

# MIAMI-DADE COUNTY, FLORIDA 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)**

RC Home Showcase, Inc. 16115 NW 52<sup>nd</sup> Avenue Miami Gardens, Fl. 33014

#### 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 "HS-660" Aluminum Single Hung Window, w/ or w/o Window Wall – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **14 402**, titled "Series HS660 Alum. Single Hung Windows (L.M.I.)", sheets 1 through 8 of 8, dated 11/05/18, with revision 02 dated 07/25/19, prepared by Eastern Engineering Group Company, signed and sealed by Gonzalo A. Paz, 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, 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. 18-1120.09 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

1 8 | 20 | 19

NOA No. 19-0729.04 Expiration Date: April 02, 2020 Approval Date: August 29, 2019 Page 1

# RC Home Showcase, Inc.

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

# A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA No. 14-1118.03)
- 2. Drawing No. 14 402, titled "Series HS660 Alum. Single Hung Windows (L.M.I.)", sheets 1 through 8 of 8, dated 11/05/18, prepared by Eastern Engineering Group Company, signed and sealed by Gonzalo A. Paz, P.E.

# B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Small Missile Impact Test per FBC, TAS 201-94
  - 5) Large Missile Impact Test per FBC, TAS 201-94
  - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 7) Drop Load Test, per CPCS 16 CFR 1201 (Cat 11)
  - 8) Safety Performance Test, (class A) per ANSI Z97.1
  - 9) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94 and per ASTM F 588, Type "A", Grade 10

along with marked-up drawings and installation diagram of single hung windows, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-7902, dated 11/06/14, signed and sealed by Idalmis Ortega, P.E.

(Submitted under NOA No. 14-1118.03)

# C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with **FBC** 5<sup>th</sup> **Edition** (2014), dated 12/02/14 and revised on 03/23/15, prepared by Eastern Engineering Group Company, signed and sealed by Gonzalo A. Paz, P.E. (Submitted under NOA No. 18-0214.04)
- 2. Glazing complies with ASTM E1300-04/09

#### D. QUALITY ASSURANCE

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

Manuel Perez, P.E. Product Control Examiner

NOA No. 19-0729.04 Expiration Date: April 02, 2020 Approval Date: August 29, 2019

# RC Home Showcase, Inc.

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### 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. Teknor Apex Part No. Sarlink TPV 5775B EPDM exterior glazing gasket complying with ASTM D 792-Specific Gravity SG-0.93, ASTM D412-Tension of 1230 PSI, ASTM D395B-22 HRS 158°F, ASTM D 624-200 lb./in., ASTM D 2240-Hardness Shore A 72 Durometer, ASTM D 573-1000 HRS 275°F, ASTM D 471-70 HRS 257°F and ASTM D 3835-3.0 HRS 180°F.

#### F. STATEMENTS

- 1. Statement letter of conformance to and of complying with FBC 6<sup>th</sup> Edition (2017), FBC 5<sup>th</sup> Edition (2014), issued by Eastern Engineering Group Company, dated 03/19/15, signed and sealed by Gonzalo A. Paz, P.E. (Submitted under NOA No. 18-0214.04)
- 2. Statement letter of no financial interest, issued by Eastern Engineering Group Company, dated 12/02/14, signed and sealed by Gonzalo A. Paz, P.E. (Submitted under NOA No. 18-0214.04)
- 3. Laboratory compliance letter for Test Report No. FTL-7902, issued by Fenestration Testing Laboratory, Inc., dated 11/06/14, signed and sealed by Idalmis Ortega, P.E. (Submitted under NOA No. 18-0214.04)
- 4. Department of State Certification of RC HOME SHOWCASE, INC. as a for profit corporation, active and organized under the laws of the State of Florida, dated February 25, 2015 and filed at the Secretary of State.

  (Submitted under NOA No. 18-0214.04)
- 5. Proposal issued by the Product Control, dated March 27, 2014, signed by Jaime D. Gascon, P.E. (Submitted under NOA No. 18-0214.04)

#### G. OTHERS

1. Notice of Acceptance No. **18-0214.04**, issued to RC Home Showcase, Inc. for their Series "HS-660" Aluminum Single Hung Window w/ or w/o Window Wall - L.M.I., approved on 03/29/18 and expiring on 04/02/20.

Manuel Perez, P.E. Product Control Examiner NOA No. 19-0729.04

Expiration Date: April 02, 2020 Approval Date: August 29, 2019

# RC Home Showcase, Inc.

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

### 2. NEW EVIDENCE SUBMITTED

### A. DRAWINGS

1. Drawing No. 14 402, titled "Series HS660 Alum. Single Hung Windows (L.M.I.)", sheets 1 through 8 of 8, dated 11/05/18, with revision 02 dated 07/25/19, prepared by Eastern Engineering Group Company, signed and sealed by Gonzalo A. Paz, P.E.

# B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94 and per ASTM F 588, Type "A", Grade 10

along with marked-up drawings and installation diagram of a series KSH660 single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-10730**, dated 05/17/19, signed and sealed by Idalmis Ortega, P.E.

# 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. 17-0808.02 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 12/28/17, expiring on 07/04/23.

#### F. STATEMENTS

1. None

#### G. OTHERS

1. Notice of Acceptance No. **18-1120.09**, issued to RC Home Showcase, Inc. for their Series "HS-660" Aluminum Single Hung Window w/ or w/o Window Wall - L.M.I., approved on 02/14/19 and expiring on 04/02/20.

