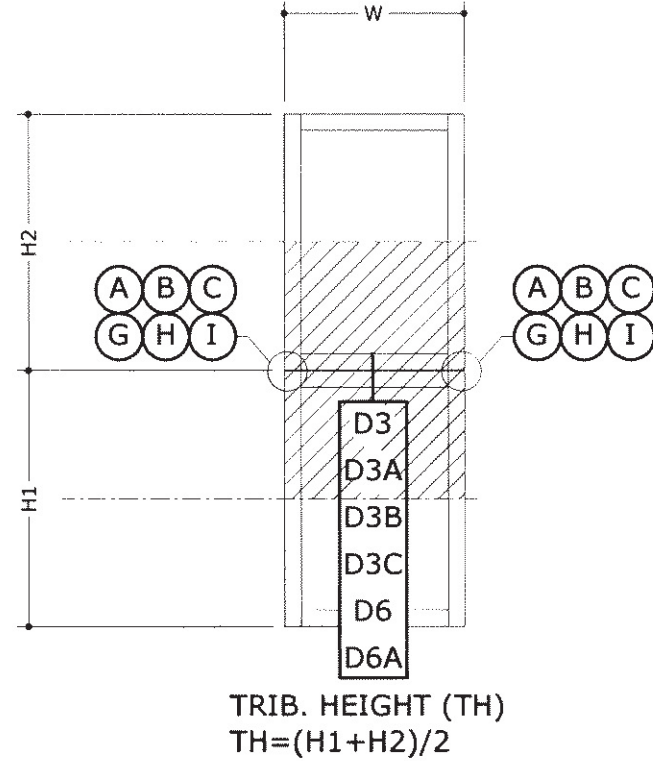
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 martin
 04/20/2016 - 9:10pm



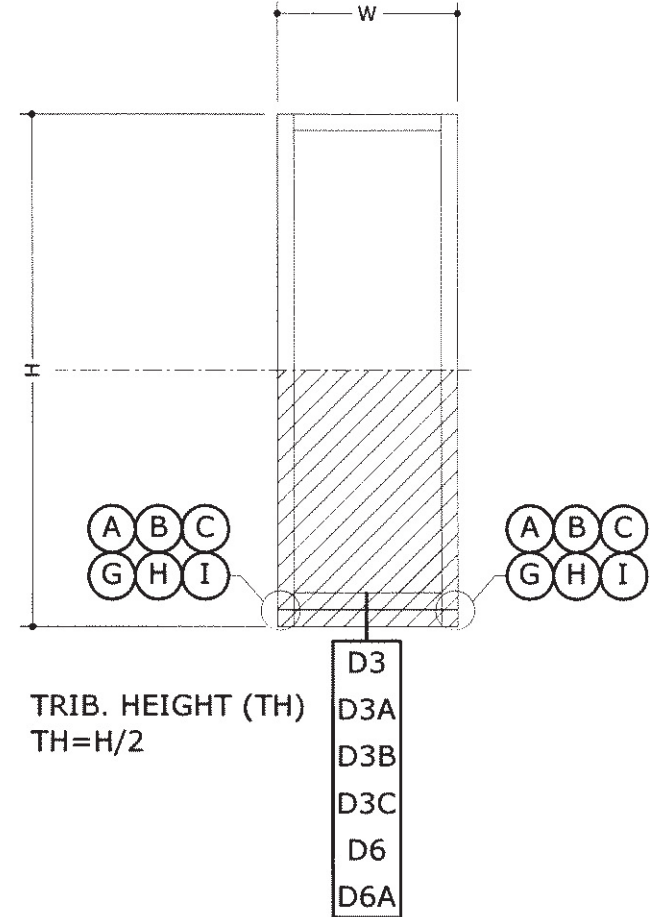
MULLION AT JAMB



VERTICAL MULLION



HORIZONTAL MULLION



MULLION AT HEAD/SILL

TYPICAL ELEVATIONS

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LA FINESTRA, LC
 2790 NW 104TH COURT
 DORAL, FL
 (305) 599-8093
 FLORIDA PRODUCT APPROVAL DERIVED ALUMINUM MULLIONS
 2790 NW 104TH COURT, MIAMI, FL
 FBC 5TH EDITION (2014) PRODUCT APPROVAL # 20400.1-R0

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INIT ISSUE	JEM	FLB	02/22/16

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PAGE DESCRIPTION:

SMALL MULLION

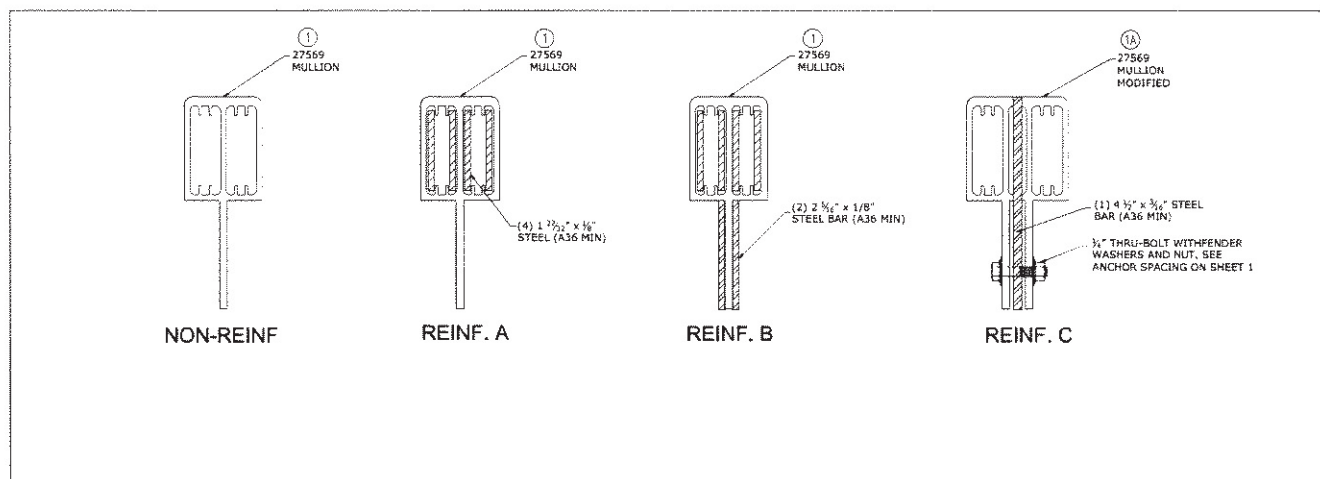
WINDOW DESIGN CAPACITY (PSF) - SMALL MULLION								
NOMINAL DIMS		NON-REINF (+/-) P.S.F	WITH-REINF			# OF ANCHORS AT EACH SIDE		
WIDTH	HEIGHT		Reinf. A (+/-) P.S.F	Reinf. B (+/-) P.S.F	Reinf. C (+/-) P.S.F	WOOD (+/-) P.S.F	CONC. (+/-) P.S.F	METAL (+/-) P.S.F
36"	48"	100	100	100	100	2	1	1
42"		100	100	100	100	3	1	1
48"		100	100	100	100	3	1	1
54"		100	100	100	100	3	1	1
60"		100	100	100	100	3	1	1
66"		100	100	100	100	4	1	1
72"		100	100	100	100	4	1	2
78"		100	100	100	100	4	1	2
84"		100	100	100	100	5	1	2
90"		100	100	100	100	5	1	2
96"		100	100	100	100	5	2	2
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114"		93	93	93	93	6	2	2
120"	89	89	89	89	6	2	2	
126"	84	84	84	84	6	2	2	
132"	80	80	80	80	6	2	2	
138"	77	77	77	77	6	2	2	
144"	74	74	74	74	6	2	2	

WINDOW DESIGN CAPACITY (PSF) - SMALL MULLION								
NOMINAL DIMS		NON-REINF (+/-) P.S.F	WITH-REINF			# OF ANCHORS AT EACH SIDE		
WIDTH	HEIGHT		Reinf. A (+/-) P.S.F	Reinf. B (+/-) P.S.F	Reinf. C (+/-) P.S.F	WOOD (+/-) P.S.F	CONC. (+/-) P.S.F	(+/-) P.S.F
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144"	39	39	39	39	4	1	2	

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132"	63	63	63	63	5	1	2	
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144"	58	58	58	58	5	1	2	

36"	72"	100	100	100	100	3	1	1
42"		100	100	100	100	4	1	1
48"		98	98	98	98	4	1	2
54"		87	87	87	87	4	1	2
60"		79	79	79	79	4	1	2
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36"	60"	100	100	100	100	3	1	1
42"		100	100	100	100	3	1	1
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84"		81	81	81	81	5	1	2
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114"		60	60	60	60	5	1	2
120"	57	57	57	57	5	1	2	
126"	54	54	54	54	5	1	2	
132"	51	51	51	51	5	1	2	
138"	49	49	49	49	5	1	2	
144"	47	47	47	47	5	1	2	



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 FBC 5TH EDITION (2014) PRODUCT APPROVAL #20400.1

DRWN	CHKD	DATE
JEM	FLB	02/22/16

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16-3151

SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

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SMALL MULLION

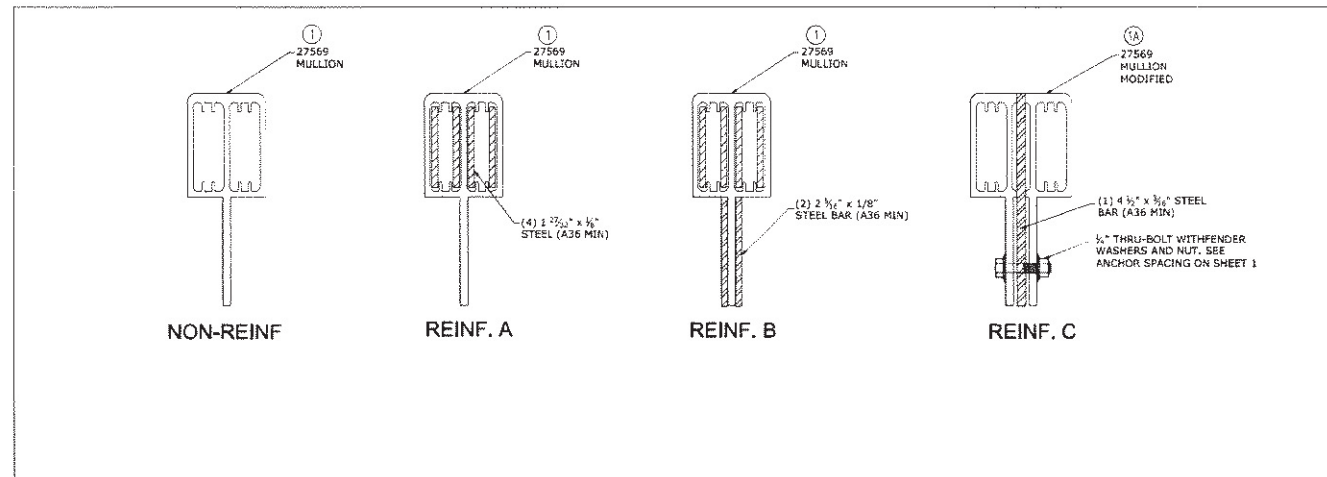
WINDOW DESIGN CAPACITY (PSF) - SMALL MULLION								
NOMINAL DIMS		NON-REINF (+/-) P.S.F.	WITH-REINF			# OF ANCHORS AT EACH SIDE		
WIDTH	HEIGHT		Reinf. A (+/-) P.S.F.	Reinf. B (+/-) P.S.F.	Reinf. C (+/-) P.S.F.	WOOD (+/-) P.S.F.	CONC. (+/-) P.S.F.	(+/-) P.S.F.
36"	78"	100	100	100	100	3	1	1
42"		95	96	96	96	4	1	1
48"		83	84	84	84	4	1	1
54"		74	74	74	74	4	1	1
60"		66	67	67	67	4	1	1
66"		60	61	61	61	4	1	1
72"		55	56	56	56	4	1	1
78"		51	51	51	51	4	1	1
84"		47	48	48	48	4	1	1
90"		44	44	44	44	4	1	1
96"		41	42	42	42	4	1	1
102"		39	39	39	39	4	1	1
108"		37	37	37	37	4	1	1
114"		35	35	35	35	4	1	1
120"		33	33	33	33	4	1	1
126"		31	32	32	32	4	1	1
132"	30	30	30	30	4	1	1	
138"	29	29	29	29	4	1	1	
144"	27	28	28	28	4	1	1	

