

4175 Mullion

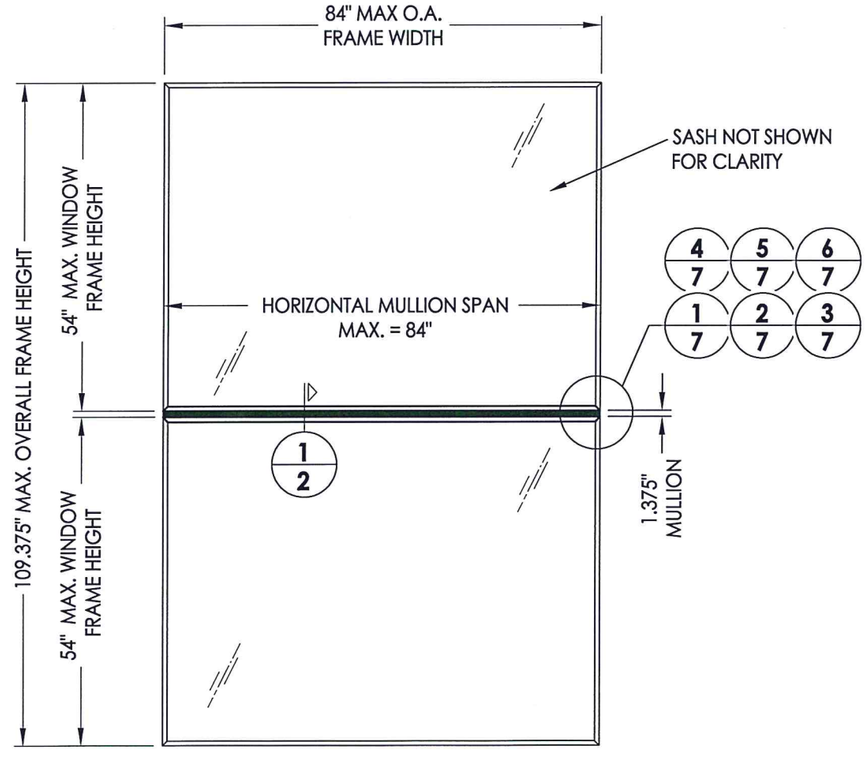
4175
Extruded Aluminum
Horizontal Clipped Structural Mullion

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 7th Edition (2020) Florida Building Code (FBC) structural requirements, including the "High Velocity Hurricane Zone".
2. When used in the "HVHZ", this product (if mulled together with "HVHZ" impact rated windows), complies with Section 1626 of the FBC and does not require an impact resistant covering.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure and be reviewed by the Building Official.
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. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
8. Any conditions not covered in this evaluation are subject to separate engineering evaluation.
9. Aluminum components, including fasteners, shall meet the requirements of FBC Section 2003.

TABLE OF CONTENTS

SHEET #	*DESCRIPTION*
1	Typical elevations & general notes
2	Component details & cross sections
3	Design pressure tables (concrete installation)
4	Design pressure tables (concrete installation)
5	Design pressure tables (wood installation)
6	Design pressure tables (wood installation)
7	Anchor bracket details
8	Buck anchoring



MULLED WINDOW UNITS

(Twin unit shown, multiples also allowed)

See Sheets 3, 4, 5 & 6 for Design Pressure Ratings

LF. 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: *TYPICAL ELEVATIONS & GENERAL NOTES*

