Engineering Evaluation Report # 4130-09292025

Prepared by:
A. Lynn Miller, P.E.
3400 Precision Dr.
N. Venice, FL 34275
(941) 480-1600
Florida Registration: #29296

Manufacturer:
PGT Custom Windows & Doors
3400 Precision Dr.
N. Venice, FL 34275

Product Description:
SGD4130A Impact-resistant Aluminum Sliding Glass Door, (LM & SM), FL-33106

Compliance:
The above-mentioned product has been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61 G20-3.005 method 1(d). The product listed herein complies with the requirements of the current Florida Building Code.

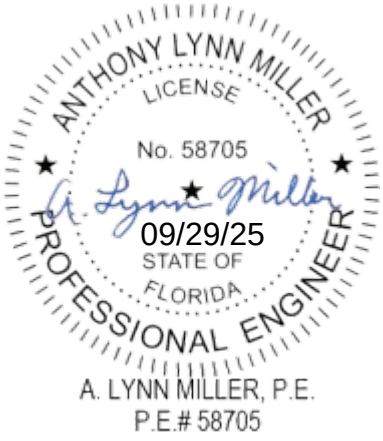
This product has been evaluated and is in compliance with the current Florida Building Code, including the “High Velocity Hurricane Zone” (HVHZ).

Supporting Technical Documentation:
1. Approval document: drawing number SGD4130FPA, signed and sealed by A. Lynn Miller, P.E.
2. Test Report FTL 19-8800 & 20-2108.1-5, signed and sealed by Idalmis Ortega, P.E.
Fenestration Testing Laboratories, Medley, FL 33166

TAS 201-94 Large Missile Impact Test
TAS 202-94 Uniform Static Air Pressure Test
TAS 203-94 Cyclic Pressure Loading Test

3. Anchor calculations, signed and sealed by A. Lynn Miller, P.E., dated 4/18/19 & 9/1/20

Limitations and Conditions of use:
• Units must be glazed per ASTM E1300-09, refer to approval document for glazing details.
• This product is rated to be used in the HVHZ.
• This product is impact resistant and does not require impact protection in wind borne debris regions.
• Frame and panel material to be extruded Aluminum.
• Units must be installed in accordance with approval document, SGD4130FPA.



SERIES SGD4130 IMPACT RESISTANT SLIDING GLASS DOOR

FLORIDA PRODUCT APPROVAL #33106

DESIGN PRESSURE RATING	WATER PRESSURE RATING	IMPACT RATING
+55/-65 PSF	8.25 PSF	RATED FOR LARGE & SMALL MISSILE IMPACT RESISTANCE

1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS.

3) ANCHORAGE: THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WIND LOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.

4) OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

5) SIZES MUST BE VERIFIED FOR COMPLIANCE WITH EGRESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE, AS APPLICABLE.

ANCHOR NOTES:

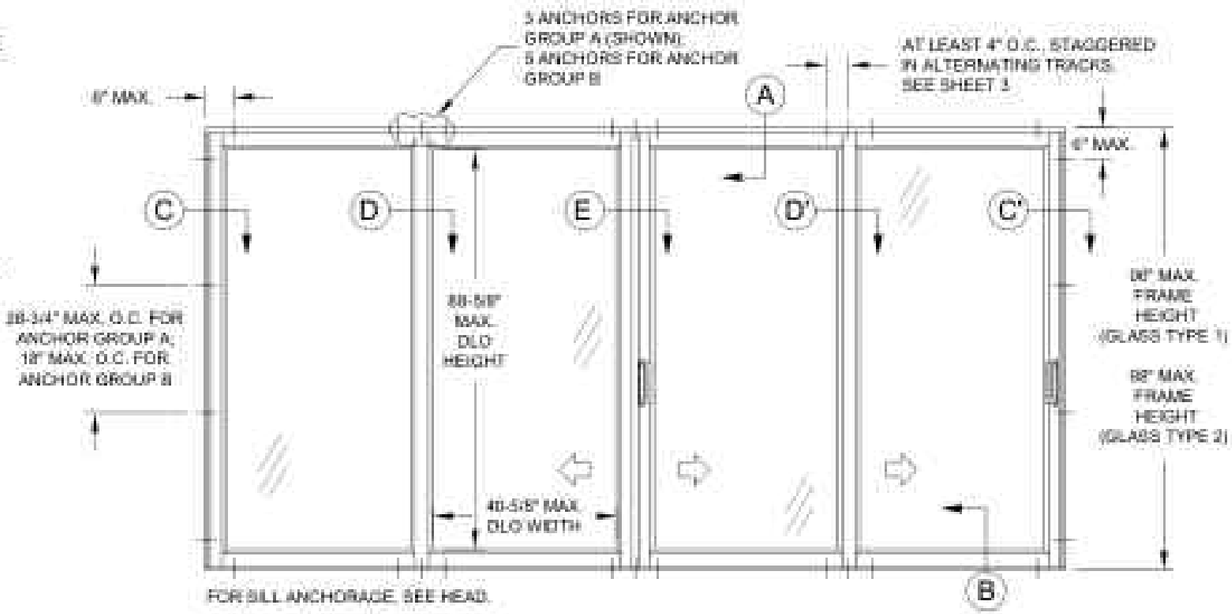
1) SEE TABLE 1 ON THIS SHEET FOR EMBEDMENT, EDGE DISTANCE AND SUBSTRATE ANCHORAGE REQUIREMENTS.