36"	84"	89	96	96	96	3	1	1
42"		76	83	83	83	3	1	1
48"		66	72	72	72	3	1	1
54"		59	64	64	64	3	1	1
60"		53	58	58	58	3	1	1
66"		48	52	52	52	3	1	1
72"		44	48	48	48	3	1	1
78"		41	44	44	44	3	1	1
84"		38	41	41	41	3	1	1
90"		35	38	38	38	3	1	1
96"		33	36	36	36	3	1	1
102"		31	34	34	34	3	1	1
108"		29	32	32	32	3	1	1
114"		28	30	30	30	3	1	1
120"		26	29	29	29	3	1	1
126"		25	27	27	27	3	1	1
132"	24	26	26	26	3	1	1	
138"	23	25	25	25	3	1	1	
144"	22	24	24	24	3	1	1	

36"	90"	72	84	84	84	3	1	1
42"		62	72	72	72	3	1	1
48"		54	63	63	63	3	1	1
54"		48	56	56	56	3	1	1
60"		43	50	50	50	3	1	1
66"		39	46	46	46	3	1	1
72"		36	42	42	42	3	1	1
78"		33	38	38	38	3	1	1
84"		31	36	36	36	3	1	1
90"		28	33	33	33	3	1	1
96"		27	31	31	31	3	1	1
102"		25	29	29	29	3	1	1
108"		24	28	28	28	3	1	1
114"		22	26	26	26	3	1	1
120"		21	25	25	25	3	1	1
126"		20	24	24	24	3	1	1
132"	-	23	23	23	3	1	1	
138"	-	22	22	22	3	1	1	
144"	-	21	21	21	3	1	1	

WINDOW DESIGN CAPACITY (PSF) - SMALL MULLION								
NOMINAL DIMS		NON-REINF (+/-) P.S.F.	WITH-REINF			# OF ANCHORS AT EACH SIDE		
WIDTH	HEIGHT		Reinf. A (+/-) P.S.F.	Reinf. B (+/-) P.S.F.	Reinf. C (+/-) P.S.F.	WOOD (+/-) P.S.F.	CONC. (+/-) P.S.F.	(+/-) P.S.F.
36"	96"	59	72	74	74	3	1	1
42"		51	61	63	63	3	1	1
48"		44	54	55	55	3	1	1
54"		39	48	49	49	3	1	1
60"		35	43	44	44	3	1	1
66"		32	39	40	40	3	1	1
72"		29	36	37	37	3	1	1
78"		27	33	34	34	3	1	1
84"		25	30	31	31	3	1	1
90"		23	28	29	29	3	1	1
96"		22	27	27	27	3	1	1
102"		21	25	26	26	3	1	1
108"		-	24	24	24	3	1	1
114"		-	22	23	23	3	1	1
120"		-	21	22	22	3	1	1
126"		-	20	21	21	3	1	1
132"	-	-	20	20	3	1	1	

36"	102"	49	60	65	65	3	1	1
42"		42	51	56	56	3	1	1
48"		37	45	49	49	3	1	1
54"		33	40	43	43	3	1	1
60"		29	36	39	39	3	1	1
66"		27	32	35	35	3	1	1
72"		24	30	32	32	3	1	1
78"		22	27	30	30	3	1	1
84"		21	25	28	28	3	1	1
90"		-	24	26	26	3	1	1
96"		-	22	24	24	3	1	1
102"		-	21	23	23	3	1	1
108"		-	20	21	21	3	1	1
114"		-	-	20	20	3	1	1



FRANK L. BENNARDO, P.E.
#00006649

FRANK L. BENNARDO, P.E.
LIC. NO. 104720, 2016

TROY, PENNSYLVANIA
#PE002613

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(305) 599-8093

FLORIDA PRODUCT APPROVAL DERIVED ALUMINUM MULLIONS
2790 NW 104TH COURT, MIAMI, FL
FBC 5TH EDITION (2014) PRODUCT APPROVAL #20400.1

DRWN	CHKD	DATE
JEM	FLB	02/22/16

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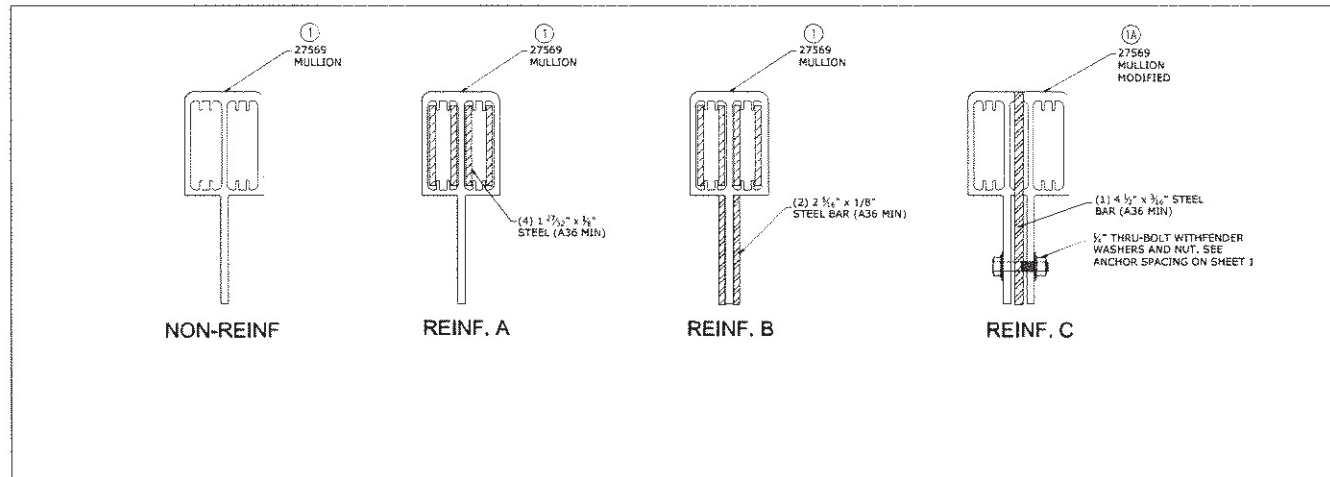
SCALE: SEE DETAILS 01

PAGE DESCRIPTION:

SMALL MULLION

WINDOW DESIGN CAPACITY (PSF) - SMALL MULLION								
NOMINAL DIMS		NON-REINF (+/-) P.S.F.	WITH-REINF			# OF ANCHORS AT EACH SIDE		
WIDTH	HEIGHT		Reinf. A (+/-) P.S.F.	Reinf. B (+/-) P.S.F.	Reinf. C (+/-) P.S.F.	WOOD (+/-) P.S.F.	CONC. (+/-) P.S.F.	(+/-) P.S.F.
36"	108"	41	50	56	58	3	1	1
42"		35	43	48	50	3	1	1
48"		31	37	42	43	3	1	1
54"		27	33	37	39	3	1	1
60"		25	30	34	35	3	1	1
66"		22	27	31	31	3	1	1
72"		20	25	28	29	3	1	1
78"		-	23	26	27	3	1	1
84"		-	21	24	25	3	1	1
90"		-	20	22	23	3	1	1
96"		-	-	21	21	3	1	1
102"		-	-	20	20	3	1	1
36"	114"	35	43	48	52	3	1	1
42"		30	36	41	45	3	1	1
48"		26	32	36	39	3	1	1
54"		23	28	32	35	3	1	1
60"		21	25	29	31	3	1	1
66"		-	23	26	28	3	1	1
72"		-	21	24	26	3	1	1
78"		-	-	22	24	3	1	1
84"		-	-	20	22	3	1	1
90"		-	-	-	21	3	1	1
36"	120"	30	36	41	47	3	1	1
42"		26	31	35	40	3	1	1
48"		22	27	31	35	3	1	1
54"		20	24	27	31	3	1	1
60"		-	22	24	28	3	1	1
66"		-	20	22	25	3	1	1
72"		-	-	20	23	3	1	1
78"		-	-	-	21	3	1	1
84"		-	-	-	20	3	1	1

WINDOW DESIGN CAPACITY (PSF) - SMALL MULLION								
NOMINAL DIMS		NON-REINF (+/-) P.S.F.	WITH-REINF			# OF ANCHORS AT EACH SIDE		
WIDTH	HEIGHT		Reinf. A (+/-) P.S.F.	Reinf. B (+/-) P.S.F.	Reinf. C (+/-) P.S.F.	WOOD (+/-) P.S.F.	CONC. (+/-) P.S.F.	(+/-) P.S.F.
36"	126"	26	31	35	43	2	1	1
42"		22	27	30	36	2	1	1
48"		-	23	26	32	2	1	1
54"		-	21	23	28	2	1	1
60"		-	-	21	25	2	1	1
66"		-	-	-	23	2	1	1
72"		-	-	-	21	2	1	1
36"	132"	22	27	31	39	2	1	1
42"		-	23	26	33	2	1	1
48"		-	20	23	29	2	1	1
54"		-	-	20	26	2	1	1
60"		-	-	-	23	2	1	1
66"	-	-	-	21	2	1	1	
36"	138"	20	24	27	35	2	1	1
42"		-	20	23	30	2	1	1
48"		-	-	20	26	2	1	1
54"		-	-	-	23	2	1	1
60"		-	-	-	21	2	1	1
36"	144"	-	21	23	32	2	1	1
42"		-	-	20	28	2	1	1
48"		-	-	-	24	2	1	1
54"		-	-	-	21	2	1	1



FRANK L. BENNARDO, P.E.
#PE0046549

04/20/2016

FRANK L. BENNARDO, P.E. LICENSE # 106

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2790 NW 104TH COURT, MIAMI, FL
FBC 5TH EDITION (2014) PRODUCT APPROVAL #20400.1-R0

