# **HILLMAN** ENGINEERING

# **AQUARIUS CONDOMINIUM**

# 2751 SOUTH OCEAN DRIVE HOLLYWOOD, FLORIDA 33019

# 40 YEAR RESTORATION PROJECT & RELATED WORK

# Wind Pressure Drawings:

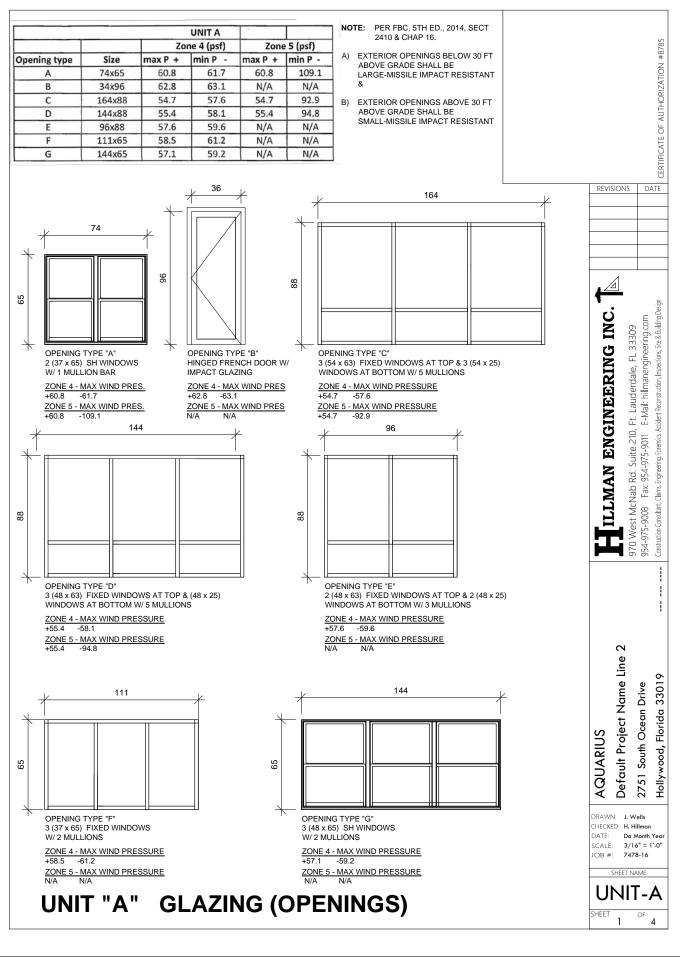
**Openings, Specs, NOA's / Product Approvals** 

**ENGINEER'S PROJECT # 7478-16** 

April 26, 2017

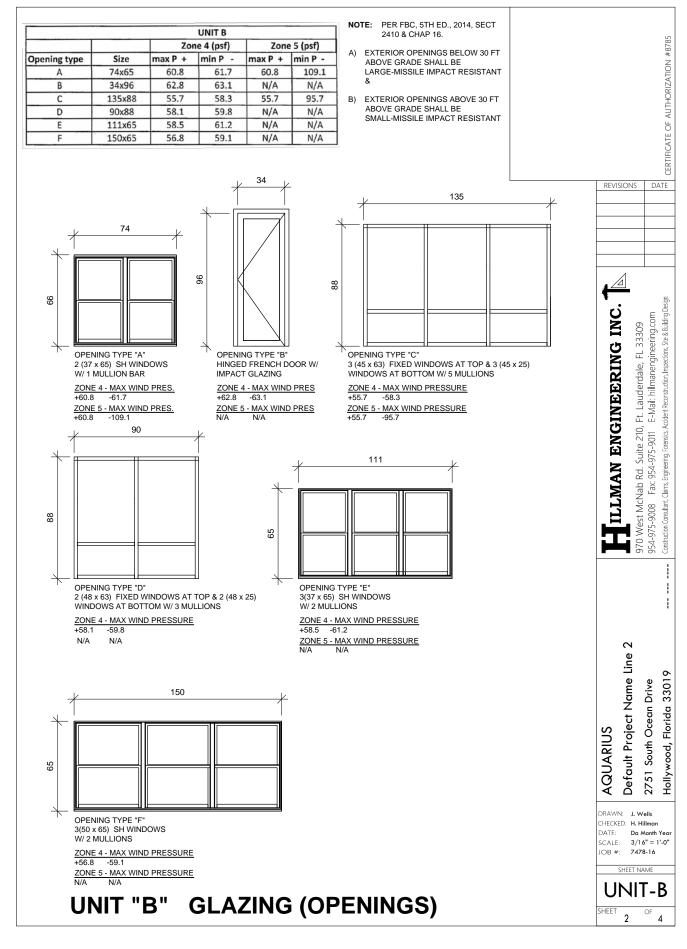
# **GLAZING ELEVATIONS**

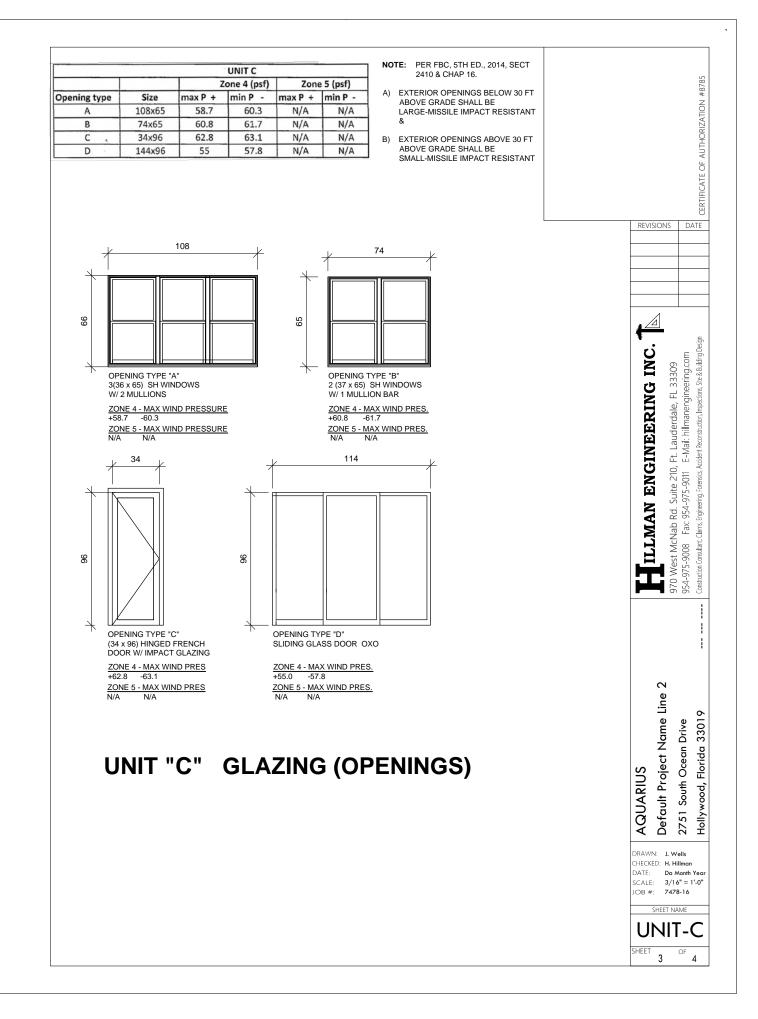
# UNITS A, B, C & D



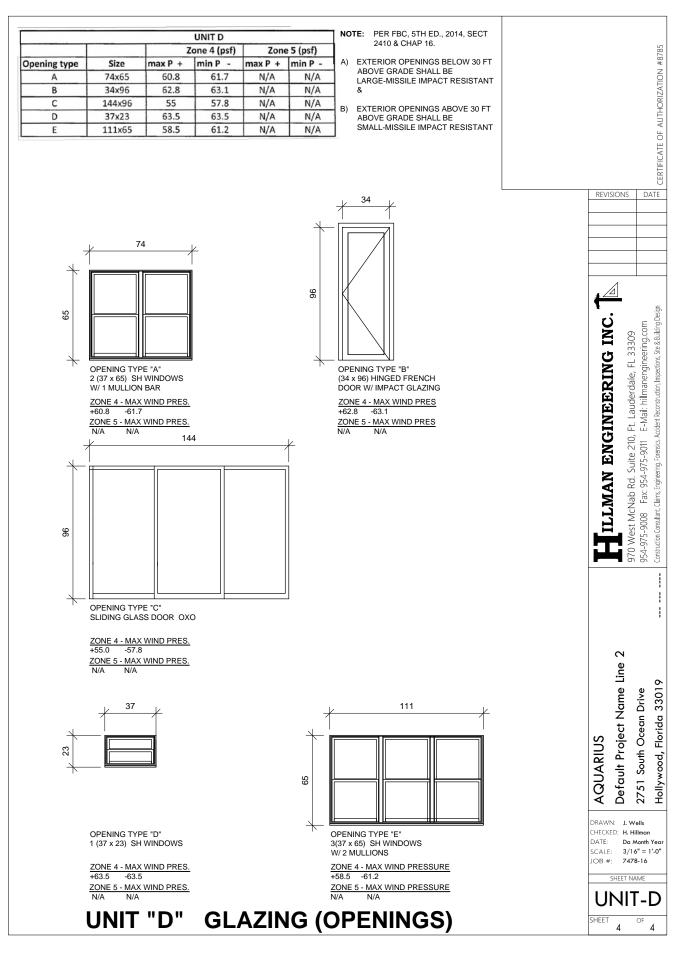
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# WINDOW & DOOR SPECIFICATIONS

[Note: items in brackets [] are options or comments, to be deleted or to replace other text as necessary.]

# SECTION 08520

# ALUMINUM WINDOWS

# PART 1 - GENERAL

## 1.1 SECTION INCLUDES

A. SH-800 Multi-Story aluminum single hung window.

## **1.2 RELATED SECTIONS**

- A. Section 07190 Vapor and Air Barriers
- B. Section 07900 Joint Sealants

# **1.3 REFERENCES**

- A. AAMA American Architectural Manufacturers Association
  - AAMA 103.3-93 "Procedural Guide for Aluminum and Vinyl Prime Windows and Glass Doors, Insulating Storm Products for Windows and Glass Doors and Thermal Performance of Windows and Glass Doors"
  - 2. AAMA 1302.5-76, paragraph 3.1.1 Test A through 3.1.5 Test G "Voluntary Specifications for Forced-Entry Resistant Aluminum Prime Windows"
- B. ANSI American National Standards Institute
  - ANSI/AAMA/NWWDA 101/I.S.2-97 "Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"
- C. ASTM American Society for Testing and Materials
  - 1. ASTM C 1036-91 "Standard Specification for Flat Glass"
  - 2. ASTM E 283-96 "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors"

- 3. ASTM E 330-96 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 4. ASTM E 331-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 5. ASTM E 547-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential"
- 6. ASTM F 588-85 "Standard Test Methods for Resistance of Window Assemblies to Forced Entry Excluding Glazing"
- D. Florida Building Code
  - 1. Protocol TAS-201 "Impact Test"
  - 2. Protocol TAS -202 "Air, Water, Structural Test"
  - 3. Protocol TAS -203 "Cyclic Wind Load Test"

# 1.4 SYSTEM DESCRIPTION

- A. Configuration: flange construction single hung (single vent).
- B. Frame: 2.784" frame depth.
- C. Glazing: exterior glazed, with aluminum glazing bead, 3/16" [1/4"] [7/16" laminated with PVB [SGP] interlayer] [3/8" laminated] glass, factory glazed.
- D. [ Muntins: double applied colonial configuration (raised external muntin, interior flatbar) [custom: \_\_\_\_ lites across and \_\_\_ lites high] ]
- E. Performance Requirements
  - 1. When tested according to Miami-Dade County test protocols, meets the design pressures stated in the Miami-Dade County Notice(s) of Acceptance for this product.
  - Air Infiltration: 0.3 (ft<sup>3</sup>)/min/(ft<sup>2</sup>) maximum when tested per ASTM E 283 at a 1.57 psf static air pressure difference.
  - 3. Water Resistance: no water leakage when tested per ASTM E 547 at a static air

pressure difference of 15% of the positive design pressure.

4. Uniform Load Structural: after testing per ASTM E 330 with a load equal to 150% of the positive design pressure, the unit must be operable, with a maximum permanent deformation in any member of 0.4% of the member's length.

# 1.5 SUBMITTALS

- A. Submit according to provisions of Section 01300.
- B. Product Data: provide manufacturer's standard details, specifications and catalog information, recommendations, and installation instructions.
- C. Shop Drawings: include unit elevations, details of all aluminum window sections, typical anchorage and installation details, type of glazing and window finish, and interface with other products.
- D. Finish Samples: manufacturer's available colors.
- E. Unit Samples: if required by Architect, provide scaled-down size operating samples of each unit type, to demonstrate design and construction of the unit and hardware.

# 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: minimum five (5) years documented experience in the manufacture of aluminum windows as required for this project.
- B. Installer Qualifications: workmen properly trained and skilled in the installation and handling of aluminum windows as required for this project.

# 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle windows and accessories in accordance with the manufacturer's instructions.
- B. Protect the products from damage due to the elements, construction traffic, or other hazards, from the time of arrival through the completion of the project.

## 1.8 WARRANTY

A. Manufacturer: warrant material and workmanship on all products for a period of three (3) years.

# **PART 2 - PRODUCTS**

# 2.1 MANUFACTURERS

A. PGT Industries, Inc. Series SH-800 Multi-Story single hung aluminum window.

# 2.2 MATERIALS

- A. Main frame members: extruded from 6063-T5 alloy, nominal 0.062" wall thickness. Meeting rail extruded from 6063HS-T54 alloy.
- B. Sash members: extruded from 6063-T5 aluminum alloy, nominal 0.062" wall thickness. Top rail extruded from 6063-T54 alloy.
- C. Hardware: two spiral torsion spring balances. One or two steel and tin-lead-zinc alloy cam lever sash locks on each vent locking beneath a groove in the fixed meeting rail (one sash lock if window width is less than 44").
- D. Weatherstripping: sides and top of vent weatherstripped with .170 x .270 fin seal, bottom of vent weatherstripped with compressed finned vinyl bulb.
- E. Glazing attachment with silicone adhesive.
- F. Screens: tubular aluminum frame with fiberglass screen cloth, vinyl spline, two plastic ringed pull screen corner keys and two compression retention springs per screen.
- G. [Muntins: extruded aluminum 6063-T5 alloy, tube construction (flat bar used for interior surface of double applied muntins)]

# **2.3 ACCESSORIES**

A. [ Mullions: 1x2.75 tube mull [1x4 tube mull] [heavy duty wall] [specify mull] and associated mull clips. ]

# 2.4 FABRICATION

- A. Main frame and sash joints constructed with butt joint fit, assembled with phillips pan head screws, and factory sealed with Parbond or Schnee-Moorehead sealer.
- B. All hardware factory installed.
- C. Bug screens constructed and installed in unit prior to shipment.

