



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

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 "HR-210" Aluminum Horizontal Rolling Window - N.I.

APPROVAL DOCUMENT: Drawing No. **MD-HR210-02** titled "Aluminum Horizontal Roller Window", sheets 1 through 11 of 11, dated 03/15/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: None.

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 **NOA# 16-0629.02** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jorge M. Plasencia, P.E.**



Jorge M. Plasencia
8/23/17

NOA No. 17-0411.05
Expiration Date: April 05, 2022
Approval Date: August 31, 2017
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 11-1201.04)
2. Drawing No. **MD-HR210-02** titled "Aluminum Horizontal Roller Window", sheets 1 through 11 of 11, dated 03/15/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a PVC sliding glass door, a PVC fixed window and an aluminum sliding glass door, using: Kodispace 4SG TPS spacer system, Duraseal® spacer system, Super Spacer® NXT™ spacer system and XL Edge™ spacer system at insulated glass, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-8717**, **FTL-8968** and **FTL-8970**, dated 11/16/15, 06/07/16 and 06/02/16 respectively, all signed and sealed by Idalmis Ortega, P.E.
(Submitted under previous NOA No. 16-0629.02)
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) 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 Reports No. **FTL-6657** and **FTL-6658**, dated 10/17/11 and 10/18/11 respectively, and addendum letters for each dated 03/22/12, all signed and sealed by Marlin D. Brinson, P.E.
(Submitted under NOA No. 11-1201.04)

C. CALCULATIONS

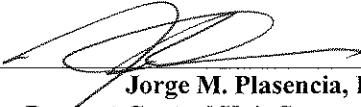
1. Anchor verification calculations and structural analysis, complying with **FBC-5th Edition (2014)** and **FBC-6th Edition (2017)**, dated 03/31/17 and revised on 08/02/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.



Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 17-0411.05
Expiration Date: April 05, 2022
Approval Date: August 31, 2017

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

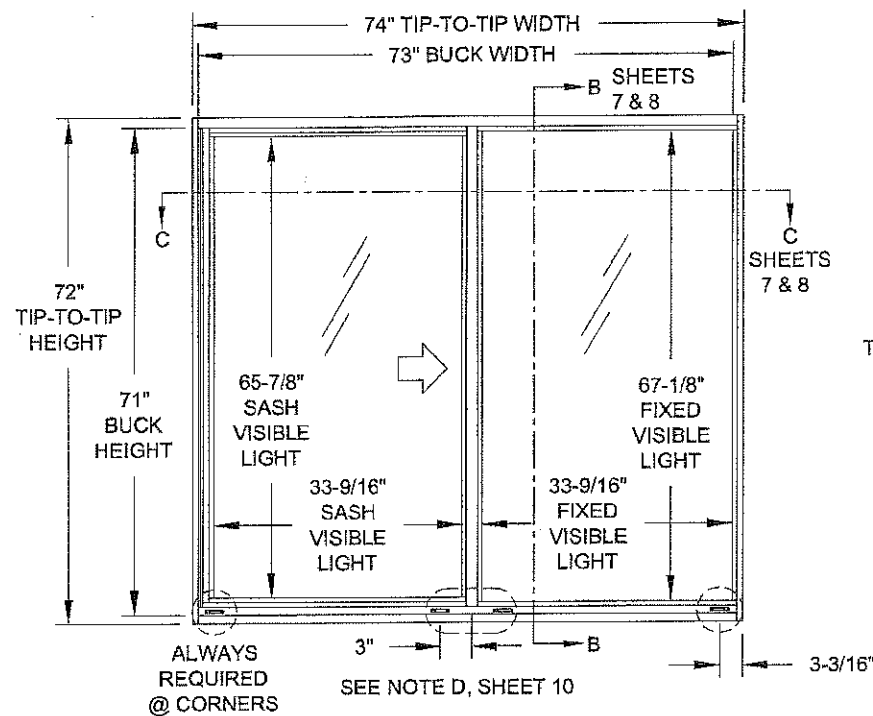
1. Statement letter of conformance, complying with **FBC-5th Edition (2014)** and **FBC-6th Edition (2017)**, dated 08/02/17, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Statement letter of no financial interest, dated 03/31/17, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
3. Proposal No. **16-0125** issued by the Product Control Section, dated March 09, 2016, signed by Ishaq Chanda, P.E.
(Submitted under previous NOA No. 16-0629.02)
4. Laboratory compliance letter for Test Reports No. **FTL-6657** and **FTL-6658**, issued by Fenestration Testing Laboratory, Inc., dated 10/17/11 and 10/18/11 respectively, both signed and sealed by Marlin D. Brinson, P.E.
(Submitted under NOA No. 11-1201.04)

G. OTHERS

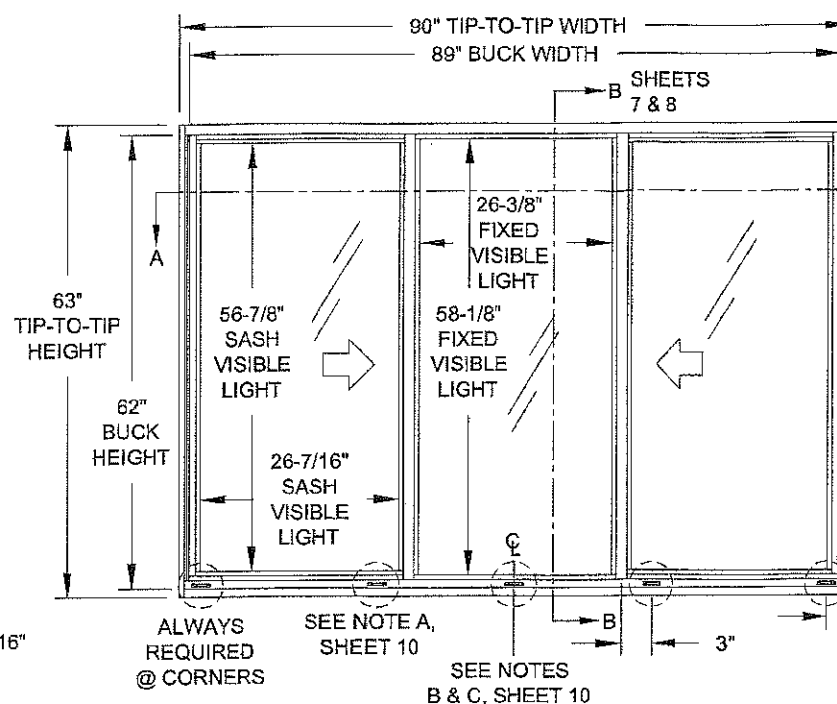
1. Notice of Acceptance No. **16-0629.02**, issued to PGT Industries, Inc. for their Series "HR-210" Aluminum Horizontal Sliding Window - N.I., approved on 08/04/16 and expiring on 04/05/22.



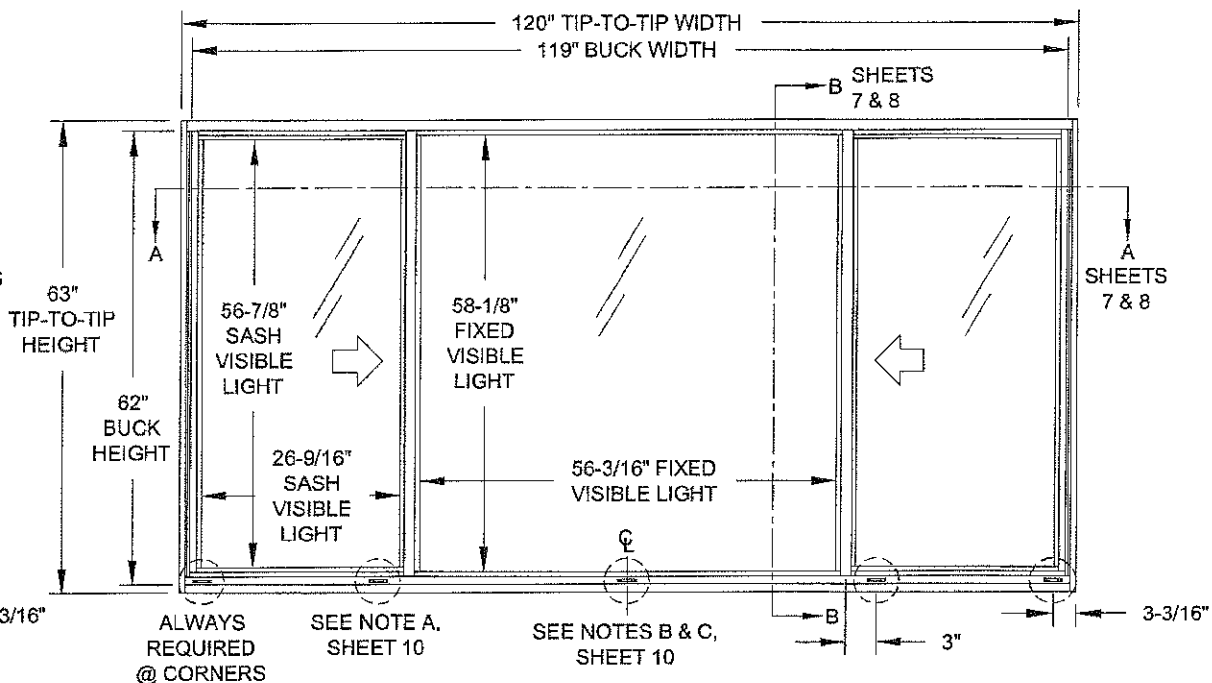
Jorge M. Plasencia, P.E.
Product Control Unit Supervisor
NOA No. 17-0411.05
Expiration Date: April 05, 2022
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TYP. XO ELEVATION (OX SIMILAR)



TYP. XOx (1/3-1/3-1/3) ELEVATION



TYP. XOx (1/4-1/2-1/4) ELEVATION

GENERAL NOTES: SERIES 210 NON-IMPACT RESISTANT HORIZONTAL ROLLER

- THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- SHUTTERS ARE REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS.
- 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.
- 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).
- ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE REQUIRED MIN. EMBEDMENT. INSTALLATION ANCHORS SHOULD BE SEALED. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.
- 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.
- DESIGN PRESSURES:
 - NEGATIVE DESIGN LOADS BASED ON STRUCTURAL & CYCLE TESTING AND GLASS PER ASTM E1300.
 - POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL & CYCLE TESTING AND GLASS PER ASTM E1300.
 - DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.
- 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.
- METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.
- REFERENCES: TEST REPORTS FTL-6657 & 6658; ELCO ULTRACON NOA; ELCO CRETEFLEX NOA; NAT. DESIGN SPEC. FOR WOOD CONSTRUCTION, ANSI/AF&PA NDS & ALUMINUM DESIGN MANUAL (ADM)
- APPLICABLE EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.
- THE 210 SERIES HORIZONTAL ROLLER WINDOW WAS FORMERLY KNOWN AS THE 201 SERIES.

