Engineering Evaluation Report # 4130W-08132026

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

Manufacturer:
PGT Industries, LLC
3400 Precision Drive
N. Venice, FL 34275

Product Description:
SGD4130-W Impact-resistant Aluminum Sliding Glass Window, (LM & SM), FL-1844

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.

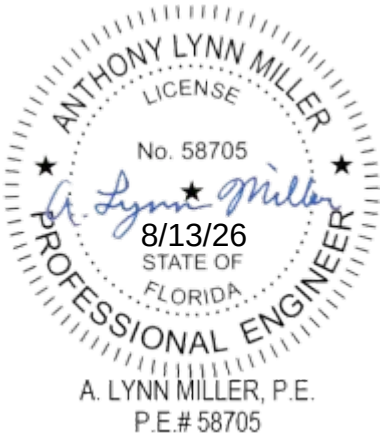
This product has been evaluated and is in compliance with the current Florida Building Code, including the “High Velocity Hurricane Zone” (HVHZ).

Supporting Technical Documentation:
1. Approval document: drawing number SGD4130W-LM-HVHZ, 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 E1300-24, 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.



SERIES SGD4130-W IMPACT RESISTANT SLIDING GLASS WINDOW

FLORIDA PRODUCT APPROVAL #1844

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

2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS. FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST TEMPERED.

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 AND SECURED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER, (EOR) OR ARCHITECT OF RECORD, (AOR).

4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE EMBEDMENT. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

5) MAX. 1/4" SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS.

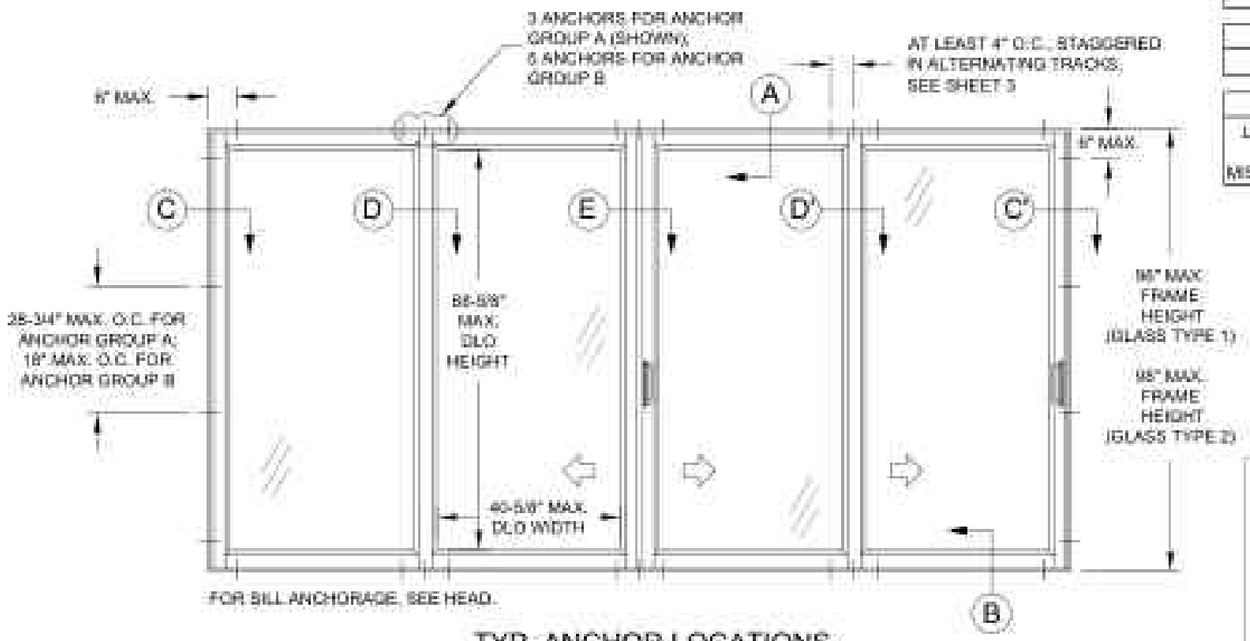
6) DESIGN PRESSURES:
A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL/CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL/CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.

7) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS 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.

8) REFER TO CURRENT FLORIDA BUILDING CODE FOR EGRESS REQUIREMENTS.