# 2.5 FINISHES

- A. Paint: Unless otherwise noted on the drawing and with the exception of "GT's paint thickness specification range of 2.4 5.0 mils for exposed surfaces and 1.0 mil minimum on all other surfaces, AAMA 2603 coating specification applies.
- B. Powder coating currently used is Akzo Nobel Interpon D1000 (1 year) and D1010 (10-year) in white, bronze, and silver. Paint match will be necessary to ensure color consistency throughout product line. Please specify paint quoted to be as good or equal to the Akzo Nobel listed above.

# **PART 3 - EXECUTION**

# 3.1 EXAMINATION

- A. Verify that openings provide an acceptable anchoring surface, being clean, level, plumb, and dimensionally within the manufacturer's tolerance of clearance spacing.
- B. Correct unacceptable openings as required prior to installation.

# 3.2 INSTALLATION

- A. Install windows and accessories in accordance with approved shop drawings and manufacturer's recommendations.
- B. Securely fasten frames, and set units level, plumb, and square with respect to the surrounding structure, without twist or bow.
- C. Place insulation materials around shim spaces as required to ensure continuity of the

thermal barrier of the structure.

D. Apply caulk all around between the aluminum frame and the structure, ensuring that a continuous airtight and watertight perimeter seal results. Leave exposed surfaces clean and free of caulk.

# 3.3 ADJUSTING AND CLEANING

- A. Ensure that units freely operate in a normal fashion, and that vents make proper contact with weatherstripping perimeter seal. Adjust frame, vent, or hardware as needed.
- B. Leave units thoroughly clean and free of dirt or other construction residue.

# END OF SECTION

[Note: items in brackets [] are options or comments, to be deleted or to replace other text as necessary.]

# SECTION 08520

# ALUMINUM WINDOWS

# PART 1 - GENERAL

# 1.1 SECTION INCLUDES

A. PW820 Multi-Story flanged [equal leg] inside glazed picture window.

## **1.2 RELATED SECTIONS**

- A. Section 07190 Vapor and Air Barriers
- B. Section 07900 Joint Sealants

# **1.3 REFERENCES**

- A. AAMA American Architectural Manufacturers Association
  - AAMA 103.3-93 "Procedural Guide for Aluminum and Vinyl Prime Windows and Glass Doors, Insulating Storm Products for Windows and Glass Doors and Thermal Performance of Windows and Glass Doors"
  - 2. AAMA 1302.5-76, paragraph 3.1.1 Test A through 3.1.5 Test B "Voluntary Specifications for Forced-Entry Resistant Aluminum Prime Windows"
- B. ANSI American National Standards Institute
  - ANSI/AAMA/NWWDA 101/I.S.2-97 "Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"
- C. ASTM American Society for Testing and Materials
  - 1. ASTM C 1036-91 "Standard Specification for Flat Glass"
  - ASTM E 283-96 "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors"

- ASTM E 330-96 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 4. ASTM E 331-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 5. ASTM E 547-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential"
- 6. ASTM F 588-85 "Standard Test Methods for Resistance of Window Assemblies to Forced Entry Excluding Glazing"
- D. Florida Building Code
  - 1. Protocol TAS-201 "Impact Test"
  - 2. Protocol TAS -202 "Air, Water, Structural Test"
  - 3. Protocol TAS -203 "Cyclic Wind Load Test"

#### 1.4 SYSTEM DESCRIPTION

- A. Configuration: flanged [equal leg] construction fixed glass aluminum picture window.
- B. Frame: 2.784" frame depth.
- C. Glazing: interior glazed, with aluminum glazing bead, 3/16" [1/4"] [tempered] [7/16" laminated] [9/16" laminated] glass, factory glazed.
- D. [ Muntins: double-applied flatbar ]
- E. Performance Requirements
  - 1. When tested according to Miami-Dade County test protocols, meets the design pressures stated in the Miami-Dade County Notice(s) of Acceptance for this product.
  - 2. Air Infiltration: 0.3 (ft<sup>3</sup>)/min/(ft<sup>2</sup>) maximum when tested per ASTM E 283 at a 1.57 psf static air pressure difference.
  - 3. Water Resistance: no water leakage when tested per ASTM E 547 at a static air pressure difference of 15% of the positive design pressure.

4. Uniform Load Structural: after testing per ASTM E 330 with a load equal to 150% of the positive design pressure, the unit must be operable, with a maximum permanent deformation in any member of 0.4% of the member's length.

# **1.5 SUBMITTALS**

- A. Submit according to provisions of Section 01300.
- B. Product Data: provide manufacturer's standard details, specifications and catalog information, recommendations, and installation instructions.
- C. Shop Drawings: include unit elevations, details of all aluminum window sections, typical anchorage and installation details, type of glazing and window finish, and interface with other products.
- D. Finish Samples: manufacturer's available colors.
- E. Unit Samples: if required by Architect, provide scaled-down size samples of each unit type, to demonstrate design and construction of the unit and hardware.

# 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: minimum five (5) years documented experience in the manufacture of aluminum windows as required for this project.
- B. Installer Qualifications: workmen properly trained and skilled in the installation and handling of aluminum windows as required for this project.

# 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle windows and accessories in accordance with the manufacturer's instructions.
- B. Protect the products from damage due to the elements, construction traffic, or other hazards, from the time of arrival through the completion of the project.

# 1.8 WARRANTY

A. Manufacturer: warrant material and workmanship on all products for a period of three (3) years.

# **PART 2 - PRODUCTS**

# 2.1 MANUFACTURERS

A. PGT Industries, Inc. Series PW-820 Multi-Story fixed glass aluminum window.

## 2.2 MATERIALS

- A. Frame members: extruded from 6063-T5 alloy, nominal 0.093" wall thickness.
- B. Glazing attachment with silicone adhesive.
- C. [ Muntins: extruded aluminum 6063-T5 alloy, flat bar construction ]

#### **2.3 ACCESSORIES**

A. [ Mullions: 1x2.75 tube mull [1x4 tube mull] [heavy duty wall] [specify mull] and associated mull clips. ]

#### 2.4 FABRICATION

A. Main frame and sash joints constructed with butt joint fit, assembled with phillips pan head screws, and factory sealed with Parbond or Schnee Moorehead sealer.

#### 2.5 FINISHES

- A. Paint: Unless otherwise noted on the drawing and with the exception of "GT's paint thickness specification range of 2.4 5.0 mils for exposed surfaces and 1.0 mil minimum on all other surfaces, AAMA 2603 coating specification applies.
- B. Powder coating currently used is Akzo Nobel Interpon D1000 (1 year) and D1010 (10-year) in white, bronze, and silver. Paint match will be necessary to ensure color consistency throughout product line. Please specify paint quoted

to be as good or equal to the Akzo Nobel listed above.

# **PART 3 - EXECUTION**

# **3.1 EXAMINATION**

- A. Verify that openings provide an acceptable anchoring surface, being clean, level, plumb, and dimensionally within the manufacturer's tolerance of clearance spacing.
- B. Correct unacceptable openings as required prior to installation.

# 3.2 INSTALLATION

- A. Install windows and accessories in accordance with approved shop drawings and manufacturer's recommendations.
- B. Securely fasten frames, and set units level, plumb, and square with respect to the surrounding structure, without twist or bow.
- C. Place insulation materials around shim spaces as required to ensure continuity of the thermal barrier of the structure.
- D. Apply caulk all around between the aluminum frame and the structure, ensuring that a continuous airtight and watertight perimeter seal results. Leave exposed surfaces clean and free of caulk.

# 3.3 ADJUSTING AND CLEANING

A. Leave units thoroughly clean and free of dirt or other construction residue.

# END OF SECTION

[Note: items in brackets [] are options or comments, to be deleted or to replace other text as necessary.]

# SECTION 08120

# ALUMINUM DOORS AND FRAMES

# PART 1 - GENERAL

## 1.1 SECTION INCLUDES

A. FD-750 aluminum outswing French Door.

## 1.2 RELATED SECTIONS

- A. Section 07190 Vapor and Air Barriers
- B. Section 07900 Joint Sealants

#### **1.3 REFERENCES**

- A. AAMA American Architectural Manufacturers Association
  - AAMA 103.3-93 "Procedural Guide for Aluminum and Vinyl Prime Windows and Glass Doors, Insulating Storm Products for Windows and Glass Doors and Thermal Performance of Windows and Glass Doors"
  - 2. AAMA 1302.5-76, paragraph 3.1.1 Test A through 3.1.5 Test B "Voluntary Specifications for Forced-Entry Resistant Aluminum Prime Windows"
- B. ANSI American National Standards Institute
  - ANSI/AAMA/NWWDA 101/I.S.2-97 "Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"
- C. ASTM American Society for Testing and Materials
  - 1. ASTM C 1036-91 "Standard Specification for Flat Glass"
  - 2. ASTM E 283-96 "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors"

- 3. ASTM E 330-96 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 4. ASTM E 331-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 5. ASTM E 547-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential"
- 6. ASTM F 588-85 "Standard Test Methods for Resistance of Window Assemblies to Forced Entry Excluding Glazing"
- D. Florida Building Code
  - 1. Protocol TAS-201 "Impact Test"
  - 2. Protocol TAS -202 "Air, Water, Structural Test"
  - 3. Protocol TAS -203 "Cyclic Wind Load Test"

# 1.4 SYSTEM DESCRIPTION

- A. Configuration: aluminum outswing french door, single door (X) [double door (XX)] [with sidelites (OXO) [OXXO]].
- B. Frame: 3 5/8" jamb depth, standard outswing threshold ( <sup>1</sup>/<sub>2</sub>" high exterior, 1 <sup>1</sup>/<sub>4</sub>" high interior).
- C. Glazing: exterior glazed, with aluminum glazing bead, 7/16" laminated] [7/8"laminated insulating 3/16" glass, ¼" air 7/16" laminated].
- D. [Muntins: double applied colonial configuration (raised ogee muntins) [custom: specify pattern and number of lites] [grids between glass (flat GBG)] [classic simulated divided lite (double ogee raised on exterior and interior with flat GBG)]
- E. Performance Requirements
  - 1. When tested according to Miami-Dade County test protocols, meets the design pressures stated in the Miami-Dade County Notice(s) of Acceptance for this product.
  - 2. Air Infiltration: 0.3 (ft<sup>3</sup>)/min/ft maximum when tested per ASTM E 283 at a 1.57 psf static air pressure difference.

- 3. Water Resistance: no water leakage when tested per ASTM E 547 at a static air pressure difference of 15% of the positive design pressure.
- 4. Uniform Load Structural: after testing per ASTM E 330 with a load equal to 150% of the positive design pressure, the unit must be operable, with a maximum permanent deformation in any member of 0.4% of the member's length.

# 1.5 SUBMITTALS

- A. Submit according to provisions of Section 01300.
- B. Product Data: provide manufacturer's standard details, specifications and catalog information, recommendations, and installation instructions.
- C. Shop Drawings: include unit elevations, details of all aluminum door sections, typical anchorage and installation details, type of glazing and door finish, and interface with other products.
- D. Finish Samples: manufacturer's available colors.
- E. Unit Samples: if required by Architect, provide scaled-down size operating samples of each unit type, to demonstrate design and construction of the unit and hardware.

# 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: minimum five (5) years documented experience in the manufacture of aluminum doors as required for this project.
- B. Installer Qualifications: workmen properly trained and skilled in the installation and handling of aluminum doors as required for this project.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle doors and accessories in accordance with the manufacturer's instructions.
- B. Protect the products from damage due to the elements, construction traffic, or other hazards, from the time of arrival through the completion of the project.

#### 1.8 WARRANTY

A. Manufacturer's Warranty: Furnish manufacturer's Limited Lifetime Warranty on aluminum windows and doors.

# **PART 2 - PRODUCTS**

## 2.1 MANUFACTURERS

PGT Industries, Inc. Series FD-750 aluminum outswing French Door.

## 2.2 MATERIALS

- A. Main frame members: extruded from 6063-T6 alloy, nominal 0.063" wall thickness.
- B. Door slab members: extruded from 6063-T5 aluminum alloy, nominal 0.075" wall thickness. 5/16-18 carbon steel threaded rod/nut assemblies in slab top and bottom rails for rigidity of slab.
- C. Hardware: continuous 6063-T6 aluminum alloy hinge per slab, [3-point] gear lock assembly, [for two panel doors: flushbolt lock assemblies to immobilize one panel if desired] [,handle trimsets (shipped separately)].
- D. Weatherstripping: with compressed foam-filled vinyl <sup>1</sup>/<sub>2</sub>" doorseal on slab sides, top and bottom.
- E. Glazing attachment with silicone adhesive.
- F. [Muntins: double applied colonial configuration (raised muntins)] [Simulated Divided Lites:double applied colonial configuration (raised external muntin with internal muntin)] [custom: specify pattern and number of lites] ]

# 2.3 ACCESSORIES

A. [Mullions: standard I-beam assembly, e.g. to be used between sidelite and door]

# 2.4 FABRICATION

- A. Main frame and slab joints constructed with butt joint fit and assembled with phillips pan head screws.
- B. All hardware factory installed (except handle/trimsets).
- C. All door frames shipped KD (knocked down)

## 2.5 FINISHES

- A. Colors: Selected by Architect from the following:
  - 1. Standard coating color charts.
  - 2. Custom coating color charts.
  - 3. Color Name and Number:
- C. AAMA 2603 finish: Pretreatment plus thermosetting polyester powder coating.
- D. AAMA 2605 Duranar (or comparable) finish pretreatment plus 2 coat, 50 and 70 percent Kynar base options.
- E. Clear Anodized Finish: NAAMM AA-C2241, 204R1 class II Minimum 0.4 mils, in natural aluminum color.
- F. ETERNA® Wood grain finish: Pretreatment plus base powder coat with preprinted film transfer with organic photosensitive pigments and cellulose resin thermoprint.

# **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

- A. Verify that openings provide an acceptable anchoring surface, being clean, level, plumb, and dimensionally within the manufacturer's tolerance of clearance spacing.
- B. Correct unacceptable openings as required prior to installation.

## 3.2 INSTALLATION

A. Install doors and accessories in accordance with approved shop drawings and

manufacturer's recommendations.

- B. Securely fasten frames and jambs, and set units level, plumb, and square with respect to the surrounding structure, without twist or bow.
- C. Place insulation materials around shim spaces as required to ensure continuity of the thermal barrier of the structure.
- D. Apply caulk all around between the aluminum frame and the structure, ensuring that a continuous airtight and watertight perimeter seal results. Leave exposed surfaces clean and free of caulk.

