

## MIC RESOURCES (RER)

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

PRODUCT CONTROL SECTION

www.miamidade.gov/economy

**MIAMI-DADE COUNTY** 

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

## NOTICE OF ACCEPTANCE (NOA)

Custom Window Systems, Inc. 1900 SW 44<sup>th</sup> Avenue Ocala, FL 34474

## 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 "320 (Flange Frame)" Aluminum Horizontal Rolling Window - N.I.

**APPROVAL DOCUMENT:** Drawing No. **CWS-1256**, titled "CWS 320 Aluminum Flange Frame Non-Impact Horizontal Rolling Window", sheets 1 through 9 of 9, dated 11/17/23, with revision **A** dated 05/15/25, prepared by the manufacturer, signed and sealed by Thomas J. Sotos, 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, Medley, Florida, 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 No. 23-1017.08** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

MIAMI-DADE COUNTY
APPROVED

NOA No. 25-0612.03 Expiration Date: January 26, 2026 Approval Date: July 10, 2025

Page 1

## 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S

## A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA No. 09-0720.07)
- 2. Drawing No. **L8500-0401**, titled "HS-8500 Horizontal Rolling Flange Window", sheets 1 through 9 of 9, dated 05/02/05, with revision **F** dated 10/09/23, prepared by manufacturer, and signed and sealed by Thomas J. Sotos, P.E. (Submitted under NOA No. 23-1017.08)

## 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 series SH-7700 aluminum single hung window and a series PW-4000/6000 aluminum fixed window, prepared by Hurricane Engineering & Testing, Inc., Test Reports No. **HETI-23-8049** and **HETI-23-8048**, both dated 07/24/23, signed and sealed by Ram N. Tewari, P.E. (Submitted under NOA No. 23-1017.08)
- 2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94 along with marked-up drawings and installation diagram of an aluminum horizontal sliding window, prepared by Hurricane Engineering & Testing Laboratory, Inc., Test Reports No. **HETI-08-2158** and **HETI-08-2160**, dated 09/03/08, both signed and sealed by Candido F. Font, P.E.

(Submitted under NOA No. 09-0720.07)

- 3. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  2) 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 Hurricane Engineering & Testing Laboratory, Inc., Test Report No. HETI-08-2159, dated 09/03/08, signed and sealed by Candido F. Font, P.E. (Submitted under NOA No. 09-0720.07)
- **4.** 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-4413**, dated 06/23/05, **FTL-4429**, **FTL-4541**, dated 06/24/05, all signed and sealed by Edmundo J. Largaespada, P.E.

(Submitted under NOA No. 05-0919.05)

Manuel Perez, P.E. Product Control Examiner NOA No. 25-0612.03

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- B. TESTS (CONTINUED)
  - 5. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
    2) Water Resistance Test, per FBC, TAS 202-94
    along with marked-up drawings and installation diagram of an aluminum horizontal sliding windows, prepared by Fenestration Testing Laboratory, Inc., Test Report No.
    FTL-4533, dated 06/22/05, signed and sealed by Edmundo J. Largaespada, P.E.
    (Submitted under NOA No. 05-0919.05)
  - 6. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC 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-4547 dated 06/23/05, FTL-4457, FTL-4578, FTL-4588 and FTL-4594 dated 06/24/05, all signed and sealed by Edmundo J. Largaespada, P.E. (Submitted under NOA No. 05-0919.05)

## C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC, dated 08/17/05 and 07/16-17/09, prepared by manufacturer, both signed and sealed by Thomas J. Sotos, P.E.

(Submitted under NOA No. 10-1025.04)

2. Glazing complies with ASTM E1300-04/09

## D. QUALITY ASSURANCE

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

## E. MATERIAL CERTIFICATIONS

1. None.

## F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8<sup>th</sup> Edition (2023)**, dated October 12, 2023, issued by the manufacturer, signed and sealed by Thomas J. Sotos, P.E.

(Submitted under NOA No. 23-1017.08)

2. Statement letter of no financial interest, dated October 12, 2023, issued by the manufacturer, signed and sealed by Thomas J. Sotos, P.E. (Submitted under NOA No. 23-1017.08)

**3.** Proposal No. **23-0461R** issued by Product Control Section, dated June 13, 2023, and revised on June 16, 2023, signed by Manuel Perez, P.E.

(Submitted under NOA No. 23-1017.08)

Manuel Perez, P.E. Product Control Examiner NOA No. 25-0612.03

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- F. STATEMENTS (CONTINUED)
  - 4. Laboratory compliance letter for Test Reports No. **HETI-08-2158**, **HETI-08-2159**, and **HETI-08-2160**, dated 09/03/08, all issued by Hurricane Engineering & Testing Laboratory, Inc., signed and sealed by Candido F. Font, P.E. (Submitted under NOA No. 09-0720.07)
  - Laboratory compliance letter for Test Reports No., FTL-4533, FTL-4553 dated 06/22/05, FTL-4413, FTL-4456, FTL-4547, dated 06/23/05, FTL-4429, FTL-4457, FTL-4541, FTL-4578, FTL-4588, FTL-4594 dated 06/24/05, all issued by Fenestration Testing Laboratory, Inc., signed and sealed by Edmundo J. Largaespada, P.E.

(Submitted under NOA No. 05-0919.04)

## G. OTHERS

1. Notice of Acceptance No. **20-0813.04**, issued to Lawson Industries, Inc. for their Series "HS-8500 (Flange Frame)" Aluminum Horizontal Sliding Window – N.I., approved on 10/15/20 and expiring on 01/26/26.

- 2. NEW EVIDENCE SUBMITTED
- A. DRAWINGS
  - 1. Drawing No. CWS-1256, titled "CWS 320 Aluminum Flange Frame Non-Impact Horizontal Rolling Window", sheets 1 through 9 of 9, dated 11/17/23, with revision A dated 05/15/25, prepared by manufacturer, and signed and sealed by Thomas J. Sotos, P.E.
- B. TESTS
  - 1. None.
- C. CALCULATIONS
  - 1. None.
- D. QUALITY ASSURANCE
  - 1. Miami-Dade Department of Regulatory and Economic Resources (RER)
- E. MATERIAL CERTIFICATIONS
  - 1. None.

