Engineering Evaluation Report # 4130W-09262025

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 Window, (LM & SM), FL-29699

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.

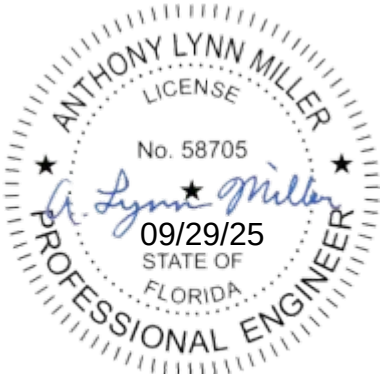
This product has been evaluated and is in compliance with the current Florida Building Code, including the “High Velocity Hurricane Zone” (HVHZ).

Supporting Technical Documentation:
1. Approval document: drawing number SGD4130WFPA, 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, SGD4130WFPA.



A. LYNN MILLER, P.E.
P.E.# 58705

FLORIDA PRODUCT APPROVAL #29699

SERIES SGD4130-W IMPACT RESISTANT SLIDING GLASS WINDOW

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.

6) DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.

ANCHOR NOTES:

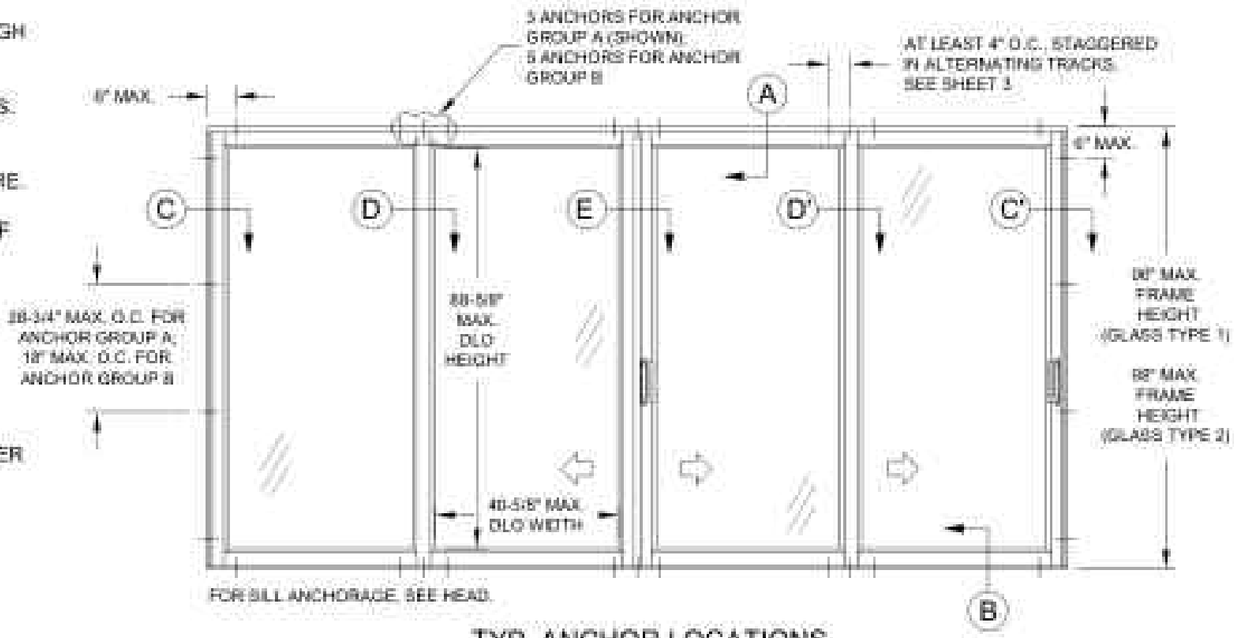
1) SEE TABLE 1 ON THIS SHEET FOR EMBEDMENT, EDGE DISTANCE AND SUBSTRATE ANCHORAGE REQUIREMENTS.

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 WINDOW.