DRWN	CHKD	DATE
JEM	FLB	02/22/16

REMARKS

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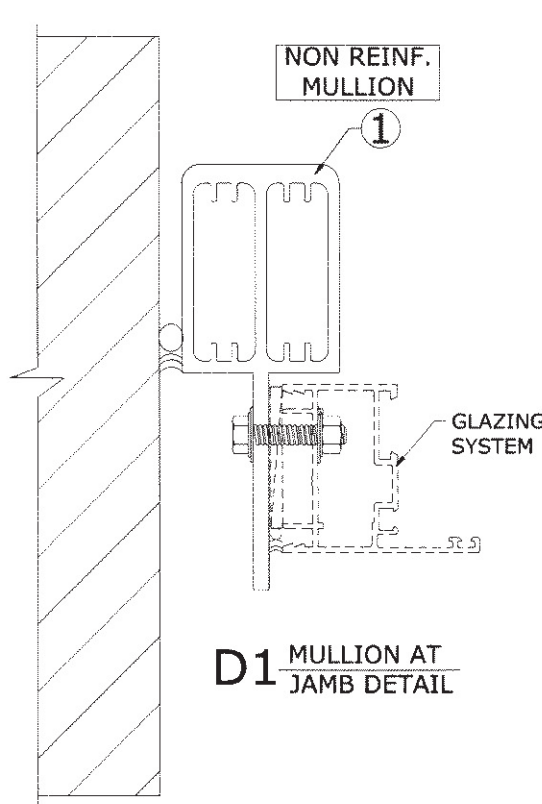
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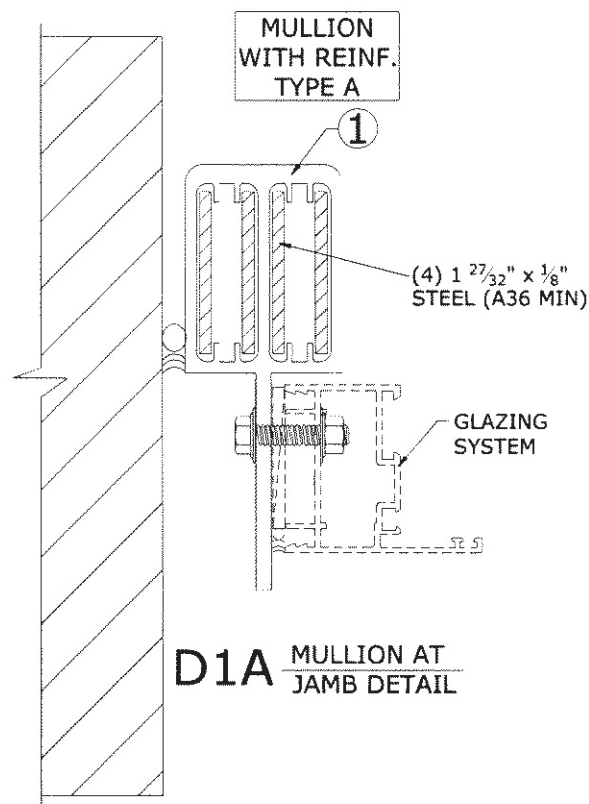
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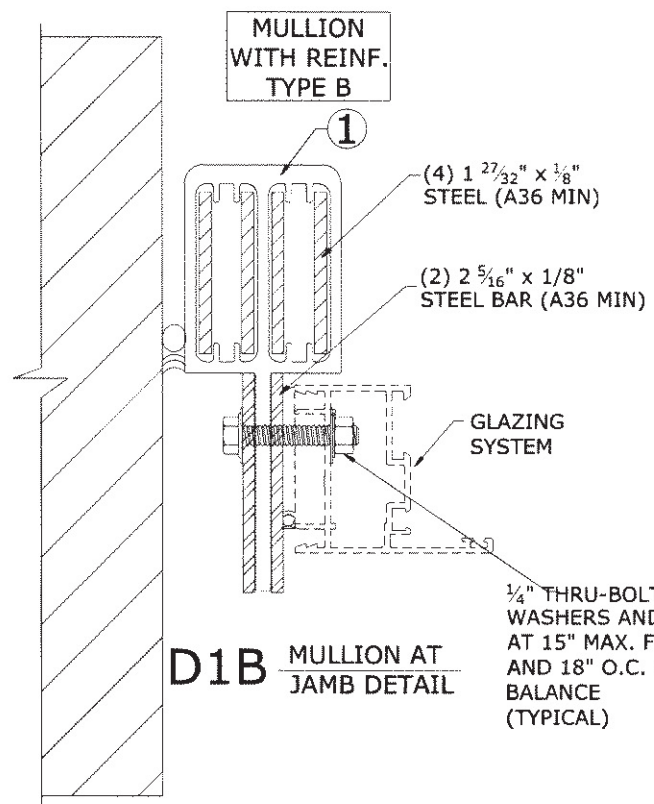
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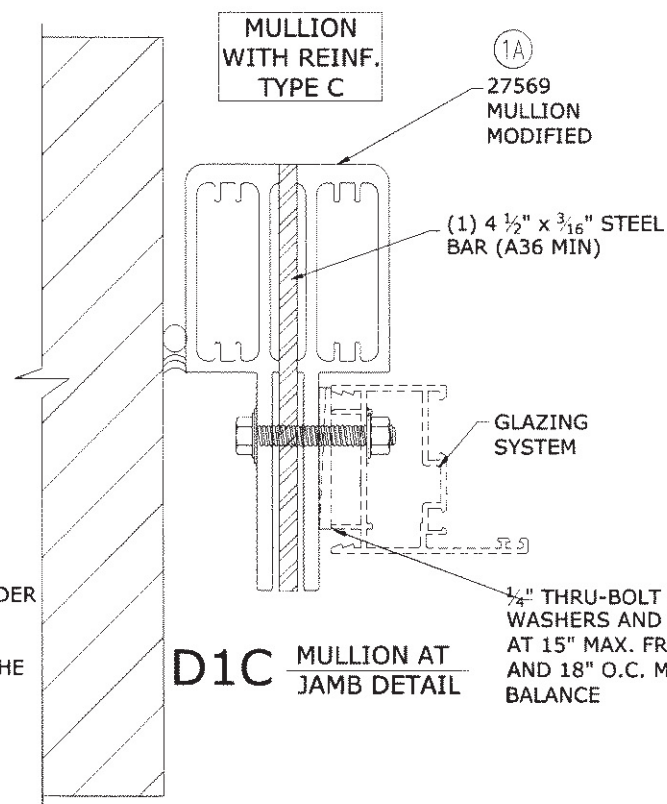
D1 MULLION AT JAMB DETAIL



D1A MULLION AT JAMB DETAIL



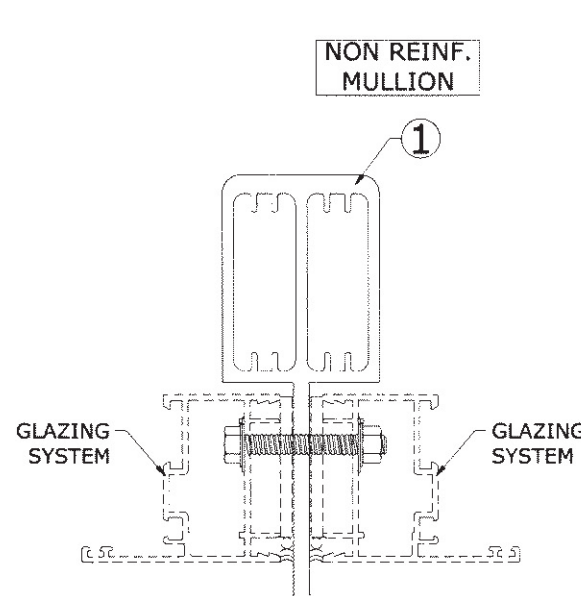
D1B MULLION AT JAMB DETAIL



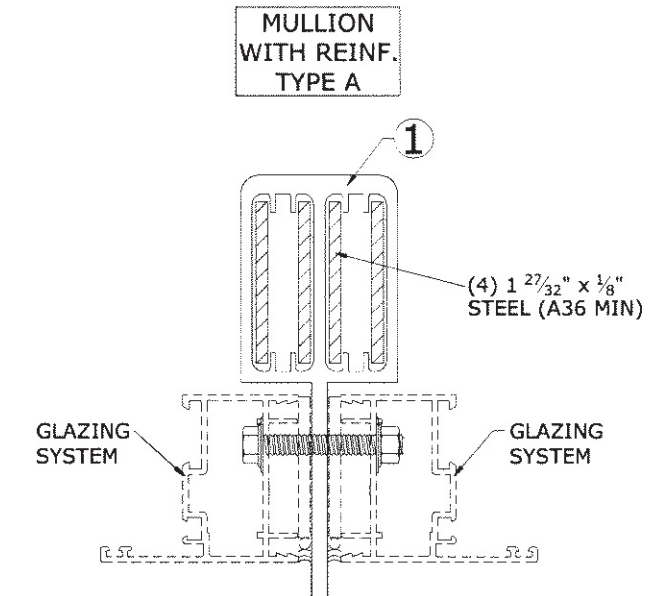
D1C MULLION AT JAMB DETAIL

1/4" THRU-BOLT WITH FENDER WASHERS AND NUT. AT 15" MAX. FROM ENDS AND 18" O.C. MAX FOR THE BALANCE (TYPICAL)

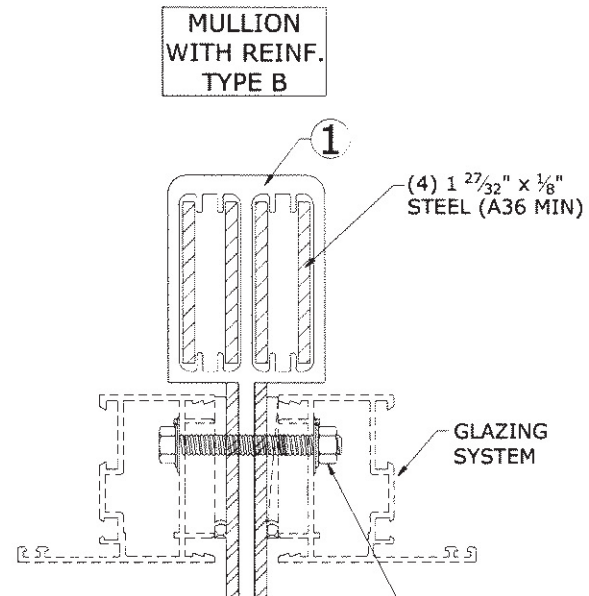
1/4" THRU-BOLT WITH FENDER WASHERS AND NUT. AT 15" MAX. FROM ENDS AND 18" O.C. MAX FOR THE BALANCE



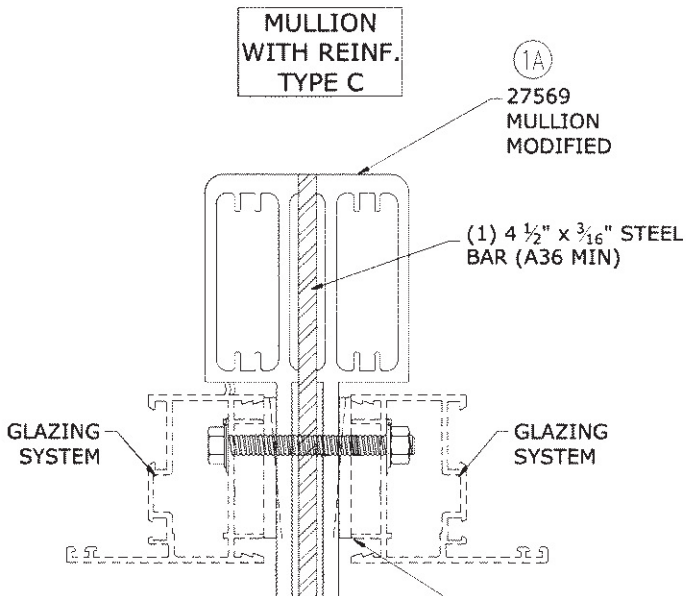
D2 MULLION AT INT. DETAIL



D2A MULLION AT INT. DETAIL



D2B MULLION AT INT. DETAIL



D2C MULLION AT INT. DETAIL

1/4" THRU-BOLT WITH FENDER WASHERS AND NUT. AT 15" MAX. FROM ENDS AND 18" O.C. MAX FOR THE BALANCE (TYPICAL)

1/4" THRU-BOLT WITH FENDER WASHERS AND NUT. AT 15" MAX. FROM ENDS AND 18" O.C. MAX FOR THE BALANCE

SEALANT AND ITS APPLICABILITY WILL BE BY OTHERS

WOOD BUCKS AND METAL STRUCTURE NOT BY LA FINESTRA MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

ALL SUBSTRATES SHOWN CAN BE INTERCHANGEABLE AT ANY PERIMETER LOCATION

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 TROY S. BISHOP, P.E.
 #PE#07611
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 2790 NW 104TH COURT, MIAMI, FL
 FBC 5TH EDITION (2014) PRODUCT APPROVAL # 20400.1-R0

