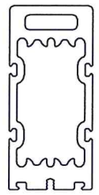


6580 Horizontal Mullion



4175 Vetical Mullion

6580/4175 Extruded Aluminum Horizontal & Vertical Clipped Structural Mullions

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 7th Edition (2020) Florida Building Code (FBC) structural requirements, excluding the "High Velocity Hurricane Zone".

2. When used in areas requiring wind borne debris protection, this product (if mulled together with impact rated windows) does not require protection from an impact resistant covering when used in Wind Zones 1, 2 and 3 as defined by ASTM E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.

3. In Wind Zone 4 as defined by ASTM E 1996, this product must be protected with an impact resistant covering complying with FBC Sections 1609.1.2 & R301.2.1.2.

4. Separate product approvals for each glazing product used with these mullions must be submitted along with this mullion product approval. The design pressure rating of the assembly shall be the lesser of the load capacity of the mullion as specified using this approval or the design pressure rating of the individual glazing products used.

5. Anchoring of each glazing product to the mullion shall be as shown in this drawing or as shown in each individual glazing product approval, whichever is more stringent.

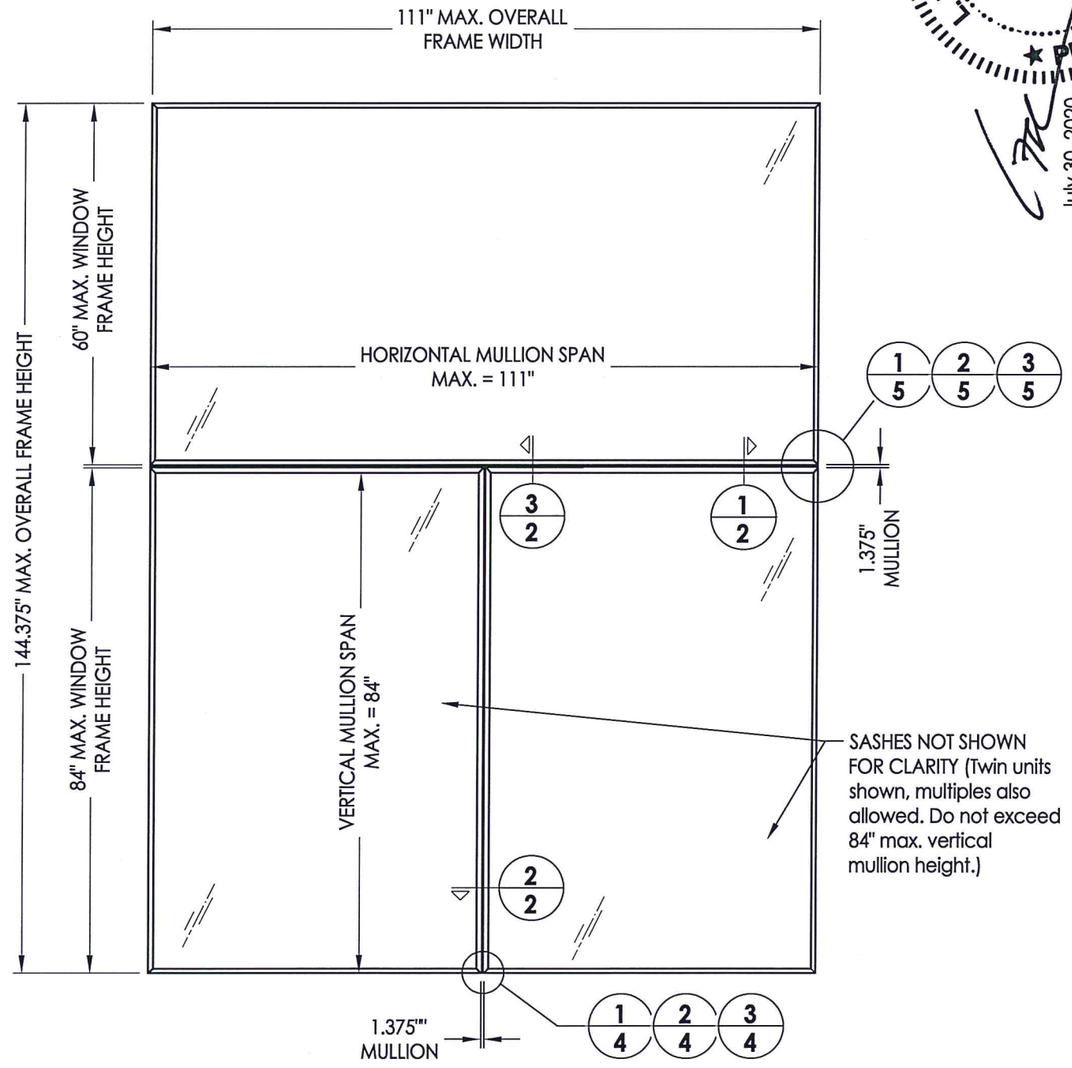
6. Mullion anchor embedment to base material shall be beyond wall dressing or stucco.