USER INSTRUCTIONS:

- DETERMINE THE SITE SPECIFIC, WINDOW OPENING'S DESIGN PRESSURE REQUIREMENT USING WINDLOAD STANDARD ASCE 7.
- KNOWING YOUR WINDOW CONFIGURATION (OX, XO, XOx), SIZE, GLASS TYPES (FROM TABLES 2 OR 5) AND MEETING RAIL TYPE, DETERMINE YOUR WINDOW'S DESIGN PRESSURE REQUIREMENT FOR THE WINDOW OPENING USING TABLES 1, 3 OR 4. IT MUST EQUAL OR EXCEED THE DESIGN PRESSURE REQUIREMENT FOR THE WINDOW OPENING OBTAINED IN STEP 1.
- DETERMINE THE MOST SUITABLE ANCHOR GROUP FROM TABLE 20 ACCORDING TO THE INSTALLATION CONDITIONS.
- DETERMINE THE ANCHOR QUANTITY FROM TABLES 6-16. VERIFY THAT THE ANCHOR/SUBSTRATE WILL MEET REQUIREMENTS FOR YOUR OPENING'S CONDITION FROM TABLE 20, AND THAT ALL MIN. REQUIREMENTS FROM THIS SHEET SET ARE MET.
- INSTALL AS PER SHEETS 7 OR 8.

CODES / STANDARDS USED:

- 2017 FLORIDA BUILDING CODE (FBC), 6TH EDITION
- 2014 FLORIDA BUILDING CODE (FBC), 5TH EDITION
- ASTM E1300-04
- ANSI/AF&PA NDS-2015 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2015
- AISI S100-12
- AISC 360-10

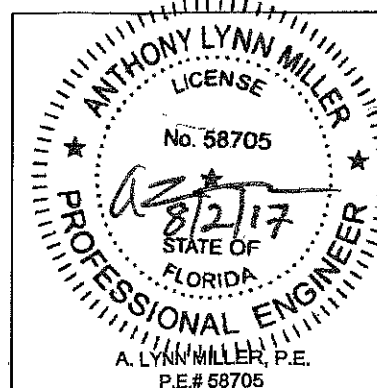
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DESIGN PRESSURE RATING	IMPACT RATING
VARIES, SEE SHEETS 2 & 3	NOT RATED FOR IMPACT RESISTANCE

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0411.05**

Expiration Date **04/05/2022**

By *[Signature]*
Miami-Dade Product Control



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Revised By:	Date:	Revision:
Revised By:	Date:	Revision:
Description: GENERAL NOTES & ELEVATION		
Title: ALUMINUM HORIZONTAL ROLLER WINDOW		
Series/Model: HR-210	Scale: NTS	Sheet: 1 OF 11
Drawing No. MD-HR210-02		Date: 03/15/17
Rev:		

Drawn By:
J ROSOWSKI

TABLE 1:

Maximum Design Pressures (psf) XO & OX									
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Glass 1	Glass 2	Glass 3	Glass 4 & 5	Glass 1	Glass 2	Glass 3	Glass 4 & 5
26-1/2"	38-3/8"	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
37"		+55.0/-73.5	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-73.5	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
45"		+55.0/-67.5	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-67.5	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
49"		+55.0/-66.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-66.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
53-1/8"		+55.0/-63.7	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-63.7	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
61"		+55.0/-59.2	+55.0/-89.2	+55.0/-90.0	+55.0/-90.0	+55.0/-59.2	+55.0/-89.2	+55.0/-90.0	+55.0/-90.0
66"		+55.0/-56.3	+55.0/-79.7	+55.0/-79.7	+55.0/-79.7	+55.0/-56.3	+55.0/-79.7	+55.0/-79.7	+55.0/-79.7
74"		+51.1/-51.1	+55.0/-63.5	+55.0/-63.5	+55.0/-63.5	+51.1/-51.1	+55.0/-63.5	+55.0/-63.5	+55.0/-63.5
26-1/2"	44"	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
37"		+55.0/-61.2	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-61.2	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
45"		+53.7/-53.7	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+53.7/-53.7	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
49"		+53.1/-53.1	+55.0/-85.1	+55.0/-85.1	+55.0/-90.0	+53.1/-53.1	+55.0/-88.9	+55.0/-90.0	+55.0/-90.0
53-1/8"		+52.4/-52.4	+55.0/-81.0	+55.0/-81.0	+55.0/-90.0	+52.4/-52.4	+55.0/-85.0	+55.0/-90.0	+55.0/-90.0
61"		+50.4/-50.4	+55.0/-75.1	+55.0/-75.1	+55.0/-90.0	+50.4/-50.4	+55.0/-79.3	+55.0/-90.0	+55.0/-90.0
66"		+48.5/-48.5	+55.0/-72.5	+55.0/-72.5	+55.0/-79.7	+48.5/-48.5	+55.0/-77.1	+55.0/-79.7	+55.0/-79.7
74"		+44.2/-44.2	+55.0/-63.5	+55.0/-63.5	+55.0/-63.5	+44.2/-44.2	+55.0/-63.5	+55.0/-63.5	+55.0/-63.5
26-1/2"	50-5/8"	+55.0/-86.9	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-86.9	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
37"		+55.0/-56.0	+55.0/-87.2	+55.0/-87.2	+55.0/-90.0	+55.0/-56.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
45"		+44.6/-44.6	+55.0/-75.0	+55.0/-75.0	+55.0/-90.0	+44.6/-44.6	+55.0/-89.2	+55.0/-80.3	+55.0/-90.0
49"		+43.6/-43.6	+55.0/-70.5	+55.0/-70.5	+55.0/-88.1	+43.6/-43.6	+55.0/-79.9	+55.0/-78.5	+55.0/-90.0
53-1/8"		+43.5/-43.5	+55.0/-66.7	+55.0/-66.7	+55.0/-83.4	+43.5/-43.5	+55.0/-73.8	+55.0/-78.3	+55.0/-90.0
61"		+42.8/-42.8	+55.0/-61.1	+55.0/-61.1	+55.0/-76.4	+42.8/-42.8	+55.0/-67.2	+55.0/-77.0	+55.0/-82.9
66"		+41.6/-41.6	+55.0/-58.5	+55.0/-58.5	+55.0/-73.1	+41.6/-41.6	+55.0/-65.2	+55.0/-74.9	+55.0/-79.3
74"		+38.9/-38.9	+55.0/-55.3	+55.0/-55.3	+55.0/-63.5	+38.9/-38.9	+55.0/-62.0	+55.0/-63.5	+55.0/-63.5
26-1/2"	63"	+55.0/-67.9	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-67.9	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
37"		+49.7/-49.7	+55.0/-67.2	+55.0/-67.2	+55.0/-84.0	+49.7/-49.7	+55.0/-90.0	+55.0/-89.5	+55.0/-90.0
45"		+35.5/-35.5	+55.0/-57.1	+55.0/-57.1	+55.0/-71.4	+35.5/-35.5	+55.0/-77.2	+55.0/-63.9	+55.0/-77.4
49"		+32.3/-32.3	+53.4/-53.4	+53.4/-53.4	+55.0/-66.7	+32.3/-32.3	+55.0/-68.0	+55.0/-58.1	+55.0/-72.3
53-1/8"		+31.2/-31.2	+50.2/-50.2	+50.2/-50.2	+55.0/-62.7	+31.2/-31.2	+55.0/-59.4	+55.0/-56.2	+55.0/-68.0
61"		+31.8/-31.8	+45.4/-45.4	+45.4/-45.4	+55.0/-56.7	+31.8/-31.8	+51.0/-51.0	+55.0/-57.2	+55.0/-61.5
66"		+32.0/-32.0	+43.0/-43.0	+43.0/-43.0	+53.8/-53.8	+32.0/-32.0	+49.3/-49.3	+55.0/-57.6	+55.0/-58.3
74"		+30.0/-30.0	+40.0/-40.0	+40.0/-40.0	+50.0/-50.0	+30.0/-30.0	+47.9/-47.9	+54.1/-54.1	+54.2/-54.2
26-1/2"	72"	-	-	-	-	-	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
37"		-	-	-	-	-	+55.0/-77.9	+55.0/-77.9	+55.0/-78.1
45"		-	-	-	-	-	+55.0/-65.8	+55.0/-57.1	+55.0/-66.0
49"		-	-	-	-	-	+55.0/-61.3	+50.6/-50.6	+55.0/-61.5
53-1/8"		-	-	-	-	-	+54.0/-54.0	+46.8/-46.8	+55.0/-57.4
61"		-	-	-	-	-	+44.0/-44.0	+46.4/-46.4	+51.8/-51.8
66"		-	-	-	-	-	+41.2/-41.2	+47.0/-47.0	+48.9/-48.9
74"		-	-	-	-	-	+39.8/-39.8	+45.0/-45.0	+45.1/-45.1

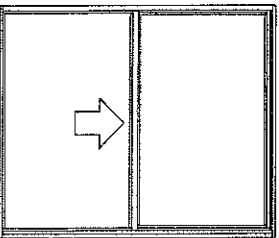
TABLE 2:

Glass Types	
Glass 1	1/8" Annealed
	1/8" Tempered
Glass 2	3/16" Annealed
	1/4" Annealed
Glass 3	1/8" Annealed - 1/4" Airspace - 1/8" Annealed
	3/16" Annealed - 3/16" Airspace - 1/8" Annealed
Glass 4	3/16" Tempered
	1/4" Tempered
Glass 5	1/8" Tempered - 1/4" Airspace - 1/8" Tempered
	3/16" Tempered - 3/16" Airspace - 1/8" Tempered

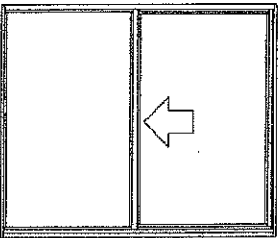
NOTES:

- 1) USE THIS TABLE FOR ALL XO/OX WINDOWS PER THE ELEVATION ON SHEET 1. DIMENSIONS SHOWN ARE TIP-TO-TIP.
- 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.
- 3) DESIGN PRESSURES MAY BE INTERPOLATED BETWEEN SIZES.

