

# MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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

www.miamidade.gov/building

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

## **NOTICE OF ACCEPTANCE (NOA)**

Titan Glass & Aluminum, LLC 450 West 27<sup>th</sup> Street Hialeah, FL 33010

#### 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 "TSH-2750" Aluminum Single Hung Window – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **AD10-05**, titled "TSH-2750 Aluminum Single Hung Window (LMI)", sheets 1 through 6 of 6, dated 05/01/14, with revision #3 dated 10/27/20, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, 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: Large and Small Missile Impact Resistant

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

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

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

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

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

This NOA revises NOA No. 19-0528.05 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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

MIAMI-DADE COUNTY
APPROVED

NOA No. 20-1104.26 Expiration Date: June 24, 2024 Approval Date: February 18, 2021

Page 1

#### Titan Glass & Aluminum, LLC

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA No. 09-0413.06)
- 2. Drawing No **AD10-05**, titled "TSH-2750 Aluminum Single Hung Window (LMI)", sheets 1 through 6 of 6, dated 05/01/14, with revision #2 dated 05/01/14, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E. (Submitted under NOA No. 17-1227.21)

#### 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 FIW 2009-80 aluminum single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-6057**, dated 10/05/09, signed and sealed by Julio E. Gonzalez, P.E.

### (Submitted under NOA No. 10-0422.06)

- 2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of a series FIW 2008 aluminum single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-5743, dated 12/30/08, signed and sealed by Michael R. Wenzel, P.F.

(Submitted under NOA No. 09-0413.06)

#### C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with FBC–2007, prepared by MCY Engineering, Inc., dated 04/07/10, and updated to **FBC 5<sup>th</sup> Edition** (2014) on 05/12/14, signed and sealed by Yiping Wang, P.E. (Submitted under NOA No. 10-0422.06)
- 2. Glazing complies with ASTM E1300-04.

#### D. QUALITY ASSURANCE

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

Manuel Perez, P.E. Product Control Examiner NOA No. 20-1104.26

Expiration Date: June 24, 2024 Approval Date: February 18, 2021

### Titan Glass & Aluminum, LLC

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA'S (CONTINUED)
- E. MATERIAL CERTIFICATIONS
  - 1. Notice of Acceptance No. 17-0808.02 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 12/28/17, expiring on 07/04/23.
  - 2. Notice of Acceptance No. 17-1114.14 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 01/18/18, expiring on 07/08/19.

#### F. STATEMENTS

- 1. Statement letter of conformance, complying with **FBC** 6<sup>th</sup> **Edition (2017)**, dated May 15, 2019, issued by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E. (Submitted under NOA No. 19-0528.05)
- 2. Statement letter of conformance, complying with FBC 5<sup>th</sup> Edition (2014), with FBC 6<sup>th</sup> Edition (2017), and of no financial interest, dated December 21, 2017, issued by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E. (Submitted under NOA No. 17-1227.21)

#### G. OTHERS

1. Notice of Acceptance No. 17-1227.21, issued to Titan Glass & Aluminum, LLC for their Series "TSH-2750" Aluminum Single Hung Window – L.M.I.", approved on 02/22/18 and expiring on 06/24/19.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 20-1104.26
Expiration Date: June 24, 2024

Approval Date: February 18, 2021

## Titan Glass & Aluminum, LLC

### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 2. NEW EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No **AD10-05**, titled "TSH-2750 Aluminum Single Hung Window (LMI)", sheets 1 through 6 of 6, dated 05/01/14, with revision #3 dated 10/27/20, prepared by MCY Engineering, Inc., signed and sealed by Yiping Wang, 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. Notice of Acceptance No. 19-0305.02 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers" dated 05/09/19, expiring on 07/08/24.
- 2. Notice of Acceptance No. 18-0725.11 issued to Kuraray America, Inc. for their "Kuraray SentryGlas<sup>®</sup> Xtra<sup>TM</sup> (SGX<sup>TM</sup>) Clear Glass Interlayer" dated 05/23/19, expiring on 05/23/24.