7. Any conditions not covered in this evaluation are subject to separate engineering evaluation.

8. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.

TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Typical elevations & general notes
2	Component details & cross sections
3	Design pressure table
4	Anchor bracket details (Vertical Mullion)
5	Anchor bracket details (Horizontal Mullion)
6	Buck anchoring



MULLED TRANSOM OVER TWIN WINDOW UNITS

See Sheets 3 for Design Pressure Ratings

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 30, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

PART OR ASSEMBLY: TYPICAL ELEVATIONS & GENERAL NOTES

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS

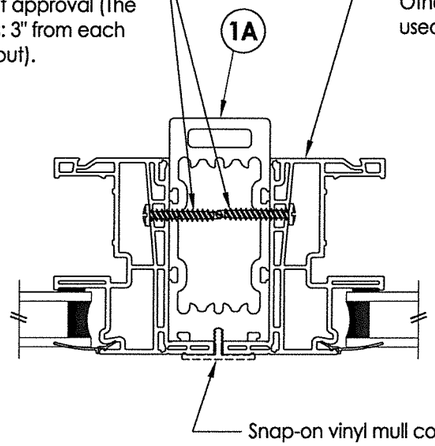
DATE: 10/24/19
SCALE: N.T.S.
DWG. BY: RW
CHK. BY: LFS
DRAWING NO.: FL-15413.12
SHEET 1 OF 6

© 2019 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.10-12.dwg, FL-15413.12

#8 X 1" PH Self-Drilling SMS (See notes below): Use the frame anchor spacing as shown on the individual window product approval (The min. required screw spacing is: 3" from each end and 24" max. o.c. througout).

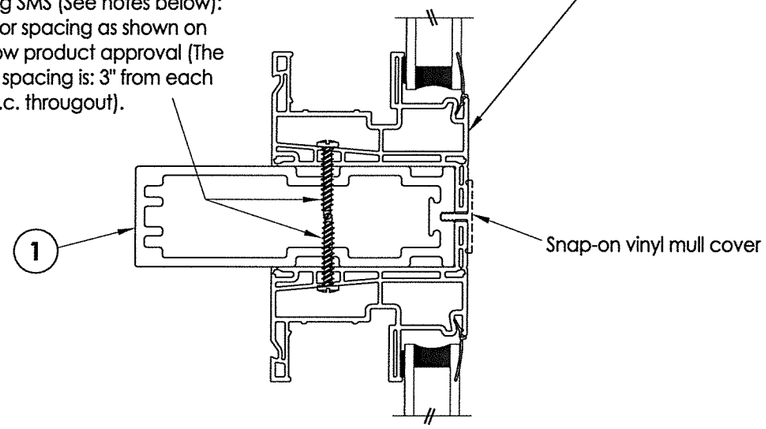
Shown with Doers Series 4000 single hung frame under separate approval. Other Doers approved frames may be used.



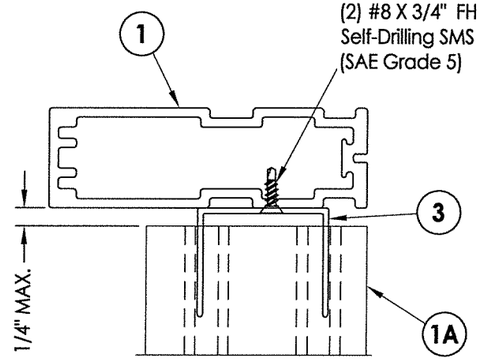
1/2 VERTICAL CROSS SECTION
4175 Mullion to Window Connection

#8 X 1" PH Self-Drilling SMS (See notes below): Use the frame anchor spacing as shown on the individual window product approval (The min. required screw spacing is: 3" from each end and 24" max. o.c. througout).