DRWN	CHKD	DATE
JEM	FLB	02/22/16

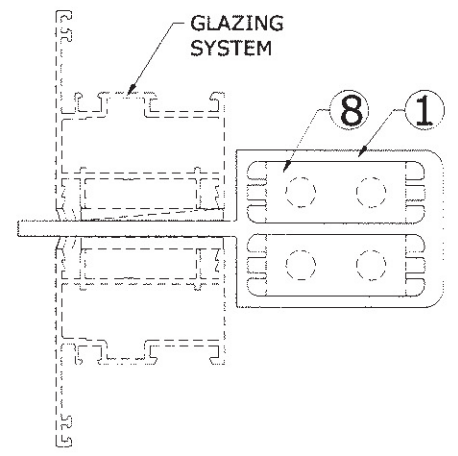
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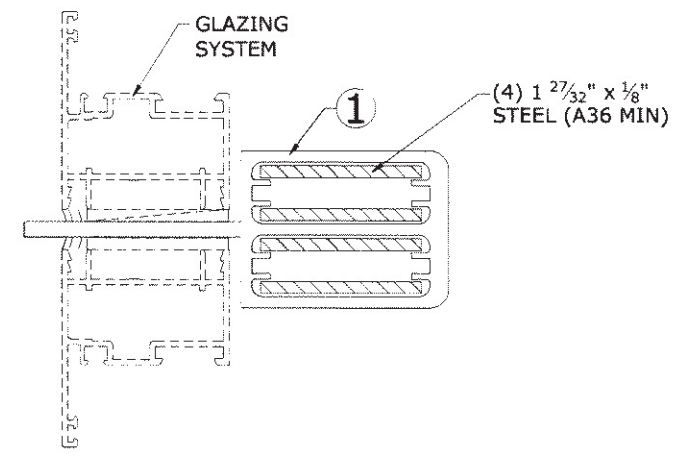
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NON REINF. MULLION