9 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.

WHERE THE PRODUCT WILL BE INSTALLED WITHIN 3,000 FEET OF A SALTWATER COASTLINE, IT MUST COMPLY WITH SECTION 1711 OF THE FBC, BUILDING OR R332 OF THE FBC, RESIDENTIAL.



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 Carbon Steel or 18-8, 316,410 SS	Southern Pine (SG = .55)	9/16"	1-3/8"
		Aluminum, 6063-T5 min.	3/8"	1"
		Steel Stud: 16 Ga., Gr. 33 min.	3/8"	0.0598"
		A36 Steel	3/8"	0.0897"
	1/4" Steel Ultracon+	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 CobraPlex	Concrete (min. 3.35 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 Ultracon+	Concrete (min. 3.0 ksi)	1-1/8"	1-3/8"
		Ungrouted CMU, (ASTM C-90)	1"	1-1/4"
	1/4" 410 SS CobraPlex	Concrete (min. 3.35 ksi)	1"	1-3/4"
		Ungrouted CMU, (ASTM C-90)	1-1/4"	1-1/4"
	1/4" 304 SS Agg/Barrier	Concrete (min. 3.276 ksi)	1-1/2"	1-3/8"
		Grouted CMU, (ASTM C-90)	2"	2"

1) MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.
2) ALL SCREWHEAD TYPES ARE APPLICABLE
3) 18-8 FASTENERS SHALL BE MANUFACTURED FROM TYPE 304 OR 305 STAINLESS STEEL PER ASTM A240.
4) IF COMBINING ANCHOR TYPES FROM DIFFERENT ANCHOR GROUPS ON THE SAME UNIT, THE GREATER ANCHOR QUANTITY FROM EITHER GROUP SHALL BE USED FOR THE ENTIRE UNIT.
5) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS

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 98" IS NOT EXCEEDED.

ADDITIONALLY, FOR INSTALLATIONS IN THE HVHZ, MAXIMUM FRAME AREA OF 194.6 SQUARE FEET MAY NOT BE EXCEEDED.

DESIGN PRESSURE RATING
+55.0 / -65.0 PSF

WATER TEST PRESSURE
15% OF +I DP

IMPACT RATING
LARGE AND SMALL MISSILE IMPACT RESISTANT MISSILE LEVEL D, WIND ZONE 4

PREPARED BY A. LYNN MILLER
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REGISTRATION #25290