Manuel Perez, P.E. Product Control Examiner NOA No. 25-0612.03

## 2. NEW EVIDENCE SUBMITTED (CONTINUED)

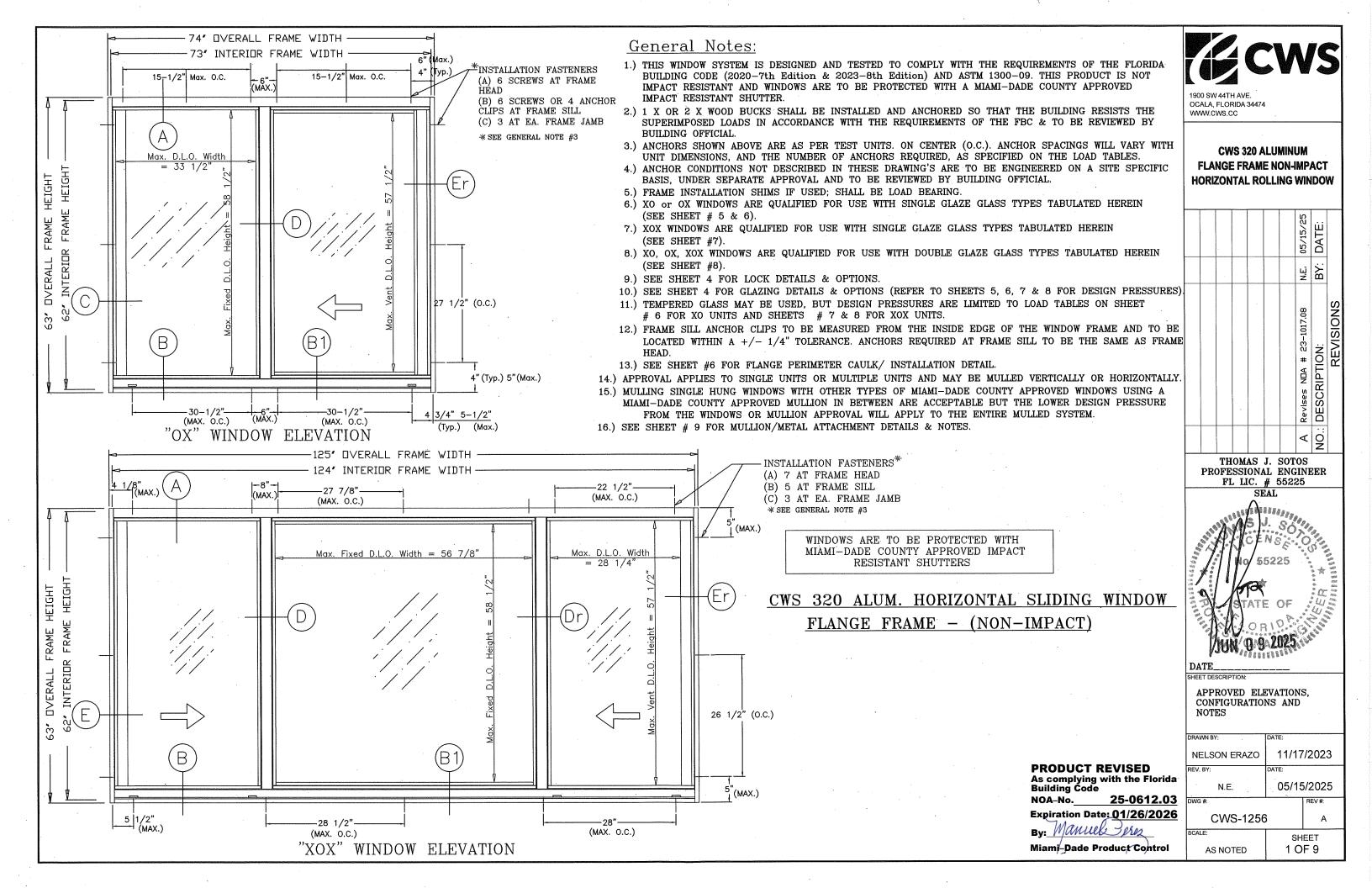
## F. STATEMENTS

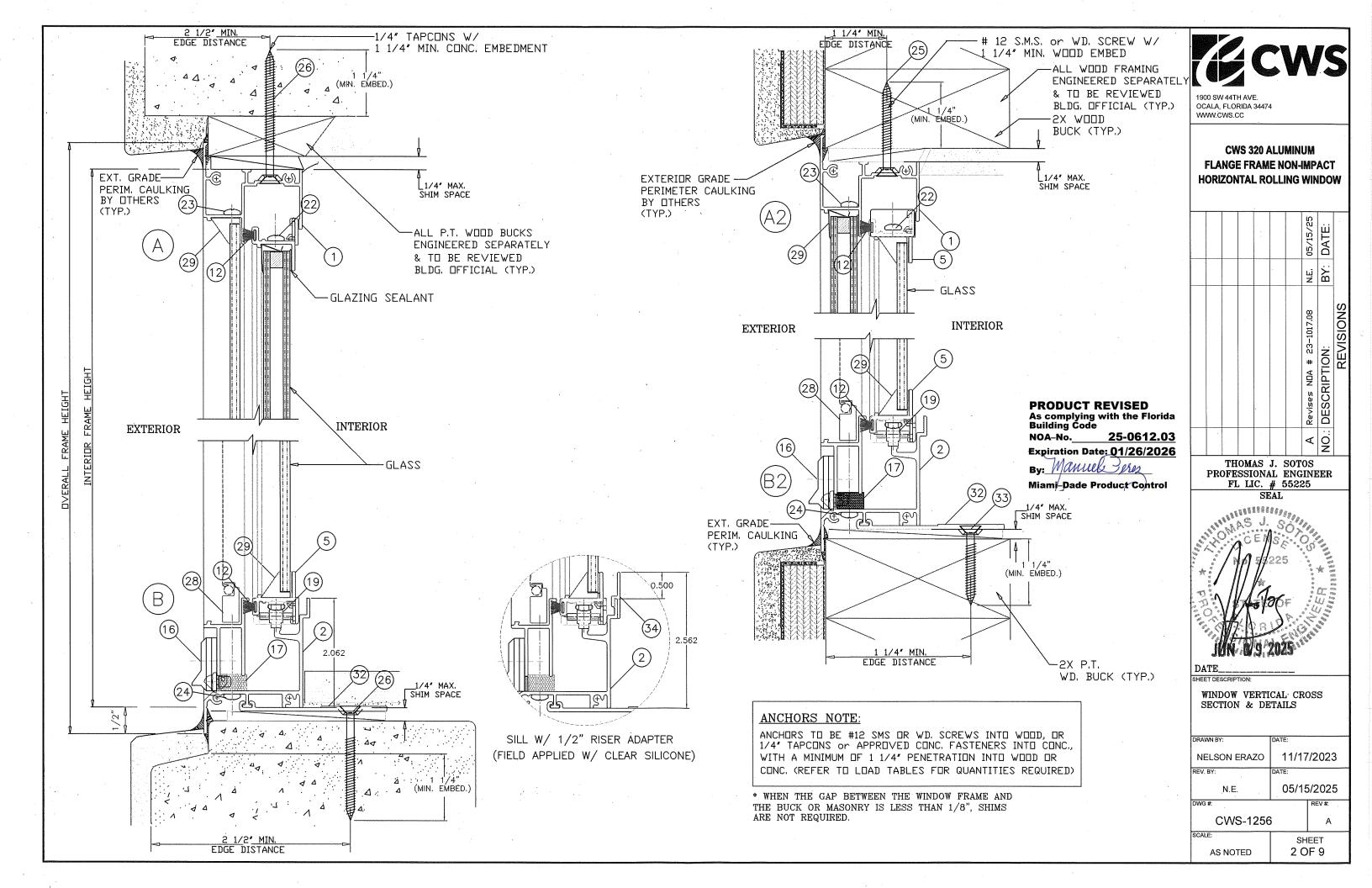
- 1. Statement letter of conformance, complying with **FBC 8<sup>th</sup> Edition (2023)**, dated June 9, 2025, issued by the manufacturer, signed and sealed by Thomas J. Sotos, P.E.
- 2. Statement letter of no financial interest, dated June 9, 2025, issued by the manufacturer, signed and sealed by Thomas J. Sotos, P.E.
- 3. Bill of Sales between CWS-SF, LLC (Buyer) and Lawson Industries, Inc. (Seller), dated Nov. 28, 2023, signed by Nicholas Cross (President, CWS) and Harold Bailey (President, Lawson Industries).
- **4.** Statement letter dated June 5, 2025, confirming that Custom Window System, Inc. is a wholly owned subsidiary of Pella Corporation, signed by Chantel Kramme, Secretary Pella Corp.
- 5. Letter from owners of existing NOA, stating that they have sold all assets to the applicant, that they no longer manufacture the product, relinquish their rights to the current NOA and request that it be rescinded, dated June 10, 2025, signed by Mr. Harold Bailey, President, Lawson Industries, Inc.
- 6. Statement letter dated June 25, 2025, issued by Custom Window Systems, Inc. (CWS) stating that they have legally purchased all assets of (18) listed NOA's from Lawson Industries, Inc. and requesting that new corresponding NOA's be issued to CWS name; also, that (18) listed Private Label Agreement NOA's between Lawson Industries, Inc. and CWS be rescinded, signed by Kevin Pine, Vice President.

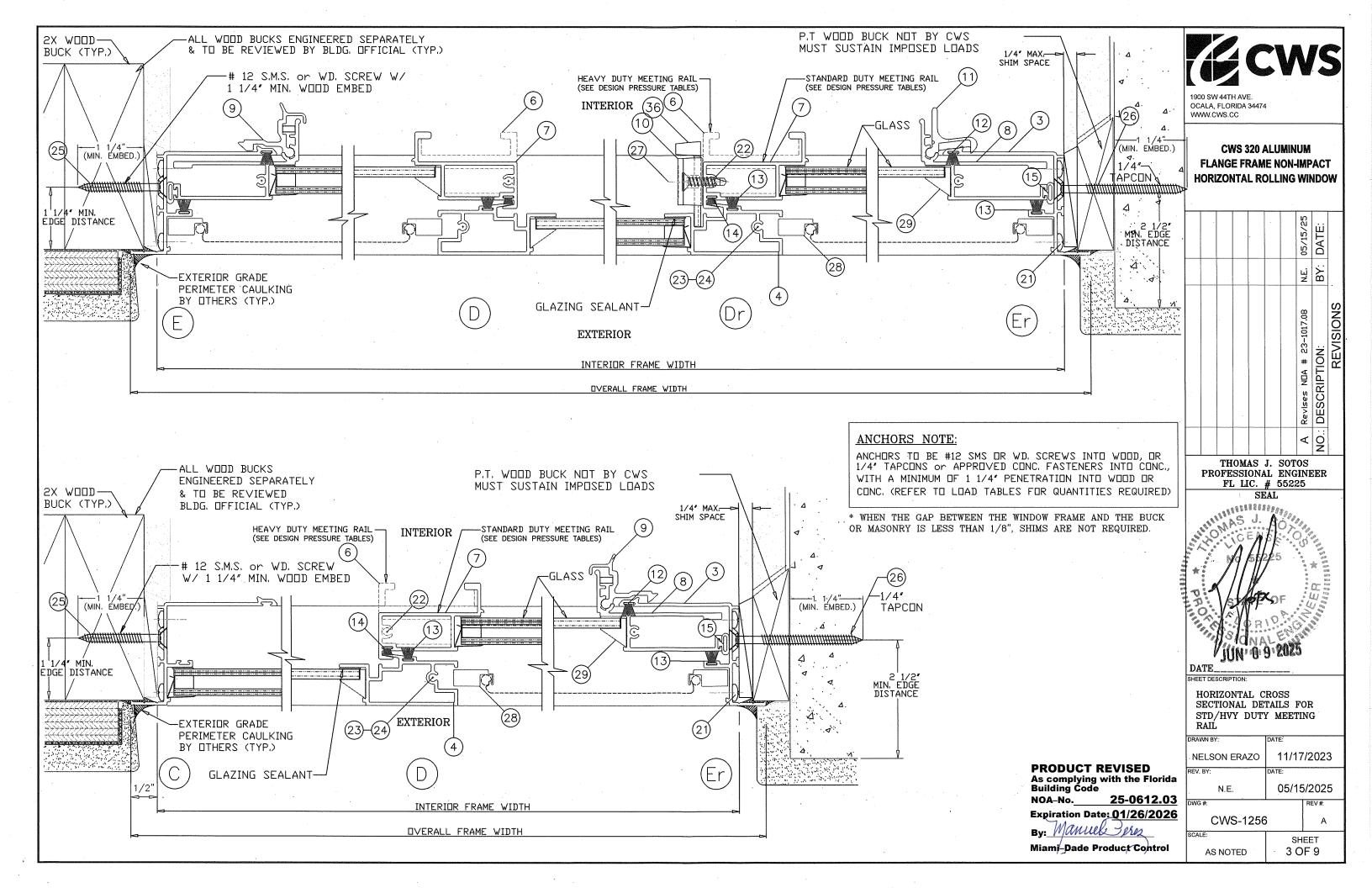
## G. OTHERS

- 1. Notice of Acceptance No. **23-1017.08**, issued to Lawson Industries, Inc. for their Series "HS-8500 (Flange Frame)" Aluminum Horizontal Rolling Window N.I., approved on 11/16/23 and expiring on 01/26/26.
- 2. Notice of Acceptance No. **24-0116.16**, issued to Custom Window Systems, Inc. for their Series "CWS-320 (Flange Frame)" Aluminum Horizontal Rolling Window N.I., approved on 02/01/24 and expiring on 01/26/26. (**Private Label NOA to be rescinded**)

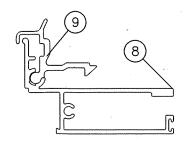
Manuel Perez, P.E. Product Control Examiner NOA No. 25-0612.03

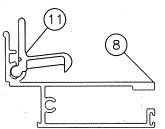


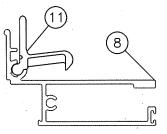




CWS 320 FLANGE HRW WINDOW - BILL OF MATERIALS							
ITEM #	PART #	DRWG. #	REQD.	DESCRIPTION	REMARKS		
1	L-7503	LII-127	. 1	FRAME HEAD .	6063-T6 ALUMINUM		
2	L-8501	LII-135	1	FRAME SILL	6063-T5 ALUMINUM		
3	L-8502	LII-131	2	FRAME JAMB	6063-T6 ALUMINUM		
4	L-7504	LII-129	1 × frame	FIXED MEETING RAIL	6005-T6 ALUMINUM		
5	L-7508	LII-124	2 x vent	VENT TOP / BOTTOM RAIL	6063-T5 ALUMINUM		
6	L-7506	LII-126	1 × vent	VENT INTERLOCK RAIL-H.D.	6005-T6 ALUMINUM		
. 7	L-7505	LII-125	1 x vent	VENT INTERLOCK STD. DUTY	6005-T5 ALUMINUM		
8	L-7507	LII-136	1 × vent	VENT LATCH JAMB	6005-T6 ALUMINUM		
9	*	LII-012	2 x vent	VENT EXTRUDED LOCK	6063-T5 ALUMINUM		
10	*	*	2 x vent	VENT CAM LOCK	DIE-CAST CAM LOCK		
11	*	HC-057	2 x vent	VENT PLASTIC LOCK	SPRING LOADED		
12	*	SCHLEGEL	AS REQD.	Top/Bott. Rall Weatherstrip	.187" X .280" FIN SEAL		
13	*	ULTRAFAB	AS REQD.	FXD RAIL WEATHERSTRIP	.187" X 250" FIN SEAL		
14	*	ULTRAFAB	AS REQD.	VENT LOCK WEATHERSTRIP	.187" X 150" PILE		
15	*	*	AS REQ'D.	VENT JAMB WEATHERSTRIP	3/8° DIA. BULB		
16	*	*	2	WEEP HOLE COVER W/ FLAP	1 1/2" wide × 1/4" hi weep		
17	* *	. *	. 2	SILL OPEN CELL FOAM PAD	1/2"x3/8"x 1 3/4" LONG		
18	*	*	2	SILL/JAMB JOINT GASKET	1/16" CLOSED CELL FOAM		
19	L-763	HC-032	2	VENT ROLLER ASSEMBLY	2 X VENT BOTTOM RAIL		
20	L-7524	*	6	VENT FACE GUIDE	3 PER VENT HOR, RAIL		
21	*	*	8 .	FRAME ASSEMBLY SCREWS	# 8 X 5/8" P.H. PHIL.		
22	*	*	4 x vent	VENT ASSEMBLY SCREWS	# 8 X 1" P.H. PHILLIPS		
23	. *	*	1 X RAIL	MTG. RAIL SCREW @ HEAD	# 8 X 1" P.H. PHILLIPS		
24	*	*	1 X RAIL	MTG, RAIL SCREW @ SILL	# 8 X 2" P.H. PHILLIPS		
25	*	*	SEE CHART	FRAME INSTALL'N SCREW	#12 X 1 1/2" F.HPHIS.M.S		
26	*	*	SEE CHART	FRAME INSTALL'N SCREW	1/4" X 1 3/4" F.HTAPCON		
27	*	*	2 X ГОСК	CAM LOCK ATTCH'NT SCREW	#8 X 7/8" F.H. / PHI.		
28	*	*	1 x vent	INSECT SCREEN	*		
29	*	*	AS REQD.	GLAZING BEAD	ROLL FORMED ALUMINUM		
30	*	*	AS REQ'D.	GLASS	See Detail @ sheet 4 of 8		
31	*	*	AS REQ'D	GLAZING SILICONE	See Detail @ sheet 4 of 8		
32	L-5108	LII-111	1x anchor	SILL ANCHOR CLIP- 2"Long	6063-T6 ALUMINUM		
33	*	*	5	FRAME SILL INST'N SCREW	#12 X 1 3/4" F.H. / PHI.		
34	L-8503	LII-132	1	FRAME SILL 1/2" RISER	6063-T6 ALUMINUM		
35 α	*	774-25B-767	AS REQ'D	"TruSeal" Swiggle Seal	Black -1/4" air space		
35 b	*	774-25B-767	AS REQ'D	"TruSeal" Swiggle Seal	Black -1/4" air space		
35 c	*	774-25B-767	AS REQ'D	"TruSeal" Swiggle Seal	Black -1/4" air space		
36	HC-058-1		2	VENT SWEEP LATCH	MOLDED NYLON		