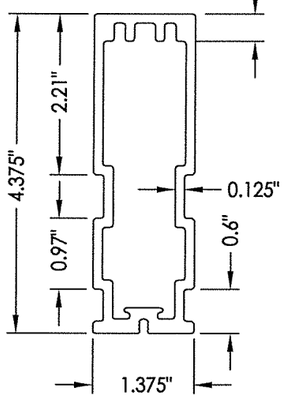
Shown with Doers Series 4000 single hung frame under separate approval. Other Doers approved frames may be used.



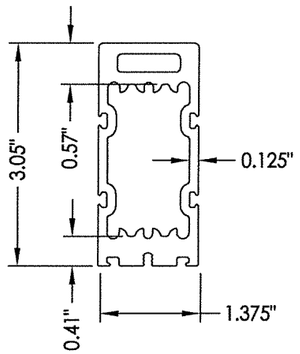
2/2 HORIZONTAL CROSS SECTION
6580 Mullion to Window Connection



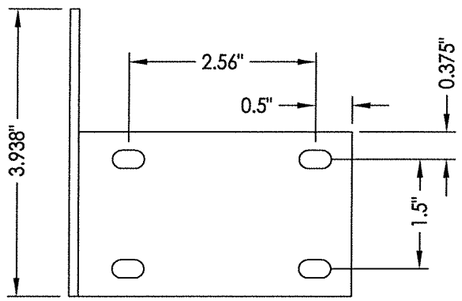
3/2 VERTICAL CROSS SECTION
6580/4175 Mullion-to-mullion connection detail



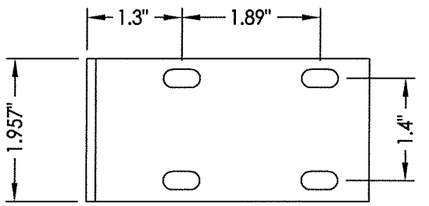
1 MULLION (6580)
6063-T6 ALUM



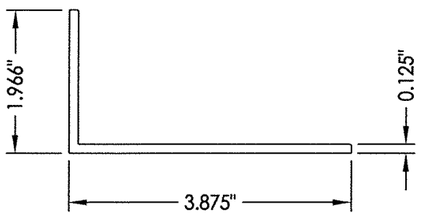
1A MULLION (4175)
6063-T6 ALUM

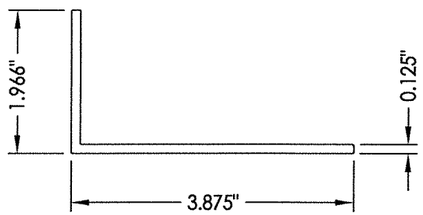


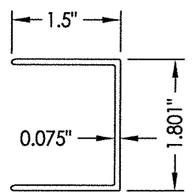
2 MULLION ANCHOR BRACKET (F-6150)
6063-T6 ALUM



2A MULLION ANCHOR BRACKET (3418)
6063-T6 ALUM







3 MULLION-TO-MULLION CLIP (3314)
6063-T6 ALUM (1.105" wide)

Notes:
1. Refer to individual window product approval for fabrication and installation requirements, including glazing details, frame reinforcement and anchoring specifications.
2. Sheet metal screws (self-drilling) shall have a minimum of 3 threads protrude completely through the mullion frame. Maintain a min. 1/2" edge distance.

T. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 30, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

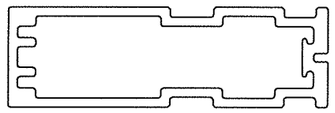
PART OR ASSEMBLY: COMPONENT DETAILS & CROSS SECTIONS

REVISIONS			
NO.	DATE	BY	
1	7/29/20	LFS	UPDATE TO 7TH ED (2020) FBC

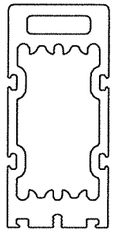
DATE: 10/24/19
SCALE: N.T.S.
DWG. BY: RW
CHK. BY: LFS
DRAWING NO.: FL-15413.12
SHEET 2 OF 6