# 3.3 ADJUSTING AND CLEANING

- A. Ensure that units freely operate in a normal fashion without scraping or excessive noise, and that door slabs make proper contact with weatherstripping perimeter seal. Adjust frame, door slab, or hardware as needed.
- B. Leave units thoroughly clean and free of dirt or other construction residue.

# END OF SECTION

[Note: items in brackets [] are options or comments, to be deleted or to replace other text as necessary.]

# SECTION 08160

# ALUMINUM SLIDING GLASS DOORS

# PART 1 - GENERAL

# 1.1 SECTION INCLUDES

A. SGD-780 aluminum sliding door

# **1.2 RELATED SECTIONS**

- A. Section 07190 Vapor and Air Barriers
- B. Section 07900 Joint Sealants

# **1.3 REFERENCES**

- A. AAMA American Architectural Manufacturers Association
  - AAMA 103.3-93 "Procedural Guide for Aluminum and Vinyl Prime Windows and Glass Doors, Insulating Storm Products for Windows and Glass Doors and Thermal Performance of Windows and Glass Doors"
  - 2. AAMA 1302.5-76, paragraph 3.1.1 Test A through 3.1.5 Test B "Voluntary Specifications for Forced-Entry Resistant Aluminum Prime Windows"
- B. ANSI American National Standards Institute
  - ANSI/AAMA/NWWDA 101/I.S.2-97 "Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"
- C. ASTM American Society for Testing and Materials
  - 1. ASTM C 1036-91 "Standard Specification for Flat Glass"
  - 2. ASTM E 283-96 "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors"

- 3. ASTM E 330-96 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 4. ASTM E 331-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference"
- 5. ASTM E 547-96 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential"
- 6. ASTM F 588-85 "Standard Test Methods for Resistance of Window Assemblies to Forced Entry Excluding Glazing"
- D. Florida Building Code
  - 1. Protocol TAS-201 "Impact Test"
  - 2. Protocol TAS -202 "Air, Water, Structural Test"
  - 3. Protocol TAS -203 "Cyclic Wind Load Test"

# 1.4 SYSTEM DESCRIPTION

- A. Configuration: aluminum sliding glass door, \_\_\_\_\_panel, \_\_\_\_\_track, by-pass [ [1] [2] pocket,] \_\_\_\_\_moveable panels (X panels), [ \_\_\_\_\_\_fixed panels (O panels)]. [Countertop unit.] [Box screen]. Standard stack [Reverse stack] [Double interlock].
- B. Frame: \_\_\_\_\_ jamb depth.
- C. Glazing: exterior glazed, with aluminum glazing bead, 7/16" laminated] [1 1/16" laminated insulating 1/4" or 3/16" glass, 3/8" or 5/16" air 7/16" laminated].
- D. [Muntins: double applied colonial configuration (raised ogee muntins) [custom: specify pattern and number of lites] [grids between glass (flat GBG)] [classic simulated divided lite (double ogee raised on exterior and interior with flat GBG)]
- E. Performance Requirements
  - 1. When tested according to Miami-Dade County test protocols, meets the design pressures stated in the Miami-Dade County Notice(s) of Acceptance for this product.
  - 2. Air Infiltration: 0.3 (ft<sup>3</sup>)/min/ft maximum when tested per ASTM E 283 at a 1.57 psf static air pressure difference.

- 3. Water Resistance: no water leakage when tested per ASTM E 547 at a static air pressure difference of 15% of the positive design pressure.
- 4. Uniform Load Structural: after testing per ASTM E 330 with a load equal to 150% of the positive design pressure, the unit must be operable, with a maximum permanent deformation in any member of 0.4% of the member's length.

# **1.5 SUBMITTALS**

- A. Submit according to provisions of Section 01300.
- B. Product Data: provide manufacturer's standard details, specifications and catalog information, recommendations, and installation instructions.
- C. Shop Drawings: include unit elevations, details of all aluminum door sections, typical anchorage and installation details, type of glazing and door finish, and interface with other products.
- D. Finish Samples: manufacturer's available colors.
- E. Unit Samples: if required by Architect, provide scaled-down size operating samples of each unit type, to demonstrate design and construction of the unit and hardware.

# 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: minimum five (5) years documented experience in the manufacture of aluminum doors as required for this project.
- B. Installer Qualifications: workmen properly trained and skilled in the installation and handling of aluminum doors as required for this project.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle doors and accessories in accordance with the manufacturer's instructions.
- B. Protect the products from damage due to the elements, construction traffic, or other hazards, from the time of arrival through the completion of the project.

#### 1.8 WARRANTY

A. Manufacturer's Warranty: Furnish manufacturer's Limited Lifetime Warranty on aluminum windows and doors.

# **PART 2 - PRODUCTS**

## 2.1 MANUFACTURERS

A. PGT Industries, Inc. Series SGD-780 WinGuard sliding glass door.

## 2.2 MATERIALS

- A. Main frame members: extruded from 6063-T6 alloy, nominal 0.090" wall thickness.
- B. Door panel members: extruded from 6063-T6 aluminum alloy, various wall thickness.
- C. Hardware: two steel [stainless steel] roller wheels [two sets of tandem roller wheels (4 wheels total)]. One stainless steel and tin-lead alloy lever-locking latch assembly [metal handle.] [keyed mortise lock]
- D. Weatherstripping: double weatherstripped around each panel and screen with .187" x .230" fin weatherstrip.
- E. Glazing attachment with silicone adhesive.
- F. Screens: tubular aluminum frame with fiberglass screen cloth, and vinyl spline.
- G. [Muntins: double applied colonial configuration (raised muntins)] [Simulated Divided Lites:double applied colonial configuration (raised external muntin with internal muntin)] [custom: specify pattern and number of lites]

# **2.3 ACCESSORIES**

# 2.4 FABRICATION

- A. Main frame and panel joints constructed with butt joint fit and assembled with phillips pan head screws.
- B. Handle and lock shipped separately, all other hardware factory installed.
- C. All door frames shipped KD (knocked down)

# 2.5 FINISHES

- A. Colors: Selected by Architect from the following:
  - 1. Standard coating color charts.
  - 2. Custom coating color charts.
  - 3. Color Name and Number:
- B. AAMA 2603 finish: Pretreatment plus thermosetting polyester powder coating.
- C. AAMA 2605 Duranar (or comparable) finish pretreatment plus 2 coat, 50 and 70 percent Kynar base options.
- D. Clear Anodized Finish: NAAMM AA-C2241, 204R1 class II Minimum 0.4 mils, in natural aluminum color.
- E. ETERNA® Wood grain finish: Pretreatment plus base powder coat with preprinted film transfer with organic photosensitive pigments and cellulose resin thermoprint.

# **PART 3 - EXECUTION**

# 3.1 EXAMINATION

- A. Verify that openings provide an acceptable anchoring surface, being clean, level, plumb, and dimensionally within the manufacturer's tolerance of clearance spacing.
- B. Correct unacceptable openings as required prior to installation.

# 3.2 INSTALLATION

A. Install doors and accessories in accordance with approved shop drawings and manufacturer's recommendations.

- B. Securely fasten frames and jambs, and set units level, plumb, and square with respect to the surrounding structure, without twist or bow.
- C. Place insulation materials around shim spaces as required to ensure continuity of the thermal barrier of the structure.
- D. Apply caulk all around between the aluminum frame and the structure, ensuring that a continuous airtight and watertight perimeter seal results. Leave exposed surfaces clean and free of caulk.

# 3.3 ADJUSTING AND CLEANING

- A. Ensure that units freely operate in a normal fashion without scraping or excessive noise, and that door slabs make proper contact with weatherstripping perimeter seal. Adjust frame, door slab, or hardware as needed.
- B. Leave units thoroughly clean and free of dirt or other construction residue.

# END OF SECTION

# MIAMI-DADE COUNTY PRODUCT APPROVALS / NOA'S



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

# NOTICE OF ACCEPTANCE (NOA)

PGT Industries, Inc. 1070 Technology Drive North Venice, FL 34275

#### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.-

#### DESCRIPTION: Series "SH-800" Aluminum Single Hung Window – L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **MD-SH800LM-01**, titled "SH Window – Large Missile", sheets 1 through 8 of 8, dated 11/11/11 with revision B dated 05/15/16, prepared by manufacturer, signed and sealed by A. Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

#### MISSILE IMPACT RATING: 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 and renews NOA# 15-0609.02 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

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



1/1/16

NOA No. 16-0714.01 Expiration Date: May 03, 2022 Approval Date: August 18, 2016 Page 1

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA No. 11-1222.04)
- 2. Drawing No. MD-SH800LM-01, titled "SH Window Large Missile", sheets 1 through 8 of 8, dated 11/11/11, with revision B dated 05/15/16, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

#### B. TESTS

- Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a PVC sliding glass door, a PVC fixed window and an aluminum sliding glass door, using: Kodispace 4SG TPS spacer system, Duraseal<sup>®</sup> spacer system, Super Spacer<sup>®</sup> NXT<sup>TM</sup> spacer system and XL Edge<sup>TM</sup> spacer system at insulated glass, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. FTL-8717, FTL-8968 and FTL-8970, dated 11/16/15, 06/07/16 and 06/02/16 respectively, all signed and sealed by Idalmis Ortega, P.E.

- 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) Small 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

along with marked-up drawings and installation diagram of an aluminum single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-6642**, dated 10/03/11, signed and sealed by Marlin D. Brinson, P.E. *(Submitted under NOA No. 11-1222.04)* 

- 3. 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 an aluminum single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-6643**, dated 10/03/11, signed and sealed by Marlin D. Brinson, P.E. *(Submitted under NOA No. 11-1222.04)* 

Wannel Manuel Perez, P.E.

Manuel Perez, P.E. Product Control Examiner NOA No. 16-0714.01 Expiration Date: May 03, 2022 Approval Date: August 18, 2016

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## C. CALCULATIONS

- Anchor verification calculations and structural analysis, complying with FBC-5<sup>th</sup> Edition (2014), dated 05/29/15, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. (Submitted under previous NOA No. 15-0609.02)
- 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. 14-0916.11 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers" dated 06/25/15, expiring on 07/04/18.

#### F. STATEMENTS

- 1. Statement letter of conformance, complying with **FBC-5<sup>th</sup> Edition (2014)**, dated May 29, 2015, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. *(Submitted under previous NOA No. 15-0609.02)*
- Statement letter of no financial interest, dated May 29, 2015, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
  (Submitted under previous NOA No. 15-0609.02)
- 3. Laboratory compliance letters for Test Reports No. FTL-6642 and FTL-6643, issued by Fenestration Testing Laboratory, Inc., dated 10/03/11, signed and sealed by Marlin D. Brinson, P.E.

#### (Submitted under NOA No. 11-1222.04)

4. Proposal No. 16-0125 issued by the Product Control Section, dated March 09, 2016, signed by Ishaq Chanda, P.E.

#### G. OTHERS

1. Notice of Acceptance No. **15-0609.02**, issued to PGT Industries, Inc. for their Series "SH-800" Aluminum Single Hung Window - L.M.I." approved on 08/20/15 and expiring on 05/03/17.

Manuel Perez, P.E.

Manuel Perez, PiE. Product Control Examiner NOA No. 16-0714.01 Expiration Date: May 03, 2022 Approval Date: August 18, 2016

#### GENERAL NOTES: 800 SERIES LARGE AND SMALL MISSILE IMPACT RESISTANT SINGLE HUNG WINDOW

1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS.

3) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED MASONRY ANCHORS. MATERIALS USED FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASTM C90 CONCRETE MASONRY UNITS AND CONCRETE WITH MIN. KSI PER ANCHOR TYPE, SEE TABLES 2, 4 OR 6.

4) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

5) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO, USE ANCHORS OF SUFFICIENT LENGTH AS SPECIFIED ON TABLES 2, 4 OR 6. NARROW JOINT SEALANT IS USED ON ALL FOUR CORNERS OF THE FRAME. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

6) 1/4" MAX, SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS.

#### 7) DESIGN PRESSURES:

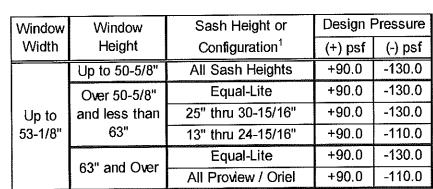
ALUMINUM DESIGN MANUAL.

A, NEGATIVE DESIGN LOADS BASED ON STRUCTURAL & CYCLE TESTING AND GLASS PER ASTM E1300.

B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL & CYCLE TESTING AND GLASS PER ASTM E1300.

8) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD, ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.

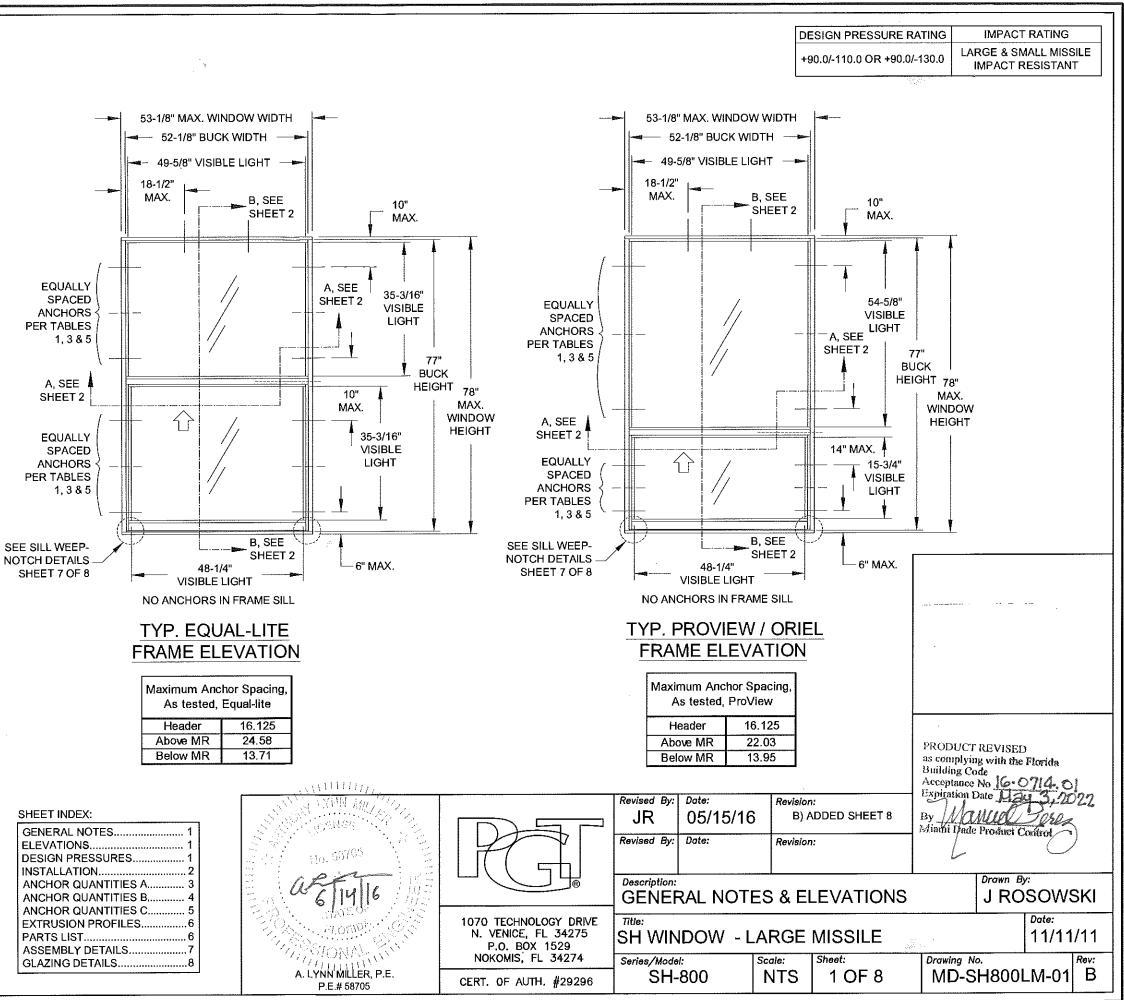
9) REFERENCES: TEST REPORTS FTL-6642, 6643; ELCO ULTRACON NOA; ELCO CRETEFLEX NOA; ANSI/AF&PA NDS FOR WOOD CONSTRUCTION AND ADM



SASH HEIGHT MUST BE MEASURED AS SHOWN IN FIGURE A, SHEETS 3, 4 OR 5.