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 Screw (.205" Shank, 1inch OR 410 SS)	Southern Pine (SG = .55)	9/16"	1-3/4"
		Aluminum, 6063-T5 min	2"	1"
		Steel, Fy=50 ksi, Gr. 33 min	3/8"	0.11"-16"
		A36 Steel	3/8"	0.062"
	1/4" Wood Structural	Concrete (min. 3.0 ksi)	2-1/2"	1-3/8"
		Ungrouted CMU (ASTM C-90)	2-1/2"	1-1/4"
		Southern Pine (SG = .55)	1"	1-3/8"
	1/4" 410 SS Unthread	Concrete (min. 3.0 ksi)	2-1/2"	1-3/4"
		Ungrouted CMU (ASTM C-90)	2-1/2"	1-1/4"
		Southern Pine (SG = .55)	1"	1-3/8"
B	1/4" Steel Ultrascrew	Concrete (min. 3.0 ksi)	2-5/8"	1-3/4"
		Ungrouted CMU (ASTM C-90)	1"	1-1/4"
	1/4" 410 SS Unthread	Concrete (min. 3.0 ksi)	1"	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 196.8 SQUARE FEET MAY NOT BE EXCEEDED.

A 9/26/25 NO CHANGES THIS SHEET LMV

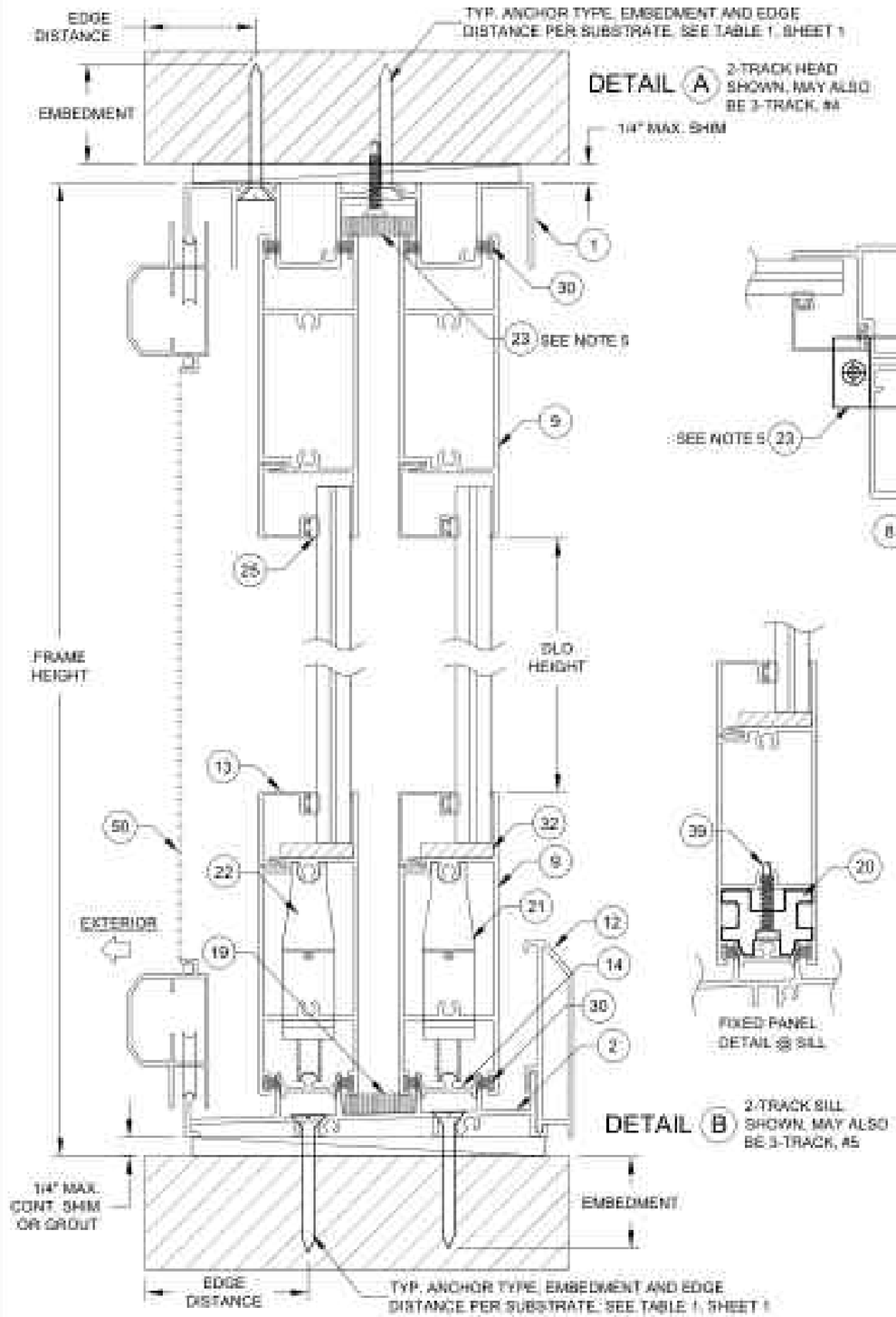
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3800 PRECISION DRIVE
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DRAWN: LMV | DATE: 06/14/25 | SCALE: NTS
ALUM. SLIDING GLASS WINDOW (LM) | LOGAN YODER | SGD4130/WFPA
ELEVATION & GENERAL NOTES | SHEET: 1 OF 4 | DRAWING: SGD4130A W

