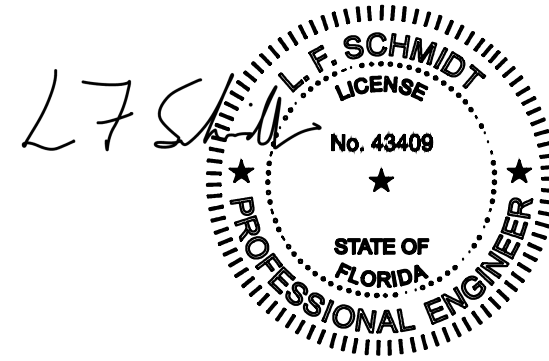




250 Staunton Turnpike, Parkersburg, WV 26104

# 5400/5400S/7700/9900 Series Vinyl Sliding Patio Door "NON-IMPACT"



This item has been digitally signed and sealed by L. F. Schmidt, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

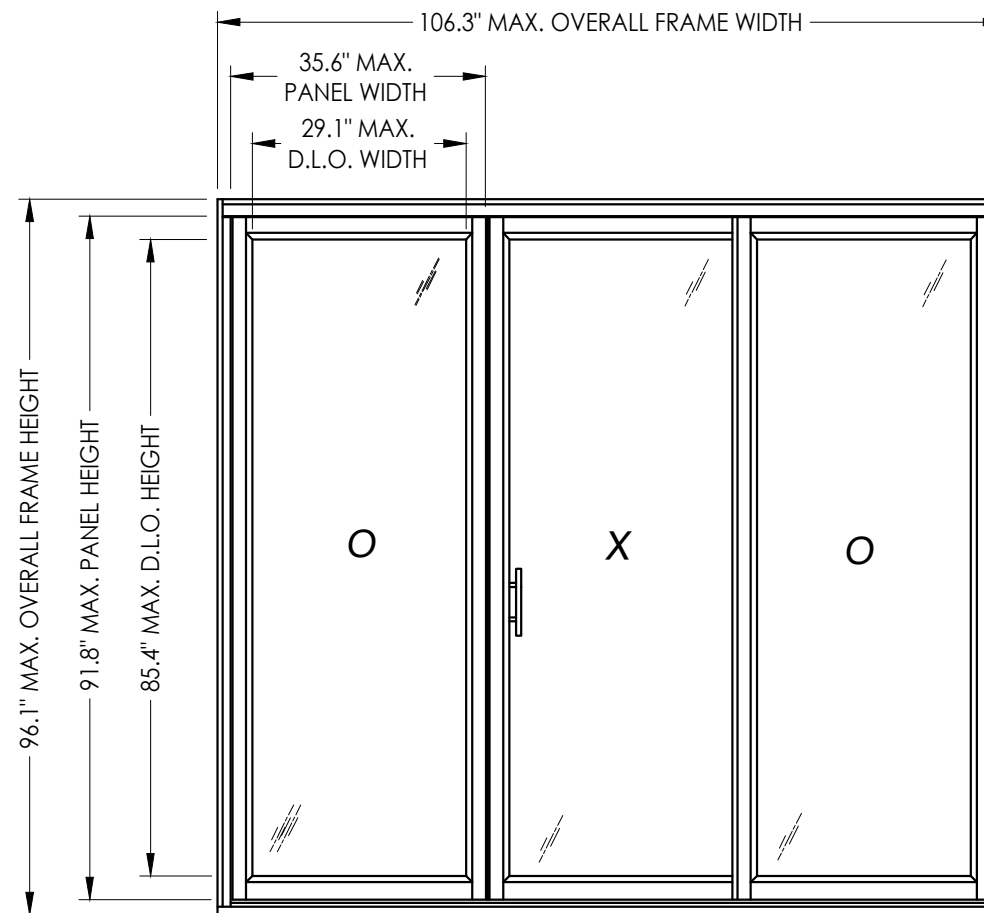
THIS PRODUCT APPROVAL IS VALID ONLY FOR THE STATE OF FLORIDA

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

### GENERAL NOTES

- This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements excluding the "High Velocity Hurricane Zone" (HVHZ).
- Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
- When used in areas requiring wind borne debris protection this product is required to be protected with an impact resistant covering that complies with FBC Sections 1609.1.2 & R301.2.1.2.
- For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
- Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.



OVERALL FRAME DIMENSION	MAX. PANEL DIMENSION	MAX. D.L.O. DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF)	
				POSITIVE	NEGATIVE
106.3" x 81.9"	35.6" X 77.6"	29.1" X 71.2"	G1, G2, G3	+45.0	-45.0
106.3" x 96.1"	35.6" X 91.8"	29.1" X 85.4"	G1, G2, G3	+40.0	-40.0

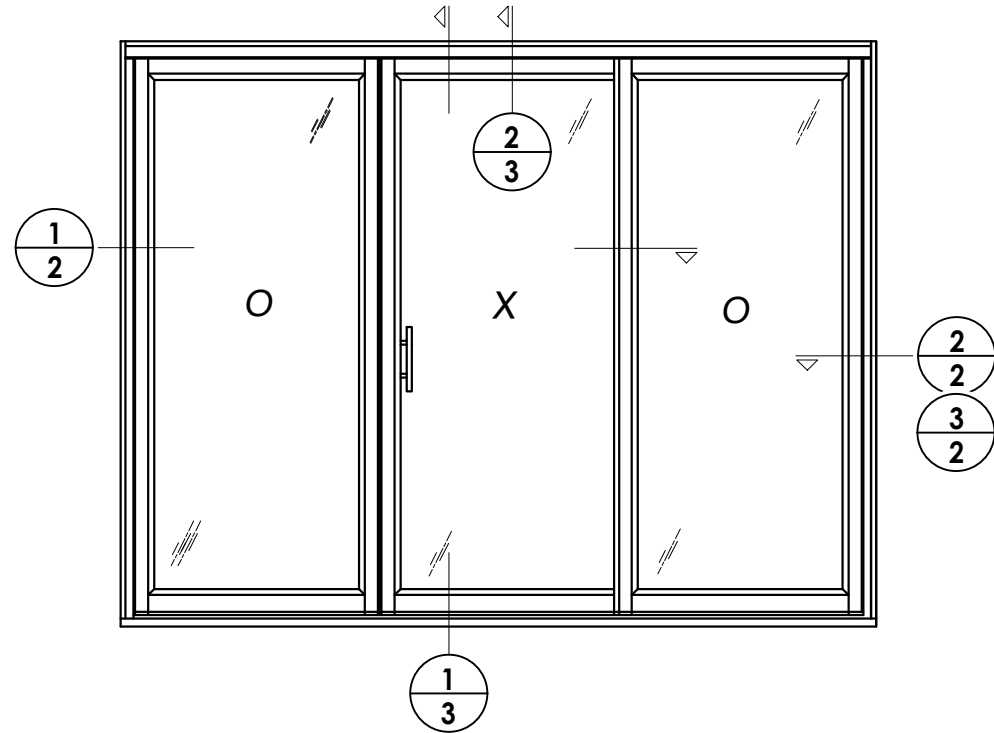
TABLE OF CONTENTS	
SHEET#	DESCRIPTION
1	Typical elevation, design pressures & general notes
2	Horizontal cross sections
3	Vertical cross sections
4	Horizontal cross sections
5	Vertical cross sections
6	Buck & frame anchoring
7	Buck & frame anchoring
8	Glazing details
9	Bill of materials & components