#### STANDARDS USED:

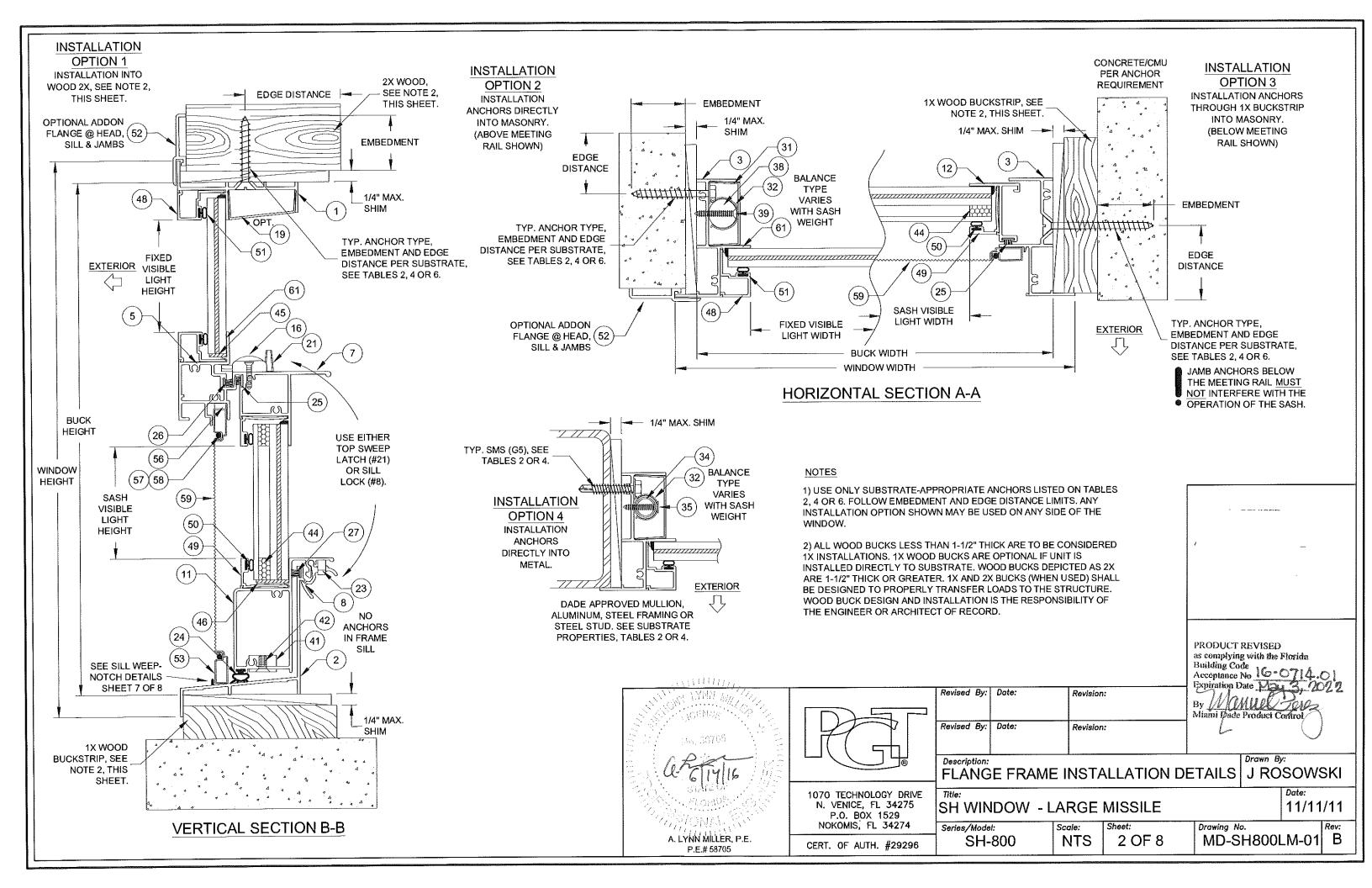
- •2014 FLORIDA BUILDING CODE (FBC), 5TH EDITION
- ASTM E1300-04 ANSI/AF&PA NDS-2012 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2010
- •AISI-S100-07/S2-2010



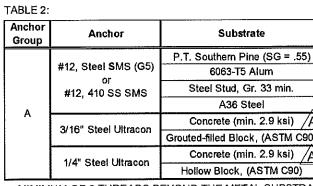
Maximum Anchor Spacing, As tested, Equal-lite		
Header	16.125	
Above MR	24.58	
Below MR	13,71	

MANIMIT.		
NO STATE MARTINE		Revised By:
A. LYNN MILLER, P.E. P.E.# 58705		JR
		Revised By:
		Description: GENEF
	1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 P.O. BOX 1529	<sup>πtle:</sup> SH WIN
	NOKOMIS, FL 34274	Series/Model
	CERT. OF AUTH. #29296	SH-

#### GENERAL NOTES. ELEVATIONS. DESIGN PRESSURES. INSTALLATION ... ANCHOR QUANTITIES A.



												Öv		Win	dov	v Wi	dth		-							
				9-1/8	11		6-1/2	"		33"			37"	]		41"			45"		<u> </u>	49"			3-1/8	8" T
		Sash Height or	Jar			Jar		.	Jai			Jar		<u>ب</u>	Jar			Ja	_	L .	Ja	-		Jar		-
		Height Range	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	
Т	24-1/2"	12-3/4" (Equal-Lite)	1	2	1	1	2	1	1	2	1	1	2	1	1	2	2	1	2	2	1	2	2	1	2	Ī
f	25-1/2"	13-1/4" (Equal-Lite)	1	2	1	1	2	1	1	2	1	1	2	2	1	2	2	1	2	2	1	2	2	1	3	
ľ	37"	19" (Equal-Lite)	2	2	1	2	2	1	2	2	2	2	3	2	2	3	2	2	3	2	2	3	3	2	4	
ľ		19-5/8" (Equal-Lite)	2	2	1	2	2	1	2	2	2	2	3	2	2	3	2	2	3	2	2	3	3	2	4	
	00.0/08	19" thru 19-9/16"	2	2	1	2	2	1	2	2	2	2	3	2	2	3	2	2	3	2	2	3	3	2	4	
	38-3/8"	16" thru 18-15/16" *	2	2	1	2	2	1	2	2	2	2	3	2	2	3	2	2	3	3	2	3	3	3	4	
		13" thru 15-15/16"	2	2	1	2	2	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	
ł		23" (Equal-Lite)	2	2	1	2	2	1	2	3	2	2	3	2	2	3	2	2	4	3	2	4	3	2	4	
		22" thru 22-15/16"	2	2	1	2	2	1	2	3	2	2	3	2	2	3	2	2	4	3	2	4	3	3	4	ſ
	45"	19" thru 21-15/16" *	2	2	1	2	2	1	2	3	2	2	3	2	2	3	3	3	4	3	3	4	3	3	4	ſ
		16" thru 18-15/16"	2	2	1	2	2	1	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	4	T
		13" thru 15-15/16"	2	2	1	2	2	1	3	2	2	3	2	2	3	3	3	3	3	3	3	3	4	4	3	T
ł		25-3/4" (Equal-Lite)	2	3	1	2	3	1	2	3	2	2	3	2	2	4	3	3	4	3	3	4	3	3	5	T
		25" thru 25-11/16"	2	3	1	2	3	1	2	3	2	2	3	2	2	4	3	3	4	3	3	4	3	3	5	T
Ì		22" thru 24-15/16"	2	3	1	2	3	1	2	3	2	3	3	2	3	4	3	3	4	3	3	4	3	3	5	T
	50-5/8"	19" thru 21-15/16" *	2	2	1	2	2	1	3	3	2	3	3	2	3	3	3	3	4	3	3	4	4	4	4	T
	)	16" thru 18-15/16"	2	2	1	3	2	1	3	2	2	3	3	2	3	3	3	4	3	3	4	3	4	4	4	T
ŧ		13" thru 15-15/16"	2	2	1	3	2	1	3	2	2	4	2	2	4	3	3	4	3	3	4	3	4	4	3	Ť
2		32" (Equal-Lite)	2	3	1	2	3	1	3	4	2	3	4	2	3	4	3	3	5	3	3	5	4	4	6	Ť
Ē		31" thru 31-15/16"	2	3	1	2	3	1.	3	4	2	3	4	2	3	4	3	3	5	3	3	5	4	4	6	t
Š		28" thru 30-15/16"	2	3	1	3	3	1	3	4	2	3	4	2	3	4	3	4	5	3	4	5	4	4	6	T
Ĭ		25" thru 27-15/16" *	2	3	1	3	3	1	3	3	2	4	4	2	4	4	3	4	4	3	4	5	4	4	5	t
	63"	22" thru 24-15/16"	3	3	1	3	3	1	4	3	2	4	3	2	4	4	3	4	4	3	5	4	4	5	5	T
ם נו		19" thru 21-15/16"	3	2	1	3	2	1	4	3	2	4	3	2	4	3	3	5	4	3	5	4	4	5	4	Ť
3		16" thru 18-15/16"	3	2	1	4	2	1	4	2	2	5	3	2	5	3	3	5	3	3	5	3	4	6	4	Ť
		13" thru 15-15/16"	3	2	1	4	2	1	4	2	2	5	2	2	5	3	3	6	3	3	6	3	4	6	3	T
		37* (Equal-Lite)	2	3	1	3	3	1	3	4	2	3	5	2	4	5	3	4	6	3	4	6	4	4	6	T
		34" thru 36-15/16"	3	3	1	3	3	1	3	4	2	4	5	2	4	5	3	4	6	3	4	6	4	5	6	T
		31" thru 33-15/16"	3	3	1	3	3	1	4	4	2	4	4	2	4	5	3	5	5	3	5	6	4	5	6	T
		28" thru 30-15/16" *	3	3	1	3	3	1	4	4	2	4	4	2	5	4	3	5	5	3	5	5	4	5	6	1
	73"	25" thru 27-15/16"	3	3	1	4	3	1	4	3	2	5	4	2	5	4	3	5	4	3	6	5	4	6	5	1
		22" thru 24-15/16"	3	3	1	4	3	1	5	3	2	5	3	2	5	4	3	6	4	3	6	4	4	6	5	T
		19" thru 21-15/16"	3	2	1	4	2	1	5	3	2	5	3	2	6	3	3	6	4	3	6	4	4	7	4	t
		16" thru 18-15/16"	3	2	1	4	2	1	5	2	2	6	3	2	6	3	3	7	3	3	7	3	4	7	4	1
		39-1/2" (Equal-Lite)	2	3	1	3	4	1	3	4	2	4	5	2	4	5	3	4	6	3	4	6	4	5	7	T
		37" thru 39-7/16"	3	3	1	3	4	1	4	4	2	4	5	2	4	5	3	4	6	3	5	6	4	5	7	t
		34" thru 36-15/16"	3	3	1	3	3	1	4	4	2	4	5	2	4	5	3	5	6	3	5	6	4	5	6	†
		31" thru 33-15/16" *	3	3	1	4	3	1		4	2	5	4	2	5	5	3	5	5	3	5	6	4	6	6	t
	78"	28" thru 30-15/16"	3	3	1	4	3	1	<u> </u>	4	2	5	4	2	5	4	3	6	5	3	6	5	4	6	6	†
		25" thru 27-15/16"	3	3	1	4	3	1	5	3	2	5	4	2	6	4	3	6	4	3	6	5	4	7	5	╡
		20" thru 24-15/16"	3	3	1	4	3	1	5	3	2	6	3	2	6	4	3	6	4	3	7	4	4	7	5	$\dagger$
		20" thru 21-15/16"	3	2	1	4	2	$\frac{1}{1}$	5	3	2	6	3	2	6	3	3	7	4	3	7	4	4	7	4	╉
	l	T RANGE INCLUDES 1	1	<u> </u>	<u> </u>	E	1					<u>i</u> i	1	<u> </u>	<u>1</u>	1	1	11	<u> </u>		<u>1</u>	1		<u>II</u>	1	ىلى.