© 2019 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.10-12.dwg, 2.11



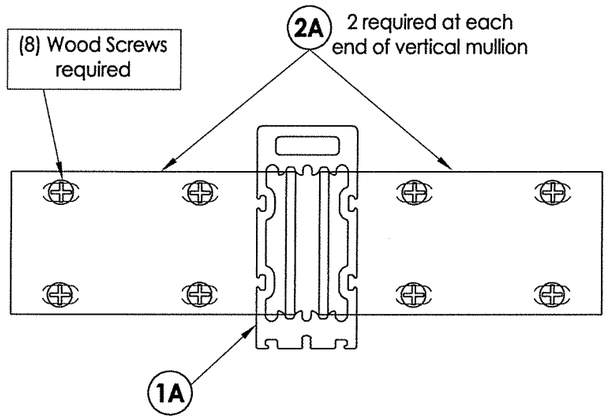
6580
HORIZONTAL MULLION



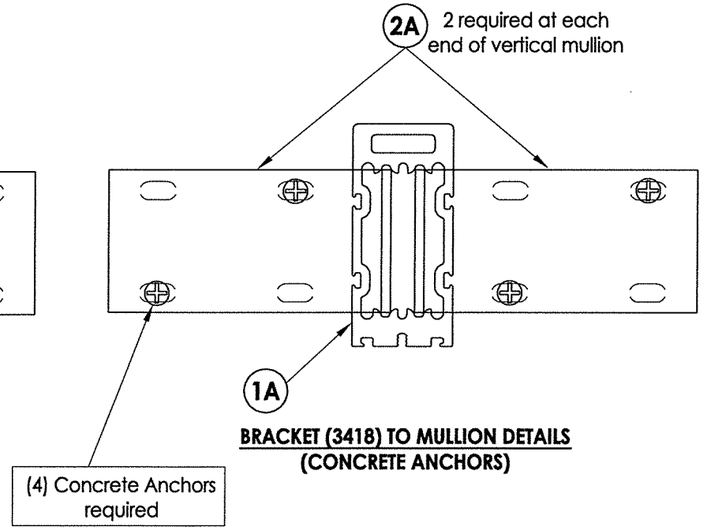
4175
VERTICTAL MULLION

6580 MULLION		DESIGN PRESSURE (PSF)							
		MAX. OVERALL FRAME HEIGHT							
		78"	84"	92"	100"	108"	116"	124"	144.375"
MAX. HORIZONTAL MULLION SPAN	111"	26	24	22	20	19	18	16	N/A
	104"	32	30	27	25	23	21	20	17
	96"	41	38	35	32	29	27	26	22
	90"	50	46	42	39	36	33	31	27
	84"	54	50	46	42	39	36	34	29
	78"	58	54	49	45	42	39	36	31
	72"	63	58	53	49	45	42	39	34
	64"	71	66	60	55	51	47	44	38
	56"	80	75	69	63	58	54	51	43

N/A = NOT APPLICABLE

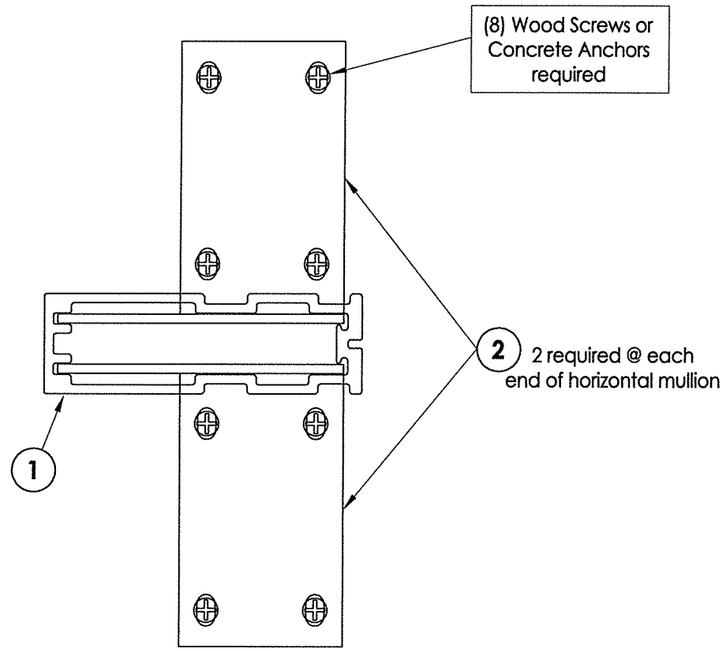


BRACKET (3418) TO MULLION DETAILS
(WOOD SCREWS)



Install anchors in alternating holes as shown

BRACKET (3418) TO MULLION DETAILS
(CONCRETE ANCHORS)



BRACKET (F-6150) TO MULLION DETAILS
(WOOD SCREWS OR CONCRETE ANCHORS)

Notes:
1. Design pressure table is applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheets 4 & 5 for cross section details.