2) IF SILL IS TIGHT TO SUBSTRATE, GROUT OR OTHER MATERIAL IS NOT REQUIRED. IF USED, NON-SHRINK, NON-METALLIC GROUT, MAX. 1/4" THICK & 3400 PSI MIN., (DONE BY OTHERS) MUST FULLY SUPPORT THE ENTIRE LENGTH OF THE SILL THAT IS NOT TIGHT TO THE SUBSTRATE, AND TRANSFER SHEAR LOAD TO SUBSTRATE. IF SUBSTRATE IS WOOD, 30# FELT PAPER OR MASTIC IS REQUIRED BETWEEN THE GROUT AND WOOD SUBSTRATE, OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.

3) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED BY OTHERS TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH.

5) SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. WOOD BUCKS, BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE DOOR.



TYP. ANCHOR LOCATIONS

4 PANEL, 2 TRACK BYPASS OXXX CONFIGURATION SHOWN.

TABLE 1:

Anchor Group	Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
A	#12 SMS[1] Screw (#28 Shank, Thick Fin or #10 Fin)	Southern Pine (SG = .55)	9/16"	1-3/4"
		Aluminum, 6063-T5 min	2"	1"
		Steel, Fin, 18 Ga. - Dr. 33 min.	3/8"	0.61"+t
		A36 Steel	.305"	0.552"
	1/4" Steel Wedge-Lok	Concrete (psi= 3,000 psi)	2-1/2"	1-3/4"
		Ungrouted CMU (ASTM C-90)	2-1/2"	1-1/4"
		Southern Pine (SG = .55)	4"	1-3/4"
	1/4" ATG-RX ConcPlus	Concrete (psi= 3,000 psi)	2-1/2"	1-3/4"
		Ungrouted CMU (ASTM C-90)	2-1/2"	1-1/4"
		Southern Pine (SG = .55)	4"	1-3/4"
B	1/4" Steel Wedge-Lok	Concrete (psi= 3,000 psi)	2-5/8"	1-3/4"
		Ungrouted CMU (ASTM C-90)	4"	1-1/4"
	1/4" ATG-RX ConcPlus	Concrete (psi= 3,000 psi)	4"	1-3/4"
		Ungrouted CMU (ASTM C-90)	1-1/4"	1-1/4"

1) ANCHOR MUST EXTEND A MINIMUM OF 3 THREADS BEYOND ANY METAL SUBSTRATE.
2) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUT-FILLED CMU APPLICATIONS.
3) ANY ANCHOR HEAD TYPE IS APPLICABLE.

UNLIMITED NUMBER OF PANELS IN ANY 2-TRACK OR 3-TRACK CONFIGURATION USING VERTICAL CONDITIONS SHOWN ON SHEET 2 ARE APPROVED AS LONG AS THE PANEL DLO WIDTH DOES NOT EXCEED THE TESTED DLO WIDTH OF 40-5/8" AND THE TESTED FRAME HEIGHT OF 88" IS NOT EXCEEDED.

ADDITIONALLY, FOR INSTALLATIONS IN THE HVHZ, MAXIMUM FRAME AREA OF 194.8 SQUARE FEET MAY NOT BE EXCEEDED.