DRAWN	JENS ROSOWSKI
DATE	07/07/26
SCALE	NTS

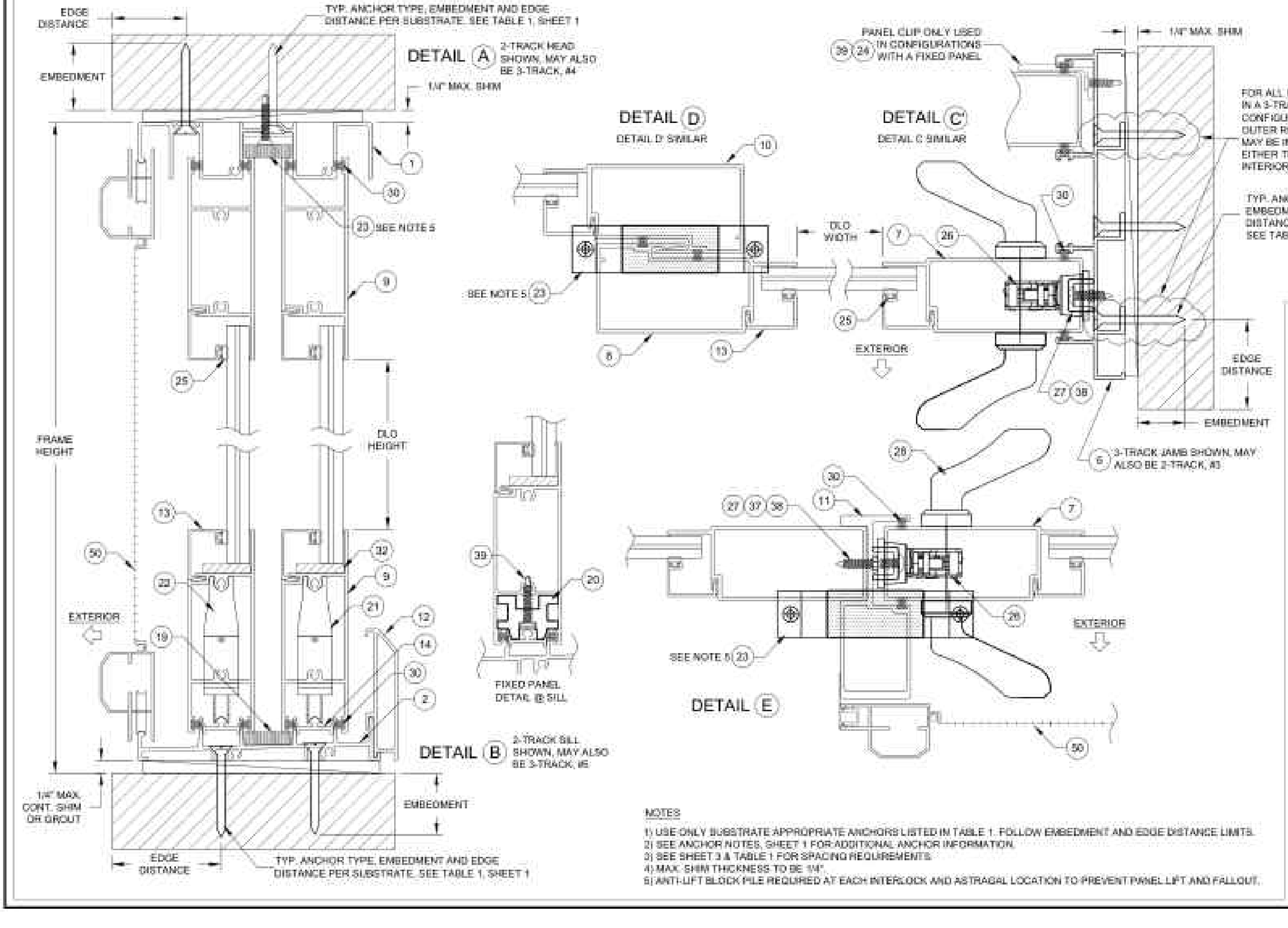
ALUMINUM SLIDING GLASS WINDOW

ELEVATION & GENERAL NOTES

SHEET	1 OF 4
DRAWING	SGD4130-W

SGD4130/W-LM-HVHZ

ANTHONY LYNN MILLER
LICENSE
No. 56705
07/07/26
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 56705



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.

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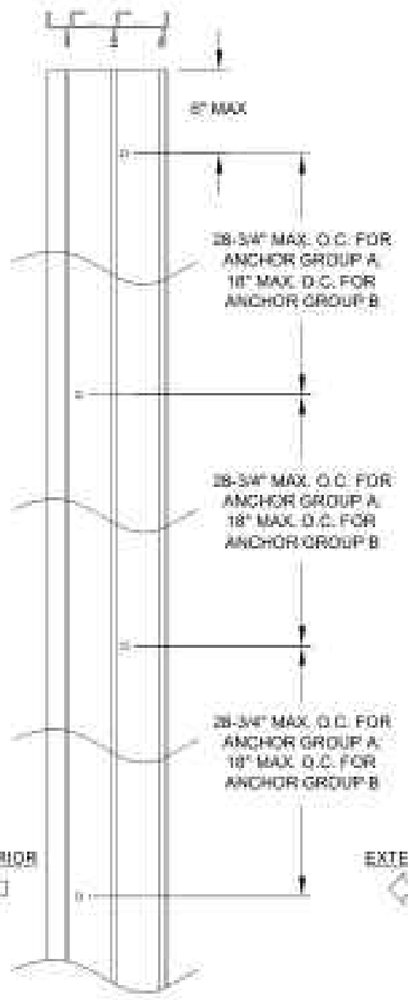
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ALUMINUM SLIDING GLASS WINDOW
INSTALLATION & CROSS SECTION