CONFIGURATIONS APPLICABLE TO THIS SHEET:



XO



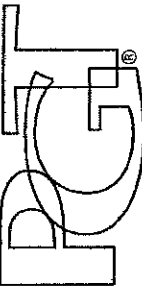
OX

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0411.05**

Expiration Date **04/05/2022**

By
Miami-Dade Product Control

1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941)-480-1600



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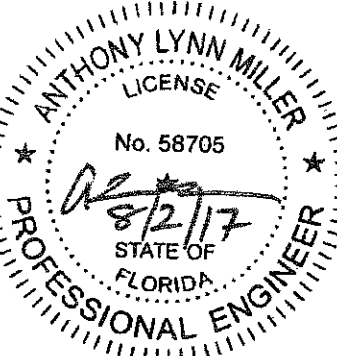
ALUMINUM HORIZONTAL ROLLER WINDOW

DESIGN PRESSURES, XO/OX

HR-210

2 OF 11

MD-HR210-02



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

TABLE 3:

Maximum Design Pressures (psf) XOX, 1/3 - 1/3 - 1/3 Configuration							
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail			w/ Heavy-duty Meeting Rail		
		Glass 2	Glass 3	Glass 4 & 5	Glass 2	Glass 3	Glass 4 & 5
49"	38-3/8"	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
53-1/8"		+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
61"		+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
74"		+55.0/-81.0	+55.0/-81.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
85"		+55.0/-75.6	+55.0/-75.6	+55.0/-88.2	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
90"		+55.0/-73.8	+55.0/-73.8	+55.0/-86.1	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
49"	44"	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
53-1/8"		+55.0/-84.7	+55.0/-84.7	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
61"		+55.0/-76.3	+55.0/-76.3	+55.0/-89.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
74"		+55.0/-66.8	+55.0/-66.8	+55.0/-77.9	+55.0/-88.9	+55.0/-89.0	+55.0/-90.0
85"		+55.0/-61.5	+55.0/-61.5	+55.0/-71.7	+55.0/-81.8	+55.0/-82.0	+55.0/-90.0
90"		+55.0/-59.6	+55.0/-59.6	+55.0/-69.6	+55.0/-79.5	+55.0/-79.5	+55.0/-90.0
49"	50-5/8"	+55.0/-76.3	+55.0/-76.3	+55.0/-89.1	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
53-1/8"		+55.0/-71.4	+55.0/-71.4	+55.0/-83.2	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
61"		+55.0/-63.9	+55.0/-63.9	+55.0/-74.5	+55.0/-85.1	+55.0/-85.1	+55.0/-90.0
74"		+55.0/-55.3	+55.0/-55.3	+55.0/-64.5	+55.0/-73.7	+55.0/-73.7	+55.0/-90.0
85"		+50.4/-50.4	+50.4/-50.4	+55.0/-58.8	+55.0/-67.2	+55.0/-67.2	+55.0/-86.9
90"		+48.6/-48.6	+48.6/-48.6	+55.0/-56.7	+55.0/-64.8	+55.0/-64.8	+55.0/-83.9
49"	63"	+55.0/-59.2	+55.0/-59.2	+55.0/-69.1	+55.0/-78.9	+55.0/-78.9	+55.0/-90.0
53-1/8"		+55.0/-55.1	+55.0/-55.1	+55.0/-64.3	+55.0/-73.5	+55.0/-73.5	+55.0/-90.0
61"		+49.0/-49.0	+49.0/-49.0	+55.0/-57.1	+55.0/-65.3	+55.0/-65.3	+55.0/-84.5
74"		+41.9/-41.9	+41.9/-41.9	+48.8/-48.8	+55.0/-55.8	+55.0/-55.8	+55.0/-72.2
85"		+37.7/-37.7	+37.7/-37.7	+44.0/-44.0	+50.3/-50.3	+50.3/-50.3	+55.0/-65.0
90"		+36.2/-36.2	+36.2/-36.2	+42.2/-42.2	+48.2/-48.2	+48.2/-48.2	+55.0/-62.4

TABLE 4:

Maximum Design Pressures (psf) XOX, 1/4 - 1/2 - 1/4 Configuration							
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail			w/ Heavy-duty Meeting Rail		
		Glass 2	Glass 3	Glass 4 & 5	Glass 2	Glass 3	Glass 4 & 5
53-1/8"	38-3/8"	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0	+55.0/-90.0
74"		+55.0/-80.4	+55.0/-80.4	+55.0/-90.0	+55.0/-83.1	+55.0/-90.0	+55.0/-90.0
85"		+55.0/-74.7	+55.0/-77.2	+55.0/-90.0	+55.0/-74.7	+55.0/-81.9	+55.0/-90.0
97"		+55.0/-65.3	+55.0/-72.5	+55.0/-87.0	+55.0/-65.3	+55.0/-72.5	+55.0/-90.0
109"		+55.0/-56.7	+55.0/-64.8	+55.0/-84.7	+55.0/-56.7	+55.0/-64.8	+55.0/-90.0
120"		+49.7/-49.7	+55.0/-57.6	+55.0/-83.2	+49.7/-49.7	+55.0/-57.6	+55.0/-90.0
53-1/8"	44"	+55.0/-79.5	+55.0/-79.5	+55.0/-90.0	+55.0/-85.0	+55.0/-90.0	+55.0/-90.0
74"		+55.0/-64.9	+55.0/-64.9	+55.0/-75.8	+55.0/-72.8	+55.0/-79.6	+55.0/-90.0
85"		+55.0/-61.2	+55.0/-61.2	+55.0/-71.4	+55.0/-67.2	+55.0/-71.1	+55.0/-90.0
97"		+55.0/-58.8	+55.0/-58.8	+55.0/-68.6	+55.0/-60.0	+55.0/-63.7	+55.0/-90.0
109"		+53.4/-53.4	+55.0/-55.8	+55.0/-66.5	+53.4/-53.4	+55.0/-55.8	+55.0/-90.0
120"		+47.9/-47.9	+51.1/-51.1	+55.0/-65.0	+47.9/-47.9	+51.1/-51.1	+55.0/-90.0
53-1/8"	50-5/8"	+55.0/-66.4	+55.0/-66.4	+55.0/-77.5	+55.0/-73.8	+55.0/-78.3	+55.0/-90.0
74"		+52.9/-52.9	+52.9/-52.9	+55.0/-61.8	+55.0/-62.0	+55.0/-70.0	+55.0/-90.0
85"		+49.1/-49.1	+49.1/-49.1	+55.0/-57.3	+55.0/-58.9	+55.0/-62.8	+55.0/-84.6
97"		+46.3/-46.3	+46.3/-46.3	+54.1/-54.1	+53.7/-53.7	+54.7/-54.7	+55.0/-79.9
109"		+44.7/-44.7	+44.7/-44.7	+52.2/-52.2	+48.4/-48.4	+48.2/-48.2	+55.0/-77.1
120"		+43.6/-43.6	+43.6/-43.6	+50.9/-50.9	+44.3/-44.3	+44.1/-44.1	+55.0/-75.2
53-1/8"	63"	+50.8/-50.8	+50.8/-50.8	+55.0/-59.2	+55.0/-59.4	+55.0/-56.2	+55.0/-87.5
74"		+39.3/-39.3	+39.3/-39.3	+45.9/-45.9	+47.9/-47.9	+52.5/-52.5	+55.0/-67.8
85"		+35.8/-35.8	+35.8/-35.8	+41.8/-41.8	+46.8/-46.8	+47.8/-47.8	+55.0/-61.8
97"		+33.1/-33.1	+33.1/-33.1	+38.7/-38.7	+43.9/-43.9	+44.2/-44.2	+55.0/-57.1
109"		+31.2/-31.2	+31.2/-31.2	+36.4/-36.4	+40.5/-40.5	+39.6/-39.6	+53.8/-53.8
120"		+30.0/-30.0	+30.0/-30.0	+35.0/-35.0	+37.5/-37.5	+35.8/-35.8	+51.7/-51.7

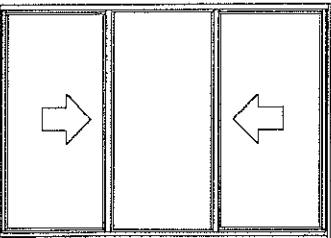
TABLE 5:

Glass Types	
Glass 2	3/16" Annealed
	1/4" Annealed
Glass 3	1/8" Annealed - 1/4" Airspace - 1/8" Annealed
	3/16" Annealed - 3/16" Airspace - 1/8" Annealed
Glass 4	3/16" Tempered
	1/4" Tempered
Glass 5	1/8" Tempered - 1/4" Airspace - 1/8" Tempered
	3/16" Tempered - 3/16" Airspace - 1/8" Tempered

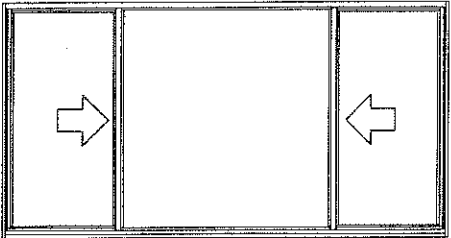
NOTES:

- 1) USE THIS TABLE FOR ALL XOX WINDOWS PER THE ELEVATIONS ON SHEET 1. DIMENSIONS SHOWN ARE TIP-TO-TIP.
- 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.
- 3) DESIGN PRESSURES MAY BE INTERPOLATED BETWEEN SIZES.

CONFIGURATIONS APPLICABLE TO THIS SHEET:



XOX (1/3-1/3-1/3)

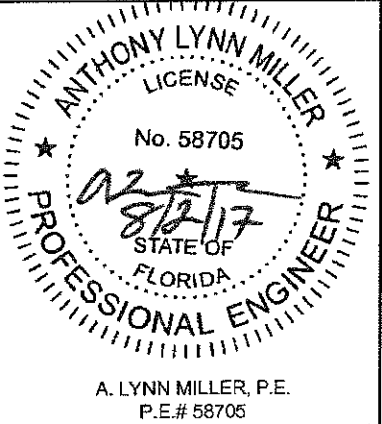


XOX (1/4-1/2-1/4)

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0411.05**
Expiration Date **04/05/2022**
By
Miami-Dade Product Control

Revision

1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941)-480-1600	COPYRIGHT © 2017 PGT INDUSTRIES, INC. ALL RIGHTS RESERVED	03/15/17	JENS ROSOWSKI	Rev.
				MD-HR210-02
				No.
				DWG
	CERT. OF AUTH. #29296	ALUMINUM HORIZONTAL ROLLER WINDOW	DESIGN PRESSURES, XO/OX	3 OF 11
				Sheet
				NTS
				Scale
HR-210	Series	Desc.	Title	HR-210