Manuel Perez, P.E. Product Control Examiner NOA No. 19-0729.04

Expiration Date: April 02, 2020 Approval Date: August 29, 2019

# **GENERAL NOTES**

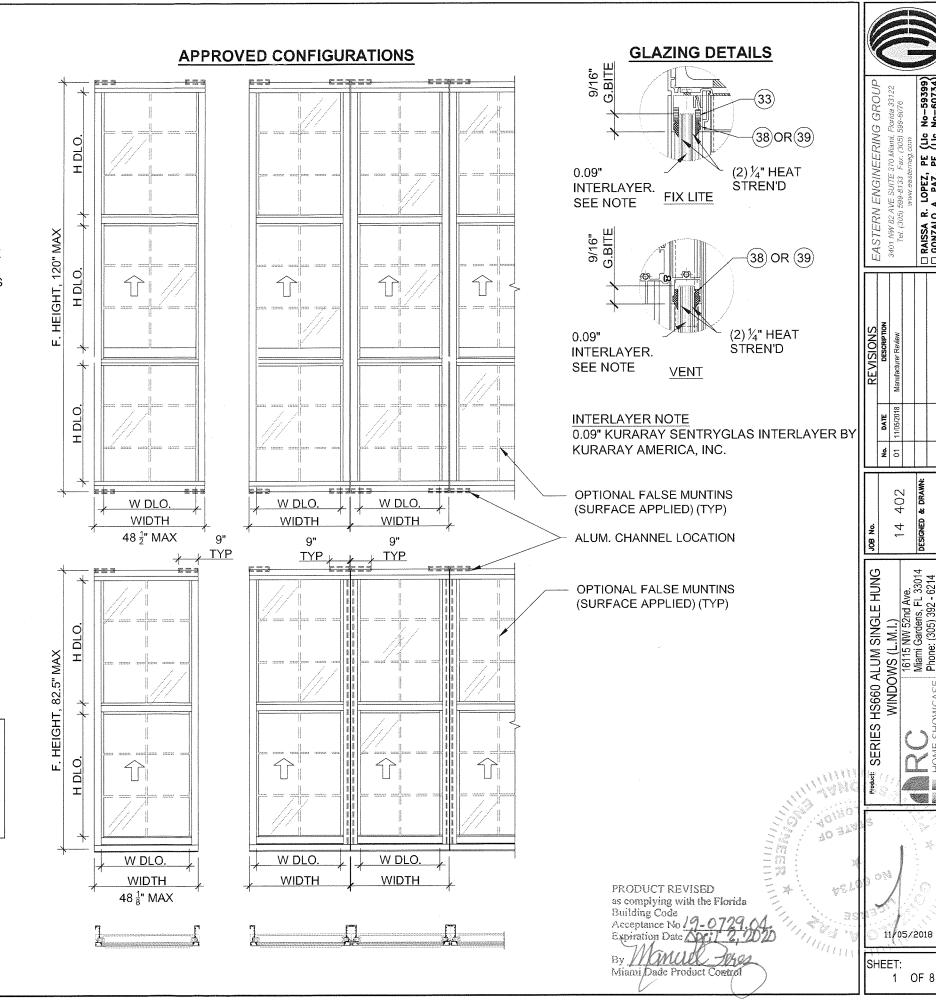
- 1. THIS WINDOWS SYSTEM IS DESIGNED AND TESTED TO COMPLY W/ THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE VELOCITY (HVHZ) AND ASTM 1300-09 THESE WINDOWS ARE RATED FOR LARGE MISSILE IMPACT. (SHUTTERS ARE NOT REQUIRED)
- 2. ANCHORS SHOWN IN DRAWINGS ARE AS PER TEST UNITS. ANCHORS ON ALL PANEL SIZES ARE NOT TO EXCEED THESE MAXIMUM SPACING ON CENTER (O.C.) AND AS **TABULATED ON SHEET 3**
- 3. ANCHOR CONDITIONS NOT DESCRIBED IN THESE DRAWING'S ARE TO BE ENGINEERED ON A SITE SPECIFIC BASIS. UNDER A SEPARATE APPROVAL AND TO BE REVIEWED BY BUILDING OFFICIAL.
- LOAD DURATION INCREASE IN ALLOWABLE STRESS IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.
- ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- GLASS PANEL TO BE LAMINATED GLASS 9/16" NOMINAL, COMPOSED OF (2) " HEAT STRENGTHENED GLASS WITH 0.09" KURARAY SENTRYGLAS INTERLAYER FILM BY KURARAY AMERICA, INC.
- EXT, & INT. FALSE MUNTINS ARE OPTIONAL & AND TO BE APPLIED W/ SILICONE.
- ALL METAL/STEEL IN CONTACT WITH ALUMINUM OR OTHER DISSIMILAR MATERIALS TO BE PAINTED OR PLATED AND SHALL MEET THE FLORIDA BLDG. CODE.
- SEE SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- 10. USE RATING GREATER THAN DESIGN LOADS REQUIRED
- 11. LOWER DESIGN PRESSURES FROM MULLION OR WINDOW CHARTS WILL APPLY TO ENTIRE SYSTEM.
- 12. EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE WINDOW OR WINDOW WALL SYSTEM. ENGINEER ON RECORD OF THE BUILDING SHALL VERIFY THE STRUCTURE FOR SUCH LOADINGS.
- 13. SYSTEM COMPLIES WITH REQUIREMENTS OF ANSI Z-97.1

# **DESIGN SEQUENCE**

STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG, HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

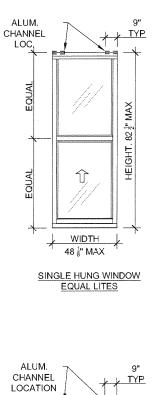
STEP 2: DETERMINE SYSTEM CAPACITY FROM TABLES ON SHEET 2.

STEP 3: THE LOWEST VALUE RESULTING FROM STEP 2 SHALL APPLY TO ENTIRE SYSTEM.



W.

CHART	#1: SINGLE W/ EQUA		NDOW
FRAME HEIGHT	FRAME WIDTH	I .	N LOAD ITY (psf)
(in)	(in)	(+)	(-)
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
48.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	102.6	102.6
	50.0	66.3	66.3
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
54.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	93.2	93.2
	60.0	60.1	60.1
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
60.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	86.0	86.0
	60.0	55.0	55.0
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
66.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	80.3	80.3
	60.0	51.2	51.2
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
72.0	42.0	120.0	120.0
	48.1	120.0	120.0
	54.0	76.1	76.1
	55.5	67.5	67.5
	24.0	120.0	120.0
	30.0	120.0	120.0
70.0	36.0	120.0	120.0
78.0	42.0	120.0	120.0
	48.1	120.0	120.0
	51.0	94.1	94.1
	24.0	120.0	120.0
	30.0	120.0	120.0
82.5	36.0	120.0	120.0
	42.0	120.0	120.0
	48.1	120.0	120.0



WIDTH 48 ½" MAX

SINGLE HUNG WINDOW **UNEQUAL LITES** 

(in)	(in)	(+)	(-)
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
48.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	103.8	103.8
	60.0	67.1	67.1
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
54.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	93.4	93.4
	60.0	60.3	60.3
	24.0	120.0	120.0
	30.0	120.0	120.0
	36.0	120.0	120.0
60.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	86.1	86.1
	60.0	55.2	55.2
	24.0	120.0	120.0
	30.0	120.0	120.0
66.0	36.0	120.0	120.0
66.0	42.0	120.0	120.0
	48.0	120.0	120.0
	54.0	80.9	80.9
	24.0	120.0	120.0
	30.0	120.0	120.0
72.0	36.0	120.0	120.0
	42.0	120.0	120.0
	46.0	120.0	120.0
	24.0	91.7	91.7
78.0	30.0	120.0	120.0
78.0	36.0	120.0	120.0
	41.0	113.9	113.9
	24.0	120.0	120.0
82.5	30.0	116.7	116.7
	37.0	88.1	88.1