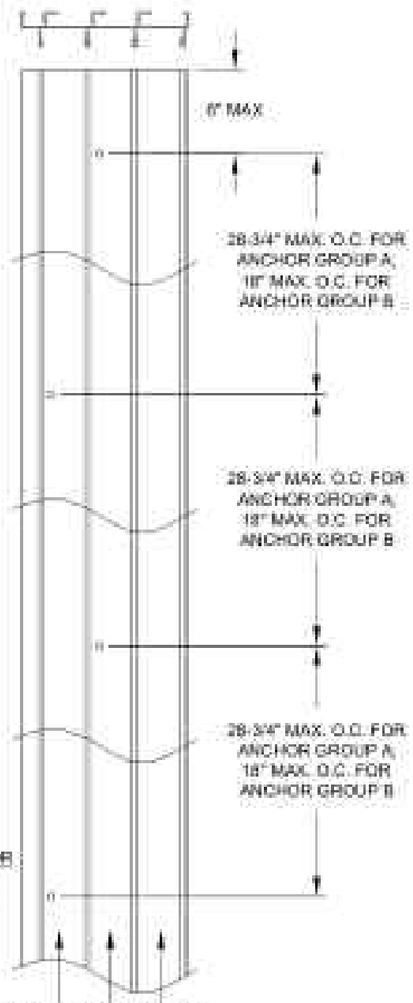
DRAWN BY	JENS ROSOWSKI
DATE	07/07/26
SCALE	AS NOTED
DRAWING NO.	SGD4130-W
SHEET NO.	2 OF 4
REVISIONS	SGD4130/W-LM-HW-HZ

ANTHONY LYNN MILLER
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No. 58705
07/07/26
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

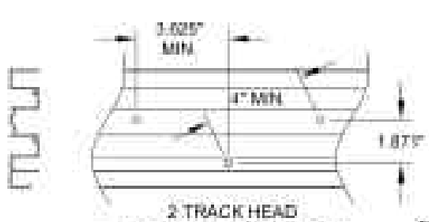
2 TRACK JAMB
ANCHOR DETAIL



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.