A	09/29/25
NO CHANGES THIS SHEET	LMY

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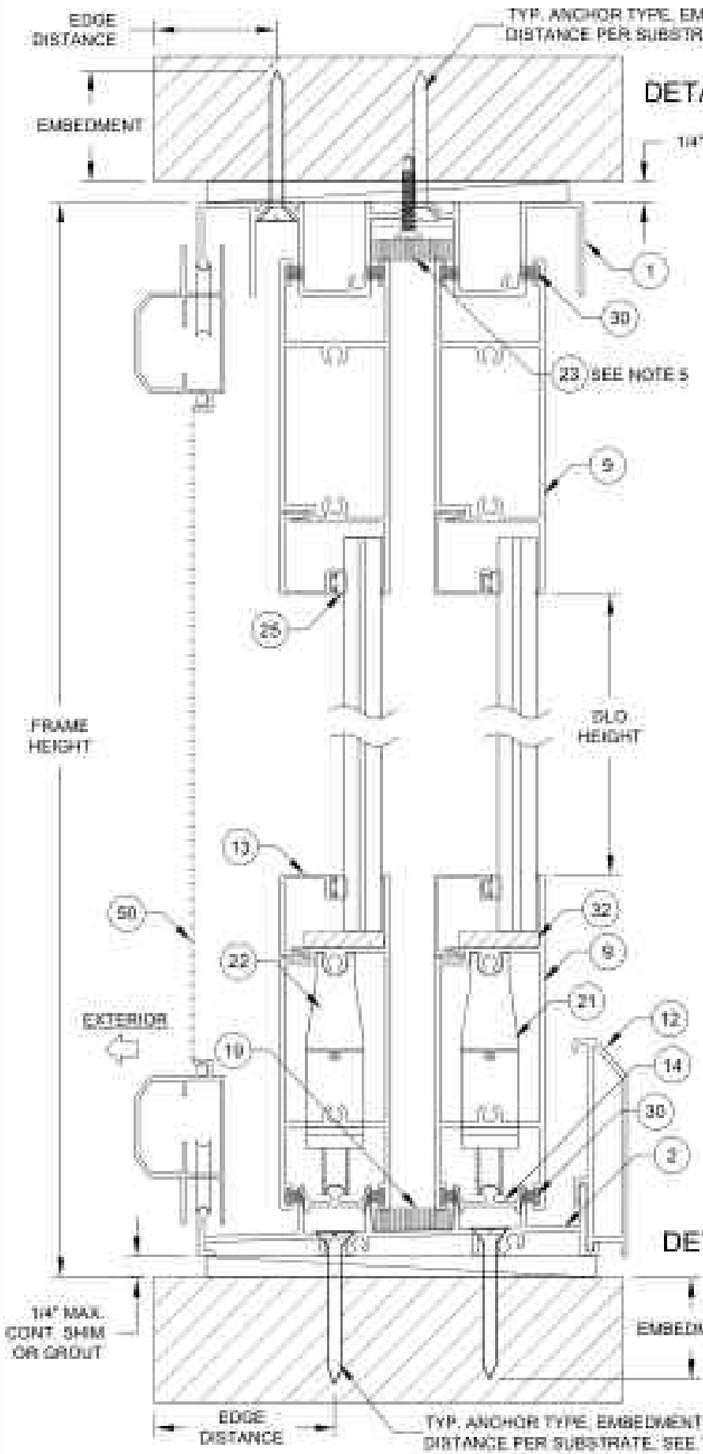
DRAWN	LOGAN YODER
DATE	08/14/25
SCALE	NTS
SHEET	1 OF 4
DRAWING	SGD4130A

ALUM. SLIDING GLASS DOOR (LM)

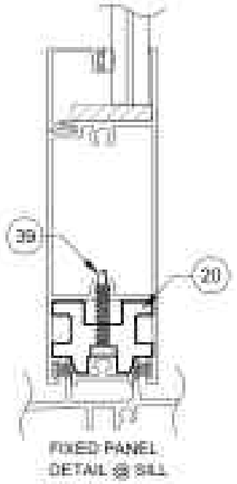
ELEVATION & GENERAL NOTES

SGD4130/AFPA

ANTHONY LYNN MILLER
LICENSE
No. 58705
09/29/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



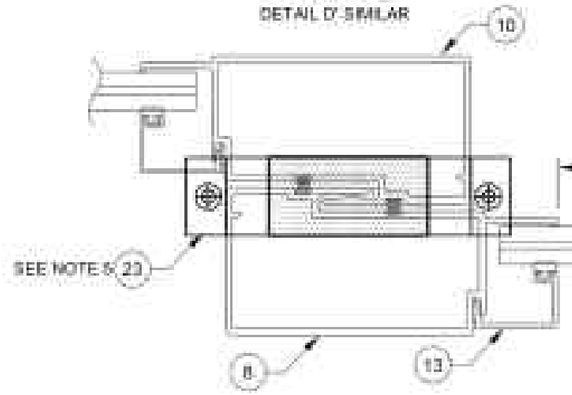
DETAIL (A) 2-TRACK HEAD SHOWN, MAY ALSO BE 3-TRACK, #4