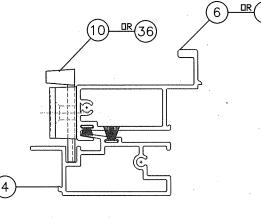


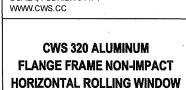




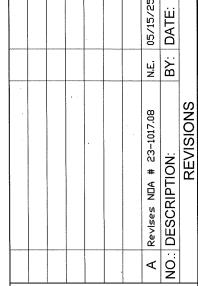
## Notes

- 1. BOTH EXTRUDED ALUMINUM AND PLASTIC LIFT HANDLE LOCKS (4) ARE QUALIFIED FOR USE ON ALL WINDOWS.
- 2. BOTH DIE CAST METAL AND MOLDED PLASTIC CAM LOCKS ARE QUALIFIED FOR USE ON ALL WINDOWS
- 3. TWO (2) LOCKS ARE REQUIRED PER EACH VENT.

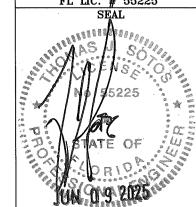




1900 SW 44TH AVE. OCALA, FLORIDA 34474



THOMAS J. SOTOS PROFESSIONAL ENGINEER FL LIC. # 55225



DATE

BILL OF MATERIALS, GLAZING DETAILS & LOCK OPTIONS

SHEET

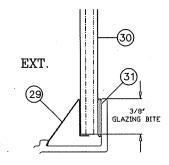
4 OF 9

	NELSON ERAZO	11/17	/2023
	REV. BY:	DATE:	
rida	N.E.	5/2025	
.03	DWG #:		REV#:
<u> 26</u>	CWS-1256	5	Α

AS NOTED

## Glazing Detail & Description

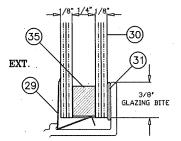
LOCK (LATCH AND SWEEP) OPTIONS



MONOLITHIC GLASS — SINGLE GLAZE ANNEALED OR TEMPERED 1/8", 3/16" OR 1/4" THICK (SEE DESIGN PRESSURE TABLES)

Glazing Sealant Types & Options

- 1) Schnee-Morehead 5731
- 2) Schnee-Morehead 5732
- 3) GE SCS 1000 Clear Silcone
- 4) Dow Corning Clear Silcone



1/2" OVERALL INSULATED GLASS CONSIST OF:

1/8" ANNEALED OR TEMPERED LITE + 1/4" AIR SPACE + 1/8" ANNEALED OR TEMPERED LITE (SEE DESIGN PRESSURE TABLES)

35 Insulated Spacer Types & Options

35a) TrueSeal Swiggle Seal

35b) Quanex SuperSpacer w/ Isomelt M

35c) Quanex Duraseal

**PRODUCT REVISED** As complying with the Flori Building Code NOA-No. Expiration Date: 01/26/20

By: Manuel Peres Miami-Dade Product Control

### 8500 Non Impact Horizontal Sliding Window Test # FTL 4413 - 1/4" Annealed Flange Frame (XO or OX) W/ HEAVY DUTY MEETING RAIL & STANDARD SILL

Width Height		DP(+)   DP(-)		Anchors		
(in)	(in)	psf	psf	Head & Sill	Each Jamb	
26.5	26	60.0	100.0	2	2	
37	26	60.0	100.0	2		
53.125	26	60.0	100.0	3	2	
74	26	60.0	100.0	5	2	
26.5	38.375	60.0	100.0	2	2	
37	38.375	60.0	100.0	3	2	
53.125	38.375	60.0	100.0	4	2	
74	38.375	60.0	100.0	6	2	
26.5	50.625	60.0	100.0	2	2	
37	50.625	60.0	100.0	3	2	
53.125	50.625	60.0	89.6	4	3	
74	50.625	60.0	74.8	5	3	
26,5	58	60.0	100.0	3	2	
37	58	60.0	98.6	4	3	
53.125	58	60.0	74.9	4	3	
74	58	60.0	60.8	5	3	
26.5	63	60.0	100.0	3	2	
37	63	60,0	89.4	3	3	
53.125	63	60.0	67.3	4	3	
74	63	54.0	54.0	5	3	
24	24	60.0	100.0	2	2	
36	24	60.0	100.0	2	2	
48	24	60.0	100.0	3	2	
60	24	60.0	100.0	. 3	2	
72	24	60.0	100.0	4	2	
24	36	60,0	100.0	2	2	
36	36	60.0	100.0	3	2	
48	36	60.0	100.0	3	2	
60	36	60.0	100.0	4	2 ·	
72	36	60.0	100.0	5	2	
24	48	60.0	100.0	2	. 2	
36	48	60.0	100.0	3	2	
48	48	60.0	100.0	4	3	
60	48	60.0	89.8	5	3	
72	48	60.0	82.3	5	3	
24	60	60.0	100.0	2	2	
36	60	60	96.9	4	3	
48	60	60	77.2	4 .	3	
60	60	60	65.9	4	3	
72	60	58.8	58.8	- 5	3	

Pressure Limited to Negative 100psf.

8500 Non Impact Horizontal Sliding Window									
Test # FTL 4553 - 3/16" An nealed Flange Frame ( XO or OX ) w/ STANDARD MEETING RAIL & STANDARD SILL									
Width	Height	DP(+)	DP(-)	Anc	hors				
(in)	(in)	psf	psf	Head & Sill	Each Jamb				
26.5	26	60.0	100.0	2 -	2				
37	26	60.0	100.0	2	2				
53,125	26	60.0	100.0	3	2				
74	26	60.0	100.0	5	2 2				
26.5	38.375	60.0	100.0	2	2				
37	38.375	60.0	100.0	3	2				
53.125	38.375	60.0	83.8	4	2				
74	38.375	60.0	76.0	5	2 .				
26.5	50.625	60.0	95.8	2	2				
37	50.625	60.0	73.0	3	2				
53.125	50.625	56.3	56.3	3	2				
74	50.625	47.0	47.0	4	2				
24	24	60.0	100.0	2	2 2				
36	24	60.0	100.0	2					
48	24	60.0	100.0	3	2				
60	24	60.0	100.0	. 3	2				
72	24	60.0	100.0	4	2				
24	36	60.0	100.0	2	2				
36	36	60.0	100.0	3	2				
48	36	60.0	97.0	3	2				
60	36	60.0	88.7	4	2				
72	36	60.0	86.2	. 5	· 2				
24	48	60.0	100.0	2	2				
36	48	60.0	79.6	3	2				
48	48	60,0	64.7	3	2				
60	48	56.4	56.4	3	2				
72	48	51.7	51.7	4	2				
	Press	ure Limited to	Negative 1	00psf.					

8500 Non Impact Horizontal Sliding Window Test #FTL 4413 - 1/4" Annealed Flange Frame (XO or OX)

THE PROPERTY OF THE PROPERTY O		ITY MEETING RAIL &		HI-RISE SILL		
Width	Height	DP(+)	DP(-)	~~~~~	hors	
(in)	(in)	psf	psf	Head & Sill	Each Jamb	
26.5	26	73.3	100.0	2	2	
37	26	73.3	100.0		2	
53.125	26	· 73.3	100.0	3	2	
74	26	73.3	100.0	5	2	
26.5	38.375	73.3	100.0	2	2	
37	38.375	73.3	100.0	3	2	
53.125	38.375	73.3	100.0	4	2	
74	38,375	73.3	100.0	6	2	
26.5	50.625	73.3	100.0	2	2	
37	50.625	73.3	100.0	3	2	
53.125	50.625	73.3	89,6	4	3	
74	50,625	73.3	74.8	5	3	
26.5	58	73.3	100.0	3	2	
37	58	73.3	98.6	4	3	
53.125	58	73,3	74.9	4	3	
74	58	60.8	60.8	5	3	
26.5	63	73.3	100.0	3	2	
37	63	73.3	89.4	3	3	
53.125	63	67.3	67.3	4	3	
74	63	54.0	54.0	5	3	
24	24	73.3	100.0	2	2	
36	24	73.3	100.0	2	2	
48	24	73.3	100.0	3	2	
60	24	73.3	100.0	3	2 2	
72	24	73.3	100.0	4	2	
24	36	73.3	100.0	2	2	
36	36	73.3	100.0	3	2	
48	36	73.3	100.0	3	2	
60	36	73.3	100.0	4	2	
72	36	73,3	100.0	5	2	
24	48	73.3	100.0	2	2	
36	48	73.3	100.0	3	- 2	
48	48	73.3	100.0	4	3	
60	48	73.3	89.8	5	3	
72	48	73.3	82.3	5	3	
24	60	73.3	100.0	2	2	
36	60	73.3	96.9	4	3	
48	60	73.3	77.2	4	. 3	
60	60	65.9	65.9	4	3	
72	60	58.8	58.8	5	3	

Pressure Limited to Negative 100psf.

