MIAMI–DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
www.miamidade.gov/building

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)

NOTICE OF ACCEPTANCE (NOA)

PGT Industries, Inc.
1070 Technology Drive
North Venice, FL 34275

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "HR7710A" Aluminum Horizontal Roller Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **7710NOA-1**, **REV B** titled "Aluminum Horiz. Roller Install (LM)", sheets 1 through 19 of 19, dated 06/30/18 and last revised on 06-02-23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews NOA No. 20-0406.04** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

MIAMI-DADE COUNTY APPROVED

Ishaq I. Chanda

NOA No. 23-0707.06
Expiration Date: August 23, 2028
Approval Date: July 27, 2023

PGT Industries, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 18-0627.01)

2. Drawing No. **7710NOA-1**, titled "Aluminum Horiz. Roller Install (LM), sheets 1 through 19 of 19, dated 06/30/18, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
(Submitted under NOA No. 18-0627.01)

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
along with marked-up drawings and installation diagram of an aluminum horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-18-7891**, dated 06/06/18, signed and sealed by Idalmis Ortega, P.E.
(Submitted under NOA No. 18-0627.01)

2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94
along with marked-up drawings and installation diagram of an aluminum horizontal sliding window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-18-7891.01**, dated 07/03/18, signed and sealed by Idalmis Ortega, P.E.
(Submitted under NOA No. 18-0627.01)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, dated 06/18/18 and updated on 07/25/18, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
(Submitted under NOA No. 18-0627.01)

2. Glazing complies with **ASTM E1300-09**

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.06
Expiration Date: August 23, 2028
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **17-1114.14** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 01/18/18, expiring on 07/08/19.

2. Notice of Acceptance No. **17-0808.02** issued to **Kuraray America, Inc.** for their **"SentryGlas® (Clear and White) Glass Interlayers**" dated 12/28/17, expiring on 07/04/23**.**

F. STATEMENTS

1. Statement letter of conformance to **FBC 6th Edition (2017)**, dated July 25, 2018, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
(Submitted under NOA No. 18-0627.01)

2. Statement letter of no financial interest, dated July 25, 2018, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
(Submitted under NOA No. 18-0627.01)

3. Proposal No. **18-0289** issued by the Product Control Section, dated 02/20/18, signed by Manuel Perez, P.E
(Submitted under NOA No. 18-0627.01)

G. OTHERS

1. None.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.06
Expiration Date: August 23, 2028
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED under previous approval

A. DRAWINGS

1. Drawing No. **7710NOA-1**, titled "Aluminum Horiz. Roller Install (LM), sheets 1 through 19 of 19, dated 06/30/18, with revision A dated 03/11/20, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Large Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Forced Entry Test, per ASTM F588 and TAS 202-94

along with marked-up drawings and installation diagram of all PGT Industries, Inc. representative units listed below and tested to qualify **Dowsil 791** and **Dowsil 983** silicones, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.:
FTL-7897, PGT PW5520 PVC Fixed Window (unit 6 in proposal), dated 09/03/14
FTL-20-2107.1, PGT SGD780 Aluminum Sliding Glass Door (unit 7 in proposal)
FTL-20-2107.2, PGT CA740 Alum. Outswing Casement Window (unit 8 in proposal)
FTL-20-2107.3, PGT PW7620A Aluminum Fixed Window (unit 9 in proposal) and
FTL-20-2107.4, PGT PW7620A Aluminum Fixed Window (unit 10 in proposal) dated 07/13/20, all signed and sealed by Idalmis Ortega, P.E

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 6th Edition (2017)**, prepared by manufacturer, dated 06/18/18, revised on 07/25/18 and updated to the **FBC 7th Edition (2020)** on 04/02/20, signed and sealed by Anthony Lynn Miller, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 05/09/19, expiring on 07/08/24.

2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their "**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**" dated 05/23/19, expiring on 05/23/24.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Examiner
NOA No. 23-0707.06
Expiration Date: August 23, 2028
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED under previous approval (CONTINUED)

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)** and the **FBC 7th Edition (2020)**, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

2. Statement letter of no financial interest, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

3. Proposal No. **19-1155 TP** issued by the Product Control Section, dated January 10, 2020, signed by Ishaq Chanda, P.E.

G. OTHERS

1. Notice of Acceptance No. **18-0627.01**, issued to PGT Industries, Inc. for their Series "HR7710A" Aluminum Horizontal Roller Window - L.M.I. approved on 08/23/18 and expiring on 08/23/23.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.06
Expiration Date: August 23, 2028
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **7710NOA-1**, **REV B** titled "Aluminum Horiz. Roller Install (LM)", sheets 1 through 19 of 19, dated 06/30/18 and last revised on 06-02-23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E, signed and sealed by Anthony Lynn Miller, P.E.

B. TESTS (submitted under previous approval**)**

1. None.

C. CALCULATIONS (submitted under previous approval)

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 05/09/19, expiring on 07/08/24.

2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their "**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**" dated 05/23/19, expiring on 05/23/24.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020)** and the **FBC 8th Edition (2023)**, dated 07-05-23, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E

2. Statement letter of conformance, complying with **FBC 6th Edition (2017)** and the **FBC 7th Edition (2020)**, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

G. OTHERS

1. This NOA **revises & renews NOA No. 20-0406.04**, expiring on 08/23/28.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.06
Expiration Date: August 23, 2028
Approval Date: July 27, 2023

SERIES HR7710A IMPACT RESISTANT HORIZONTAL ROLLER WINDOW

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 BE TEMPERED.

3) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED MASONRY ANCHORS. MATERIALS USED FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASTM C90 CONCRETE MASONRY UNITS AND CONCRETE WITH MIN. KSI PER ANCHOR TYPE.

4) 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).

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

6) 1/4" MAX. SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS.

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

8) 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.

9) METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.

10) REFERENCES: TEST REPORTS FTL 18-7891 & 18-7891.01; DEWALT/ELCO CRETEFLEX NOA; DEWALT ULTRACON+ NOA; NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSI/AF&PA NDS & ALUMINUM DESIGN MANUAL

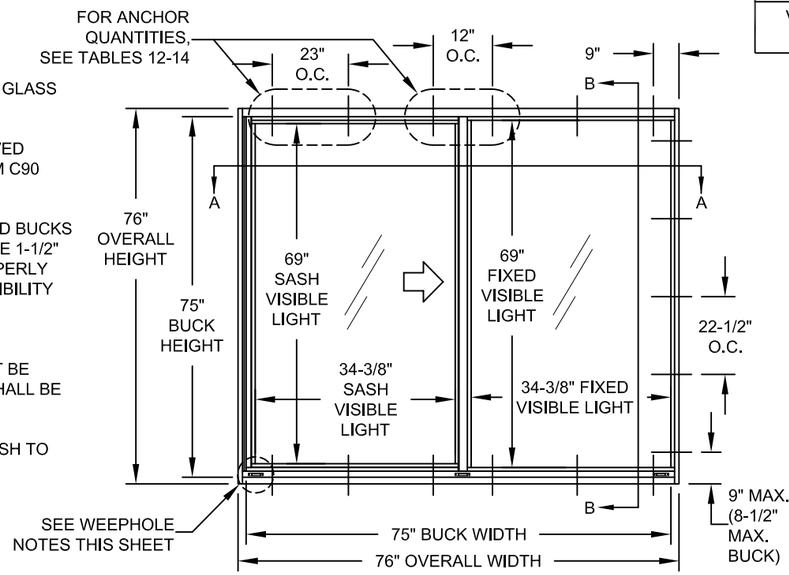
11) APPLICABLE EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

12) FRAME FLANGES OR INTEGRAL FINS MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL-LEG FRAME. THE EXPOSED ALUMINUM EDGE MUST BE PAINTED TO PROTECT AGAINST CORROSION.

TABLE 1:

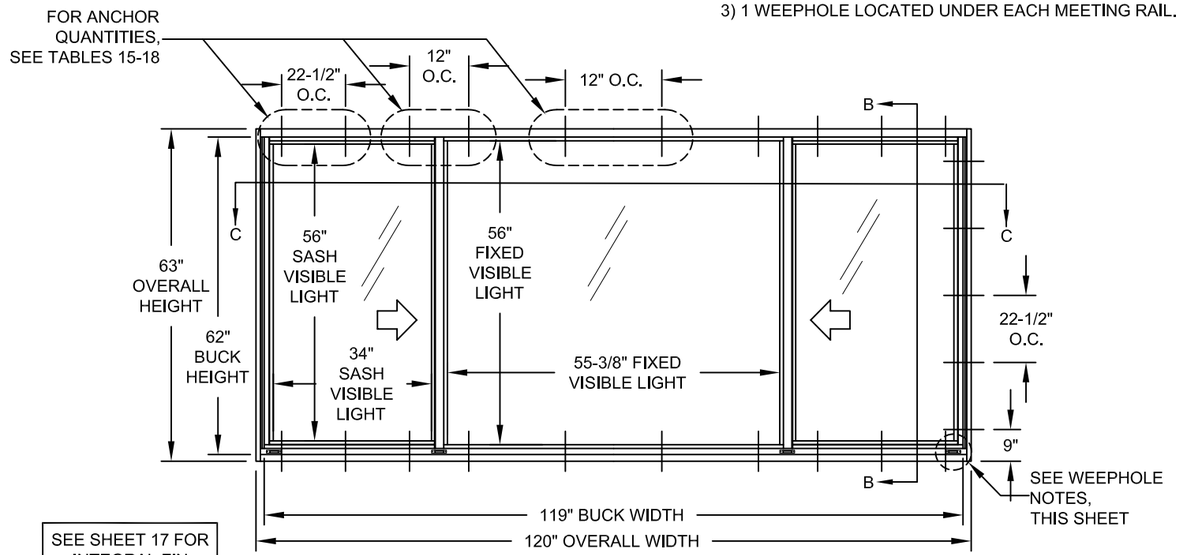
Glass Type	Description (Listed from Exterior to Interior)	DP Table #			Anchor Table #		
		XO / OX		XOX	XO / OX		XOX
		STD	HD	STD	STD	HD	STD
1	1/8"AN, .090" PVB, 1/8" AN	2	-	7	12	-	15
2	1/8" HS, .090" PVB, 1/8" HS	3	-	8	12	-	16
3	3/16" AN, .090" PVB, 3/16" AN	3	-	8	12	-	16
4	13/16" LIG: 1/8" AN CAP, AIRSPACE, 1/8" AN, .090" PVB, 1/8" AN	4	-	7	12	-	15
5	13/16" LIG: 1/8" TP CAP, AIRSPACE, 1/8" AN, .090" PVB, 1/8" AN	3	-	7	12	-	15
6	13/16" LIG: 3/16" AN CAP, AIRSPACE, 1/8" AN, .090" PVB, 1/8" AN	3	-	9	12	-	16
7	13/16" LIG: 3/16" TP CAP, AIRSPACE, 1/8" AN, .090" PVB, 1/8" AN	3	-	9	12	-	16
8	3/16" AN, .090" SG, 3/16" AN	5	6	10	13	14	17
9	3/16" HS, .090" SG, 3/16" HS	5	6	11	13	14	18
10	13/16" LIG: 1/8" AN CAP, AIRSPACE, 3/16" AN, .090" SG, 3/16" AN	5	6	10	13	14	17
11	13/16" LIG: 1/8" TP CAP, AIRSPACE, 3/16" AN, .090" SG, 3/16" AN	5	6	10	13	14	17
12	13/16" LIG: 1/8" AN CAP, AIRSPACE, 1/8" HS, .090" SG, 1/8" HS	5	6	11	13	14	18
13	13/16" LIG: 1/8" TP CAP, AIRSPACE, 1/8" HS, .090" SG, 1/8" HS	5	6	11	13	14	18
14	13/16" LIG: 3/16" AN CAP , AIRSPACE, 1/8" HS, .090" SG, 1/8" HS	5	6	11	13	14	18
15	13/16" LIG: 3/16" TP CAP, AIRSPACE, 1/8" HS, .090" SG, 1/8" HS	5	6	11	13	14	18

SG= KURARAY SENTRYGLAS® INTERLAYER BY KURARAY AMERICA, INC.
PVB = KURARAY TROSIFOL® PVB INTERLAYER BY KURARAY AMERICA, INC.
AN = ANNEALED
HS = HEAT-STRENGTHENED
TP = TEMPERED



TYP. FLANGE XO ELEVATION (OX SIM.)

MAX. DIMENSIONS ALLOWED SHOWN



SEE SHEET 17 FOR INTEGRAL FIN ANCHORAGE TYPE & SPACING

TYP. FLANGE XOX ELEVATION

MAX. DIMENSIONS ALLOWED SHOWN

DESIGN PRESSURE RATING	IMPACT RATING
VARIES PER GLASS TYPE, SEE TABLES 2-11	LARGE & SMALL MISSILE IMPACT RESISTANT

USER INSTRUCTIONS:

1) DETERMINE THE SITE SPECIFIC, WINDOW OPENING'S DESIGN PRESSURE REQUIREMENT FROM ASCE 7.

2) KNOWING YOUR GLAZING OPTION (TABLE 1), WINDOW CONFIGURATION AND SIZE, DETERMINE YOUR WINDOW'S DESIGN PRESSURE FROM TABLES 2-11. IT MUST EQUAL OR EXCEED THE DESIGN PRESSURE REQUIREMENT FOR THE WINDOW OPENING OBTAINED IN STEP 1.

3) DETERMINE THE ANCHOR QUANTITY FROM TABLES 12-18.

4) INSTALL AS PER SHEET 15 FOR FLANGE INSTALLATION, SHEET 16 FOR EQUAL LEG INSTALLATION OR SHEET 17 FOR INTEGRAL FIN INSTALLATION.