PRODUCT:  
5400/5400S/7700/9900 SERIES  
SLIDING PATIO DOORS

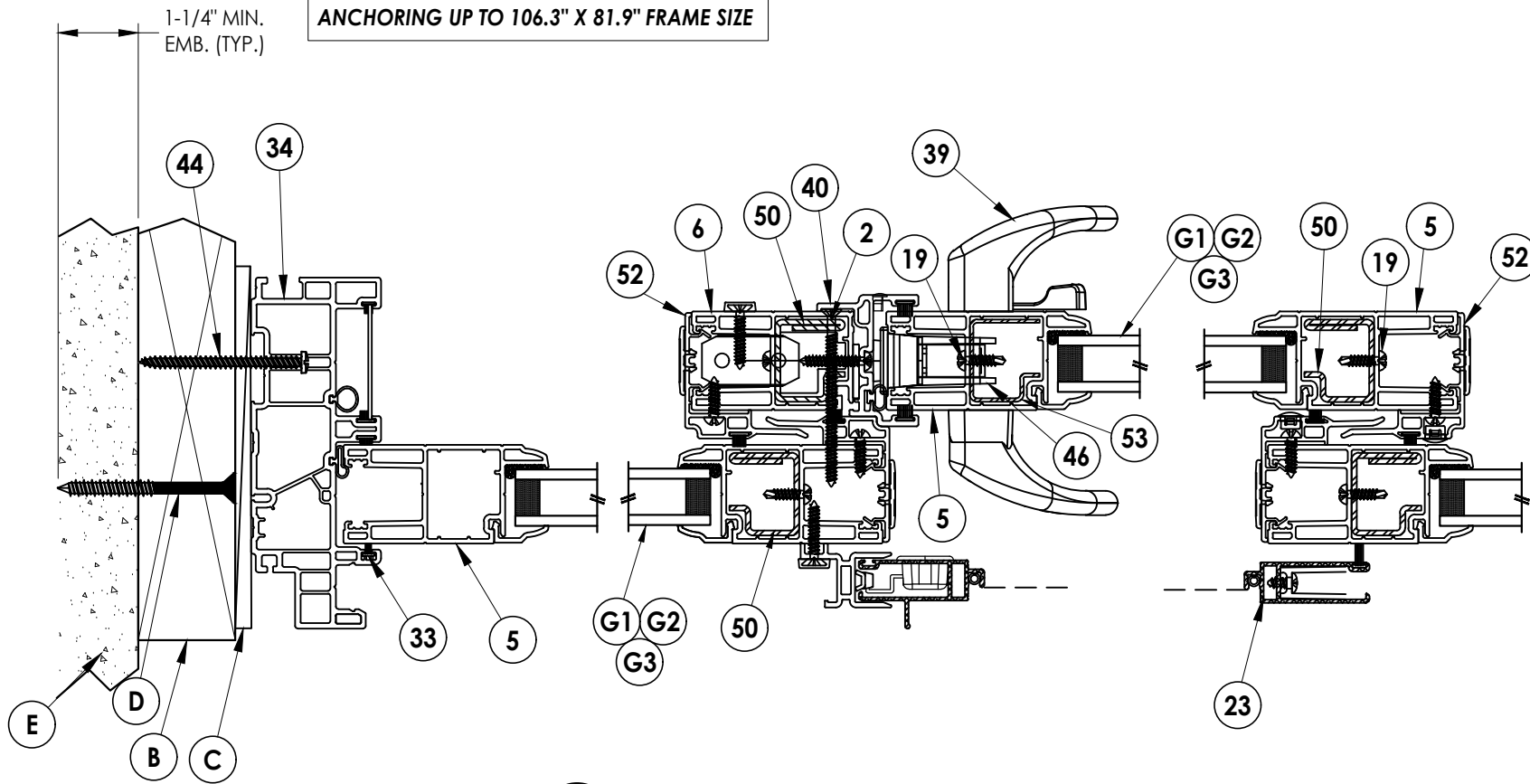
PART OR ASSEMBLY:  
TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS
6	7/06/23	UPDATE TO 8TH ED. (2023) FBC
5	7/06/20	UPDATE TO 7TH ED. (2020) FBC
4	6/01/17	UPDATE TO 6TH ED. (2017) FBC
3	1/28/15	UPDATE TO 5TH ED. (2014) FBC
2	8/14/14	REVISED GLAZING & SERIES NO.
1	7/7/14	ADDED FRAME SIZE & DETAILS

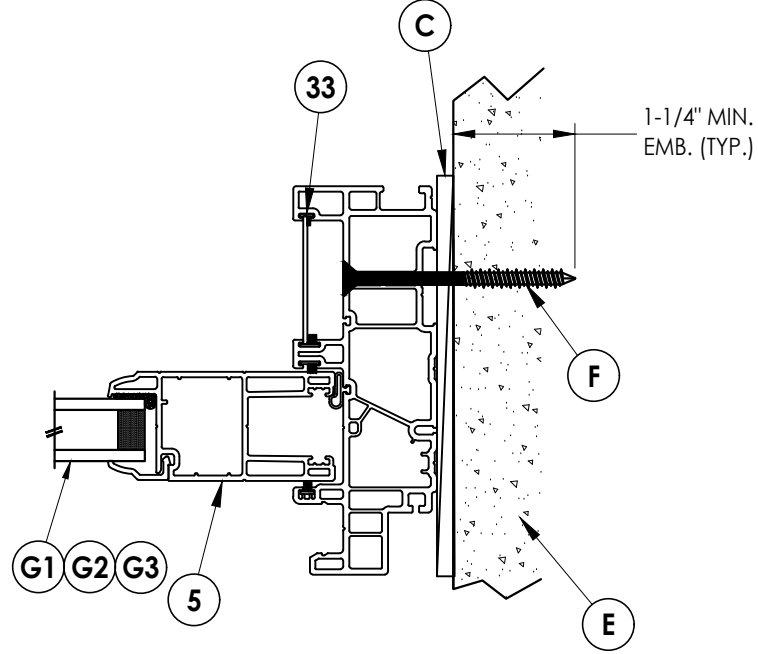
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SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-16216.6  
SHEET 1 OF 9



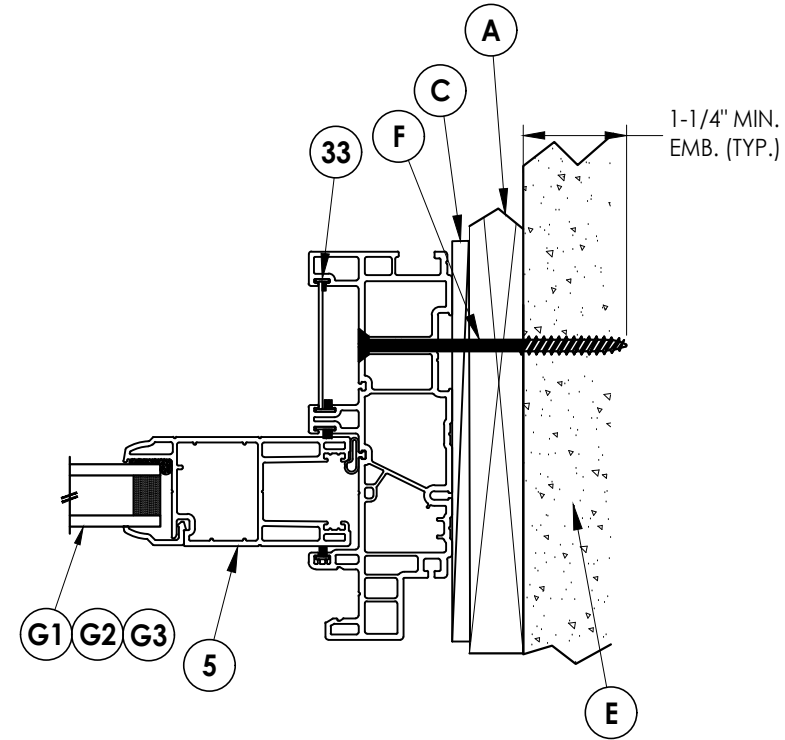
ANCHORING UP TO 106.3" X 81.9" FRAME SIZE