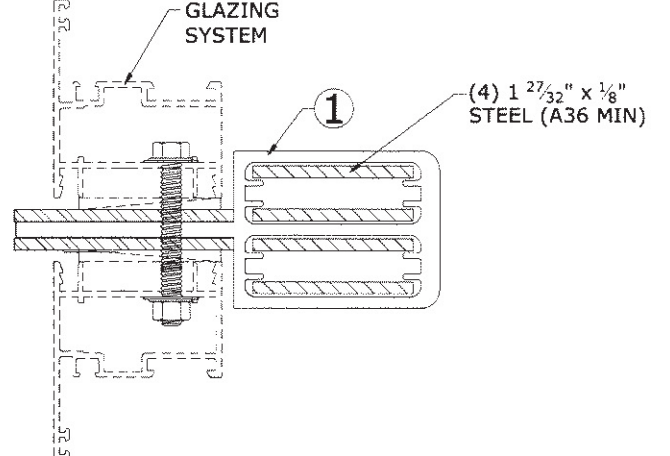
D3 HORIZONTAL MULLION DETAIL

MULLION WITH REINF. TYPE A



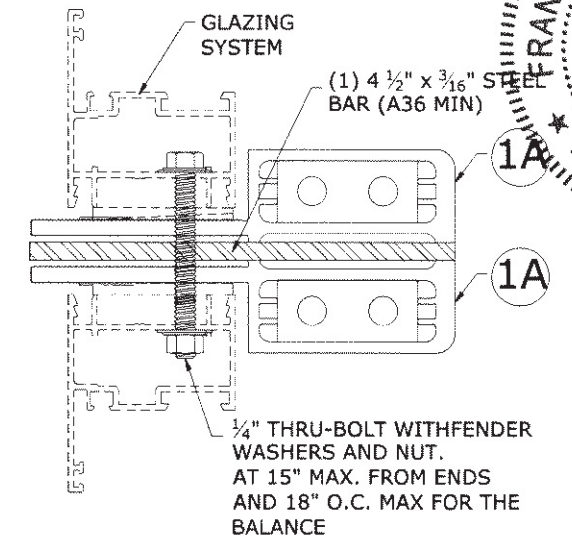
D3A HORIZONTAL MULLION DETAIL

MULLION WITH REINF. TYPE B



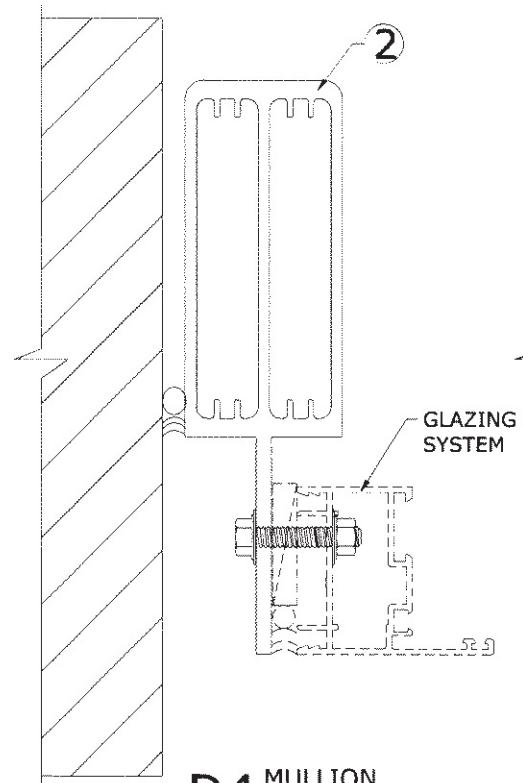
D3B HORIZONTAL MULLION DETAIL

MULLION WITH REINF. TYPE C



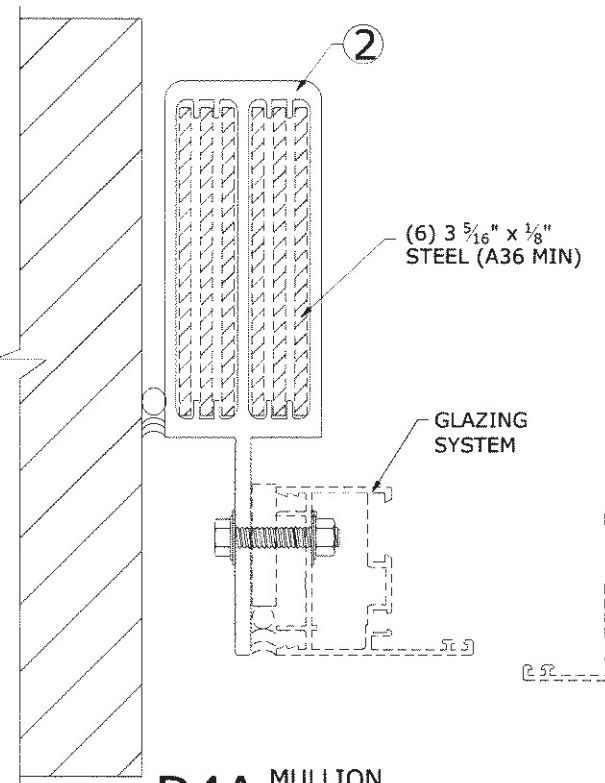
D3C HORIZONTAL MULLION DETAIL

NON REINF. MULLION



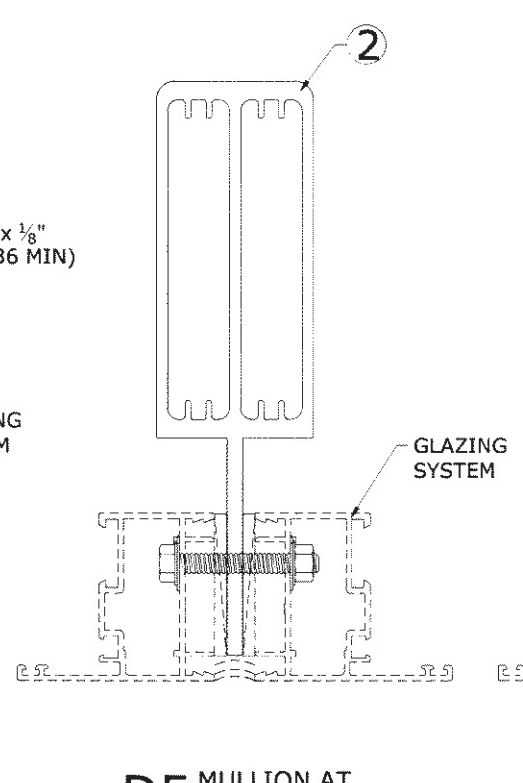
D4 MULLION AT JAMB DETAIL

REINF. MULLION



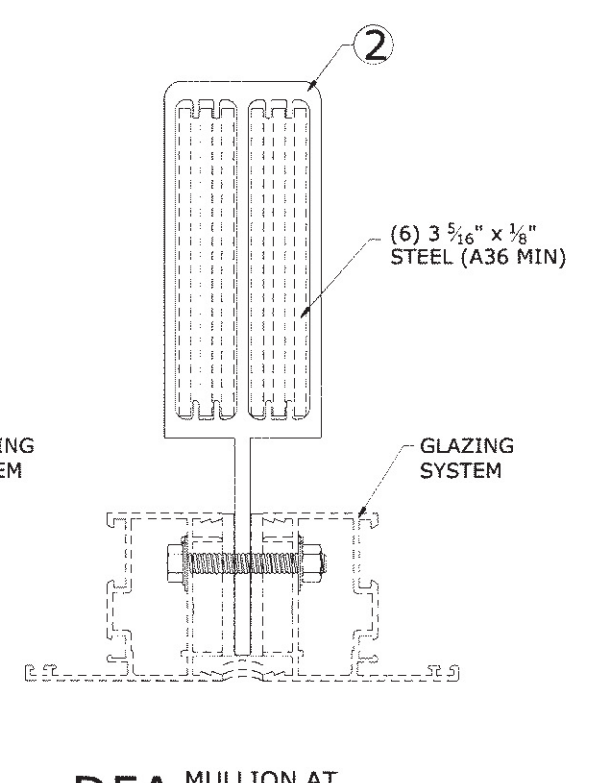
D4A MULLION AT JAMB DETAIL

NON REINF. MULLION



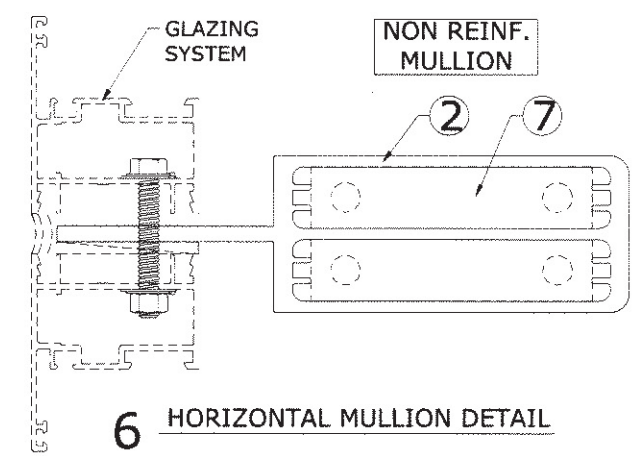
D5 MULLION AT INT. DETAIL

REINF. MULLION



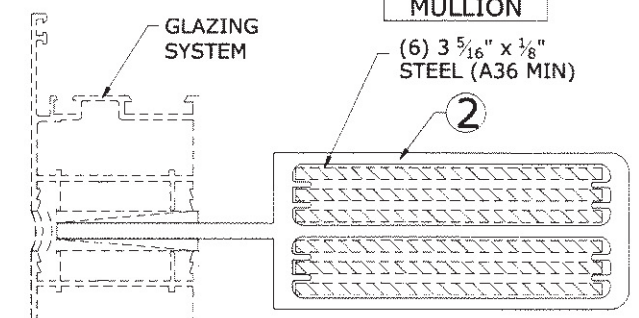
D5A MULLION AT INT. DETAIL

NON REINF. MULLION



6 HORIZONTAL MULLION DETAIL

REINF. MULLION



D6A HORIZONTAL MULLION DETAIL

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04/20/2016
TRONIC BISHOP, P.E.
#PE0076181
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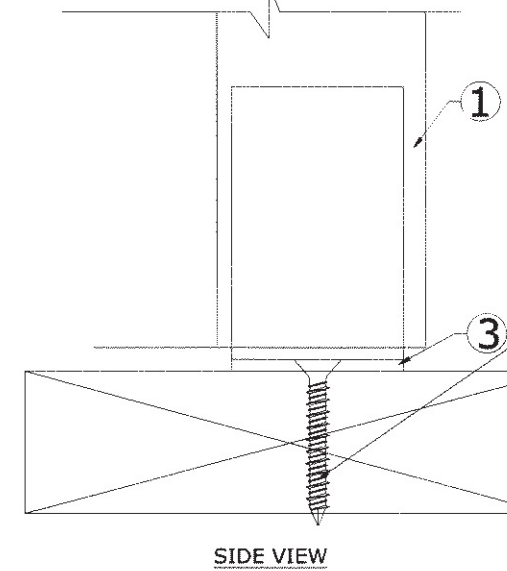
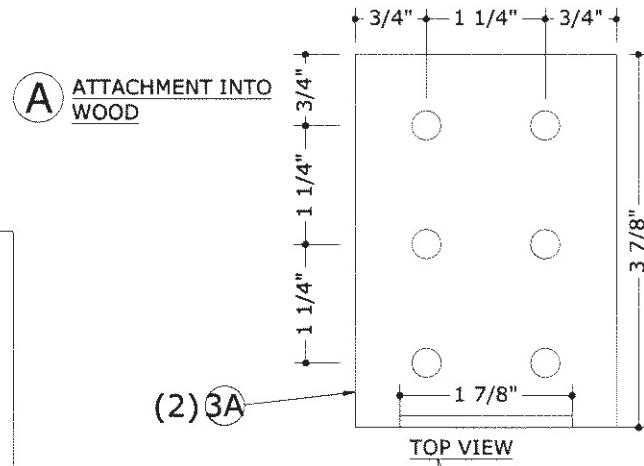
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2790 NW 104TH COURT, MIAMI, FL
FBC 5TH EDITION (2014) PRODUCT APPROVAL #20400.1-R0

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		JEM	FLB
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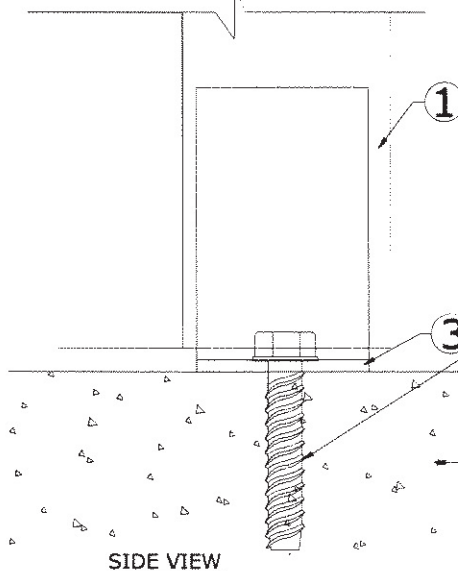
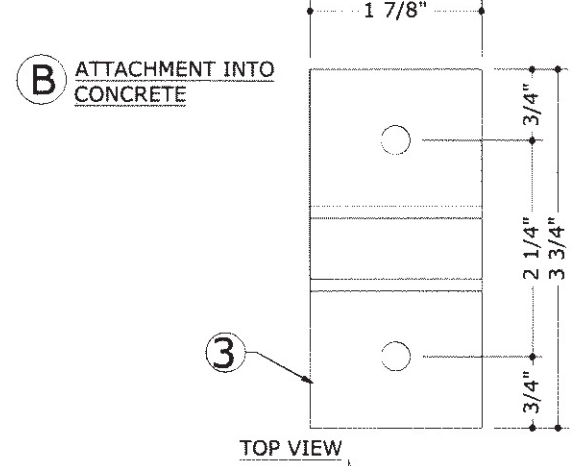
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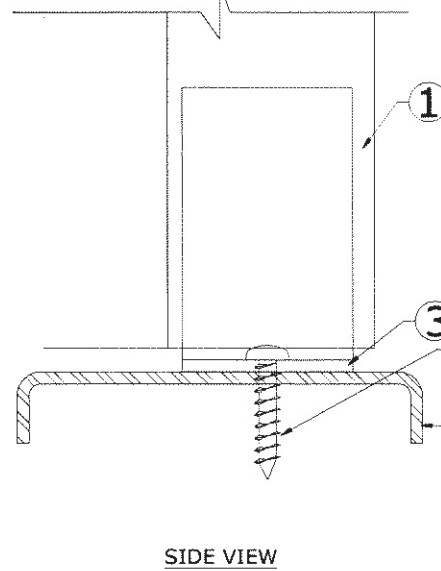
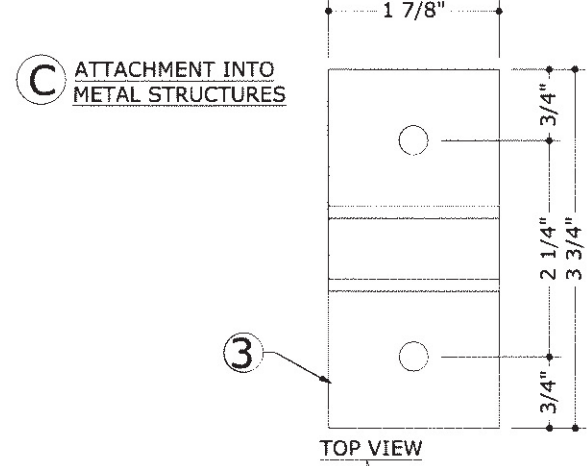
SMALL MULLION ATTACHMENT AT INTERMEDIATE



5/16" ULTRACON INTO 2 BY WOOD BUCK 1 1/2" MIN EMBEDMENT AND 1" MIN EDGE DISTANCE.
WOOD STRUCTURE (BY OTHERS). SYP#2 MIN.

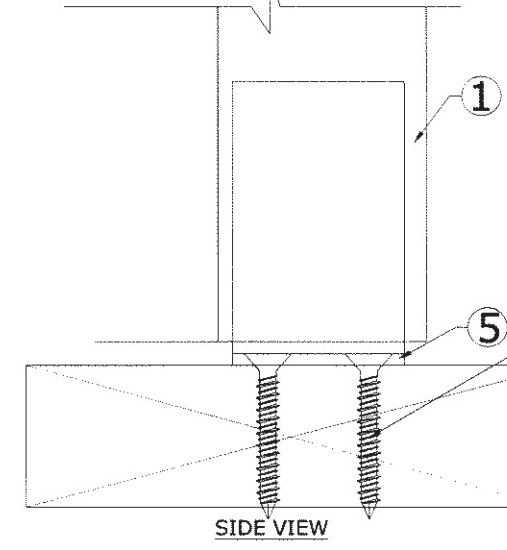
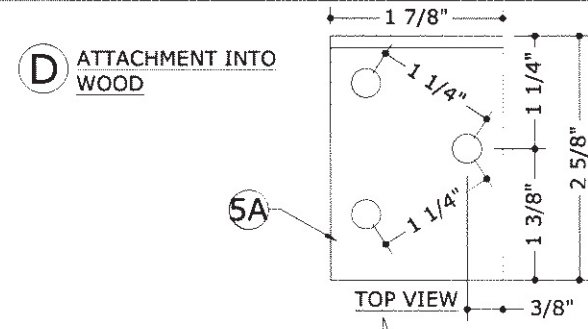


3/8" DIAM. POWERS WEDGE BOLTS W/ 3-1/2" EMBEDMENT AND 3-3/4" MINIMUM EDGE DISTANCE
CONCRETE (3000 PSI. MIN.)

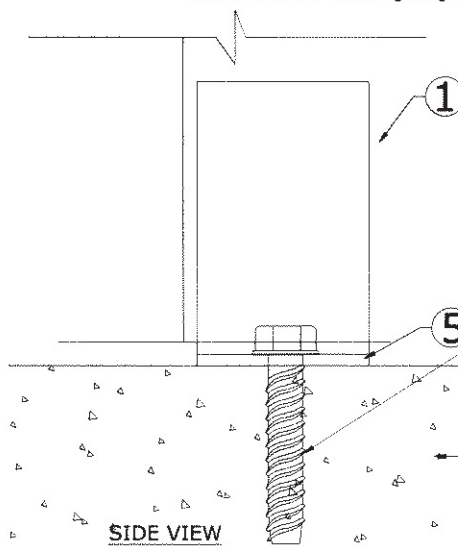
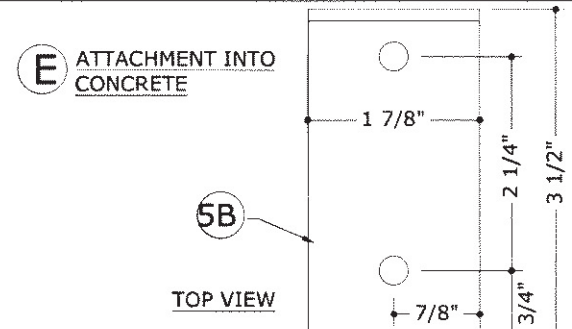


5/16-12 SMS SCREWS (GRADE 5 MIN)
METAL STRUCTURE (BY OTHERS) 1/8" MIN. THICK ALUMINUM (6063-T5 MIN.) OR STEEL (A-36 MIN.)

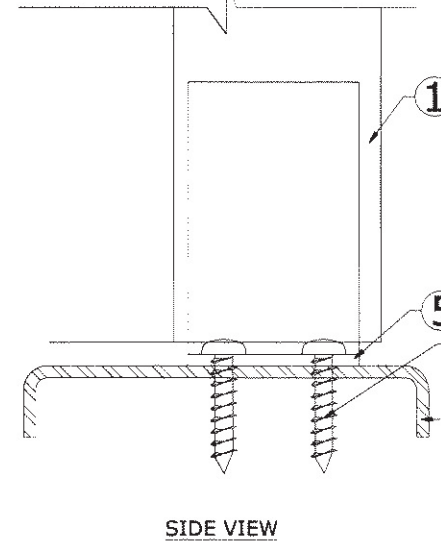
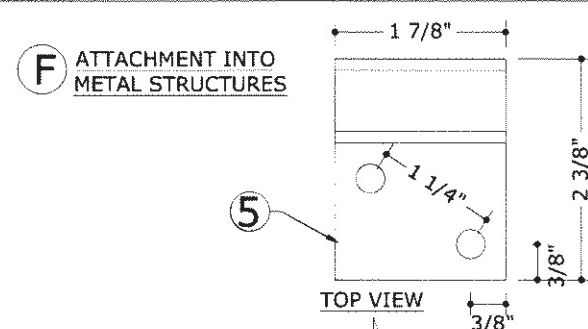
SMALL MULLION ATTACHMENT AT JAMB



5/16" ULTRACON INTO 2 BY WOOD BUCK 1 1/2" MIN EMBEDMENT AND 1" MIN EDGE DISTANCE.
WOOD STRUCTURE (BY OTHERS). SYP#2 MIN.



3/8" DIAM. POWERS WEDGE BOLTS W/ 3-1/2" EMBEDMENT AND 3-3/4" MINIMUM EDGE DISTANCE
CONCRETE (3000 PSI. MIN.)



5/16-12 SMS SCREWS (GRADE 5 MIN)
METAL STRUCTURE (BY OTHERS) 1/8" MIN. THICK ALUMINUM (6063-T5 MIN.) OR STEEL (A-36 MIN.)