NOTE: DESIGN PRESSURE RATING DETERMINATION IS THE SAME PROCESS FOR ALL FRAME TYPES (FLANGE, INTEGRAL FIN OR EQUAL LEG/BOX).

WEEPHOLE NOTES:
1) 1-5/8" X .300" WITH PLASTIC BAFFLE.
2) 1 WEEPHOLE LOCATED AT 4" FROM EACH END.
3) 1 WEEPHOLE LOCATED UNDER EACH MEETING RAIL.

CODES / STANDARDS USED:

- 2023 FLORIDA BUILDING CODE (FBC), 8TH EDITION
- 2020 FLORIDA BUILDING CODE (FBC), 7TH EDITION
- ASTM E1300-09
- ANSI/AF&PA NDS-2018 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2020
- AISI S100-16
- AISC 360-16

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:	Rev.	Date	By	No.
B) UPDATED TO FBC 2023. LY - 06/02/23	B	06/30/18	JENS ROSOWSKI	7710NOA-1

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

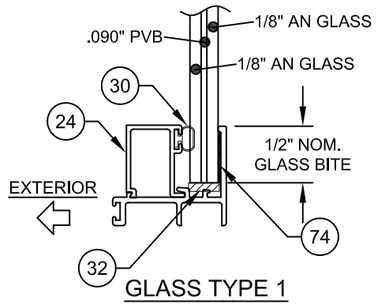
IGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Title	Desc.	Series	Sheet	DWG No.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	GENERAL NOTES & ELEVATION	HR-7710A	1 OF 19	

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
A. Lynn Miller 06/02/23
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 2:

Overall Width	Design Pressure (lbs/ft²) for XO & OX Windows — Glass Type: 1, Meeting Rail: Standard									
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
20"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0
25"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0
37"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0
49"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0
61"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0
67"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0
74"	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+65.0	-65.0	+63.3	-63.3

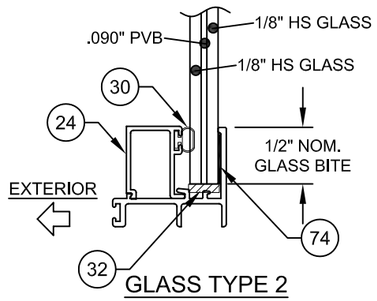


GLASS TYPE 1

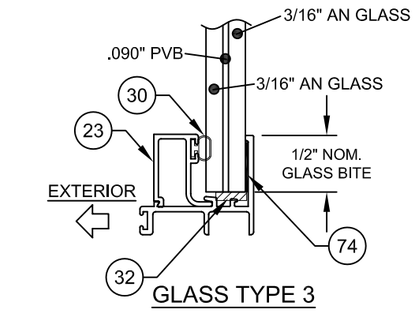
TABLE 3:

Overall Width	Design Pressure (lbs/ft²) for XO & OX Windows — Glass Types: 2, 3, 5, 6, 7, Meeting Rail: Standard									
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
20"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
25"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
37"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
49"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
61"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
67"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-79.2*
74"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-72.2*

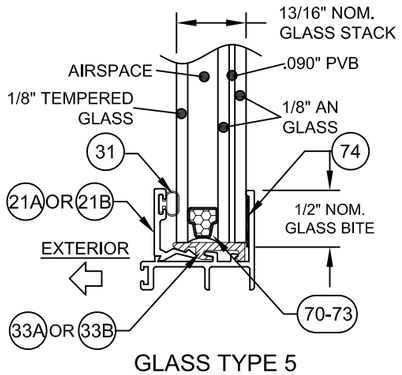
*-80.0 FOR GLASS TYPES 2, 3, 6 & 7



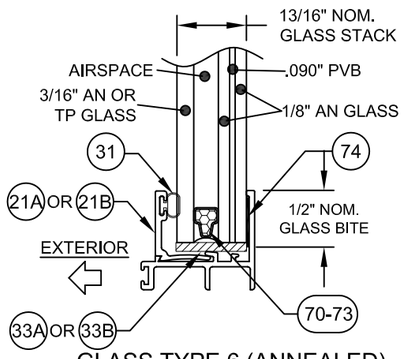
GLASS TYPE 2



GLASS TYPE 3



GLASS TYPE 5



GLASS TYPE 6 (ANNEALED)
GLASS TYPE 7 (TEMPERED)

NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR INTEGRAL FIN AND EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/2023

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

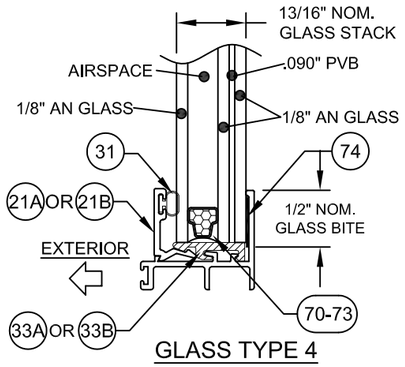
Rev.	Date	Drown By	DWG No.	Sheet	Series
B	06/30/18	JENS ROSOWSKI	7710NOA-1	2 OF 19	HR-7710A

Title: ALUMINUM HORIZ. ROLLER INSTALL. (LMI)
Desc.: DESIGN PRESSURE TABLES

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
06/02/23
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 4:

Overall Width	Design Pressure (lbs/ft²) for XO & OX Windows — Glass Type: 4, Meeting Rail: Standard									
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
20"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
25"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
37"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
49"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
61"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-76.8
67"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-71.3
74"	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-77.1	+64.9	-64.9



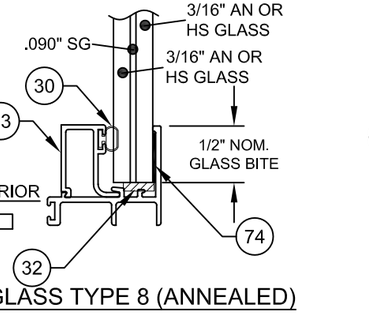
GLASS TYPE 4

TABLE 5:

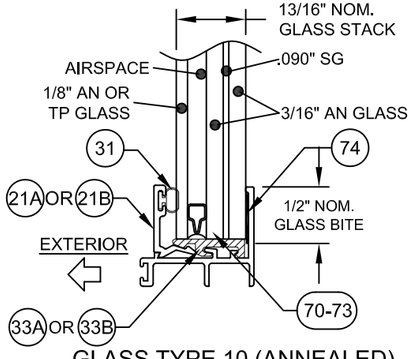
Overall Width	Design Pressure (lbs/ft²) for XO & OX Windows — Glass Types: 8 thru 15, Meeting Rail: Standard									
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
20"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
25"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
37"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
49"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
61"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-101.9*
67"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-95.7*
74"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-90.0*

*-110.0 FOR GLASS TYPES 9, 12, 13, 14 & 15

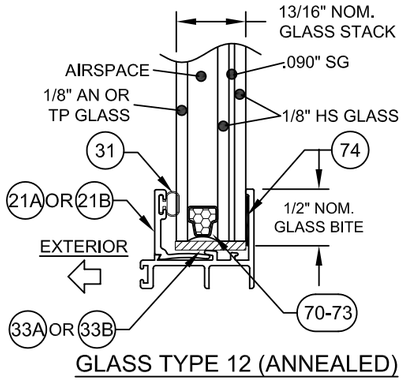
GLASS TYPES 8 - 15 MAY NOT BE USED WITH INTEGRAL FIN FRAMES



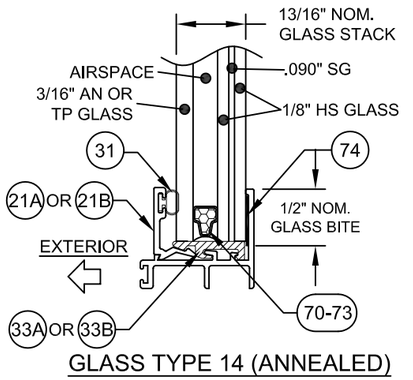
GLASS TYPE 8 (ANNEALED)
GLASS TYPE 9 (HEAT STRENGTHENED)



GLASS TYPE 10 (ANNEALED)
GLASS TYPE 11 (TEMPERED)



GLASS TYPE 12 (ANNEALED)
GLASS TYPE 13 (TEMPERED)



GLASS TYPE 14 (ANNEALED)
GLASS TYPE 15 (TEMPERED)

NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR INTEGRAL FIN AND EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.
LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Series	Desc.	Title
HR-7710A	DESIGN PRESSURE TABLES	ALUMINUM HORIZ. ROLLER INSTALL. (LMI)

Sheet	DWG No.	Drawn By	Date	Rev.
3 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B

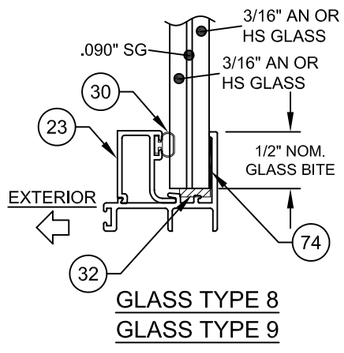
ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 6:

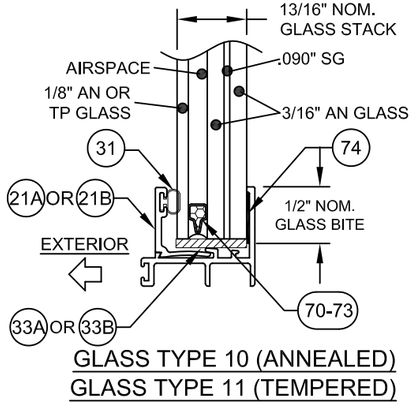
Overall Width	Design Pressure (lbs/ft²) for XO & OX Windows — Glass Types: 8 thru 15, Meeting Rail: Heavy-Duty											
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.		76" Overall Hgt.	
20"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
25"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
37"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
49"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
61"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
67"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-109.8*
76"	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-105.8*

*-110.0 FOR GLASS TYPES 8-13 & 15

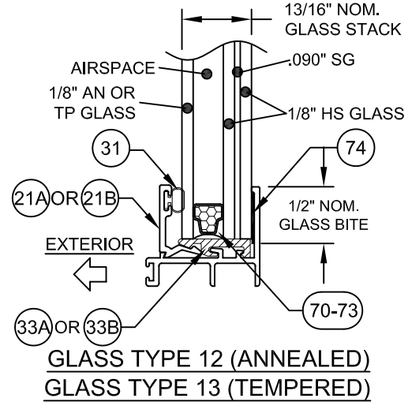
GLASS TYPES 8 - 15 MAY NOT BE USED WITH INTEGRAL FIN FRAMES



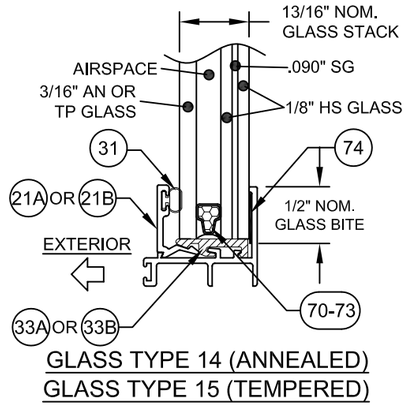
GLASS TYPE 8
GLASS TYPE 9



GLASS TYPE 10 (ANNEALED)
GLASS TYPE 11 (TEMPERED)



GLASS TYPE 12 (ANNEALED)
GLASS TYPE 13 (TEMPERED)



GLASS TYPE 14 (ANNEALED)
GLASS TYPE 15 (TEMPERED)

NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Rev.	Date	Drawn By	DWG No.	Sheet	Title	Desc.	Series
B	06/30/18	JENS ROSOWSKI	7710NOA-1	4 OF 19	ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	DESIGN PRESSURE TABLES	HR-7710A

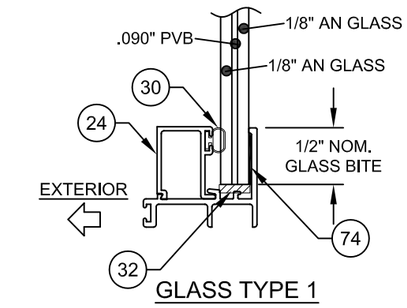
ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 7:

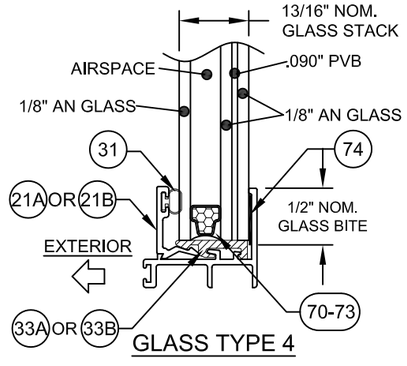
Overall Width	Sash Configuration	Sash Width Range (in)	Design Pressure (lbs/ft²) for XOX Windows — Glass Types: 1, 4, 5 — Meeting Rail: Standard											
			21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
44"	¼-½-¼	12.038 - 12.052	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
	⅓-⅓-⅓	12.053 - 15.008	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
49"	¼-½-¼	12.038 - 13.302	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
	⅓-⅓-⅓	13.303 - 16.675	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
53-1/8"	¼-½-¼	12.038 - 14.333	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
	⅓-⅓-⅓	14.334 - 18.050	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
61"	¼-½-¼	12.038 - 16.302	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
	⅓-⅓-⅓	16.303 - 20.675	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
76"	¼-½-¼	12.038 - 20.052	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+51.9	-51.9
	custom	20.053 - 22.185	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
	⅓-⅓-⅓	22.186 - 25.675	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
92-1/8"	¼-½-¼	** - 24.082	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+58.2	-58.2	+53.9	-53.9	+48.7	-48.7
	custom	24.083 - 26.185	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+57.8	-57.8
	⅓-⅓-⅓	26.186 - 31.038	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0
97"	¼-½-¼	** - 25.302	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+58.2	-58.2	+53.9	-53.9	+48.7	-48.7
	custom	25.303 - 27.185	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+55.5	-55.5
	custom	27.186 - 31.038	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+58.6	-58.6
109"	¼-½-¼	** - 28.302	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+58.2	-58.2	+53.9	-53.9	+48.7	-48.7
	custom	28.303 - 29.185	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+59.8	-59.8	+51.3	-51.3
	custom	29.186 - 31.038	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+52.5	-52.5
120"	¼-½-¼	** - 31.038	+60.0	-60.0	+60.0	-60.0	+60.0	-60.0	+58.2	-58.2	+53.9	-53.9	+48.7	-48.7

** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.924}}{2}$

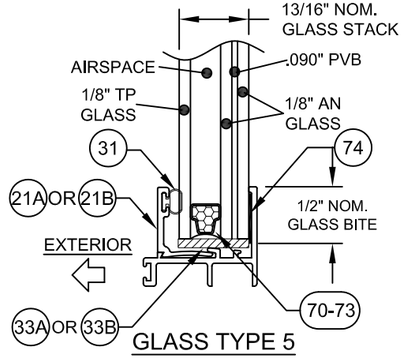
** MIN. SASH WIDTH (FIN & EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 56.924}}{2}$



GLASS TYPE 1



GLASS TYPE 4



GLASS TYPE 5

NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR INTEGRAL FIN AND EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/23

PREPARED BY A. LYNN MILLER
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REGISTRATION #29296

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1070 TECHNOLOGY DRIVE
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Title	Date	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	06/30/18	B
Desc. DESIGN PRESSURE TABLES	Drawn By JENS ROSOWSKI	DWG No. 7710NOA-1
Series HR-7710A	Sheet 5 OF 19	

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. Lynn Miller 06/02/23
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 8:

Overall Width	Sash Configuration	Sash Width Range (in)	Design Pressure (lbs/ft²) for XOX Windows — Glass Types: 2, 3 — Meeting Rail: Standard											
			21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
44"	1/4-1/2-1/4	12.038 - 12.052	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	12.053 - 15.008	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
49"	1/4-1/2-1/4	12.038 - 13.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	13.303 - 16.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
53-1/8"	1/4-1/2-1/4	12.038 - 14.333	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	14.334 - 18.050	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
61"	1/4-1/2-1/4	12.038 - 16.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	16.303 - 20.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
76"	1/4-1/2-1/4	12.038 - 20.052	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	20.053 - 22.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	22.186 - 25.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
92-1/8"	1/4-1/2-1/4	** - 24.082	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	24.083 - 26.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	26.186 - 31.048	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
97"	1/4-1/2-1/4	** - 25.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	25.303 - 27.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	27.186 - 32.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
109"	1/4-1/2-1/4	** - 28.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	28.303 - 30.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	30.186 - 36.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
113-5/8"	1/4-1/2-1/4	** - 29.463	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	29.464 - 33.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	1/3-1/3-1/3	33.186 - 38.222	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
120"	1/4-1/2-1/4	** - 31.052	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	31.053 - 33.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	custom	33.186 - 38.222	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0

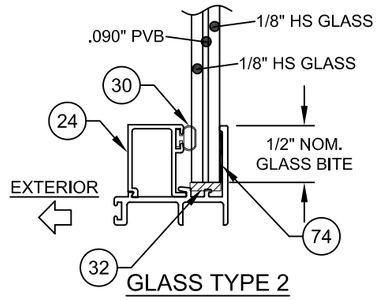
** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

** MIN. SASH WIDTH (FIN & EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.556}}{2}$

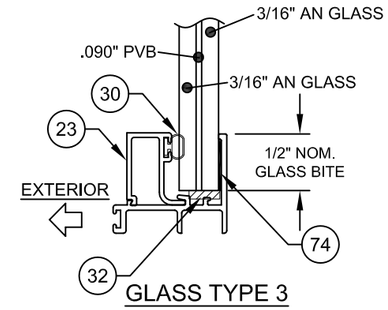
NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR INTEGRAL FIN AND EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.



GLASS TYPE 2



GLASS TYPE 3

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Rev.	Date	Drawn By	DWG No.	Sheet	Series
B	06/30/18	JENS ROSOWSKI	7710NOA-1	6 OF 19	HR-7710A

Title: ALUMINUM HORIZ. ROLLER INSTALL. (LMI)
Desc.: DESIGN PRESSURE TABLES

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 9:

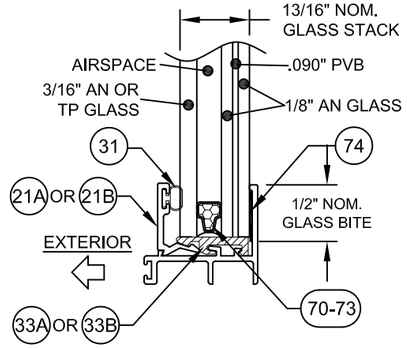
Overall Width	Sash Configuration	Sash Width Range (in)	Design Pressure (lbs/ft²) for XOX Windows — Glass Types: 6, 7 — Meeting Rail: Standard											
			21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
44"	¼-½-¼	12.038 - 12.052	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	⅓-⅓-⅓	12.053 - 15.008	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
49"	¼-½-¼	12.038 - 13.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	⅓-⅓-⅓	13.303 - 16.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
53-1/8"	¼-½-¼	12.038 - 14.333	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	⅓-⅓-⅓	14.334 - 18.050	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
61"	¼-½-¼	12.038 - 16.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	⅓-⅓-⅓	16.303 - 20.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
76"	¼-½-¼	12.038 - 20.052	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-72.9[B]
	custom	20.053 - 22.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	⅓-⅓-⅓	22.186 - 25.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
92-1/8"	¼-½-¼	** - 24.082	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-74.1[A]	+65.0	-67.5[B]
	custom	24.083 - 26.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
	⅓-⅓-⅓	26.186 - 31.048	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
97"	¼-½-¼	** - 25.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-74.1[A]	+65.0	-67.5[B]
	custom	25.303 - 27.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-77.9
	⅓-⅓-⅓	27.186 - 32.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0
109"	¼-½-¼	** - 28.302	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-74.1[A]	+65.0	-67.5[B]
	custom	28.303 - 30.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-72.0
	⅓-⅓-⅓	30.186 - 36.675	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-75.8
113-5/8"	¼-½-¼	** - 29.463	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-74.1[A]	+65.0	-67.5[B]
	custom	29.464 - 33.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-70.6
	⅓-⅓-⅓	33.186 - 38.222	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-76.9
120"	¼-½-¼	** - 31.052	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-74.1[A]	+65.0	-67.5[B]
	custom	31.053 - 33.185	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-75.7	+65.0	-68.4
	custom	33.186 - 38.222	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-80.0	+65.0	-71.3

** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

** MIN. SASH WIDTH (FIN & EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.556}}{2}$

[A]-80.0 FOR GLASS TYPE 7

[B]-75.0 FOR GLASS TYPE 7



GLASS TYPE 6 (ANNEALED)
GLASS TYPE 7 (TEMPERED)

NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR INTEGRAL FIN AND EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.
LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Series	Desc.	Title
HR-7710A	DESIGN PRESSURE TABLES	ALUMINUM HORIZ. ROLLER INSTALL. (LMI)

Sheet	DWG No.	Drawn By	Date	Rev.
7 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 10:

Overall Width	Sash Configuration	Sash Width Range (in)	Design Pressure (lbs/ft²) for XOX Windows — Glass Types: 8, 10, 11 — Meeting Rail: Standard											
			21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
44"	¼-½-¼	12.038 - 12.052	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	12.053 - 15.008	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
49"	¼-½-¼	12.038 - 13.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	13.303 - 16.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
53-1/8"	¼-½-¼	12.038 - 14.333	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	14.334 - 18.050	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
61"	¼-½-¼	12.038 - 16.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	16.303 - 20.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
76"	¼-½-¼	12.038 - 20.052	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-99.2
	custom	20.053 - 22.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	22.186 - 25.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
92-1/8"	¼-½-¼	** - 24.082	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-101.0	+80.0	-90.5
	custom	24.083 - 26.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-105.2
	⅓-⅓-⅓	26.186 - 31.048	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-102.3
97"	¼-½-¼	** - 25.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-101.0	+80.0	-90.5
	custom	25.303 - 27.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-102.7
	⅓-⅓-⅓	27.186 - 32.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-98.9
109"	¼-½-¼	** - 28.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-101.0	+80.0	-90.5
	custom	28.303 - 30.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-97.3
	⅓-⅓-⅓	30.186 - 36.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-92.9
113-5/8"	¼-½-¼	** - 29.463	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-101.0	+80.0	-90.5
	custom	29.464 - 33.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-108.5	+80.0	-94.1
	⅓-⅓-⅓	33.186 - 38.222	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-92.3
120"	¼-½-¼	** - 31.052	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-101.0	+80.0	-90.5
	custom	31.053 - 33.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-102.9	+80.0	-91.5
	custom	33.186 - 38.222	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-90.6

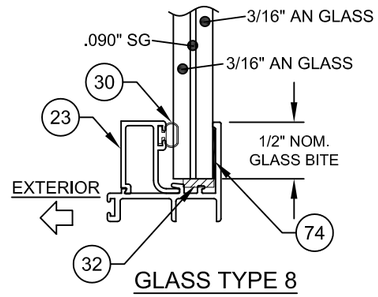
** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

** MIN. SASH WIDTH (EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.556}}{2}$

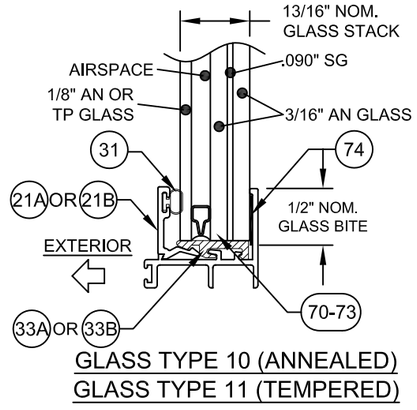
NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.



GLASS TYPE 8



GLASS TYPE 10 (ANNEALED)
GLASS TYPE 11 (TEMPERED)

GLASS TYPES 8 - 15 MAY NOT BE USED WITH INTEGRAL FIN FRAMES

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/23

PREPARED BY A. LYNN MILLER
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REGISTRATION #29296

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
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Title	Desc.	Series
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	DESIGN PRESSURE TABLES	HR-7710A

Date	Drawn By	DWG No.	Sheet	Rev.
06/30/18	JENS ROSOWSKI	7710NOA-1	8 OF 19	B

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 11:

Overall Width	Sash Configuration	Sash Width Range (in)	Design Pressure (lbs/ft²) for XOX Windows — Glass Types: 9, 12, 13, 14, 15 — Meeting Rail: Standard											
			21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
44"	¼-½-¼	12.038 - 12.052	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	12.053 - 15.008	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
49"	¼-½-¼	12.038 - 13.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	13.303 - 16.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
53-1/8"	¼-½-¼	12.038 - 14.333	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	14.334 - 18.050	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
61"	¼-½-¼	12.038 - 16.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	16.303 - 20.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
76"	¼-½-¼	12.038 - 20.052	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	custom	20.053 - 22.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	22.186 - 25.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
92-1/8"	¼-½-¼	** - 24.082	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-106.7*
	custom	24.083 - 26.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	26.186 - 31.048	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
97"	¼-½-¼	** - 25.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-106.7*
	custom	25.303 - 27.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	27.186 - 32.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
109"	¼-½-¼	** - 28.302	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-106.7*
	custom	28.303 - 30.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	30.186 - 36.675	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
113-5/8"	¼-½-¼	** - 29.463	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-106.7*
	custom	29.464 - 33.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
	⅓-⅓-⅓	33.186 - 38.222	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0
120"	¼-½-¼	** - 31.052	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-106.7*
	custom	31.053 - 33.185	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-107.8
	custom	33.186 - 38.222	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0	+80.0	-110.0

** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

** MIN. SASH WIDTH (EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.556}}{2}$

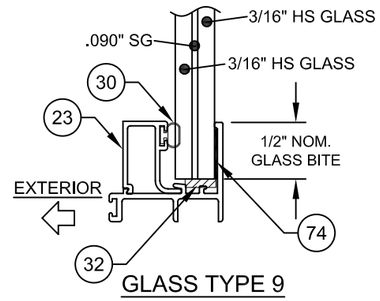
*-110.0 FOR GLASS TYPES 9, 12, 13 & 15

GLASS TYPES 8 - 15 MAY NOT BE USED WITH INTEGRAL FIN FRAMES

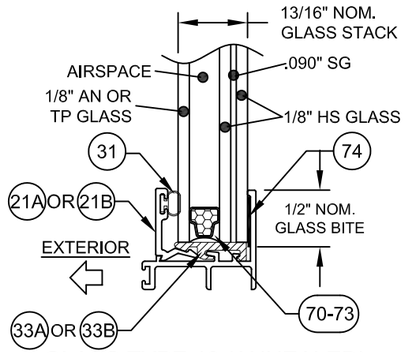
NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

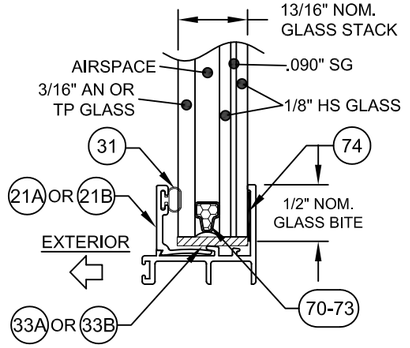
2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.



