

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)

Novum Structures, LLC. W126 N8585 Westbrook Crossing Menomonee Falls, WI 53051

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 "HG02 Point Supported Glass (PSG)" Steel Vertical Curtain Wall System – L.M.I.

APPROVAL DOCUMENT: Drawing No. **15-1005V**, titled "Novum's Point Supported Glass System HG02 Vertical Wall System", sheets 1 through 17 of 17, dated 10/22/15, 09/28/16 and 04/10/17, with revision #2 dated 10/21/20, prepared by Computerized Structural Design, Inc., signed and sealed by Mahmoud Maamouri, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Veitshoechheim, Germany, 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 renews NOA No. 20-1116.07 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.



1/31/22

NOA No. 21-1228.09 Expiration Date: June 01, 2027 Approval Date: February 10, 2022 Page 1

Novum Structures, 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. 17-0227.13)
- 2. Drawing No. **15-1005V**, titled "Novum's Point Supported Glass System: HG02 Vertical Wall System", sheets 1 thru 17 of 17, dated 10/22/15, 09/28/16 and 4/10/17, with revision #2 dated 10/21/20, prepared by Computerized Structural Design, Inc., signed and sealed by Mahmoud Maamouri, P.E.

(Submitted under NOA No. 20-1116.07)

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

along with marked-up drawings and installation diagram of a point supported system, prepared by Intertek/Architectural Testing, Inc., Test Report No.

ATI-F2797.04-450-18, dated 12/14/16, signed and sealed by Charles L. Anderson, P.E. *(Submitted under NOA No. 17-0227.13)*

C. CALCULATIONS

1. Anchor calculations and structural analysis, complying with **FBC** 7th **Edition (2020)**, dated 10/22/20, prepared by Computerized Structural Design, Inc., signed, sealed by Mahmoud Maamouri, P.E.

(Submitted under NOA No. 20-1116.07)

2. Glazing complies with ASTM E1300-04

D. **QUALITY ASSURANCE**

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 18-0725.11 issued to Kuraray America, Inc. for their "Kuraray SentryGlas[®] XtraTM (SGXTM) Clear Glass Interlayer" dated 05/23/19, expiring on 05/23/24.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-1228.09
Expiration Date: June 01, 2027

Approval Date: February 10, 2022

Novum Structures, LLC.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

F. STATEMENTS

- 1. Statement letter of conformance, complying with **FBC** 7th **Edition (2020),** dated November 3, 2020, issued by Computerized Structural Design, Inc. signed and sealed by Mahmoud Maamouri, P.E.
 - (Submitted under NOA No. 20-1116.07)
- 2. Notification of Successor Engineer for manufacturer's NOA document per Section 61G15-27.001 of the Florida Administrative Code, notifying original engineer that the successor engineer is assuming full professional and legal responsibility for all engineering documents pertaining to this NOA, dated November 3, 2020, signed and sealed by Mahmoud Maamouri, P.E
 - (Submitted under NOA No. 20-1116.07)
- 3. Laboratory compliance letter for Test Report No. **ATI-F2797.04-450-18**, dated 01/20/17, issued by Intertek/Architectural Testing, Inc., signed and sealed by Charles L. Anderson, P.E.
 - (Submitted under NOA No. 17-0227.13)
- 4. Proposal No. **15-2234** issued to Novum Structures, LLC by the Product Control Section, dated January 11, 2016, signed by Manuel Perez, P.E. *(Submitted under NOA No. 17-0227.13)*

G. OTHERS

1. Notice of Acceptance No. 19-0110.11, issued to Novum Structures, LLC for their Series "HG02 Point Supported Glass (PSG)" Steel Vertical Curtain Wall System – L.M.I., approved on 02/28/19 and expiring on 06/01/22.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-1228.09
Expiration Date: June 01, 2027

Approval Date: February 10, 2022

Novum Structures, LLC.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- 2. NEW EVIDENCE SUBMITTED
- A. DRAWINGS
 - 1. None.
- 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. 18-0725.11 issued to Kuraray America, Inc. for their "Kuraray SentryGlas[®] Xtra™ (SGX™) Clear Glass Interlayer" dated 05/23/19, expiring on 05/23/24.
- F. STATEMENTS
 - 1. None.
- G. OTHERS
 - Notice of Acceptance No. **20-1116.07**, issued to Novum Structures, LLC for their Series "HG02 Point Supported Glass (PSG)" Steel Vertical Curtain Wall System L.M.I., approved on 03/11/21 and expiring on 06/01/22.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 21-1228.09
Expiration Date: June 01, 2027

Approval Date: February 10, 2022

NOVUM'S POINT SUPPORTED GLASS SYSTEM: HG02 VERTICAL WALL SYSTEM

The Novum PSG Vertical Wall System, HG02, (HG = Hurricane Glass) that was tested for Miami-Dade NOA consists simply of insulating glass, rotules, and silicone joints. A perimeter channel is also a tested part of the system. In some instances the channel is required for both support and weather seal. In other cases it acts only as a weather seal.

The glass is fully tempered, laminated, and insulated with an air space of 0.71" (18mm) in between the inner and outer laminated lites of the unit. The (2) outer pieces of glass are 0.25" (6mm) thick. The laminate is 0.090" (2.28mm) thick Kurary Sentry Glass The (2) inner pieces of glass are 0.375" (10mm) thick. Therefore the overall thickness is 2.15" (54.5mm). Refer to page 2 of 17 for description of glass edge seals.

The RB62-16 rotules are stainless steel fixtures that consist of a rotating head and 16mm diameter threaded rod that allow it to be mounted through a hole in the glass and, in turn, fastened to a support structure using the threaded rod. The silicone joints consist of an extruded silicone profile pushed into the 1.0" (25 mm) wide space between adjoining glass panels, and acts as a backer. This profile fills about 60% of the depth of the joint. The outer 40% of the space is filled with Dow Corning 795 silicone sealant which produces the weather tight seal.

The steel glazing arms and support HSS framework used in the test is not part of the "system". On future projects using HG02, the glazing arms and steel support framework is not governed by this NOA except as follows:

Minimum thickness of support system to be 3/16" minimum and other dimensions to be determined via appropriate stress checks according to AISC Steel Construction Manual and/or other applicable codes, designed by a licensed professional and submitted for review and inspection by the Authority Having Jurisdiction (AHJ).

Deflection of support framing not to exceed L/180.

This NOA system pertains to the glass, rotule, glazing channel & sealant joints only.



INDEX OF DRAWINGS

SHEET NO. 1 OF 17 2 OF 17	DESCRIPTION COVER SHEET DESIGN PARAMETERS & LIMITS OF USE
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DESIGN PARAMETERS

FLORIDA BUILDING CODE 2020

TEST REPORT: F2797.04-450-18, ISSUED BY INTERTEK/ARCHITECTURAL TESTING, INC.

Design Pressure Rating	Impact Rating
+133 PSF, -133 PSF	Large and Small Missile Impact

TAS-201 - IMPACT TEST PROCEDURES

TAS-202 - AIR LEAKAGE, WATER PENETRATION & STRUCTURAL PERFORMANCE **TEST PROCEDURES**

TAS-203 - CYCLING TEST PROCEDURES

ASTM STANDARDS

E283 - AIR INFILTRATION TEST PROCEDURE

E330 - STRUCTURAL PERFORMANCE TEST PROCEDURES

E331 - WATER PENETRATION; STATIC & DYNAMIC, TEST PROCEDURES

E1886 - MISSILE IMPACT & CYCLIC PRESSURE TESTING - LEVEL A & LEVEL

D. TEST PROCEDURE

E1996 - HURRICANE DEBRIS IMPACT TESTING PROCEDURES



SYMBOLS

SHEET NUMBER WHERE REFERENCED

DETAIL NUMBER SHEET NUMBER WHERE DRAWN

C600.X — FIELD HARDWARE MARK

ABBREVIATIONS

NS = NEAR SIDE FS = FAR SIDE

MK. = MARK NUMBER

TYP. = TYPICAL SIM. = SIMILAR

OPP. = OPPOSITE HAND

SYM. = SYMETRICAL

U.N.O. = UNLESS NOTED OTHERWISE C.L. = CENTER LINE

RHS = RIGHT HAND SIDE LHS = LEFT HAND SIDE

DESIGN, INC.
8989 North Port Washington Road B-0001982 AHMOUD MAAMOURI PE. #77169

2 210CT20 ZJM SWK JPDATED TO 2020 FBC 13DEC18 SWK SWK UPDATED FOR 2017 FBC

REV.NO. DATE DWG.BY CHK.BY

W126 N8585 Westbrook Crossin T 262.255.5561 ww.novumstructures.com

NOVUM

NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

COVER SHEET

PRODUCT RENEWED as complying with the Florida Building Code

NOA-No.