CHART #2: SINGLE HUNG WINDOW W/ UNEQUAL LITES

FRAME

DESIGN LOAD

CAPACITY (psf)

(in)	(in)	(+)	(-)	
	24.0	120.0	120.0	
	30.0	120.0	120.0	
	36.0	120.0	120.0	
48.0	42.0	120.0	120.0	
	48.0	120.0	120.0	
	54.0	103.8	103.8	
	60.0	67.1	67.1	
	24.0	120.0	120.0	
	30.0	120.0	120.0	
	36.0	120.0	120.0	
54.0	42.0	120.0	120.0	
	48.0	120.0	120.0	
	54.0	93.4	93.4	
	60.0	60.3	60.3	
	24.0	120.0	120.0	
	30.0	120.0	120.0	
	36.0	120.0	120.0	
60.0	42.0	120.0	120.0	
	48.0	120.0	120.0	
	54.0	86.1	86.1	
	60.0	55.2	55.2	
	24.0	120.0	120.0	
	30.0	120.0	120.0	
66.0	36.0	120.0	120.0	
66.0	42.0	120.0	120.0	
	48.0	120.0	120.0	
	54.0	80.9	80.9	
	24.0	120.0	120.0	
	30.0	120.0	120.0	
72.0	36.0	120.0	120.0	
	42.0	120.0	120.0	
	46.0	120.0	120.0	
	24.0	91.7	91.7	
79.0	30.0	120.0	120.0	
78.0	36.0	120.0	120.0	
	41.0	113.9	113.9	
	. 24.0	120.0	120.0	
82.5	30.0	116.7	116.7	
	37.0	88.1	88.1	

(in)	(in)	(+)	(-)
	24	116	116.5
	30	116	116.5
38.5	36	116	116.5
	42	116	116.5
	48.125	116	116.5
ALUW CHANN LOCATI	EL \	<b>1</b> ///	FRAME HEIGHT ALG

WIDTH

48 ½" MAX

-GLASS CAPACITIES ON THIS SHEET ARE

BASED ASTM E1300-09 (3 SEC. GUSTS)

ALUM. CHANNEL

LOCATION

CHART #3: WINDOW WALL BOTTOM LITE

HEIGHT

GLASS LOAD

CAPACITY (psf)

42         60         120.0         120.0           48         120.0         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           24         120.0         120.0         120.0           36         120.0         120.0         120.0           42         72         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           30         36         82.5         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         116.0         116.5           42         116.0         116.5           42         83         116.0         116.5           48	36		120.0	120.0
54         120.0         120.0           60         120.0         120.0           24         120.0         120.0           30         120.0         120.0           36         120.0         120.0           42         72         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           30         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         126.0         116.5         116.5           30         116.0         116.5         116.5           48         116.0         116.5         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5      <	42	60	120.0	120.0
60         120.0         120.0           24         120.0         120.0           30         120.0         120.0           42         72         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           30         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         116.0         116.5         116.5           42         116.0         116.5         116.5           48         116.0         116.5         116.0         116.5           48         116.0         116.5         116.0         116.5           <	48		120.0	120.0
24         120.0         120.0         120.0           30         120.0         120.0         120.0           42         72         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           30         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           42         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.5           48         116.0         116.5         116.0         116.5           40         116.0         116.5         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5         116.0         116.5           48         116.0         116.5         116.0         116.5           40         116.0	54		120.0	120.0
30         120.0         120.0           36         120.0         120.0           42         72         120.0         120.0           54         120.0         120.0           60         120.0         120.0         120.0           30         120.0         120.0         120.0           42         120.0         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         83         116.0         116.5           54         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           42         96         116.0         116.5         116.0         116.5           48         116.0         116.5         116.0         116.5         116.0         116.5           44         116.0         116.5         116.0         116.5         116.0         116.5         116.0	60		120.0	120.0
36         120.0         120.0           42         72         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           24         120.0         120.0         120.0           36         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.5           54         116.0         116.5	24		120.0	120.0
42         72         120.0         120.0           48         120.0         120.0         120.0           54         120.0         120.0         120.0           60         120.0         120.0         120.0           24         120.0         120.0         120.0           36         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.5           54         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           42         96         116.0         116.5         116.0         116.5           48         116.0         116.5         116.0         116.5         116.0         116.5           42         116.0         116.5         116.0         116.5         116.0         116.5           48<	30		120.0	120.0
48         120.0         120.0           54         120.0         120.0           60         120.0         120.0           120.0         120.0         120.0           30         120.0         120.0           42         120.0         120.0           48.13         120.0         120.0           24         116.0         116.5           36         116.0         116.5           42         83         116.0         116.5           48         116.0         116.5           54         116.0         116.5           30         116.0         116.5           30         116.0         116.5           42         116.0         116.5           30         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           48         116.0         116.5           54         116.0         116.5           48         116.0         116.5           30         116.0         116.5           42         116.0         116.5           36         11	36		120.0	120.0
54         120.0         120.0           60         120.0         120.0           24         120.0         120.0           30         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.0         116.5           54         116.0         116.5         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.	42	72	120.0	120.0
60         120.0         120.0           24         120.0         120.0           30         120.0         120.0           36         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.0         116.5           54         116.0         116.5         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.0         116.5         116.	48		120.0	120.0
24         120.0         120.0           30         120.0         120.0           36         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.0         116.5           54         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5         116.0         116.5           54         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           34         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116	54		120.0	120.0
30         82.5         120.0         120.0           36         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           42         83         116.0         116.5         116.0         116.5           54         116.0         116.5         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5         116.0         116.5           42         96         116.0         116.5         116.0         116.5           54         116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           34         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           36         <	60		120.0	120.0
36         82.5         120.0         120.0           42         120.0         120.0         120.0           48.13         120.0         120.0         120.0           24         116.0         116.5         116.5         116.0         116.5           30         116.0         116.5         116.0	24		120.0	120.0
42         120.0         120.0           48.13         120.0         120.0           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         83         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           30         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           36         116.0         116.5         116.0         116.5           42         102         116.0         116.5         116.0         116.5           48         116.0         116.5         116.0         116.5         116.0         116.5           42         102         1	30		120.0	120.0
48.13         120.0         120.0           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         83         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           30         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           116.0         116.5         116.0           116.0         116.5         116.0           116.0         116.5         116.0           30         116.0         116.5           116.0         116.5         116.0           116.0         116.5         116.0           116.0         116.5         116.0           116.0         116.5         116.0           116.0         116.5         116.0           116.0         116.5         116.0 <t< td=""><td>36</td><td>82.5</td><td>120.0</td><td>120.0</td></t<>	36	82.5	120.0	120.0
24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         83         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           24         116.0         116.5           30         116.0         116.5           30         116.0         116.5           30         116.0         116.5           42         116.0         116.5           36         116.0         116.5           41         116.0         116.5           36         116.0         116.5           36         116.0         116.5           30         116.0         116.5           36         116.0         116.5           36         116.0 <td>42</td> <td></td> <td>120.0</td> <td>120.0</td>	42		120.0	120.0
30         116.0         116.5           36         116.0         116.5           42         83         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           24         116.0         116.5           30         116.0         116.5           30         116.0         116.5           42         116.0         116.5           30         116.0         116.5           42         116.0         116.5           30         116.0         116.5           42         116.0         116.5           30         116.0         116.5           42         116.0         116.5           30         116.0         116.5	48.13		120.0	120.0
36         83         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           116.0         116.5         116.0         116.5           30         116.0         116.5         116.0         116.5           34         116.0         116.5         116.0         116.5           42         102         116.0         116.5         116.0         116.5           48         116.0         116.5         116.0         116.5         116.0         116.5           54         116.0         116.0         116.5         116.0         116.5         116.0         116.5	24		116.0	116.5
42         83         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           48         116.0         116.5           54         116.0         116.5	30		116.0	116.5
48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	36		116.0	116.5
54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         96         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	42	83	116.0	116.5
60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         96         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	48		116.0	116.5
24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	54		116.0	116.5
30     116.0     116.5       36     116.0     116.5       42     96     116.0     116.5       48     116.0     116.5       54     116.0     116.5       60     116.0     116.5       24     116.0     116.5       30     116.0     116.5       36     116.0     116.5       42     102     116.0     116.5       48     116.0     116.5       54     116.0     116.5	60		116.0	116.5
36         96         116.0         116.5           42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	24		116.0	116.5
42         96         116.0         116.5           48         116.0         116.5           54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	30		116.0	116.5
48	36		116.0	116.5
54         116.0         116.5           60         116.0         116.5           24         116.0         116.5           30         116.0         116.5           36         116.0         116.5           42         102         116.0         116.5           48         116.0         116.5           54         116.0         116.5	42	96	116.0	116.5
60     116.0     116.5       24     116.0     116.5       30     116.0     116.5       36     116.0     116.5       42     102     116.0     116.5       48     116.0     116.5       54     116.0     116.5	48		116.0	116.5
24     116.0     116.5       30     116.0     116.5       36     116.0     116.5       42     102     116.0     116.5       48     116.0     116.5       54     116.0     116.5	54		116.0	116.5
30     116.0     116.5       36     116.0     116.5       42     102     116.0     116.5       48     116.0     116.5       54     116.0     116.5	60		116.0	116.5
36     116.0     116.5       42     102     116.0     116.5       48     116.0     116.5       54     116.0     116.5	24		116.0	116.5
42     102     116.0     116.5       48     116.0     116.5       54     116.0     116.5	30		116.0	116.5
48 116.0 116.5 54 116.0 116.5	36		116.0	116.5
54 116.0 116.5	42	102	116.0	116.5
<del></del>	48		116.0	116.5
60 116.0 116.5	54		116.0	116.5
	60		116.0	116.5