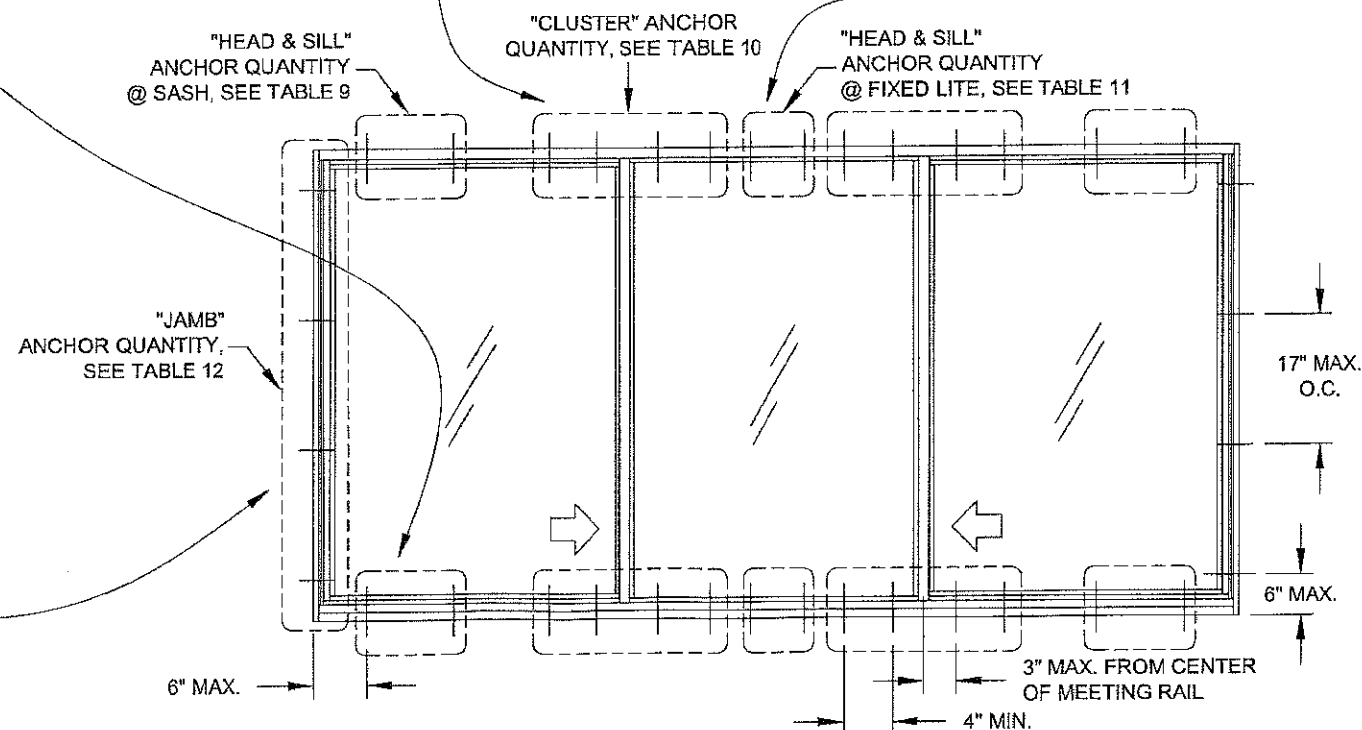


Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
49"	38-3/8"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		2	1	1	1	2	1	1	1
85"		2	2	1	1	2	2	1	1
90"		2	2	1	1	2	2	1	1
49"	44"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	2	1	1	1
85"		2	1	1	1	2	2	1	1
90"		2	2	1	1	2	2	1	1
49"	50-5/8"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	2	1	1	1
85"		1	1	1	1	2	2	1	1
90"		2	1	1	1	2	2	1	1
49"	63"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	2	1	1	1
90"		1	1	1	1	2	1	1	1

Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
49"	38-3/8"	C2	C2	C2	C2	C2	C2	C2	C2
53-1/8"		C2	C2	C2	C2	C2	C2	C2	C2
61"		C4	C2	C2	C2	C4	C2	C2	C2
74"		C4	C2	C2	C2	C4	C2	C2	C2
85"		C4	C2	C2	C2	C4	C2	C2	C2
90"		C4	C2	C2	C2	C4	C4	C2	C2
49"	44"	C4	C2	C2	C2	C4	C2	C2	C2
53-1/8"		C4	C2	C2	C2	C4	C2	C2	C2
61"		C4	C2	C2	C2	C4	C2	C2	C2
74"		C4	C2	C2	C2	C4	C4	C2	C2
85"		C4	C2	C2	C2	C4	C4	C2	C2
90"		C4	C2	C2	C2	C4	C4	C2	C2
49"	50-5/8"	C4	C2	C2	C2	C4	C2	C2	C2
53-1/8"		C4	C2	C2	C2	C4	C4	C2	C2
61"		C4	C2	C2	C2	C4	C4	C2	C2
74"		C4	C2	C2	C2	C4	C4	C2	C2
85"		C4	C2	C2	C2	C4	C4	C2	C2
90"		C4	C2	C2	C2	C4	C4	C2	C2
49"	63"	C4	C2	C2	C2	C4	C4	C2	C2
53-1/8"		C4	C2	C2	C2	C4	C4	C2	C2
61"		C4	C2	C2	C2	C4	C4	C2	C2
74"		C4	C2	C2	C2	C4	C4	C2	C2
85"		C4	C2	C2	C2	C4	C4	C2	C2
90"		C4	C2	C2	C2	C4	C4	C2	C2

Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
49"	38-3/8"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		2	2	1	1	2	2	1	1
90"		2	2	1	1	2	2	1	1
49"	44"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		2	1	1	1	2	2	1	1
90"		2	1	1	1	2	2	1	1
49"	50-5/8"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	2	2	1	1
90"		1	1	1	1	2	2	1	1
49"	63"	1	1	1	1	1	1	1	1
53-1/8"		1	1	1	1	1	1	1	1
61"		1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	1	1	1	1
90"		1	1	1	1	2	1	1	1

Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
49"	38-3/8"	3	3	3	3	3	3	3	3
53-1/8"		3	3	3	3	3	3	3	3
61"		3	3	3	3	3	3	3	3
74"		3	3	3	3	3	3	3	3
85"		3	3	3	3	4	3	3	3
90"		3	3	3	3	4	3	3	3
49"	44"	3	3	3	3	3	3	3	3
53-1/8"		3	3	3	3	3	3	3	3
61"		4	3	3	3	4	3	3	3
74"		3	3	3	3	4	3	3	3
85"		3	3	3	3	4	3	3	3
90"		3	3	3	3	4	4	3	3
49"	50-5/8"	4	4	4	4	4	4	4	4
53-1/8"		4	4	4	4	4	4	4	4
61"		4	4	4	4	4	4	4	4
74"		4	4	4	4	5	4	4	4
85"		4	4	4	4	5	4	4	4
90"		4	4	4	4	5	4	4	4
49"	63"	4	4	4	4	4	4	4	4
53-1/8"		4	4	4	4	5	4	4	4
61"		4	4	4	4	5	4	4	4
74"		4	4	4	4	5	4	4	4
85"		4	4	4	4	5	4	4	4
90"		4	4	4	4	5	4	4	4



ANCHORAGE FOR XOX (1/3-1/3-1/3) CONFIGURATIONS

EGRESS WIDTH: (WW/3 - 6)
EGRESS HEIGHT: (WH - 4-5/8)

SASH & FIXED VISIBLE LIGHT WIDTH: (WW/3 - 3-9/16)
SASH VISIBLE LIGHT HEIGHT: (WH - 6-1/8)
FIXED VISIBLE LIGHT HEIGHT: (WH - 4-7/8)

SEE TABLE 20, SHEET 11 FOR ANCHOR GROUP DESCRIPTIONS.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **17-0411.05**

Expiration Date **04/05/2022**

By
Miami-Dade Product Control

Revision

1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941)-480-1600
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PGT
CERT. OF AUTH. #29296
ALUMINUM HORIZONTAL ROLLER WINDOW
ANCHOR QUANTITIES, XOX, 1/3
JENS ROSOWSKI
MD-HR210-02

ANTHONY LYNN MILLER
LICENSE
No. 58705
8/2/17
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 13:

Head & Sill @ Sash Anchor Quantity, XOX, 1/4 - 1/2 - 1/4									
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
53-1/8"	38-3/8"	1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	1	1	1	1
97"		2	1	1	1	2	1	1	1
109"		2	2	1	1	2	2	1	1
120"		2	2	1	1	2	2	1	1
53-1/8"	44"	1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	1	1	1	1
97"		1	1	1	1	2	1	1	1
109"		2	1	1	1	2	2	1	1
120"		2	1	1	1	2	2	1	1
53-1/8"	50-5/8"	1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	1	1	1	1
97"		1	1	1	1	1	1	1	1
109"		1	1	1	1	2	1	1	1
120"		1	1	1	1	2	2	1	1
53-1/8"	63"	1	1	1	1	1	1	1	1
74"		1	1	1	1	1	1	1	1
85"		1	1	1	1	1	1	1	1
97"		1	1	1	1	1	1	1	1
109"		1	1	1	1	1	1	1	1
120"		1	1	1	1	1	1	1	1

TABLE 14:

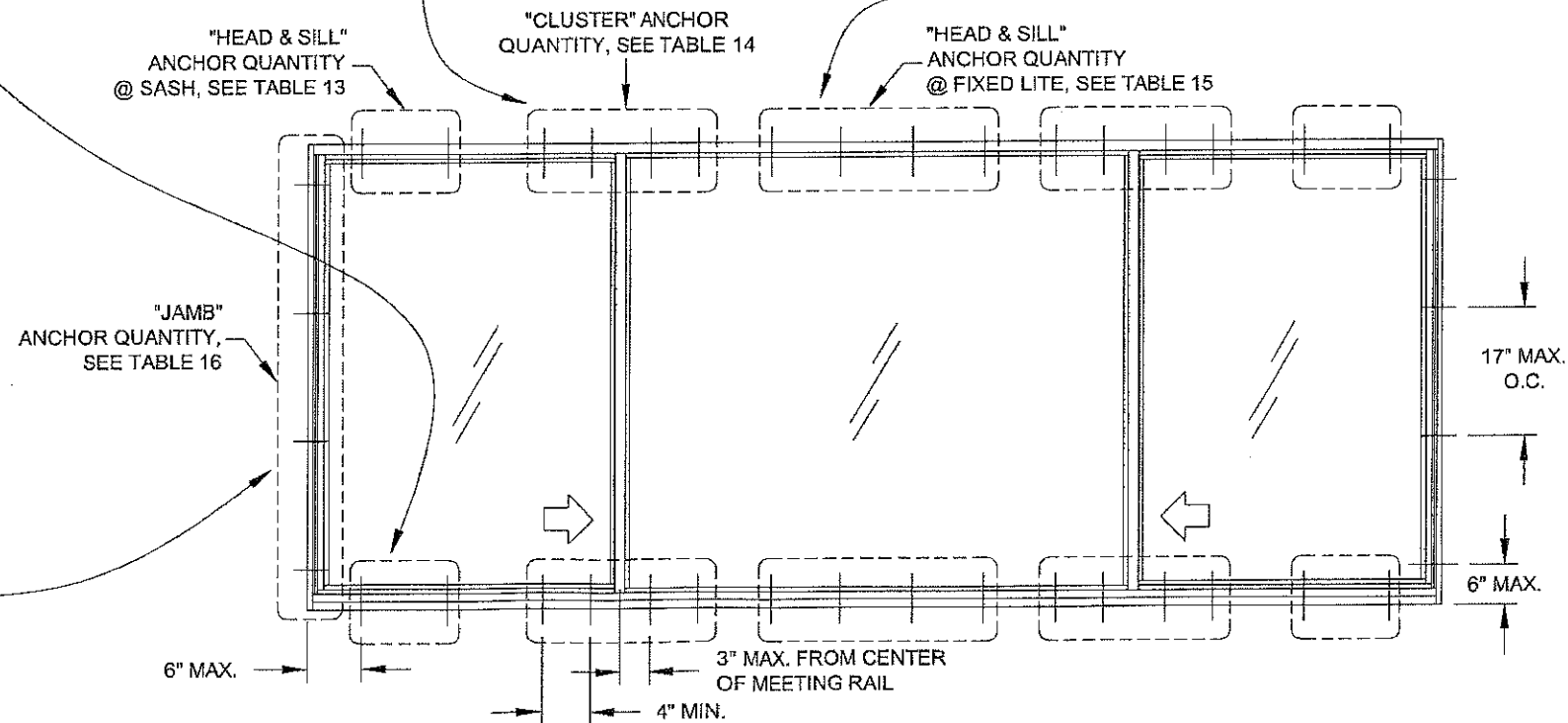
Head & Sill Anchor Cluster Quantities, XOX, 1/4 - 1/2 - 1/4									
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
53-1/8"	38-3/8"	C2	C2	C2	C2	C2	C2	C2	C2
74"		C4	C2	C2	C2	C4	C2	C2	C2
85"		C4	C2	C2	C2	C4	C2	C2	C2
97"		C4	C2	C2	C2	C4	C2	C2	C2
109"		C4	C2	C2	C2	C4	C4	C2	C2
120"		C4	C2	C2	C2	C4	C4	C2	C2
53-1/8"	44"	C4	C2	C2	C2	C4	C2	C2	C2
74"		C4	C2	C2	C2	C4	C4	C2	C2
85"		C4	C2	C2	C2	C4	C4	C2	C2
97"		C4	C2	C2	C2	C4	C4	C2	C2
109"		C4	C2	C2	C2	C4	C4	C2	C2
120"		C4	C2	C2	C2	C4	C4	C2	C2
53-1/8"	50-5/8"	C4	C2	C2	C2	C4	C4	C2	C2
74"		C4	C2	C2	C2	C4	C4	C2	C2
85"		C4	C2	C2	C2	C4	C4	C2	C2
97"		C4	C2	C2	C2	C4	C4	C2	C2
109"		C4	C2	C2	C2	C4	C4	C2	C2
120"		C4	C2	C2	C2	C4	C4	C2	C2
53-1/8"	63"	C4	C2	C2	C2	C4	C4	C2	C2
74"		C4	C2	C2	C2	C4	C4	C2	C2
85"		C4	C2	C2	C2	C4	C4	C2	C2
97"		C4	C2	C2	C2	C4	C4	C2	C2
109"		C4	C2	C2	C2	C4	C4	C2	C2
120"		C4	C2	C2	C2	C4	C4	C2	C2