21-1228.09 Expiration Date: 06/01/2027

By: Manuel Peres

Miami-Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code

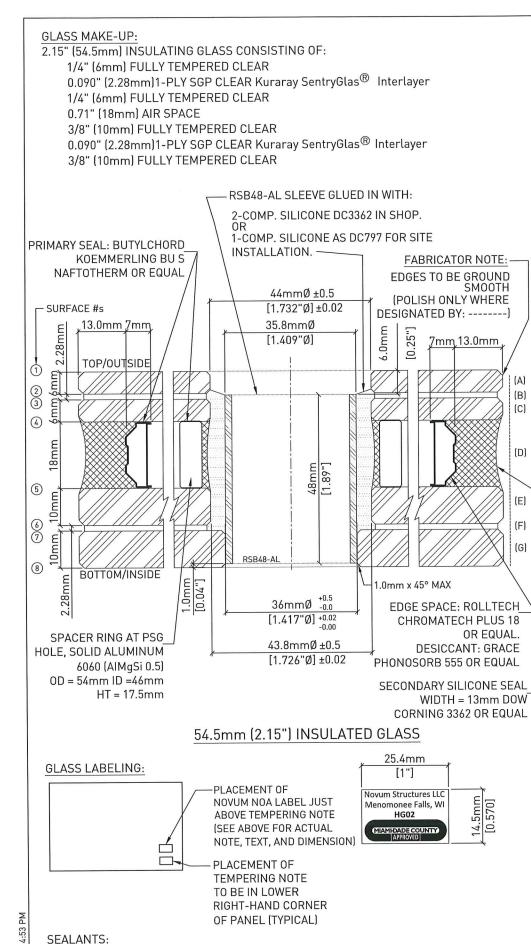
20-1116.07 NOA-No.

Expiration Date: 06/01/2022

By: Manuel Peres

Miami-Dade Product Control

220CT15 BJJ BJJ N.T.S. LA 15-1005V



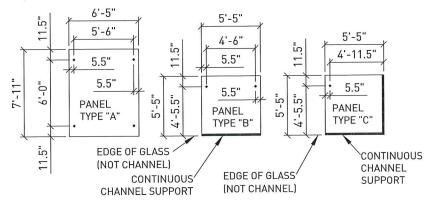
DOW CORNING #795 SILICONE FOR ALL JOINTS

DOW CORNING #799 CLEAR SILICONE FOR SEALING THE ROTULE TO THE GLASS

Limitations For Use

1) Maximum imposed design load of 133 psf when system is used as a vertical wall (<15° from vertical). This is based on a factor of safety of 1.5 against breakage at 200 psf. Dead load of glass is not considered part of an imposed load (i.e.; glass can allowably handle 133 psf normal to its surface plus the weight of the glass).

2) Glass sizes for test



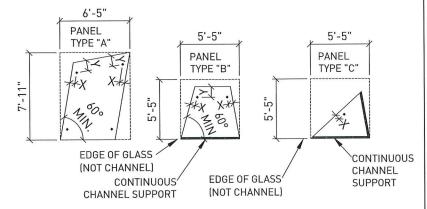
3) Maximum rectangular panel side length as defined in diagrams below:

- a) Panel type "A" is a panel with 4-rotule support: 6'-5" maximum width x 7'-11" maximum length
- b) Panel type "B" is a panel with 2-rotules and linear support along 1 glass edge: 5'-5" maximum width x 5'-5" maximum
- c) Panel type "C" is a panel with 1-rotule and linear support along 2 glass edges: 5'-5" maximum width x 5'-5" maximum
- 4) Maximum span between supports (i.e., distance between adjacent rotule centers or between rotule center and channel supported glass edge).
- a) For Panel type "A", the maximum span: is 5'-6" in short direction, and 6'-0" in long direction.
- b) For Panel type "B", the maximum span: is 4'-5.5" in short direction, and 4'-6" in long direction
- c) For Panel type "C", the maximum span: is 4'-5.5" in short direction, and 4'-11.5" in long direction
- 5) The maximum distance from center of rotule to edge of glass measured perpendicular to the glass edge, is as follows: At the closest glass edge, the maximum distance (X) can be, is 5.5". At the second closest glass edge, the distance (Y) can be is 11.5".

No. 77169

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6) All polygonal shapes (including triangles, squares rhombuse trapezoids, and parallelograms) meeting the above limitations and having an overall size that fits entirely within the foot print of the rectangular test panel dimensions, are acceptable. All interior angles of non-triangular polygons must must be 60° or greater. Triangles have no angular limitations. Below are examples of panel geometric possibilities. Many other possibilities are not shown.



- 7) Large missile testing was done and therefore the system may be used for enclosures and there is no restriction as to what elevation from the ground.
- 8) The Novum Hurricane PSG system that pertaining to this NOA consists simply of the insulating glass, rotules, and silicone joints. A perimeter channel is also a tested part of the system. The steel support arms and any support framework is not part of the "system". On future projects using HG02, the support arms and steel support framework will be designed using conventional analysis methods and appropriate material design and building codes. It will not be subject to NOA testing or approval.

9) Support framing must not deflect more than L/180 per FBC section(1616.3.1 (6).)

10) This system can only be used for Risk Category I, II and III plus Category IV above 30'-0". It cannot be used for Risk Category IV below 30'-0".

2 19FEB21 JTG SWK TED LIMIT 10

COMPUTERIZED STRUCTURAL

DESIGN, INC. 8989 North Port Washington Road

Milwaukee WI 53217 (414) 351-5588

EB-0001982 MAHMOUD MAAMOURI PE. # 77169

1 210CT20 ZJM SWK ADDED REFERENCE TO 1616.3.1 (6) ADDED NOTE #10 REV.NO. DATE DWG.BY CHK.BY

ovum Structures LLC W126 N8585 Westbrook Crossin Menomonee Falls, WI 53051 USA T 262.255.5561 www.novumstructures.com