CHART #4: MULLION

PANEL FRAME MULLION LOAD

WIDTH HEIGHT

(in)

24

30

36

42

48 54

60

24

30

(in)

48

CAPACITY (psf)

120.0 120.0

(-)

120.0

120.0

120.0

120.0

120.0

120.0

120.0

120.0 120.0 120.0

(+)

120.0

120.0

120.0

120.0

120.0

120.0

120.0

120.0

		42	108	116.0	116.5
		48		116.0	116.5
		54		116.0	116.5
		24		116.0	116.5
	:	30		116.0	116.5
		36	114	116.0	116.5
		42	114	116.0	116.5
		48		116.0	116.5
		52		116.0	116.5
		24		116.0	116.5
		30		116.0	116.5
		36	120	116.0	116.5
		42		116.0	116.5
	48	8.25		116.0	116.5
			9"	9"	
		-	ر بر بر ۲ <u>۲</u> ۲	<u> </u>	
4	- F	1		<u> </u>	
ЛАХ					-
FRAME HEIGHT, 120" MAX				Û//	-
ш.					
4	⊒ ط_		<sup>₩1</sup> ∤	W2	
	1			CHANNEL I	

1

W 2

WIDTH=W1+W2

س 1 W

CHART #4: MULLION

MULLION LOAD

CAPACITY (psf)

116.0

116.0

116.0

(-)

116.5

116.5

116.5

FRAME

HEIGHT

PANEL

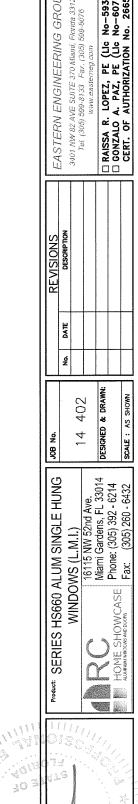
WIDTH

(in)

24

30

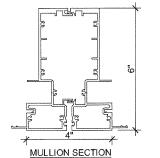
36

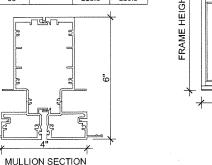


-REFER TO CHART #1 TO OBTAIN SINGLE HUNG WINDOW W/ EQUAL LITES CAPACITY -REFER TO CHART #2 TO OBTAIN SINGLE HUNG WINDOW W/ UNEQUAL LITES CAPACITY

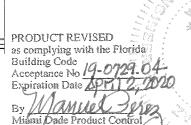
-REFER TO CHART #4 TO OBTAIN MULLION CAPACITY
-USE LOWEST VALUE OF OPTIONS CONSULTED

-REFER TO CHART #3 TO OBTAIN BOTTOM LITE OF WINDOW WALL CAPACITY



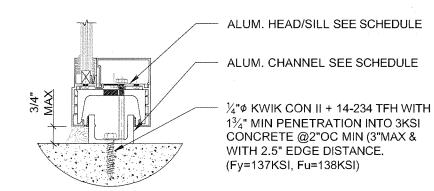


 $82\frac{1}{2}$ "