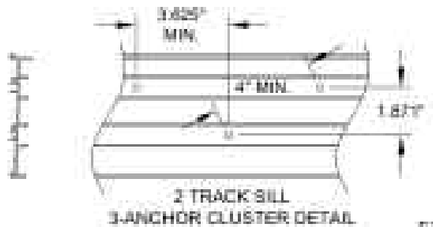


2 TRACK HEAD
3-ANCHOR CLUSTER DETAIL

EXTERIOR
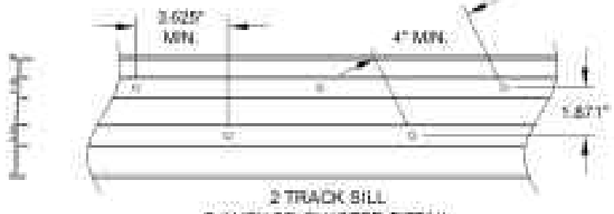


2 TRACK HEAD
5-ANCHOR CLUSTER DETAIL

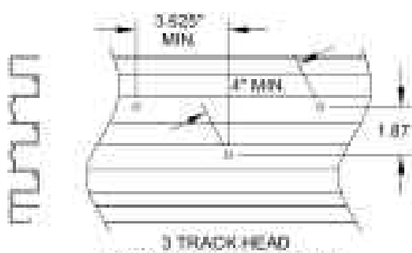


2 TRACK SILL
3-ANCHOR CLUSTER DETAIL

EXTERIOR

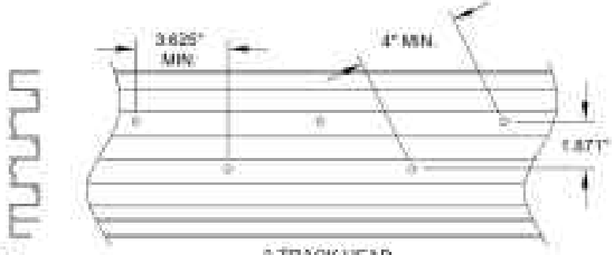


2 TRACK SILL
5-ANCHOR CLUSTER DETAIL

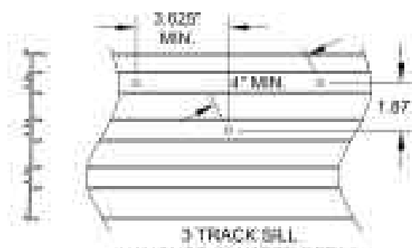


3 TRACK HEAD
3-ANCHOR CLUSTER DETAIL
(SEE NOTE 1, THIS SHEET)

EXTERIOR



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



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

EXTERIOR



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

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REGISTRATION #25090

#	DESCRIPTION	DATE
A	JENS ROSOWSKI	07/07/26

ALUMINUM SLIDING GLASS WINDOW

INSTALLATION ANCHOR
HOLE LOCATION

DWG	SGD4136-W
SHT	3 OF 4

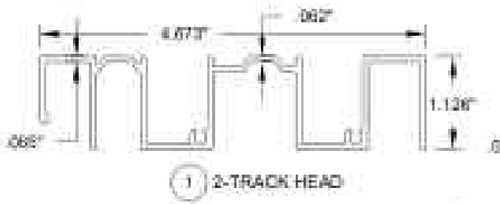
SGD4136/W-LM-HW-HZ

ANTHONY LYNN MILLER
LICENSE
No. 58705
07/07/26
STATE OF FLORIDA
PROFESSIONAL ENGINEER

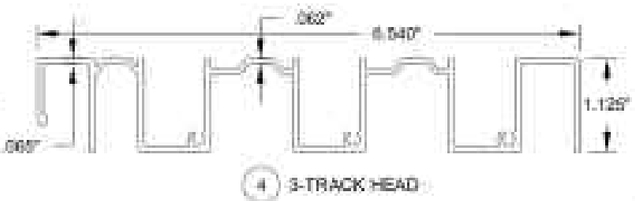
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 2

Item	Part #	Description	Mat
1	61142	2-Track Frame Head	6063-T5
2	61147	2-Track Frame Sill	6063-T5
3	61141	2-Track Frame Jamb	6063-T5
4	61143	3-Track Frame Head	6063-T5
5	61145	3-Track Frame Sill	6063-T5
6	61144	3-Track Frame Jamb	6063-T5
7	61140	Vertical Stile	6063-T5
8	61146	Exterior Interlock	6063-T5
9	61139	Horizontal Rail	6063-T5
10	61148	Interior Interlock	6063-T5
11	61137	Astragal	6063-T5
12	61138	Waterbar Adapter	6063-T5
13	61152	7/16" Laminated Glazing Bead	6063-T5
14	61151	Roller Track	6063-T5
19	710031AG	Interlock Pad @ RH: 0.95" X 2" X 0.50"	
22	4102N5	Fiber Pad# Strip	
21	4102N5	Nylon Strip	
24	7404N5	Tandem Rollers	
23	4102N5	Anchor Block Pad @ Head & Sill 0.95" X 0.5"	
26	7171	Fixed Panel Clip	6063-T5
29	07105	Glazing Bulb 0.197" X 0.295"	TPE
28	710259	Lock Kit	
27	710255	Keeper Kit	
30	710257	Handle Set Kit	
31	710258	Recessed Handle	
32	M6990	Weatherstrip .157" X .250" Fin Seal	
33	7N418K	0.5" x 4" X 0.5" Glazing Block	
43	7N04	Bumper	Poly
34	7173	7/16" Adjustment Screw Cover	
35	710436	#8 X 1" Pan Phil A (Assembly)	410055
36	T14S14	#10-16 X 1" Pan Phil SMS	410055
37		#10 X 5/8" Flat Phil AB (Assembly)	410055
59	T10215	#10 X 1" Pan Phil TPK 410 SS (Keeper)	410055
39	7N4N5-2A	#8 X 3/4" Flat Phil Tek (2 pcs/set)	410055
40	710239	#10-32 X 3/4" Flat (Shoulder) Phil	410055
41	7N0280	0.810" W X 0.38" H X 0.060" Toolless Rail Plug	
42		Dual 7/8" SBS or R/S 7/16"	Custom
50		Screen Assembly	varies