NOVUM

fo@novumstructures.com

NOVUM'S PSG GLASS SYSTEM: HG02

DESIGN PARAMETERS & LIMITS OF USE

Expiration Date: 06/01/2022 FAR 220CT15 BJJ BJJ N.T.S. LA

2 OF 17

15-1005V

PRODUCT RENEWED as complying with the Florida Building Code NOA-No. 21-1228.09

Expiration Date: 06/01/2027

By: Manuel Peres

Miami-Dade Product Control

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PRODUCT REVISED

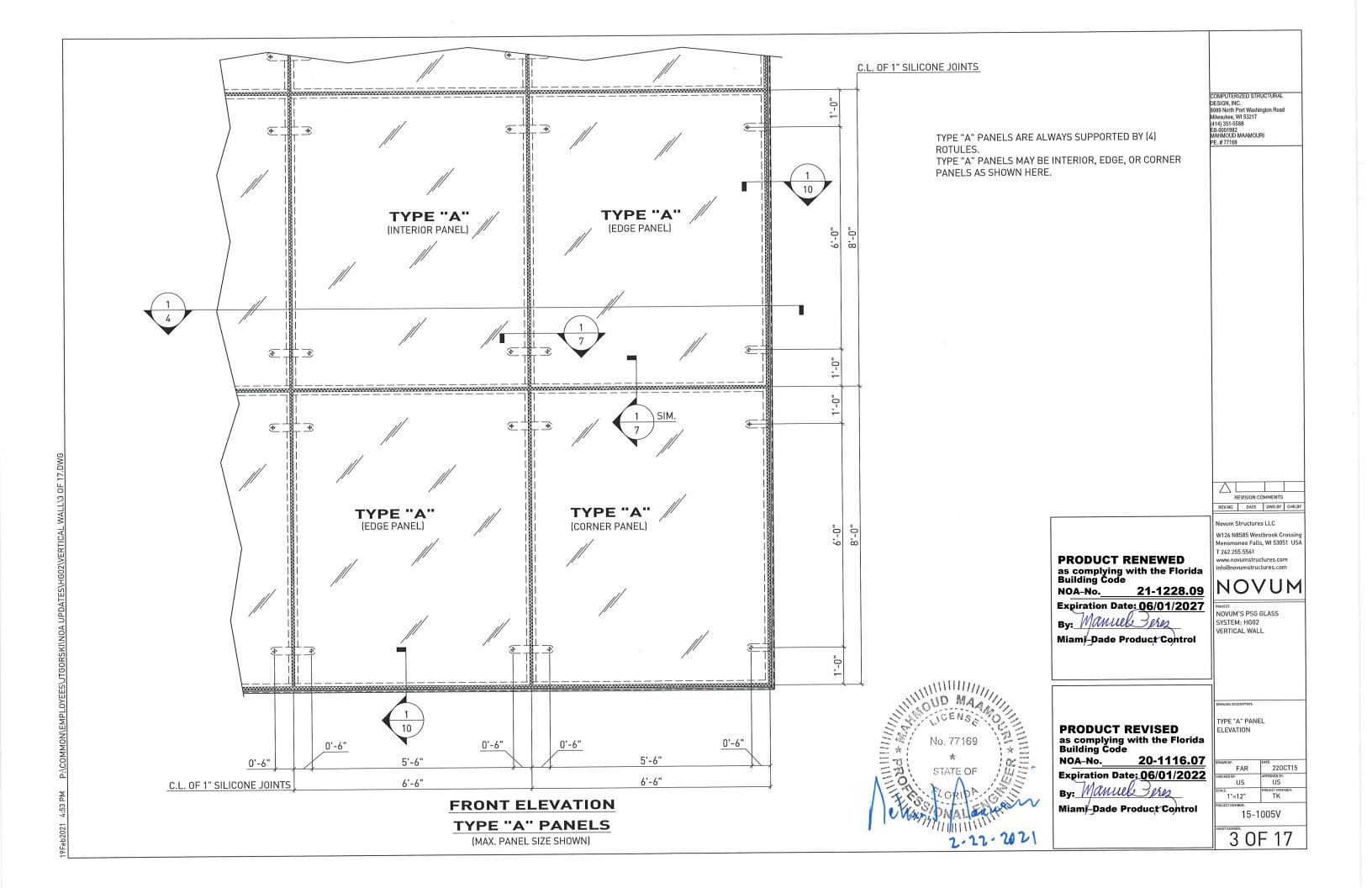
By: Manuel Peres

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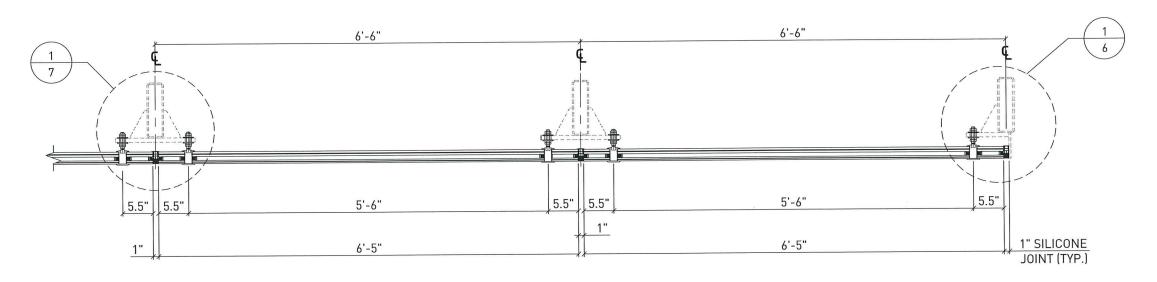
as complying with the Florida Building Code

Miami-Dade Product Control

20-1116.07



COMPUTERIZED STRUCTURAL DESIGN, INC. 8889 North Port Washington Road Milwaukee, WI 53217 (414) 351-5588 EB-0001982 MAHMOUD MAAMOURI PE. # 77169 REV.NO. DATE DWG.BY CHK.BY Novum Structures LLC W126 N8585 Westbrook Crossing Menomonee Falls, WI 53051 USA T 262.255.5561 NOVUM NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL TYPE "A" PANEL PLAN 20-1116.07 FAR PROVED BY: US



SECTION

P:\COMMON\EMPLOYEES\JTGORSK\\NOA UPDATES\HG02\VERTICAL WALL\4 OF 17.DWG

PRODUCT RENEWED as complying with the Florida Building Code 21-1228.09 NOA-No.

Expiration Date: 06/01/2027

By: Manuel Peres Miami-Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code

NOA-No.

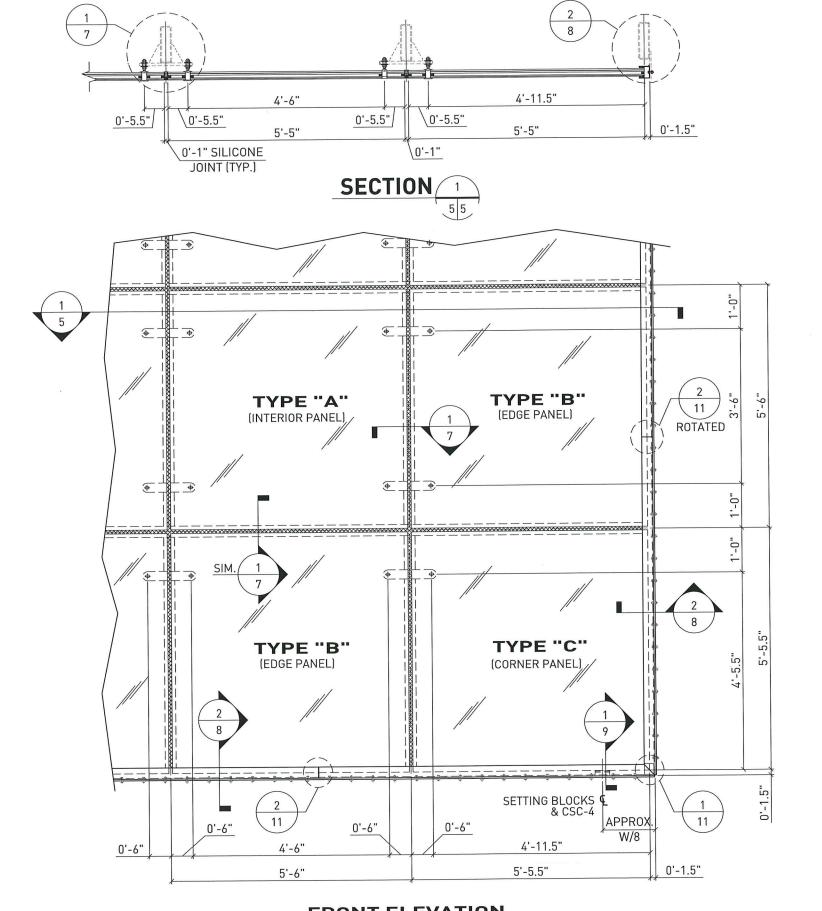
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STATE OF

Expiration Date: 06/01/2022

By: Manuel Perez Miami-Dade Product Control

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No. 77169

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TYPE "B" PANELS ARE ALWAYS SUPPORTED BY (2)
ROTULES AND A GLAZING CHANNEL AT THE OPPOSITE
EDGE. THEREFORE TYPE "B" PANELS ARE ALWAYS
EDGE PANELS.

TYPE "C" PANELS ARE ALWAYS SUPPORTED BY (1)
ROTULE AND (2) GLAZING CHANNELS ALONG THE
(2) OPPOSITE GLASS EDGES. THEREFORE TYPE "C"
PANELS ARE ALWAYS CORNER PANELS.
MAXIMUM PANEL SIZES ARE SHOWN HERE FOR
TYPES "B" &" C".