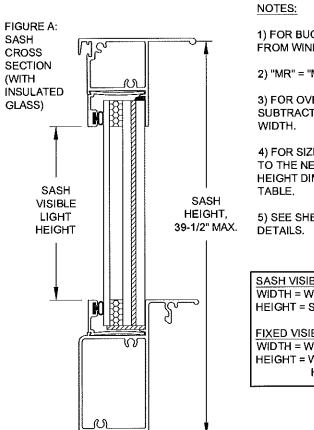


Min. Edge

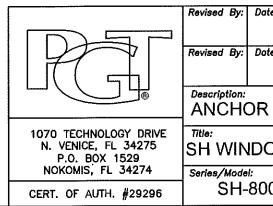
Distance

Min. Embedment

\*\* MIMIMUM OF 3 THREADS BEYOND THE METAL SUBSTR

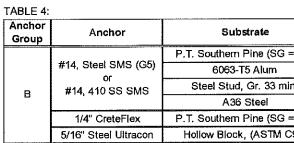


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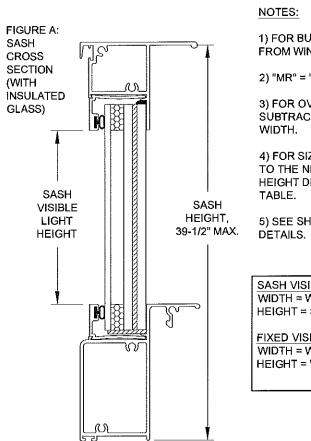


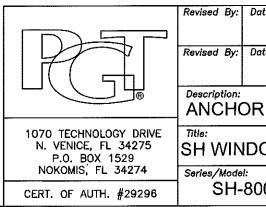
)	9/16"	1-3/8"	
_	3/8"	1/8" **	
	3/8"	0.045 (18 Ga) **	
	3/8"	1/8" **	
A	2-1/2"	1-3/4"	
)) //	2-1/2"	2-1/4*	
$\mathbb{A}$	1*	1-3/4"	
	2-1/2"	1-1/4"	]
ido Mei T 2- Zes Ext Mei	DIMENSIO W WIDTH ETING RAII ALL SASH ALL SASH 9/16" FROM 9/16" FROM NOT SHON NOT SHON SHO		
BLE VINE SAS BLE VINE	LIGHT FO DOW WIDT H HEIGHT E LIGHT FC DOW WIDT	RMULAS: H - 4.875" - 4.293" RMULAS: H - 3.5" SHT - SASH	PRODUCT REVISED as complying with the Florida Building Code Acceptance No 16-0714. Of Expiration Date Day 3,2022 By Manuel Buez Miauri IPade Product Control
			IND. 08705
<del>0</del> :		Revision:	STATE OF SECTOR
e:		Revision:	A. LYNN MILLER, P.E. P.E.# 58705
Q	UANTI	TIES A	Drawn By: J ROSOWSKI
ΟW	V - LAI	RGE MISSIL	
)	Scc N	le: Sheet: ITS 3 OF	8 Drawing No. 8 MD-SH800LM-01 B

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				9-1/8			6-1/2		1.0	33"			37"		lar	41"			45" nb			49'' mb			53-1/8 mb	3" T
		Sash Height or	Jar		÷	Jar		*	Jai		5	Jar n∠		5	Jar		5			ኤ			ы		1	1
		Height Range	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	
	24-1/2"	12-3/4" (Equal-Lite)	1	2	1	1	2	1	1	2	1	1	2	1	1	2	2	1	2	2	1	2	2	1	2	
ſ	25-1/2"	13-1/4" (Equal-Lite)	1	2	1	1	2	1	1	2	1	1	2	1	1	2	2	1	2	2	1	2	2	1	2	
ľ	37"	19" (Equal-Lite)	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	3	
Ĩ		19-5/8" (Equal-Lite)	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	3	
	38-3/8"	19" thru 19-9/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	3	
I	30-3/0	16" thru 18-15/16" *	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	
		13" thru 15-15/16"	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Ī		23" (Equal-Lite)	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	3	2	2	3	2	2	3	
		22" thru 22-15/16"	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	3	2	2	3	2	2	3	
	45"	19" thru 21-15/16" *	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	3	2	2	3	2	2	3	
		16" thru 18-15/16"	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	
		13" thru 15-15/16"	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	3	2	
ľ		25-3/4" (Equal-Lite)	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	2	2	3	
		25" thru 25-11/16"	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	2	2	3	
		22" thru 24-15/16"	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	2	2	3	Γ
	50-5/8"	19" thru 21-15/16" *	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	3	2	2	3	2	3	3	Τ
		16" thru 18-15/16"	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	3	2	2	3	2	3	3	3	
É		13" thru 15-15/16"	2	2	1	2	2	1	2	2	1	3	2	2	3	2	2	3	2	2	3	2	3	3	2	Г
ובוחוו	<u></u>	32" (Equal-Lite)	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	4	2	3	4	
		31" thru 31-15/16"	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	4	2	3	4	
Ì		28" thru 30-15/16*	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	3	3	2	3	4	3	3	4	
		25" thru 27-15/16" *	2	3	1	2	3	1	2	3	1	3	3	2	3	3	2	3	3	2	3	3	3	3	4	Γ
A 11	63"	22" thru 24-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	2	3	3	
		19" thru 21-15/16"	3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	3	2	2	3	3	
3		16" thru 18-15/16"	3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	3	2	2	3	2	
		13" thru 15-15/16"	3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	4	2	2	4	2	Γ
		37" (Equal-Lite)	2	3	1	2	3	1	2	3	1	2	3	2	3	4	2	3	4	2	3	4	3	3	-4	
		34" thru 36-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	4	2	3	4	-
		31" thru 33-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	2	3	4	
		28" thru 30-15/16" *	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	2	3	3	
	73"	25" thru 27-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	2	4	3	T
		22" thru 24-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	4	3	2	4	3	
		19" thru 21-15/16"	3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	4	2	2	4	2	2	4	3	Γ
		16" thru 18-15/16"	3	2	1	3	2	1	3	2	1	3	2	2	4	2	2	4	2	2	4	2	2	4	2	Τ
		39-1/2" (Equal-Lite)	2	3	1	2	3	1	2	3	1	3	3	2	3	4	2	3	4	2	3	4	3	3	5	Ť
		37" thru 39-7/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	4	2	3	4	2	3	4	T
		34" thru 36-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	4	2	3	4	┢
		31" thru 33-15/16" *	3	3	1	3	3	1	1	3	1	3	3	2	3	3	2	3	3	2	3	3	2	3	4	T
	78"	28" thru 30-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	4	3	2	4	3	t
		25" thru 27-15/16"	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	4	3	2	4	3	2	4	3	t
		23" thru 24-15/16"	3	3		3	3	1	3	3	1	3	3	2	4	3	2	4	3	2	4	3	2	4	3	t
		20" thru 21-15/16"	3	2	_	3	2	1	3	2	1	3	2	2	4	2	2	4	2	2	4	2	2	4	3	t
_		T RANGE INCLUDES T	<u> </u>			1		1				1				1		ŧ	1	. <u> </u>	<u>81</u>	L	<u> </u>	J!	<u>i</u>	<u> </u>



\*\* MIMIMUM OF 3 THREADS BEYOND THE METAL SUBSTRATE.



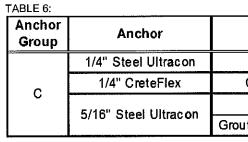


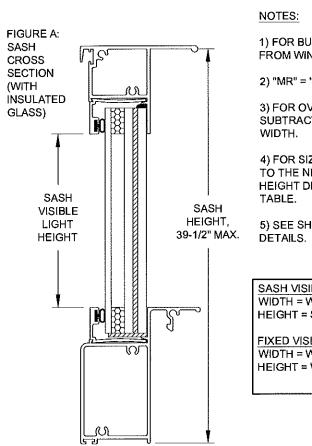
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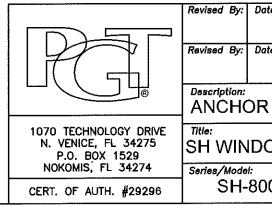
	Min. Edge Distance	Min. Embedment
= .55)	9/16"	1-3/8"
	3/8"	1/8" **
in.	3/8"	0.045 (18 Ga) <b>**</b>
	3/8"	1/8" **
= .55)	1"	1-3/4"
C90)	3-1/8"	1-1/4"

UCK DIMEN NDOW WID				
"MEETING	RAIL"		<b></b>	
VERALL SA CT 2-9/16" F		VINDOW		
IZES NOT S IEXT AVAIL DIMENSION	ABLE WIDT	HOR		
HEET 2 FOF	R INSTALLA	TION		
IBLE LIGHT WINDOW W SASH HEIG BIBLE LIGHT WINDOW W WINDOW H HEIGHT - 3	/IDTH - 4.87 GHT - 4.293' I FORMULA /IDTH - 3.5" IEIGHT - SA	5" S:	Building Code Acceptance N Expiration Dat By <u>Mamu</u> Miam Dade P	with the Florida 
ite:	Duritie		a.	BTI-114
	Revisior	17		Zoamb.
te:	Revisior	2:		UNAL, KNY NN MILLER, P.E. P.E.# 58705
R QUAN	ITITIES	В		Drawn By: J ROSOWSKI
OW - L	ARGE	MISSILE		Dote: 11/11/11
0	<sup>Scale:</sup> NTS	<sup>Sheet:</sup> 4 OF 8	Drawing No. MD-SH	800LM-01 B

										0.01				VVII	luov	V Wi	101	-	450		<u> </u>	401		6	3-1/8	511
				9-1/8			6-1/2			33"		lor	37"			41"		Ja	45"			49" mb	[		mb	, T
		Sash Height or	Jar			Jar		<u>ـ</u>	Jai		L	Jar	· · ·	<u>ب</u>	Jar		L		r	Ŀ.		<u> </u>	5			1
		Height Range	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Header	Above MR	Below MR	Headar
T	24-1/2"	12-3/4" (Equal-Lite)	1	2	1	1	2	1	1	2	1	1	2	1	1	2	2	1	2	2	1	2	2	1	2	1
ſ	25-1/2"	13-1/4" (Equal-Lite)	1	2	1	1	2	1	1	2	1	1	2	1	1	2	2	1	2	2	1	2	2	1	2	
ſ	37"	19" (Equal-Lite)	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	Ľ
ľ		19-5/8" (Equal-Lite)	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	L
	00.0/01	19" thru 19-9/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	
	38-3/8"	16" thru 18-15/16" *	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	
		13" thru 15-15/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	
ļ		23" (Equal-Lite)	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	
		22" thru 22-15/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	
	45"	19" thru 21-15/16" *	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	
		16" thru 18-15/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1
		13" thru 15-15/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1
Ì		25-3/4" (Equal-Lite)	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	
		25" thru 25-11/16"	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	
		22" thru 24-15/16"	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	
	50-5/8"	19" thru 21-15/16" *	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1
		16" thru 18-15/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1
-		13" thru 15-15/16"	2	2	1	2	2	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	1
ווכוחוו	÷	32" (Equal-Lite)	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	
		31" thru 31-15/16"	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	1
5		28" thru 30-15/16"	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	
		25" thru 27-15/16" *	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	1
	63"	22" thru 24-15/16"	3	3	1	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	
		19" thru 21-15/16"	3	2		3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	3	2	1
Š		16" thru 18-15/16"	3	2	1	3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	3	2	T
-		13" thru 15-15/16"	3	2	1	3	2		3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	3	2	
		37" (Equal-Lite)	2	3	1	2	3	1	2	3	1	2	3	1	2	3	2	2	3	2	2	3	2	2	3	
		34" thru 36-15/16"	3	3	1	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	┢
		31" thru 33-15/16"	3	3	1	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	
		28" thru 30-15/16" *	3	3		3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	
	73"	25" thru 27-15/16"	3	3		3	3	1	3	3		3	3		3	3	2	3	3	2	3	3	2	3	3	╎
		23" thru 24-15/16"	3	3	1	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3	3	2	3	3	
		19" thru 21-15/16"	3	2	1	3	2	1	3	2		3	2		3	2	2	3	2	2	3	2	2	3	2	╉
		16" thru 18-15/16"	3	2	1	3	2	1	3	2	1	3	2		3	2	2	3	2	2	3	2	2	3	2	
			2	2	1	2	3	1	2	3	1	2	3		2	3	2	2	3	2	2	3	2	2	4	
		39-1/2" (Equal-Lite)				2	3	1	3	3	1	3	3		3	3	2	3	3	2	3	3	2	3	3	
		37" thru 39-7/16"	3	3			3		3	3	1	3	3	1	3	3	2	3	.3	2	3	3	2	3	3	-
		34" thru 36-15/16"	3	3		3		1		╂───	<u> </u>	3	3	1	3	3	2	3	3	2	3	3	2	3	3	+
	78"	31" thru 33-15/16" *	3	3	1	3	3	1	3	3	1	3	3	1	3	3	2	3	3	2	3 3	3	2	3	3	╀
		28" thru 30-15/16"	3	3	1	3	3	1	3	3	1	3	3		3	3	2	3	3	2	3	3	2	3	3	+
		25" thru 27-15/16"	3	3		3	3	1	3	3		·[		1	<b>I</b>	ļ	<u> </u>	ļ			3	3	2	3	3	+
		22" thru 24-15/16"	3	3		3	3	1	3	3	1	3	3		3	3	2	3	3	2		<b>_</b>		<b>↓</b>		-
		20" thru 21-15/16" IT RANGE INCLUDES 1	3	2	1	3	2	1	3	2	1	3	2	1	3	2	2	3	2	2	3	2	2	3	2	