GLASS TYPE 9



GLASS TYPE 12 (ANNEALED)
GLASS TYPE 13 (TEMPERED)



GLASS TYPE 14 (ANNEALED)
GLASS TYPE 15 (TEMPERED)

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Date 06/30/18
Drawn By JENS ROSOWSKI
Rev. B
DWG No. 7710NOA-1
Sheet 9 OF 19
Series HR-7710A

Title: ALUMINUM HORIZ. ROLLER INSTALL. (LMI)
Desc.: DESIGN PRESSURE TABLES

PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 12:

Overall Width	Anchor Quantities for XO & OX Windows — Glass Types: 1 thru 7, Meeting Rail: Standard									
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
20"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
25"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
37"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
49"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
61"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
67"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C3+1 *	3
74"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C3+1 *	3

*1+C2+1 FOR GLASS TYPES 1, 4 & 5

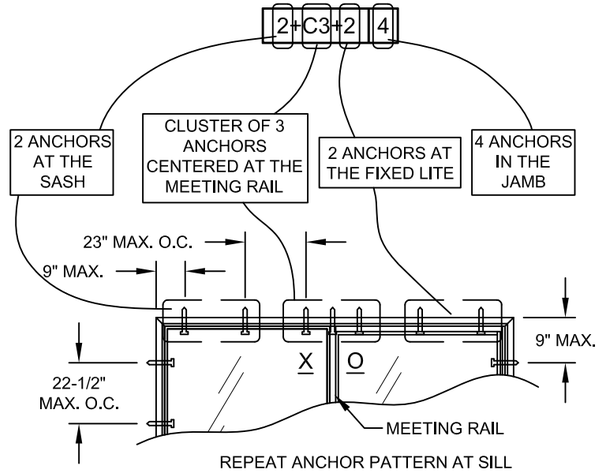
TABLE 13:

Overall Width	Anchor Quantities for XO & OX Windows — Glass Types: 8 thru 15, Meeting Rail: Standard									
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
20"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
25"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
37"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3
49"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C3+1	3
61"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C3+1	3	1+C3+1	3
67"	1+C2+1	2	2+C2+2	2	2+C2+2	3	2+C3+2	3	2+C3+2	3
74"	2+C2+2	2	2+C2+2	2	2+C2+2	3	2+C3+2	3	2+C3+2	4

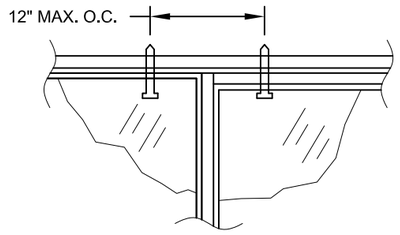
TABLE 14:

Overall Width	Anchor Quantities for XO & OX Windows — Glass Types: 8 thru 15, Meeting Rail: Heavy-Duty											
	21-1/8" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.		76" Overall Hgt.	
	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
20"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3	1+C2+1	4
25"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3	1+C2+1	4
37"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C2+1	3	1+C3+1	4
49"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C2+1	3	1+C3+1	3	1+C3+1	4
61"	1+C2+1	2	1+C2+1	2	1+C2+1	3	1+C3+1	3	1+C3+1	3	1+C4+1	4
67"	1+C2+1	2	2+C2+2	2	2+C2+2	3	2+C3+2	3	2+C3+2	3	2+C4+2	4
76"	2+C2+2	2	2+C2+2	2	2+C3+2	3	2+C3+2	3	2+C3+2	4	2+C4+2	5

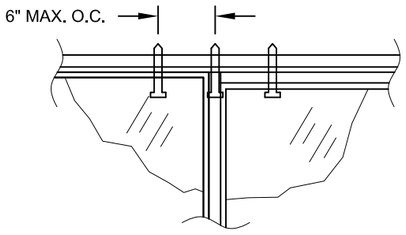
GUIDE TO USING ANCHOR QUANTITY TABLES FOR XO/OX WINDOWS:



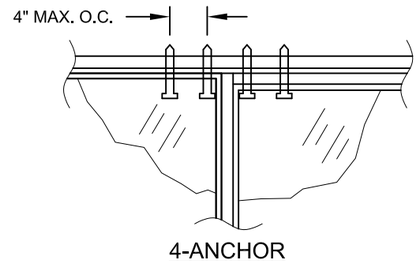
REPEAT ANCHOR PATTERN AT SILL



2-ANCHOR CLUSTER DETAIL



3-ANCHOR CLUSTER DETAIL



4-ANCHOR CLUSTER DETAIL

NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision: B) NO CHANGES THIS SHEET.
LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Series	Desc. / Title	Sheet	DWG No.	Drawn By	Date	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	ANCHOR QUANTITY TABLES	10 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B
		HR-7710A				

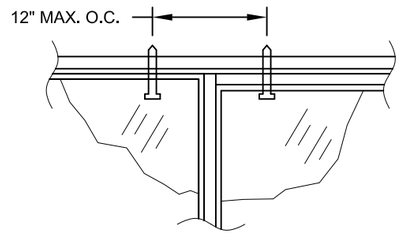
ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 15:

Overall Width	Sash Configuration	Sash Width Range (in)	Anchor Quantities for XOX Windows — Glass Types: 1, 4, 5 — Meeting Rail: Standard											
			21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
			Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
44"	¼-½-¼	12.038 - 12.052	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	12.053 - 15.008	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
49"	¼-½-¼	12.038 - 13.302	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	13.303 - 16.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
53-1/8"	¼-½-¼	12.038 - 14.333	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	14.334 - 18.050	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
61"	¼-½-¼	12.038 - 16.302	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	16.303 - 20.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
76"	¼-½-¼	12.038 - 20.052	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C2+2+C2+1	3
	custom	20.053 - 22.185	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	22.186 - 25.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
92-1/8"	¼-½-¼	** - 24.082	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C2+3+C2+1	3
	custom	24.083 - 26.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C2+2+C2+1	3
	⅓-⅓-⅓	26.186 - 31.038	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
97"	¼-½-¼	** - 25.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C2+3+C2+1	3
	custom	25.303 - 27.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C2+2+C2+1	3
	custom	27.186 - 31.038	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C2+2+C2+1	3
109"	¼-½-¼	** - 28.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C2+3+C2+1	3
	custom	28.303 - 29.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C2+3+C2+1	3
	custom	29.186 - 31.038	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C2+3+C2+1	3
120"	¼-½-¼	** - 31.038	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C2+3+C2+1	3

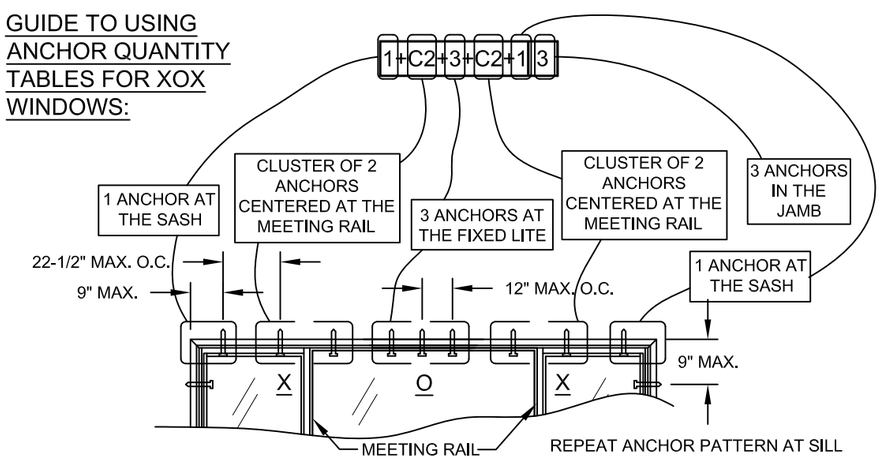
** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.924}}{2}$

** MIN. SASH WIDTH (EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 56.924}}{2}$



2-ANCHOR CLUSTER DETAIL

GUIDE TO USING ANCHOR QUANTITY TABLES FOR XOX WINDOWS:



NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.
LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Rev.	Date	Drawn By	DWG No.	Sheet	Series
B	06/30/18	JENS ROSOWSKI	7710NOA-1	11 OF 19	HR-7710A

Title: ALUMINUM HORIZ. ROLLER INSTALL. (LMI)
Desc.: ANCHOR QUANTITY TABLES

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

ANTHONY LYNN MILLER
LICENSE
No. 58705
A Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

TABLE 16:

Anchor Quantities for XOX Windows

Glass Types: 2, 3, 6, 7
Meeting Rail: Standard

Overall Width	Sash Configuration	Sash Width Range (in)	21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
			Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
44"	¼-½-¼	12.038 - 12.052	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	12.053 - 15.008	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
49"	¼-½-¼	12.038 - 13.302	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	13.303 - 16.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
53-1/8"	¼-½-¼	12.038 - 14.333	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	14.334 - 18.050	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
61"	¼-½-¼	12.038 - 16.302	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	16.303 - 20.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
76"	¼-½-¼	12.038 - 20.052	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C2+2+C2+1	3
	custom	20.053 - 22.185	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	22.186 - 25.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
92-1/8"	¼-½-¼	** - 24.082	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	custom	24.083 - 26.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	26.186 - 31.048	1+C2+1+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
97"	¼-½-¼	** - 25.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	custom	25.303 - 27.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	27.186 - 32.675	1+C2+1+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
109"	¼-½-¼	** - 28.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	custom	28.303 - 30.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	⅓-⅓-⅓	30.186 - 36.675	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
113-5/8"	¼-½-¼	** - 29.463	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	custom	29.464 - 33.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	⅓-⅓-⅓	33.186 - 38.222	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
120"	¼-½-¼	** - 31.052	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	custom	31.053 - 33.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3
	custom	33.186 - 38.222	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+3+C2+1	3	1+C3+3+C3+1	3

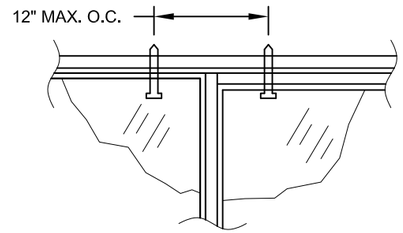
** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

** MIN. SASH WIDTH (EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.556}}{2}$

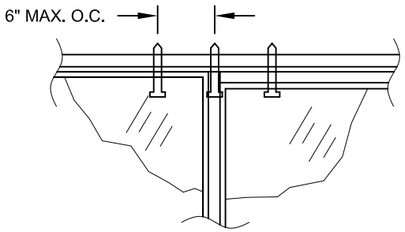
NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.

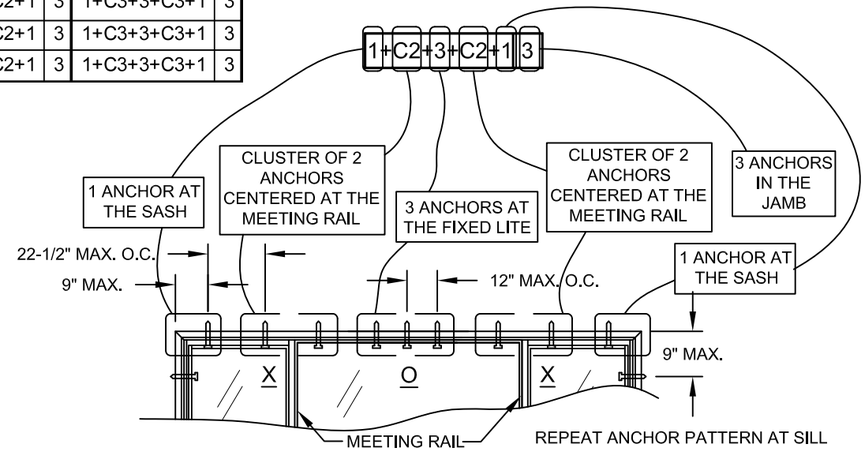


2-ANCHOR CLUSTER DETAIL



3-ANCHOR CLUSTER DETAIL

GUIDE TO USING ANCHOR QUANTITY TABLES FOR XOX WINDOWS:



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PGT Custom Windows and Doors
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Series	Desc.	Title	Sheet	DWG No.	Drawn By	Date	Rev.
HR-7710A	ANCHOR QUANTITY TABLES	ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	12 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B

ANTHONY LYNN MILLER
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No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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

TABLE 17:

Anchor Quantities for XOX Windows

Glass Types: 8, 10, 11
Meeting Rail: Standard

Overall Width	Sash Configuration	Sash Width Range (in)	21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
			Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
44"	¼-½-¼	12.038 - 12.052	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	12.053 - 15.008	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
49"	¼-½-¼	12.038 - 13.302	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	13.303 - 16.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
53-1/8"	¼-½-¼	12.038 - 14.333	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	14.334 - 18.050	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
61"	¼-½-¼	12.038 - 16.302	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	16.303 - 20.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C3+1+C3+1	3
76"	¼-½-¼	12.038 - 20.052	1+C2+2+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C3+3+C3+1	3	1+C3+3+C3+1	3
	custom	20.053 - 22.185	1+C2+1+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	22.186 - 25.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C3+1+C3+1	3	1+C3+1+C3+1	3
92-1/8"	¼-½-¼	** - 24.082	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+3+C3+1	3
	custom	24.083 - 26.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	26.186 - 31.048	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
97"	¼-½-¼	** - 25.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+3+C3+1	3
	custom	25.303 - 27.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+3+C2+1	3	1+C3+3+C3+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	27.186 - 32.675	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
109"	¼-½-¼	** - 28.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+3+C3+1	3
	custom	28.303 - 30.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C3+3+C3+1	3	1+C3+3+C3+1	3
	⅓-⅓-⅓	30.186 - 36.675	1+C2+2+C2+1	2	2+C2+2+C2+2	2	2+C2+3+C2+2	2	2+C3+3+C3+2	3	2+C3+3+C3+2	3	1+C3+2+C3+1	3
113-5/8"	¼-½-¼	** - 29.463	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+3+C3+1	3
	custom	29.464 - 33.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C3+3+C3+1	3	1+C3+3+C3+1	3	1+C3+3+C3+1	3
	⅓-⅓-⅓	33.186 - 38.222	2+C2+2+C2+2	2	2+C2+2+C2+2	2	2+C2+3+C2+2	2	2+C3+3+C3+2	3	2+C3+3+C3+2	3	2+C3+2+C3+2	3
120"	¼-½-¼	** - 31.052	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+3+C3+1	3
	custom	31.053 - 33.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C3+4+C3+1	3	1+C3+4+C3+1	3	1+C3+3+C3+1	3
	custom	33.186 - 38.222	2+C2+2+C2+2	2	2+C2+3+C2+2	2	2+C2+3+C2+2	2	2+C3+3+C3+2	3	2+C3+3+C3+2	3	2+C3+3+C3+2	3

** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

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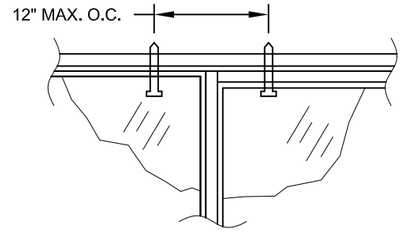
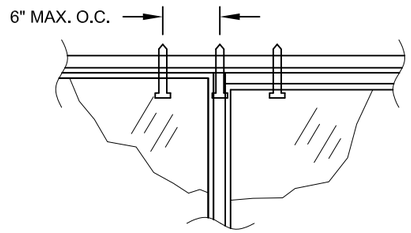
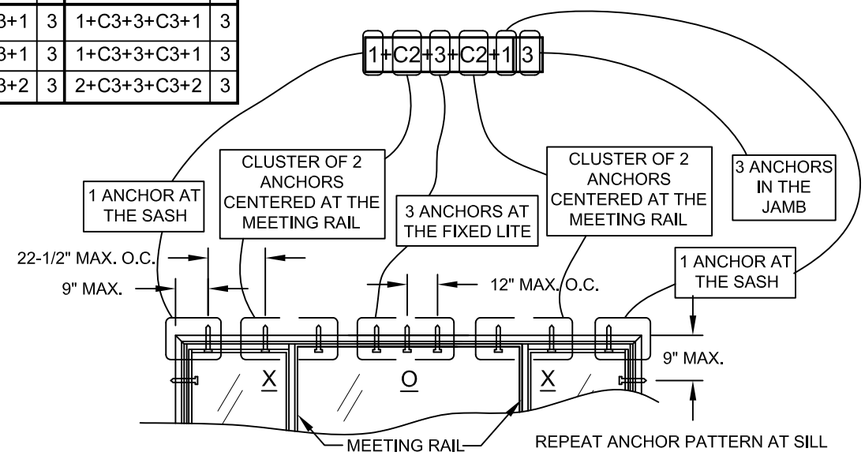


2-ANCHOR CLUSTER DETAIL



3-ANCHOR CLUSTER DETAIL

GUIDE TO USING ANCHOR QUANTITY TABLES FOR XOX WINDOWS:



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Series	Desc. / Title	Sheet	DWG No.	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	ANCHOR QUANTITY TABLES	13 OF 19	HR-7710A	7710NOA-1

Drawn By: JENS ROSOWSKI — Date: 06/30/18 — Rev. B

ANTHONY LYNN MILLER
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P.E.# 58705

TABLE 18:

Anchor Quantities for XOX Windows

Glass Types: 9, 12, 13, 14, 15
Meeting Rail: Standard

Overall Width	Sash Configuration	Sash Width Range (in)	21-1/8" Overall Hgt.		29" Overall Hgt.		37" Overall Hgt.		49" Overall Hgt.		55" Overall Hgt.		63" Overall Hgt.	
			Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb	Head & Sill	Jamb
44"	¼-½-¼	12.038 - 12.052	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	12.053 - 15.008	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
49"	¼-½-¼	12.038 - 13.302	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	13.303 - 16.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
53-1/8"	¼-½-¼	12.038 - 14.333	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
	⅓-⅓-⅓	14.334 - 18.050	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C2+1+C2+1	3
61"	¼-½-¼	12.038 - 16.302	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C2+2+C2+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	16.303 - 20.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C2+1+C2+1	3	1+C3+1+C3+1	3
76"	¼-½-¼	12.038 - 20.052	1+C2+2+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C3+3+C3+1	3	1+C3+3+C3+1	3
	custom	20.053 - 22.185	1+C2+1+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	22.186 - 25.675	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	2	1+C2+1+C2+1	3	1+C3+1+C3+1	3	1+C3+1+C3+1	3
92-1/8"	¼-½-¼	** - 24.082	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+4+C3+1	3
	custom	24.083 - 26.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
	⅓-⅓-⅓	26.186 - 31.048	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
97"	¼-½-¼	** - 25.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+4+C3+1	3
	custom	25.303 - 27.185	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+3+C2+1	3	1+C3+3+C3+1	3	1+C3+3+C3+1	3
	⅓-⅓-⅓	27.186 - 32.675	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	2	1+C2+2+C2+1	3	1+C3+2+C3+1	3	1+C3+2+C3+1	3
109"	¼-½-¼	** - 28.302	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C3+4+C3+1	3
	custom	28.303 - 30.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	3	1+C3+3+C3+1	3	1+C4+3+C4+1	3
	⅓-⅓-⅓	30.186 - 36.675	1+C2+2+C2+1	2	2+C2+2+C2+2	2	2+C2+3+C2+2	2	2+C3+3+C3+2	3	2+C3+3+C3+2	3	2+C4+3+C4+2	4
113-5/8"	¼-½-¼	** - 29.463	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C4+4+C4+1	3
	custom	29.464 - 33.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C3+3+C3+1	3	1+C3+3+C3+1	3	1+C4+3+C4+1	3
	⅓-⅓-⅓	33.186 - 38.222	2+C2+2+C2+2	2	2+C2+2+C2+2	2	2+C2+3+C2+2	2	2+C3+3+C3+2	3	2+C3+3+C3+2	3	2+C4+3+C4+2	4
120"	¼-½-¼	** - 31.052	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+4+C2+1	3	1+C3+4+C3+1	3	1+C4+4+C4+1	3
	custom	31.053 - 33.185	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C2+3+C2+1	2	1+C3+4+C3+1	3	1+C3+4+C3+1	3	1+C4+4+C4+1	3
	custom	33.186 - 38.222	2+C2+2+C2+2	2	2+C2+3+C2+2	2	2+C2+3+C2+2	2	2+C3+3+C3+2	3	2+C3+3+C3+2	3	2+C4+3+C4+2	4

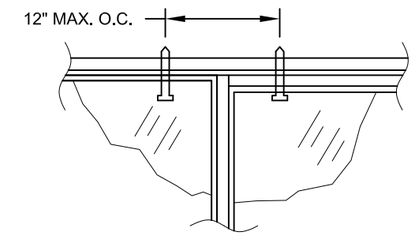
** MIN. SASH WIDTH (FLANGE WINDOWS) = $\frac{\text{OVERALL WIDTH - 58.556}}{2}$

** MIN. SASH WIDTH (EQUAL-LEG WINDOWS) = $\frac{\text{OVERALL WIDTH - 57.556}}{2}$

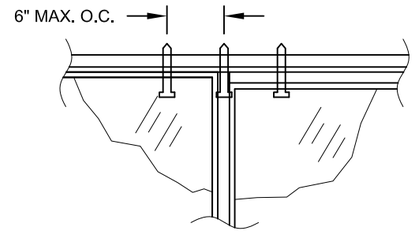
NOTES:

1) OVERALL (TIP TO TIP) DIMENSIONS SHOWN. FOR EQUAL-LEG WINDOWS, SUBTRACT 1" FROM THE TIP TO TIP DIMENSION IN THE TABLE TO DETERMINE THE WINDOW SIZE.

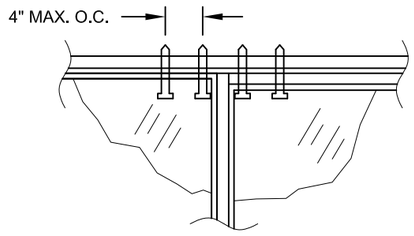
2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SIZE.



2-ANCHOR CLUSTER DETAIL

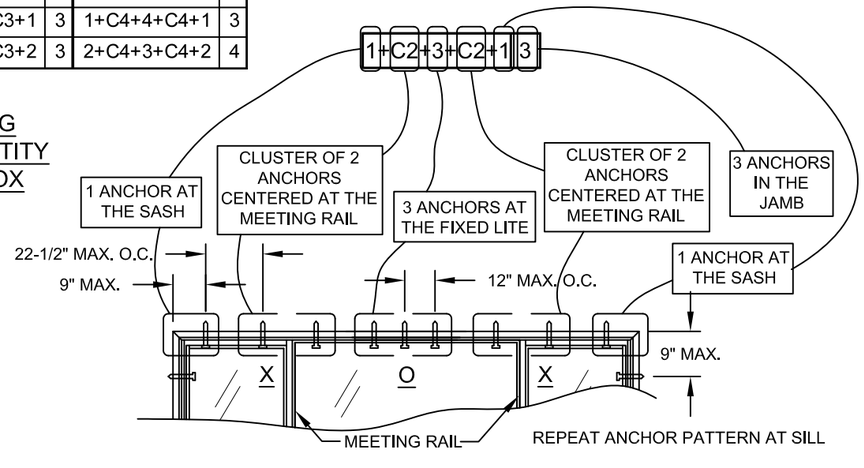


3-ANCHOR CLUSTER DETAIL



4-ANCHOR CLUSTER DETAIL

GUIDE TO USING ANCHOR QUANTITY TABLES FOR XOX WINDOWS:



PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
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REGISTRATION #29296

PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
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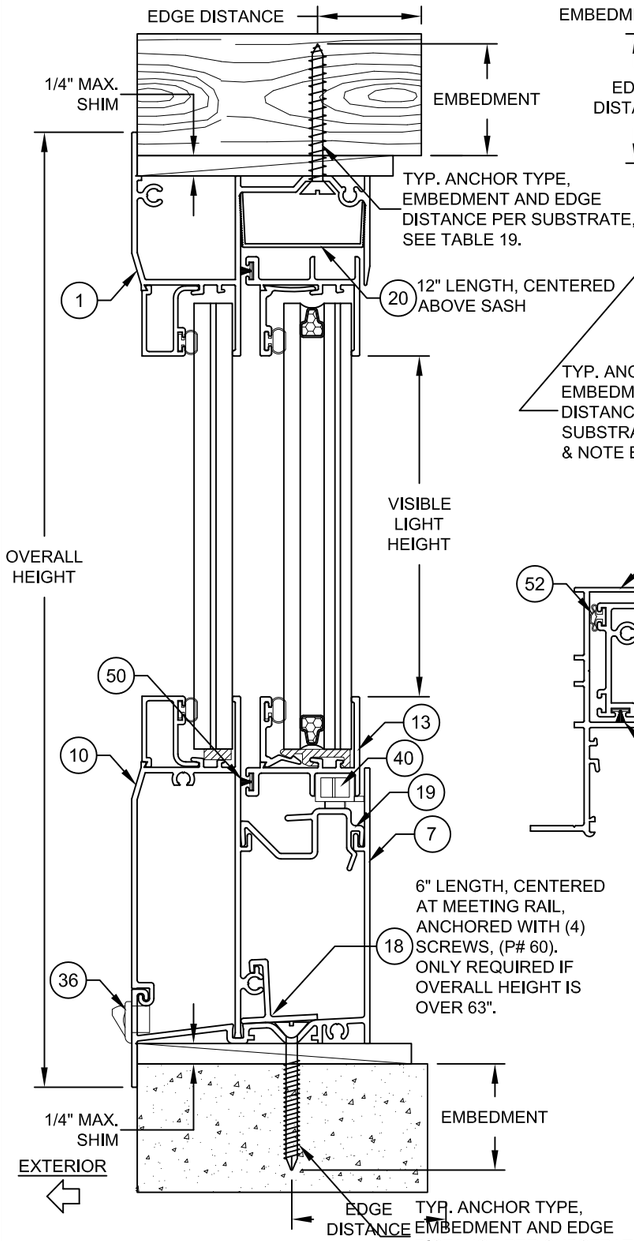
Series	Desc.: Title	Sheet	DWG No.	Drawn By	Date	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	ANCHOR QUANTITY TABLES	14 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B
		HR-7710A				

ANTHONY LYNN MILLER
LICENSE
No. 58705
A Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

INSTALLATION OPTION 1

ANCHORED THROUGH FRAME INTO 2X WOOD FRAME OR BUCKSTRIP. SEE NOTE 2, THIS SHEET.