## 8500 Non Impact Horizontal Sliding Window

Test #FTL 4553 - 3/16" Annealed Flange Frame (XO or OX)									
W/STANDARD MEETING RAIL & HI-RISE SILL									
Width	Height	DP(+)	DP(-)	Anc	hors				
(in)	(in)	psf	psf	Head & Sill	Each Jamb				
26.5	26	73.3	100.0	2	2				
37	26	73.3	100.0	2	2 2				
53.125	26	73.3	100.0	3	2				
74	26	73.3	100.0	5	2				
26.5	38.375	73.3	100.0	2	2 2				
37	38.375	73.3	100,0	3					
53.125	38.375	73.3	83.8	4	2				
74	38.375	73.3	76.0	5	2				
26.5	50.625	73.3	95.8	2	2				
37	50.625	73.0	73.0	2 3 3	2 2 2				
53.125	50.625	56.3	56.3	3					
74	50.625	47.0	47.0	4	2				
24	24	73.3	100.0	2 2	2 2 2				
36	24	73.3	100.0						
48	24	73.3	100.0	3	2				
60	24	73,3	100.0	3					
72	24	73.3	100.0	4	2				
- 24	36	73.3	100.0	2	2 2				
36	36	73.3	100.0	3					
48	36	73.3	97.0	3	2 2				
60	36	73.3	88.7	4	2				
72	36	73.3	86.2	5	- 2				
24	48	73.3	100.0	2 3	2				
36	48	73.3	79.6		2				
48	48	64.7	64.7	3	2				
60	48	56.4	56.4	3 4	2				
72	48	51.7	51.7	4	2				
	Press	ure Limited t	o Negative 1	00psf.					

8500 Non Impact Horizontal Sliding Window Test #FTL 4456 - 3/16" Annealed Flange Frame (XO or OX) W/ HEAVY DUTY MEETING RAIL & STANDARD SILL

84/11	EMVI DO I			IMINDAIND	
Width	Height	DP(+)	DP(-)	Anc	hors
(in)	(in)	psf	psf	Head & Sill	Each Jamb
26.5	26	60.0	100.0	2	2
37	26	60,0	100.0	2 3	2
53.125	26	60.0	100.0	3	2
74	26	60.0	100.0	5	2
26.5	38.375	60.0	100.0	3	2
37	38.375	60.0	100.0	3	2
53.125	38.375	60,0	100.0	4	. 2
74	38.375	60.0	83.8	5	2
26.5	50.625	60.0	100.0	· 2	2 2 2
37	50.625	60.0	100.0	3	2
53.125	50.625	60.0	77.0	4	2
74	50.625	60,0	63.6	5	2
26.5	58	60.0	100.0	3	2 3
37	58	60.0	88.7	3	3
53,125	58	60.0	67.1	4	2
74	58	53.7	53.7	4	3
26.5	63	60.0	100.0	3	2
37	ස	60.0	80.5	3	2 2 2
53.125	63	60.0	60.6	4	2
74	ස	48.3	48.3	4	2 2 2 2
24	24	60.0	100.0	2	2
36	24	60.0	100.0	2	2
48	24	60.0	100.0	3	2
60	24	60.0	100.0	3	2
7.2	24	60.0	100.0	4	2 2 2
24	36	60.0	100.0	2	2
36	36	60,0	100.0		
48	36	60,0	100.0	3	2
60	36	60,0	94.8	4	2
72	36	60.0	88.1	5	2 2
24	48	60.0	100.0	2	2
36	48	60.0	100.0	3	2 2 2 2
48	48	60.0	89.7	4	2
60	48	60.0	76.0	<u>4</u> 5	2
72	48	60.0	69.5	5	2
24	60	60,0	100.0	2	2 3
36	. 60	60	87.2	3	3
48	60	60	69,5	3	2
60	60	56.7	56.7	4	2 2 2
72	60	51.6	51.6	4	2

Pressure Limited to Negative 100psf

## 8500 Non Impact Horizontal Sliding Window Test # FTL 4547 - 1/8" Annealed Flange Frame ( XO or OX )

Width (in)         Height (in)         DP(+) psf         DP(-) psf         Anchors Head & Sil   Each Jame           26.5         26         60.0         100.0         2         2           37         26         60.0         100.0         2         2           53.125         26         60.0         92.5         3         2           74         26         60.0         67.7         3         2           26.5         38.375         60.0         100.0         2         2         2           37         38.375         60.0         76.9         2         2         2           53.125         38.375         60.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2         2           37         50.625         60.0         79.7         2         2         2           37         50.625         44.6         44.6         2         2         2           53.125         50.625         39.1         39.1         3         2           4
26.5         26         60.0         100.0         2         2           37         26         60.0         100.0         2         2           53.125         26         60.0         92.5         3         2           74         26         60.0         67.7         3         2           26.5         38.375         60.0         100.0         2         2           37         38.375         60.0         76.9         2         2           53.125         38.375         60.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2
37         26         60.0         100.0         2         2           53.125         26         60.0         92.5         3         2           74         26         60.0         67.7         3         2           26.5         38.375         60.0         100.0         2         2           37         38.375         60.0         76.9         2         2           53.125         38.375         50.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
53.125         26         60.0         92.5         3         2           74         26         60.0         67.7         3         2           26.5         38.375         60.0         100.0         2         2           37         38.375         60.0         76.9         2         2           53.125         38.375         60.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
74         26         60.0         67.7         3         2           26.5         38.375         60.0         100.0         2         2           37         38.375         60.0         76.9         2         2           53.125         38.375         60.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
26.5     38.375     60.0     100.0     2     2       37     38.375     60.0     76.9     2     2       53.125     38.375     60.0     65.2     3     2       74     38.375     51.7     51.7     3     2       26.5     50.625     60.0     79.7     2     2       37     50.625     60.0     60.7     2     2       53.125     50.625     44.6     44.6     2     2       74     50.625     39.1     39.1     3     2       24     24     60.0     100.0     2     2       36     24     60.0     100.0     2     2
53.125         38.375         60.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
53.125         38.375         60.0         65.2         3         2           74         38.375         51.7         51.7         3         2           26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
26.5         50.625         60.0         79.7         2         2           37         50.625         60.0         60.7         2         2           53.125         50.625         44.6         44.6         2         2           74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
74         50.625         39.1         39.1         3         2           24         24         60.0         100.0         2         2           36         24         60.0         100.0         2         2
48 24 600 1000 3 2
60 24 60.0 87.3 3 2
72 24 60.0 72.0 3 2
24 36 60.0 100.0 2 2
36 36 60.0 84.0 2 2
48 36 60.0 73.9 3 2 60 36 60.0 65.7 3 2
60 36 60.0 65.7 3 2
72 36 56.4 56.4 3 2
24 48 60.0 92.2 2 2
36 48 60.0 66.2 2 2
48 48 49.0 49.0 2 2
60 48 46.9 46.9 3 2
72 48 42.9 42.9 3 2

8500 Non Impact Horizontal Sliding Window Test #FTL 4456 - 3/16" Annealed Flange Frame (XO or OX) W/ HEAVY DUTY MEETING RAIL & HI-RISE SILL

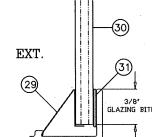
Width (in)         Height (in)         DP(+) psf         DP(-) psf         Anchors Head & Sill         Each Jaml           26.5         26         73.3         100.0         2         2           37         26         73.3         100.0         2         2           53.125         26         73.3         100.0         3         2           74         26         73.3         100.0         5         2           26.5         38.375         73.3         100.0         2         2         2           37         38.375         73.3         100.0         3         2         2         2         3         3         3         2         2         2         3         3         3         2         2         2         3         3         3         1         2         2         2         2         3         3         3         2         2         2         3         3         3         2         2         2         2         2         3         3         3         2         2         2         3         3         3         2         2         2         2         3         3	W/ HEAVY DUTY MEETING RAIL & HI-RISE SILL						
26.5         26         73.3         100.0         2         2           37         26         73.3         100.0         2         2           53.125         26         73.3         100.0         3         2           74         26         73.3         100.0         5         2           26.5         38.375         73.3         100.0         2         2           37         38.375         73.3         100.0         3         2           53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         2         2           37         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         100.0         3         2           26.5         58         73.3         100.0         3         2	Width	Height	DP(+)	DP(-)	Anç	hors	
37         26         73.3         100.0         2         2           53.125         26         73.3         100.0         3         2           74         26         73.3         100.0         5         2           26.5         38.375         73.3         100.0         2         2           37         38.375         73.3         100.0         4         2           53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         4         2           37         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         100.0         3         2           53.125         50.625         73.3         100.0         3         2           26.5         58         73.3         100.0         3         2           37         58.625         73.3         100.0         3         2           53.125         58         67.1         67.1         4         2 <td>(in)</td> <td>(in)</td> <td>psf</td> <td>psf</td> <td>Head &amp; Sill</td> <td>Each Jamb</td>	(in)	(in)	psf	psf	Head & Sill	Each Jamb	
37         26         73.3         100.0         2         2           53.125         26         73.3         100.0         3         2           74         26         73.3         100.0         5         2           26.5         38.375         73.3         100.0         2         2           37         38.375         73.3         100.0         3         2           53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         4         2           37         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         100.0         3         2           53.125         50.625         73.3         100.0         3         2           26.5         58         73.3         100.0         3         2           37         58.625         73.3         100.0         3         2           53.125         58         67.1         67.1         4         2 <td>26.5</td> <td>26</td> <td>73.3</td> <td>100.0</td> <td>2</td> <td>2</td>	26.5	26	73.3	100.0	2	2	
74         26         73.3         100.0         5         2           26.5         38.375         73.3         100.0         2         2           37         38.375         73.3         100.0         3         2           53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         4         2           74         38.375         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         100.0         3         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           26.5         58         73.3         100.0         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2 <tr< td=""><td>37</td><td>26</td><td>73.3</td><td>100.0</td><td>2</td><td>2</td></tr<>	37	26	73.3	100.0	2	2	
26.5         38.375         73.3         100.0         2         2           37         38.375         73.3         100.0         3         2           53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         83.8         5         2           26.5         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         100.0         3         2	53.125	26	73.3	100.0	3		
37         38.375         73.3         100.0         3         2           53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         83.8         5         2           26.5         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         100.0         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         100.0         3         2           53.125         63         60.6         60.6         4         2	74	26	73.3	100.0		2	
53.125         38.375         73.3         100.0         4         2           74         38.375         73.3         83.8         5         2           26.5         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2 <t< td=""><td>26.5</td><td>38.375</td><td></td><td>100.0</td><td></td><td></td></t<>	26.5	38.375		100.0			
26.5         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         73.3         100.0         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24 <td>37</td> <td>38.375</td> <td>73.3</td> <td>100.0</td> <td>3</td> <td>2</td>	37	38.375	73.3	100.0	3	2	
26.5         50.625         73.3         100.0         2         2           37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         73.3         100.0         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24 <td>53.125</td> <td>38.375</td> <td></td> <td>100.0</td> <td></td> <td>2</td>	53.125	38.375		100.0		2	
37         50.625         73.3         100.0         3         2           53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           53.125         63         63         73.3         100.0         3         2           53.125         63         60.6         60.6         4         2           74         63         73.3         100.0         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2	. 74	38.375	73.3	83.8			
53.125         50.625         73.3         77.0         4         2           74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           72         24         73.3         100.0         3         2           24 <td< td=""><td>26.5</td><td>50.625</td><td>73.3</td><td>100.0</td><td></td><td>2</td></td<>	26.5	50.625	73.3	100.0		2	
74         50.625         63.6         63.6         5         2           26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           72         24         73.3         100.0         3         2           24         36         73.3         100.0         3         2           24         36 <td>37</td> <td>50.625</td> <td>73.3</td> <td>100.0</td> <td>3</td> <td></td>	37	50.625	73.3	100.0	3		
26.5         58         73.3         100.0         3         2           37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           24         36         73.3         100.0         3         2           24         36         73.3         100.0         3         2           24         36				CHERCHIC CONTROL OF THE PROPERTY OF THE PROPER	I		
37         58         73.3         88.7         3         2           53.125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           72         24         73.3         100.0         3         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           24         36		50.625					
53,125         58         67.1         67.1         4         2           74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2         2           36         24         73.3         100.0         2         2         2           48         24         73.3         100.0         3         2         2           72         24         73.3         100.0         4         2         2           24         36         73.3         100.0         3         2         2           36         36         73.3         100.0         3         2         2           48         36         73.3         100.0         3         2         2           36         36 <td< td=""><td>26.5</td><td></td><td></td><td></td><td></td><td>2</td></td<>	26.5					2	
74         58         53.7         53.7         4         2           26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2         2           36         24         73.3         100.0         2         2         2           48         24         73.3         100.0         3         2         2           60         24         73.3         100.0         3         2         2           24         36         73.3         100.0         3         2         2           36         36         73.3         100.0         3         2         2           48         36         73.3         100.0         3         2         2           48         36         73.3         100.0         3         2         2           48         36<	37					2	
26.5         63         73.3         100.0         3         2           37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36	53,125	58			L	2	
37         63         73.3         80.5         3         2           53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2	74	58	53.7	53.7	4		
53.125         63         60.6         60.6         4         2           74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2	26.5	63		100.0	3	2	
74         63         48.3         48.3         4         2           24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2	37	63	73.3	80.5		2	
24         24         73.3         100.0         2         2           36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2		63	60.6	60,6			
36         24         73.3         100.0         2         2           48         24         73.3         100.0         3         2           60         24         73.3         100.0         3         2           72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2						2	
48     24     73.3     100.0     3     2       60     24     73.3     100.0     3     2       72     24     73.3     100.0     4     2       24     36     73.3     100.0     2     2       36     36     73.3     100.0     3     2       48     36     73.3     100.0     3     2       60     36     73.3     94.8     4     2       72     36     73.3     88.1     5     2		24				2	
60     24     73.3     100.0     3     2       72     24     73.3     100.0     4     2       24     36     73.3     100.0     2     2       36     36     73.3     100.0     3     2       48     36     73.3     100.0     3     2       60     36     73.3     94.8     4     2       72     36     73.3     88.1     5     2	36						
72         24         73.3         100.0         4         2           24         36         73.3         100.0         2         2           36         36         73.3         100.0         3         2           48         36         73.3         100.0         3         2           60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2			73.3	100.0			
36     36     73.3     100.0     3     2       48     36     73.3     100.0     3     2       60     36     73.3     94.8     4     2       72     36     73.3     88.1     5     2	60	24	73.3	100.0	3		
36     36     73.3     100.0     3     2       48     36     73.3     100.0     3     2       60     36     73.3     94.8     4     2       72     36     73.3     88.1     5     2	72	24	73.3	100.0	4	2	
48     36     73.3     100.0     3     2       60     36     73.3     94.8     4     2       72     36     73.3     88.1     5     2					2	2	
60         36         73.3         94.8         4         2           72         36         73.3         88.1         5         2				THE RESERVE THE PROPERTY OF THE PERSON NAMED IN COLUMN 1		. 2	
72 36 73.3 88.1 5 2	48					2	
24 48 73.3 100.0 2 2					1		
						2	
36         48         73.3         100.0         3         2						2	
48 48 73.3 89.7 4 2	1.7					2	
60 48 73.3 76.0 4 2						2	
72 48 69.5 69.5 5 2						2	
24 60 73.3 100.0 2 2							
36         60         73.3         87.2         3         3	<del></del>			-			
48 60 69.5 69.5 3 2							
60 60 56.7 56.7 4 2 72 60 51.6 51.6 4 2						2	
72 60 51.6 51.6 4 2	72			<u> </u>		2	