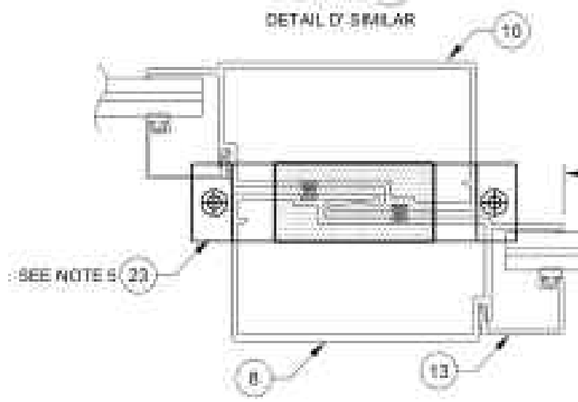
ANTHONY LYNN MILLER
LICENSE
No. 58705
09/26/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



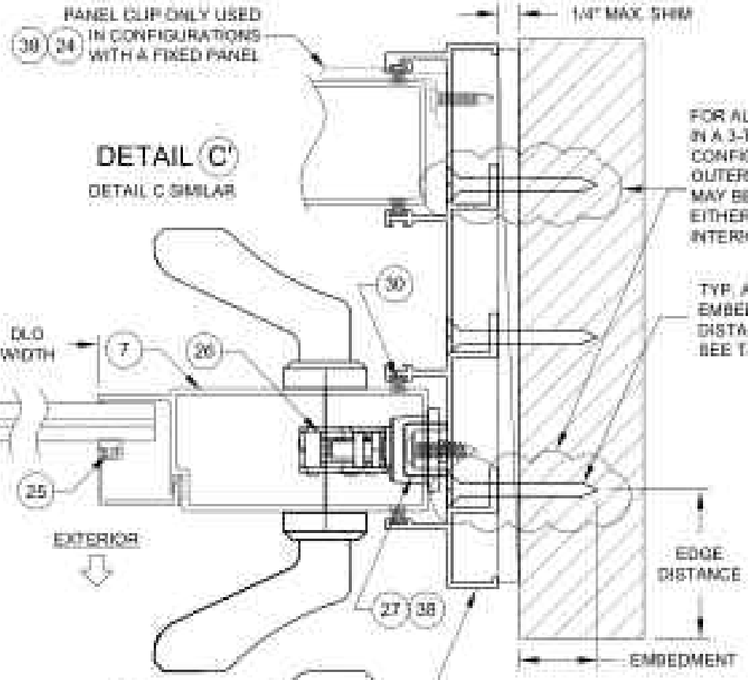
DETAIL (A) 2-TRACK HEAD SHOWN, MAY ALSO BE 3-TRACK, #4

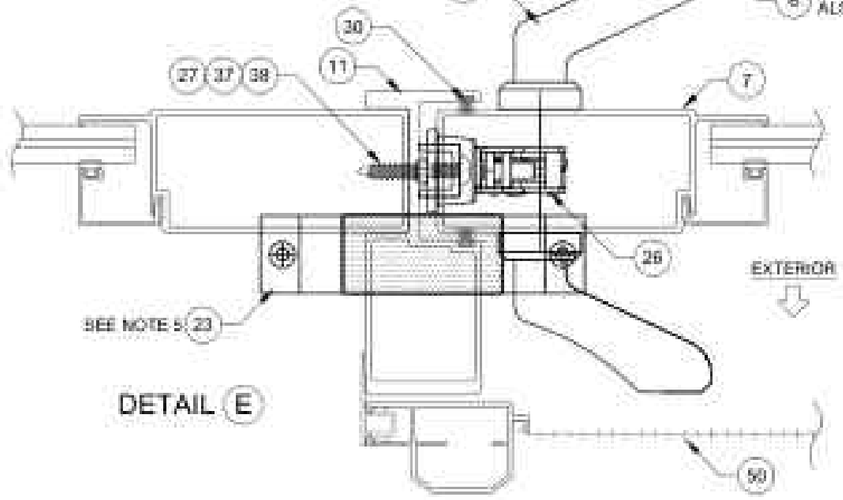
DETAIL (B) 2-TRACK SILL SHOWN, MAY ALSO BE 3-TRACK, #5

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.