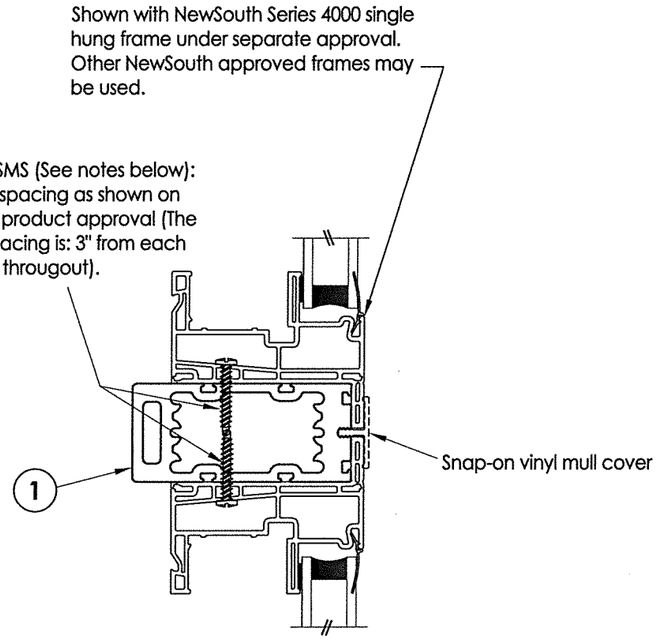
NO.	DATE	BY
1	7/29/20	LFS
1	9/26/17	JK

REVISIONS
1 UPDATE TO 7TH ED (2020) FBC
1 UPDATE TO 6TH ED. (2017) FBC

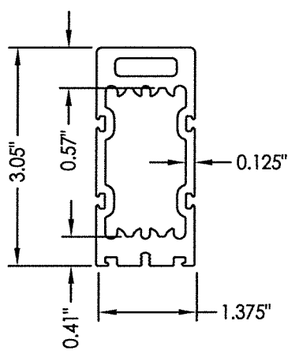
DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 1 OF 8

© 2015 R.W. BUILDING CONSULTANTS INC.

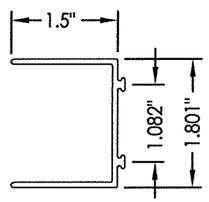
R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.7-.9.dwg, FL-15413.9



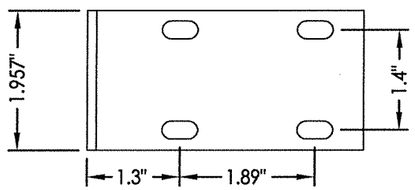
1/2 HORIZONTAL CROSS SECTION
4175 Mullion to Window Connection

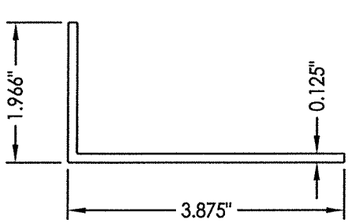


1 MULLION (4175)
6063-T6 ALUM

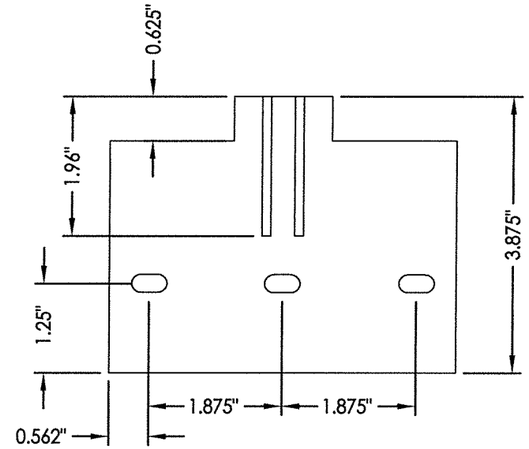


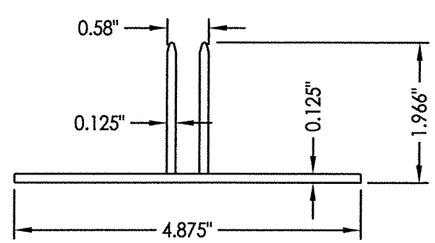
7 MULLION-TO-MULLION CLIP (3314)
6063-T6 ALUM (1.105" wide)





6 MULLION ANCHOR BRACKET (3418)
6063-T6 ALUM





5 MULLION ANCHOR BRACKET (3419)
6063-T6 ALUM

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

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

PRODUCT: CLIPPED MULLION

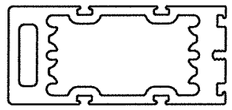
PART OR ASSEMBLY: COMPONENT DETAILS & CROSS SECTIONS

NO.	DATE	REVISIONS	BY
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 2 OF 8