Pressure Limited to Negative 100psf.

## 8500 Non Impact Horizontal Sliding Window Test #FTL 4547 - 1/8" Annealed Flange Frame ( XO or OX ) w/ STANDARD MEETING RAIL & HI-RISE SILL

Width	Height	DP(+)	DP(-)	And	hors	
(in)	(in)	psf	psf	Head & Sill	Each Jamb	
26.5	26	73.3	100.0	2	2	
37	26	73.3	100.0	2	2	
53.125	.26	73.3	92.5	3	2	
74	26	67.7	67.7	3	2	
26.5	38.375	73.3	100.0	2	2	
37	38.375	73.3	76.9	2	2	
53.125	38, 375	65.2	65.2	3	2	
74	38.375	51.7	51.7	3	2	
26,5	50,625	73.3	79.7	2	2	
37	50.625	60.7	60.7	2	2	
53.125	50.625	44.6	44.6	2	2	The department of the second o
74	50.625	39.1	39.1	3	2	
.24	24	73.3	100.0	2	2	
36	24	73.3	100.0	2	2	
48	24	73.3	100.0	3	2	
60	24	73.3	87.3	3	2	
72	24	72.0	72.0	3	2	
24	36	73.3	100.0	2	2	
36	36	73.3	84.0	2	2	DRODUCT DEVICED
48	36	73.3	73.9	3	2	PRODUCT REVISED
60	36	65.7	65.7	3	2	As complying with the Flo
. 72	36	56.4	56.4	3	2	Building Code
24	48	73.3	92.2	2	2	NOA-No. 25-0612
36	48	66.2	66.2	2	2	Expiration Date: 01/26/2
48	48	49.0	49.0	2	2	TManual Da
60	48	46.9	46.9	3	2	By: Walle Series
72	48	42.9	42.9	3	2	Miami-Dade Product Cont

Pressure Limited to Negative 100psf.



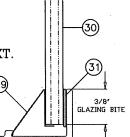
MONOLITHIC GLASS - SINGLE GLAZE ANNEALED OR TEMPERED(\*) 1/8", 3/16" OR 1/4" THICK (SEE DESIGN PRESSURE TABLES)

## GLAZING DETAIL

\* Tempered glass marked in compliance with CPSC 16 CFR Part 1201" or "ANSI Z97.1-2015.



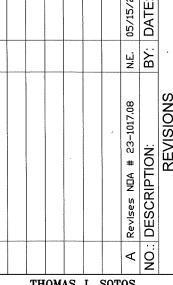
1. WINDOW WIDTHS & HEIGHTS ARE THE OVERALL EXTERIOR FRAME DIMENSIONS.



**CWS 320 ALUMINUM** FLANGE FRAME NON-IMPACT **HORIZONTAL ROLLING WINDOW** 

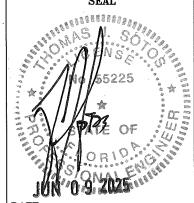
1900 SW 44TH AVE.

OCALA, FLORIDA 34474 www.cws.cc



THOMAS J. SOTOS PROFESSIONAL ENGINEER FL LIC. # 55225

SEAL



DATE\_

GLASS LOAD CHARTS & MONOLITHIC GLAZING DETAIL (XO or OX)

DRAWN BY: NELSON ERAZO 11/17/2023 As complying with the Florida Building Code 05/15/2025 N.E. 25-0612.03

Expiration Date: 01/26/2026 By: Manuel Perez

Miami-Dade Product Control

CWS-1256 Α SHEET 5 OF 9 AS NOTED

8500 Non Impact Horizontal Sliding Window (XO 0r OX)	_
Test # HETI-08-2158 thru 08-2160 - 1/8" Tempered Flange Frame	
W/HEAVY DUTY MEETING RAIL & STANDARD SILL	

AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		Y MEETING RAIL & S		TANDARD SILL		
Width	Height	DP(+)	DP(-)	Anc	hors	
(in)	(in)	psf	psf	Head & Sili	Each Jamb	
26.5	26	60.0	100.0	2	2	
37	26	60.0	100.0	2	2	
53.125	26	60.0	100.0	3	2	
74	26	60.0	100.0	5	2	
26.5	38.375	60.0	100.0	2	2	
37	38.375	60.0	100.0	. 3	2	
53.125	38.375	60.0	100.0	4	2	
74	38.375	60.0	100.0	6	2	
26.5	50.625	60.0	100.0	. 2	2	
37	50.625	60.0	100.0	3	.2	
53.125	50.625	60.0	93.0	4	3	
74	50.625	60.0	77.6	5	3	
26.5	58	60.0	100.0	. 3	2	
37	58	60.0	100.0	4	3	
53.125	58	60.0	77.6	4	3	
74	58	60.0	63.1	5	3	
26.5	63	60.0	100.0	3	2	
37	63	60.0	92.7	4	3	
53.125	63	60.0	69.8	4	3	
74	63	56.0	56.0	5	3	
24	24	60.0	100.0	2	2	
36	24	60.0	100.0	2	2	
. 48	24	60.0	100.0	3	2	
60	24	60.0	100.0	3	2	
72	24	60.0	100.0	4	2	
24	36	60,0	100.0	2	2	
. 36	36	60.0	100.0	3	2	
48	36	. 60.0	100.0	3	2	
60	36	60.0	100.0	4	2	
72	36	60.0	100.0	5	2	
24	48	60.0	100.0	2	2	
36	48	60.0	100.0	3	2	
48	48	60.0	100.0	4	3	
. 60	48	60.0	93.1	5	3	
72	48	60.0	85.4	6	3	
24	60	60.0	100.0	2	2	
36	60	60.0	100.0	4	3	
48	60	60.0	80.0	4	. 3	
60	60	60.0	68.3	4	3	
72	60	60.0	61.0	5	. 3	

Pressure Limited to Negative 100psf.

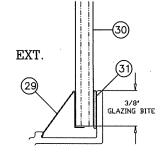
8500 Non Impact Horizontal Sliding Window (XO 0r OX)
Test # HETI-08-2158 thru 08-2160 - 1/8" Tempered Flange Frame
/ HEAVY DUTY MEETING DAH & HIDIGE CHIL

W/ HEAVY DUTY MEETING RAIL & HI-RISE SILL							
Width	Height	DP(+)	DP(-)	Anc	hors		
(in)	(in)	psf	psf	Head & SIII	Each Jam b		
26.5	26	73.3	100.0	2	2		
37	26	73.3	100.0	2	2		
53.125	26	73.3	100.0	3	2		
74	26	73.3	100.0	5	2		
26.5	38.375	73.3	100.0	2	2		
37	38.375	73.3	100.0	3	2		
53.125	38.375	73.3	100.0	4	2		
74	38.375	73.3	100.0	6	2		
26.5	50.625	73.3	100.0	2 .	2		
37	50.625	73.3	100.0	3	2		
53.125	50.625	73.3	93.0	4	3		
74	50.625	73.3	77.6	5	3		
26.5	58	73.3	100.0	3	2		
37	58	73.3	100.0	4	. 3		
53.125	58	73.3	77.6	4	3		
74	58	63.1	63.1	5	3		
26.5	63	73.3	100.0	3	2		
37	63	73.3	92.7	4	3		
53.125	63	69.8	69.8	4	3		
74	63	56.0	56.0	· 5	3		
24	24	73.3	100.0	2	2		
36	24	73.3	100.0	2	2		
48	24	73.3	100.0	3	2		
60	24	73.3	100.0	3	2		
. 72	24	73.3	100.0	4	2		
24	36	73.3	100.0	2	2		
36	36	73.3	100.0	3	2		
48	36	73.3	100.0	3	2		
60	36	73.3	100.0	4	2		
72	36	73.3	100.0	- 5	2		
24	48	73.3	100.0	2	2		
36	48	73.3	100.0	3	2		
48	48	73.3	100.0	4	3		
60	48	73.3	93.1	5	3		
72	48	73.3	85.4	6	3		
24	60	73.3	100.0	2	2		
36	60	73.3	100.0	4 .	3		
48	60	73.3	80.0	4	3		
60	60	68.3	68.3	4	3		
72	60	61.0	61.0	5	3		

Pressure Limited to Negative 100psf.