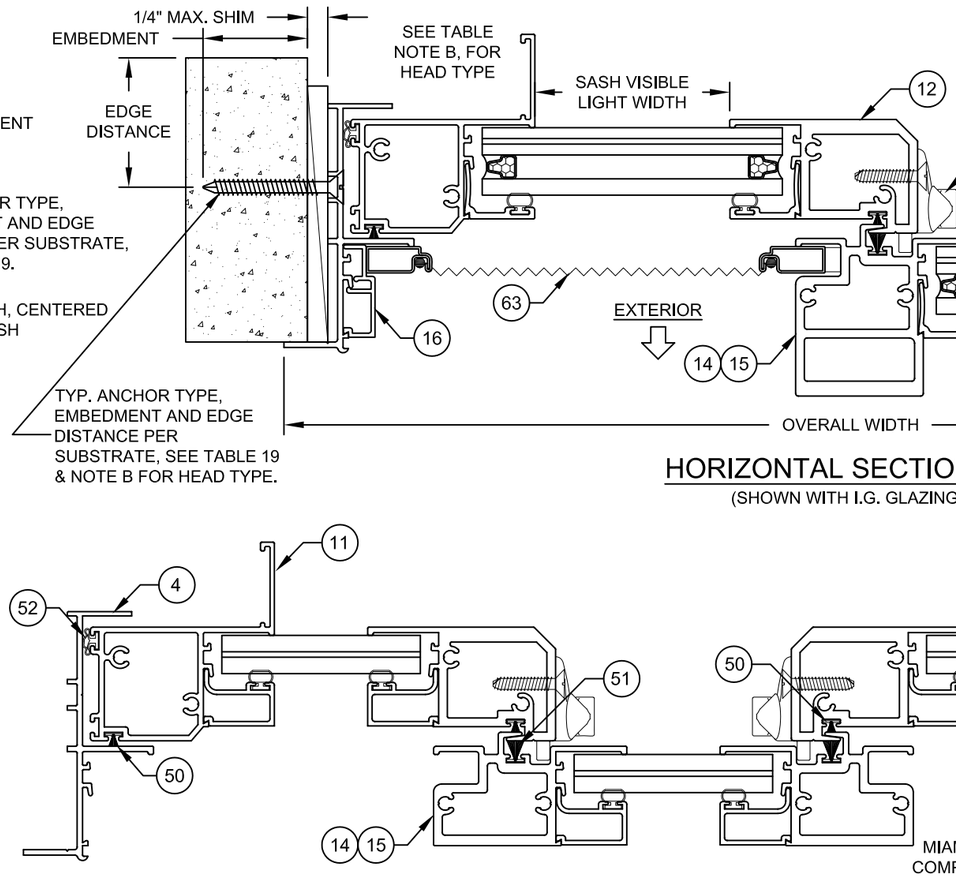


INSTALLATION OPTION 2
ANCHORED THROUGH FRAME DIRECTLY INTO CONCRETE/CMU.

VERTICAL SECTION B-B

INSTALLATION OPTION 2

ANCHORED THROUGH FRAME DIRECTLY INTO CONCRETE/CMU.

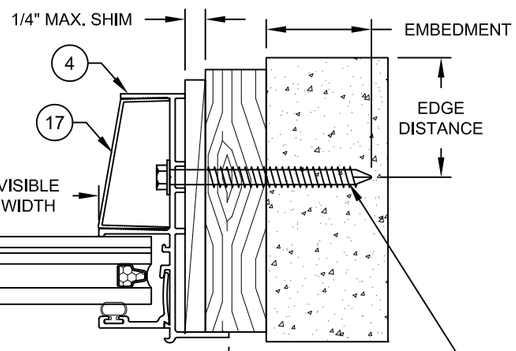


HORIZONTAL SECTION A-A

(SHOWN WITH I.G. GLAZING)

INSTALLATION OPTION 3

ANCHORED THROUGH FRAME AND 1X BUCKSTRIP INTO CONCRETE/CMU. SEE NOTE 2, THIS SHEET.

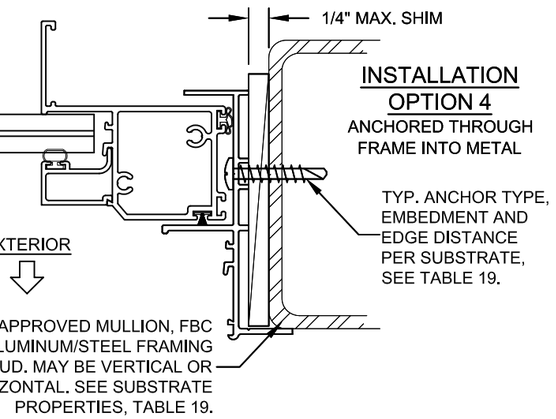


HORIZONTAL SECTION C-C

(SHOWN WITH MONO. GLAZING)

INSTALLATION OPTION 4

ANCHORED THROUGH FRAME INTO METAL



NOTES:

1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLE 19. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.

2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 19. 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 TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

3) VISIBLE LIGHT WIDTH OR HEIGHT (ALSO REFERRED TO AS DAYLIGHT OPENING) IS MEASURED FROM BEADING TO BEADING.

TABLE 19:

Anchor	Substrate	Min. Edge Distance	Min. Embedment
#12 Steel, 18-8 or 410 SS Screw	Southern Pine (SG=0.55)	9/16"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.063"
	A36 Steel	3/8"	0.063"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (18 Ga)
1/4" 410 SS CreteFlex	Concrete (min. 3.35 ksi)	1"	1-3/4"
	Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
	Southern Pine (SG=0.55)	1"	1-3/8"
1/4" Steel Ultracon +	Concrete (min. 3.00 ksi)	1-3/16"	1-3/8"
	Ungrouted CMU, (ASTM C-90)	1-1/2"	1-1/4"
	Southern Pine (SG=0.55)	1"	1-3/8"

A) MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.

B) USE ONLY FLATHEAD ANCHORS IN HEAD AND SILL. PAN/HEX/FLAT HEAD TYPE IS ALLOWABLE FOR ANCHORS IN THE JAMBS.

C) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) REVISED ANCHOR TYPE TABLE.
LY - 06/02/23

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PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

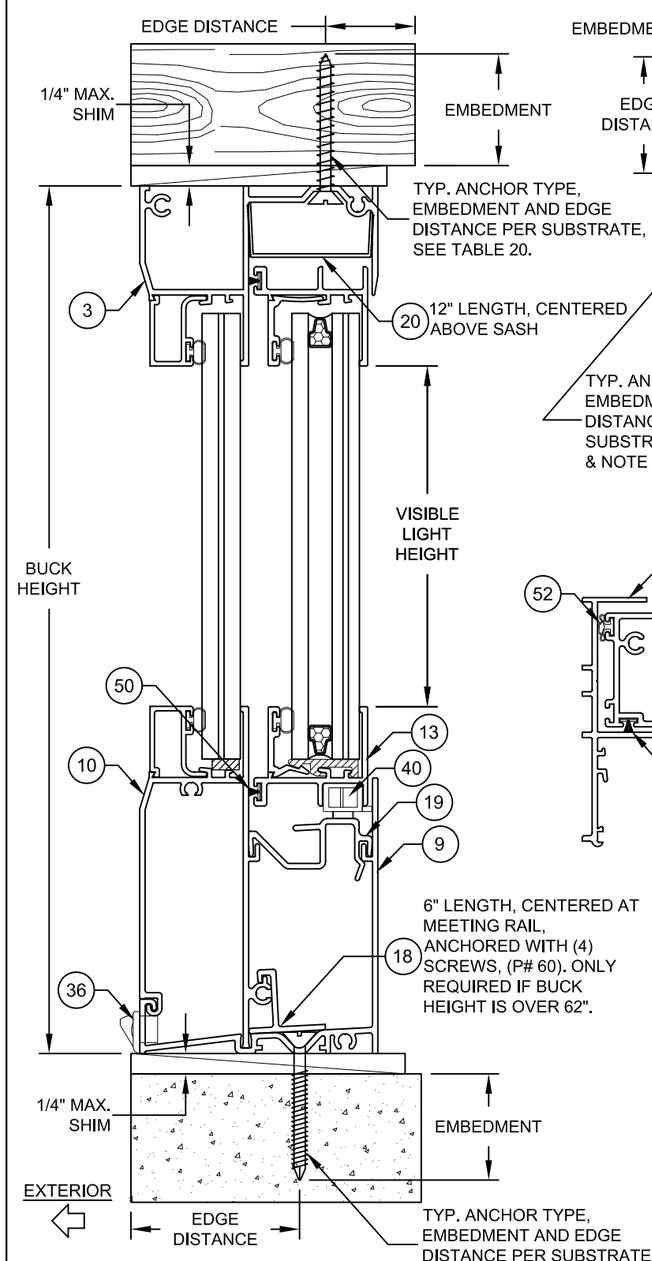
Title	Date	Drawn By	DWG No.	Sheet	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	06/30/18	JENS ROSOWSKI	7710NOA-1	15 OF 19	B
INSTALLATION, FLANGE					
HR-7710A					

Series: HR-7710A

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
A Lynn Miller 06/02/23
A. LYNN MILLER, P.E.
P.E.# 58705

INSTALLATION OPTION 1

ANCHORED THROUGH FRAME INTO 2X WOOD FRAME OR BUCKSTRIP. SEE NOTE 2, THIS SHEET.



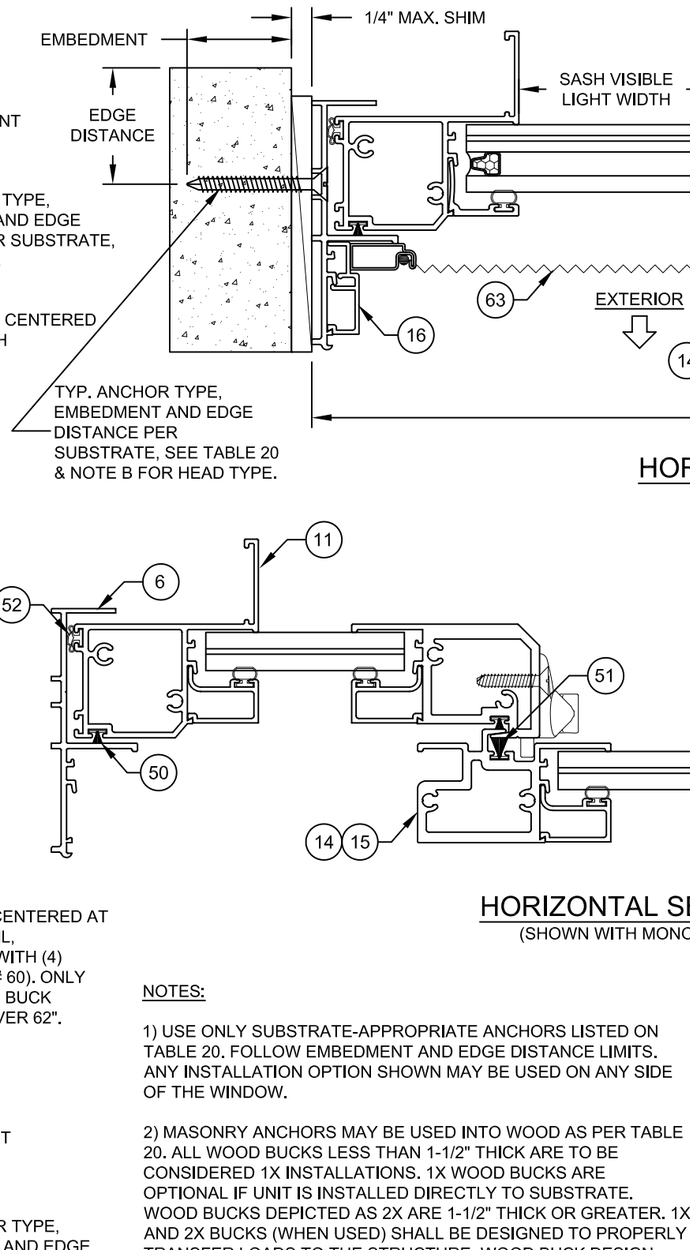
INSTALLATION OPTION 2

ANCHORED THROUGH FRAME DIRECTLY INTO CONCRETE/CMU.

VERTICAL SECTION B-B

INSTALLATION OPTION 2

ANCHORED THROUGH FRAME DIRECTLY INTO CONCRETE/CMU.

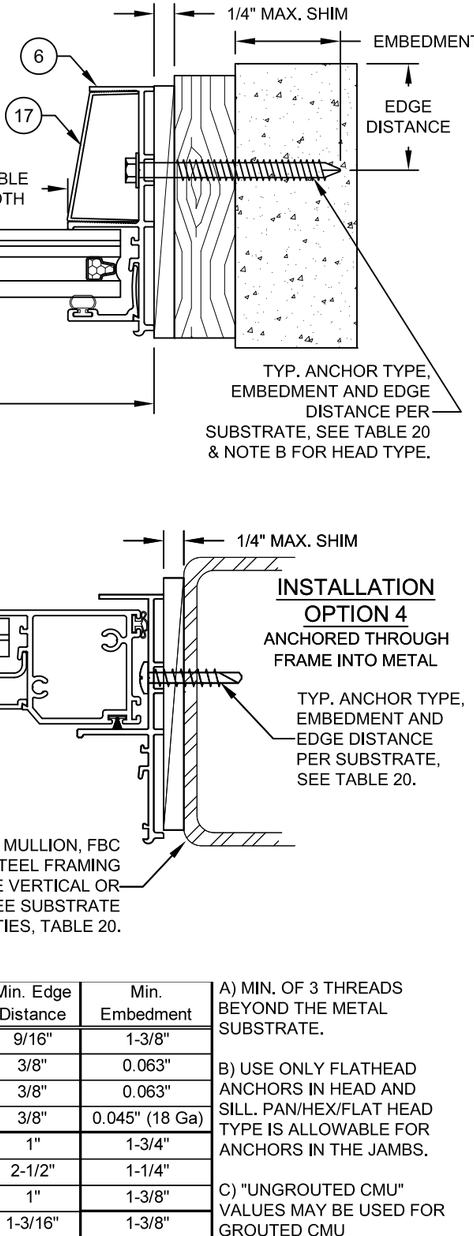


HORIZONTAL SECTION A-A

(SHOWN WITH I.G. GLAZING)

INSTALLATION OPTION 3

ANCHORED THROUGH FRAME AND 1X BUCKSTRIP INTO CONCRETE/CMU. SEE NOTE 2, THIS SHEET.