**1 HORIZONTAL CROSS SECTION**  
2 Shown w/ 2X Buck

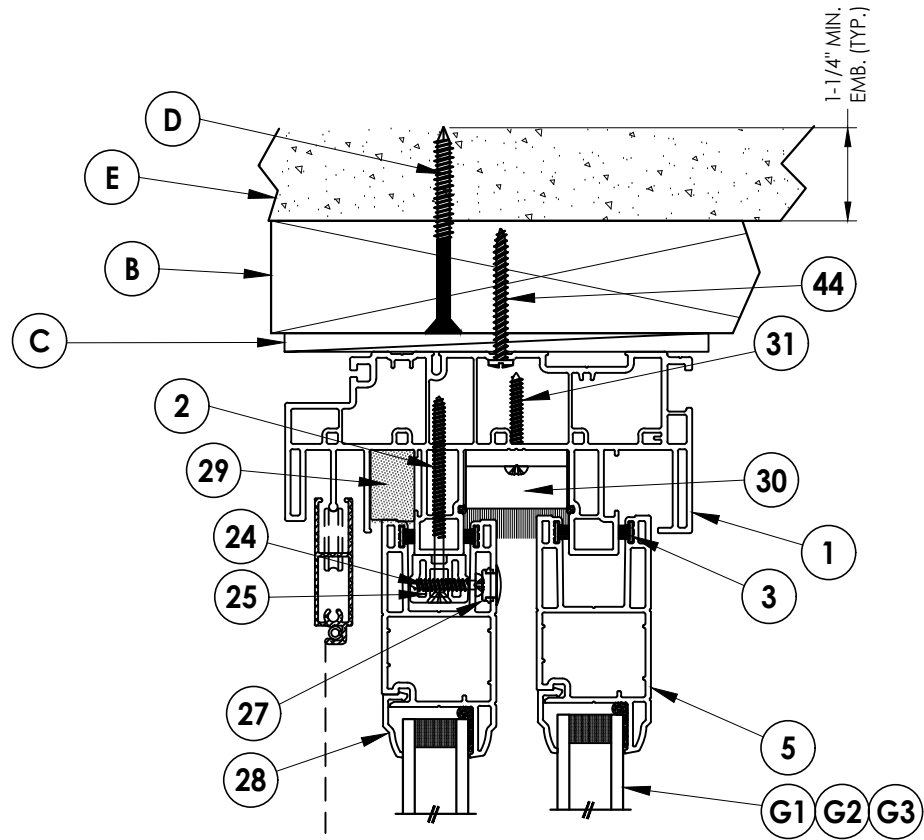


**3 HORIZONTAL CROSS SECTION**  
2 Shown Direct to Masonry



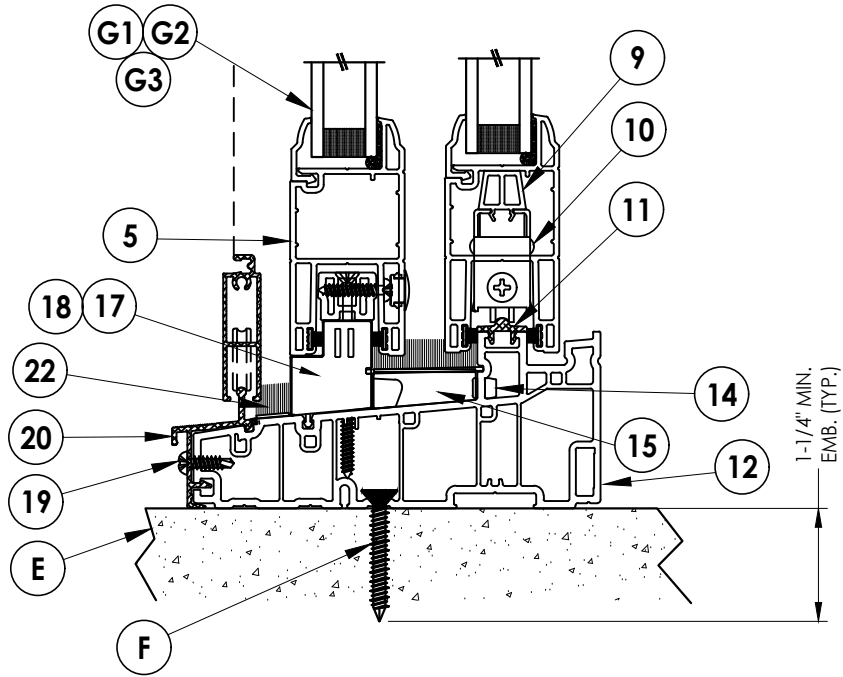
**2 HORIZONTAL CROSS SECTION**  
2 Shown w/ 1X Buck

Documents Prepared By: Lyndon F. Schmidt P.E. No. 43409		BUILDING CONSULTANTS, INC. P.O. Box 230, Vairico, FL 33595 Phone No.: 813.659.9197 .FBPE Registry No. 9813	
PRODUCT: 5400/5400S/7700/9900 SERIES SLIDING PATIO DOORS		PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
6	7/06/23	UPDATE TO 8TH ED. (2023)	FBC LFS
5	7/06/20	UPDATE TO 7TH ED. (2020)	FBC LFS
4	6/01/17	UPDATE TO 6TH ED. (2017)	FBC LFS
3	1/28/15	UPDATE TO 5TH ED. (2014)	FBC JK
2	8/14/14	REVISED GLAZING & SERIES NO.	JK
1	7/7/14	ADDED FRAME SIZE & DETAILS	LFS
NO.	DATE		BY
			REVISIONS
DATE: 4/29/13			
SCALE: N.T.S.			
DWG. BY: JK			
CHK. BY: LFS			
DRAWING NO.: FL-16216.6			
SHEET 2 OF 9			

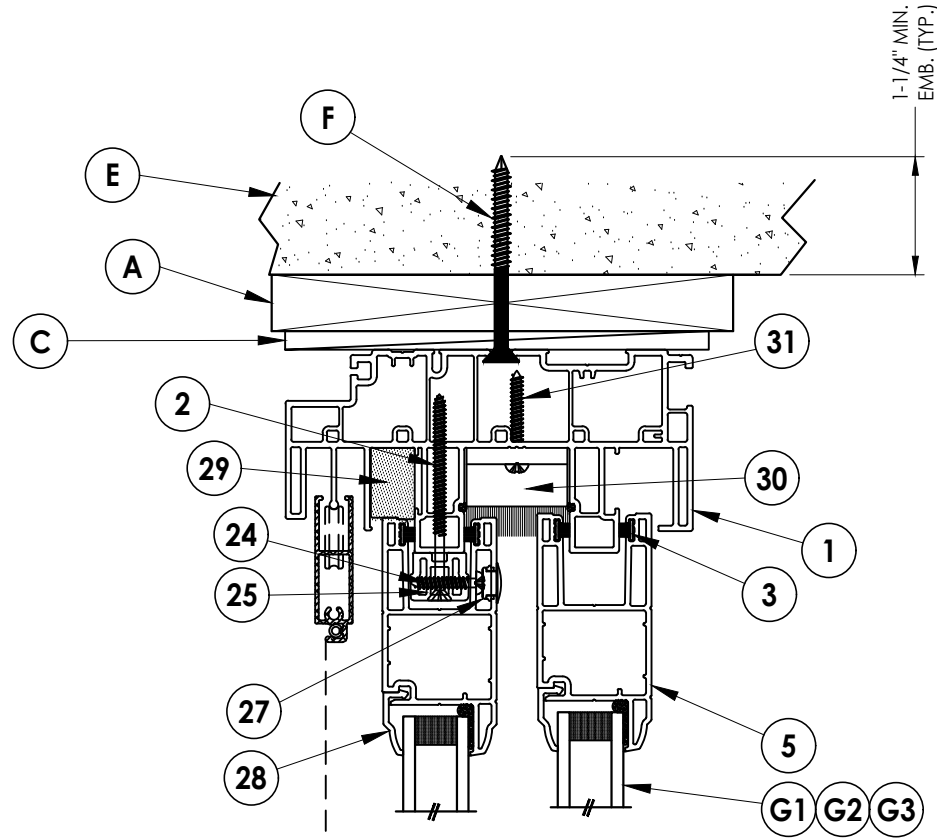


EXTERIOR

INTERIOR



**1** VERTICAL CROSS SECTION  
**3** Shown w/ 2X Buck at head & Direct to Masonry @ sill



EXTERIOR

INTERIOR

**2** VERTICAL CROSS SECTION  
**3** Shown w/ 1X Buck

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

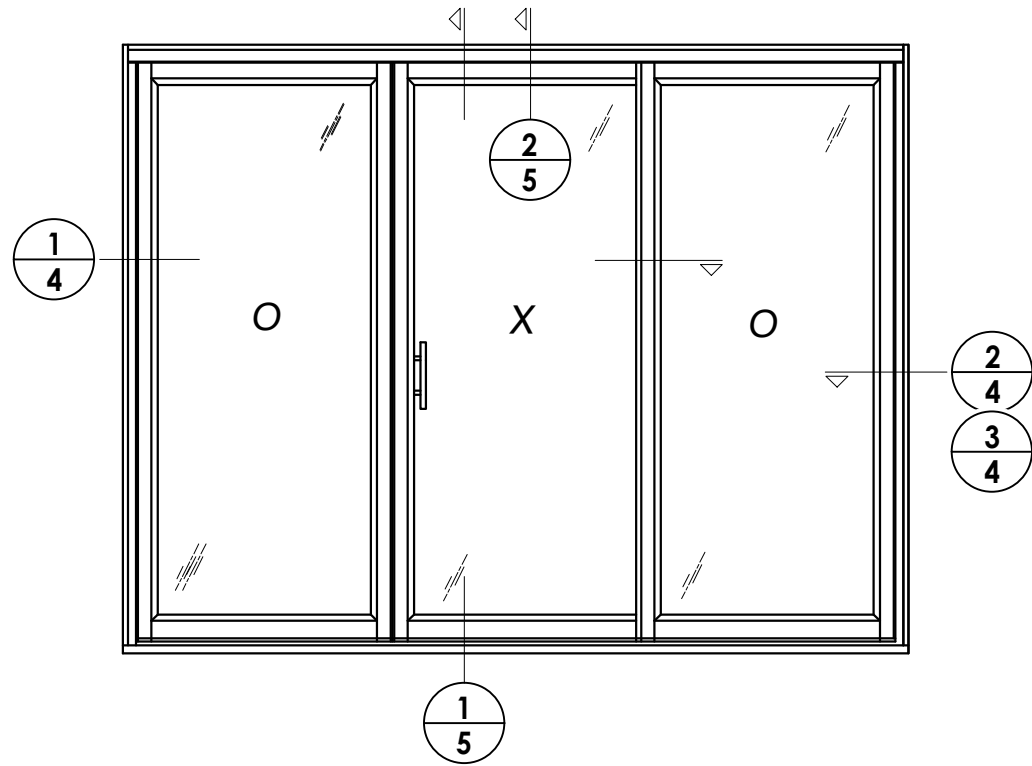
**RW** BUILDING CONSULTANTS, INC.  
 P.O. Box 230, Valrico, FL 33595  
 Phone No.: 813.659.9197  
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PRODUCT:  
 5400/5400S/7700/9900 SERIES  
 SLIDING PATIO DOORS

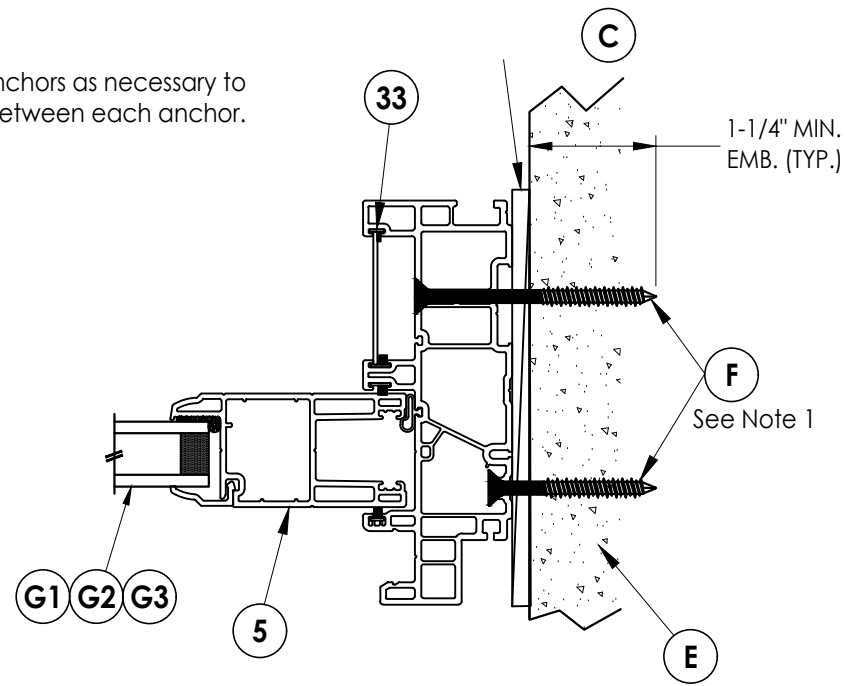
PART OR ASSEMBLY:  
 VERTICAL  
 CROSS SECTIONS