A 9/26/25 NO CHANGES THIS SHEET

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DATE 08/14/25

LOGAN YODER

SGD4130/WFPA

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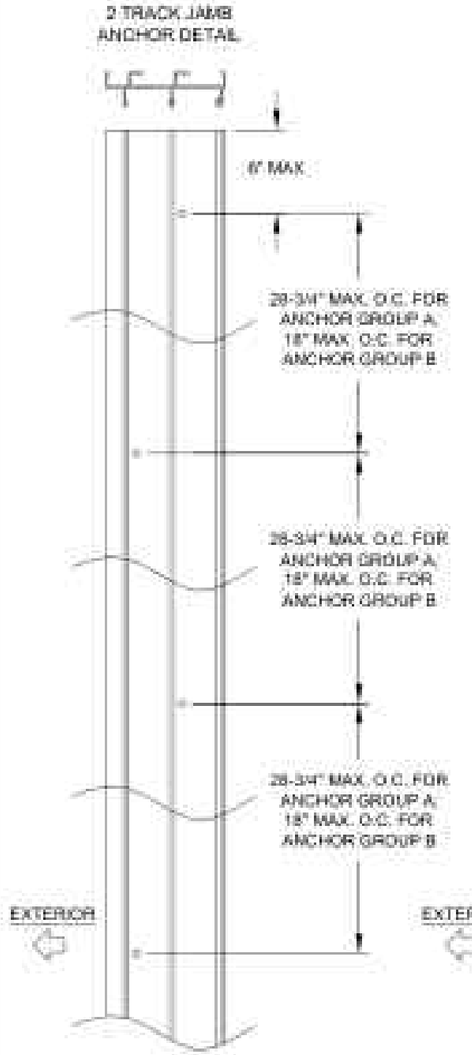
ALUM. SLIDING GLASS WINDOW (LM)