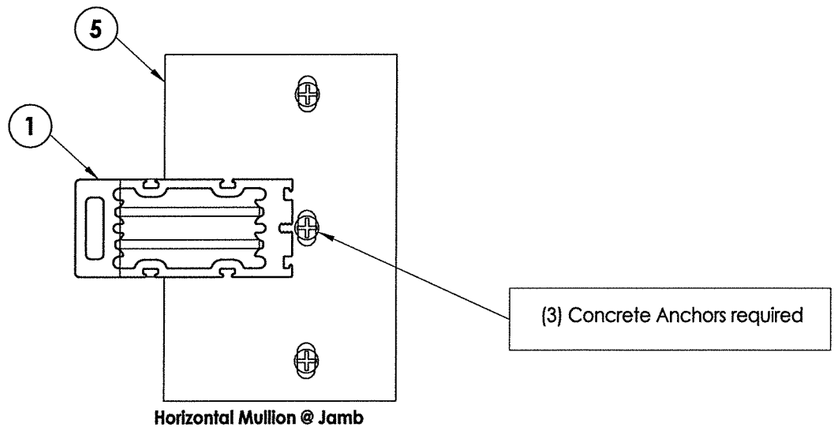
© 2015 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.7-9.dwg, 2-6



4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)						
		MAX. OVERALL FRAME HEIGHT						
		48"	62"	74"	86"	98"	104"	109.375"
MAX. MULLION SPAN	84"	45	36	32	28	26	25	25
	80"	47	38	34	30	28	27	26
	76"	50	41	36	33	30	30	29
	72"	53	44	39	35	33	32	31
	69"	56	46	41	38	35	34	34
	66"	59	49	44	40	38	37	36
	63"	63	52	47	43	41	40	39
	60"	67	56	50	46	44	43	43
	54"	77	65	59	55	53	53	53
	48"	80	77	71	68	67	67	67



Horizontal Mullion @ Jamb

Notes:

1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheet 7 for cross section details.

BRACKET (3419) TO MULLION DETAILS
Concrete Anchor Installation

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

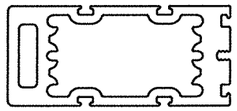
PART OR ASSEMBLY: DESIGN PRESSURE TABLES (CONCRETE INSTALLATION)

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 3 OF 8

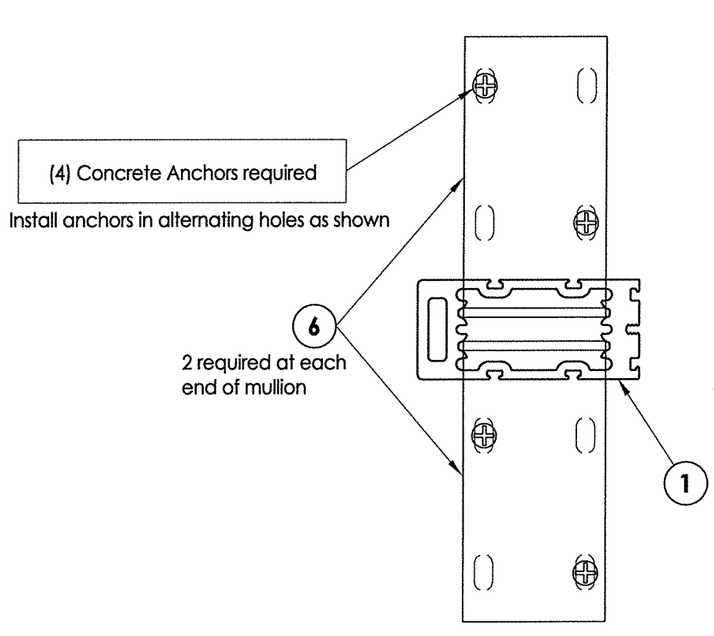
© 2015 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.7-.9.dwg, 3-6



4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)						
		MAX. OVERALL FRAME HEIGHT						
		48"	62"	74"	86"	98"	104"	109.375"
MAX. MULLION SPAN	84"	71	58	51	46	42	41	40
	80"	76	62	54	49	45	44	43
	76"	80	66	58	53	49	47	46
	72"	80	71	62	57	53	52	50
	69"	80	74	66	60	57	55	54
	66"	80	79	70	65	61	59	58
	63"	80	80	75	69	65	64	63
	60"	80	80	80	75	71	70	69
	54"	80	80	80	80	80	80	80
	48"	80	80	80	80	80	80	80