#### F. STATEMENTS

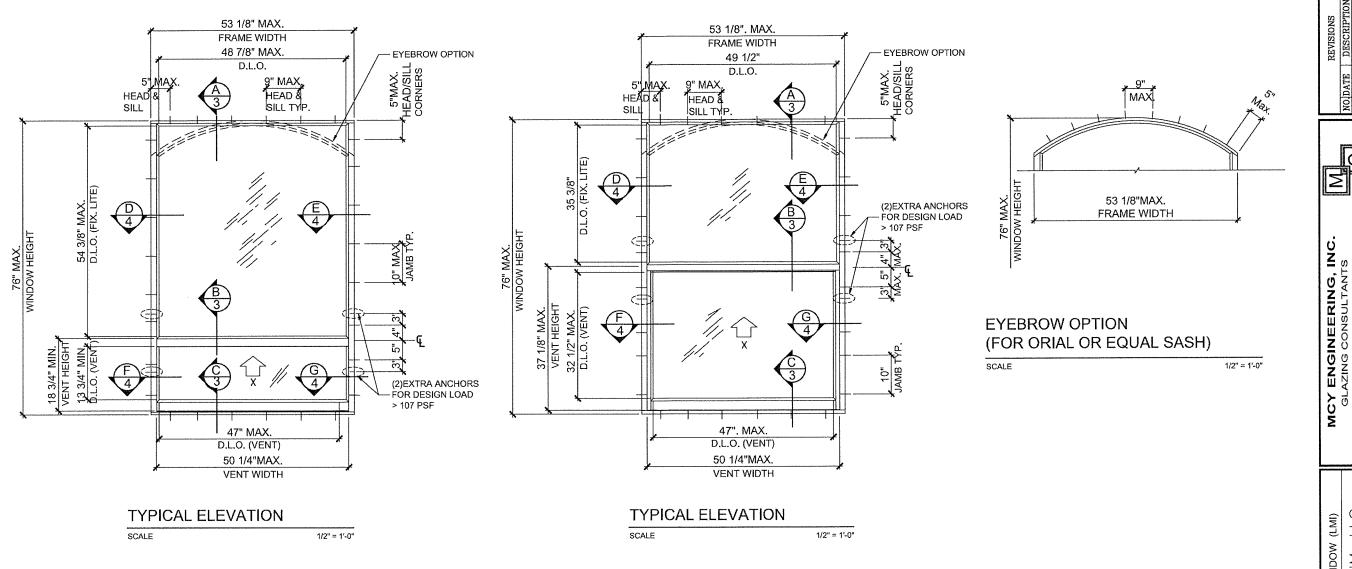
1. Statement letter of conformance, complying with FBC 6<sup>th</sup> Edition (2017), with FBC 7<sup>th</sup> Edition (2020), and of no financial interest, dated October 27, 2020, issued by MCY Engineering, Inc., signed and sealed by Yiping Wang, P.E.

#### G. OTHERS

1. Notice of Acceptance No. **19-0528.05**, issued to Titan Glass & Aluminum, LLC for their Series "TSH-2750" Aluminum Single Hung Window – L.M.I.", approved on 06/27/19 and expiring on 06/24/24.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 20-1104.26
Expiration Date: June 24, 2024

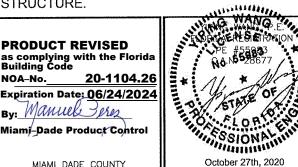
Approval Date: February 18, 2021



#### **GENERAL NOTES:**

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 / 2020 FLORIDA BUILDING CODE 6TH EDITION / 7TH EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- WINDOWS RATED FOR LARGE MISSILE IMPACT AND DO NOT REQUIRE SHUTTERS.
- THESE WINDOWS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- WOOD BUCKS BY OTHERS MUST BE SOUTHERN PINE, G = 0.55 AND MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

- A LOAD DURATION FACTOR IN ALLOWABLE STRESS IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
- PROVIDE 1/4" MAX. LOAD BEARING SHIM SPACE (TYP.).
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2017 / 2020 FLORIDA BUILDING CODE SECTION AS APPLICABLE.
- METAL STRUCTURES BY OTHERS MUST SUPPORT LOADS IMPOSED BY WINDOW SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.
- DESIGN LOAD OBTAINED FROM ASCE 7-10 / ASCE 7-16, MULTIPLY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT.