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#PE0046549

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LICENSED PROFESSIONAL ENGINEER
NOVEMBER 2016

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INT ISSUE	JEM	FLB	02/22/16

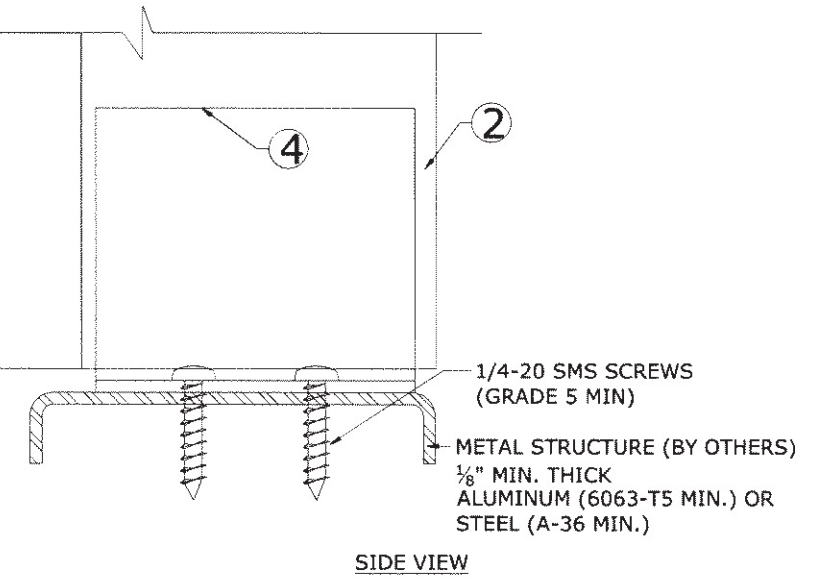
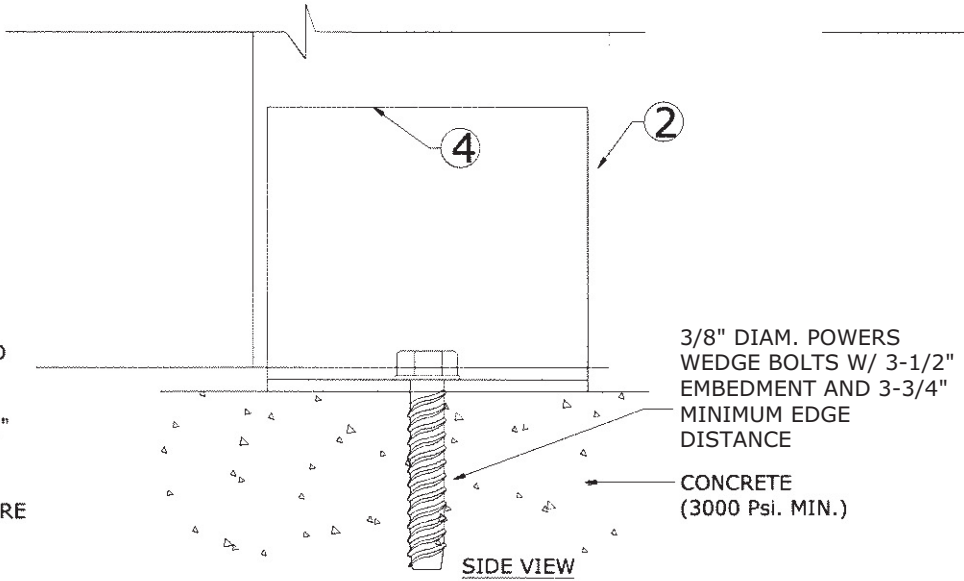
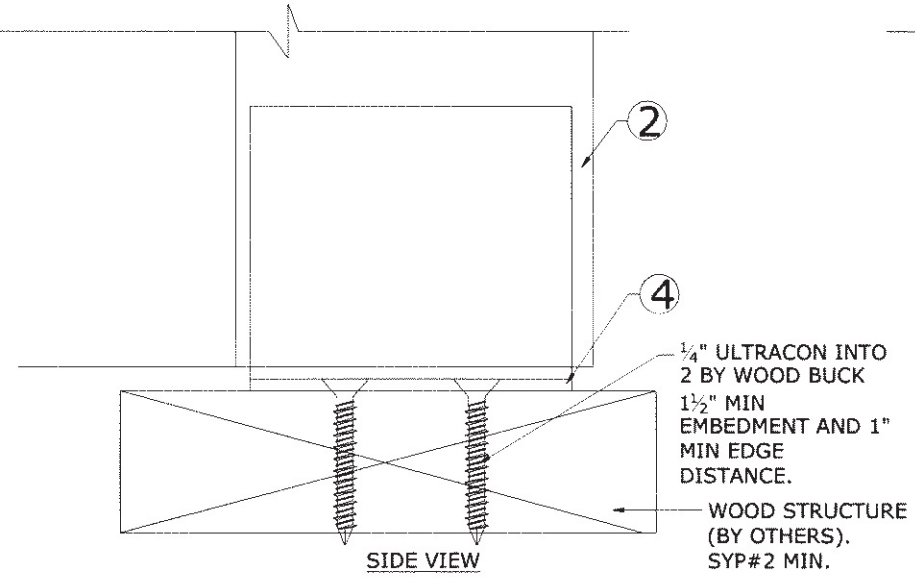
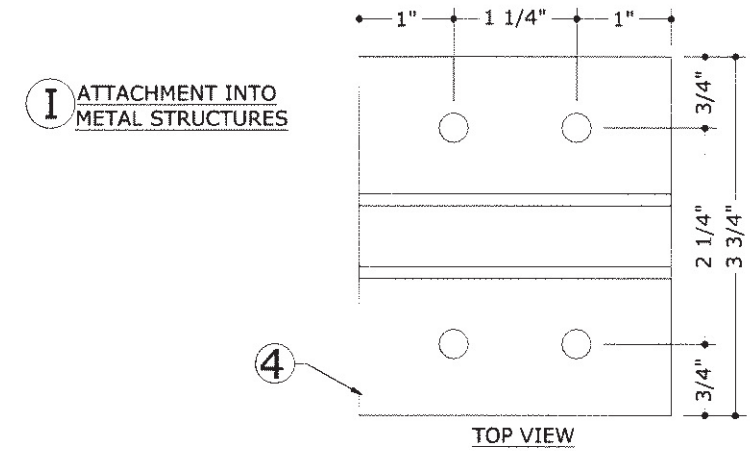
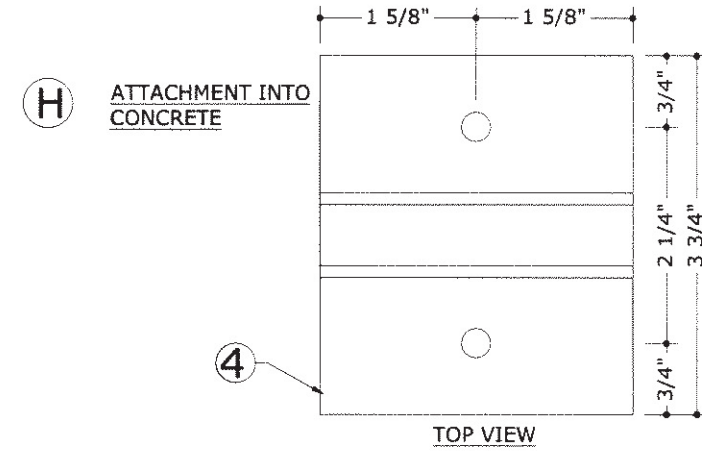
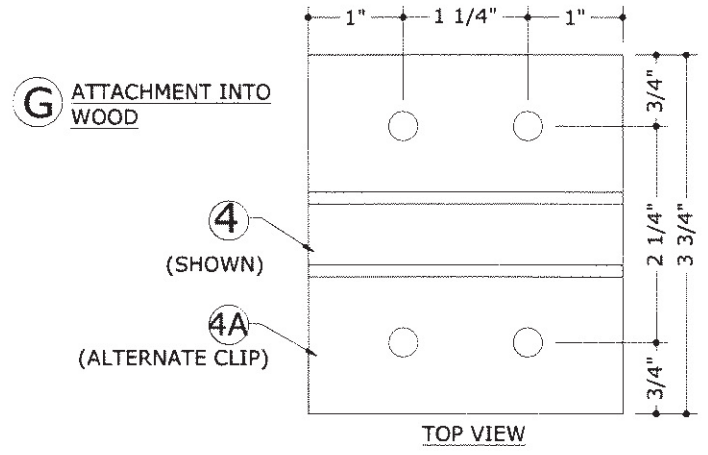
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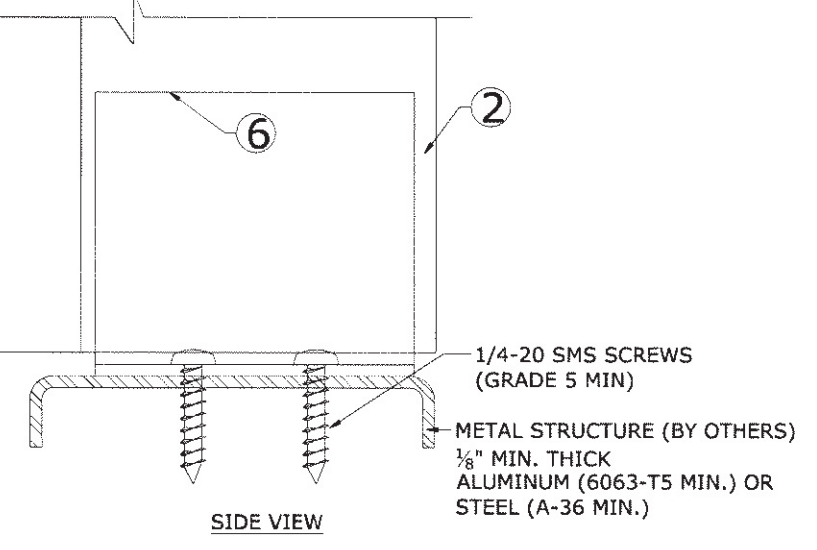
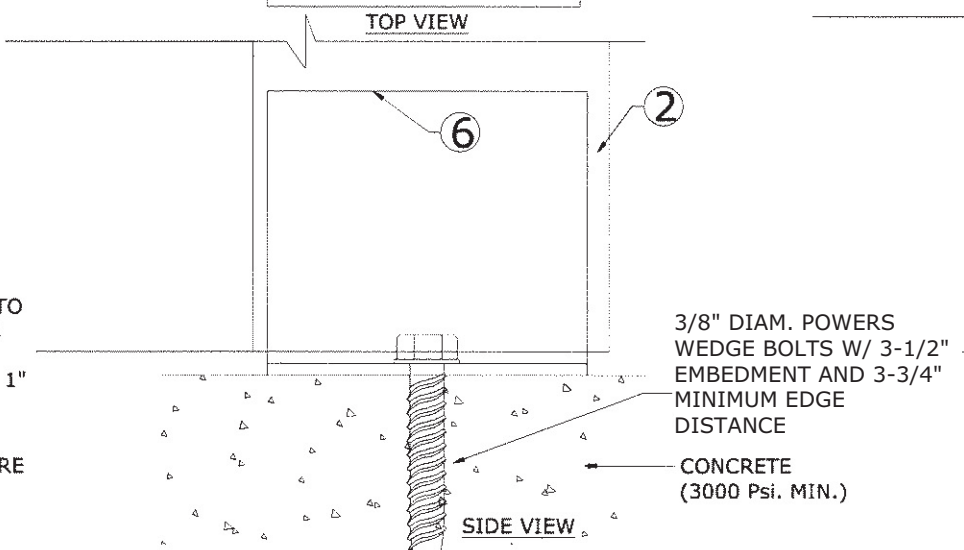
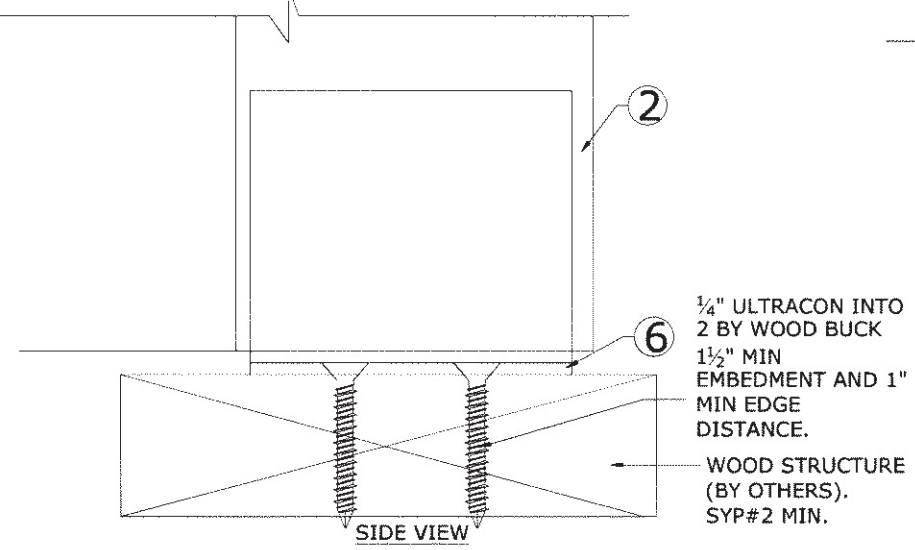
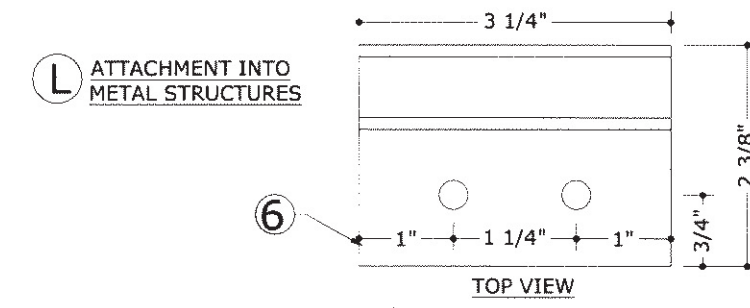
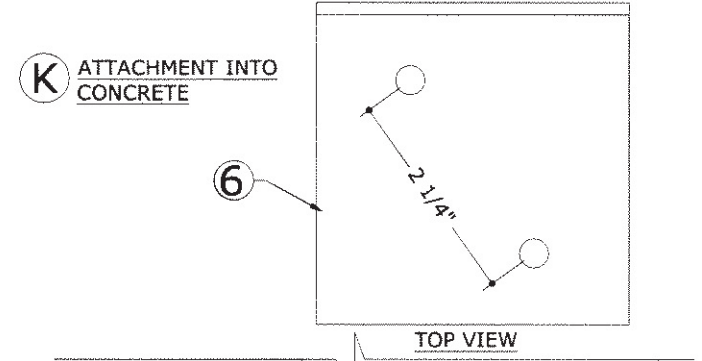
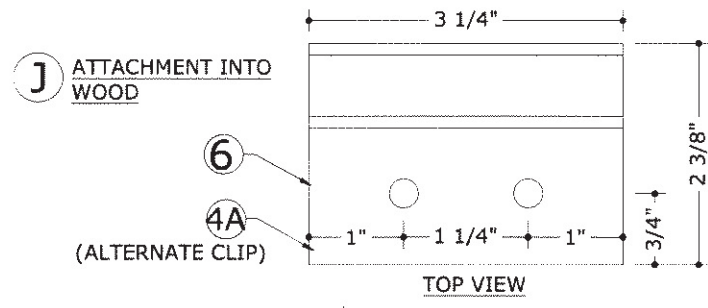
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LARGE MULLION ATTACHMENT AT INTERMEDIATE