BRACKET (3418) TO MULLION DETAILS
Concrete Anchor Installation

Notes:
1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheet 7 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

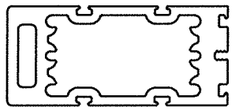
PART OR ASSEMBLY: DESIGN PRESSURE TABLES (CONCRETE INSTALLATION)

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 4 OF 8

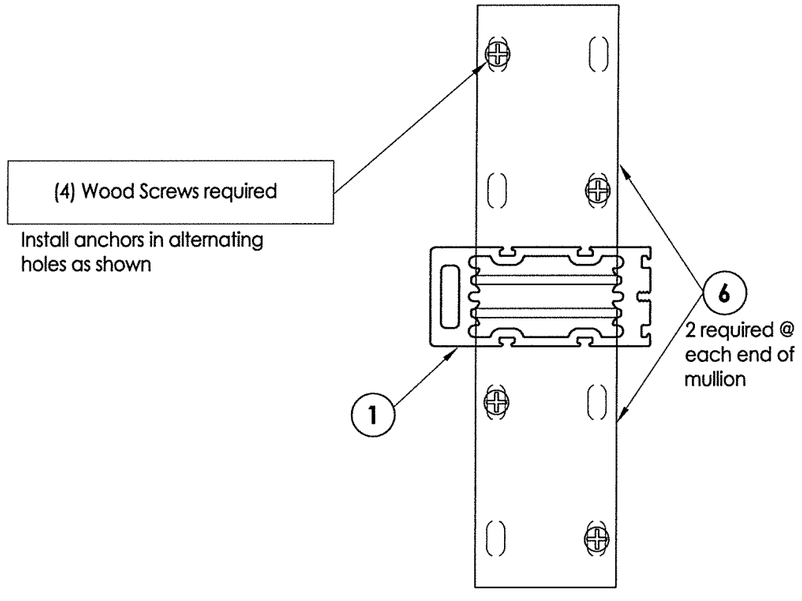
© 2015 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.7-.9.dwg, 4-6

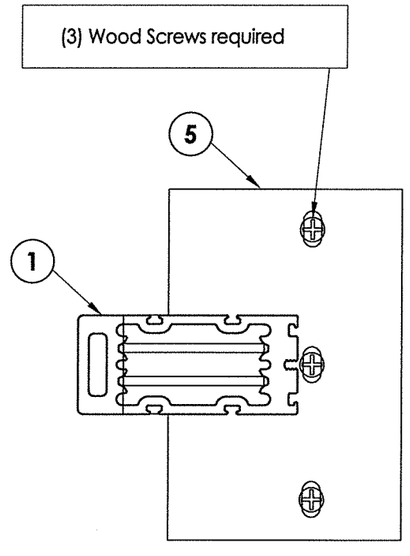


4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)						
		MAX. OVERALL FRAME HEIGHT						
		48"	62"	74"	86"	98"	104"	109.375"
MAX. MULLION SPAN	84"	71	58	51	46	42	41	40
	80"	76	62	54	49	45	44	43
	76"	80	66	58	53	49	47	46
	72"	80	71	62	57	53	52	50
	69"	80	74	66	60	57	55	54
	66"	80	79	70	65	61	59	58
	63"	80	80	75	69	65	64	63
	60"	80	80	80	75	71	70	69
	54"	80	80	80	80	80	80	80
	48"	80	80	80	80	80	80	80



BRACKET (3418) TO MULLION DETAILS
Wood Anchor Installation



BRACKET (3419) TO MULLION DETAILS
Wood Anchor Installation

Notes:
1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheet 7 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
R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: CLIPPED MULLION

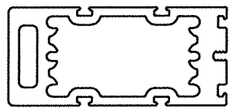
PART OR ASSEMBLY: DESIGN PRESSURE TABLES (WOOD INSTALLATION)