NO.	DATE	REVISIONS
6	7/06/23	UPDATE TO 8TH ED. (2023) FBC
5	7/06/20	UPDATE TO 7TH ED. (2020) FBC
4	6/01/17	UPDATE TO 6TH ED. (2017) FBC
3	1/28/15	UPDATE TO 5TH ED. (2014) FBC
2	8/14/14	REVISED GLAZING & SERIES NO.
1	7/7/14	ADDED FRAME SIZE & DETAILS

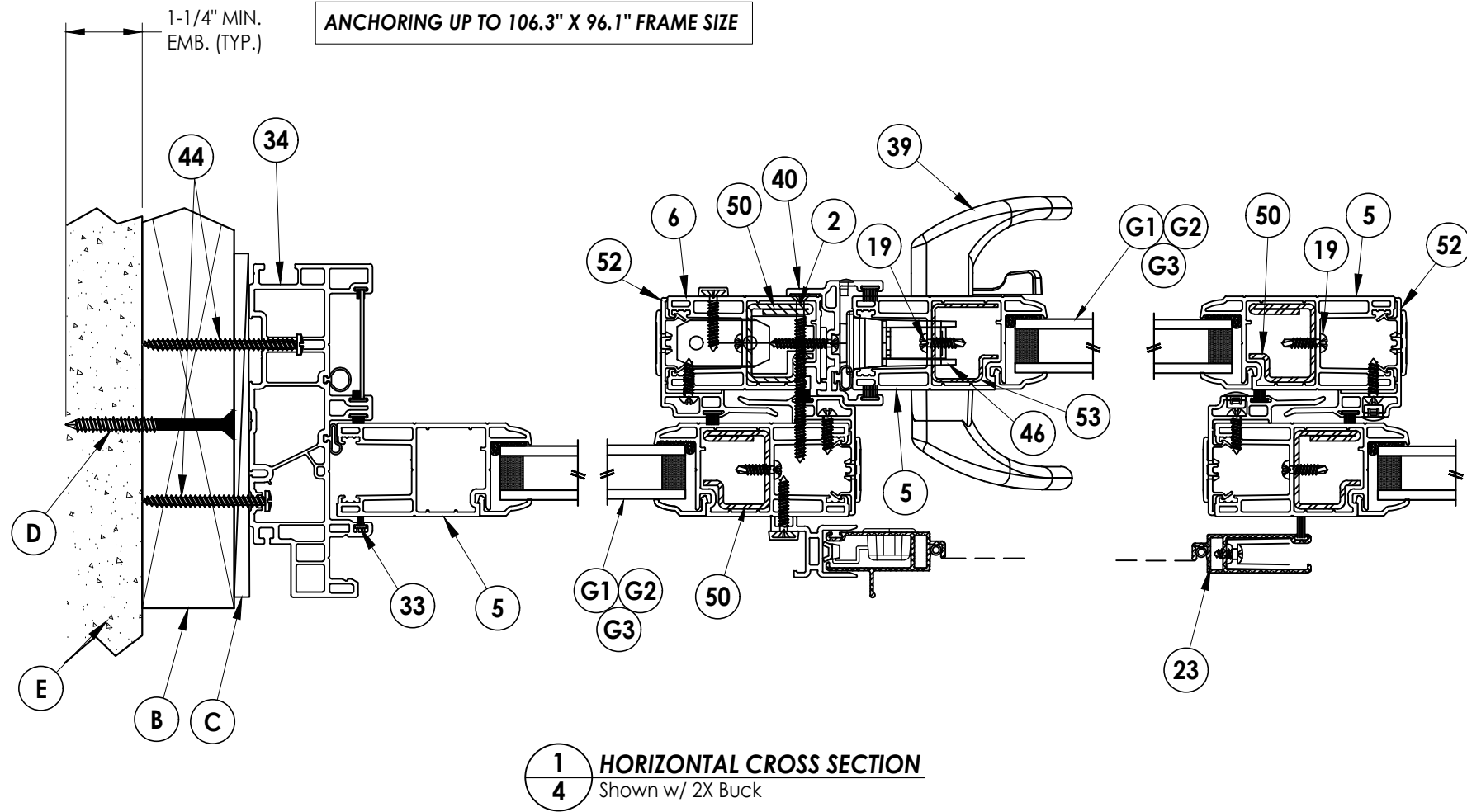
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 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.: FL-16216.6  
 SHEET 3 OF 9



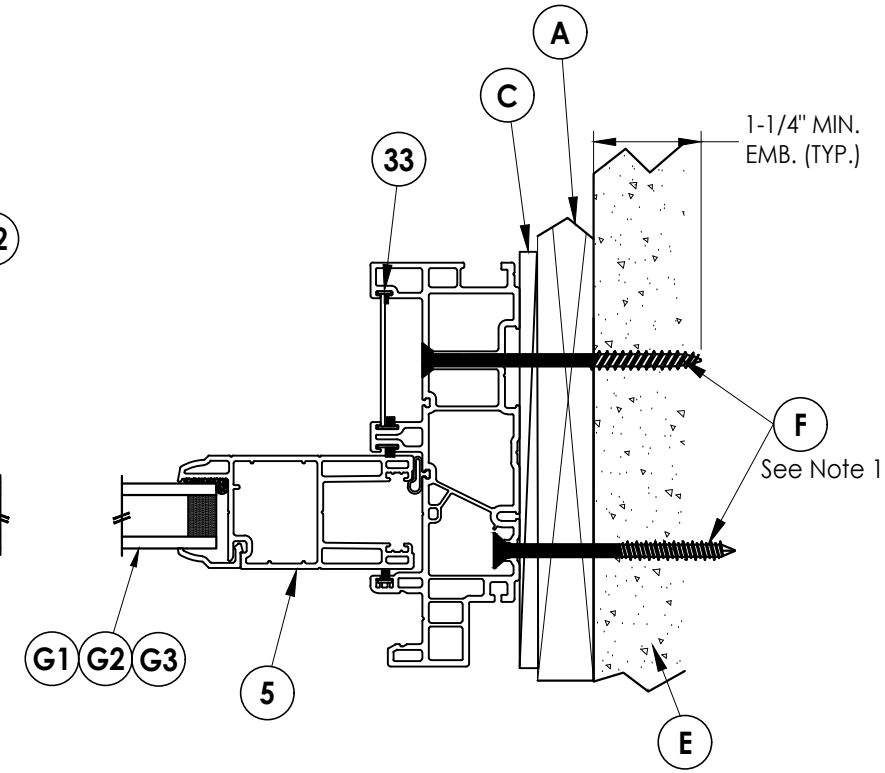
NOTES:  
 1. Stagger concrete anchors as necessary to maintain min. of 4" between each anchor.



**3** HORIZONTAL CROSS SECTION  
**4** Shown Direct to Masonry



**1** HORIZONTAL CROSS SECTION  
**4** Shown w/ 2X Buck



**2** HORIZONTAL CROSS SECTION  
**4** Shown w/ 1X Buck

ANCHORING UP TO 106.3" X 96.1" FRAME SIZE

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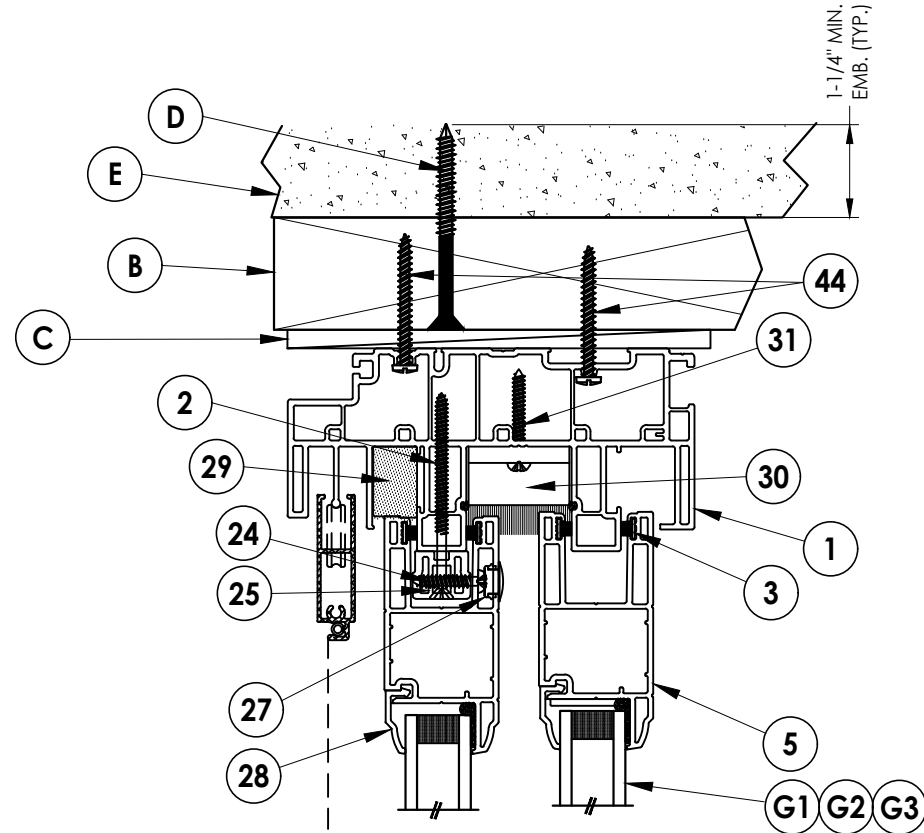
*RW* BUILDING CONSULTANTS, INC.  
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PRODUCT:  
 5400/5400S/7700/9900 SERIES  
 SLIDING PATIO DOORS