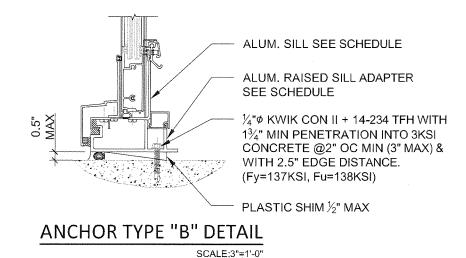


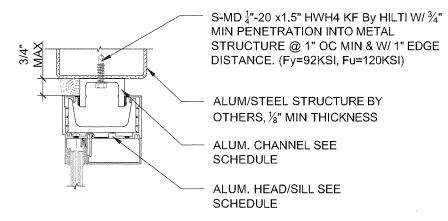
2 OF 8



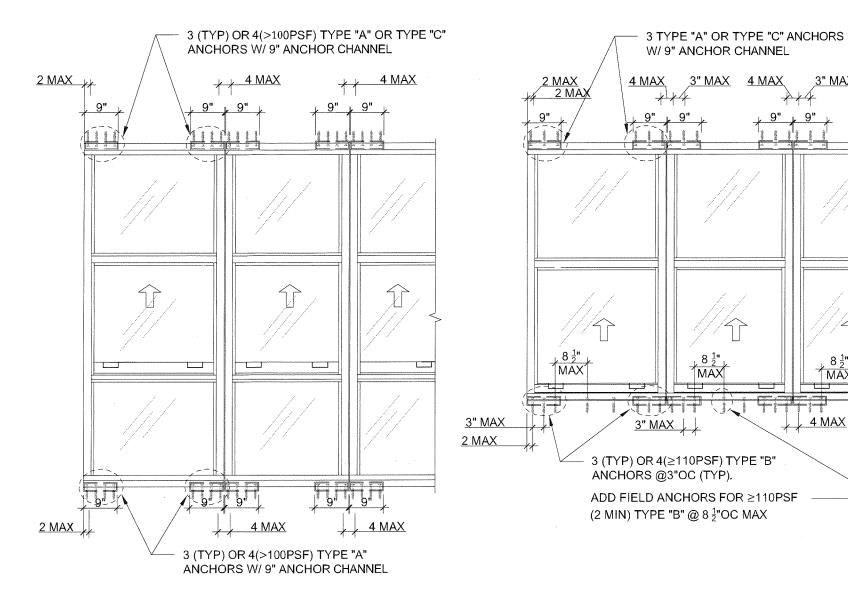
# ANCHOR TYPE "A" DETAIL

SCALE:3"=1'-0"





# ANCHOR TYPE "C" DETAIL SCALE:3"=1'-0"



ANCHOR TYPE	ANCHOR CAPACITY RECAP					
Α	$\frac{1}{4}$ " Ø KWIK CON II + 14-234 TFH WITH $\frac{1}{4}$ " MIN PENETRATION INTO 3KSI CONCRETE @2" OC MIN(TYP), 3"MAX & W/ 2.5" EDGE DISTANCE. (Fy=137KSI, Fu=138KSI)					
В	$1/4$ " Ø KWIK CON II + 14-234 TFH WITH $1\frac{3}{4}$ " MIN PENETRATION INTO 3KSI CONCRETE @2" OC MIN (TYP), 3" MAX & W/ 2.5" EDGE DISTANCE. (Fy=137KSI, Fu=138KSI)					
С	S-MD $^4$ "-20 x1.5" HWH4 KF By HILTI W/ $^3$ 4" MIN PENETRATION INTO METAL STRUCTURE @ 1" OC MIN & W/ 1" EDGE DISTANCE. (Fy=92KSI, Fu=120KSI)					