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 5 OF 8

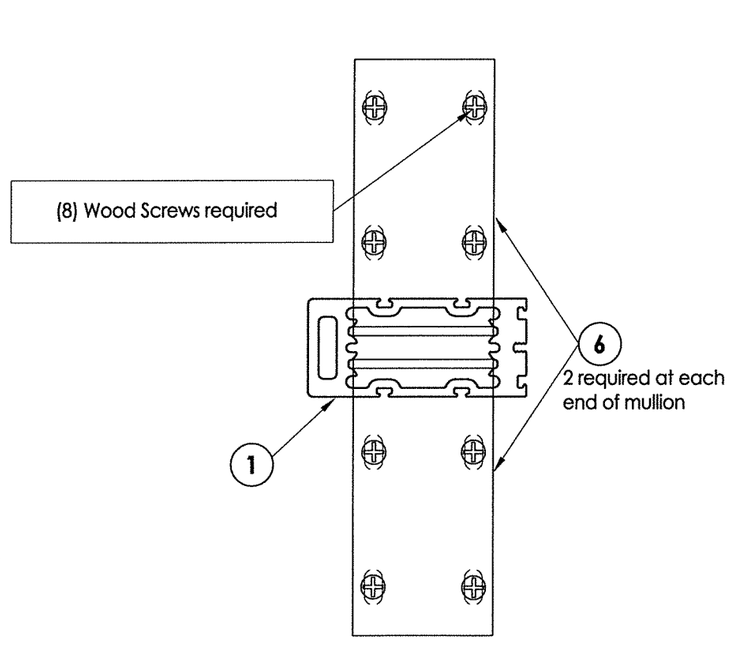
© 2015 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.7-.9.dwg, 5-6



4175 MULLION

4175 MULLION		DESIGN PRESSURE (PSF)						
		MAX. OVERALL FRAME HEIGHT						
		48"	62"	74"	86"	98"	104"	109.375"
MAX. MULLION SPAN	84"	78	60	50	43	38	35	34
	80"	80	70	58	50	44	41	39
	76"	80	80	68	58	51	48	45
	72"	80	80	80	68	60	56	54
	69"	80	80	80	78	68	64	61
	66"	80	80	80	80	78	73	70
	63"	80	80	80	80	80	80	80
	60"	80	80	80	80	80	80	80
	54"	80	80	80	80	80	80	80
	48"	80	80	80	80	80	80	80



BRACKET (3418) TO MULLION DETAILS
Wood Anchor Installation

Notes:
1. Design pressure tables are applicable only for the anchor bracket and anchors specified on this sheet. Refer to Sheet 7 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

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: DESIGN PRESSURE TABLES (WOOD INSTALLATION)

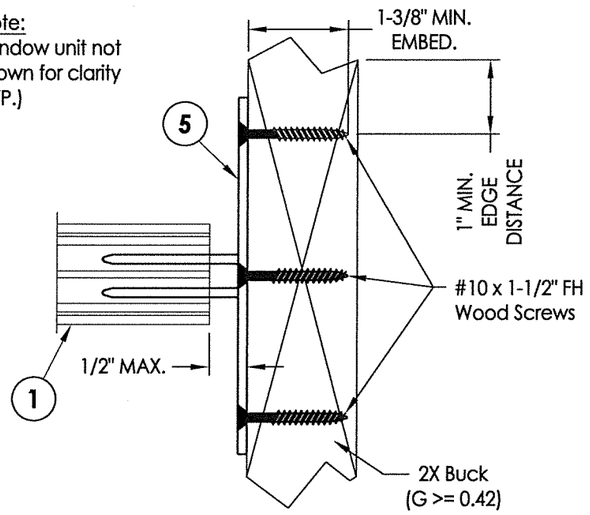
NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 6 OF 8