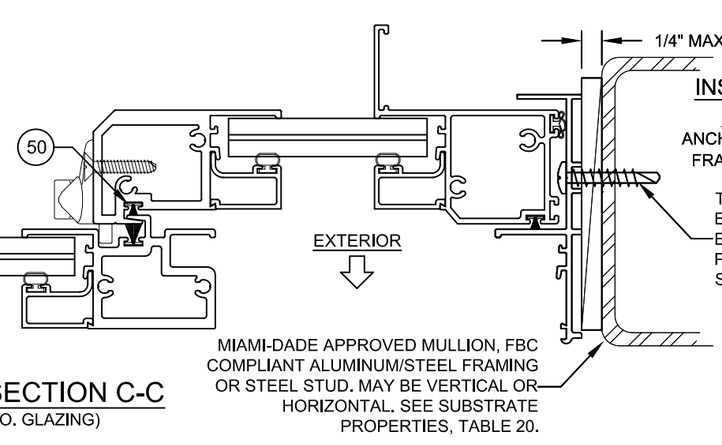


HORIZONTAL SECTION C-C

(SHOWN WITH MONO. GLAZING)

INSTALLATION OPTION 4

ANCHORED THROUGH FRAME INTO METAL



NOTES:

1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLE 20. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.

2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 20. 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 TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

3) VISIBLE LIGHT WIDTH OR HEIGHT (ALSO REFERRED TO AS DAYLIGHT OPENING) IS MEASURED FROM BEADING TO BEADING.

TABLE 20:

Anchor	Substrate	Min. Edge Distance	Min. Embedment
#12 Steel, 18-8 or 410 SS Screw	Southern Pine (SG=0.55)	9/16"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.063"
	A36 Steel	3/8"	0.063"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (18 Ga)
1/4" 410 SS CreteFlex	Concrete (min. 3.35 ksi)	1"	1-3/4"
	Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
	Southern Pine (SG=0.55)	1"	1-3/8"
1/4" Steel Ultracon +	Concrete (min. 3.00 ksi)	1-3/16"	1-3/8"
	Ungrouted CMU, (ASTM C-90)	1-1/2"	1-1/4"
	Southern Pine (SG=0.55)	1"	1-3/8"

A) MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.

B) USE ONLY FLATHEAD ANCHORS IN HEAD AND SILL. PAN/HEX/FLAT HEAD TYPE IS ALLOWABLE FOR ANCHORS IN THE JAMBS.

C) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) REVISED ANCHOR TYPE TABLE.
LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
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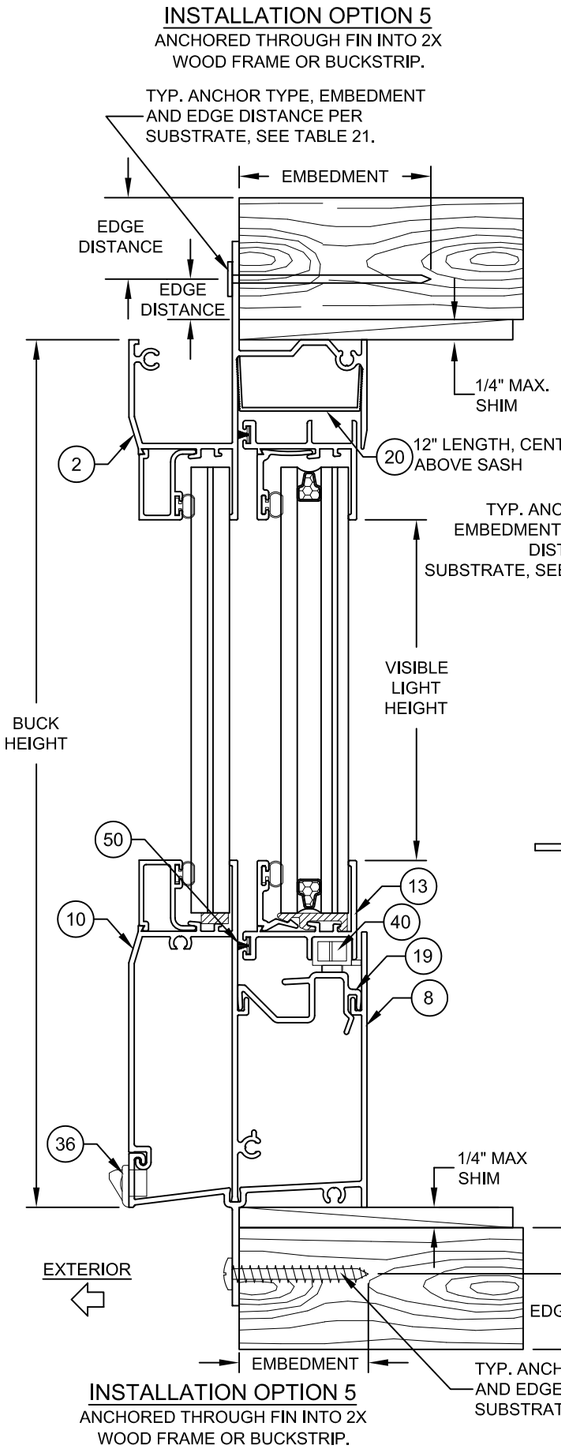
REGISTRATION #29296

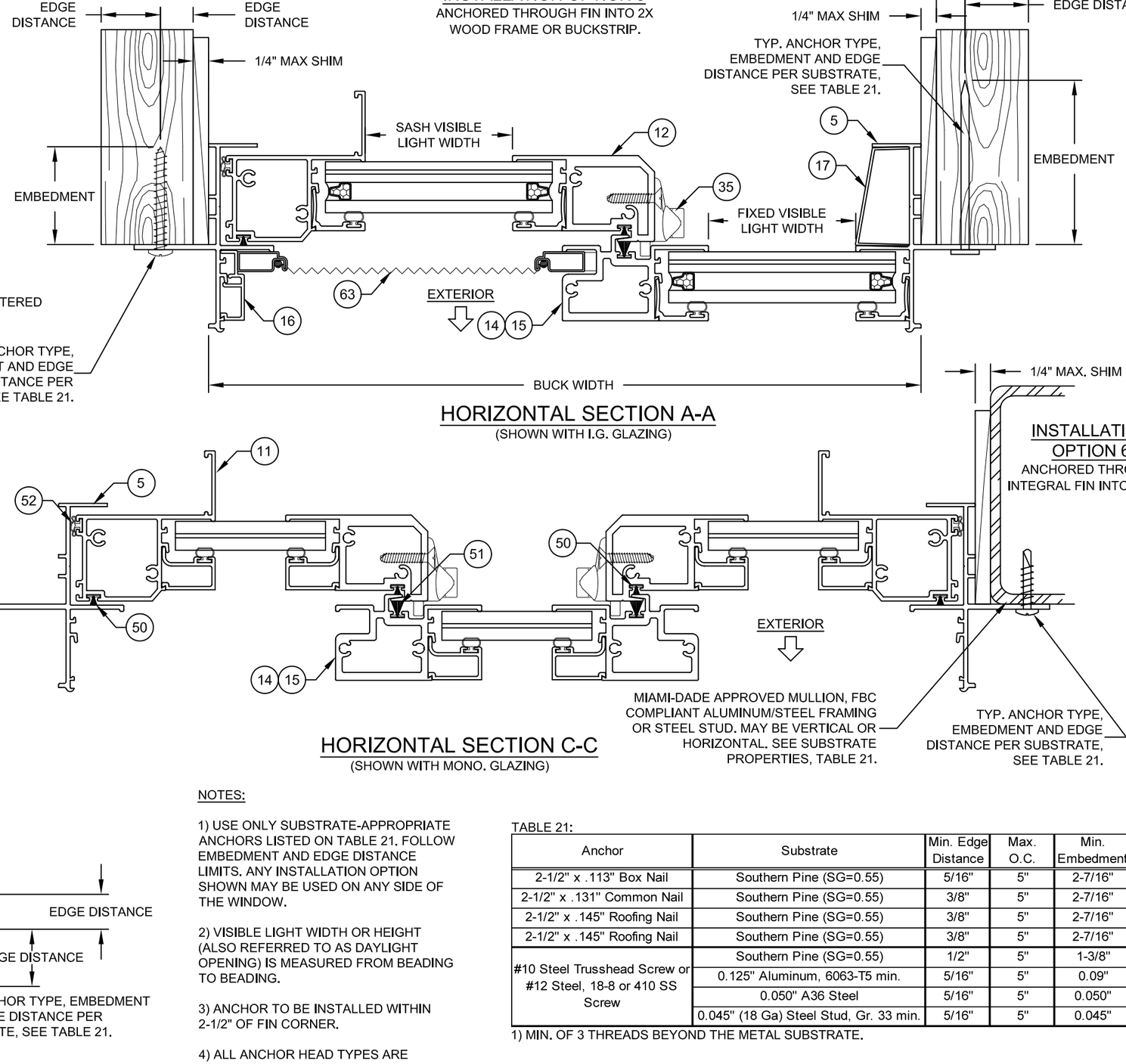
PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Title	Desc.	Series
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	INSTALLATION, EQUAL-LEG	HR-7710A

Date	Drawn By	DWG No.	Sheet	Rev.
06/30/18	JENS ROSOWSKI	7710NOA-1	16 OF 19	B

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705





NOTES:

1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLE 21. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.

2) VISIBLE LIGHT WIDTH OR HEIGHT (ALSO REFERRED TO AS DAYLIGHT OPENING) IS MEASURED FROM BEADING TO BEADING.

3) ANCHOR TO BE INSTALLED WITHIN 2-1/2" OF FIN CORNER.

4) ALL ANCHOR HEAD TYPES ARE ACCEPTABLE.

TABLE 21:

Anchor	Substrate	Min. Edge Distance	Max. O.C.	Min. Embedment
2-1/2" x .113" Box Nail	Southern Pine (SG=0.55)	5/16"	5"	2-7/16"
2-1/2" x .131" Common Nail	Southern Pine (SG=0.55)	3/8"	5"	2-7/16"
2-1/2" x .145" Roofing Nail	Southern Pine (SG=0.55)	3/8"	5"	2-7/16"
2-1/2" x .145" Roofing Nail	Southern Pine (SG=0.55)	3/8"	5"	2-7/16"
#10 Steel Trusshead Screw or #12 Steel, 18-8 or 410 SS Screw	Southern Pine (SG=0.55)	1/2"	5"	1-3/8"
	0.125" Aluminum, 6063-T5 min.	5/16"	5"	0.09"
	0.050" A36 Steel	5/16"	5"	0.050"
	0.045" (18 Ga) Steel Stud, Gr. 33 min.	5/16"	5"	0.045"

1) MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.

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as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.

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N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

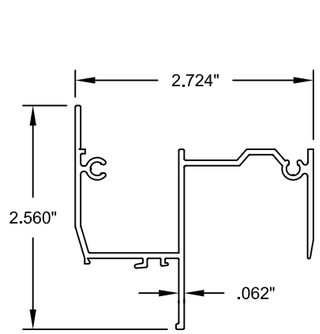
PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Title	Desc.	Series
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	INSTALLATION, INTEGRAL FIN	HR-7710A

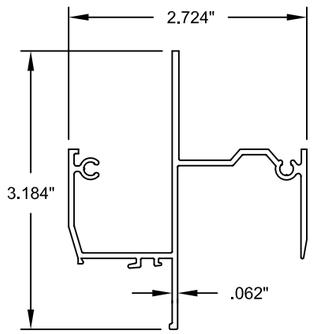
Drawn By	Date	Rev.
JENS ROSOWSKI	06/30/18	B

DWG No.	Sheet
7710NOA-1	17 OF 19

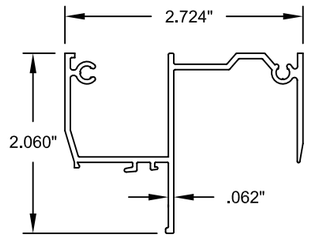
ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
06/02/23
A. LYNN MILLER, P.E.
P.E.# 58705



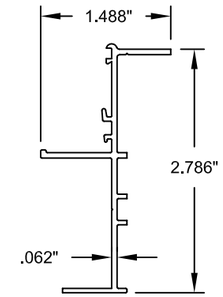
1 HEAD, FLANGE FRAME



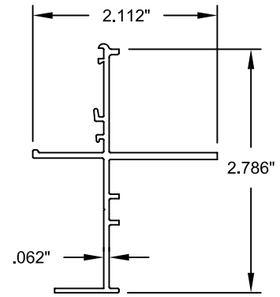
2 HEAD, INTEGRAL FIN FRAME



3 HEAD, EQUAL LEG FRAME



4 JAMB, FLANGE FRAME



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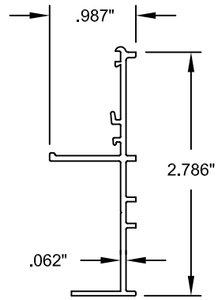
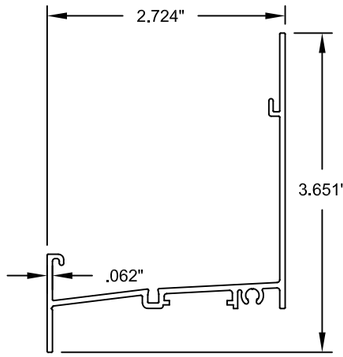
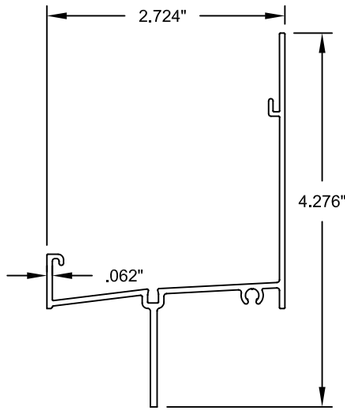