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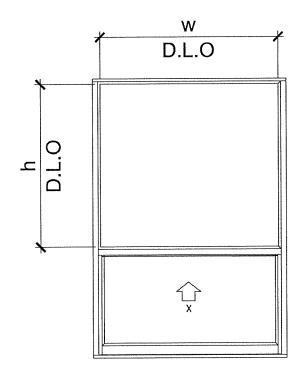
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ISH-2750 ALUMINUM SINGLE

as complying with the Florida Building Code

By: Manuel Peres

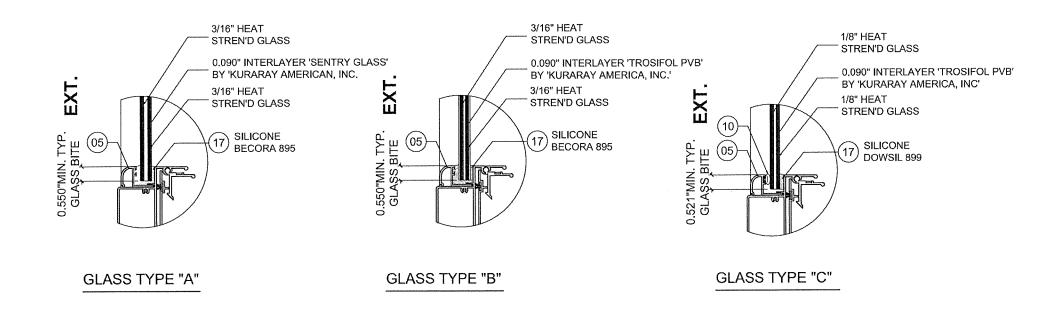
MIAMI DADE COUNTY



## SINGLE HUNG WINDOW SCHEDULE

	GLASS TYPE A	GLASS TYPE B	GLASS TYPE C
MAXIMUM DESIGN LOAD	+110.0 PSF -150.0 PSF	+110.0 PSF -150.0 PSF	+80.0 PSF -80.0 PSF
MAX. FIXED LITE GLASS AREA ( w*h )	2640 IN <sup>2</sup>	1729 IN <sup>2</sup>	2640 IN <sup>2</sup>

SCHEDULE FOR UNEQUAL SASH HEIGHT ORIEL AND EQUAL SASH HEIGHT SINGLE HUNG WINDOW. ALSO FOR RECTANGULAR OR EYEBROW.



## **GLAZING OPTIONS**

NOTE:

GLASS CAPACITIES ARE BASED ON ASTM E1300-04 ( 3 SEC. GUSTS)

**GLAZING COMPLY WITH ASTM E1300-04** 

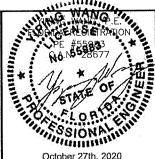


NOA-No.

Expiration Date: 06/24/2024 By: Manuel Peres

Miami-Dade Product Control

MIAMI DADE COUNTY



DATE	5/1/14	
SCALE	AS SHOWN	
DRAWN	W.L.	
PROJECT	10-012	
DRAWING NO.		
AD10-05		

2 OF 6

October 27th, 2020

MCY ENGINEERING, INC. GLAZING CONSULTANTS 12781 MIRAMAR PKWY. STE.301 MIRAMAR, FL. 33027

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TSH-2750 ALUMINUM SINGLE HUNG WINDOW (LMI)