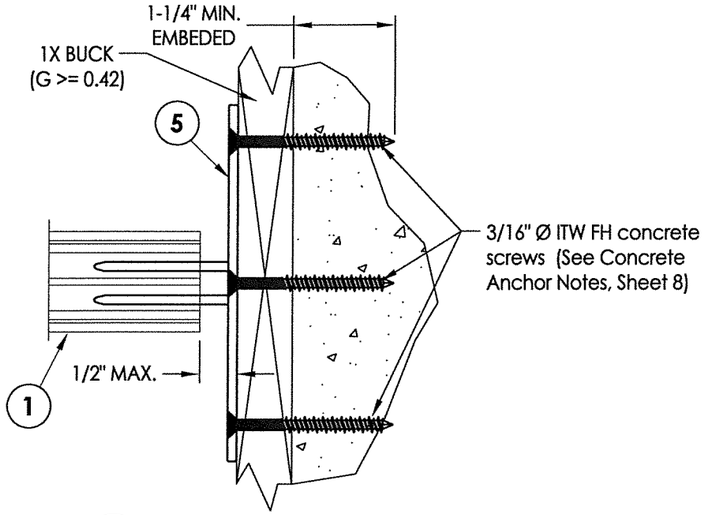
© 2015 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413 (2020) R7\FL-15413.7-.9.dwg, 6-6

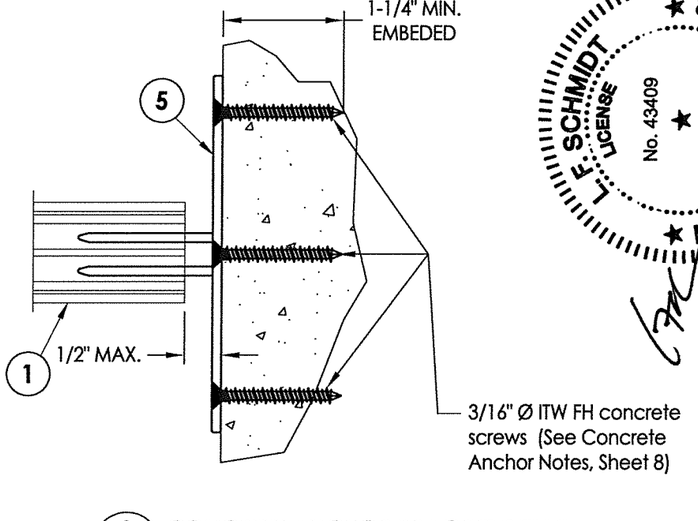
Note:
Window unit not shown for clarity (TYP.)



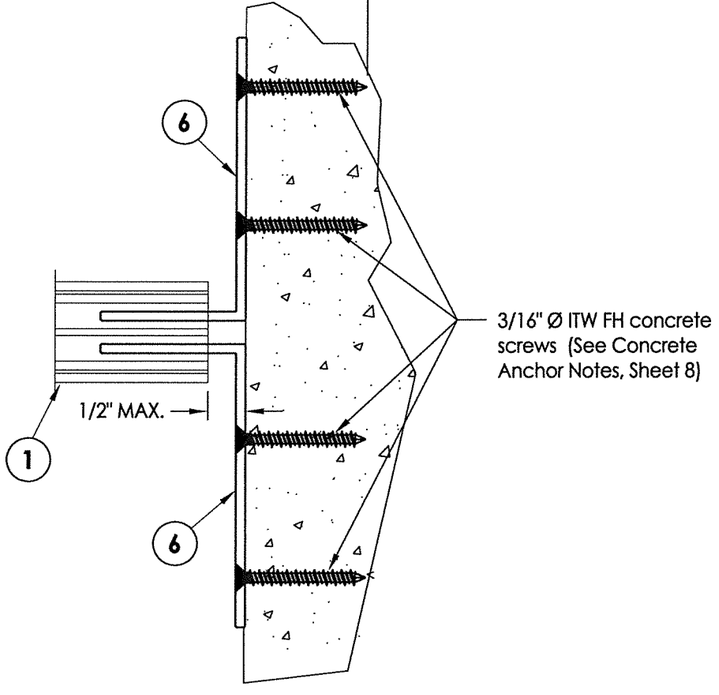
1/7 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