DETAIL (B) 2-TRACK SILL SHOWN, MAY ALSO BE 3-TRACK, #5

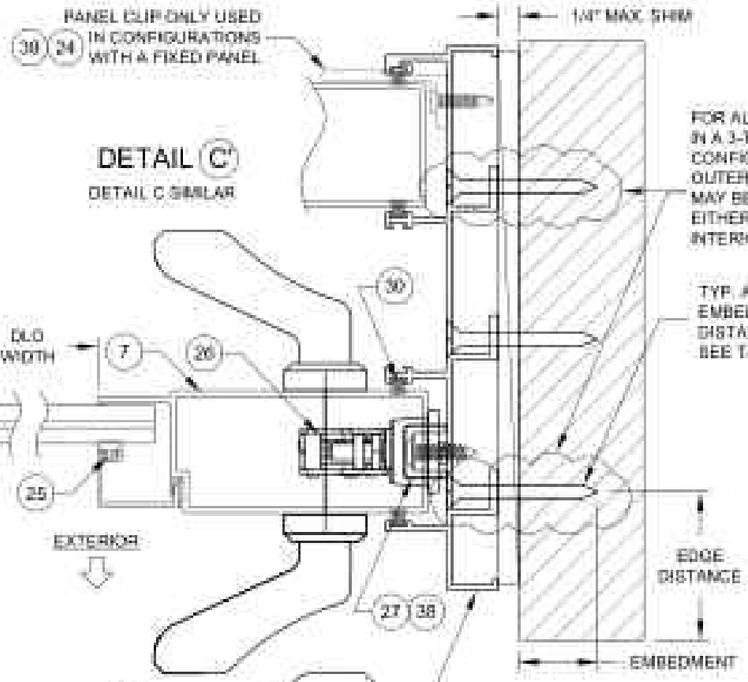
DETAIL (D)

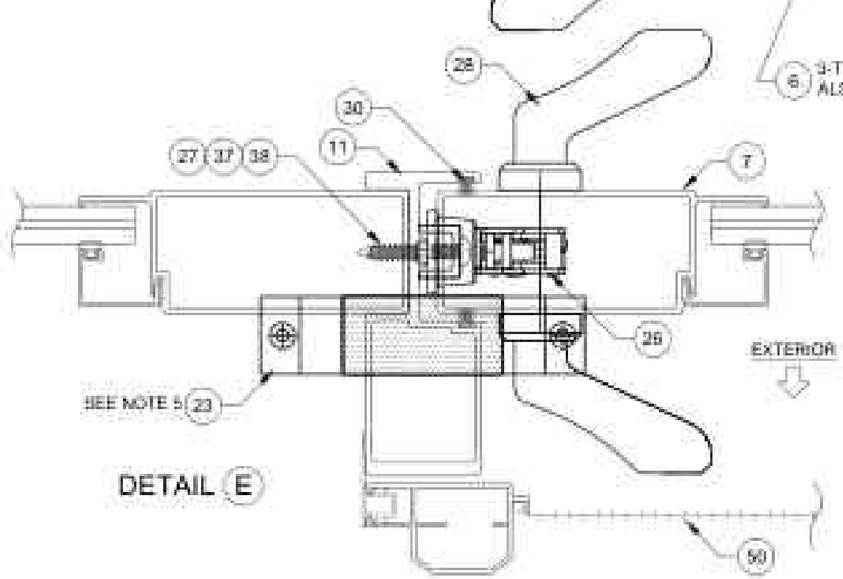
DETAIL D' SIMILAR



DETAIL (C')

DETAIL C SIMILAR





DETAIL (E)

NOTES:

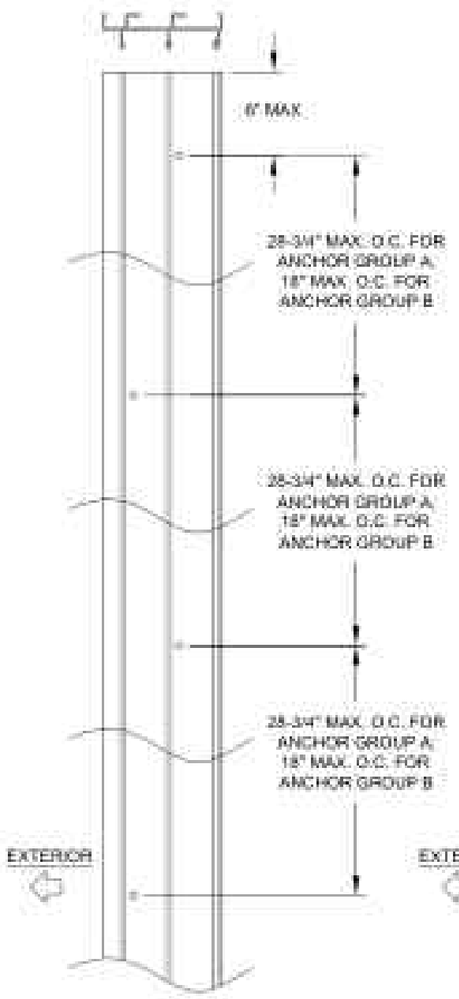
1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 1. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS.
2) SEE ANCHOR NOTES, SHEET 1 FOR ADDITIONAL ANCHOR INFORMATION.
3) SEE SHEET 3 & TABLE 1 FOR SPACING REQUIREMENTS.
4) MAX. SHIM THICKNESS TO BE 1/4".
5) ANTI-LIFT BLOCK PILE REQUIRED AT EACH INTERLOCK AND ASTRAGAL LOCATION TO PREVENT PANEL LIFT AND FALLOUT.

REV.	A
DATE	09/29/25
NO CHANGES THIS SHEET	
PREPARED BY: A. LYNN MILLER, P.E. 3400 PRECISION DRIVE N. VENICE, FL 34275 (941) 480-1600	
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DATE	08/14/25
LOGAN YODER	
ALUM. SLIDING GLASS DOOR (LM)	SGD4130AFPA
INSTALLATION & CROSS SECTION	2 OF 4
SGD4130A	

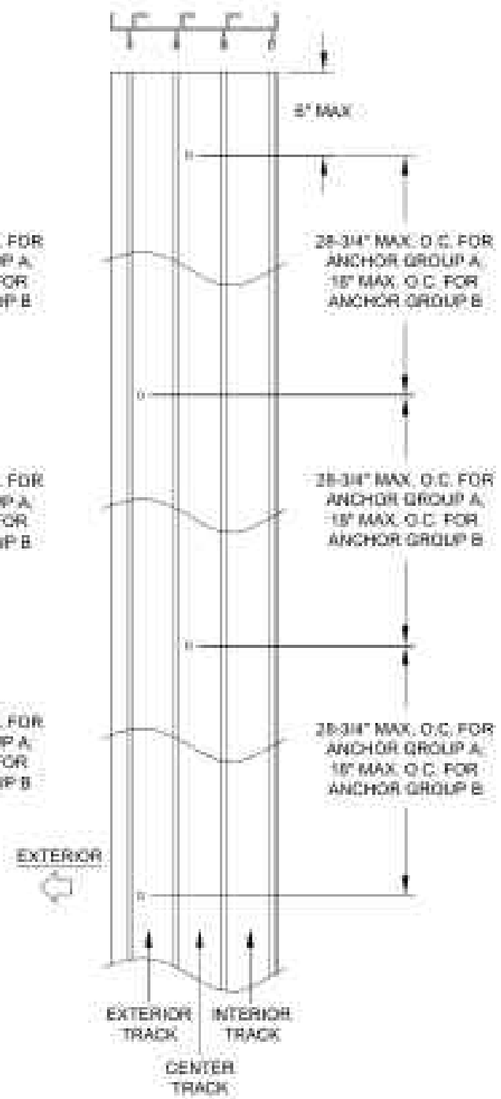
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ANTHONY LYNN MILLER LICENSE No. 58705 09/29/25 STATE OF FLORIDA PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