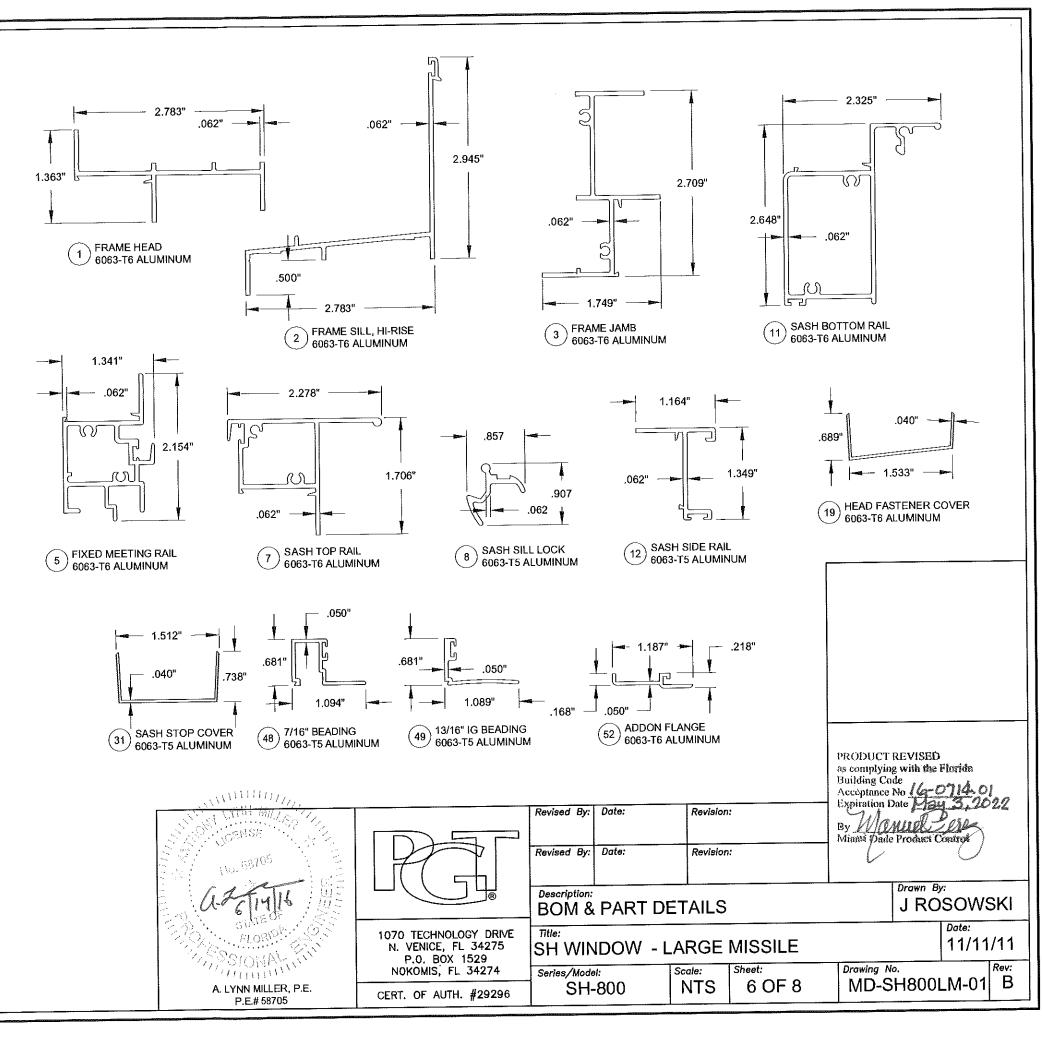


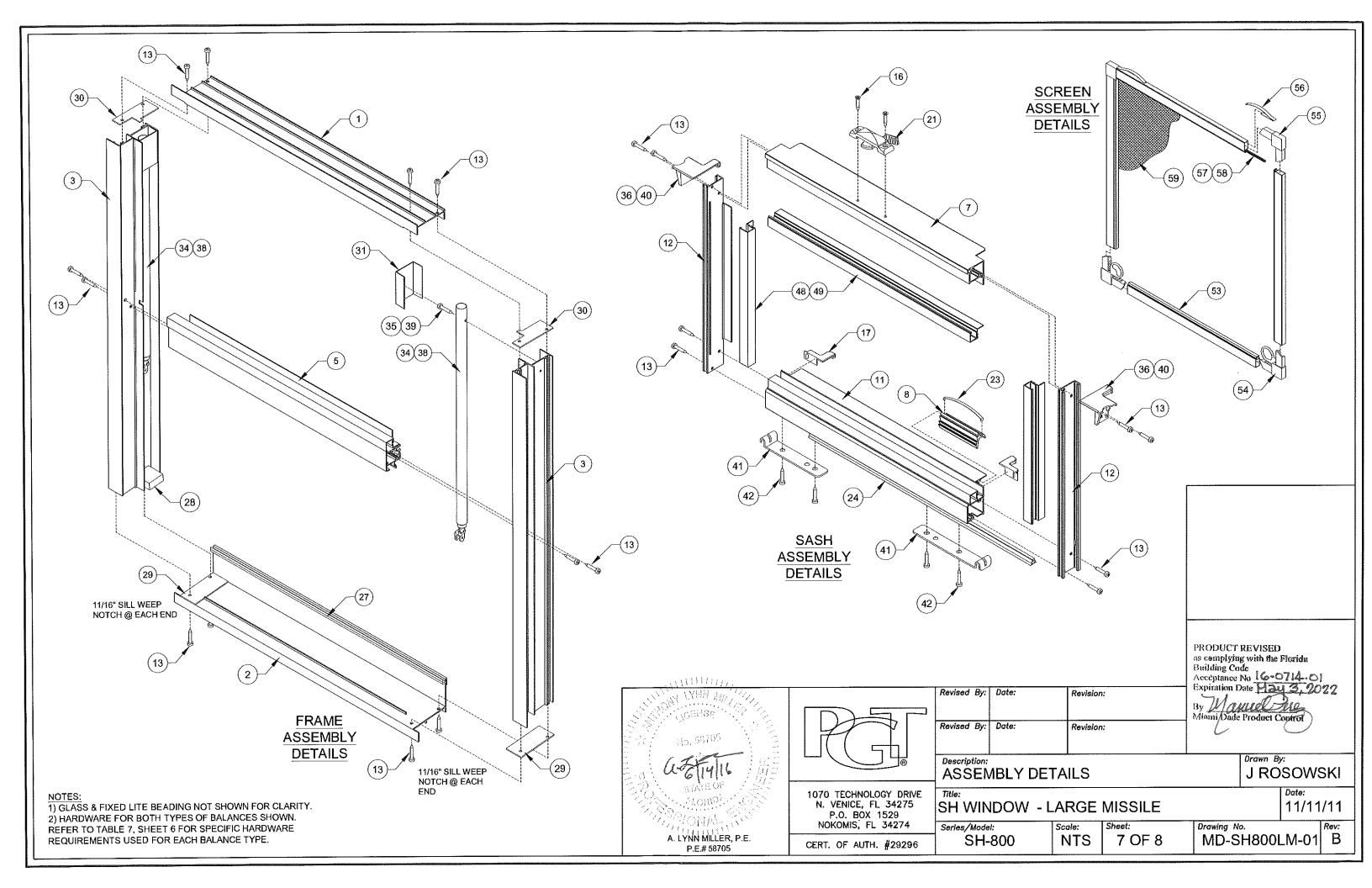
Substrate	Min. Edge Distance	Min. Embedment
Concrete (min. 2.9 ksi)	2-1/2"	1-3/8"
Concrete (min. 3.35 ksi)	2-1/2"	1-3/4"
Concrete (min. 3.5 ksi)	2-3/16"	1-3/4"
uted-filled Block, (ASTM C90)	2-1/2"	1-3/4"

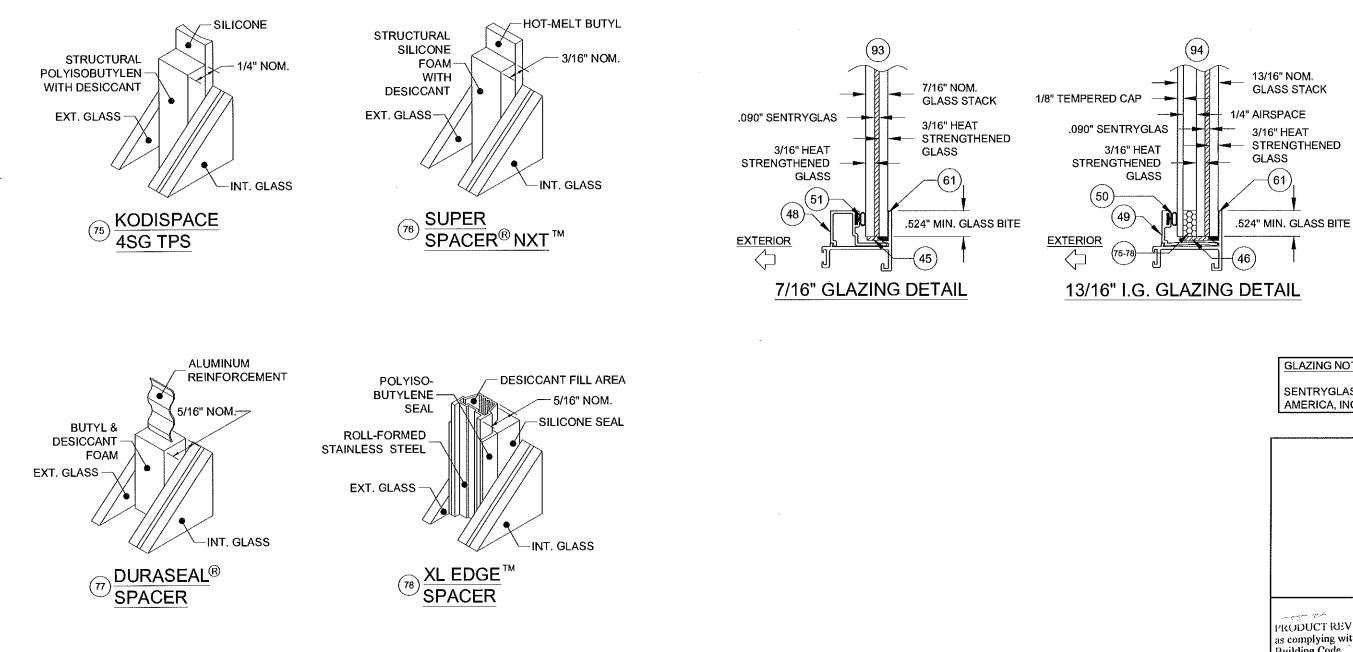
JCK DIMENSIC NDOW WIDTH	ONS, SUBTRACT 1" OR HEIGHT.			
"MEETING RAI	L"			
VERALL SASH CT 2-9/16" FRO	WIDTH, M THE WINDOW			
IZES NOT SHO NEXT AVAILABI DIMENSION SH				
HEET 2 FOR IN	STALLATION			
IBLE LIGHT FO WINDOW WIDT SASH HEIGHT SIBLE LIGHT FO WINDOW WIDT WINDOW HEIG HEIGHT - 3.33	TH - 4.875" - 4.293" ORMULAS: TH - 3.5" GHT - SASH	PRODUCT as complyin Building Co Acceptance Expiration I By Ma Miassa Pade	g with the de No 16- Date Ha WWE	Florida 714.01 3,0022 Jese Jese Jese
ite:	Revision:		STATE NGANA Salar	
ite:	Revision:	A.	// () () () /////// LYNN MIL P.E.# 58	ler, p.e.
	TIES C		Drawn By J RO	" SOWSKI
OW - LAI	RGE MISSILE			Date: 11/11/11

00 Scale: Sheet: Drawing No. NTS 5 OF 8 MD-SH800LM-01 B	OW - LARG	E MISSILE	11/11	/11
	1		_M-01	

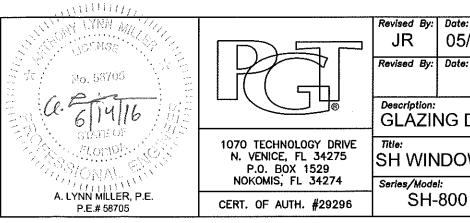
ABLE	Dwg. #	Part #	Description	Material
	4002A	612225W	Frame Head	6063-T6
1	4002A 4050D	64050DW	Frame Hi-Rise Sill	6063-T6
2 3	40500	612227W	Frame Jamb	6063-T6
	4004 4054B	64054BW	Fixed Meeting Rail	6063-T6
5		64006W	Sash Top Rail	6063-T6
7	4006D 4009	764009W	Sill Lock	6063-T5
8	4009 4051A	64051W	Sash Bottom Rail - Hi-Rise	6063-T6
11	4051A	612231W	Sash Side Rail	6063-T5
12	1155	781PQA	#8 x 1" Quad Pn. SMS	Steel or 410 SS
13	1016	7858WW	#8 x 5/8" Ph. Fl. SMS	Steel
16		44087AWR	Sash Bottom Rail End Cap	Rigid PVC
17	4087	64081W	Head Fastener Cover (Opt.)	6063-T6
19	4081	71797W	Top Sweep Latch	Cast Zinc
21	1096	74080BK	Mtg Rail Sweep Latch Plug	Rigid PVC
22	4080B	74000BK 7SPRNG	Sill Latch Spring	Spring Steel
23	1088	61226DW	Wstp., Bulb Vinyl (@ Sash Bottom Rail)	Flex PVC 70
24	1226D	67S16G	.170" x .270" Fin Seal	
25	1235		.187" x .230" Fin Seal	
26	4066	64066G	.187" x .270" Fin Seal	
27	1062	61062G 7PAD1627	Adhesive Open Cell Foam Pad	Polyethylene
28	1626		Hi-Rise Sill Gasket	Polyethylene
29		74087 74076DW	Head Gasket	Polyethylene
30	4076D		Sash Stop Cover (All Balances)	6063-T5
31	4053	64053W	Balance Cover (All Balances)	Rigid Vinyl
32	1080	6BALCVR916W	Caldwell EZ-Lift Balance	
34	┢────┤	75831KEZ	#8 x 3/4" PH PN (EZ-Lift)	Steel
35		7834AA 44085WR	Sash Cover Guide (EZ-Lift)	Vinyl
36	4085	44083VVR	Caldwell Ultra-Lift Balance (Sash > 55 lbs)	
38			#8 x 1" Ph. Fl. St. Stl. (Ultra-Lift)	410 SS
39		78X1FPAX	Sash Cover Guide (Ultra-Lift)	Vinyl
40	1086	44086WR	Sash Bracket (Ultra-Lift)	Steel
41	4029-1	7ULBRKT	#8-32 x 1/2" PH FL SS (Ultra-Lift)	410 SS
42		7832X12FPFX	Lami Setting Block 3/32" x 25/64" x 1"	Neoprene, 85 dur
45	1622	71622K	IG Setting Block 1/8" x 3/4" x 1-1/14"	Neoprene, 85 dur
46	1715	71715K	7/16" Lami Glazing Bead	6063-T5
48	4222-1A	64222AW	13/16" Lami IG Glazing Bead	6063-T5
49	4039-1A	64039BW	Bulb Bead Weatherstrip, IG	Polyethylene
50	1224	6TP247W	Bulb Bead Weatherstrip	Polyethylene
51	1225	6TP248K	Add-on Flange (Opt.)	6063-T6
52	134	66615W	Screen Frame	Aluminum
53		61014FW	Screen Frame Screen Comer Key w/Rings	Vinyl
54		47042W	Screen Corner Key w/Kings	Vinyl
55		47041W		Spring Steel
56		7320SPNG	Screen Spring Screen Spline135 Dia. Foam	Rubber
57		61624K		Rubber
58		61635K	Screen Spline135 Dia. Hard	Fiberglass
59		61816C34	Screen Cloth	
61		Dow Coming 899	Silicone Glazing Sealant or Equiv.	
93		3/16" HS090" \$	SentryGlas Interlayer - 3/16" HS	
94		4/9" T 1/4" Air -	3/16" HS090" SentryGlas Interlayer - 3/16	" HS







Part #	Description	Material
75	Kommerling 4SG TPS Spacer System	
76	Quanex Super Spacer nXT with Hot Melt Butyl	See this Sheet for
77	Quanex Duraseal Spacer	Materials
78	Cardinal XL Edge Spacer	
	Cardinal XL Edge Spacer	



			GLAZING SENTRYC AMERICA	
9;	Revision		I Dutiking Co.	with the Florida de No 16 - 0714-01
5/15/16		DDED SHEET 8	By <u>M24</u> Miami Dade	High THE Product Control
9:	Revision	:	harman	$\mathcal{O}$
DETA	ILS			<sup>Drawn By:</sup> J ROSOWSKI
DW - L	ARGE	MISSILE		Date: 11/11/11
)	<sup>Scale:</sup> NTS	<sup>Sheet:</sup> 8 OF 8	Drawing N MD-S	•. H800LM-01 B



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

PGT Industries, Inc. 1070 Technology Drive North Venice, FL 34275

#### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami–Dade County Product Control Section (In Miami–Dade County) and/or the AHJ (in areas other than Miami–Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.-

#### DESCRIPTION: Series "PW-701/720/820" Aluminum Fixed Window - L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **MD-720-820.1**, titled "Fixed Window Installation Guidelines", sheets 1 through 11 of 11, dated 04/12/13, with revision B dated 05/05/16, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

#### **MISSILE IMPACT RATING: 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# 15-0528.26 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.