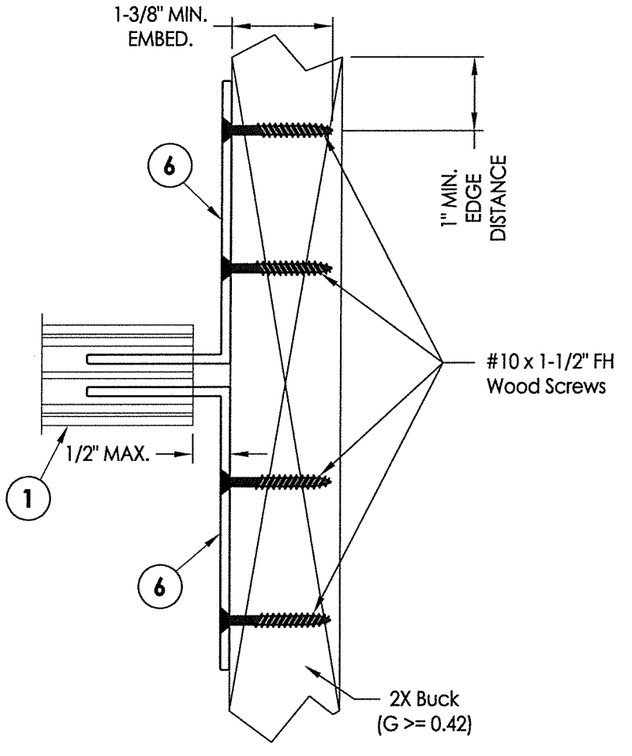
2/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor to Masonry thru 1x Buck



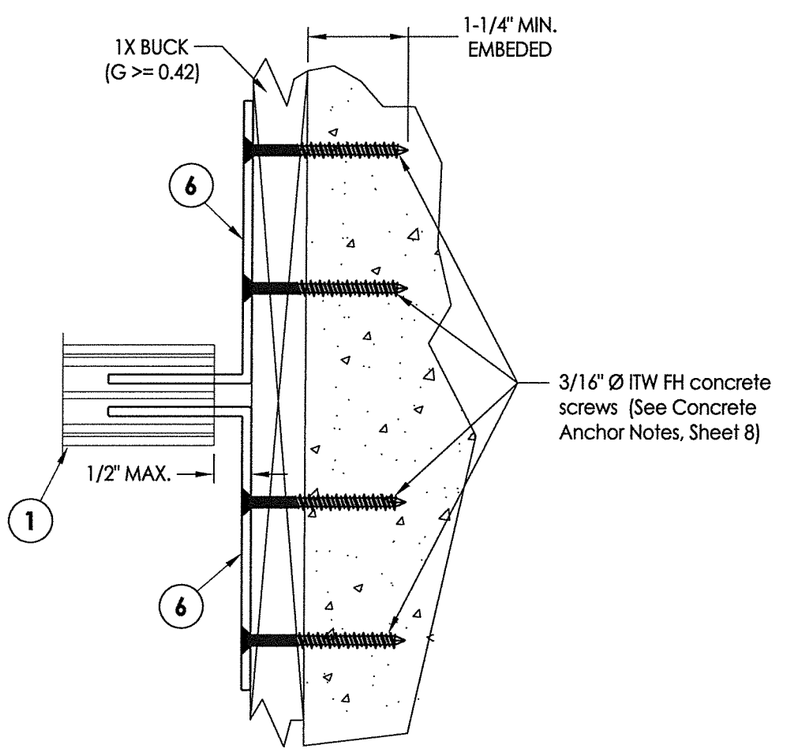
3/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



4/7 CONCRETE ANCHOR BRACKET DETAIL
Anchor Direct to Masonry



5/7 WOOD ANCHOR BRACKET DETAIL
Anchor to 2x Buck



6/7 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
R|W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