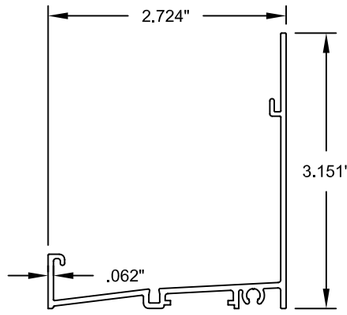
6 JAMB, EQUAL LEG FRAME



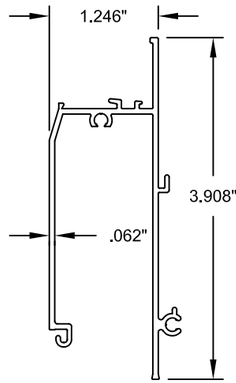
7 SILL, FLANGE FRAME



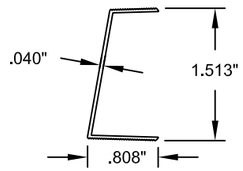
8 SILL, INTEGRAL FIN FRAME



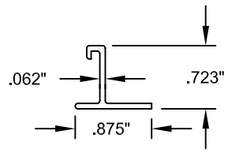
9 SILL, EQUAL LEG FRAME



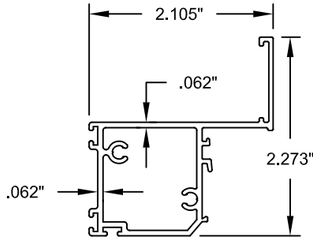
10 SILL ADAPTER



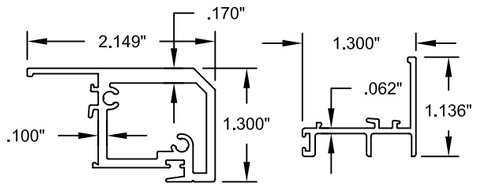
17 INSTALLATION HOLE COVER



18 WINDLOAD ADAPTER

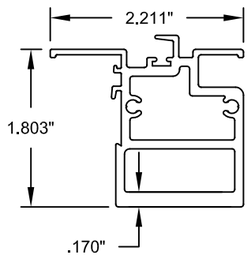


11 SASH PULL RAIL

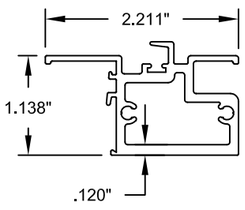


12 SASH LOCK RAIL

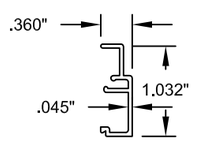
13 SASH TOP & BOTTOM RAIL



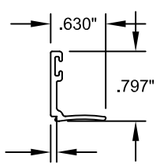
14 HD MEETING RAIL



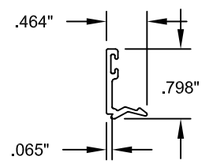
15 STD MEETING RAIL



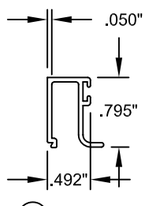
16 SCREEN ADAPTER



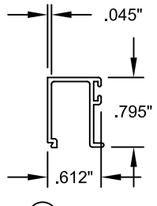
21A IG BEAD



21B IG SNAP BEAD



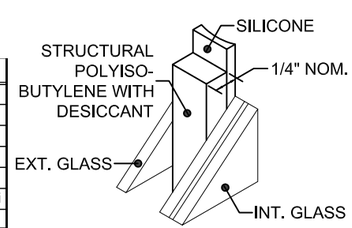
23 7/16" BEAD



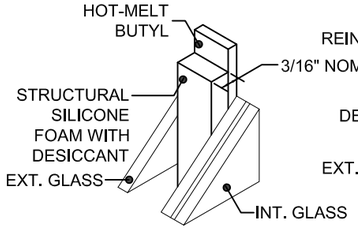
24 5/16" BEAD

TABLE 22: MATERIAL PROPERTIES USED FOR ANCHORAGE CALCULATIONS:

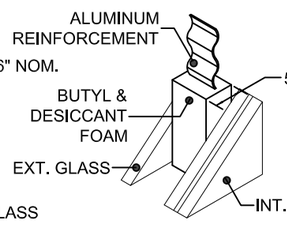
Material	Min. F_y	Min. F_u
Steel Screw	92 ksi	120 ksi
18-8 Screw	60 ksi	95 ksi
410 Screw	90 ksi	110 ksi
Elco UltraCon®	155 ksi	177 ksi
1/4" DeWalt UltraCon+®	148 ksi	164 ksi
410 SS DeWalt/Elco CreteFlex®	127.4 ksi	189.7 ksi
6063-T5 Aluminum	16 ksi	22 ksi
A36 Steel	36 ksi	58 ksi
Gr. 33 Steel Stud	33 ksi	45 ksi



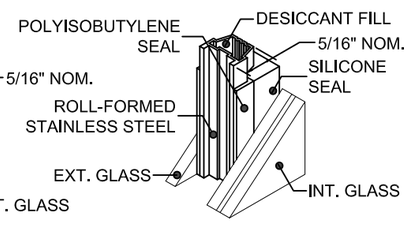
70 KODISPACE 4SG TPS



71 SUPER SPACER® NXT ™



72 DURASEAL® SPACER



73 XL EDGE™ SPACER

PRODUCT RENEWED
as complying with the Florida Building Code
NOA–No. 23–0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami–Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.
LY - 06/02/23

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

Title	Desc.	Series	Sheet	DWG No.	Drawn By	Date	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	EXTRUSIONS	HR-7710A	18 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B

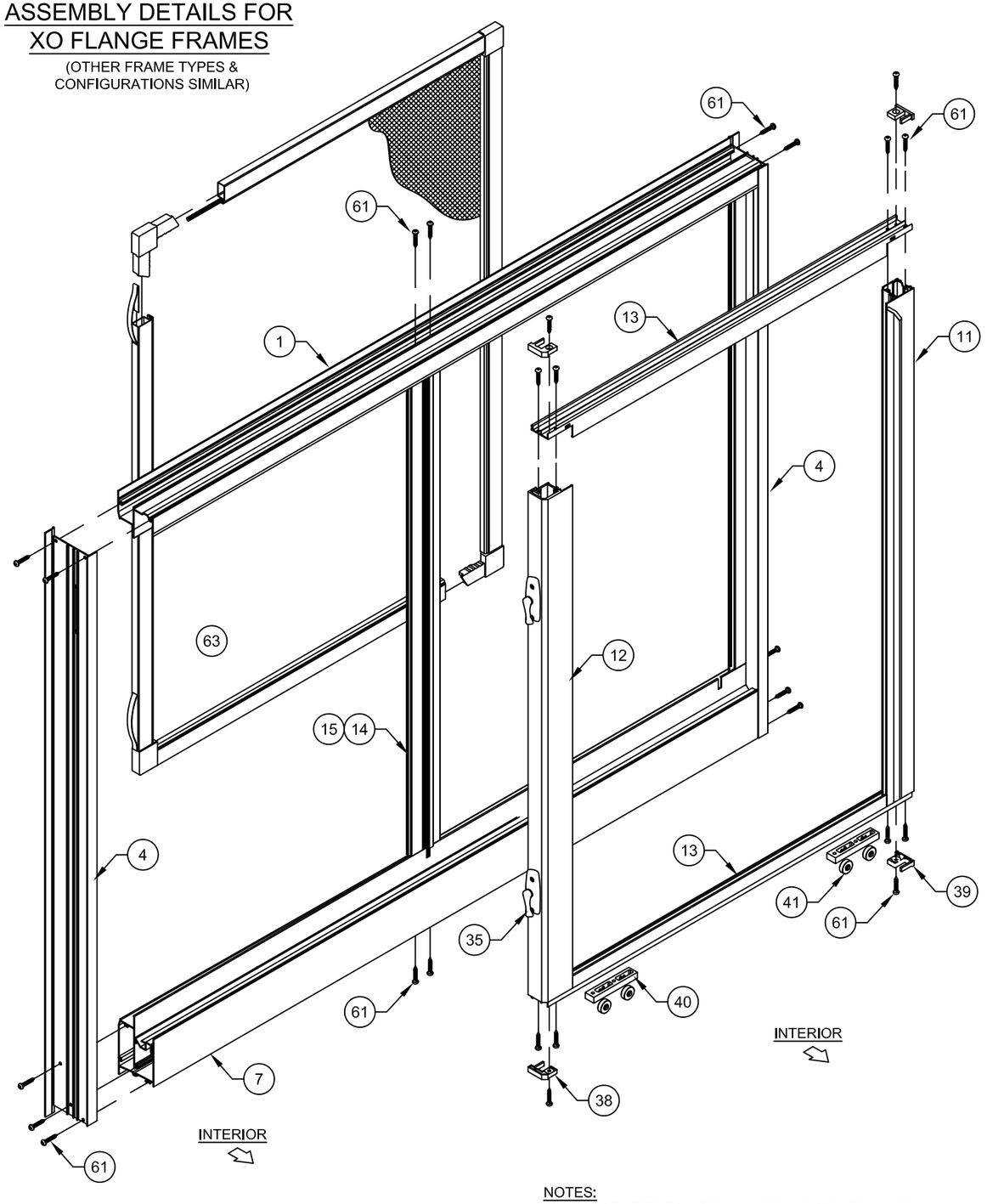
ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
A. Lynn Miller 06/02/23
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 23:

Item #	Part #	Description	Material
1	624038	Head, Flange Frame	Alum. 6063-T6
2	624039	Head, Integral Fin Frame	Alum. 6063-T6
3	624040	Head, Equal-leg Frame	Alum. 6063-T6
4	624001	Jamb, Flange Frame	Alum. 6063-T6
5	624017	Jamb, Integral Fin Frame	Alum. 6063-T6
6	624028	Jamb, Equal-leg Frame	Alum. 6063-T6
7	624035	Sill, Flange Frame	Alum. 6063-T6
8	624036	Sill, Integral Fin Frame	Alum. 6063-T6
9	624037	Sill, Equal-leg Frame	Alum. 6063-T6
10	624034	Sill Adaptor	Alum. 6063-T6
11	624043	Sash Pull Rail	Alum. 6063-T6
12	624006	Sash Lock Rail	Alum. 6005A-T61
13	624041	Sash Top & Bottom Rail	Alum. 6063-T6
14	624027	HD Meeting Rail	Alum. 6063-T6
15	624005	Std. Meeting Rail	Alum. 6005A-T61
16	624047	Screen Adapter	Alum. 6063-T6
17	624051	Installation Hole Cover	Alum. 6063-T6
18	64125M	Windload Adapter	Alum. 6063-T6
19	624042	Sill Track	Alum. 6063-T6
20	624015	Anti-Lift Clip	Alum. 6063-T6
21A	624009	IG Bead	Alum. 6063-T5
21B	624011	IG Snap Bead	Alum. 6063-T5
23	624026	7/16" Lami Glaz. Bead	Alum. 6063-T6
24	624013	5/16" Lami Glaz. Bead	Alum. 6063-T6
30	6TP247	Glazing Bead, Bulb Vinyl for #624013 & #624026	Vinyl
31	6TP248	Glazing Bead, Bulb Vinyl for #624009 & #624011	Vinyl
32	712653K	Mono setting Block 3/32" X 1/4" X 1"	Neoprene
33A	71715K	Lami IG Setting Block 1/8" x 3/4" x 1-1/14"	Neoprene
33B	624014	IG Snap Setting Block	Vinyl
35	724045	Sweep Latch	Cast Zinc
36	71298	Weep Hole Cover	Vinyl
37	41722	Hole Plug	Vinyl
38	724021	Lock Rail Cover, (LH & RH)	Vinyl
39	724050	Pull Rail End Cap	Vinyl
40	724048	Roller Housing & Sash Guide	Vinyl
41	724052	Roller Wheels	Stainless Steel
42	724054	Sash Top Rail Gasket, (LH & RH)	Polyethylene
43	724055	Sash Bot Rail Gasket, (LH & RH)	Polyethylene
44	724057	Frame Header Gasket, (LH & RH)	Polyethylene
45	724058	Frame Sill Gasket, (LH & RH)	Polyethylene
46	724063	Meeting Rail Gasket	Polyethylene
50		Weatherstrip, .187" x .170", Fin Seal @ Sash	
51		Weatherstrip, .187" x .270", Fin Seal @ MR	
52	67070	Bulb Vinyl	
60	710X38PPAX	#10 X 3/8" Ph. PH SMS (Windload Adapter)	Stainless Steel
61	781PQX	#8 X 1" Qd. PH SMS (Frame & Sash Assembly)	Stainless Steel
63	-	Aluminum Screen with Fiberglass Mesh	Varies
70	-	Kommerling Kodispace 4SG TPS	See Sheet 18 for Materials
71	-	Quanex Super Spacer nXT	
72	-	Quanex Duraseal Spacer	
73	-	Cardinal XL Edge Spacer	
74	-	Dow 791, 899, 983 or GE 7700 Backbedding	Silicone

ASSEMBLY DETAILS FOR XO FLANGE FRAMES

(OTHER FRAME TYPES & CONFIGURATIONS SIMILAR)



NOTES:
1) ALL CORNERS TO USE GASKET AND/OR SEALANT.
2) SOME PARTS/OPTIONS NOT SHOWN ON DRAWING FOR CLARITY.

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0707.06
Expiration Date 08/23/2028
By Ishaq I. Chanda
Miami-Dade Product Control

Revision:
B) NO CHANGES THIS SHEET.
LY - 06/02/23

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1070 TECHNOLOGY DRIVE
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REGISTRATION #29296

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
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Title	Desc.	Series	Sheet	DWG No.	Drawn By	Date	Rev.
ALUMINUM HORIZ. ROLLER INSTALL. (LMI)	BOM & CORNER DETAILS	HR-7710A	19 OF 19	7710NOA-1	JENS ROSOWSKI	06/30/18	B

ANTHONY LYNN MILLER
LICENSE
No. 58705
A. Lynn Miller
06/02/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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