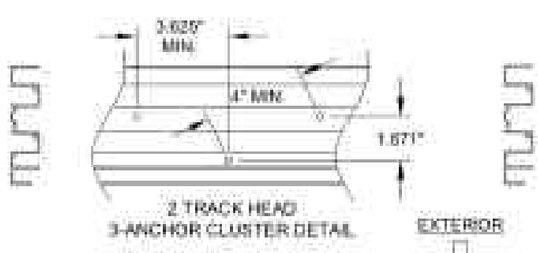
2 TRACK JAMB
ANCHOR DETAIL



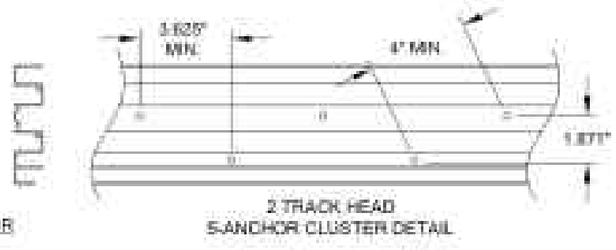
3 TRACK JAMB
ANCHOR DETAIL



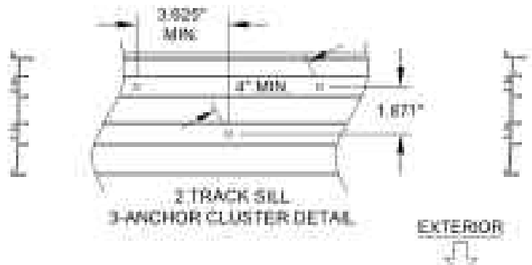
NOTE 1) FOR ALL FRAME MEMBERS IN A 3-TRACK CONFIGURATION, THE OUTER ROW OF ANCHORS MAY BE INSTALLED IN EITHER THE EXTERIOR OR INTERIOR TRACK.



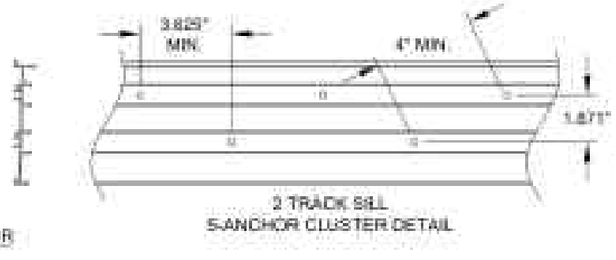
2 TRACK HEAD
3-ANCHOR CLUSTER DETAIL



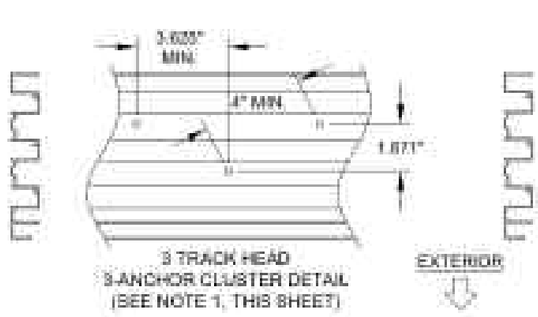
2 TRACK HEAD
5-ANCHOR CLUSTER DETAIL



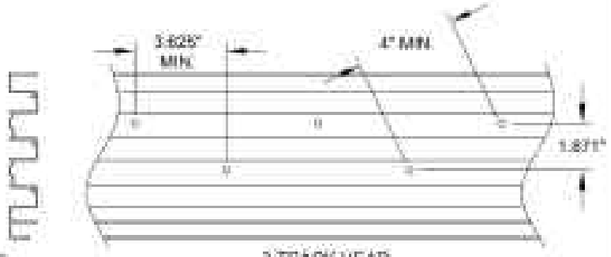
2 TRACK SILL
3-ANCHOR CLUSTER DETAIL



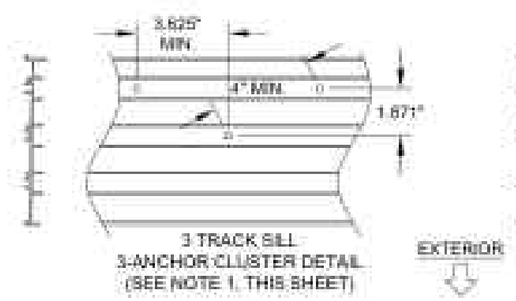
2 TRACK SILL
5-ANCHOR CLUSTER DETAIL



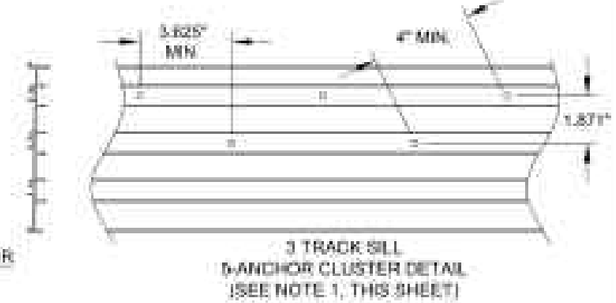
3 TRACK HEAD
3-ANCHOR CLUSTER DETAIL
(SEE NOTE 1, THIS SHEET)