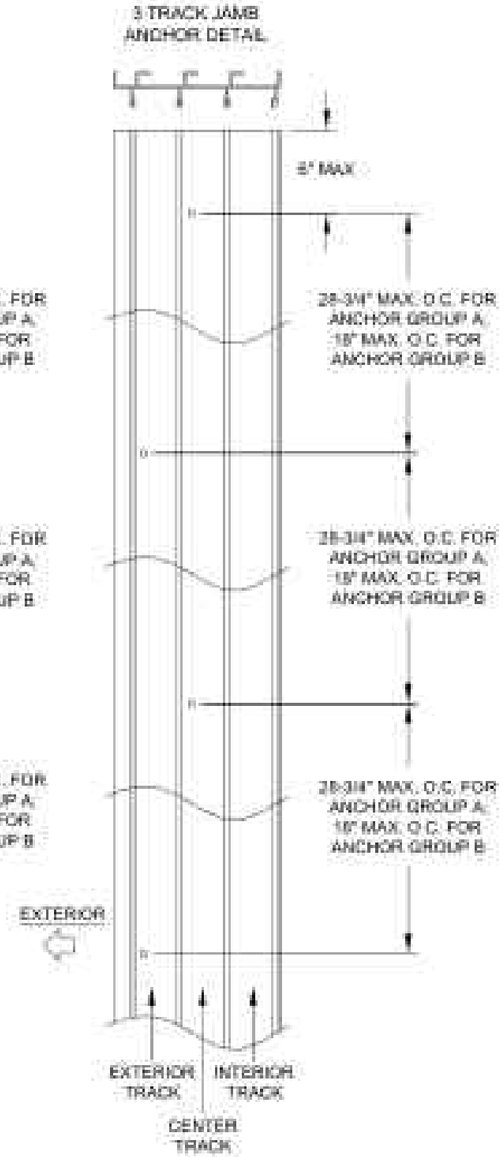
INSTALLATION & CROSS SECTION

SGD4130A W

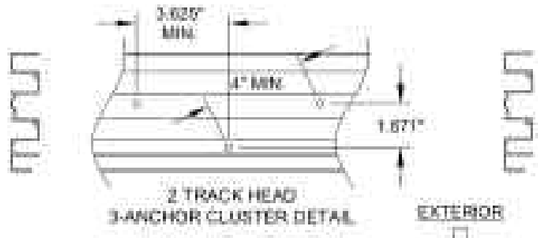
2 OF 4

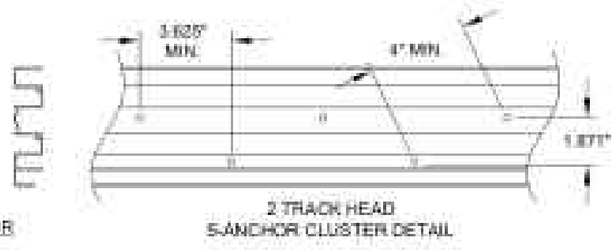
ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
09/26/25
A. LYNN MILLER, P.E.
P.E.# 58705

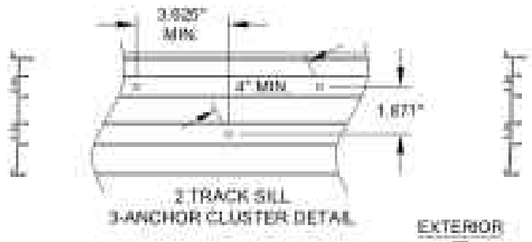


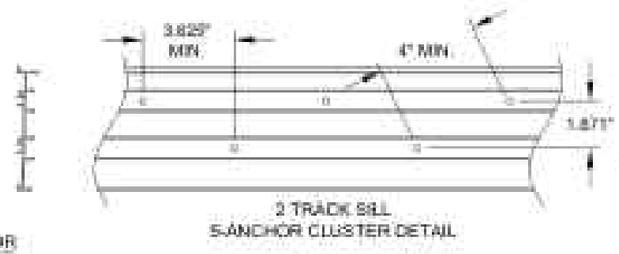


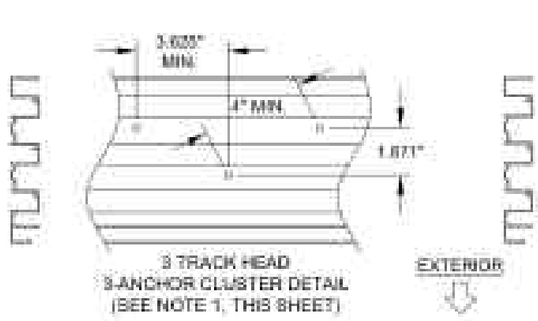
NOTE 1) FOR ALL FRAME MEMBERS IN A 3 TRACK CONFIGURATION, THE OUTER ROW OF ANCHORS MAY BE INSTALLED IN EITHER THE EXTERIOR OR INTERIOR TRACK.

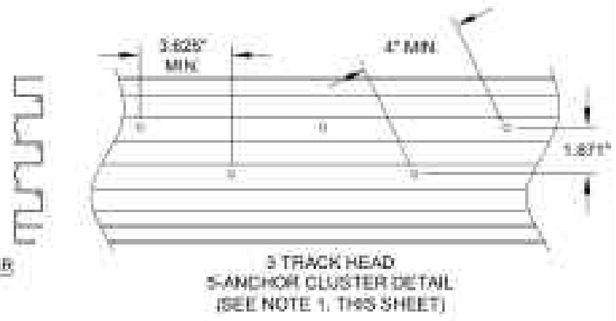


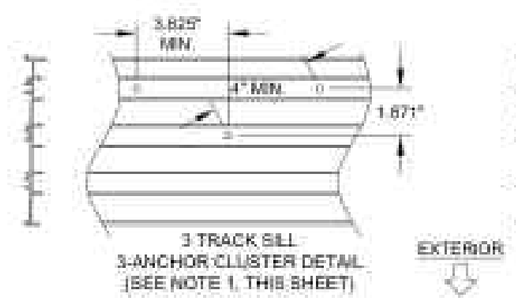


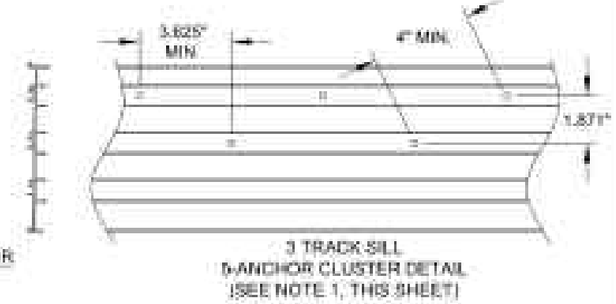












A	
9/26/25	
NO CHANGES THIS SHEET	

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DATE	08/14/25
DRAWN	LOGAN YODER
CHECKED	
SCALE	
SHEET	3 OF 4
DRAWING NO.	SGD4130/WFPA
WO	
SGD4130A W	