- 1. WINDOW WIDTHS & HEIGHTS ARE THE OVERALL EXTERIOR FRAME DIMENSIONS.
- \* Tempered glass marked in compliance with CPSC 16 CFR Part 1201" or "ANSI Z97.1—2015.



MONOLITHIC GLASS — SINGLE GLAZE ANNEALED OR TEMPERED(\*) 1/8", 3/16" OR 1/4" THICK

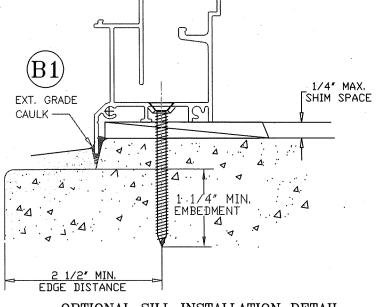
(SEE DESIGN PRESSURE TABLES)

GLAZING DETAIL & DESCRIPTION

PRODUCT REVISED
As complying with the Florida
Building Code
NOA-No. 25-0612.03

Expiration Date: <u>01/26/2026</u>

By: Manuel Pres
Miami-Dade Product Control

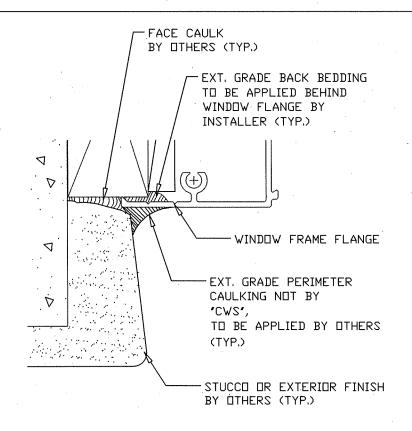


## OPTIONAL SILL INSTALLATION DETAIL

## ANCHORS NOTE:

ANCHORS TO BE #12 SMS OR WD. SCREWS INTO WOOD, OR 1/4" TAPCONS or APPROVED CONC. FASTENERS INTO CONC., WITH A MINIMUM OF 1 1/4" PENETRATION INTO WOOD OR CONC. (REFER TO LOAD TABLES FOR QUANTITIES REQUIRED)

\* WHEN THE GAP BETWEEN THE WINDOW FRAME AND THE BUCK OR MASONRY IS LESS THAN 1/8", SHIMS ARE NOT REQUIRED.



WINDOW INSTALLATION DETAIL

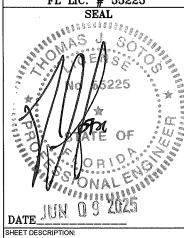


www.cws.cc

# CWS 320 ALUMINUM FLANGE FRAME NON-IMPACT HORIZONTAL ROLLING WINDOW

				N.E. 05/15/2	BY: DATE:	
				N.E.	BY:	
				Revises NDA # 23-1017.08	NO.: DESCRIPTION:	DEVIOUS
			,	Α	 Q	

THOMAS J. SOTOS PROFESSIONAL ENGINEER FL LIC. # 55225



GLASS LOAD CHARTS, GLAZING DETAIL, OPTIONAL INSTALLATION DETAIL

DRAWN BY:

NELSON ERAZO

11/17/2023

REV. BY:

N.E.

05/15/2025

DWG #:

CWS-1256

A

LE: SHEET AS NOTED 6 OF 9

## 8500 Non Impact Horizontal Sliding Window Test # FTL 4429 - 1/4" Annealed Flange Frame ( XOX ) W/ HEAVY DUTY MEETING RAIL & STANDARD SILL

WITEHAT DOTT MEETING TOTE & STANDARD SIEE					
Width	Height	DP(+)	DP(-)	Anc	hors
(in)	(in)	psf	psf	Head & Sill	Each Jamb
53,125	26	60.0	100.0	3	2.
74	26	60.0	100.0	5	
106.375	26	60.0	100.0	7	2
111	26	60.0	100.0	7	2
53.125	38.375	60.0	100.0	4	2
74	38.375	60.0	100.0	6	2
106.375	38.375	6,0.0	76.9	7	2
111	38.375	60.0	73.1	7	2
53.125	50.625	60.0	100.0	6	2
74	50.625	60,0	81.9	6	2
106.375	50.625	60.0	65.0	7	2
111	50.625	60,0	61.9	7	2
53.125	58	60.0	90,8	6	2
74	58	60.0	70.3	. 6	2
106.375	58	57.2	57.2	7	2 2
111	58	55.5	55.5	8	2
53.125	63	60.0	82.1	6	2
74	63	60.0	62,5	6	2
106.375	63	52.1	52.1	7	2
111	63	51.1	51.1	8	2
72	24	60.0	100.0	4	2
84	24	60.0	. 100.0	5	2
96	24	60.0	100.0	6	2
108	24	60.0	100.0	6	2
120	24	60.0	100.0	7	2
72	36	60.0	100.0	6	2
84	36	60.0	94.4	6	2
96	36	60.0	87.0	7	2 2
108	36	60.0	78.6	7	
120	36	60.0	68.5	7	2
72	48	60.0	87.2	6	2
84	48	60.0	80.3	7	2 2
96	48	60.0	74.3	7	2
108	48	60.0	66.4	7	2
120	48	59,3	59,3	8	2
72	60	60,0	69.2	6	2
84	60	60	61.5	6	2`
96	60	58,6	58.6	7	2
108	60	54.8	54.8	- 8	2
120	60	51	51	- 8	2

Pressure Limited to Negative 100ps f.

## 8500 Non Impact Horizontal Sliding Window

Test # FTL 4594 - 3/16" Annealed Flange Frame ( XOX ) w/ STANDARD MEETING RAIL & STANDARD SILL								
Width	Height	DP(+)	DP(-)	272-287-11-11-11-11-11-11-11-11-11-11-11-11-11	hors			
(in)	(in)	psf	psf	Head & Sill	Each Jamb			
53.125	26	60.0	100.0	3	2			
74	26	60.0	100.0	5	2			
106.375	26	60.0	81.6	5	2			
111	26	60.0	79.0	5	2			
53.125	38.375	60.0	93.2	4	2			
74	38.375	60,0	79.6	5	2			
106.375	38.375	60.0	61.6	6	2			
111	38,375	58.7	58.7	6	2			
53.125	50.625	60.0	64.3	4	2			
74	50.625	51.9	51.9	4	2			
106.375	50.625	44.6	44.6	5	2			
111	50.625	44.1	44.1	5	2 2 2			
72	24	60.0	100.0	4	2			
84	24	60,0	100.0	5	2			
96	24	60.0	95.3	5	2			
108	24	60.0	90.5	6	2			
120	24	60.0	85.3	6	2			
72	36	60.0	89.4	5	2 2 2			
84	36	60.0	82.0	5	2			
96	36	60.0	74.2	6	2			
.108	36	60.0	62.0	6	2			
120	36	53.3	53.3	, 6	· 2			
72	48	56.9	56.9	4	2			
84	48	52.8	52.8	5	2			
96	48	50.3	50.3	5	2			
108	48	48.7	48.7	6	2			
120	48	47.3	47.3	6	2			

Pressure Limited to Negative 100psf.

# 8500 Non Impact Horizontal Sliding Window

8500 Non Impact Horizontal Sliding Window
Test # FTL 4457 - 3/16" Annealed Flange Frame ( XOX )
W/ HEAVY DUTY MEETING RAIL & STANDARD SILL

osoo iyon impaca monzoniai siiding vyindow					٧			npact non			
Test # FTL 4429 - 1/4" Annealed Flange Frame ( XOX )						Test # FTL 4457 - 3/16" Annealed Flange Frame ( XOX )					
				HI-RISE SI		w/ HEAVY DUTY MEETING RAIL & STANDARD SILL					
Width	Width Height DP(+) DP(-) Anchors				hors	Width	Height	DP(+)	DP(-)	Anc	hors
(in)	(in)	psf	psf	Head & Sill	Each Jamb	(in)	(in)	psf	psf	Head & Sill	Each Jamb
53.125	26 ·	73.3	100.0	3	2	53.125	26	60.0	100.0	3	2
74	26	73.3	100.0	5.	2	74	26	60.0	100.0	5	2
106.375	26	73.3	100.0	7	2	106.375	26	60.0	81.6	5	2
111	26	73.3	100.0	7	2	111	26	60,0	79.0	5	2
53.125	38.375	73.3	100.0	4	2	53.125	38.375	60.0	100.0	4	2
74	38.375	73.3	100.0	6	2	74	38.375	60.0	86.0	5	2
106.375	38.375	73.3	76.9	7	2	106.375	38.375	60.0	61.6	6	2
111	38.375	73.1	73.1	7	2	111	38.375	58.7	58.7	6	2
53.125	50.625	73.3	100.0	6	2	53.125	50.625	60.0	86.5	5	2
74	50.625	73.3	81.9	6	2	74	50,625	60.0	65.7	5	2
106,375	50.625	65.0	65,0	. 7	2	106.375	50.625	523	52.3	6	2
111	50.625	61.9	61.9	7	2	111	50.625	50.3	50.3	6	2
53.125	58	73.3	90.8	6	2	53.125	58	60.0	79.4	5	2
74	58	70.3	70.3	6	2	74	58	54.6	54.6	5	2
106,375	58	57.2	57.2	7	2	106.375	58	46.5	46.5	6	- 2
111	58	55,5	55,5	8	2	111	58	44.9	44.9	6	2
53.125	63	73.3	82.1	6	2	53.125	63	60.0	72.0	5	2
74	63	62.5	62.5	6	2	74	63	49.2	49.2	5	2
106,375	63	52.1	52.1	7	2	106.375	63	42.9	42.9	6	2
111	63	51.1	51.1	8	2	111	ස	41.3	41.3	6	2
72	24	73.3	100.0	4	2	72	24	60.0	100.0	4	2
84	24	73.3	100.0	5	2	84	24	60.0	100,0	5	2
96	24	73.3	100.0	6	2	96	24	60.0	95.3	5	2
108	24	73.3	100.0	6	2	108	24	60.0	90.5	6	2
120	- 24	73.3	100.0	7	2	120	24	60.0	85.3	6	2
72	36	73.3	100.0	6	2	72	36	60.0	91.2	5	2
84	36	73.3	94.4	6	2	84	36	60.0	82.0	5	2
96	36	73.3	87.0	7	2	96	36	60.0	74.2	6	2
108	36	73.3	78.6	7	2	108	36	60.0	62.0	6	2
120	36	68.5	68.5	7	2	120	36	53.3	53.3	6	2
72	48	73.3	87.2	6	2	72	48	60.0	71.3	5	2
84	48	73.3	80.3	. 7	2	84	48	60.0	65.8	6	2
96	48	73.3	74.3	7	2	96	48	60.0	60.0	6	2
108	48	66.4	66.4	7	2	108	48	53.7	53.7	6	2

120

72

84

96

108

48

60

60

60

60

60

60 51 51 Pressure Limited to Negative 100psf 8500 Non Impact Horizontal Sliding Window

Test # FTL 4594 - 3/16" Annealed Flange Frame ( XOX )

W STANDARD MEETING DAIL & LII DISE OI

Pressure Limited to Negative 100psf.