COMPUTERIZED STRUCTURAL DESIGN, INC. 8989 North Port Washington Road Milwaukee, WI 53217 (414) 351-5588 EB-0001982 MAHMOUD MAAMOURI PE. # 77169

REVISION COMMENTS
REV.NO. DATE DWG.BY CHK.BY

Novum Structures LLC W126 N8585 Westbrook Crossing Menomonee Falls, WI 53051 USA

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 21-1228.09

Expiration Date: 06/01/2027

By: Manuel Product Control

T 262.255.5561
www.novumstructures.com
nfo@novumstructures.com

PROJECT: NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

PRODUCT REVISED
as complying with the Florida
Building Code

NOA-No.

20-1116.07

Expiration Date: <u>06/01/2022</u>

By: Manuel Perez
Miami-Dade Product Control

TYPE "B" & "C" PANELS
PLAN & ELEVATION

DATE:

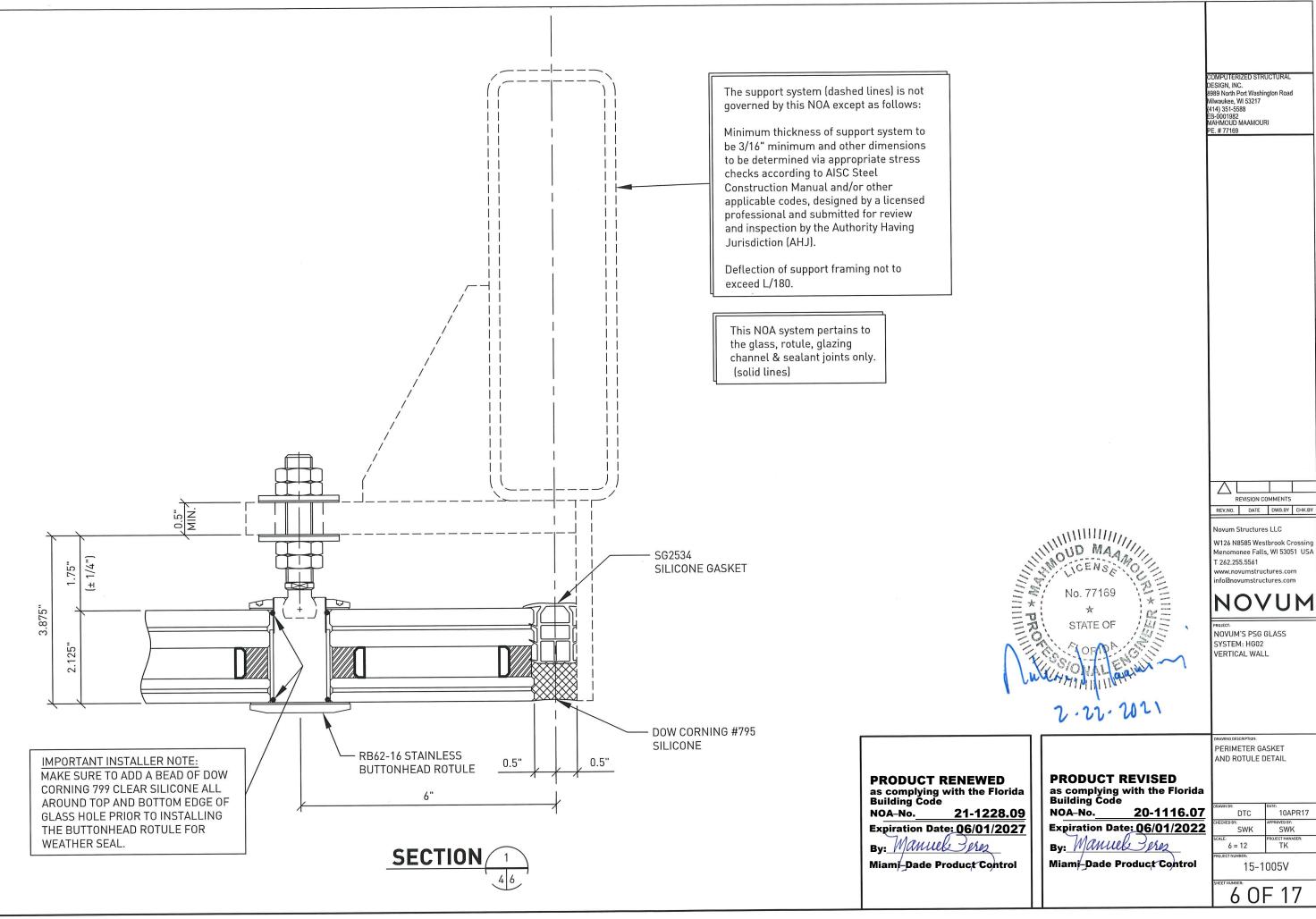
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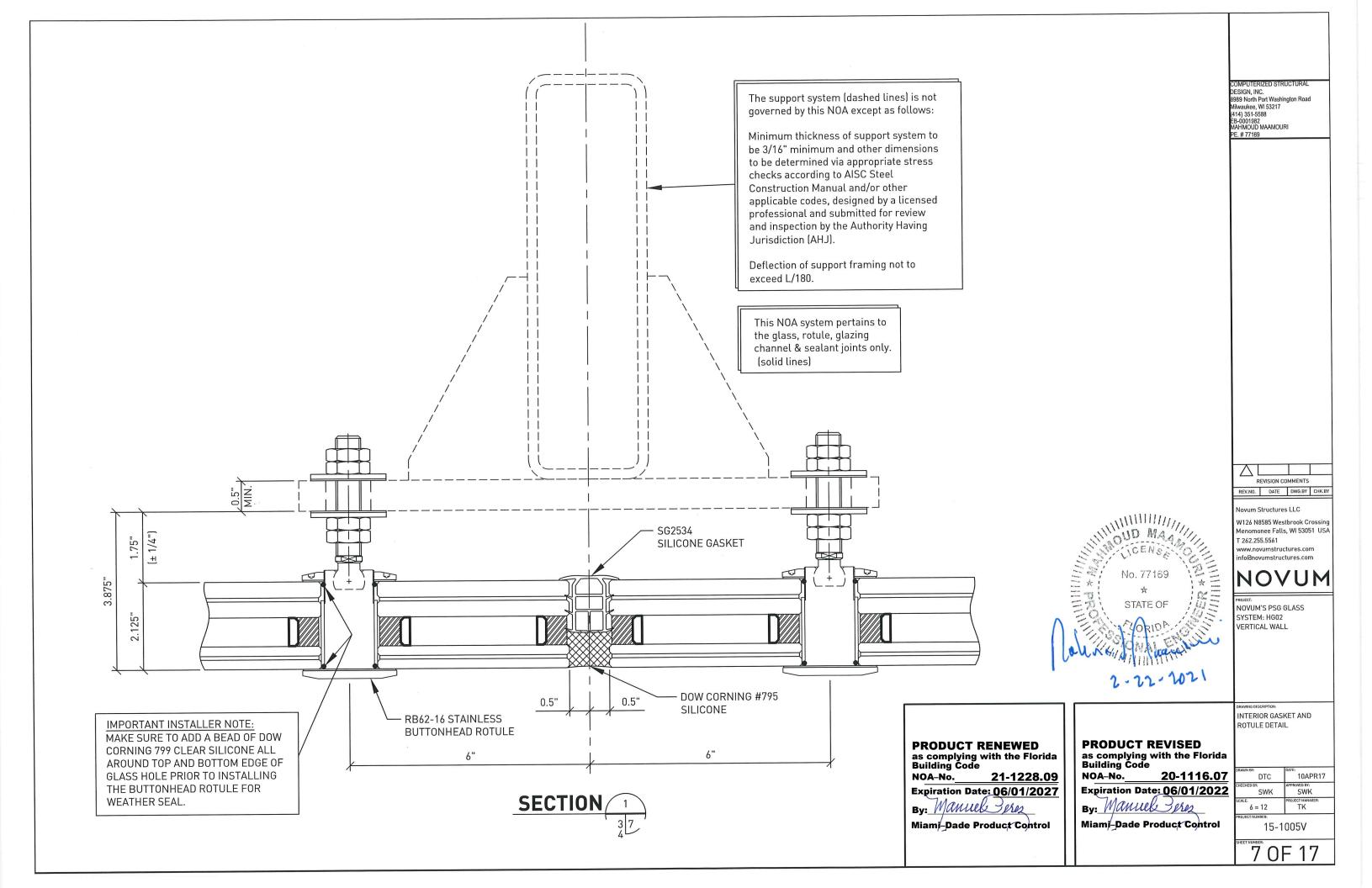
CHECKED BY: APPROVED BY:

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5 OF 17

FRONT ELEVATION
PANEL TYPES "A", "B", "C"





This NOA system pertains to the glass, rotule, glazing channel & sealant joints only. (solid lines)

DESIGN, INC.
3989 North Port Washington Road
Milwaukee, WI 53217
(414) 351-5588
EB-0001982
MAHMOUD MAAMOURI
PE. # 77169

governed by this NOA except as follows:

Minimum thickness of support system to be 3/16" minimum and other dimensions to be determined via appropriate stress checks according to AISC Steel Construction Manual and/or other applicable codes, designed by a licensed professional and submitted for review and inspection by the Authority Having Jurisdiction (AHJ).