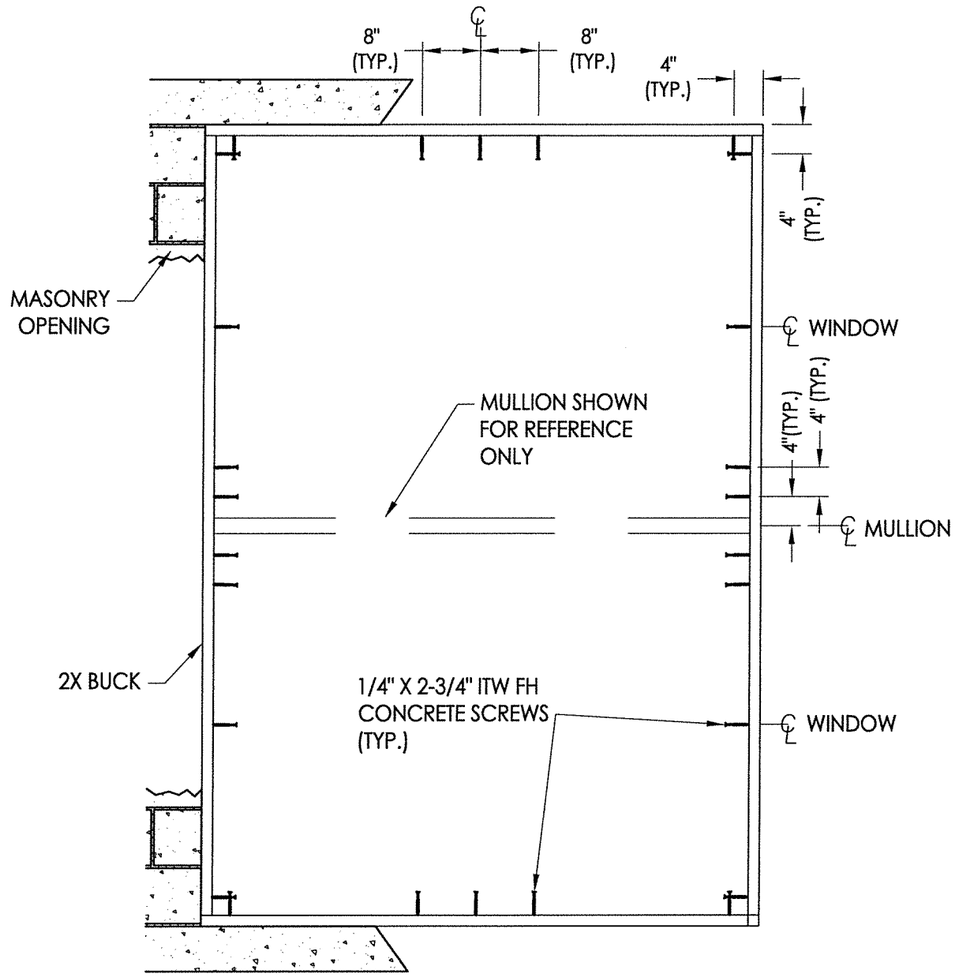
PRODUCT: CLIPPED MULLION
PART OR ASSEMBLY: ANCHOR BRACKET DETAILS

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

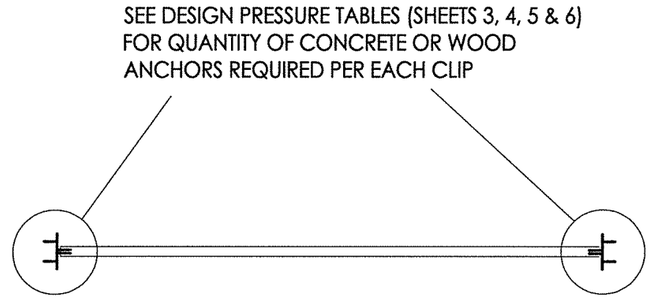
DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 7 OF 8

© 2015 R.W. BUILDING CONSULTANTS INC.

R:\Clients\New South Windows PERMANENT\A - Florida Product Approvals\FL 15413 Mullions\C - Drawings\FL 15413.7-9.dwg, 7-6



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"	1-7/8"
ITW TAPCON®	1/4"	1-1/4"	2-1/2"	3"

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

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*

NO.	DATE	REVISIONS	BY
1	7/29/20	UPDATE TO 7TH ED (2020) FBC	LFS
1	9/26/17	UPDATE TO 6TH ED. (2017) FBC	JK

DATE: 12/3/15
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15413.9
SHEET 8 OF 8

© 2015 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-15413.7-.9.dwg, 8-6