59.3

69.2

61.5

58.6

54.8

59.3

69.2

61.5

58.6

54.8

48

60

60

60

60

120

72

84

96

108

120

## 8500 Non Impact Horizontal Sliding Window Test # FTL 4578 - 1/8" Annealed Flange Frame (XOX)

Pressure Limited to Negative 100psf.

48.7

52.6

50.7

48.3

44.5

40.8

48.7

52.6

50.7

48.3

44.5

40.8

6

6

W/STANDARD MEETING RAIL & HI-RISE SILL						w/ STAND	ARD MEET	ING RAIL 8	STANDA	AD SILL	
Width	Height	DP(+)	DP(-)	Anc	hors	Width	Height	DP(+)	DP(-)	Anc	hors
(in)	(in)	psf	psf	Head & Sill	Each Jamb	(in)	(in)	psf	psf	Head & Sill	Each Jamb
53.125	26	73.3	100.0	3	2	53.125	26	60.0	97.8	3	2
74	26	73.3	100.0	5	2	74	26	60.0	73.6	3	2
106.375	26	73.3	81.6	5	2	106.375	26	43.0	43.0	3	2
111	26	73.3	79.0	5	2	111	26	40.5	40.5	3	2
53.125	38.375	73.3	93.2	4	2	53.125	38.375	60.0	62.5	3	2
74.	38.375	73.3	79.6	5	2	74	38.375	53,4	53.4	4	2
106.375	38.375	61.6	61.6	6	2	106.375	38.375	38.7	38.7	4	2
111	38.375	58.7	58.7	6	2	111	38.375	37.2	37.2	4	2
53.125	50,625	64.3	64.3	4	2	53.125	50.625	43.1	43.1	3	2
74	50.625	51.9	51.9	4	2	74	50.625	34.8	34.8	3	2
106.375	50.625	44.6	44.6	5	2	106.375	50.625	29.5	29.5	4	2
111	50.625	44.1	44.1	5	2	111	50.625	28.2	28.2	4	2
72	24	73.3	100.0	4	2	72	24	60.0	78.2	3	2
84	24	73.3	100.0	5	2	84	24	60.0	62.0	3	2
96	24	73.3	95.3	5	2	96	24	51.1	51.1	3	2
108	24	73.3	90.5	6	2	108	24	43.8	43.8	3	2
120	24	73.3	85.3	6	2	120	24	38.9	38.9	3	2
72	36	73.3	89.4	5	2	72	36	59.7	59.7	4	2
84	36	73.3	82.0	5	2	84	36	51.3	51.3	4	2
96	36	73.3	74.2	6	2	96	36	45.1	45.1	4	2
108	36	62.0	62.0	6	2	108	36	40.0	40.0	4	2
120	36	53.3	53.3	6	2	120	36	35.3	35,3	4	2
72	48	56.9	56.9	4	2	72	48	38.2	38.2	3	· 2
84	48	52.8	52.8	5	2	84	48	35.4	35.4	3	2
96	48	50,3	50.3	5	2	96	48	33.7	33.7	4	2
108	48	48.7	48.7	6	2	108	48	30.6	30.6	4	-2
120	48	47.3	47.3	6	2	120	48	27.4	27.4	4	2

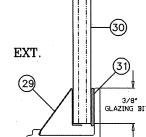
8500 Non Impact Horizontal Sliding Window Test # FTL 4457 - 3/16" Annealed Flange Frame (XOX)

	W/ HEAVY DUTY MEETING RAIL & HI-RISE SILL						
٦	Width	Height	DP(+)	DP(-)	Anc	hors	
	(in)	(in)	psf	psf	Head & Sill	Each Jamb	
5	53.125	26	73.3	100.0	- 3	. 2	
	74	26	73,3	100.0	5	, <u>2</u> 2	
1	06.375	26	73.3	81.6	5	2	
	111	26	73.3	79.0	5	2	
٤	53.125	38.375	73.3	100.0	4	2	
	74	38.375	73.3	86.0	5	2	
1	06.375	38.375	61.6	61.6	6	2	
	111	38.375	58.7	58.7	6	2	
	53.125	50.625	73.3	86.5	5	2	
	74	50,625	65.7	65.7	5	2	
1	06.375	50.625	52.3	52.3	6	2	
	111	50.625	50.3	50.3	. 6	2	
(	53.125	58	73.3	79.4	5	2	
	74	58	54.6	54.6	5	2	
1	06.375	58	46.5	46.5	6	2 2	
	111	58	44.9	44.9	6		
	53.125	63	72.0	72.0	5	2	
	74	63	49.2	49.2	5	2 2	
1	06.375	63	42.9	42.9	6		
_	111	63	41.3	41.3	6	2	
	72	24	73.3	100.0	4	2	
	84	24	73.3	100.0	5	2	
	96	24	73.3	95.3	5	2	
	108	24	73.3	90.5	6	2	
	120	24	73.3	85.3	6	2 2	
	72	36	73.3	91.2	5	2	
	84	36	73.3	82.0	5	2	
	96	36	73.3	74.2	6	2	
	108	36	62.0	62.0	6	2	
	120	36	53.3	53.3	6	2	
	72	48	71.3	71.3	5	2	
	84	48	65.8	65.8	6	2	
	96	48	60.0	60.0	6	2	
	108	48	53.7	53.7	6	2 2 2	
	120	48	48.7	48.7	6		
	72	60	52.6	52.6	5	2	
	84	60	50.7	50.7	6	2	
	96	60	48.3	48.3	6	2	
_	108	60	44.5	44.5	- 6	2	
	120	- 60	40.8	40.8	7 .	2	
		Droop	ura limitad t	a Nagativa 1	OOnof		

Pressure Limited to Negative 100psf.

#### 8500 Non Impact Horizontal Sliding Window Test # FTL 4578 - 1/8" Annealed Flange Frame ( XOX ) W/ STANDARD MEETING RAIL & HI-RISE SILL

Width	Height	DP(+)	DP(-)	Anc	hors
(in)	(in)	psf	psf	Head & Sill	Each Jamb
53.125	26	73.3	97.8	3	2
74	26	73.3	73.6	3	2
106.375	26	43.0	43.0	. 3	2
111	26	40.5	40.5	3	2
53.125	38.375	62.5	62.5	3	2
74	38.375	53.4	53.4	4	2
106.375	38.375	38.7	38.7	4	2
111	38.375	37.2	37.2	4	2
53.125	50.625	43.1	43.1	3	2
74	50.625	34.8	34.8	3	
106.375	50.625	29.5	29.5	4	2
111	50.625	28.2	28.2	4	2
72	24	73.3	78.2	3	2
84	24	62.0	62.0	3	2
96	24	51.1	51.1	3	2
108	24	43.8	43.8	3	2
120	24	38.9	38.9	3	2
72	36	59.7	59.7	4	2
84	36	51.3	51.3	4	2
96	36	45.1	45.1	4	2
108	36	40.0	40.0	4	2
120	36	35.3	35.3	4	2
72	48	38.2	38.2	3	. 2 .
84	48	35.4	35.4	3	2
96	48	33.7	33.7	4	2
108	48	30.6	30.6	4	.2
120	48	27.4	27.4	4	2



MONOLITHIC GLASS — SINGLE GLAZE ANNEALED OR TEMPERED(\*) 1/8", 3/16" OR 1/4" THICK (SEE DESIGN PRESSURE TABLES)

## GLAZING DETAIL

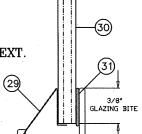
\* Tempered glass marked in compliance with CPSC 16 CFR Part 1201" or "ANSI Z97.1-2015.

## Note:

1. WINDOW WIDTHS & HEIGHTS ARE THE OVERALL EXTERIOR FRAME DIMENSIONS.

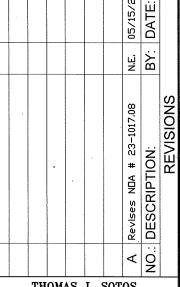
**PRODUCT REVISED** 

NOA-No.

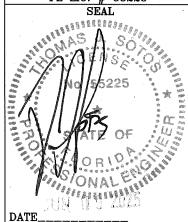


**CWS 320 ALUMINUM** FLANGE FRAME NON-IMPACT **HORIZONTAL ROLLING WINDOW** 

1900 SW 44TH AVE. OCALA, FLORIDA 34474 WWW.CWS.CC



THOMAS J. SOTOS PROFESSIONAL ENGINEER FL LIC. # 55225



SHEET DESCRIPTION:

GLASS LOAD CHARTS & MONOLITHIC GLAZING DETAIL (XOX)

NELSON ERAZO 11/17/2023 As complying with the Florida Building Code 05/15/2025 N.E. 25-0612.03

Expiration Date: 01/26/2026 CWS-1256 By: Manuel Peres

Miami-Dade Product Control AS NOTED

SHEET 7 OF 9

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					****			
8500 Non Impact Horizontal Stiding Window - XOX Test # FTL 4541 - 1/8" Annealed Insulated Flange Franch W/ HEAVYDUTY MEETING RAIL & STANDARD SILL								
w/ F	EAVYDUT	Y MEETING	RAIL&S	TANDARD	SILL			
Width	Height	DP(+)	DP(-)	Anc	hors			
(in)	(in)	psf	psf	Head & Sill	Eac			
53.125	26	60.0	100.0	3				
74	26	60.0	100.0	5				
106.375	26	60.0	77.4	5				
111	26	60.0	72.9	5				

W/ HEAVYDUTY MEETING RAIL & STANDARD SILL									
Width	Height	DP(+)	DP(-)	Anc	hors				
(in)	(in)	psf	psf	Head & Sill	Each Jamb				
53.125	26	60.0	- 100,0	3	2				
74	26	60.0	100.0	5	-2				
106.375	26	60.0	77.4	5	2				
111	26	60.0	72.9	5	2				
53.125	38.375	60.0	100.0	4	2				
74	38.375	60.0	98.5	6	2				
106.375	38.375	60.0	69.7	6	2				
111	38,375	60.0	66.9	6	2				
53.125	50.625	60.0	80.9	5	2				
- 74	50.625	60.0	75.0	6					
106.375	50.625	53.2	53.2	6	2				
111	50,625	50.8	50.8	6	. 2				
53.125	58	60.0	68.1	5	2				
74	58	60.0	62.7	6	2				
106.375	58	46.1	46.1	6	2				
111	58	44.3	44.3	6	2				
53.125	63	60.0	61.8	4	2				
74	63	56.2	56.2	6	. 2				
106.375	63	42,8	42.8	6	2				
111	63	40.9	40.9	6	2				
72	24	60.0	100.0	4	2				
84	24	60,0	100,0	5	2				
96	24	60.0	91.9	5	2				
108	24	60.0	78.8	. 5	2 2				
120	24	60.0	70.0	5	2				
72	36	60.0	100.0	6	2				
84	36	60.0	92.4	6	2				
. 96	36	60	81.2	6	2				
108	36	60	72	6	2				
120	36	60	63.6	6	2				
72	48	60	81.6	6	2				
84	48	60	71.5	6	2				
96	48	60.0	62.9	6	2				
108	48	55.1	55.1	6					
120	48	49.4	49.4	6	2				
. 72	60	60.0	61.0	6	2				
84	60	55,4	55.4	6	2				
96	60	499	49.9	-6	2				

39.6 39.6 Pressure Limited to Negative 100psf.