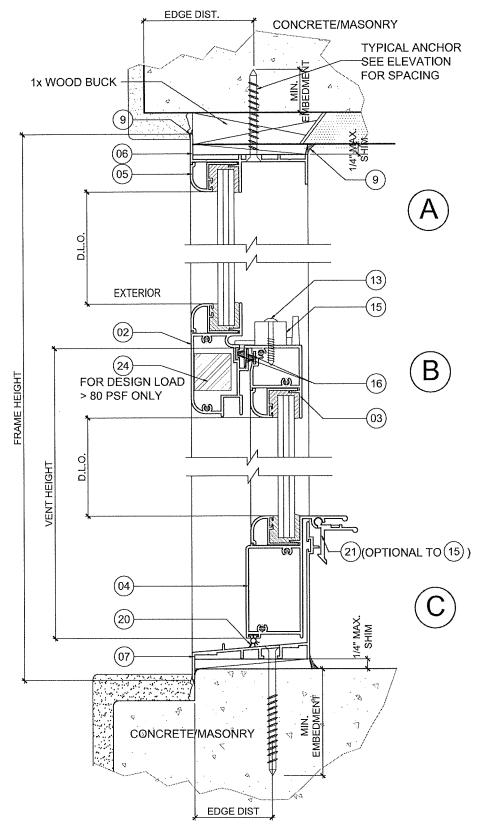
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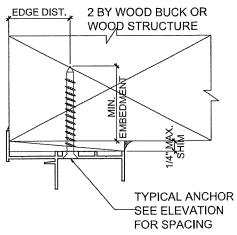
450 WEST 27th STREET

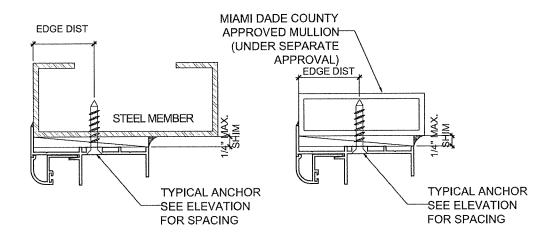
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P. (305) 871 - 3840

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# TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. HILTI KWIK-CON II (Fy=157 KSI, Fu=163 KSI) TYPE 'A'

- INTO 2BY WOOD BUCKS OR WOOD STRUCTURES 1-1/2" MIN. WOOD PENETRATION
- THRU 1BY WOOD BUCKS INTO MASONRY OR CONC. 1-5/8" MIN. EMBED INTO MASONRY OR CONC.
- DIRECTLY INTO MASONRY OR CONCRETE 1-5/8" MIN. EMBED INTO MASONRY OR CONCRETE

1/4" DIA. TEKS OR SELF DRILLING SCREWS (Fy=92 KSi, Fu=120 KSI) TYPE 'B'

• INTO METAL STRUCTURES

STEEL: 12 GA. MIN. (Fy = 36 KSI MIN.) ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

#### TYPICAL EDGE DISTANCE:

INTO CONCRETE AND MASONRY: 2" MIN. AT JAMB & 1-1/2" AT HEAD & SILL INTO WOOD STRUCTURE = 1" MIN. INTO METAL STRUCTURE = 3/4" MIN.

#### SEALANT:

ALL FRAME CORNERS, VENT CORNERS AND EACH END OF THE FIXED MEETING RAILS

#### WEEP HOLES:

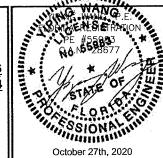
1/4" LONG WEEP HOLES NOTCH ONE AT EACH END.