7/29/16

NOA No. 16-0629.14 Expiration Date: February 19, 2019 Approval Date: August 04, 2016 Page 1

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under NOA No. 03-1105.01)
- 2. Drawing No. **MD-720-820.1**, titled "Fixed Window Installation Guidelines", sheets 1 through 11 of 11, dated 04/12/13, with revision B dated 05/05/16, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

#### B. TESTS

- 1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a PVC sliding glass door, a PVC fixed window and an aluminum sliding glass door, using: Kodispace 4SG TPS spacer system, Duraseal<sup>®</sup> spacer system, Super Spacer<sup>®</sup> NXT<sup>™</sup> spacer system and XL Edge<sup>™</sup> spacer system at insulated glass, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. FTL-8717, FTL-8968 and FTL-8970, dated 11/16/15, 06/07/16 and 06/02/16 respectively, all signed and sealed by Idalmis Ortega, P.E.

- 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, and TAS 202-94

along with marked-up drawings and installation diagram of an aluminum fixed window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7212**, dated 03/21/13, signed and sealed by Marlin D. Brinson, P.E. *(Submitted under NOA No. 13-0502.03)* 

- **3.** 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 an aluminum fixed window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-3835** and **FTL-3850**, dated 07/18/03 and 07/31/03 respectively, all signed and sealed by Joseph C. Chan, P.E.

(Submitted under NOA No. 03-1105.01)

Wannel Manuel Perez, P.E.

Product Control Examiner NOA No. 16-0629.14 Expiration Date: February 19, 2019 Approval Date: August 04, 2016

#### C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC-5<sup>th</sup> Edition (2014)**, dated 05/20/15, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

(Submitted under previous NOA No. 15-0528.26)

2. Glazing complies with ASTM E1300-09

#### D. QUALITY ASSURANCE

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

#### E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 14-0916.10 issued to Kuraray America, Inc. for their "Kuraray Butacite® PVB Glass Interlayer" dated 04/25/15, expiring on 12/11/16.
- 2. Notice of Acceptance No. 14-0916.11 issued to Kuraray America, Inc. for their "Kuraray SentryGlas® (Clear and White) Glass Interlayers" dated 06/25/15, expiring on 07/04/18.
- **3.** TREMCO Part No. **TR-14271E** EPDM exterior glazing gasket complying with the following:
  - a) ASTM C864 Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers with Option II exceptions.
  - b) ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension of 1600 PSI.
  - c) ASTM D395B Test Methods for Rubber Property—Compression Set for 22 HRS 158°F.
  - d) ASTM D 624 Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers of 143 lb/ in.

Mane Manuel Perez, P.E.

Manuel Perez, H.E. Product Control Examiner NOA No. 16-0629.14 Expiration Date: February 19, 2019 Approval Date: August 04, 2016

#### F. STATEMENTS

- Statement letter of conformance, complying with FBC-5<sup>th</sup> Edition (2014), dated May 20, 2015, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. (Submitted under previous NOA No. 15-0528.26)
- Statement letter of no financial interest, dated May 20, 2015, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. (Submitted under previous NOA No. 15-0528.26)
- 3. Laboratory compliance letter for Test Report No. FTL-7212, dated 03/21/13, signed and sealed by Marlin D. Brinson, P.E. (Submitted under previous NOA No. 13-0502.03)
- 4. Laboratory compliance letter for Test Reports No. FTL-3835 and FTL-3850, dated 07/18/03 and 07/31/03 respectively, all signed and sealed by Joseph C. Chan, P.E. (Submitted under NOA No. 03-1105.01)
- 5. Proposal No. 16-0125 issued by the Product Control Section, dated March 09, 2016, signed by Ishaq Chanda, P.E.

#### G. OTHERS

1. Notice of Acceptance No. 15-0528.26, issued to PGT Industries for their Series "PW-701/720/820" Aluminum Fixed Window – L.M.I." approved on 07/09/15 and expiring on 02/19/19.

Manuel Manuel Pere

Product Control Examiner NOA No. 16-0629.14 Expiration Date: February 19, 2019 Approval Date: August 04, 2016

#### GENERAL NOTES: SERIES 720/820 IMPACT-RESISTANT FIXED WINDOW

1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

2) SHUTTERS <u>ARE NOT</u> REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS. FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST TEMPERED.

3) FOR MASONRY APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED MASONRY ANCHORS. MATERIALS USED FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASTM C90 CONCRETE MASONRY UNITS AND CONCRETE WITH MIN. KSI PER ANCHOR TYPE.

4) ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER, (EOR) OR ARCHITECT OF RECORD, (AOR).

5) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT EMBEDMENT. NARROW JOINT SEALANT IS USED ON ALL FOUR CORNERS OF THE FRAME. INSTALLATION ANCHORS SHOULD BE SEALED. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

6) MAX. 1/4" SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. WOOD BUCKS, BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE WINDOW.

#### 7) DESIGN PRESSURES:

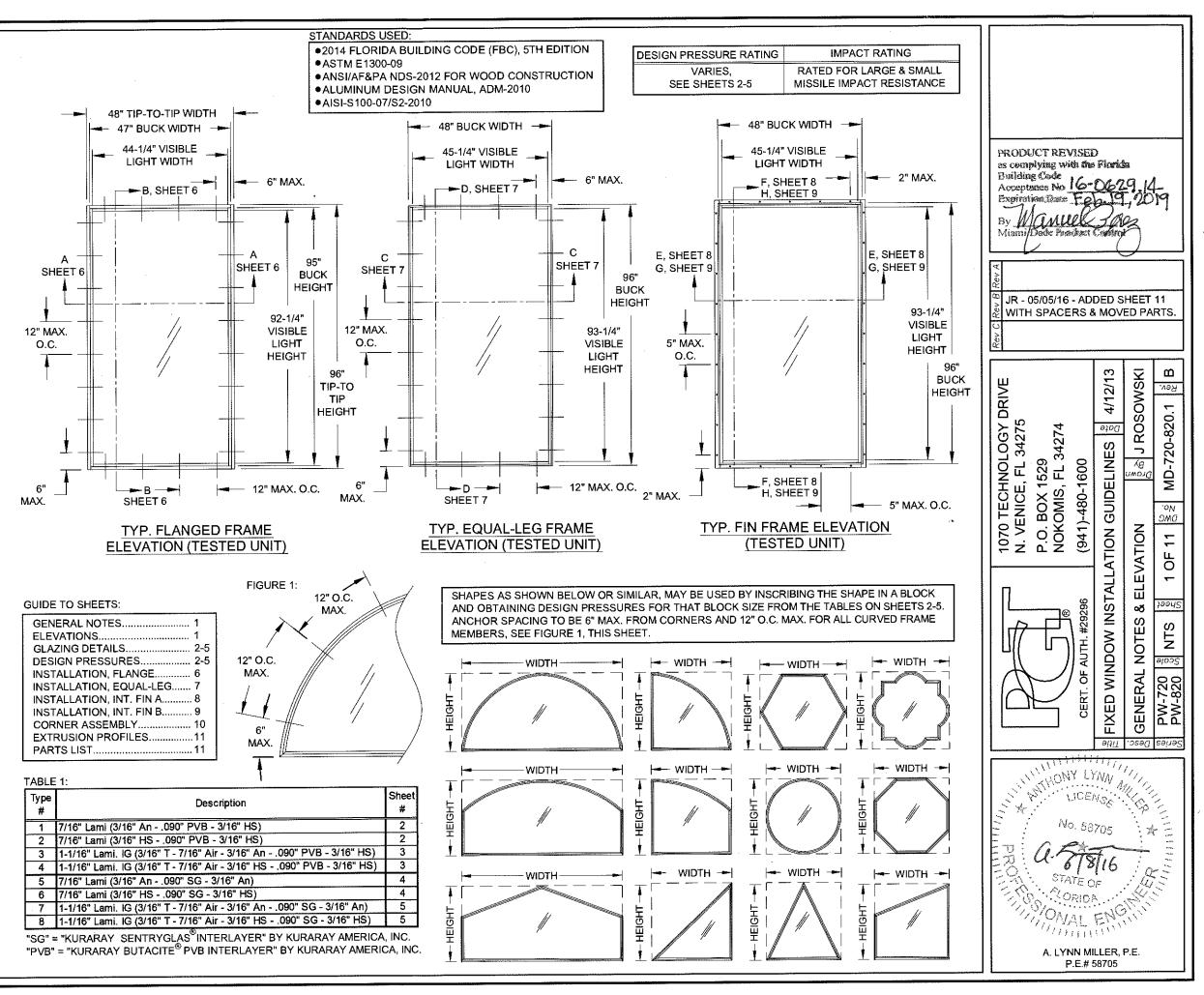
A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL/CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.

B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL/ CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.

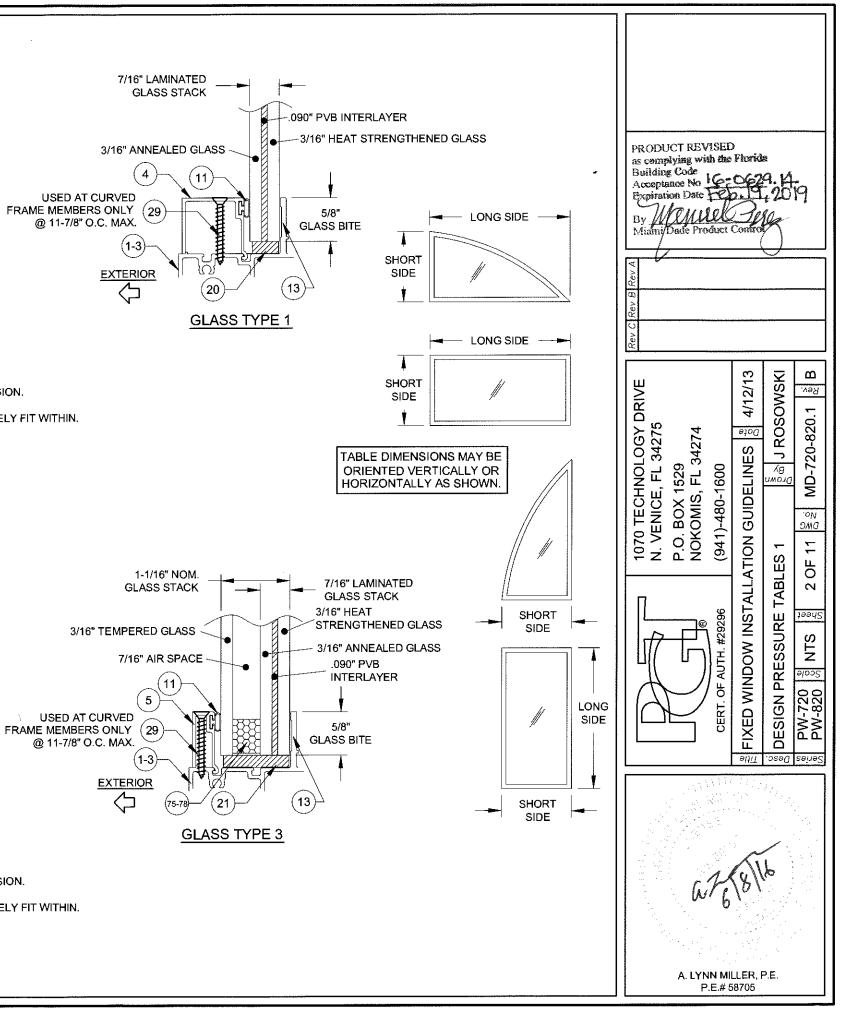
8) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.

9) REFERENCES: TEST REPORTS FTL-3835, 3850 & 7212; ELCO ULTRACON NOA; ELCO CRETEFLEX NOA; ANSI/AF&PA NDS FOR WOOD CONSTRUCTION AND ALUMINUM DESIGN MANUAL.

10) THE 720 SERIES USES A PVB INTERLAYER, THE 820 SERIES USES AN SG INTERLAYER. THE 720 AND 820 SERIES MAY ALSO BE REFERRED AS THE 701 SERIES.