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
July 30, 2020
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409
BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION
PART OR ASSEMBLY: DESIGN PRESSURE TABLES

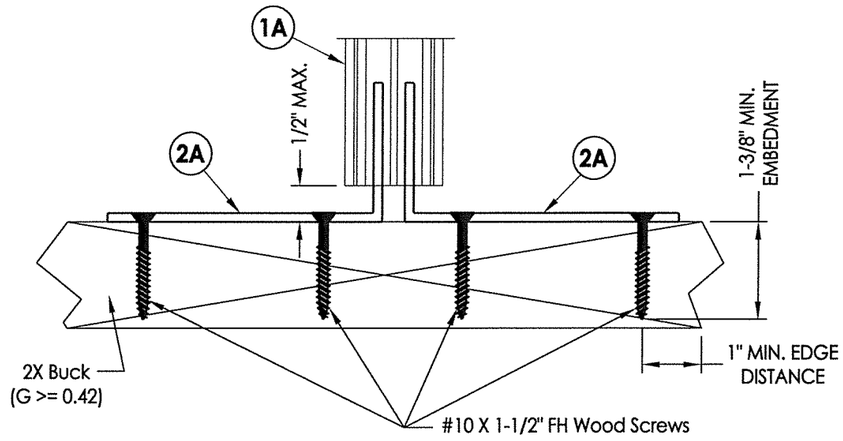
NO.	DATE	BY
1	7/29/20	LFS

REVISIONS: UPDATE TO 7TH ED (2020) FBC

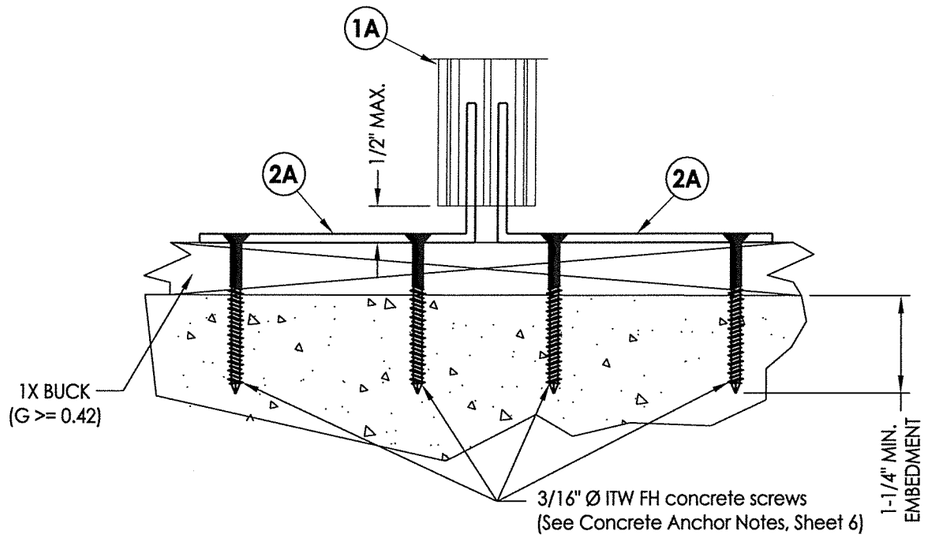
DATE: 10/24/19
SCALE: N.T.S.
DWG. BY: RW
CHK. BY: LFS
DRAWING NO.: FL-15413.12
SHEET 3 OF 6

© 2019 R.W. BUILDING CONSULTANTS INC.

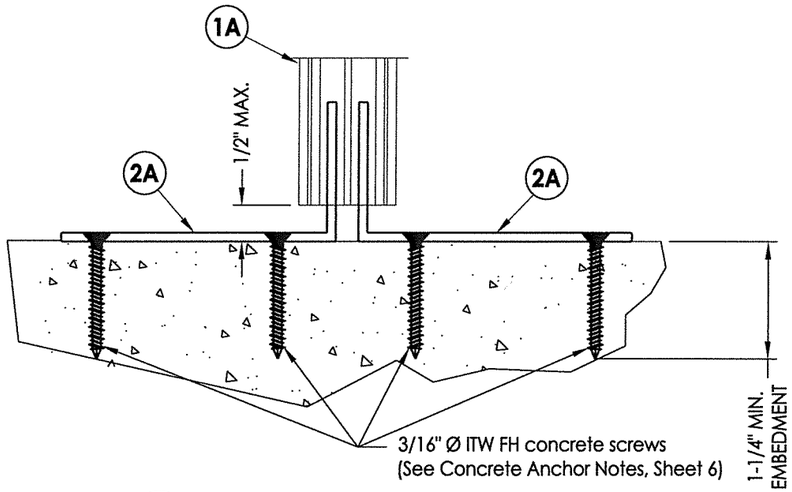
R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413.10-12.dwg, 3.11



1/4 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



2/4 CONCRETE ANCHOR BRACKET DETAIL
Anchor to Masonry thru 1x Buck



3/4 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry

Note:
1. Window units not shown for clarity (TYP.)