1 2-TRACK HEAD



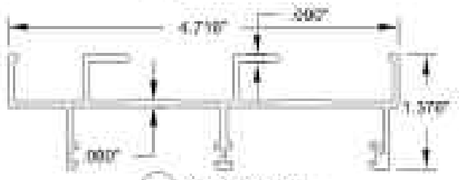
4 3-TRACK HEAD



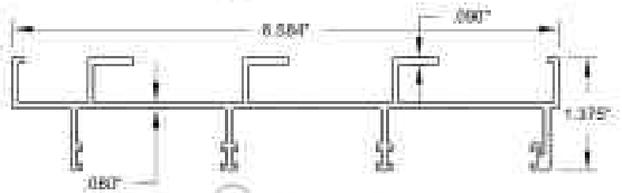
2 2-TRACK SILL



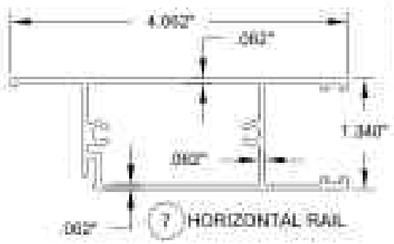
5 3-TRACK SILL



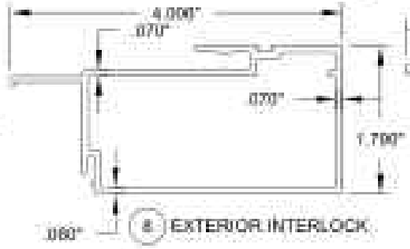
3 2-TRACK JAMB



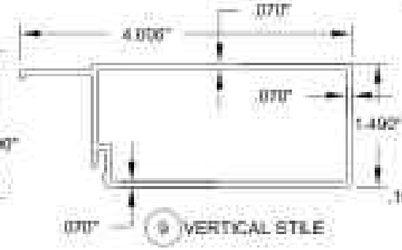
6 3-TRACK JAMB



7 HORIZONTAL RAIL



8 EXTERIOR INTERLOCK



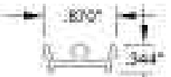
9 VERTICAL STILE



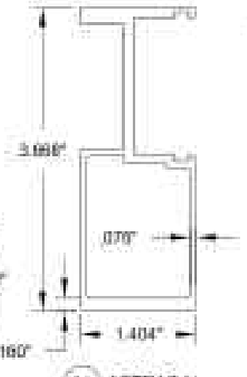
12 WATERBAR ADAPTER



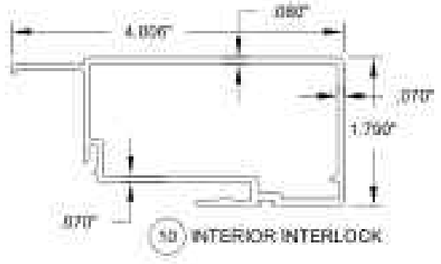
13 BEADING



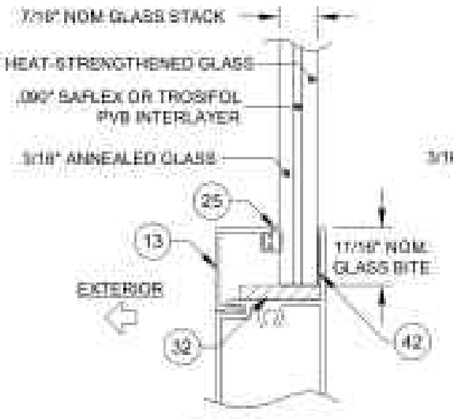
14 ROLLER TRACK



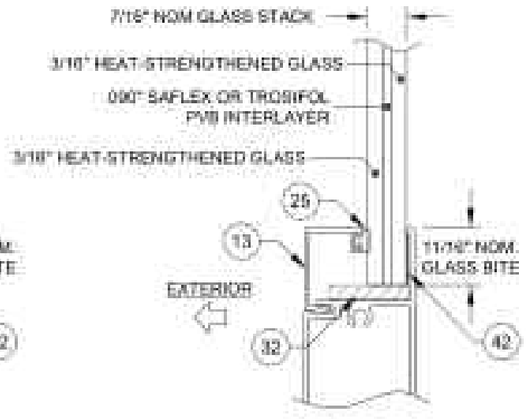
11 ASTRAGAL



10 INTERIOR INTERLOCK



GLASS TYPE 1



GLASS TYPE 2

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REGISTRATION #25250

DRAWN BY	JENS ROSOWSKI
DATE	07/07/26
SCALE	NTS
DWG	SGD4130W-LMHHWHZ
SHT	4 OF 4
PRODUCT	SGD4130-W

ALUMINUM SLIDING GLASS WINDOW

GLAZING INFORMATION, EXTRUSION AND BOM

ANTHONY LYNN MILLER
LICENSE
No. 58705
07/07/26
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PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705