**PRODUCT REVISED** as complying with the Florida Building Code

20-1104.26 NOA-No. Expiration Date: 06/24/2024

By: Manuel Peres Miami-Dade Product Control

MIAMI DADE COUNTY



TSH-2750 ALUMINUM SINGLE HUNG WINDOW (LMI)	TITAN GLASS & ALUMINUM, LLC	
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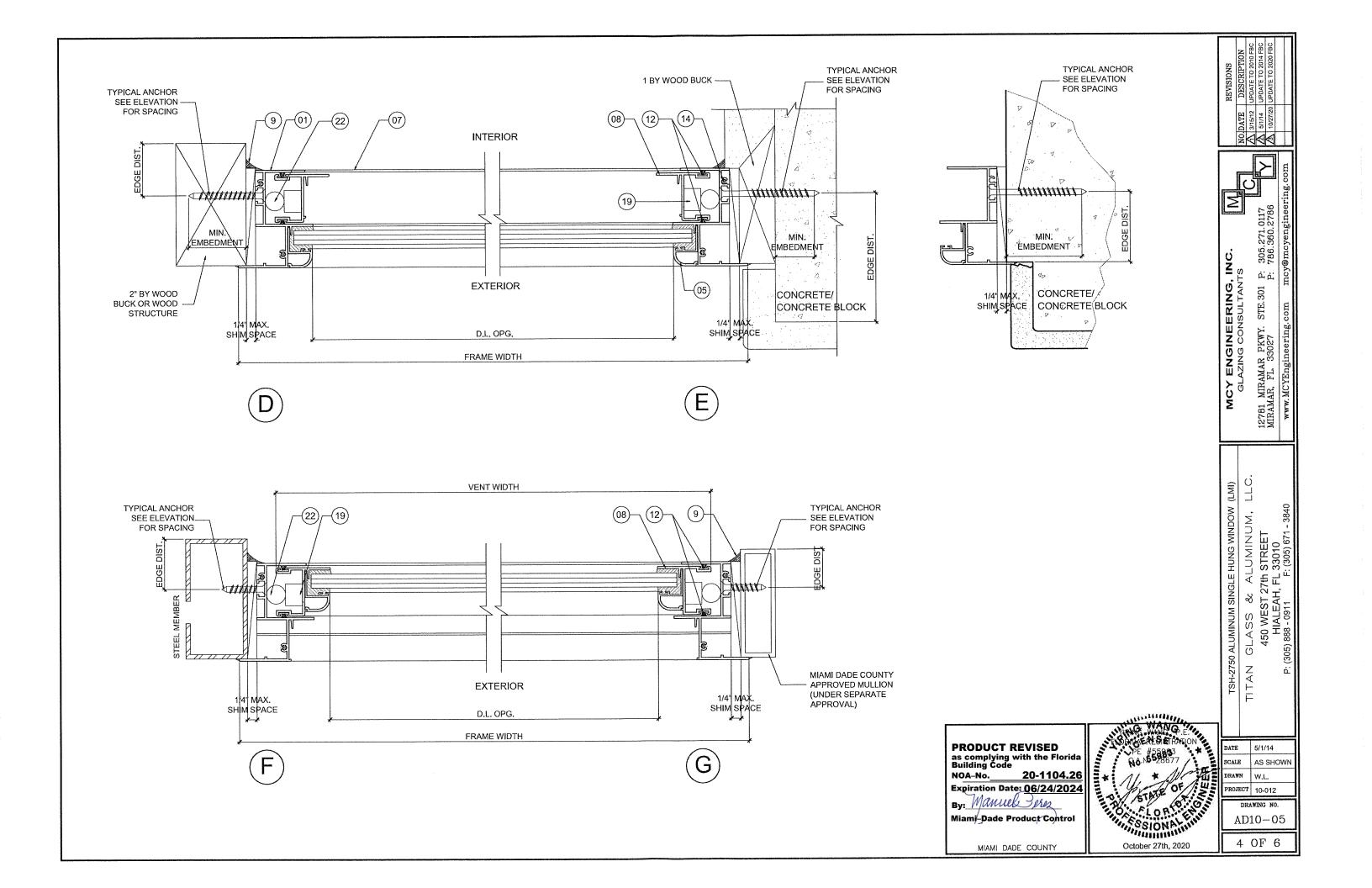
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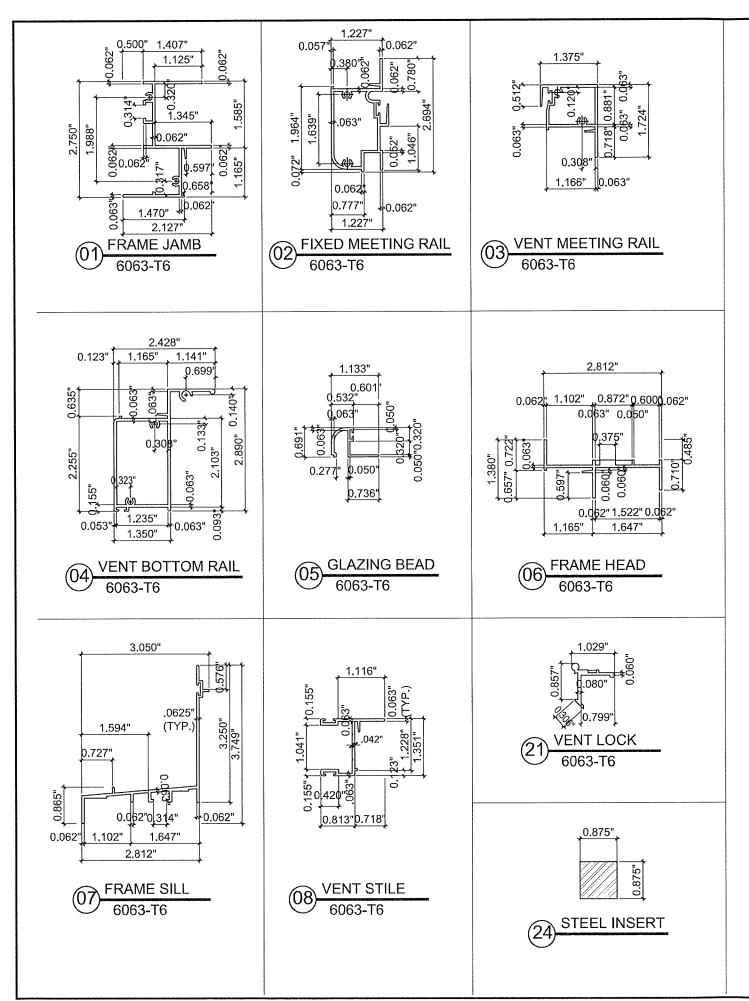
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MCY ENGINEERING, INC. GLAZING CONSULTANTS