Deflection of support framing not to exceed L/180.

The support system (dashed lines) is not

2.125" 2.5" 0.563" 0.563" **DOW CORNING** #795 SILICONE SGC10 SILICONE GLAZING CHANNEL GASKET 1.5" FORMED ALUMINUM GLAZING CHANNEL No. 7716 -3/8" GR. 5 HHCS x 1 1/4" LG.(ZP) DOW CORNING, (2)3/8" SAE FLAT WASHER (ZP) #795 SILICONE 1.688" 3/8" GR. 5 HEW NUT (ZP) AT 6" O.C. 3.375" SECTION 2

REVISION COMMENTS
REV.NO. DATE DWG.BY CHK.BY

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W126 N8585 Westbrook Crossing Menomonee Falls, WI 53051 USA T 262.255.5561

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PROJECT: NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

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Expiration Date: 06/01/2022

By: Manuel Pres
Miami-Dade Product Control

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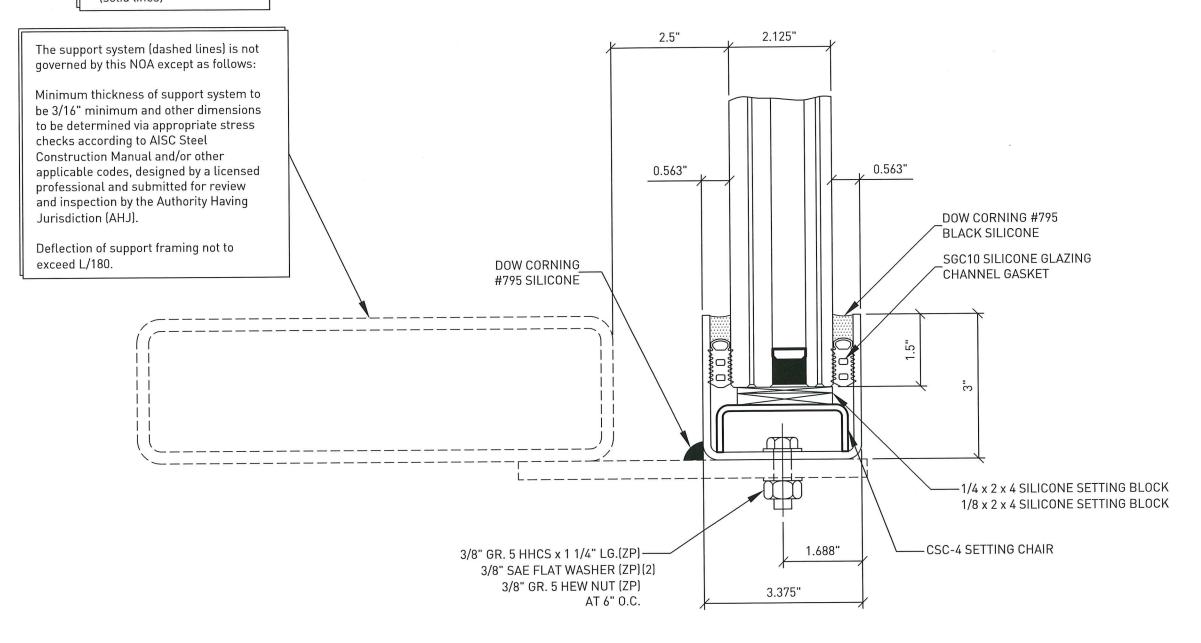
CHECKED BY: SWK SWK

SCALE: 6 = 12 TK

PERIMETER GLAZING CHANNEL DETAIL

15-1005V

This NOA system pertains to the glass, rotule, glazing channel & sealant joints only. (solid lines)



DESIGN, INC. 8989 North Port Washington Road Milwaukee, WI 53217 (414) 351-5588 EB-0001982 MAHMOUD MAAMOURI PE. # 77169

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	REV.NO.	DATE	DWG.BY	CHK.E

ovum Structures LLC

W126 N8585 Westbrook Crossing Menomonee Falls, WI 53051 USA T 262.255.5561 vww.novumstructures.com

NOVUM

NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL





PRODUCT RENEWED as complying with the Florida Building Code 21-1228.09

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NOA-No. 20-1116.07

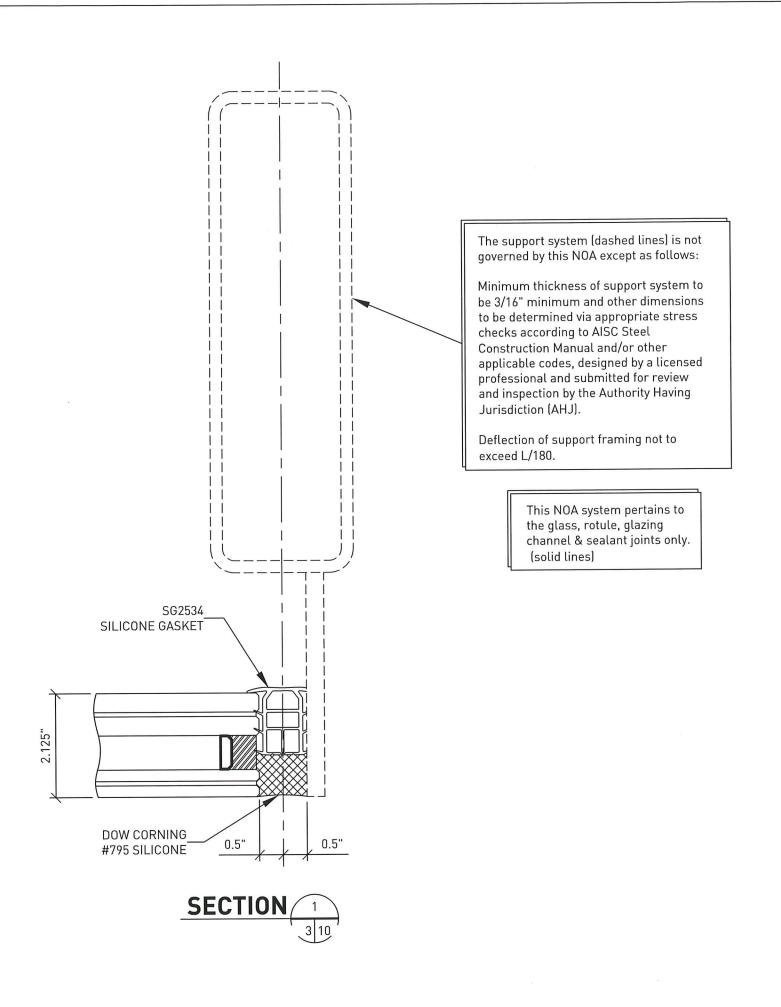
Expiration Date: 06/01/2022

By: Manuel Perez Miami-Dade Product Control

PERIMETER GLAZING CHANNEL WITH DEAD OAD SETTING BLOCK

> DTC 10APR17 SWK SWK JECT MANA 6 = 12

15-1005V



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REVISION COMMENTS REV.NO. DATE DWG.BY CHK.BY