LARGE MULLION ATTACHMENT AT JAMB



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 TROY S. BUSHOP, P.E.
 #PE0076131
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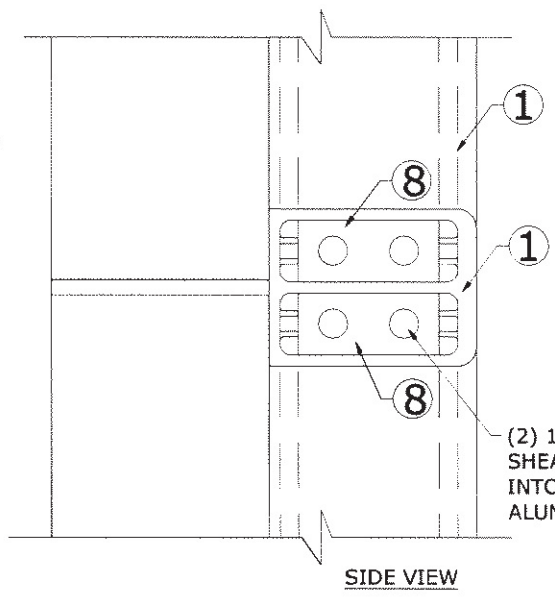
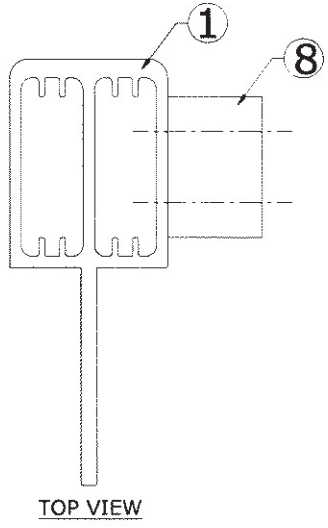
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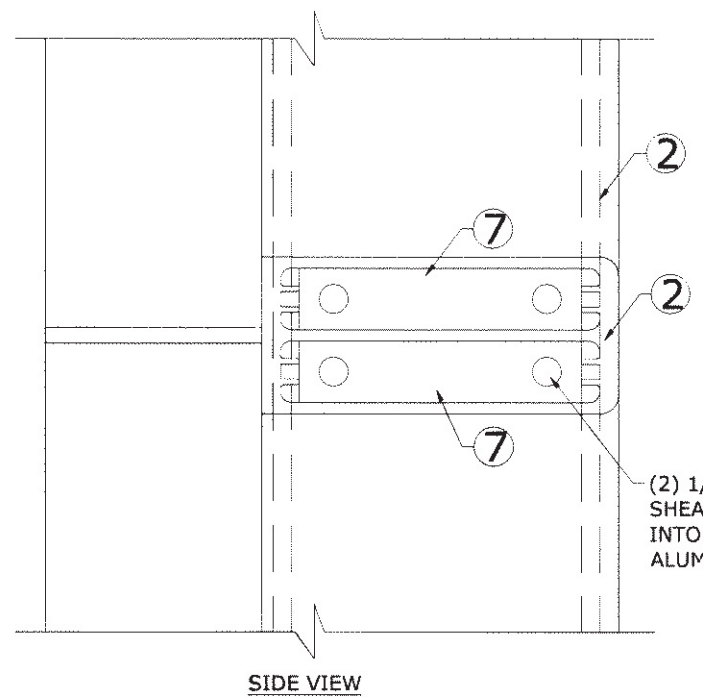
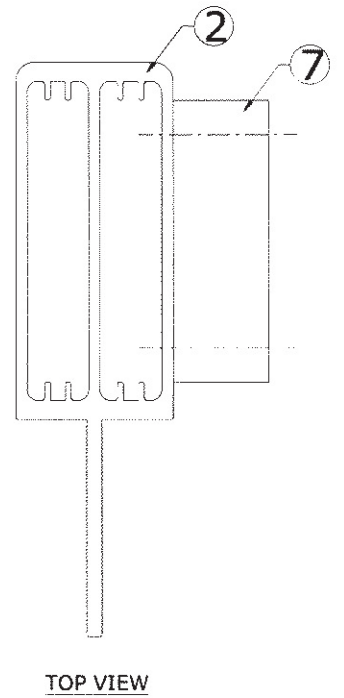
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11



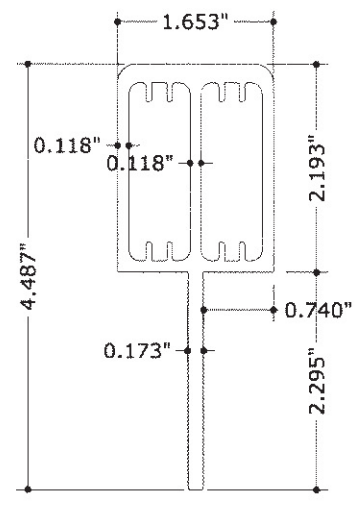
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(M) ATTACHMENT INTO ALUMINUM MULLIONS

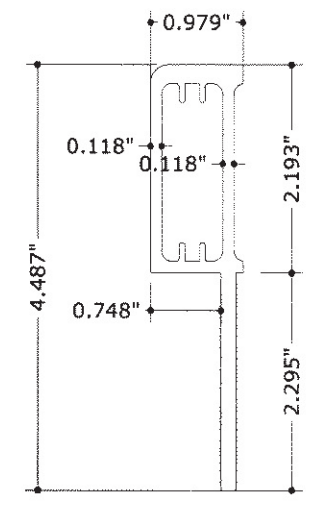


(2) 1/4-20 SMS SCREWS PER SHEAR BLOCK (GRADE 5 MIN.) INTO 1/8" MIN. THICK ALUMINUM (6063-T5 MIN.)

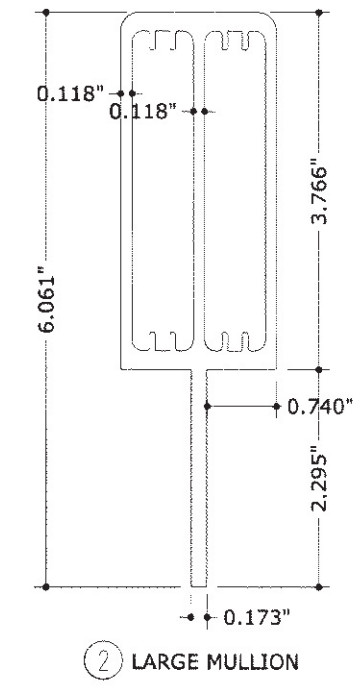
(N) ATTACHMENT INTO ALUMINUM MULLIONS



(1) SMALL MULLION



(1A) SMALL MULLION MODIFIED



(2) LARGE MULLION

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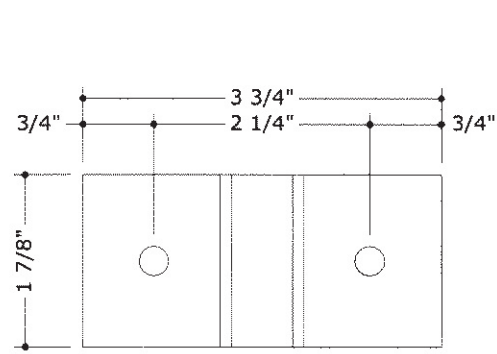
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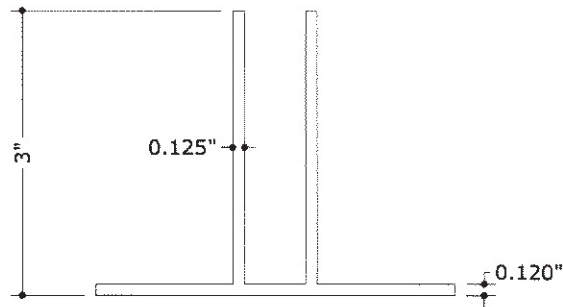
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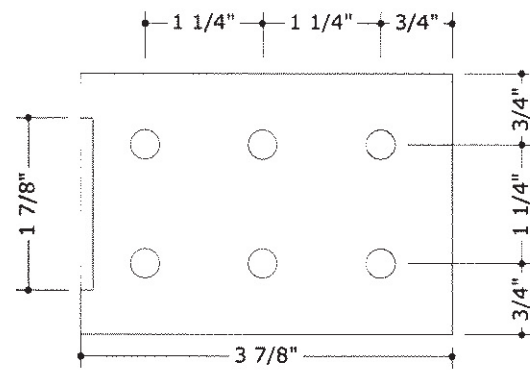
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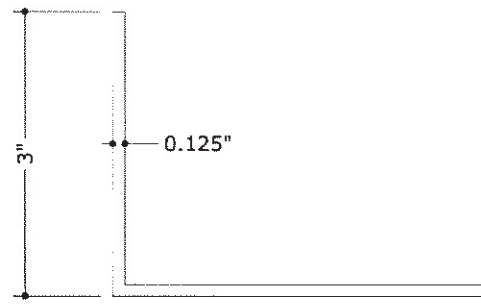
③ "T" CLIP (TOP VIEW)