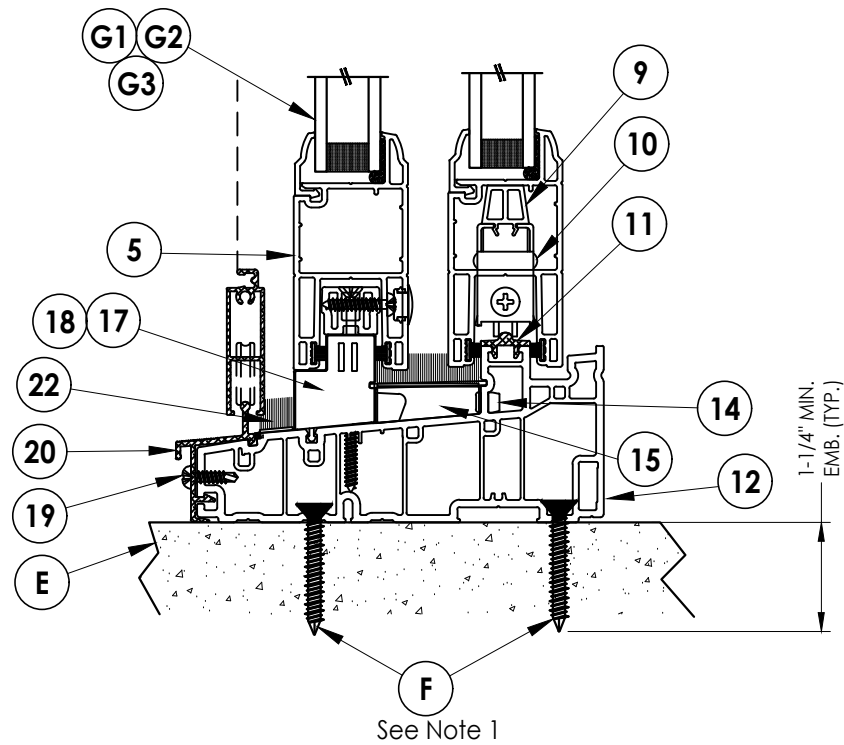
PART OR ASSEMBLY:  
 HORIZONTAL  
 CROSS SECTIONS

NO.	DATE	REVISIONS
6	7/06/23	UPDATE TO 8TH ED. (2023) FBC
5	7/06/20	UPDATE TO 7TH ED. (2020) FBC
4	6/01/17	UPDATE TO 6TH ED. (2017) FBC
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2	8/14/14	REVISED GLAZING & SERIES NO.
1	7/7/14	ADDED FRAME SIZE & DETAILS

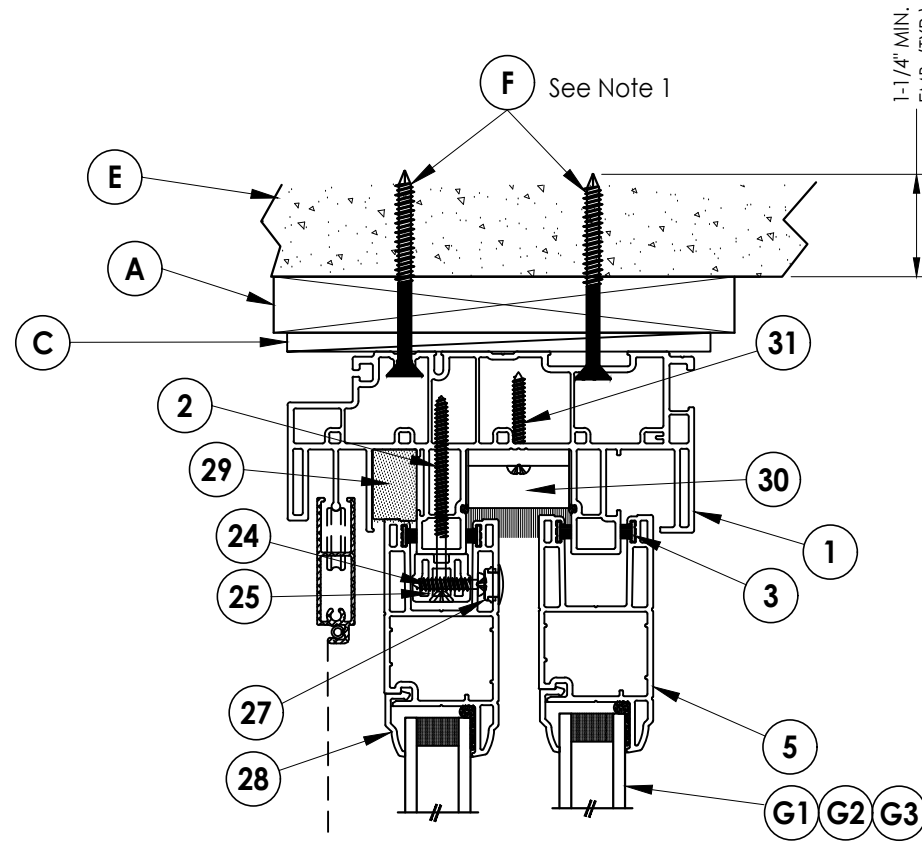
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 SCALE: N.T.S.  
 DWG. BY: JK  
 CHK. BY: LFS  
 DRAWING NO.:  
 FL-16216.6  
 SHEET 4 OF 9



EXTERIOR INTERIOR



**1** VERTICAL CROSS SECTION  
**5** Shown w/ 2X Buck at head & Direct to Masonry @ sill



EXTERIOR INTERIOR

**2** VERTICAL CROSS SECTION  
**5** Shown w/ 1X Buck

NOTES:  
 1. Stagger concrete anchors as necessary to maintain min. of 4" between each anchor.

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

PRODUCT:  
 5400/5400S/7700/9900 SERIES  
 SLIDING PATIO DOORS

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

PART OR ASSEMBLY:  
 VERTICAL  
 CROSS SECTIONS

NO.	DATE	REVISIONS
6	7/06/23	UPDATE TO 8TH ED. (2023) FBC
5	7/06/20	UPDATE TO 7TH ED. (2020) FBC
4	6/01/17	UPDATE TO 6TH ED. (2017) FBC
3	1/28/15	UPDATE TO 5TH ED. (2014) FBC
2	8/14/14	REVISED GLAZING & SERIES NO.
1	7/7/14	ADDED FRAME SIZE & DETAILS

DATE: 4/29/13

SCALE: N.T.S.

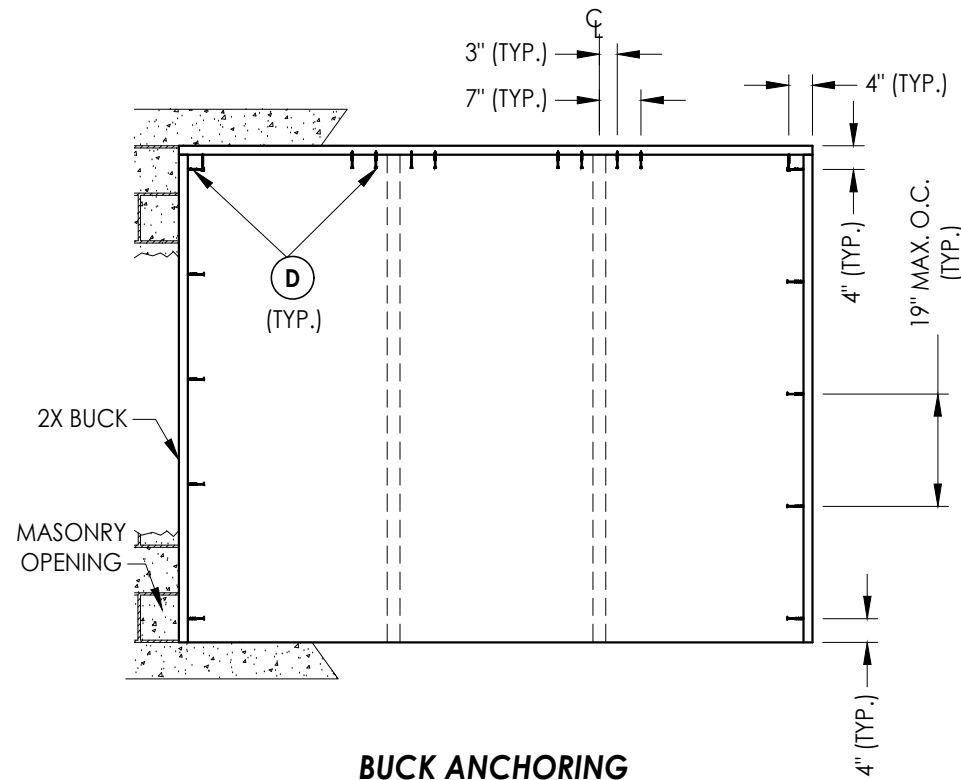
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CHK. BY: LFS