3 TRACK HEAD
5-ANCHOR CLUSTER DETAIL
(SEE NOTE 1, THIS SHEET)



3 TRACK SILL
3-ANCHOR CLUSTER DETAIL
(SEE NOTE 1, THIS SHEET)



3 TRACK SILL
5-ANCHOR CLUSTER DETAIL
(SEE NOTE 1, THIS SHEET)

NO CHANGES THIS SHEET	A
09/29/25	

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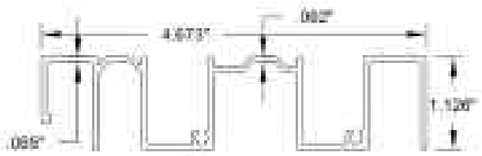
DRAWN	LOGAN YODER
DATE	08/14/25
SCALE	
SHEET	3 OF 4
DRAWING	SGD4130A
JOB #	SGD4130AFPA

ALUM. SLIDING GLASS DOOR (LM)
INSTALLATION ANCHOR
HOLE LOCATION

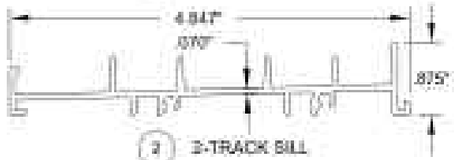
ANTHONY LYNN MILLER
LICENSE
No. 58705
09/29/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 2

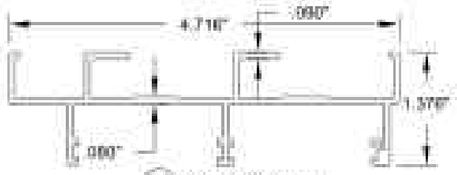
Item	Part #	Description	Mat.
1	61140	2-Track Frame Head	6063-T6
3	61141	2-Track Transom Sill	6063-T6
3	61142	2-Track Frame Jamb	6063-T6
4	61143	3-Track Frame Head	6063-T6
5	61144	3-Track Transom Sill	6063-T6
6	61145	3-Track Frame Jamb	6063-T6
7	61146	Horizontal Stile	6063-T6
8	61147	Meeting Interlock	6063-T6
9	61148	Vertical Rail	6063-T6
10	61149	Exterior Interlock	6063-T6
11	61150	Astragal	6063-T6
12	61151	Weatherbar Adapter	6063-T6
13	61152	3/16" Laminated Glazing Bead	6063-T6
14	61153	Roller Track	6063-T6
19	710251RS	Interlock Pivot @ Sill, 0.50" X 2" X 0.50"	
20	410144N	2-Bead Panel Shim	
21	410249N	Arrow Sign	
22	710245S	Tandem Rollers	
23	410250	Fixed Lift Block Pivot @ Head, (2) #8 X 0.62" SMS	
24	7171	Fixed Panel Clip	6063-T6
25	55008	Glazing Bead 0.187" X 0.200"	PVC
26	710250	Lock Kit	
27	710260X	Keeper Kit	
28	710257	Handle Set Kit	
29	710253	Recessed Handle	
30	710320	Weatherstrip, .187" X .750" Fin Seal	
32	710249X	1/2" X 4" X 1/8" Setting Block	
33	7520	Screws	SS
34	7172	7/16" Adjustable Roller Guide	
35	710439	#8 X 1" Pan Hd. A (Assembly)	410025
36	710574	#10-16 X 1-1/4" Pan Phil Tek	410260
37	710411	#10 X 5/8" Pan Hd. SF (Assembly)	410018
38	710319	#10 X 1" Pan Hd. TEK 4-10 SS (Assembly)	410368
39	710417	#8 X 3/4" Flat Phil Tek (Coated)	410050
40	710361	#10 X 3/4" Flat Undercut Phil	410055
41	710322	0.610" A (-3/16" X 0.563" Scarfed Rec Plug	
42		Glass 7/16" NOM (5/8" AGG) TYP.	Section 8
43		Glazing Assembly	Section 8