40 37M PRODUCT REVISED as complying with the Florida ni/Dade Product Control



3" MAX

MÁX

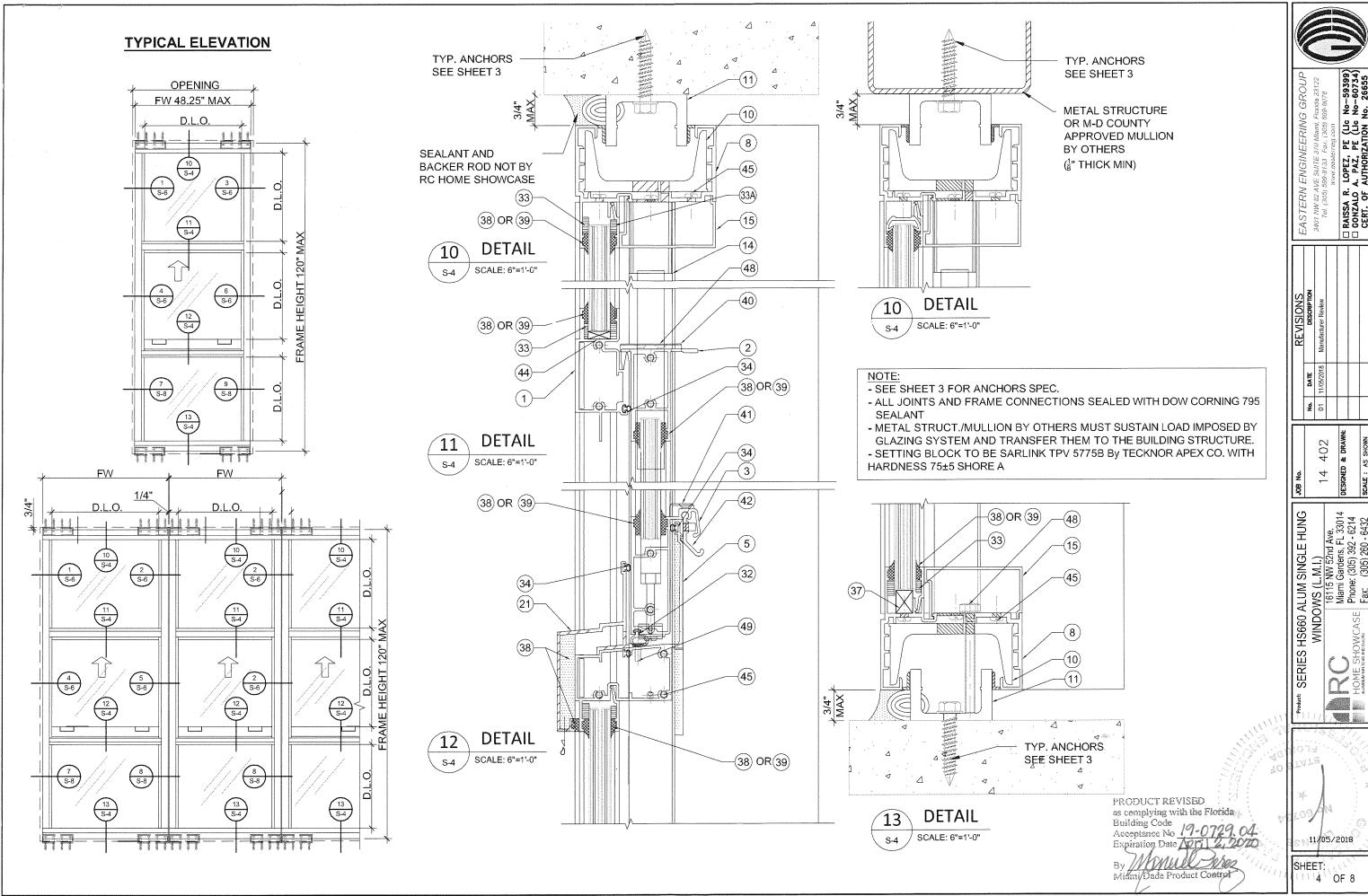
4 MAX

402 1

SERIES HS660 ALUM SINGLE HUNG

11/05/2018

SHEET: 3 OF 8

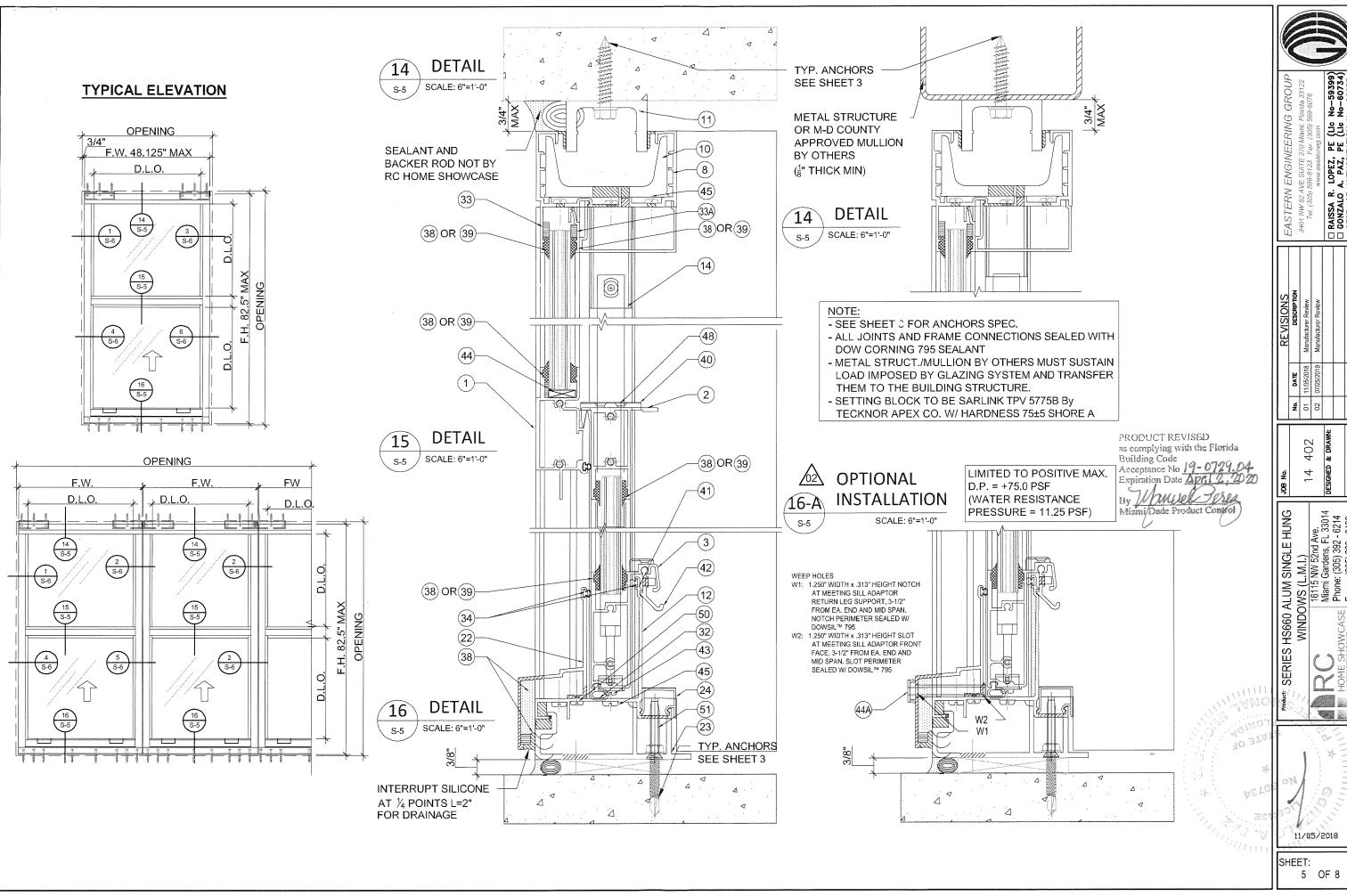




REVISIONS	DESCRIPTION	Manufacturer Review		
	DATE	11/05/2018		
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SHEET: 4 OF 8