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October 27th, 2020	3	OF 6

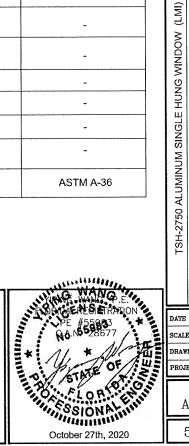
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## **BILL OF MATERIAL**

ITEM#	PART	DESCRIPTION	MATERIAL
01	FSP 015	FRAME JAMB	6063-T6
02	FSP 041	FIXED MEETING RAIL	6063-T6
03	FSP 018	VENT MEETING RAIL	6063-T6
04	FSP 042	VENT BOTTOM RAIL	6063-T6
05	FSP 017	GLAZING BEAD	6063-T6
06	FSP 014	FRAME HEAD	6063-T6
07	FSP 040	FRAME SILL	6063-T6
80	FSP 016	VENT STILE	6063-T6
9	SILICONE	SEALANT, AT FRAME CORNERS, VENT CORNERS AND EACH END OF THE FIXED MEETING RAIL.	NON STRUCTURAL SILICON
10		VINYL BULB	-
11	FASTENER	#8 X 1 1/2" PH SMS (SS) VENT CORNER FASTENERS	-
12		WEATHER STRIP	-
13	FASTENER	#8 X 5/8" PH SMS (SS) LATCH LOCK FASTENER	-
14	FASTENER	#8 X 1 1/2" PH SMS (SS) FRAME CORNER FASTENERS	-
15		LATCH LOCK	-
16		WEATHER STRIP	-
17	SILICONE	PECORA 896	STRUCTURAL SILICO
18	NYLON GUIDES	(4) NYLON GUIDES LOCATED AT 3 1/8" AND 36 3/4" FROM BOTTOM OF VENT STILE USING (1) #6X3/8" F.H. S.M.S.	-
19	NYLON GUIDES	(2) NYLON GUIDES LOCATED AT EACH END OF VENT MEETING RAIL USING (2) #8X1 1/2" P.H. S.M.S.	-
20		VENT VINYL BULB	
21	FSP 021	VENT LOCK	-
22		BALANCE	-
23	SURFACE MOUNT METALLIC CLIPS	(2) CLIPS AT EACH VENT BOTTOM RAIL CONNECTED USING (2) #8X5/8" F.H. S.M.S.	-
24	M	7/8" X 7/8" CONT. STEEL BAR, ZINC PLATED USED WHEN DESIGN LOAD > 80 PSF	ASTM A-36