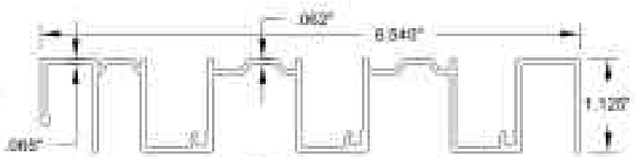
1 2-TRACK HEAD



2 2-TRACK SILL



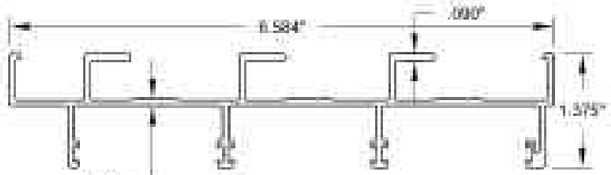
3 2-TRACK JAMB



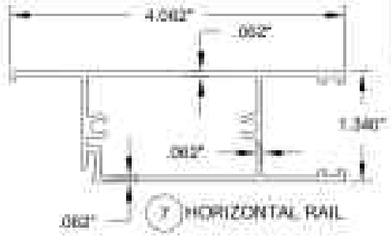
4 3-TRACK HEAD



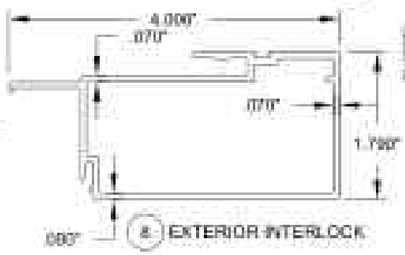
5 3-TRACK SILL



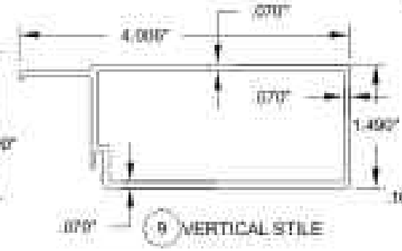
6 3-TRACK JAMB



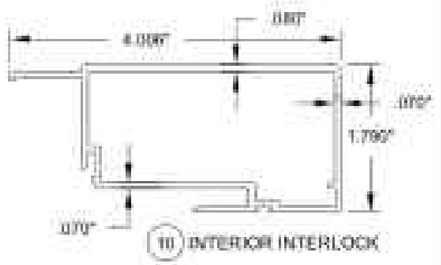
7 HORIZONTAL RAIL



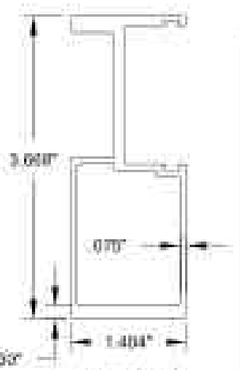
8 EXTERIOR INTERLOCK



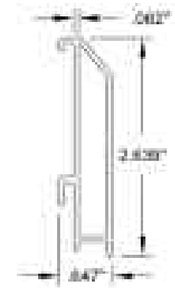
9 VERTICAL STILE



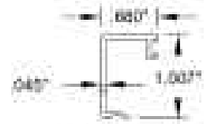
10 INTERIOR INTERLOCK



11 ASTRAGAL



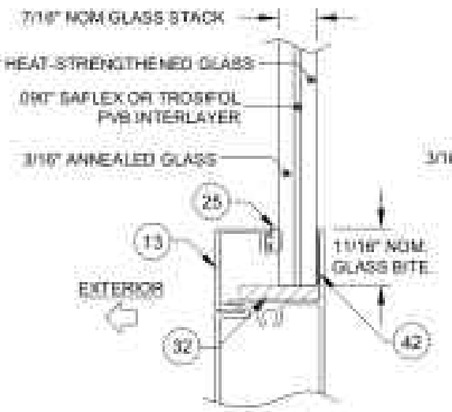
12 WATERBAR ADAPTER



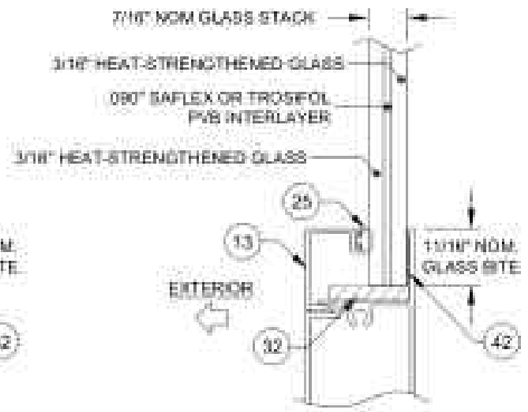
13 BEADING



14 ROLLER TRACK



GLASS TYPE 1



GLASS TYPE 2

A	09/29/25	UPDATED PART NUMBERS

PREPARED BY A. LYNN MILLER
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REGISTRATION #00006

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PGT Outdoor Windows and Doors
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DATE	08/14/25
DRAWN	LOGAN YODER
ALUM. SLIDING GLASS DOOR (LM)	
GLAZING INFORMATION, EXTRUSION AND BOM	
SHEET	4 OF 4
DRAWING	SGD4130A
SERIES	SGD4130AFPA

ANTHONY LYNN MILLER
LICENSE
No. 58705
09/29/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER
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