LYNDON F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
July 30, 2020
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409
RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

PART OR ASSEMBLY: ANCHOR BRACKET DETAILS (VERTICAL MULLION)

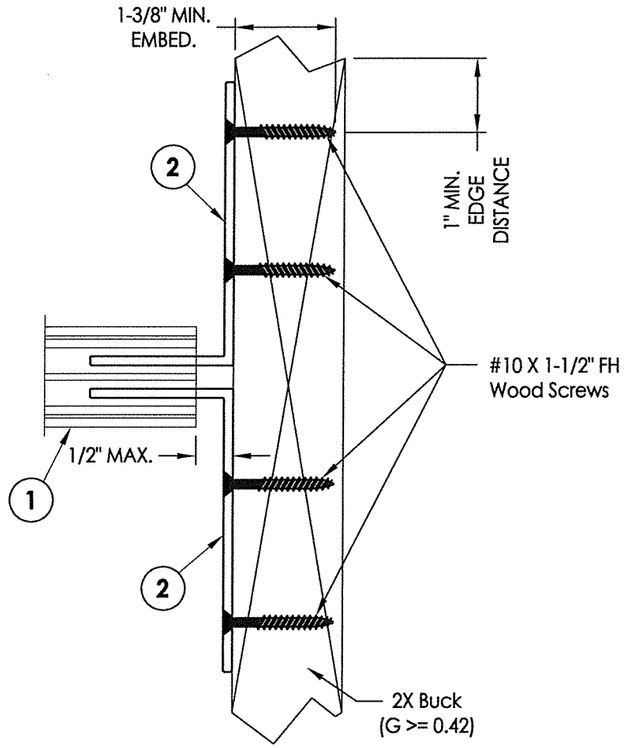
NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS

DATE: 10/24/19
SCALE: N.T.S.
DWG. BY: RW
CHK. BY: LFS
DRAWING NO.: FL-15413.12
SHEET 4 OF 6

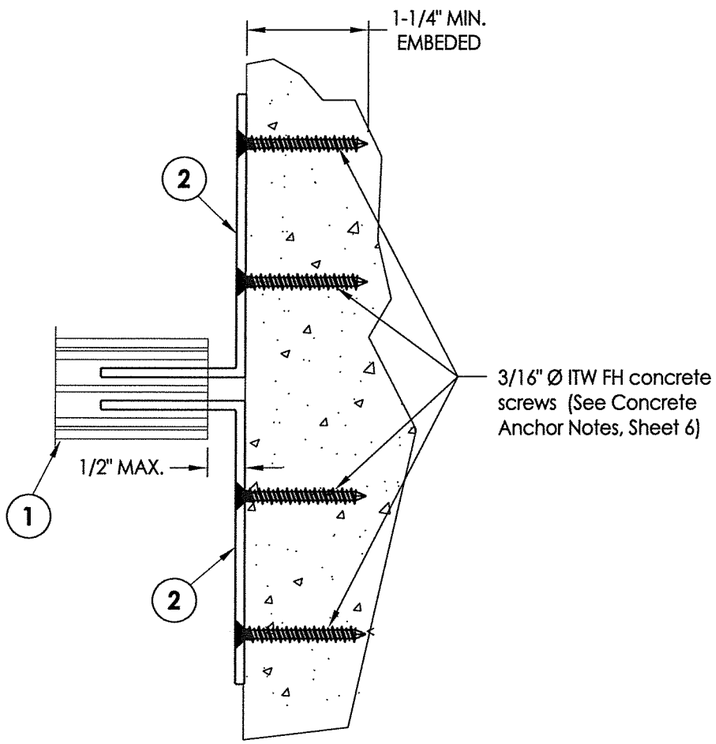
© 2019 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.10-12.dwg, 4.11