ALUM. SLIDING GLASS WINDOW (LM)

INSTALLATION ANCHOR HOLE LOCATION

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No. 58705
08/26/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

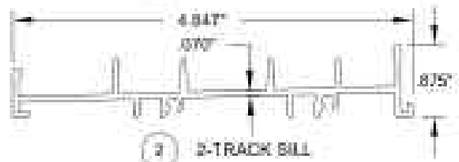
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P.E.# 58705

TABLE 2

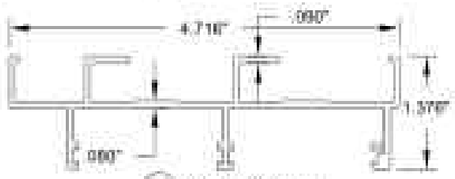
Item	Part #	Description	Mat.
1	67146	2-Track Frame Head	6063-T5
2	67142	2-Track Frame Sill	6063-T5
3	67141	2-Track Frame Jamb	6063-T5
4	67147	3-Track Frame Head	6063-T5
5	67145	3-Track Frame Sill	6063-T5
6	67144	3-Track Frame Jamb	6063-T5
7	67140	Vertical Stile	6063-T5
8	67148	Exterior Interlock	6063-T5
9	67116	Horizontal Rail	6063-T5
10	67149	Interior Interlock	6063-T5
11	67151	Astragal	6063-T5
12	67136	Waterbar Adapter	6063-T5
13	67152	7/16" Laminated Glazing Bead	6063-T5
14	67153	Roller Track	6063-T5
15	112261AC	Interlock Pad @ GT, 0.95" X 2" X 0.35"	
20	412[illegible]N	Fixed Panel Offset	
21	412[illegible]s	Roller Offset	
22	710[illegible]N	Tandem Rollers	
23	4100[illegible]N	Anti-Lift Block Pin @ Head & (1) @ [illegible]	
24	7171	Fixed Panel Clip	6063-T5
25	6550K	Glazing Bulb 0.567" X 0.500"	PVC
26	710[illegible]K	Lock Kit	
27	710[illegible]K	Keeper Kit	
28	710[illegible]7	Handle Set KB	
29	710[illegible]8	Fascia and Hinge Kit	
30	6[illegible]K	Weatherstrip, 15° x .330" Fin Seal	
31	710[illegible]K	1/2" X 4" X 1/2" Astrag Block	
34	7[illegible]4	Bumper	PVC
34	7[illegible]	7/16" Adjustment Screw Cover	
37	71[illegible]2	#8 X 1" Pan Phil A (Assembly)	41[illegible]2
38	71[illegible]4	#10-16 X 1-1/4" Pan Phil Tek	41[illegible]5
37		#10 X 3/8" Pan Phil AB (Astrage)	41[illegible]2
39	71[illegible]6	#10 X 1" Pan Phil TEK 410 SS (Reveal)	41[illegible]5
39	71[illegible]4	#8 x 3/4" Pan Phil Tek (Overall)	41[illegible]5
40	71[illegible]3	#10-16 X 3/4" Flat (Undercut) Ph	41[illegible]3
41	31[illegible]0	0.310" X 0.310" X (.800"), Tooltite Rail Plug	
43		Sash [illegible]	Sealant
35		Screen Attachment	Varies