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21-1228.09 Expiration Date: 06/01/2027

By: Manuel Perez Miami-Dade Product Control NOVUM

NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

PERIMETER GASKET DETAIL

PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 20-1116.07

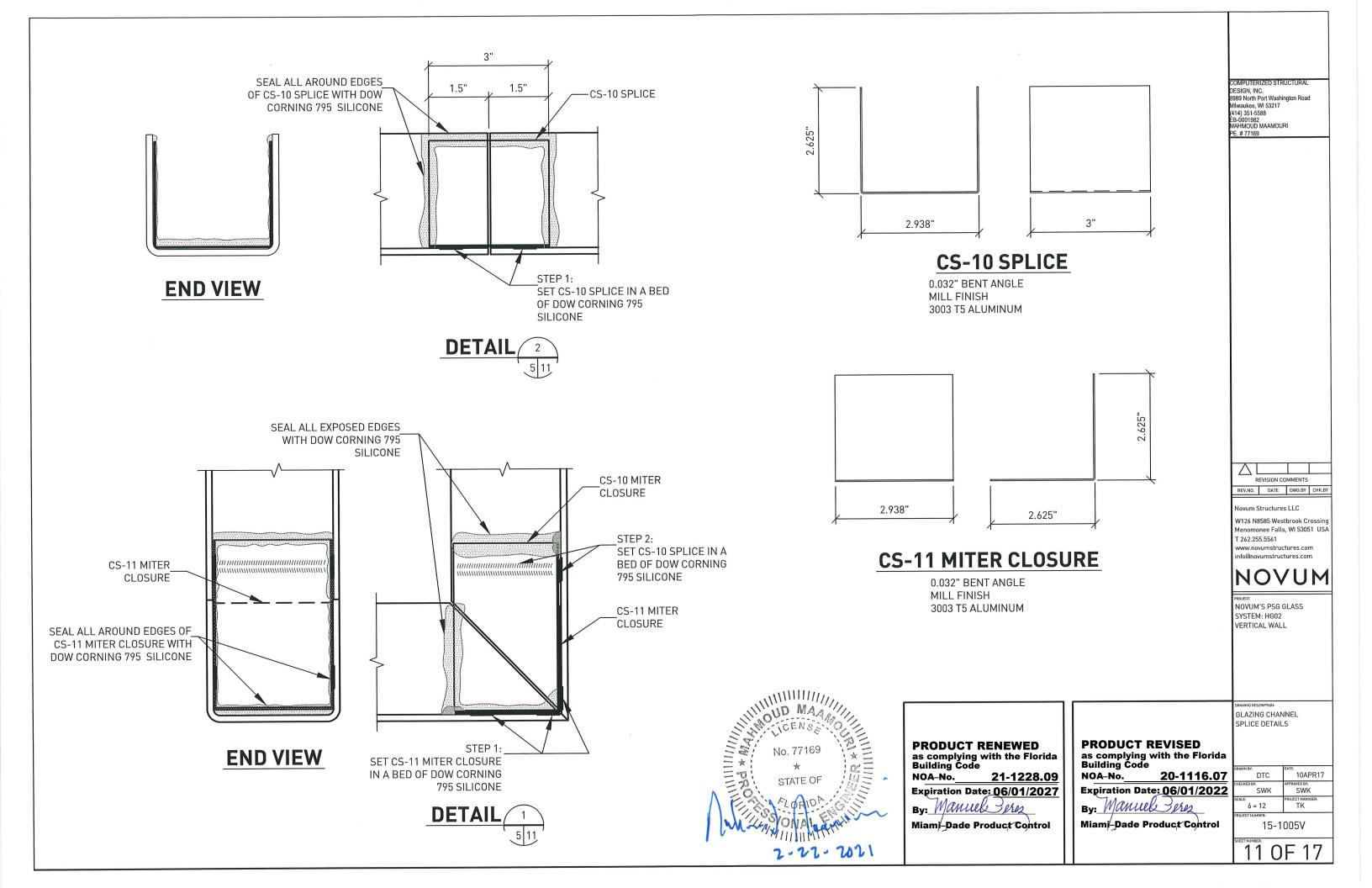
Expiration Date: 06/01/2022

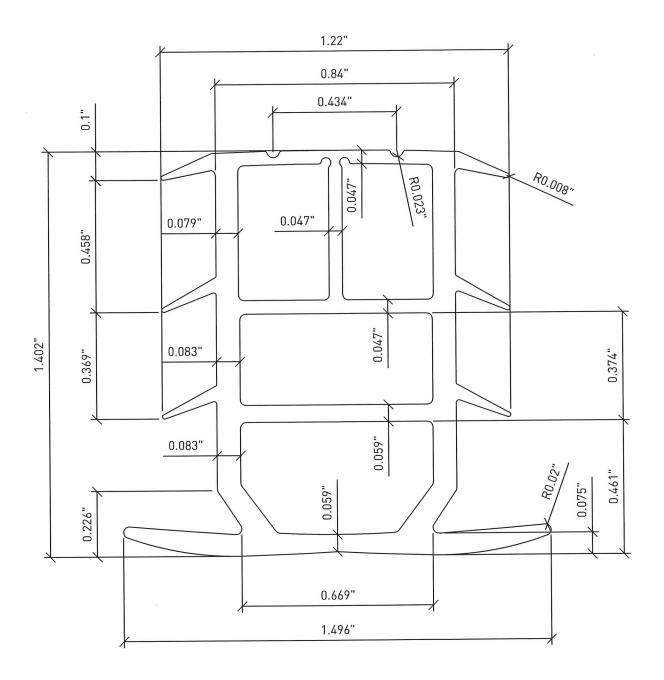
By: Manuel Peres

Miami-Dade Product Control

DTC 10APR17 SWK SWK JECT MANA TK 6 = 12

15-1005V





SG2534 EXTRUDED SILICONE GASKET

SCALE = 3X

COMPUTERIZED STRUCTURAL DESIGN, INC. 3989 North Port Washington Road Milwaukee, WI 53217 (414) 351-5588 EB-0001982 MAHMOUD MAAMOURI PE. # 77169

REVISION COMMENTS
REV.NO. DATE DWG.BY CHK.BY

Novum Structures LLC

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T 262,255,5561
www.novumstructures.com
info@novumstructures.com

NOVUM

PROJECT: NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

PRODUCT RENEWED
as complying with the Florida
Building Code

NOA-No.

21-1228.09

Expiration Date: <u>06/01/2027</u>

By: Manuel Product Control

PRODUCT REVISED
as complying with the Florida
Building Code

NOA-No. 20-1116.07 Expiration Date: 06/01/2022

By: Manuel Product Control

DRAWING DESCRIPTION:
FABRICATION DRAWING:
SILICONE GASKET

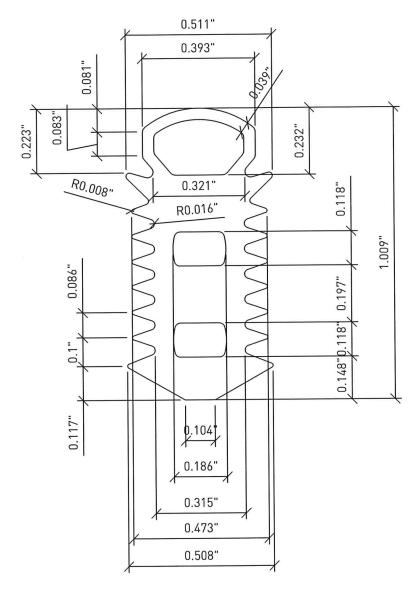
DTC DAPR17

IDAPR17

APPROVED BY,
SWK SWK

CALE:
AS NOTED TK

15-1005V



SGC10 EXTRUDED SILICONE ARROW SHIM

SCALE = 3X

DESIGN, INC. 8989 North Port Washington Road Milwaukee, WI 53217 (414) 351-5588 EB-0001982 MAHMOUD MAAMOURI PE. # 77169

REVISION COMMENTS REV.NO. DATE DWG.BY CHK.BY W126 N8585 Westbrook Crossing

Menomonee Falls, WI 53051 USA T 262.255.5561

www.novumstructures.com

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NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

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NOA-No.