TABLE 15:

Head & Sill @ Fixed Lite Anchor Quantity, XOX, 1/4 - 1/2 - 1/4									
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
53-1/8"	38-3/8"	2	1	1	1	2	1	1	1
74"		3	2	2	1	3	2	2	1
85"		4	3	2	2	4	3	2	2
97"		4	3	2	2	4	4	2	2
109"		5	4	3	2	5	4	3	2
120"		6	5	3	2	6	5	3	3
53-1/8"	44"	2	1	1	1	2	1	1	1
74"		2	2	1	1	3	2	2	1
85"		3	2	2	1	4	3	2	2
97"		4	3	2	2	4	4	2	2
109"		4	3	2	2	5	4	3	2
120"		5	4	3	2	6	5	3	3
53-1/8"	50-5/8"	1	1	1	1	2	1	1	1
74"		2	2	1	1	3	2	2	1
85"		2	2	1	1	3	3	2	2
97"		3	2	2	1	4	3	2	2
109"		3	3	2	2	5	4	3	2
120"		4	3	2	2	6	5	3	2
53-1/8"	63"	1	1	1	1	2	1	1	1
74"		2	1	1	1	2	2	1	1
85"		2	2	1	1	3	2	2	1
97"		2	2	1	1	3	3	2	1
109"		3	2	2	1	4	3	2	2
120"		3	2	2	1	4	3	2	2

TABLE 16:

Jamb Anchor Quantities, XOX, 1/4 - 1/2 - 1/4									
Tip-to-Tip Width	Tip-to-Tip Height	w/ Standard Meeting Rail				w/ Heavy-duty Meeting Rail			
		Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D	Anchor Group A	Anchor Group B	Anchor Group C	Anchor Group D
53-1/8"	38-3/8"	3	3	3	3	3	3	3	3
74"		3	3	3	3	3	3	3	3
85"		3	3	3	3	3	3	3	3
97"		3	3	3	3	3	3	3	3
109"		3	3	3	3	3	3	3	3
120"		3	3	3	3	4	3	3	3
53-1/8"	44"	3	3	3	3	3	3	3	3
74"		3	3	3	3	3	3	3	3
85"		3	3	3	3	4	3	3	3
97"		3	3	3	3	4	3	3	3
109"		3	3	3	3	4	3	3	3
120"		3	3	3	3	4	4	3	3
53-1/8"	50-5/8"	4	4	4	4	4	4	4	4
74"		4	4	4	4	4	4	4	4
85"		4	4	4	4	4	4	4	4
97"		4	4	4	4	4	4	4	4
109"		4	4	4	4	4	4	4	4
120"		4	4	4	4	4	4	4	4
53-1/8"	63"	4	4	4	4	4	4	4	4
74"		4	4	4	4	4	4	4	4
85"		4	4	4	4	4	4	4	4
97"		4	4	4	4	4	4	4	4
109"		4	4	4	4	4	4	4	4
120"		4	4	4	4	4	4	4	4



ANCHORAGE FOR XOX (1/4-1/2-1/4) CONFIGURATIONS

SASH VISIBLE LIGHT WIDTH: (WW/4 - 3-7/16)
 FIXED VISIBLE LIGHT WIDTH: (WW/2 - 3-13/16)
 SASH VISIBLE LIGHT HEIGHT: (WH - 6-1/8)
 FIXED VISIBLE LIGHT HEIGHT: (WH - 4-7/8)

EGRESS WIDTH: (WW/4 - 2-5/16)
 EGRESS HEIGHT: (WH - 4-5/8)

SEE TABLE 20, SHEET 11 FOR ANCHOR GROUP DESCRIPTIONS.

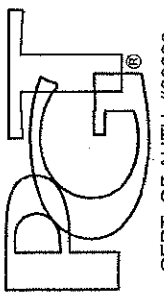
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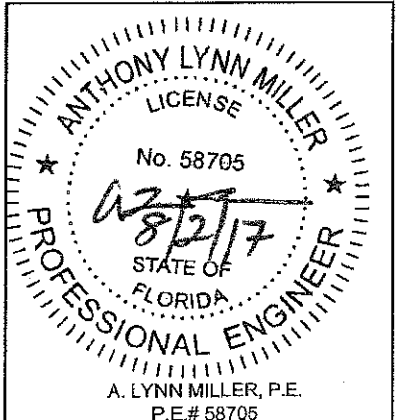


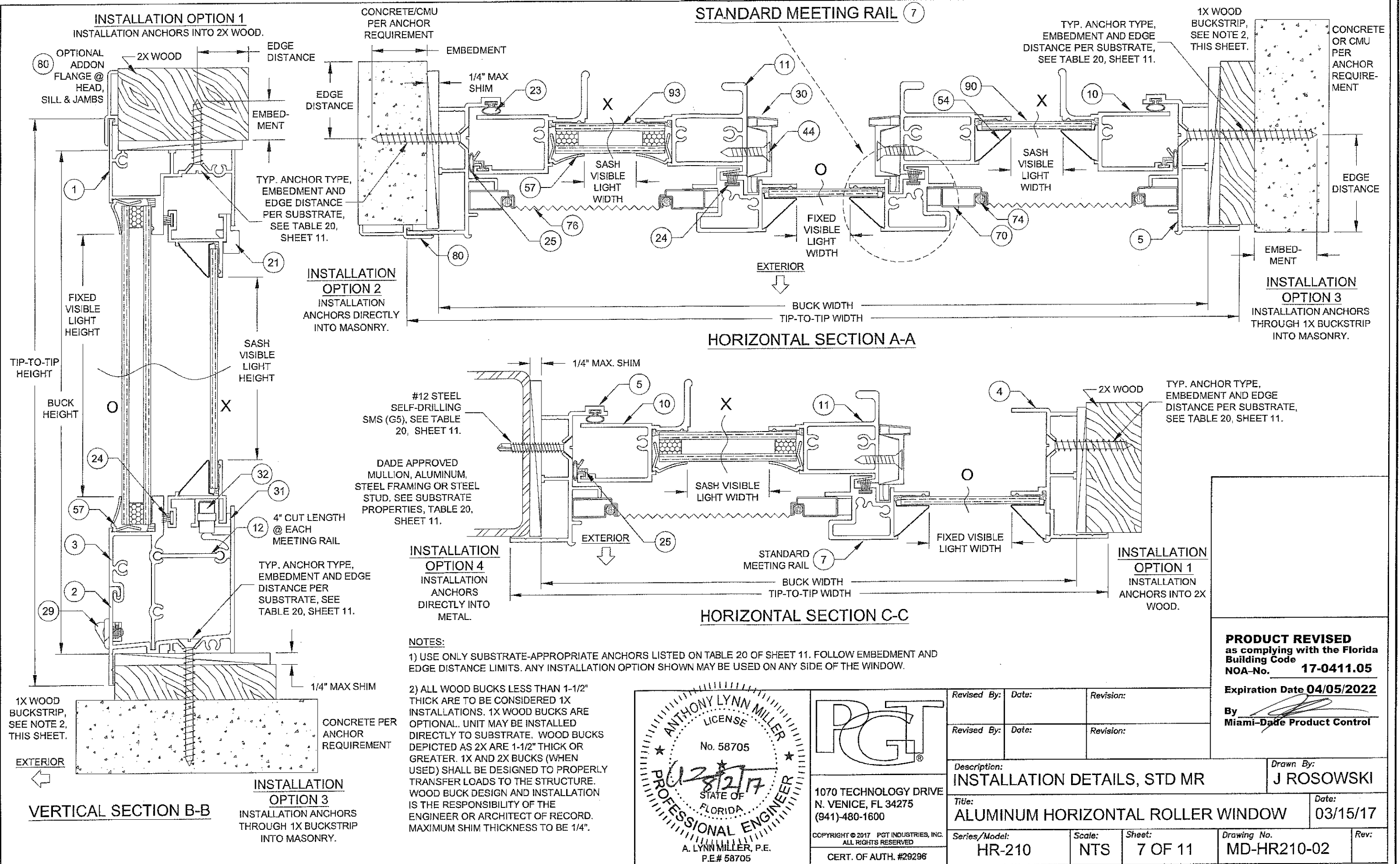
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ALUMINUM HORIZONTAL ROLLER WINDOW