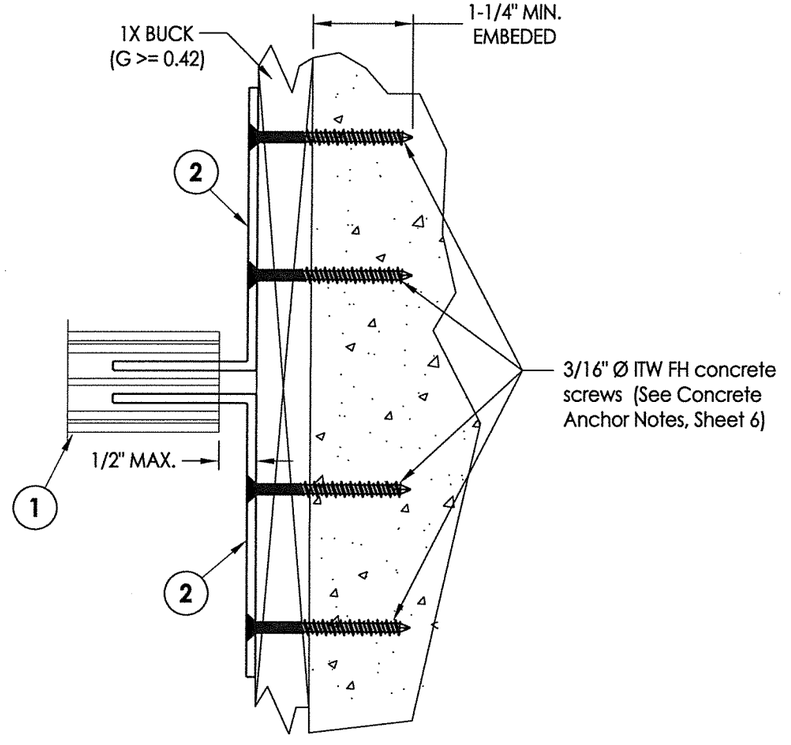
Note:
1. Window units not shown for clarity (TYP.)



1/5 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



2/5 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



3/5 CONCRETE ANCHOR BRACKET DETAIL
Anchor to 2x Buck

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
July 30, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

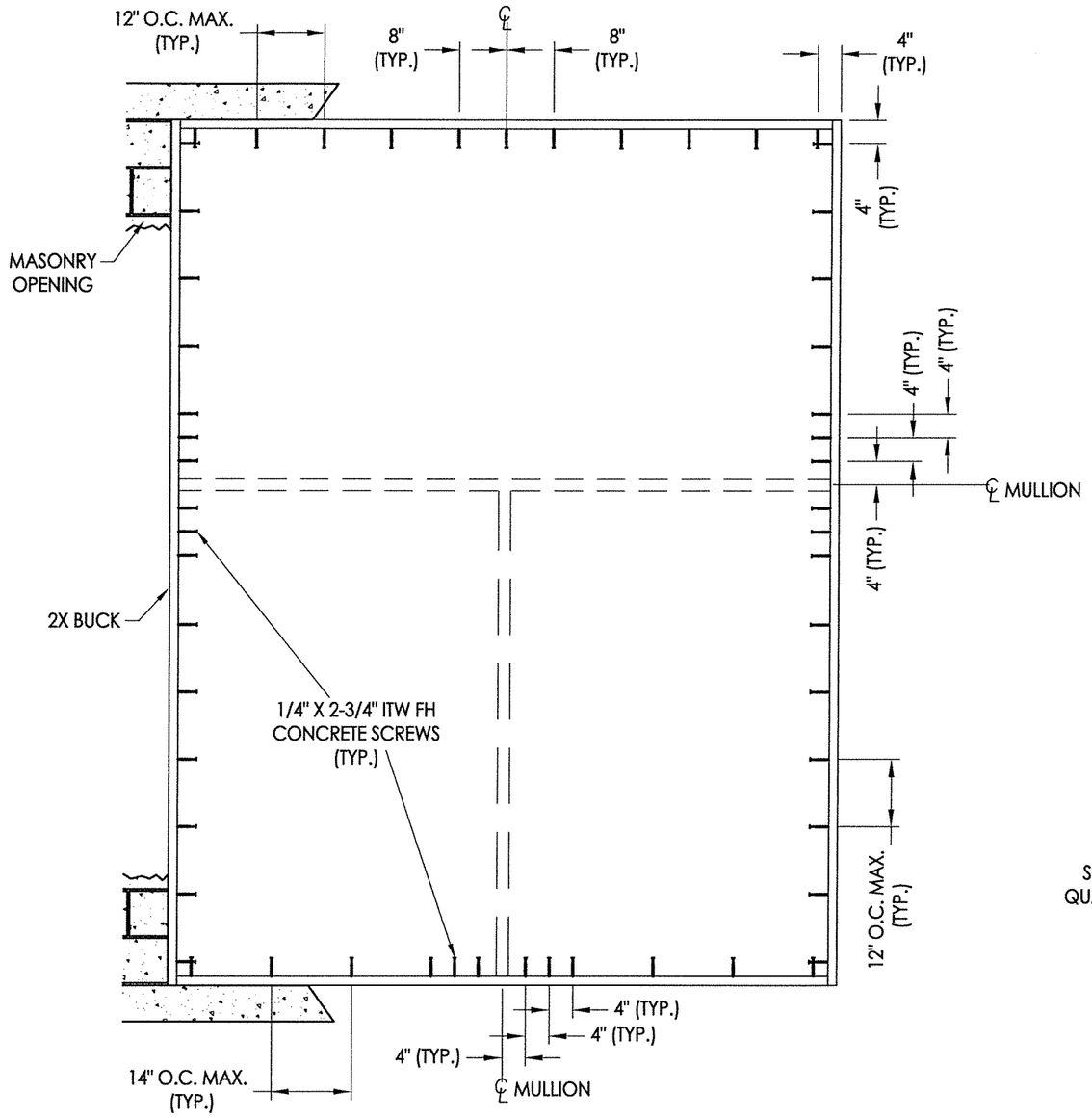
PART OR ASSEMBLY: ANCHOR BRACKET DETAILS (HORIZONTAL MULLION)