21-1228.09

Expiration Date: 06/01/2027

By: Manuel Perez

Miami-Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code

2.22.2021

No. 77169

*
STATE OF

NOA-No. 20-1116.07

Expiration Date: 06/01/2022 By: Manuel Peres

Miami-Dade Product Control

10APR17 SWK SWK

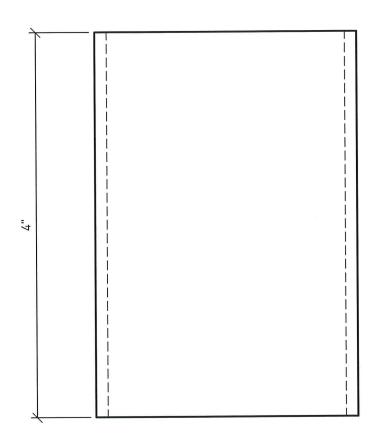
AS NOTED

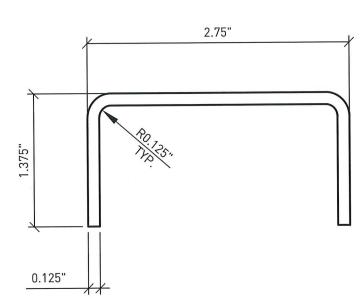
FABRICATION DRAWING: ARROW SHIM

15-1005V

13 OF 17

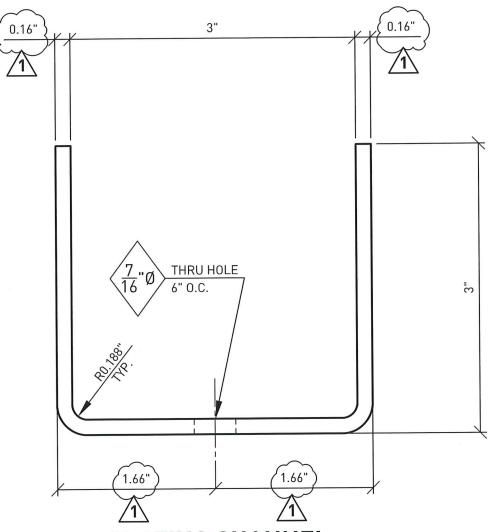
TK





CDC-4 SETTING CHAIR

MATERIAL : 0.125" 5052-H32 ALUMINUM



GLAZING CHANNEL

MATERIAL : 6061-T6 CHANNEL LENGTHS VARY

DESIGN, INC. 8989 North Port Washington Road

8989 North Port Washington Milwaukee, WI 53217 (414) 351-5588 EB-0001982 MAHMOUD MAAMOURI PE. # 77169

210CT20 ZJM SWK CORRECTED CHANNEL THICKNESS & MATERIAL TO MATCH TEST

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NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

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2-22-2021

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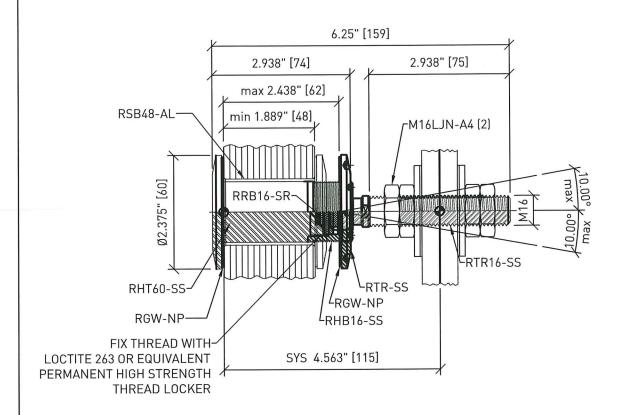
Expiration Date: 06/01/2022

By: Manuel Peres Miami-Dade Product Control

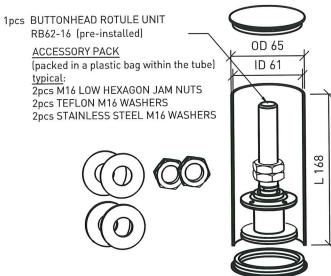
FABRICATION DRAWING: GLAZING CHANNEL AND SETTING CHAIR

> DTC 10APR17 SWK SWK TK AS NOTED

> > 15-1005V



PACKAGING DIAGRAM (NOT TO SCALE)



DESIGN, INC. 8989 North Port Washington Road Milwaukee, WI 53217 (414) 351-5588 ÈB-0001982 MAHMOUD MAAMOURI PE. # 77169

OVERVIEW REQUIRED SINGLE PARTS

PART NAME	RHT60-SS	RSB48-AL	RGW-NP	RRB16SR	RHB16-SS	RTR-SS	RTR16-SS	M16LJN-A4	RW16-SS	RW16-TP
DRAWING-No.	17 OF 17	16 OF 17	16 OF 17	16 OF 17	16 OF 17	16 OF 17	17 OF 17	-	17 OF 17	17 OF 17
		9		PRE-INS	TALLED PA	RTS BY FA	BRICATOR		ENCLOSED PAR	RTS BY FABRICATOR
VIEW				1						

REV.NO. DATE DWG.BY CHK.BY

ovum Structures LLC

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NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

REQUIRED PART LIST

DWG-No.	PART	QTY.	DESCRIPTION	MATERIAL REFERENCE (see comp. dwg)
17 OF 17	RHT60-SS	1	ROTULE HEAD TOP	316SS
16 OF 17	RSB48-AL	1	BUTTONHEAD ROTULE SLEEVE	AA6061-T6 ACC. TO ASTM B210
16 OF 17	RHB16-SS	1	M16 ROTULE HEAD BASE	316SS
16 OF 17	RRB16-SR	1	ROTULE ROD BUSHING	SILICONE OR EPDM RUBBER
17 OF 17	RTR16-SS	1	20MMØ BALL JOINT HEAD w/ M16x75 THREADED ROD	316SS
16 OF 17	RGW-NP	2	GLASS CONTACT WASHER	NYLON, BLACK
16 OF 17	RTR-SS	1	TIGHTENING RING	316SS
17 OF 17	RW16-TP	2	TEFLON M16 WASHER	PTFE TEFLON - WHITE
17 OF 17	RW16-SS	2	STAINLESS STEEL M16 WASHER	316SS
-	M16LJN-A4	4	M16 LOW HEXAGON JAM NUT	DIN934 / ISO 4035-A4

No. 77169

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STATE OF

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PRODUCT RENEWED as complying with the Florida Building Code

21-1228.09 NOA-No.

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Miami-Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 20-1116.07

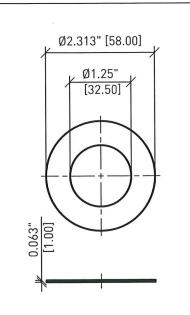
Expiration Date: 06/01/2022 By: Manuel Peres

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DTC 10APR17 SWK SWK 6 = 12 TK

FABRICATION DRAWING: ROTULE ASSEMBLY

15-1005V



GLASS CONTACT WASHER

Ø1.25" [32.00]

Ø1" [26.00] +0.20

Ø0.938" [24.00]

Ø0.813" [20.00] +0.07

CUSTOMIZE

PROVIDE 1x 45°

CHAMFERED

Ø0.625"

[16.50] +0.05

ALL AROUND

FINE THREAD

31.75x1(see table)

(RGW-NP) MATERIAL: NYLON SHORE A70-90

0.125" [3.00]

0.813" [21.00]

Ø0.75"

[18.71]

Ø1.25"

[32.00]

[31.75]

Ø1"

[25.00]

PITCH DIA.