PRODUCT REVISED
as complying with the Florida
Building Code

Expiration Date: 06/24/2024

MIAMI DADE COUNTY

By: Manuel Peres Miami-Dade Product Control

NOA-No.

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REGISTRATION #55903	DATE	5/1/14
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MCY ENGINEERING, INC. GLAZING CONSULTANTS

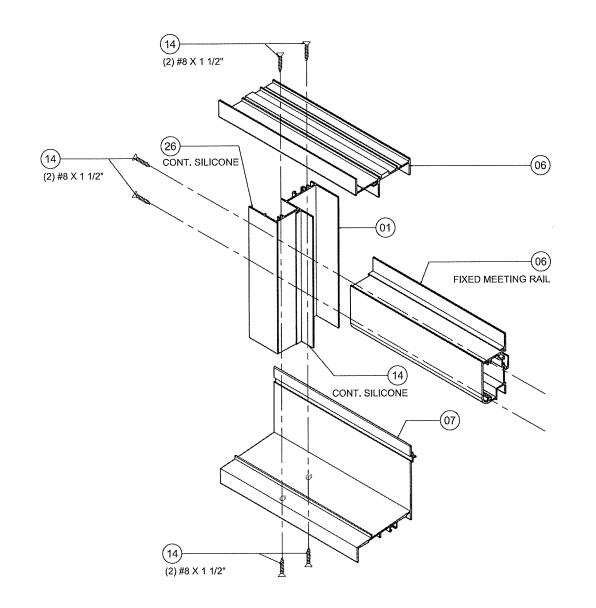
12781 MIRAMAR PKWY. STE.301 MIRAMAR, FL. 33027

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5 OF 6



-(26) CONT. SILICONE (2) #8 X 1-1/2" PH SMS (26) CONT. SILICONE (2) #8 X 1-1/2" PH SMS

CORNER CONNECTION AT FRAME HEAD AND SILL SCALE 4"=1'-0"

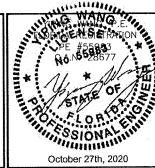
**CORNER CONNECTION** AT OPERABLE VENT (X) SCALE 4"=1'-0"

> PRODUCT REVISED as complying with the Florida Building Code NOA-No. 20-1104.26 Expiration Date: 06/24/2024

By: Manuel Peres

Miami-Dade Product Control

MIAMI DADE COUNTY



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TITLE PARTY.	DATE	5/1/14	
	SCALE	AS SHOWN	
	DRAWN	W.L.	
	PROJECT	PROJECT 10-012	
	DRAWING NO.		
	AD10-05		

6 OF 6

TSH-2750 ALUMINUM SINGLE HUNG WINDOW (LMI)

TAN GLASS & ALUMINUM, LLC.

450 WEST 27th STREET

HIALEAH, FL 33010

MCY ENGINEERING, INC. GLAZING CONSULTANTS

12781 MIRAMAR PKWY. STE.301 MIRAMAR, FL 33027