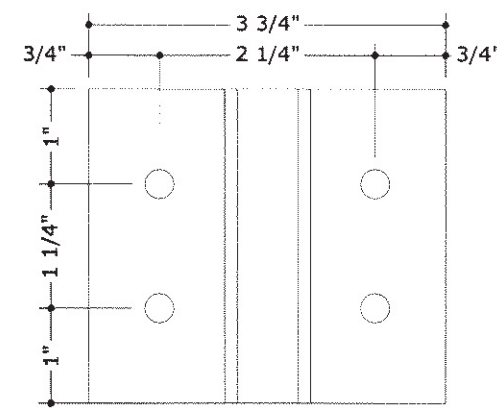
③ "T" CLIP (FRONT VIEW)



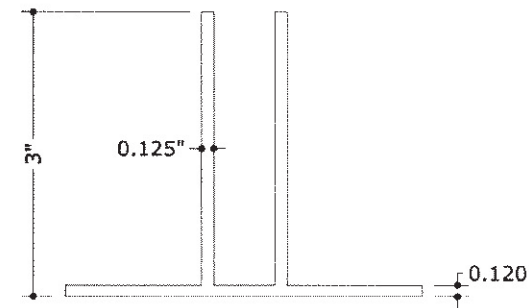
③A "ANGLE" CLIP (TOP VIEW)



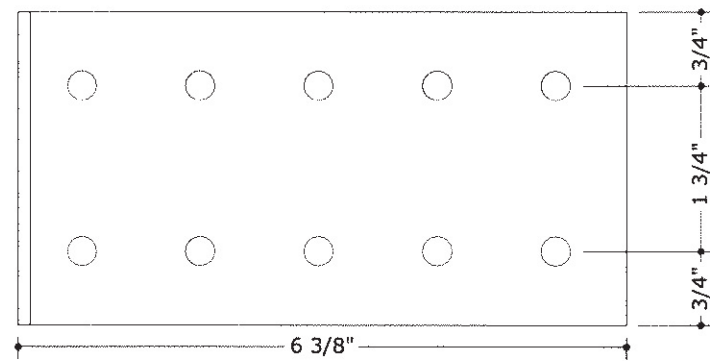
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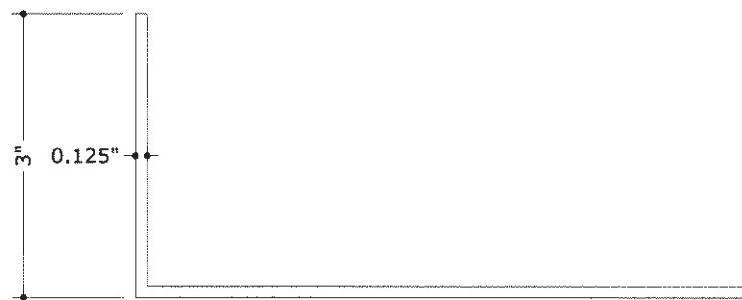
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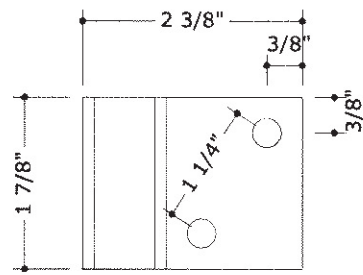
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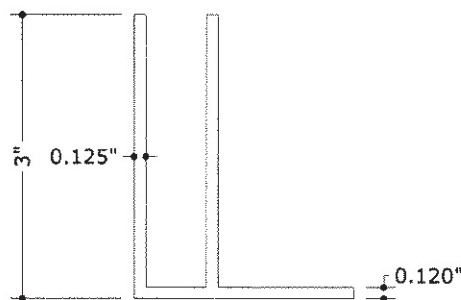
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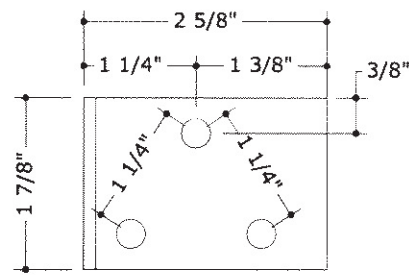
④A "ANGLE" CLIP (FRONT VIEW)



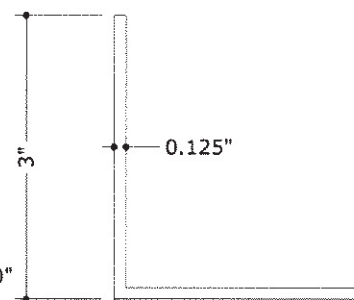
⑤ "F" CLIP (TOP VIEW)



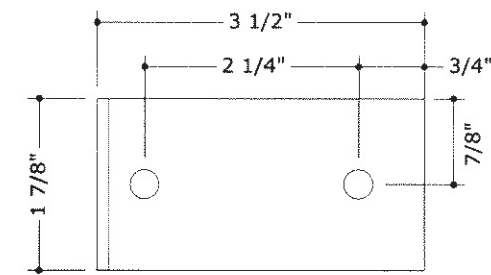
⑤ "F" CLIP (FRONT VIEW)



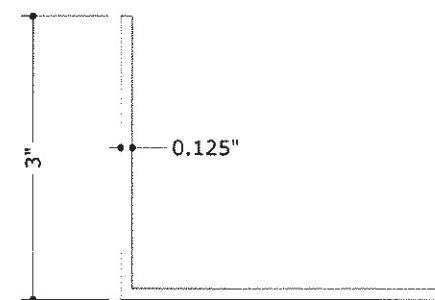
⑤A "ANGLE" CLIP (TOP VIEW)



⑤A "ANGLE" CLIP (FRONT VIEW)



⑤B "ANGLE" CLIP (TOP VIEW)



⑤B "ANGLE" CLIP (FRONT VIEW)

FRANK L. BENNARDO, P.E.
#PE0046549

04/20/2016

FRANK L. BENNARDO, P.E.
#PE0076131

NO. 1006

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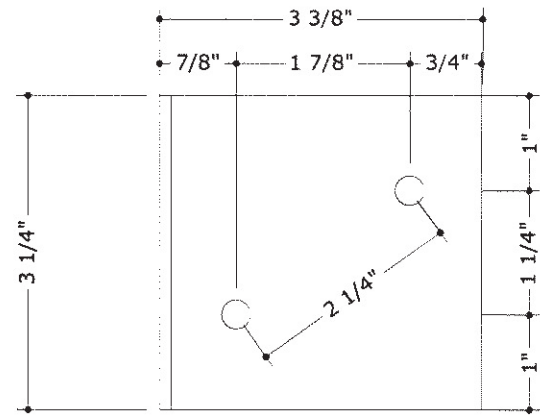
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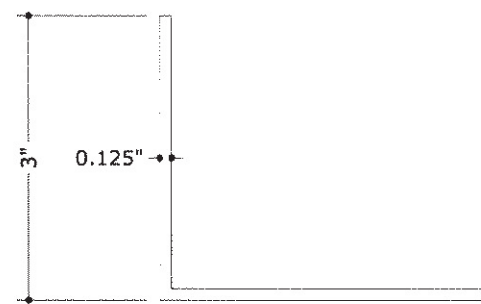
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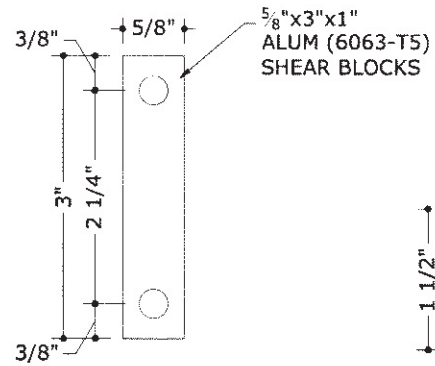
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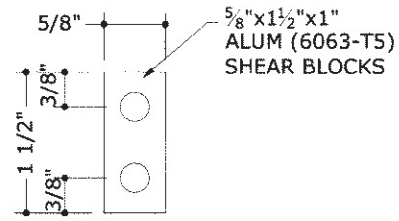
⑥ "ANGLE" CLIP (TOP VIEW)



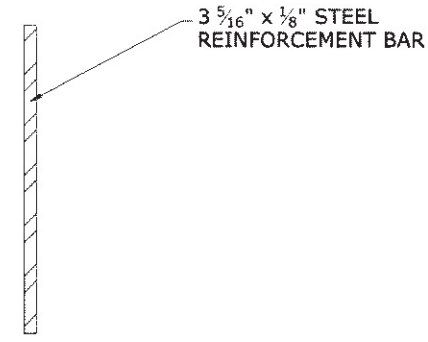
⑥ "ANGLE" CLIP (FRONT VIEW)



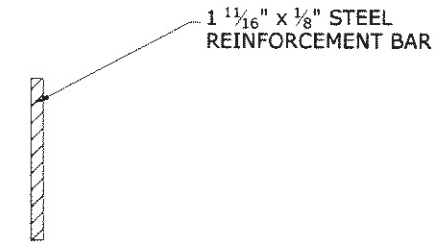
⑦ LARGE SHEARBLOCK



⑧ SMALL SHEARBLOCK



⑨ STEEL REINFORCEMENT



⑩ STEEL REINFORCEMENT

BILL OF MATERIALS

ITEM	PART No.	QUANTITY	DESCRIPTION	MATERIAL	REMARKS
①	27569	1	SMALL ALUMINUM MULLION	ALUM. A.. 6063-T6	
①A	27569 MODIFIED	1	SMALL ALUMINUM MULLION	ALUM. A.. 6063-T6	
②	27570	1	LARGE ALUMINUM MULLION	ALUM. A.. 6063-T6	
③	N/A	1	ALUMINUM "T" CLIP	ALUM. A.. 6063-T6	USED WITH SMALL ALUMINUM MULLION
③A	N/A	1	ALUMINUM "ANGLE" CLIP	ALUM. A.. 6063-T6	USED WITH SMALL ALUMINUM MULLION
④	N/A	1	ALUMINUM "T" CLIP	ALUM. A.. 6063-T6	USED WITH LARGE ALUMINUM MULLION
④A	N/A	1	ALUMINUM "ANGLE" CLIP	ALUM. A.. 6063-T6	USED WITH LARGE ALUMINUM MULLION
⑤	N/A	1	ALUMINUM "F" CLIP	ALUM. A.. 6063-T6	USED WITH SMALL ALUMINUM MULLION
⑤A	N/A	1	ALUMINUM "ANGLE" CLIP	ALUM. A.. 6063-T6	USED WITH SMALL ALUMINUM MULLION
⑥	N/A	1	ALUMINUM "ANGLE" CLIP	ALUM. A.. 6063-T6	USED WITH LARGE ALUMINUM MULLION
⑦	N/A	1	LARGE ALUMINUM SHEAR BLOCK	ALUM. A.. 6063-T5	USED WITH LARGE ALUMINUM MULLION
⑧	N/A	1	SMALL ALUMINUM SHEAR BLOCK	ALUM. A.. 6063-T5	USED WITH SMALL ALUMINUM MULLION
⑨	N/A	1	3 5/16" x 1/8" STEEL REINFORCEMENT BAR	A-36 STEEL MIN.	USED WITH LARGE ALUMINUM MULLION
⑩	N/A	1	1 11/16" x 1/8" STEEL REINFORCEMENT BAR	A-36 STEEL MIN.	USED WITH SMALL ALUMINUM MULLION

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