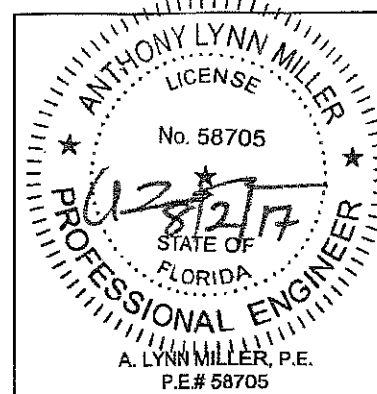
ANCHOR QUANTITIES, XOX, 1/4

JENS ROSOWSKI
 MD-HR210-02
 6 OF 11
 NTS
 HR-210





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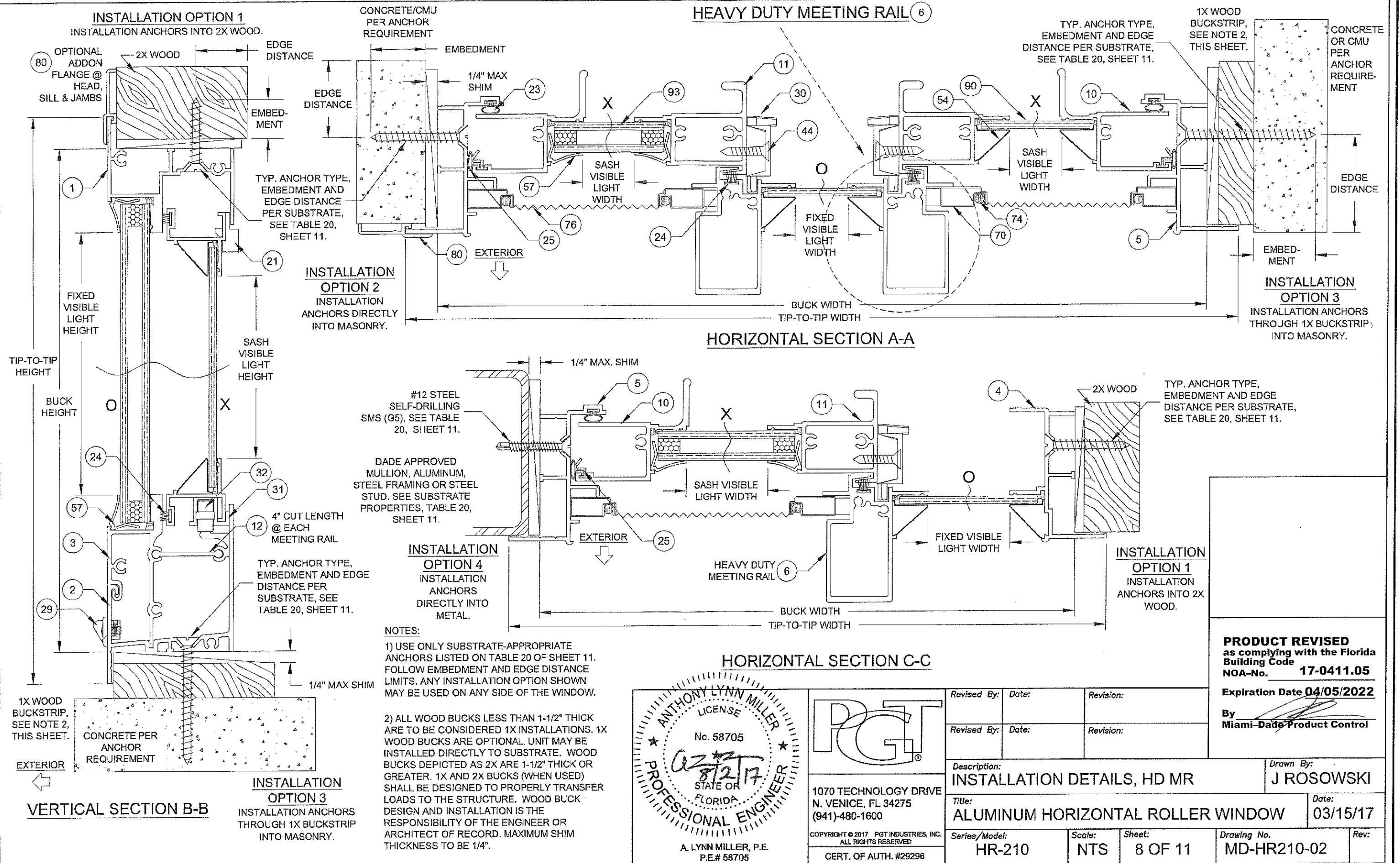
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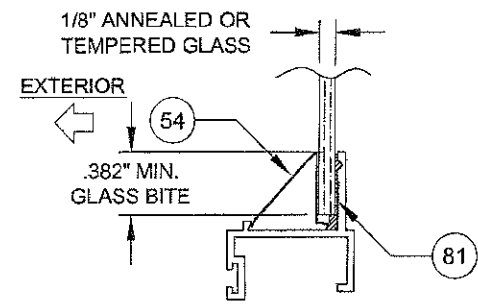
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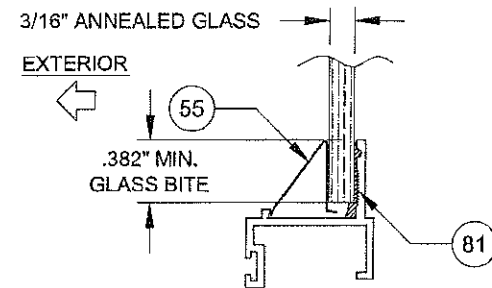
Revised By:	Date:	Revision:
Revised By:	Date:	Revision:
Description: INSTALLATION DETAILS, STD MR		
Title: ALUMINUM HORIZONTAL ROLLER WINDOW		Date: 03/15/17
Series/Model: HR-210	Scale: NTS	Sheet: 7 OF 11
Drawing No. MD-HR210-02		Rev:

Drawn By:
J ROSOWSKI

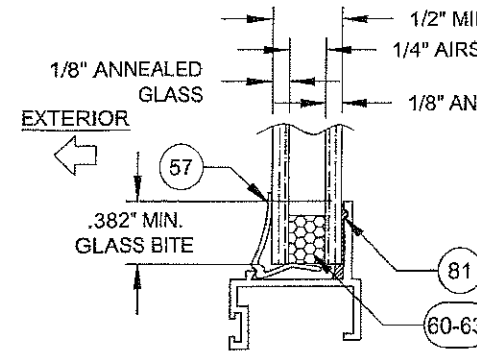
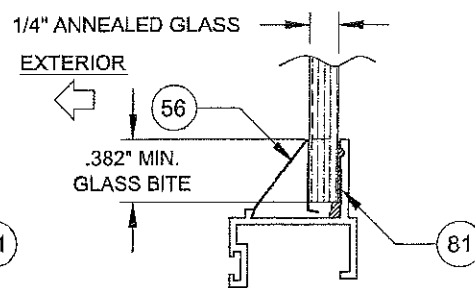




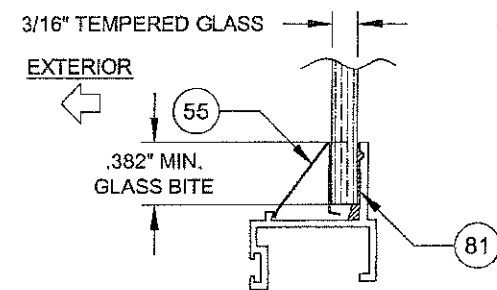
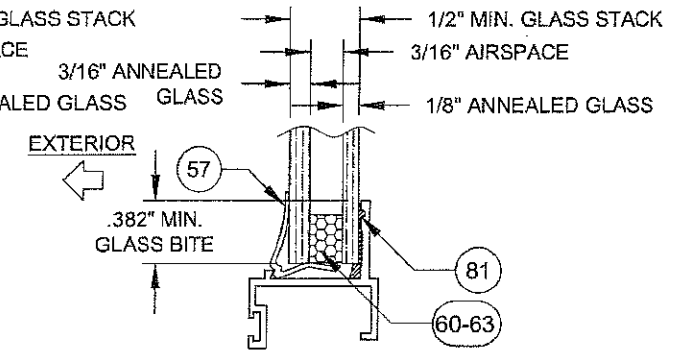
GLASS TYPE 1



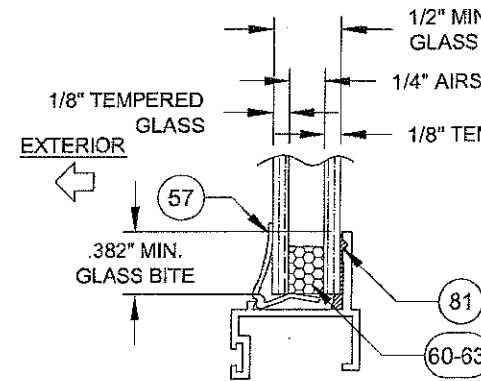
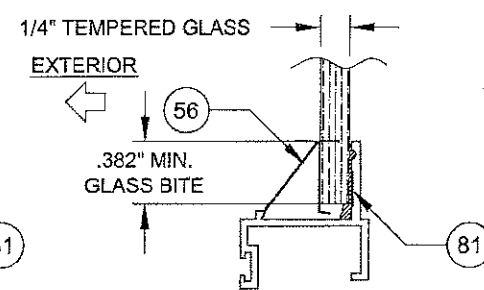
GLASS TYPE 2



GLASS TYPE 3



GLASS TYPE 5



GLASS TYPE 5

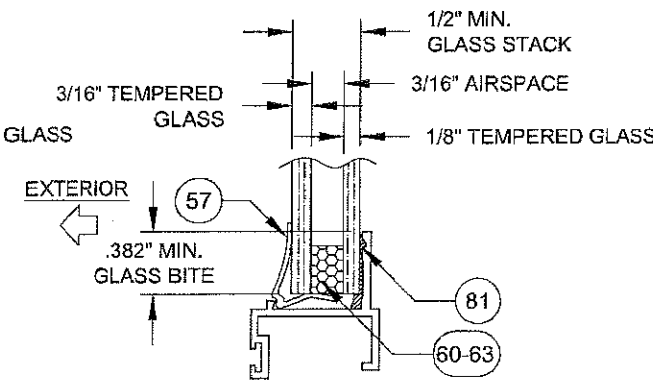
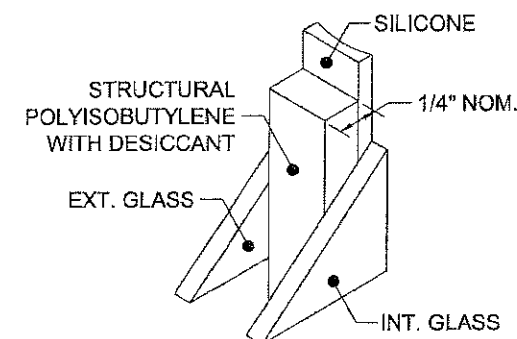
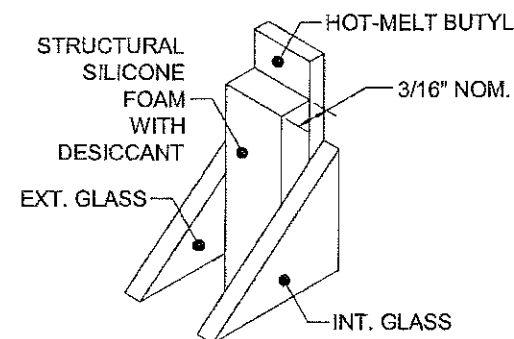


TABLE 18:

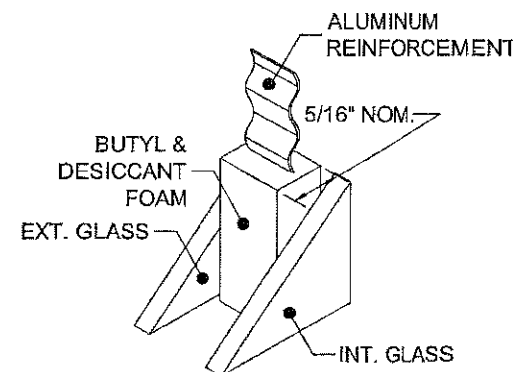
Glass Types	
Glass 1	1/8" Annealed 1/8" Tempered
Glass 2	3/16" Annealed 1/4" Annealed
Glass 3	1/8" Annealed - 1/4" Airspace - 1/8" Annealed 3/16" Annealed - 3/16" Airspace - 1/8" Annealed
Glass 4	3/16" Tempered 1/4" Tempered
Glass 5	1/8" Tempered - 1/4" Airspace - 1/8" Tempered 3/16" Tempered - 3/16" Airspace - 1/8" Tempered



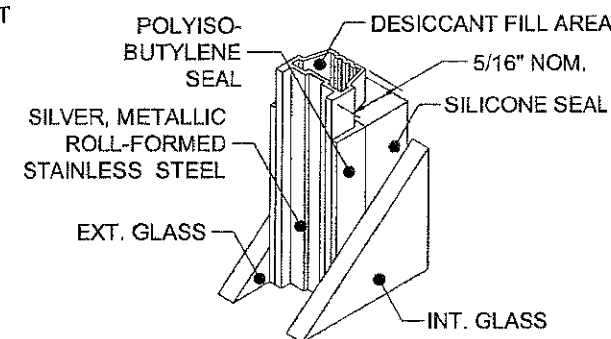
60 KODISPACE
4SG TPS



61 SUPER
SPACER[®] NXT[™]



62 DURASEAL[®]
SPACER

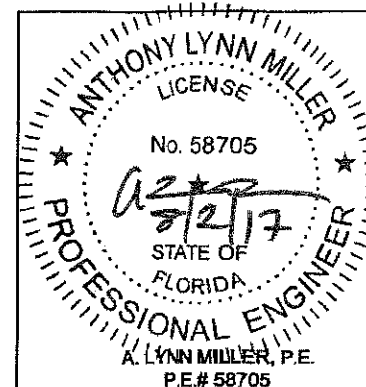


63 XL EDGE[™]
SPACER

TABLE 17:

Part #	Description	Material
60	Kommerling 4SG TPS Spacer System	See this Sheet for Materials
61	Quanex Super Spacer nXT with Hot Melt Butyl	
62	Quanex Duraseal Spacer	
63	Cardinal XL Edge Spacer	

REFERENCE TEST REPORTS: FTL-8717, 8968 & 8970



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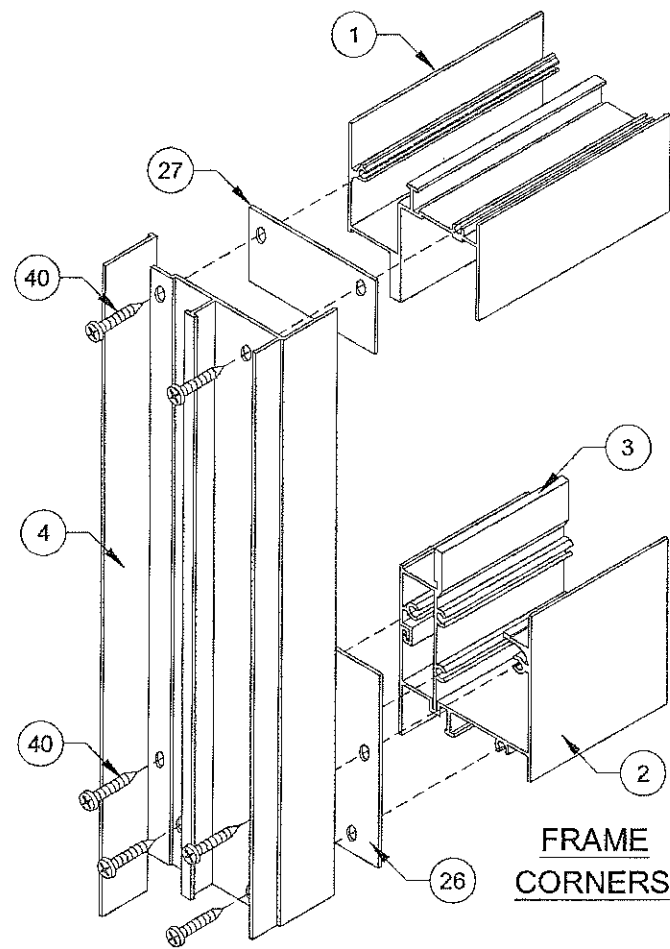
Revised By:	Date:	Revision:
Revised By:	Date:	Revision:
Description: GLAZING COMPONENTS		
Title: ALUMINUM HORIZONTAL ROLLER WINDOW		Date: 03/15/17
Series/Model:	Scale:	Sheet: 9 OF 11
Drawing No. MD-HR210-02		Rev:

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Building Code
NOA-No. 17-0411.05

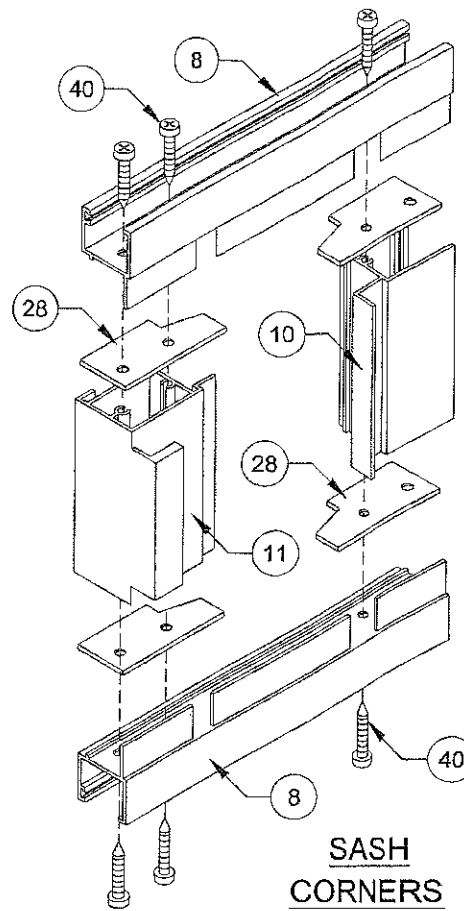
Expiration Date 04/05/2022

By
Miami-Dade Product Control

Drawn By:
J ROSOWSKI

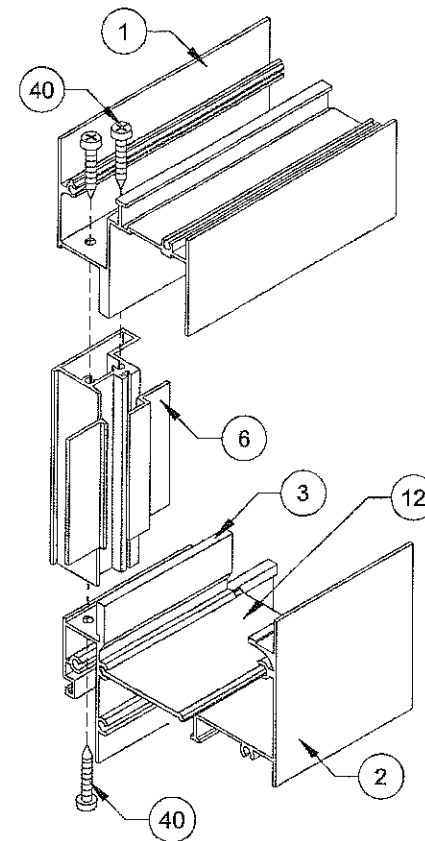


**FRAME
CORNERS**

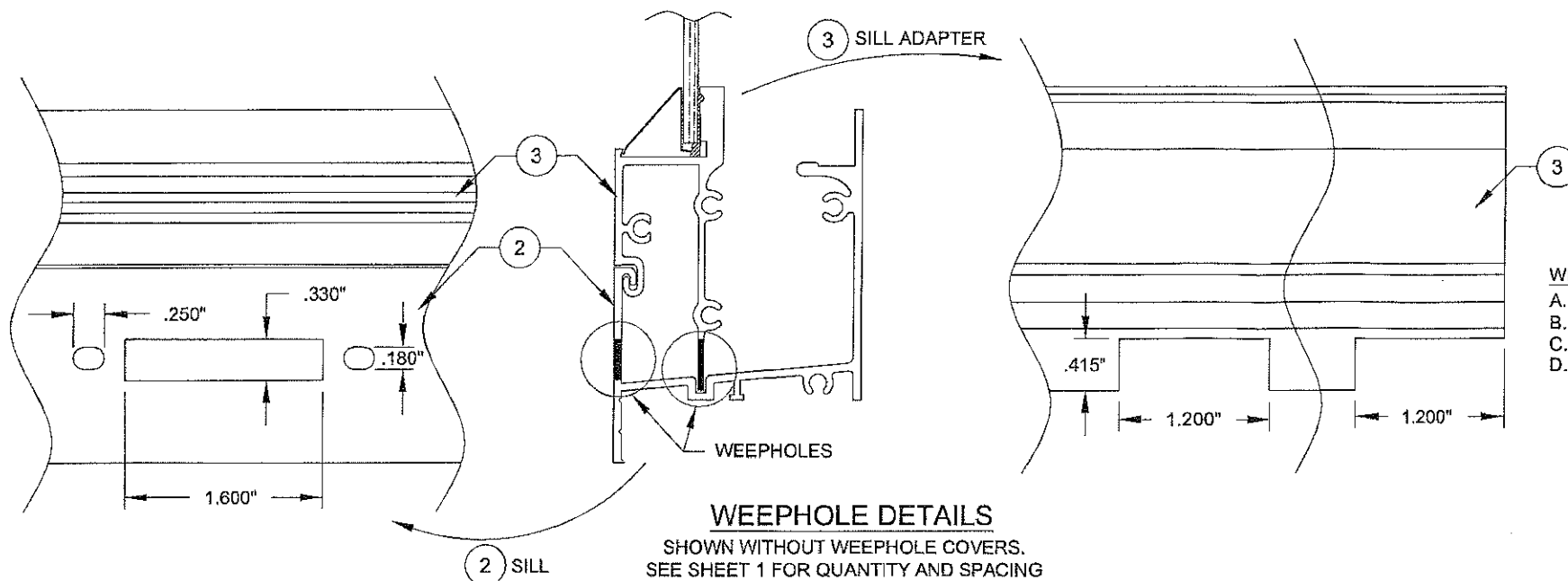


**SASH
CORNERS**

ASSEMBLY DETAILS



**STD. MEETING RAIL
(HD SIMILAR)**



WEEPHOLE DETAILS

SHOWN WITHOUT WEEPHOLE COVERS.
SEE SHEET 1 FOR QUANTITY AND SPACING

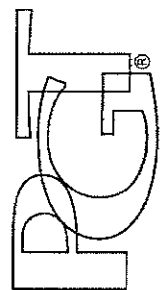
WEEPHOLE NOTES:

- A. REQUIRED IF WINDOW WIDTH IS OVER 67".
- B. REQUIRED IF WINDOW WIDTH IS OVER 45" AND UP TO 67".
- C. REQUIRED IF WINDOW WIDTH IS OVER 89".
- D. REQUIRED IF WINDOW WIDTH IS OVER 45".