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS

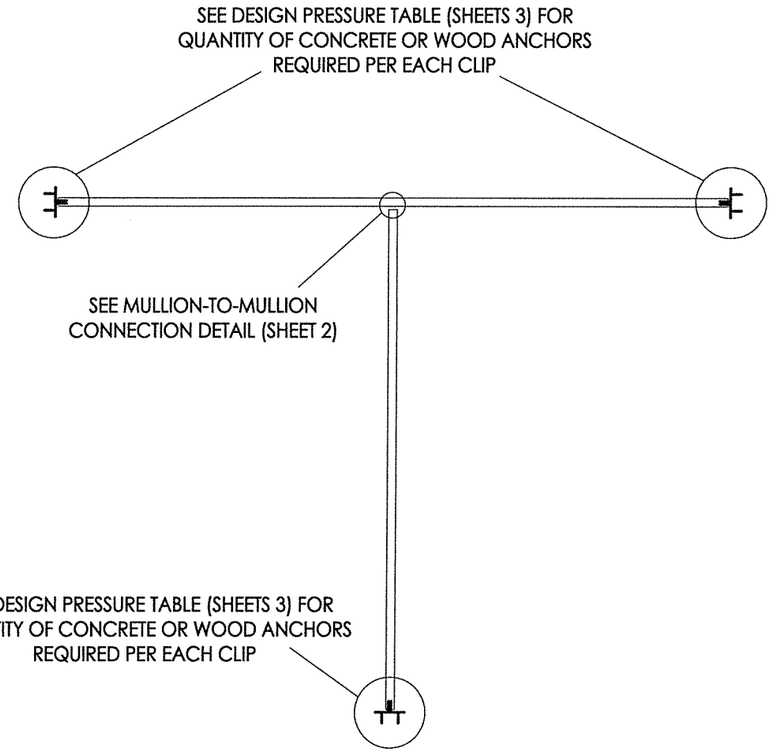
DATE: 10/24/19
SCALE: N.T.S.
DWG. BY: RW
CHK. BY: LFS
DRAWING NO.: FL-15413.12
SHEET 5 OF 6

© 2019 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.10-12.dwg, 5.11



2X BUCK ANCHORING



MULLION ANCHORING

CONCRETE ANCHOR NOTES:

1. *Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.*
2. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. If concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimensions are not exceeded.*
3. *Concrete anchor table:*

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	3/16"	1-1/4"	2"	1-1/2"
ITW TAPCON®	1/4"	1-1/4"	2-1/2"	4"

4. Concrete shall be 3,000 PSI conforming to ACI 301 or hollow block conforming to ASTM C90.

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
July 30, 2020
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409
R.W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: *CLIPPED MULLION*

PART OR ASSEMBLY: *BUCK ANCHORING*

REVISIONS

NO.	DATE	BY
1	7/29/20	LFS
	UPDATE TO 7TH ED (2020) FBC	

DATE: 10/24/19
SCALE: N.T.S.
DWG. BY: RW
CHK. BY: LFS
DRAWING NO.: FL-15413.12
SHEET 6 OF 6

© 2019 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENTA - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.10-12.dwg, 6.11