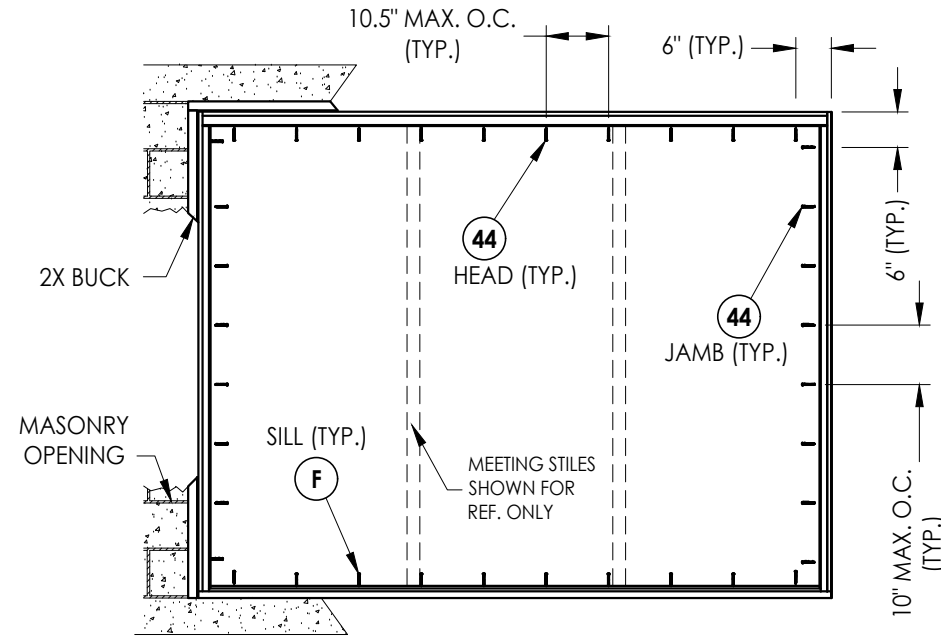
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FL-16216.6

SHEET 5 OF 9



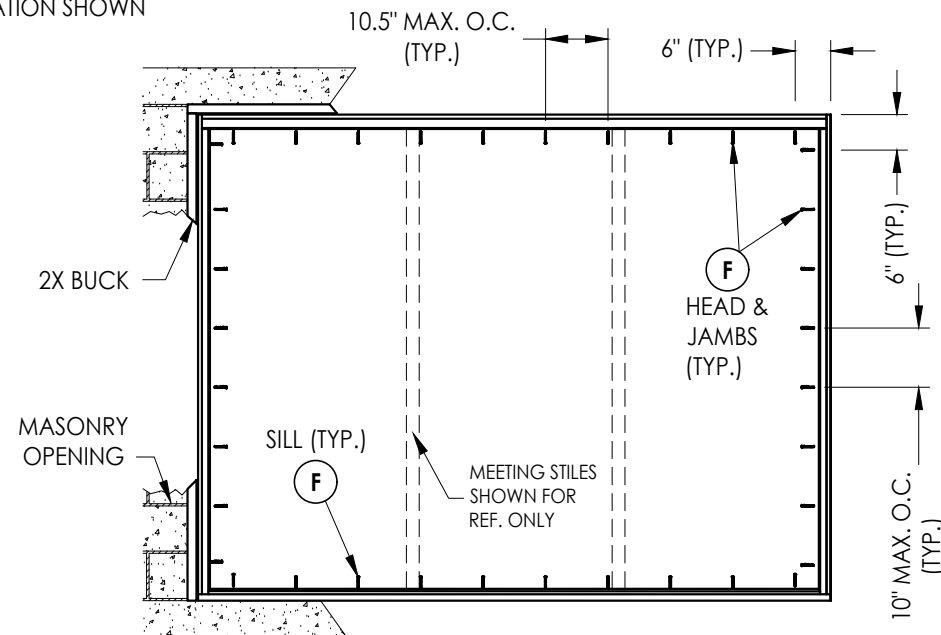
**BUCK ANCHORING**  
Masonry



**FRAME ANCHORING**  
2X Buck

**ANCHORING UP TO 106.3" X 81.9" FRAME SIZE**

NOTE: One (1) ANCHOR REQ'D @ EACH LOCATION SHOWN



**FRAME ANCHORING**  
1X Buck, Direct to Masonry

**CONCRETE ANCHOR NOTES:**

- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- 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" dimension are not exceeded.
- Concrete anchor table:

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

**WOOD SCREW INSTALLATION NOTES:**

- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.

Documents Prepared By:

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P.E. No. 43409

PRODUCT:  
5400/5400S/7700/9900 SERIES  
SLIDING PATIO DOORS

PART OR ASSEMBLY:  
BUCK & FRAME  
ANCHORING

NO.	DATE	REVISIONS
6	7/06/23	UPDATE TO 8TH ED. (2023) FBC LFS
5	7/06/20	UPDATE TO 7TH ED. (2020) FBC LFS
4	6/01/17	UPDATE TO 6TH ED. (2017) FBC LFS
3	1/28/15	UPDATE TO 5TH ED. (2014) FBC JK
2	8/14/14	REVISED GLAZING & SERIES NO. JK
1	7/7/14	ADDED FRAME SIZE & DETAILS LFS

DATE: 4/29/13

SCALE: N.T.S.

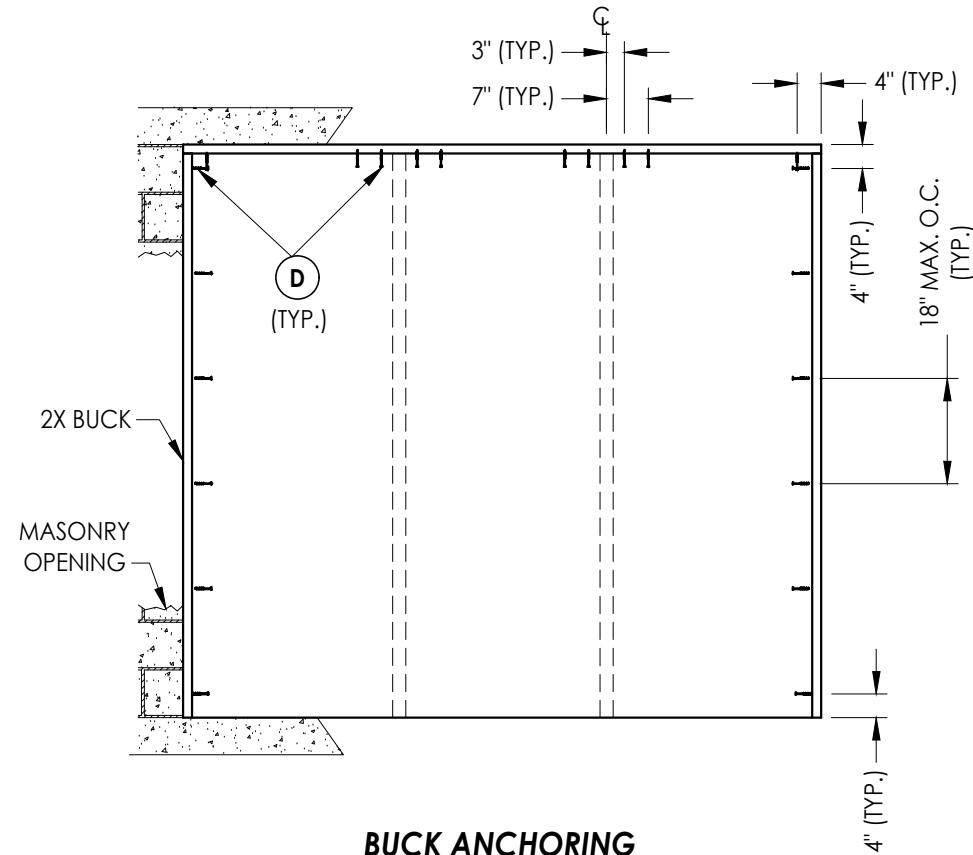
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CHK. BY: LFS