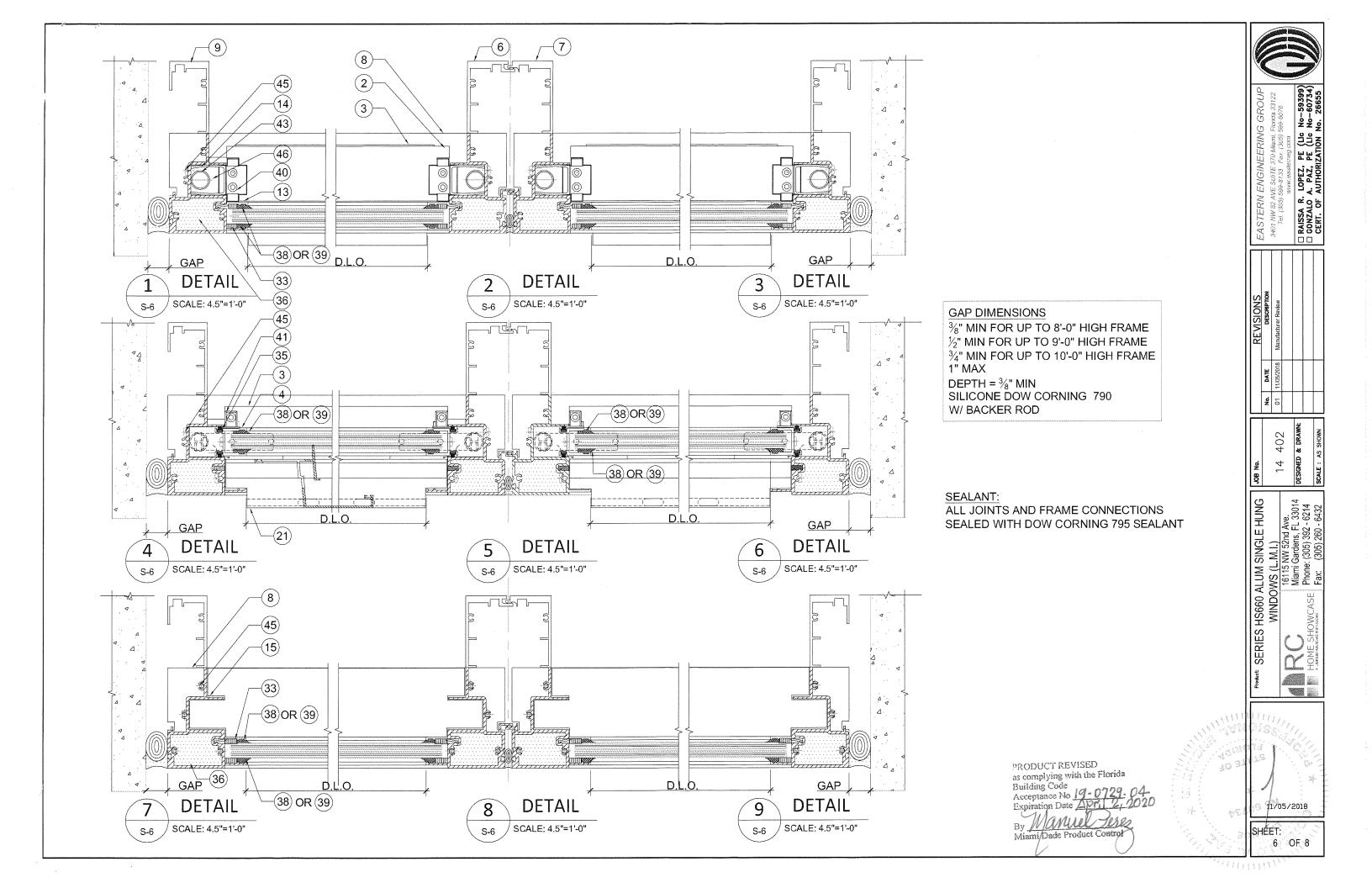
RAISSA R. GONZALO / CERT. OF

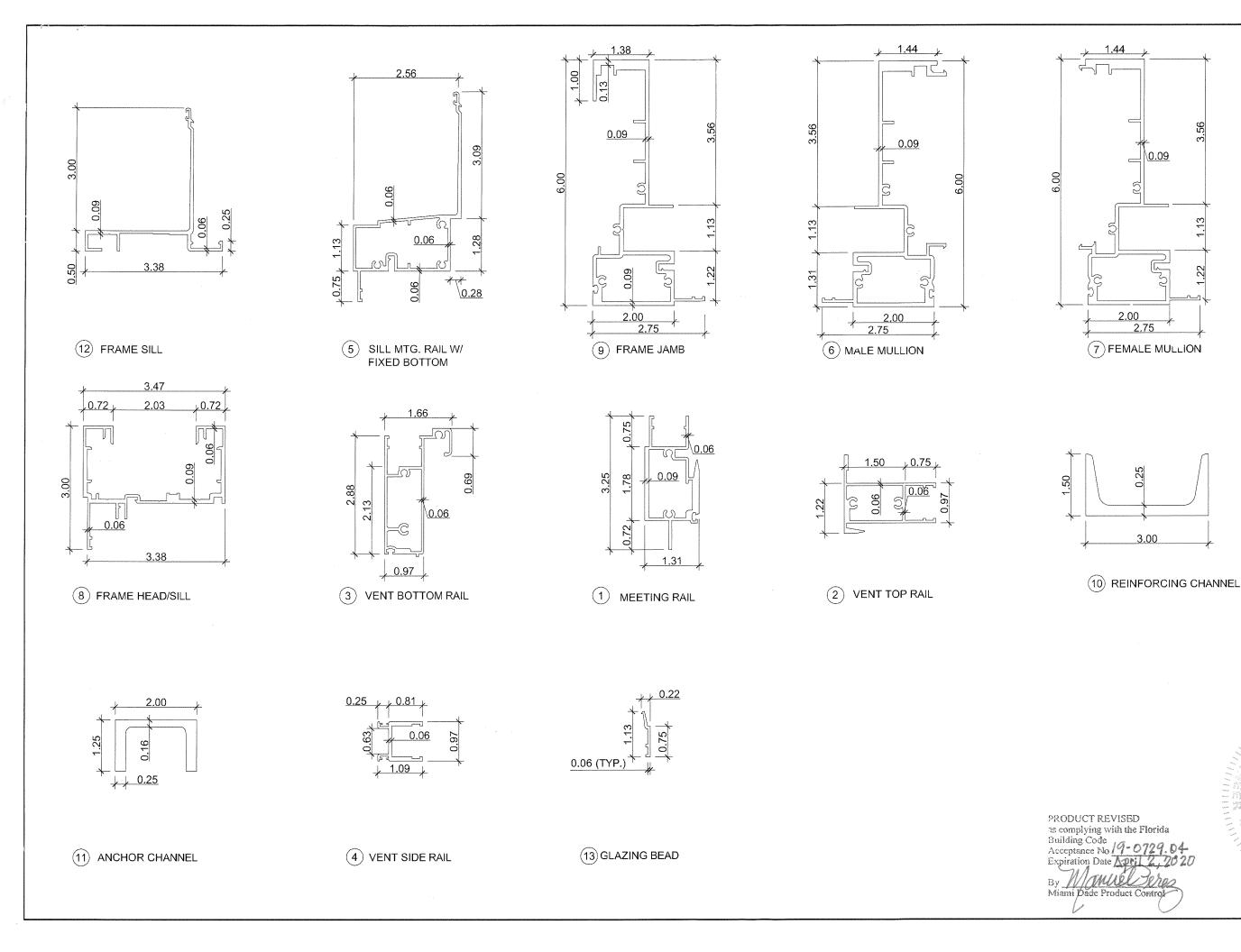
REVISIONS	DESCRIPTION	Manufacturer Review	Manufacturer Review		
	DATE	01 11/05/2018	07/25/2019		
	ó	01	02		
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402 4



5 OF 8







ASTERN ENGINEERING GROUI

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REVISIONS	DESCRIPTION			
	DATE			
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4 WINDOWS (L.M.I.)

WINDOWS (L.M.I.)