44.2

44.2

8500 Non Impact Horizontal Sliding Window - XOX

Test # FTL 4588 - 1/8" Annealed Insulated Flange Frame							
w/ STANDARD MEETING RAIL & STANDARD SILL							
Width	Midth Height DP(+) DP(-) Anchors						
(in)	(in)	psf	psf	Head & Sill	Each Jamb		
53,125	26	60.0	100.0	3	2		
74	26	60.0	100.0	5	2		
106.375	26	60.0	77.4	5	2		
111	26	60,0	72.9	5	2		
53.125	38.375	60.0	93.2	4	2		
74	38.375	60.0	79.6	5	2		
106.375	38.375	60.0	69.7	6	2		
111	38.375	60.0	66.9	6	2		
53.125	50.625	60.0	64.3	4	2		
74	50.625	51.9	51.9	4	2		
106.375	50.625	44.6	44.6	5	. 2		
111	50.625	44.1	44.1	5	2		
72	24	60.0	100.0	4	2 2		
84	24	60.0	100.0	5			
96	24	60.0	91.9	5	2		
108	24	60.0	78.8	5	2		
120	24	60.0	70.0	5	2		
72	36	60,0	89.4	5	2		
84	36	60.0	85.7	6	2		
96	36	60.0	81.2	6	2		
108	36	60.0	72.0	6	2		
120	36	60.0	63.6	6	2		
. 72	48	56.9	56.9	4	2		
84	48	52.8	52.8	5	2		
96	48	50.3	50.3	5	2		
108	48	48.7	48.7	6	2		
120 48 47.3 47.3 6 2							
Pressure Limited to Negative 100psf.							

8500 Non Impact Horizontal Sliding Window - XOX

Test # FTL 4541 - 1/8" Annealed Insulated Flange Frame					Test # FTL 4533 - 1/8" Annealed Insulated Flange Frame						
W/ HEAVYDUTY MEETING RAIL & HI-RISE SILL					w/ HEAVYDUTY MEETING RAIL & STANDARD SILL						
Width	Height	DP(+)	DP(-)	Anchors		Width	Height	DP(+)	DP(-)	Anc	hors
(in)	(in)	psf	psf	Head & Sill	Each Jamb	(in)	(in)	psf	psf	Head & Sill	Each Jami
53.125	26	73.3	100.0	3	2	26.5	26	60.0	100.0	2	. 2
74	26	73.3	100.0	5	2	37	26	60.0	100.0	2	2
106.375	26	73.3	77.4	5	2	53.125	26	60.0	100.0	3	2
111	26	72.9	72.9	5	2	74	26	60.0	100.0	5	2
53.125	38,375	73.3	100.0	4	2	26.5	38.375	60.0	100.0	2	. 2
74	38,375	73.3	98.5	6	2	37	38.375	60.0	100.0	3	2
106.375	38:375	69.7	69.7	6	2	53.125	38.375	60.0	100.0	4	2
111	38,375	66.9	66.9	6	2	74	38.375	60.0	93.1	5	2
53.125	50.625	73.3	80.9	5	2	26.5	50.625	60.0	100.0	2	2
74	50.625	73.3	75.0	6	2	37	50.625	60.0	100.0	3	2
106,375	50.625	53.2	53.2	6	2	53.125	50.625	60.0	80.3	4.	3
111	50.625	50.8	50.8	6	2	74	50.625	60.0	71.7	5	.3
53.125	58	68.1	68.1	5	2	26,5	58	60.0	100.0	3	2
74	58	62.7	62.7	6	2	37	58	60.0	98.6	4	3
106.375	58	46.1	46.1	6	2	53.125	58	60.0	66.0	4	. 2
111	58	44.3	44.3	6	2	74	58	60.0	60.8	5	3
53.125	ස	61.8	61.8	4	2	26.5	ස	60.0	100.0	3	2
74	ස	56.2	56.2	6	2	37	63	60.0	89.4	3	3
106.375	63	42.8	42.8	- 6	2	53,125	63	57.0	57.0	4	2
111	63	40.9	40.9	6	2	74	63	54.0	54.0	5	3
72	24	73.3	100.0	4	2	24	24	60.0	100.0	2	2
84	24	73.3	100.0	5	2	36	24	60.0	100.0	2	2
96	24	73.3	91.9	5	2	48	24	60.0	100.0	3	2
108	24	73,3	78.8	5 .	2	60	24	60.0	100.0	3	2
120	24	70.0	70.0	5	2	72	24	60.0	100.0	4	2
72	36	73.3	100.0	6	· 2	24	36	60.0	100.0	2	2
84	36	73.3	92.4	6	2	36	36	60.0	100.0	3	2
96	36	73.3	81.2	6	2	48	36	60.0	100.0	3	2
108	36	72.0	72.0	. 6	2	- 60	36	60.0	100.0	4	2
120	36	63.6	63.6	6	2	72	36	60.0	100.0	5	2
72	48	73.3	81.6	6	2	24	48	60.0	100.0	2	2
84	48	71.5	71.5	6	2	36	48	60.0	100.0	3	2
96	48	62.9	62.9	6	2	48	48	60.0	88.3	4	2
108	48	55.1	55.1	6	2	60	48	60,0	85.7	4	3
120	48	49.4	49.4	6	2	72	48	60.0	77.3	5	3
72	60	61.0	61.0	6	2	24	60	60.0	100.0	2	2

60 6 72 60 58.8 39.6 58.8 Pressure Limited to Negative 100psf.

48

60

60

60

60

60

60

8500 Non Impact Horizontal Sliding Window - XOX Test # FTL 4588 - 1/8" Annealed Insulated Flange Frame W/ STANDARD MEETING RAIL & HI-RISE SILL

55.4

49.9

44.2

55.4

49.9

44.2

39.6

84

96

108

120

60

60

60

60

146.14	TO TANDA	II-TIOL GILL				
Width			DP(-)	Anchors		
(in)	(in)	psf	psf	Head & Sill	Each Jamb	
53.125	26	73.3	100.0	3	2	
74	26	73.3	100.0	5	2	
106.375	26	73.3	77.4	5	2	
111	26	72.9	72.9	5	2	
53.125	38.375	73.3	93.2	4		
74	38, 375	73.3	79.6	5	2	
106.375	38.375	69.7	69.7	6	2	
111	38.375	66.9	66.9	6	2	
53.125	50.625	64.3	64.3	4	2	
74	50,625	51.9	51.9	4	2 2 2	
106.375	50.625	44.6	44.6	5		
111	50.625	44.1	44.1	5	2	
72	24	73.3	100.0	4	2	
84	24	73.3	100.0	. 5	2	
96	24	73.3	91.9	5	2	
108	24	73.3	78.8	5	2	
120	24	70.0	70.0	5	2	
72	36	73.3	89.4	5	2	
84	36	73.3	85.7	6	2	
96	36	73,3	81.2	6	2	
108	36	72.0	72.0	6	2	
120	36	63.6	63.6	6	2	
72	48	56.9	56.9	4	2	
84	48	52.8	52.8	5		
96	48	50.3	50.3	5	2	
108	48	48.7	48.7	6	2 2	
120	48	47.3	47.3	6	2	
Pressure Limited to Negative 100psf.						

EXT. (29) GLAZING BITE

96.9

66.0

63.1

3

4

5

8500 Non Impact Horizontal Sliding Window - XO or OX

1/2" OVERALL INSULATED GLASS

1/8" ANNEALED OR TEMPERED LITE(\*) + 1/4" AIR SPACE + 1/8" ANNEALED OR TEMPERED LITE(\*)

(SEE CORRESPONDING DESIGN PRESSURE CHARTS)

35 Insulated Spacer Types & Options

35a) TrueSeal Swiggle Seal 35b) Quanex SuperSpacer w/ Isomelt M

35c) Quanex Duraseal

GLAZING DETAIL & DESCRIPTION

8500 Non Impact Horizontal Sliding Window - XO or OX Test # FTL 4533 - 1/8" Annealed Insulated Flange Frame W/ HEAVYDUTY MEETING RAIL & HI-RISE SILL

	WI HEAVYDUTY MEETING RAIL & HI-RISE S						
Width	Height	DP(+)	DP(-)		hors		
(in)	(in)	psf	psf	Head & Sill	Each Jamb		
26.5	26	73.3	100.0	2.	2		
37	26	73.3	100.0	2 3	2 2		
53.125	26	73.3	100.0				
74	26	73.3	100.0	5	2		
26.5	38.375	73.3	100.0	2	2.		
37	38, 375	73.3	100.0	3	2		
53.125	38.375	73.3	100.0	4	2 2		
74	38.375	73.3	93.1	5	22		
26.5	50.625	73.3	100,0	2	2 2		
37	50.625	73.3	100.0	3	2		
53.125	50,625	73.3	80.3	4	3		
74	50,625	71.7	71.7	5	3		
26.5	58	73.3	100.0	3	2		
37	58	73.3	98.6	4	3		
53.125	58	66.0	66.0	4	2		
74	58	60.8	60.8	5	3		
26.5	63	73.3	100.0	3	2		
37	63	73.3	89.4	3	3		
53,125	හ	57.0	57.0	4	2		
74	63	54.0	54.0	5	3		
24	24	73.3	100.0	2	2		
36	24	73.3	100.0	2	2		
48	24	73.3	100.0	3	2		
8	24	73.3	100.0	3	2		
72	24	73.3	100.0	4	2		
24	36	73.3	100.0	2	2 2		
36	36	73.3	100.0	3	2		
48	36	73.3	100.0	3	2		
60	36	73.3	100.0	4	2		
72	36	73.3	100.0	5	2		
24	48	73.3	100.0	2	2		
36	48	73.3	100.0	3	2		
48	48	73.3	88.3	4	2		
60	48	73.3	85.7	4	3		
72	48	73.3	77.3	5	3		
24	60	73.3	100.0	2	2		
36	60	73.3	96.9	4	3		
48	60	66.0	66.0	3	2		
60	60	63.1	63.1	4	3		
72	60	58.8	58.8	5	3		
	Press	ure Limited t	o Negative 1	00psf.			

Note:

- 1. WINDOW WIDTHS & HEIGHTS ARE THE OVERALL EXTERIOR
- \* Tempered glass marked in compliance with CPSC 16 CFR Part 1201" or "ANSI Z97.1-2015.

FRAME DIMENSIONS.

HEET DESCRIPTION

**PRODUCT REVISED** As complying with the Florida Building Code 25-0612.03 NOA-No. Expiration Date: 01/26/2026

By: Manuel Peres Miami-Dade Product Control

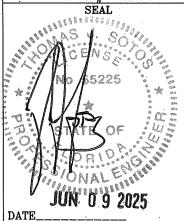
1900 SW 44TH AVE OCALA, FLORIDA 34474 WWW.CWS.CC

**CWS 320 ALUMINUM** FLANGE FRAME NON-IMPACT HORIZONTAL ROLLING WINDOW

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	-				4	NO.:	
					A Revises NDA # 23-1017.08	NO.: DESCRIPTION:	REVISIONS
				ı	N. F	BY:	
					05/15/2	BY: DATE:	

THOMAS J. SOTOS PROFESSIONAL ENGINEER FL LIC. # 55225



GLASS LOAD CHARTS, INSULATED GLAZING DETAIL

	DRAWN BY:	DATE:
	NELSON ERAZO	11/17/2023
	REV. BY:	DATE:
a >	N.E.	05/15/2025
2	DWG #:	REV#:
•		

CWS-1256

SHEET 8 OF 9 AS NOTED