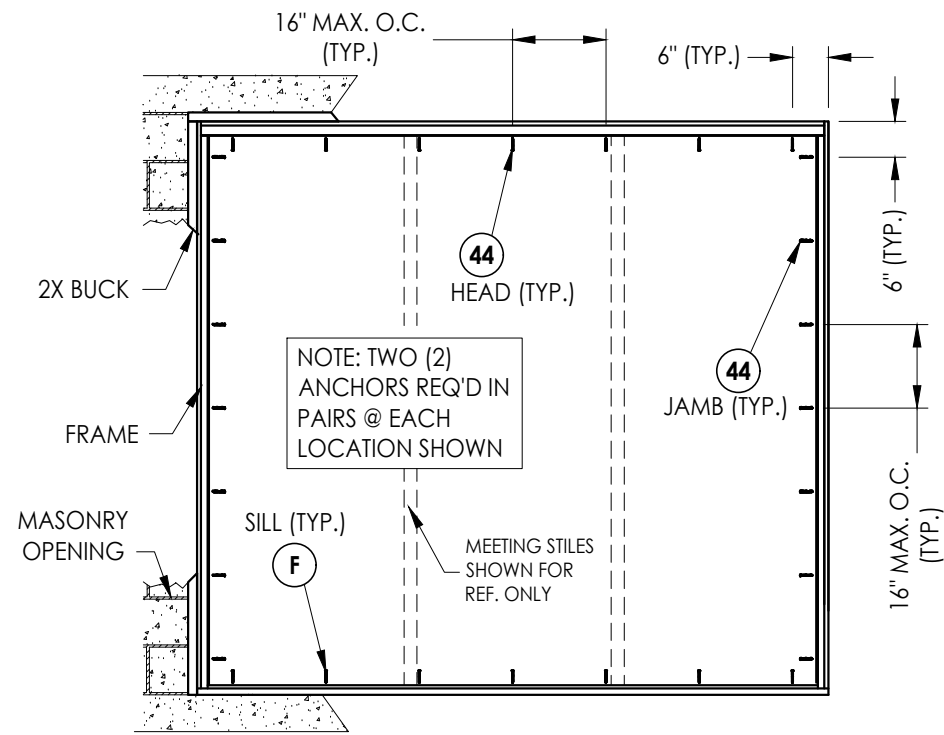
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FL-16216.6

SHEET 6 OF 9

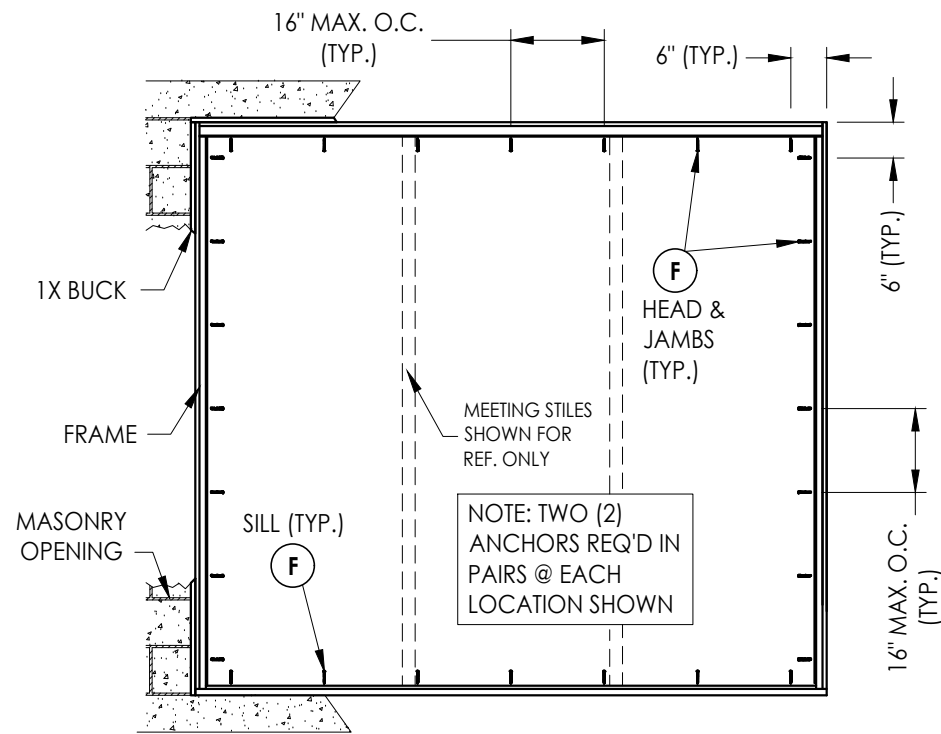
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P.O. Box 230, Valrico, FL 33595  
Phone No.: 813.659.9197  
FBPE Registry No. 9813



**BUCK ANCHORING**  
Masonry



**FRAME ANCHORING**  
2X Buck



**FRAME ANCHORING**  
1X Buck, Direct to Masonry

**ANCHORING UP TO 106.3" X 96.1" FRAME SIZE**

**CONCRETE ANCHOR NOTES:**

- Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.
- 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" dimension are not exceeded.
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**WOOD SCREW INSTALLATION NOTES:**

- Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.

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P.E. No. 43409

PRODUCT:  
5400/5400S/7700/9900 SERIES  
SLIDING PATIO DOORS

PART OR ASSEMBLY:  
BUCK & FRAME  
ANCHORING

NO.	DATE	ADDED FRAME SIZE & DETAILS	JK	JK	JK	LFS	BY
6	7/06/23	UPDATE TO 8TH ED. (2023)	FBC	FBC	FBC	FBC	
5	7/06/20	UPDATE TO 7TH ED. (2020)	FBC	FBC	FBC	FBC	
4	6/01/17	UPDATE TO 6TH ED. (2017)	FBC	FBC	FBC	FBC	
3	1/28/15	UPDATE TO 5TH ED. (2014)	FBC	FBC	FBC	FBC	
2	8/14/14	REVISED GLAZING & SERIES NO.	JK	JK	JK	JK	
1	7/7/14	ADDED FRAME SIZE & DETAILS	JK	JK	JK	JK	

DATE: 4/29/13

SCALE: N.T.S.

DWG. BY: JK

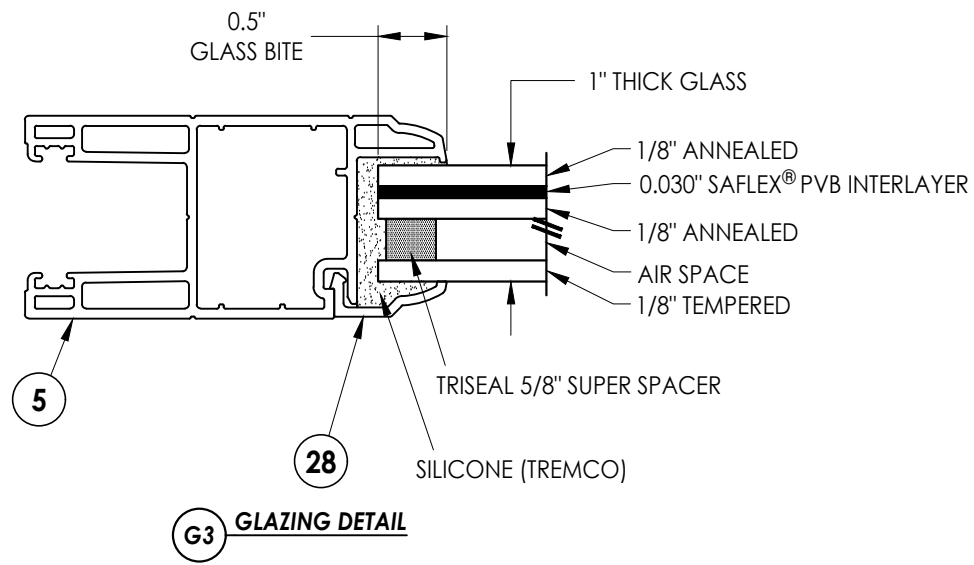
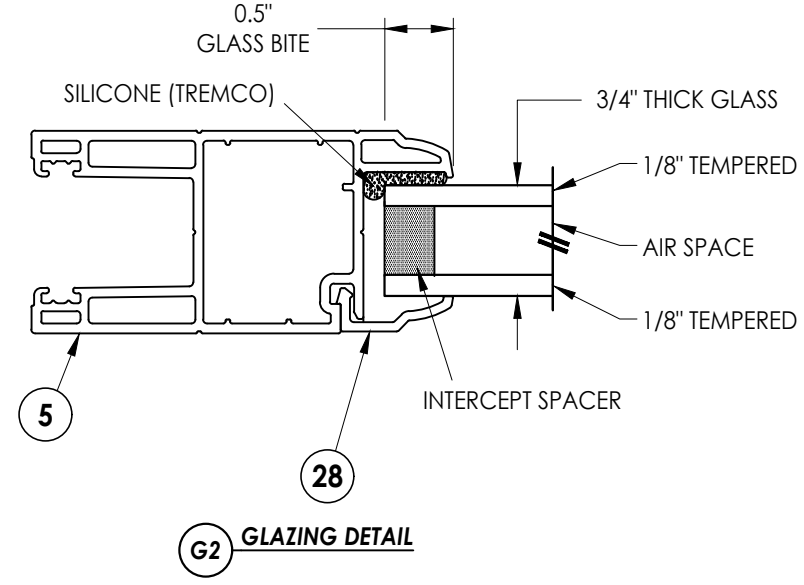
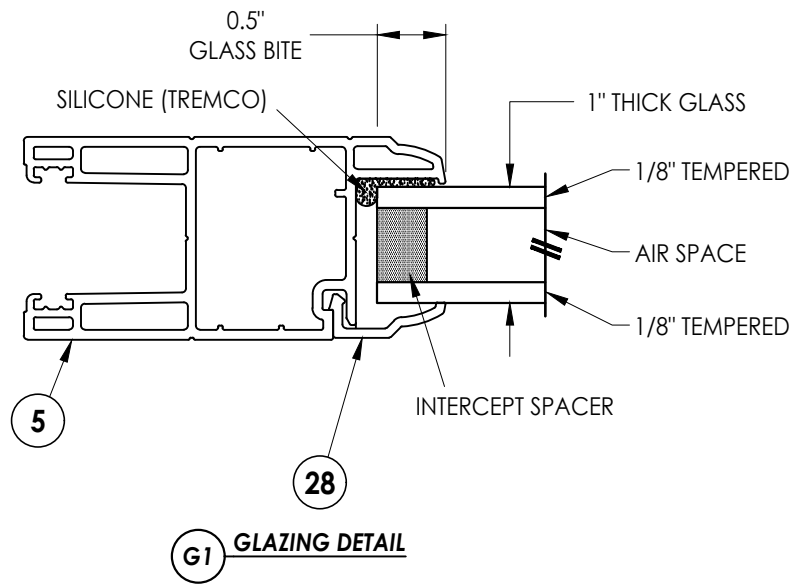
CHK. BY: LFS