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Series	Desc.	Title	By	Date	Rev.
HR-210	ASSEMBLY DETAILS	ALUMINUM HORIZONTAL ROLLER WINDOW	JENS ROSOWSKI	03/15/17	
10 OF 11	Sheet	NTS			
MD-HR210-02					

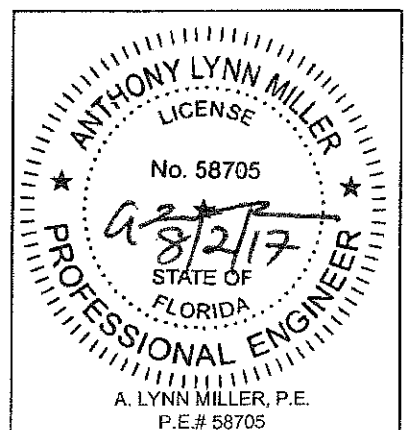


TABLE 19:

Item	Part #	Description	Material
1	6215W	Frame Head	6063-T6
2	6264W	Frame Sill	6063-T5
3	6265BW	Sill Adapter	6063-T6
4	6218W	Frame Jamb (Fixed)	6063-T6
5	61088W	Frame Jamb (Operable)	6063-T5
6	6267W	Heavy Duty Fixed Meeting Rail	6063-T6
7	6220W	Fixed Meeting Rail	6063-T6
8	6223W	Sash Top & Bottom Rail	6063-T6
10	6221BW	Sash Side Rail	6063-T6
11	6222W	Sash Meeting Rail	6063-T6
12	6270W	Dogbone Reinforcement	6063-T6
13	62785W	Sash Stop	6063-T5
20	74080BK	Meeting Rail Sweep Latch Plug	Rigid PVC
21	42105W	Sash Top Guide (Anti-rack)	Rigid PVC
22	42114W	End Cap	Rigid PVC
23	6Q200K	.190" X .200" Q-Ion Wstp. (Frame)	Flex PVC 70
24	64066G	.187" X .230" Fin Wstp.	varies
25	66601K	Bulb Vinyl Wstp. (Sash)	Flex PVC 70
26	70275CK	Frame Sill Gasket	Polyethylene
27	70273AK	Frame Head Gasket	Polyethylene
28	70280BK	Sash Gaskets	Polyethylene
29	7HRKITW	Weephole Cover	Plastic
30	71096W	Sweep Latch	Cast Zinc
31	42112N	Roller Housing & Guide	Vinyl
32	7BRWHL2	Roller	Brass
40	781PQA	#8 X 1" QUAD Pn SMS	Steel
41	781PQX	#8 X 1" Sq. Pn. SMS	410 SS
42	781PSTX	#8 X 1" Sq. Pn. Twin Fast SMS	410 SS
43	78X38PSA	#8 X .375" Sq. Pn. SMS	Steel
44	7858WW	#8 X .625" Ph. Fl. SMS	Steel
50	712653K	Setting Block 3/32" X 1/4" X 1"	EPDM
51	71267N	Setting Block 1/8" X 1/2" X 1"	EPDM
54	61625W	1/8" Bead	Aluminum
55	65016W	3/16" Bead	Aluminum
56	65133W	1/4" Bead	Aluminum
57	6VT48W	I.G. Bead	Rigid PVC
70	61014FW	Screen Frame	Aluminum
71	47041W	Screen Corner Key No Ring	Vinyl
72	47042W	Screen Corner Key with Ring	Vinyl
73	7320SPNG	Screen Spring	Spring Steel
74	61624K	Screen Spline - .135" Dia. Foam	Rubber
75	61635K	Screen Spline - .135" Dia. Hard	Rubber
76		Screen Cloth	Fiberglass
80	66615W	Add-on Flange (Optional)	6063-T6
81		Dow Corning 899 Silicone Glazing Sealant	

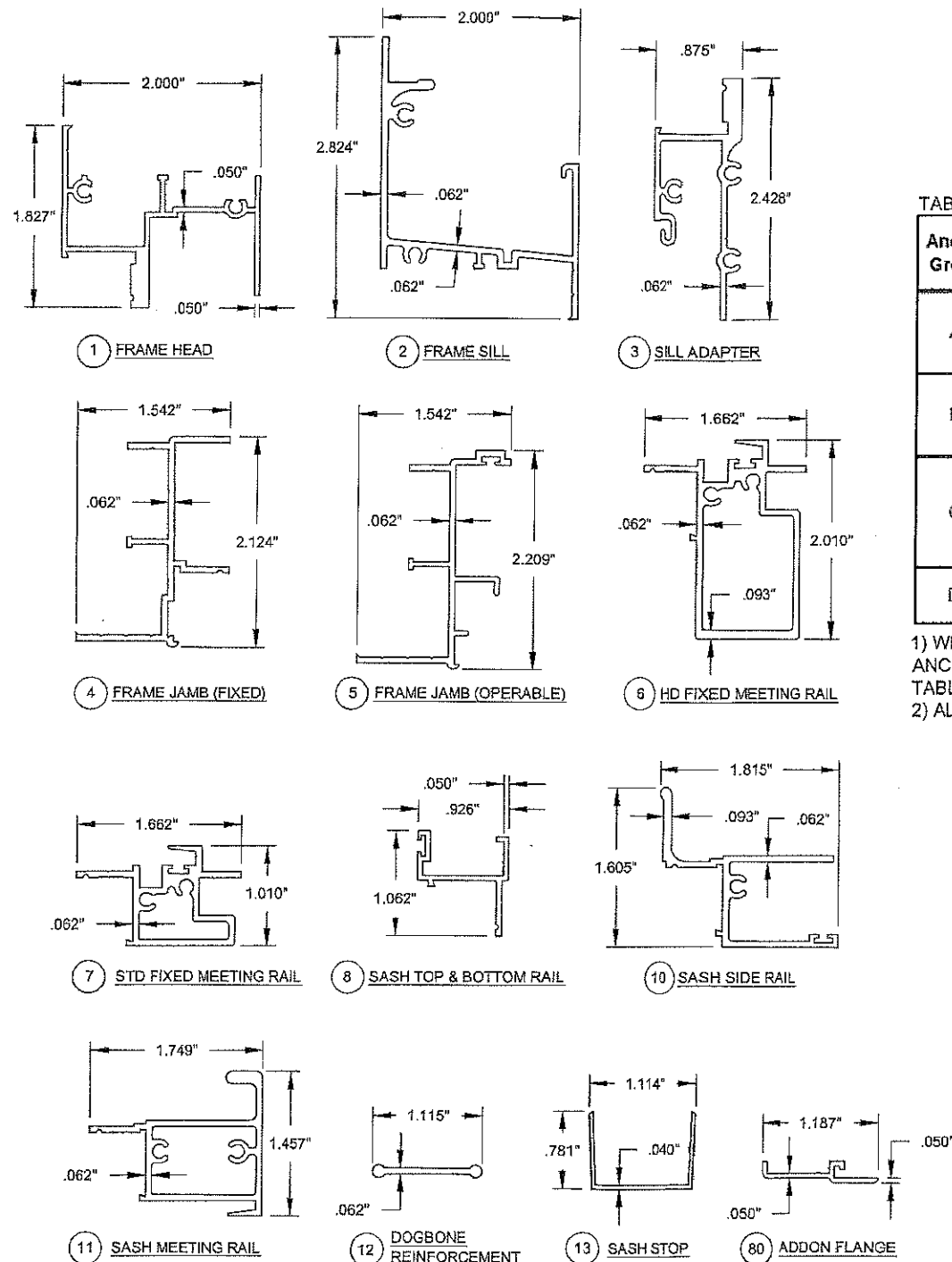


TABLE 20:

Anchor Group	Anchor Type	Frame Member	Substrate	Min. Edge Distance	Min. O.C. Distance	Min. Embedment or Metal Thickness
A	#12 SMS, 410 or 18-8 SS, (min. of 3 threads beyond metal substrate)	All	Southern Pine (SG = 0.55)	9/16"	7/8"	1-3/8"
			6063-T5 Aluminum	3/8"	9/16"	1/8"
			A36 Steel or Gr. 33 Steel Stud	3/8"	9/16"	0.045" (18 Ga)
B	#12, Steel SMS (Gr. 5), (min. of 3 threads beyond metal substrate)	All	Southern Pine (SG = 0.55)	9/16"	7/8"	1-3/8"
			6063-T5 Aluminum	3/8"	9/16"	1/8"
			A36 Steel or Gr. 33 Steel Stud	3/8"	9/16"	0.045" (18 Ga)
C	1/4" Elco UltraCon®	Jamb	Hollow Block (ASTM C90)	2-1/2"	6"	1-1/4"
		All	Filled Block (ASTM C90)	2-1/2"	4"	1-3/4"
			Concrete (min. 2.85 ksi)	2-1/2"	4"	1-3/8"
		All	Southern Pine (SG = 0.55)	1-1/16"	1-1/16"	1-3/8"
D	1/4" 410 SS Elco CreteFlex®	Jamb	Hollow or Filled Block, (ASTM C90)	1-3/4"	6"	1-1/4"
		All	Concrete (min. 3.35 ksi)	1-3/4"	4"	1-3/4"

1) WHERE SUBSTRATE CONDITIONS REQUIRE ANCHORAGE FROM MORE THAN ONE OF THE ANCHOR GROUPS ABOVE, CHOOSE THE ANCHOR GROUP OF THE LOWEST LETTER FOR ALL TABLES IN THIS APPROVAL.

2) ALL ANCHOR HEAD TYPES ARE APPLICABLE.

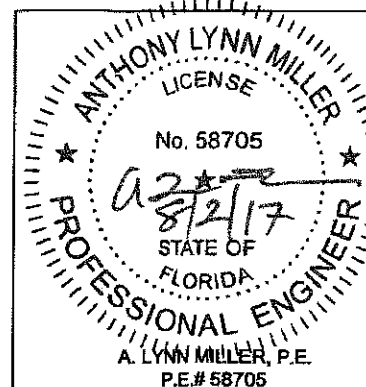
TABLE 21:

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
410 SS Elco CreteFlex®	127.4 ksi	189.7 ksi
6063-T5 Aluminum	16 ksi	22 ksi
6063-T6 Aluminum	25 ksi	30 ksi
A36 Steel	36 ksi	58 ksi
Gr. 33 Steel Stud	33 ksi	45 ksi

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Revised By:	Date:	Revision:
Revised By:	Date:	Revision:
Description: BOM & PART DETAILS, ANCHOR TYPES		
Title: ALUMINUM HORIZONTAL ROLLER WINDOW		
Series/Model: HR-210	Scale: NTS	Sheet: 11 OF 11
Drawing No. MD-HR210-02		Rev:
Date: 03/15/17		Drawn By: J ROSOWSKI