ROTULE ROD BUSHING

20.625

16.00

Ø0.938"

[24.00]

Ø0.688"

[18.00]

[7.00] 0.25"

0.438" [11.00]

Ø0.625"

[16.00]

Ø0.813"

[20.00]

Ø0.938"

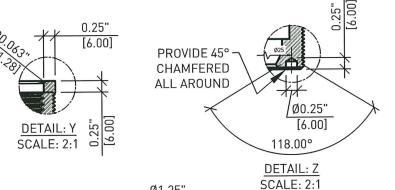
[24.00]

[11.00]

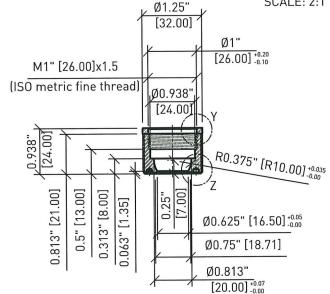
Ø0.5"

[13.00]

(RRB16-SR) MATERIAL: SILICONE OR EPDM RUBBER SHORE A50-50 HARDNESS



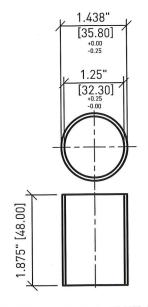
SECTION A-A



SECTION A-A

ROTULE HEAD BASE

(RHB16-SS) MATERIAL: ASTM A276 TYPE 316 SS OR 1.4401 ACC. TO EN 10088-3 OR 10088-5 YIELD > 205MPa (30 ksi) TENSILE > 515MPa (75 ksi)



ROTULE SLEEVE

(RS848-AL) MATERIAL: AA6061-T6 ACC. TO ASTM B210 OR EN AW 6063 T6 ATT. TO EN755

Ra 3.2

THREAD TABLE (Dimension: mm)

31.750

max 31.074

min 30.949

max 30.497

min 30.333

max 31.724

min 31.544

1.000

0.866

ALL EDGES CHAMFERED

SIZE

PITCH

PITCH DIA.

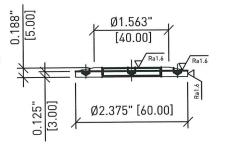
MINOR DIA

MAJOR DIA.

THREAD HEIGHT

THREAD TOLERANCES

ARE PER DIN ISO 13: 6g



Ø2.375" [60.00]

Ø1.938" [50.00]

PITCH DIA.

Ø1.563"

[40.00]

0.375" [10.00]

CUSTOMIZE

FINE THREAD

31.75x1(see table)

TIGHTENING RING

(RTR-SS) MATERIAL: ASTM A276 TYPE 316 SS OR ASTM A240 S31600 OR 1.4401 ACC. TO EN 10088-3 OR 10088-5 YIELD > 205MPa (30 ksi) TENSILE > 515MPa (75 ksi)

> **PRODUCT RENEWED** as complying with the Florida **Building Code** NOA-No. 21-1228.09

Expiration Date: 06/01/2027 By: Manuel Peres

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OUD MAANO STATE OF

THREAD TABLE (Dimension: mm) 31.750 1.000 **PITCH** max 31.270 PITCH DIA. min 31.100 max 30.903 MINOR DIA. min 30.667 MAJOR DIA. 31.750

Ra 6.3

ALL EDGES CHAMFERED

(FOR ALL OF BURSE)

FINISH:

THREAD TOLERANCES ARE PER DIN ISO 13: 6H

THREAD HEIGHT

PROVIDE 45° 118.00° CAMFERED **ALL AROUND** √^{Ø50} DESIGN, INC. 0.313" [8.00] [8.00] DETAIL: X SCALE: 2:1

8989 North Port Washington Road Milwaukee, WI 53217 ÉB-0001982 MAHMOUD MAAMOURI PE. # 77169

Ø2.375" [60.00]	,
	DE 0.5x45° FERED ALL AROUND
Ø1.25" [31.75] SECTION A-A	- CUSTOMIZE FINE THREAD 31.75x1(see table)

do 000 1 (0 00)

REVISION COMMENTS REV.NO. DATE DWG.BY CHK.BY

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NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

NOA-No. Expiration Date: 06/01/2022

PRODUCT REVISED as complying with the Florida Building Code

0.866

20-1116.07

By: Manuel Peres Miami-Dade Product Control

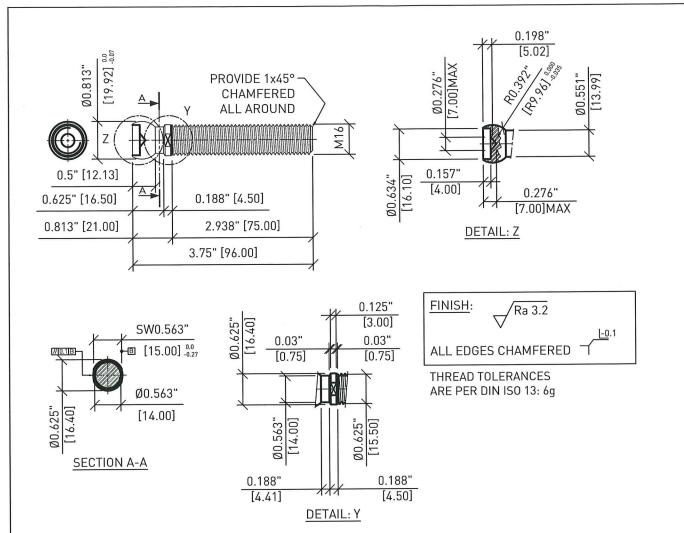
10APR17 SWK SWK TK 6 = 12 15-1005V

FABRICATION DRAWING:

ROTULE COMPONENTS

16 OF 17

22.202



16mm THREADED ROD

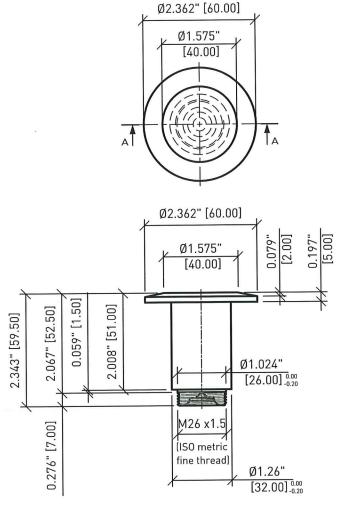
1.4401 ACC. TO EN 10088-3 OR

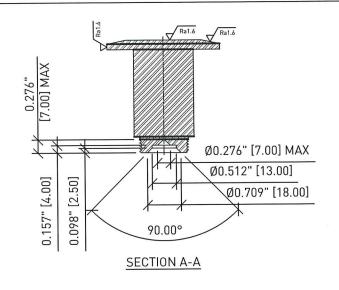
TENSILE > 515MPa (75 ksi)

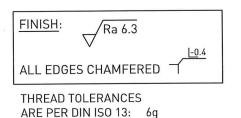
10088-5 YIELD > 205MPa (30 ksi)

(RTR16-SS)

MATERIAL: ASTM A276 TYPE 316 SS OR

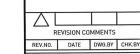






ROTULE HEAD TOP

MATERIAL: ASTM A276 TYPE 316 SS OR ASTM A240 S31600 OR 1.4401 ACC. TO EN 10088-3 OR 10088-5 YIELD > 205MPa (30 ksi) TENSILE > 515MPa (75 ksi)



DESIGN, INC.

PE. # 77169

Milwaukee, WI 53217 ÉB-0001982 MAHMOUD MAAMOURI

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NOVUM'S PSG GLASS SYSTEM: HG02 VERTICAL WALL

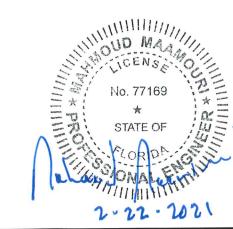
Ø0.669" [17.00]

Ø1.89" [48.00]

STAINLESS STEEL WASHER

(RW16-SS)

MATERIAL: ASTM A276 TYPE 316 SS OR ASTM A240 S31600 OR 1.4401 ACC. TO EN 10088-3 OR 10088-5 YIELD > 205MPa (30 ksi) TENSILE > 515MPa (75 ksi)



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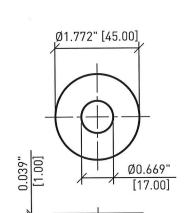
DRAWN BY:	DATE:
DTC	10APR17
CHECKED BY:	APPROVED BY:
SWK	SWK
SCALE:	PROJECT MANAGER:
6 = 12	TK
PROJECT NUMBER:	

FABRICATION DRAWING:

ROTULE COMPONENTS

15-1005V

17 OF 17



TEFLON WASHER

MATERIAL: PTFE (TEFLON)