DRAWING NO.:

FL-16216.6

SHEET 7 OF 9

**RW** BUILDING CONSULTANTS, INC.  
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PRODUCT:  
5400/5400S/7700/9900 SERIES  
SLIDING PATIO DOORS

PART OR ASSEMBLY:  
GLAZING DETAILS

NO.	DATE	REVISIONS
6	7/06/23	UPDATE TO 8TH ED. (2023) FBC LFS
5	7/06/20	UPDATE TO 7TH ED. (2020) FBC LFS
4	6/01/17	UPDATE TO 6TH ED. (2017) FBC LFS
3	1/28/15	UPDATE TO 5TH ED. (2014) FBC JK
2	8/14/14	REVISED GLAZING & SERIES NO. JK
1	7/7/14	ADDED FRAME SIZE & DETAILS LFS

DATE: 4/29/13

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:  
FL-16216.6

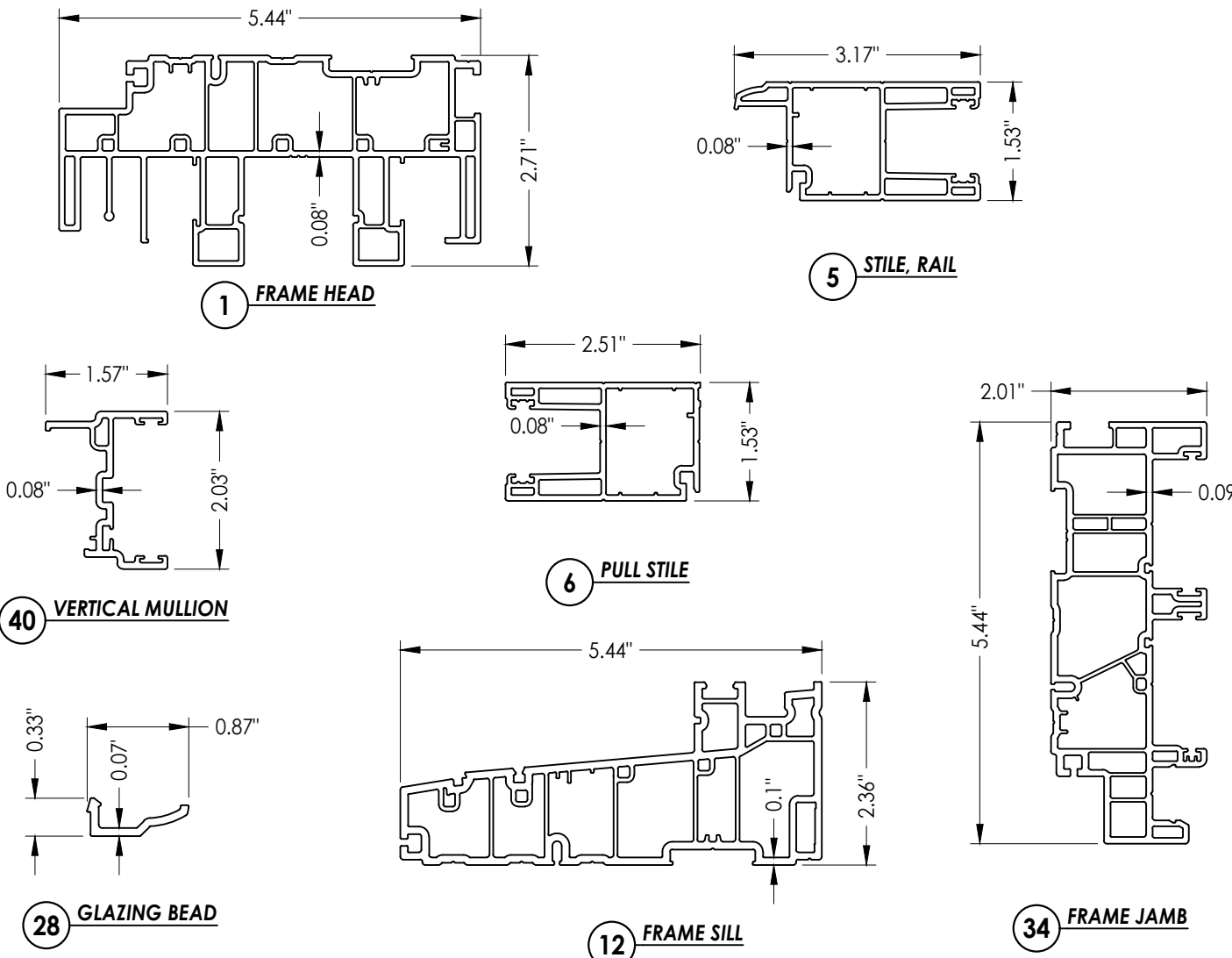
SHEET 8 OF 9



**BILL OF MATERIALS**

ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK SG >= 0.55	WOOD
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" DeWALT OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	1/4" DeWALT OR ITW CONCRETE SCREW (1-1/4" MIN. EMBEDMENT REQ'D. INTO CONCRETE)	STEEL
1	FRAME HEAD*	PVC
2	#8 x 2-3/4" FH QUADREX WOOD SCREW	STEEL
3	WEATHERSTRIP (SCHLEGEL #HF-7522-270)	-
5	STILE & RAIL*	PVC
6	FIXED MULLION*	PVC
9	SHIM	-
10	TANDEM WHEEL	NYLON
11	ROLLING RAIL	ALUM
12	SILL*	PVC
13	SILL DUST COVER*	PVC
14	SILL PLUG	NYLON
15	SILL WEATHERSEAL	-
17	LEFT CAP FOR SILL ADAPTER*	PVC
18	RIGHT CAP FOR SILL ADAPTER*	PVC
19	#8 X 5/8" PAN HEAD, SQUARE, SELF-DRILLING SCREW	STEEL
20	OUTSIDE SILL CLADDING	STEEL
22	INSECT STOP	-
23	SCREEN	-
24	#8 X 7/8" PAN HEAD, QUADREX, SCREW	STEEL
25	FIXED PANEL ANCHOR BLOCK*	PVC
26	ANCHOR STRAP	STEEL
27	SCREW CAP*	PVC
28	GLAZING BEAD*	PVC
29	FOAM PLUG	-
30	HEAD WEATHERSEAL	-

31	#8 X 1-1/4" PAN HEAD, QUADREX, SCREW	STEEL
32	SASH STOPPER	EPDM
33	WEATHERSTRIP	-
34	FRAME JAMB*	PVC
35	WEATHERSTRIP	-
39	HANDLE KIT	STEEL
40	VERTICAL MULLION*	PVC
44	#10 PPH WOOD SCREW (1-3/8" MIN. EMBEDMENT REQ'D INTO WOOD)	STEEL
46	STAINLESS STEEL DOUBLE POINT MORTISE LOCK KIT	STEEL
47	SASH COVERING CAP*	PVC
48	LOCK PLUG*	PVC
50	STILE REINFORCEMENT (CS TYPE B HOT DIPPED GALV.)	STEEL
51	#8 X 2" TRUSS HEAD QUADREX SCREW	STEEL
52	INTERLOCK*	PVC
53	STILE REINFORCEMENT (CS TYPE B HOT DIPPED GALV.)	STEEL
54	Q-LON WEATHERSTRIP (SCHLEGEL NO. QEZ 345)	-



\* THE APPROVED WHITE RIGID PVC EXTERIOR EXTRUSIONS FOR WINDOWS ARE TO BE PRODUCED BY EXTRUDERS LICENSEES IN "AAMA CERTIFICATION PROGRAMS FOR RIGID PVC EXTRUSIONS".

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

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PRODUCT:  
5400/5400S/7700/9900 SERIES  
SLIDING PATIO DOORS

PART OR ASSEMBLY:  
BILL OF MATERIALS  
& COMPONENTS

NO.	DATE	ADDED FRAME SIZE & DETAILS	JK	BY
6	7/06/23	UPDATE TO 8TH ED. (2023)	FBC	
5	7/06/20	UPDATE TO 7TH ED. (2020)	FBC	
4	6/01/17	UPDATE TO 6TH ED. (2017)	FBC	
3	1/28/15	UPDATE TO 5TH ED. (2014)	FBC	
2	8/14/14	REVISED GLAZING & SERIES NO.	JK	
1	7/7/14	ADDED FRAME SIZE & DETAILS	LFS	

DATE: 4/29/13  
SCALE: N.T.S.  
DWG. BY: JK  
CHK. BY: LFS  
DRAWING NO.: FL-16216.6  
SHEET 9 OF 9