16/15 NW 52nd Ave.
Miami Gardens, Fl. 33014

Midmi Gardens, Fl. 33014

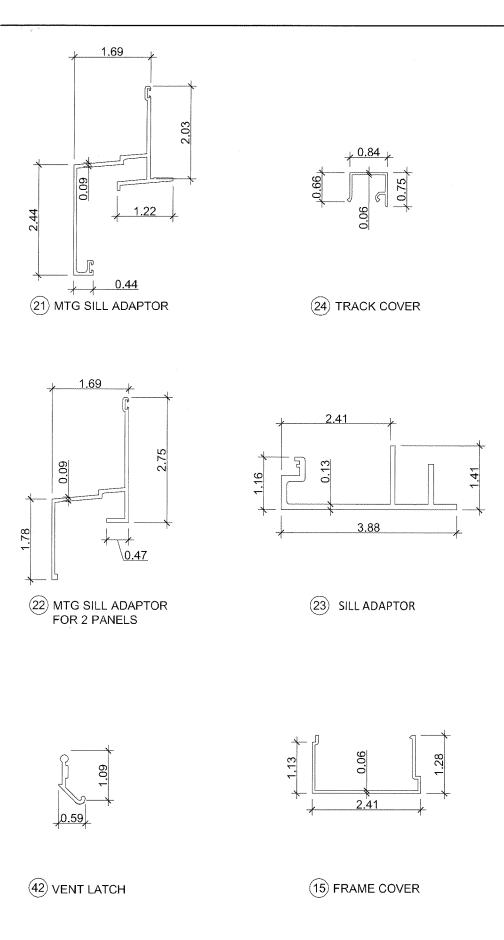
Phone: (305) 392 - 6214

Phone: (305) 260 - 6432

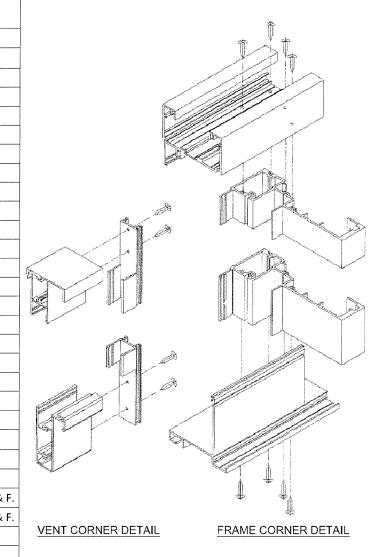
402

11/05/2018

SHEET: 7 OF 8



ITEM	PART NO.	DESCRIPTION	MAT.	LOCATION
		EXTRUSIONS		
1	SH660-001	MEETING RAIL EXT.	6005 T5	AT FRAME
2	SH660-002	VENT TOP	6005 T5	SASH VENT
3	SH660-003	VENT BOTTOM	6063 T6	SASH VENT
4	SH660-004	VENT SIDE	6063 T6	SASH VENT
5	SH660-005	SILL MEETING RAIL	6005 T5	AT FRAME
6	SH660-006	VERTICAL MALE. 6"	6005 T5	AT FRAME
7	SH660-007	VERTICAL FEMALE. 6"	6005 T5	AT FRAME
8	SH660-008	HEAD/SILL	6005 T5	AT FRAME
9	SH660-009	VERTICAL JAM	6005 T5	AT FRAME
10	SH660-010	STRUCTURAL CHANNEL 3" X 1.498" X11.50"	6005 T5	AT FRAME
11	SH660-011	STRUCTURAL CHANNEL 2" X 1.25" X11.50"	6005 T5	AT FRAME
12	SH660-012	FRAME SILL FOR TWO PANELS	6005 T5	AT FRAME
13	SH660-013	GLAZING BED	6063 T6	AT FRAME
14	SH660-014	VENT STOP	6063 T6	<del> </del>
15	SH650-015	HEAD & SILL COVER	6063 76	-
21	SH660-021	MEETING SILL ADAPTOR	6064 T6	AT FRAME
22	SH660-022	MEETING SILL ADAPTOR FOR TWO PANELS	6065 T6	-
23	SH660-023	RAISE SILL ADAPTOR FOR TWO PANELS	6066 T6	
24	SH660-024	TRACK COVER	6067 T6	
	1011000 021	GASKET	,	
30	VO51	MARINE GLAZE VINYL(L.M.I.)	PVC	AT SASH & F.
32	VO32	BULB VINYL AT VENT SILL	EPDM	SASH VENT
33	TAPE	3/16" X 3/8" FOAM TAPE SINGLE FACE.	FOAM	SASH VENT &
33A	TAPE	1/8" X 3/8" FOAM TAPE SINGLE FACE. L.M.I.	FOAM	SASH VENT &
34	Q375T190	GQ-LONG BLACK	TOAN	AT FRAME
35	W33261NK	WEATHERSTRIPPING PILE		SASH VENT
36	VVJJZOTIVK	EXPANDED POLYURETHANE		JAJII VEIVI
		MISCELLANEOUS	<u> </u>	
37		3/8" X 1/2" X 4" LG. SETTING BLOCK (2/LITE)	TPV	HARDNESS 75±5 SHORE A
38		DC-795 SILICONE BLACK		
39		DC-995 SILICONE BLACK		
40	PO12	VENT. TOP GUIDE		SASH VENT
41	PO13	VENT. BOTTOM GUIDE		SASH VENT
42	PO35	FINGER LOCK HANDICAP		SASH VENT
43		ULTRALIFT BALANCE		
44		1/8" X 1/2" X 4" LG. SETTING BLOCK (2/LITE)	TPV	HARDNESS 75±5 SHORE A
44A	P-070	WEEP HOLE ADAPTOR, 3-1/2" FROM EACH END AND AT MIDSPAN	NYLON	M & M PLASTICS 202
	<b>.</b>	SCREWS (MIN GRADE 5)		·
45		#10X1" LG. SMS PH PH TYPE B. ASSEMBLY SCREW	SS	
46		#8-18X1" LG.SMS PH PH S.STEEL	SS	
47		#8-18X 3/8" LG.SMS PH PH S.STEEL	SS	
48		HH Ø 1/4"-20X2 1/2" S.S BOLT.FULLY THREADED LEVELING BOLT	ss	AT SILL ONLY
40		#10x1" UNDRECUT FLAT HEAD SMS SS 304	SS	
49				



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 19-0729.
Expiration Date

By Wante Product Composition

MINDOWS (L.M.I.)

WINDOWS (L.M.I.)

16115 NW 52nd Ave.
Miami Gardens, FL 33014

HOME SHOWCASE Phone: (305) 392 - 6214

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11/05/2018

SHEET: 8 OF 8