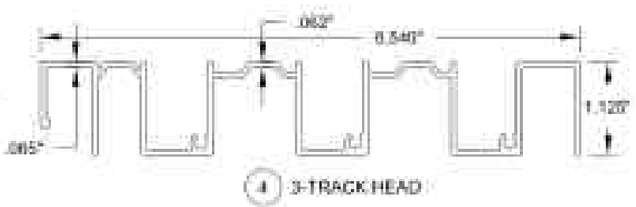
1 2-TRACK HEAD



2 2-TRACK SILL



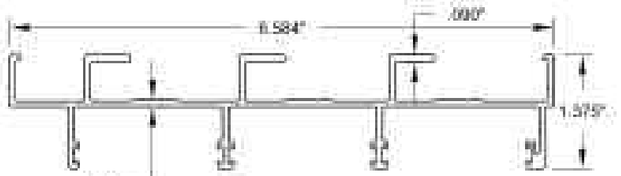
3 2-TRACK JAMB



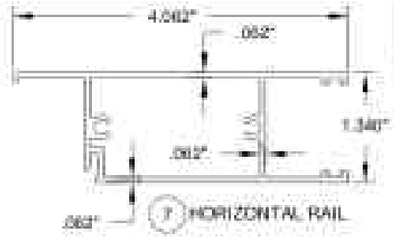
4 3-TRACK HEAD



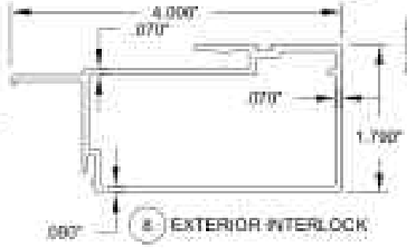
5 3-TRACK SILL



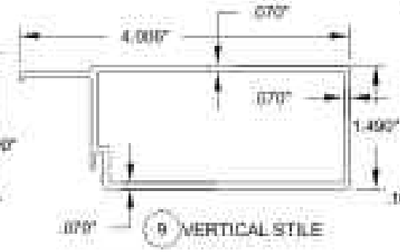
6 3-TRACK JAMB



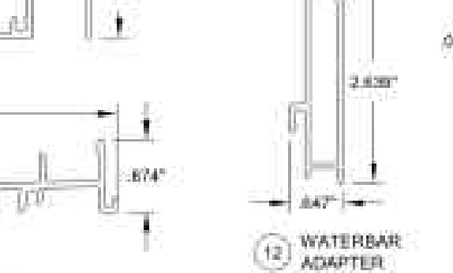
7 HORIZONTAL RAIL



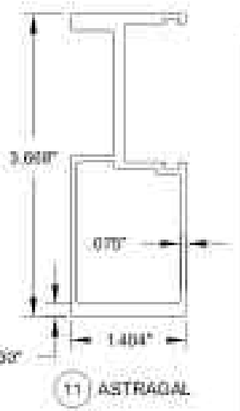
8 EXTERIOR INTERLOCK



9 VERTICAL STILE



10 INTERIOR INTERLOCK



11 ASTRAGAL

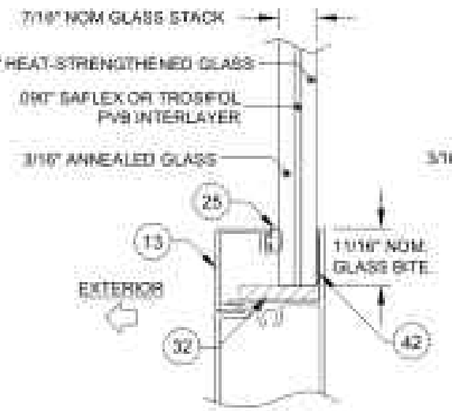
12 WATERBAR ADAPTER



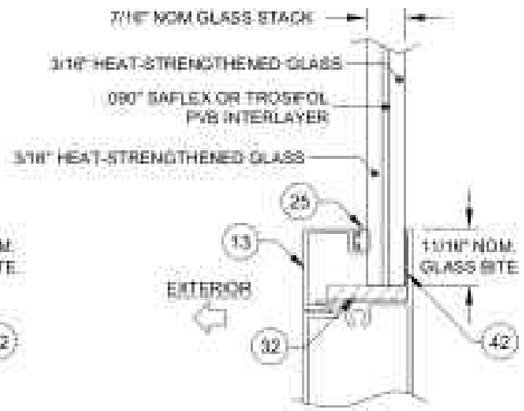
13 BEADING



14 ROLLER TRACK



GLASS TYPE 1



GLASS TYPE 2

A	9/26/25	UPDATED PART NUMBERS

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ALUM. SLIDING GLASS WINDOW (LM)	
GLAZING INFORMATION, EXTRUSION AND BOM	
SGD4130A W	4 OF 4

LOGAN YODER | 08/14/25 | SGD4130/WFPA

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