	3LE 2:											
				١	Nindow D	esign Pres	sure (+/-,	psf) for Gla	ass Type '	1		
							ong Side (in	)				
		67-7/8	72	76	80	84	88	92	96	100	104	109-1/2
	30	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
	32	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
	34	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-79.8	+/-79.4
	36	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-79.7	+/-77.2	+/-75.1	+/-73.4	+/-72.2
	38	+/-80	+/-80	+/-80	+/-80	+/-80	+/-78.1	+/-75.2	+/-72.5	+/-70.3	+/-68.5	+/-66.3
	40	+/-80	+/-80	+/-80	+/-79.8	+/-77.2	+/-74.3	+/-71.3	+/-67.9	+/-65.1	+/-63.4	+/-61.6
	42	+/-80	+/-80	+/-80	+/-77.4	+/-74.3	+/-71.3	+/-68.2	+/-64.7	+/-61.6	+/-59.8	+/-58.2
-	44	+/-80	+/-80	+/-78.9	+/-75.4	+/-72.1	+/-68.9	+/-65.6	+/-62.2	+/-59.7	+/-57.5	
(L)	46	+/-80	+/-80	+/-77.2	+/-73.6	+/-70.1	+/-66.8	+/-63.5	+/-60.3	+/-57.7		
Side	48	+/-80	+/-79.3	+/-75.6	+/-71.9	+/-68.3	+/-64.9	+/-61.5	+/-58.2			
0 t	50	+/-80	+/-77.5	+/-74.1	+/-70.3	+/-66.7	+/-63.1	+/-59.7				
Short	52	+/-79.1	+/-75.6	+/-72.4	+/-68.8	+/-65.1	+/-61.5					
S S	54	+/-77.4	+/-73.8	+/-70.5	+/-67.3	+/-63.5						
	56	+/-75.8	+/-72	+/-68.6	+/-65.3							
	58	+/-74.2	+/-70.3	+/-66.8								
	60	+/-72.7	+/-68.7	+/-65								
	62	+/-71.2	+/-67.1									
	64	+/-69.7	+/-65.5									
	66	+/-68.3		1								
	67-7/8	+/-67		-						-		



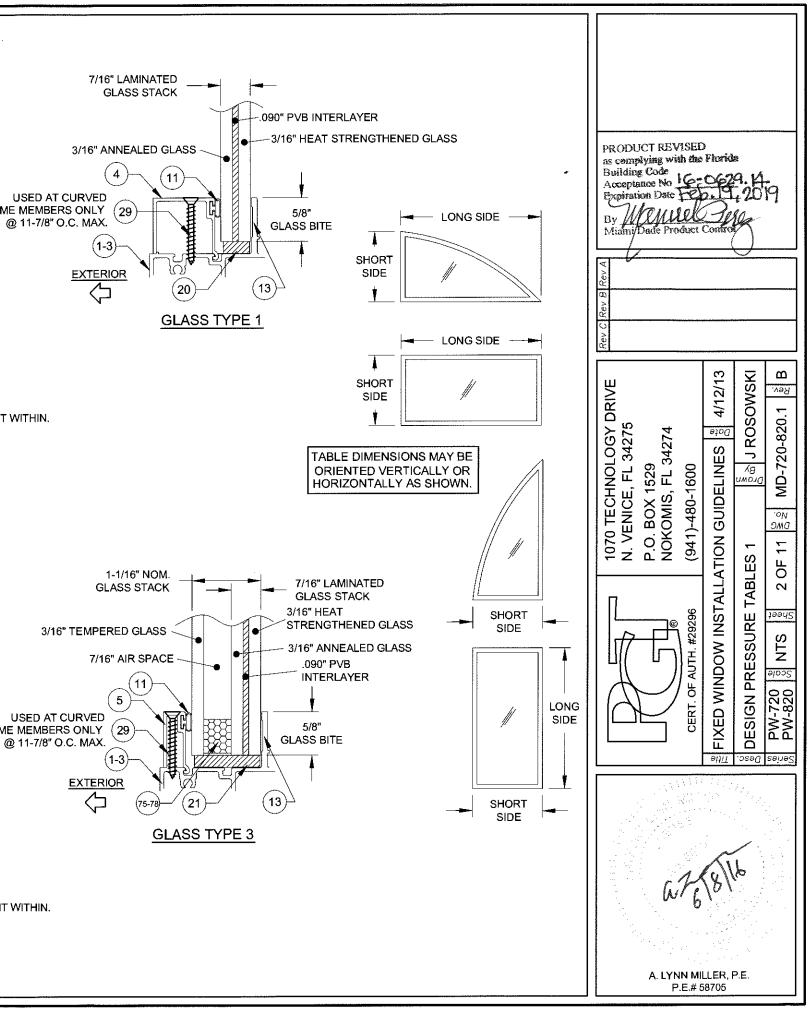
TADIE 2

1) BUCK DIMENSIONS SHOWN. FOR FLANGED WINDOWS, SUBTRACT 1" FROM THE TIP-TO-TIP DIMENSION TO DETERMINE THE BUCK DIMENSION.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SHORT OR LONG DIMENSION. 3) FOR ARCHITECTURAL WINDOWS, FIND THE SMALLEST WINDOW SIZE IN THE TABLE ABOVE WHICH THE OVERALL DIMENSIONS COMPLETELY FIT WITHIN.

TABLE 3:

						Long Side (in	)			- <sup>(1)</sup>	
	67-7/8	72	76	80	84	88	92	96	100	104	109-1/2
30	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
32	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
34	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
36	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
38	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-79.4	+/-76.4	+/-74.3
40	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-76.7	+/-73.5	+/-70.9	+/-69
42	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-77	+/-73.1	+/-69.6	+/-66.9	+/-65.2
_ 44	+/-80	+/-80	+/-80	+/-80	+/-80	+/-77.8	+/-74.1	+/-70.3	+/-67.5	+/-63.9	
£ 46	+/-80	+/-80	+/-80	+/-80	+/-79.2	+/-75.4	+/-71.7	+/-68.1	+/-65.1		
9 48 0 50	+/-80	+/-80	+/-80	+/-80	+/-77.2	+/-73.3	+/-69.5	+/-65.8			
<u>0</u> 50	+/-80	+/-80	+/-80	+/-79.4	+/-75.3	+/-71.3	+/-67.5				
10 52 54	+/-80	+/-80	+/-80	+/-77.7	+/-73.5	+/-69.5					
の 54	+/-80	+/-80	+/-79.6	+/-76	+/-71.8						
56	+/-80	+/-80	+/-77.5	+/-73.8							
58	+/-80	+/-79.4	+/-75_4								
60	+/-80	+/-77.6	+/-73.5								
62	+/-80	+/-75.8									
64	+/-78.8	+/-74									
66	+/-77.2										
67-7/8	+/-74.9										



#### NOTES

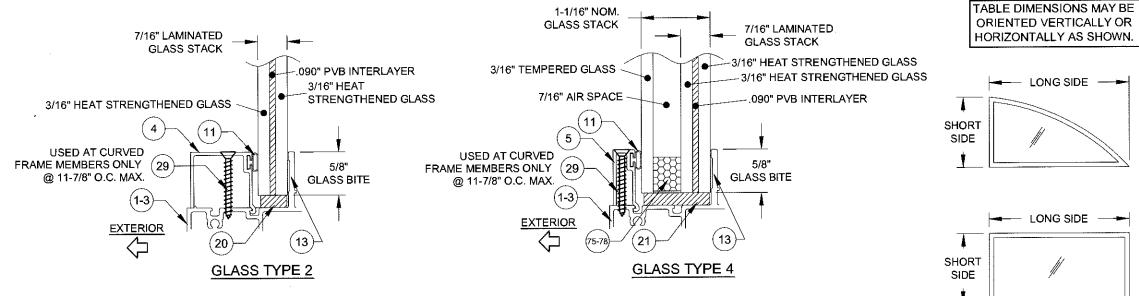
1) BUCK DIMENSIONS SHOWN. FOR FLANGED WINDOWS, SUBTRACT 1" FROM THE TIP-TO-TIP DIMENSION TO DETERMINE THE BUCK DIMENSION.

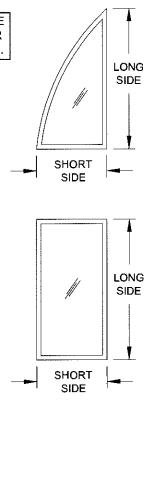
2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SHORT OR LONG DIMENSION.
 3) FOR ARCHITECTURAL WINDOWS, FIND THE SMALLEST WINDOW SIZE IN THE TABLE ABOVE WHICH THE OVERALL DIMENSIONS COMPLETELY FIT WITHIN.

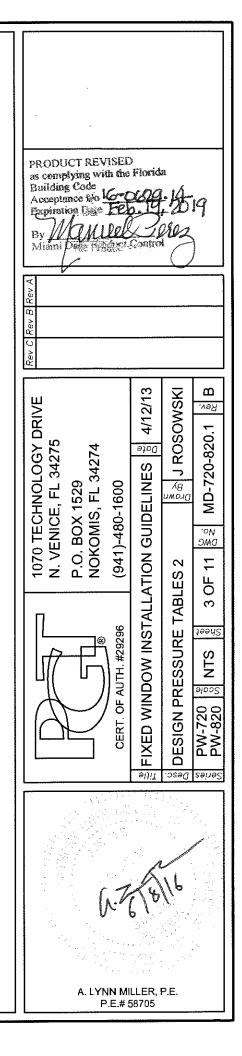
ТАВ	LE 4:																<u> </u>				
									Window	Design P	ressure (+	/-, psf) for	Glass Typ	es 2 & 4							
											Long S	ide (in)									
		67-7/8	72	76	80	84	88	92	96	100	104	109-1/2	112	116	120	124	128	132	136	140	144
	30	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80
	32	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	<u> </u>
	34	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80			<b></b> _
1	36	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80				<u> </u>
	38	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	····					
	40	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80								
[	42	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80			-						
	44	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80										·········
Ē	46	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80									1		<u> </u> '
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u t t	50	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80	+/-80													'
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S	54	+/-80	+/-80	+/-80	+/-80	+/-78.6			1												
	56	+/-80	+/-80	+/-80	+/-79_1																
	58	+/-80	+/-80	+/-80																	<u> </u>
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	62	+/-80	+/-80							ļ	ļ										<u> </u>
	64	+/-80	+/-80							1											<b>_</b>
	66	+/-80																		1	<u> </u>
	67-7/8	+/-80																		l	L

1) BUCK DIMENSIONS SHOWN. FOR FLANGED WINDOWS, SUBTRACT 1" FROM THE TIP-TO-TIP DIMENSION TO DETERMINE THE BUCK DIMENSION. 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SHORT OR LONG DIMENSION.

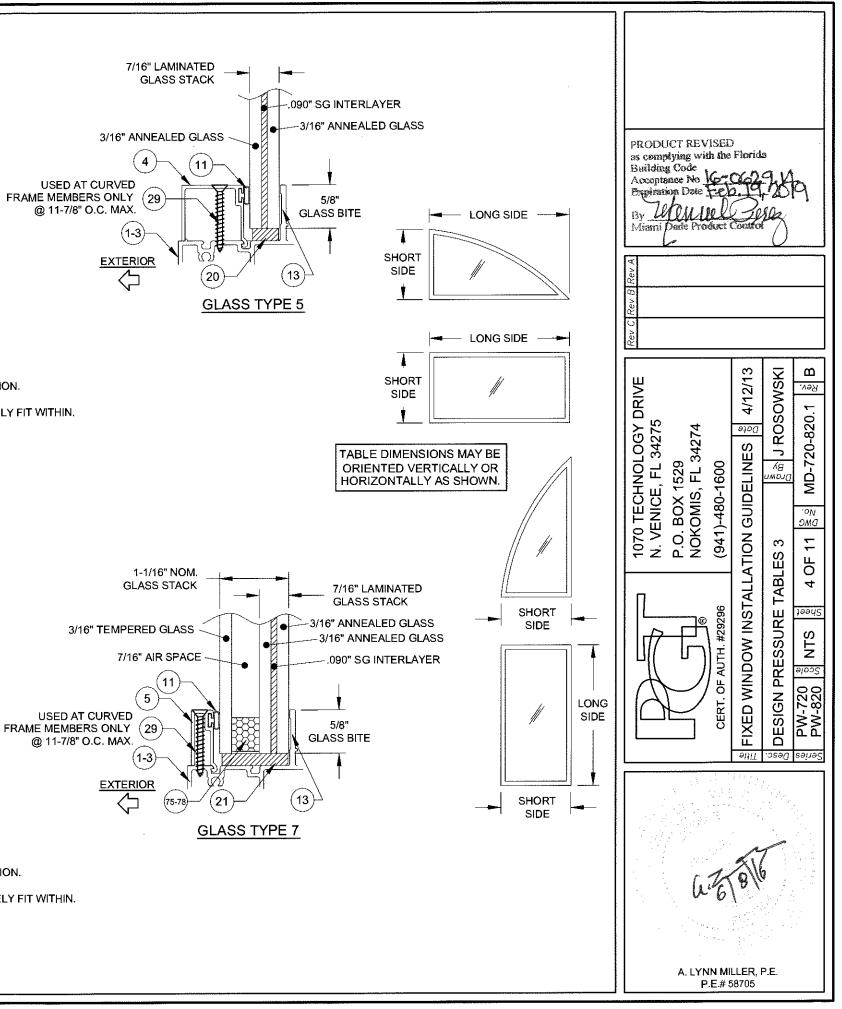
3) FOR ARCHITECTURAL WINDOWS, FIND THE SMALLEST WINDOW SIZE IN THE TABLE ABOVE WHICH THE OVERALL DIMENSIONS COMPLETELY FIT WITHIN.







				۱	Nindow D	esign Pres	sure (+/-,	psf) for Gl	ass Type :	5		
							Long Side (in	)				
		67-7/8	72	76	80	84	88	92	96	100	104	109-1/2
	30	+90/-125.4	+90/-120	+90/-115.5	+90/-111.5	+90/-108.5	+90/-106	+90/-104.5	+90/-103.5	+90/-102.5	+90/-100.7	+90/-97.
	32	+90/-116.9	+90/-110.8	+90/-105.3	+90/-101.6	+90/-98.7	+90/-95.7	+90/-92.3	+90/-90.6	+90/-90.3	+/-89.9	+/-89
	34	+90/-108.9	+90/-103	+90/-98.8	+90/-95.1	+90/-91.8	+/-88.2	+/-84.4	+/-81.5	+/-80.1	+/-79.8	+/-79.4
	36	+90/-102.6	+90/-97.1	+90/-92.8	+/-88.9	+/-85.5	+/-82.6	+/-79.7	+/-77.2	+/-75_1	+/-73.4	+/-72.2
	38	+90/-98.4	+90/-92.2	+/-86.7	+/-83.2	+/-80.7	+/-78.1	+/-75.2	+/-72.5	+/-70.3	+/-68.5	+/-66.3
	40	+90/-94.6	+/-88.2	+/-82.6	+/-79.8	+/-77.2	+/-74.3	+/-71.3	+/-67.9	+/-65.1	+/-63.4	+/-61.6
	42	+90/-91.3	+/-84.7	+/-80.7	+/-77.4	+/-74.3	+/-71.3	+/-68.2	+/-64.7	+/-61.6	+/-59.8	+/-58.2
	44	+/-88.3	+/-82.4	+/-78.9	+/-75_4	+/-72.1	+/-68.9	+/-65.6	+/-62.2	+/-59.7	+/-57.5	
Ē	46	+/-85.4	+/-80.8	+/-77.2	+/-73.6	+/-70.1	+/-66.8	+/-63.5	+/-60.3	+/-57.7		
Side	48	+/-82.7	+/-79.3	+/-75.6	+/-71.9	+/-68.3	+/-64.9	+/-61.5	+/-58.2			
S	50	+/-80.9	+/-77.5	+/-74.1	+/-70.3	+/-66.7	+/-63.1	+/-59.7				
Short	52	+/-79.1	+/-75.6	+/-72.4	+/-68.8	+/-65.1	+/-61.5					
<u>ω</u>	54	+/-77.4	+/-73.8	+/-70.5	+/-67.3	+/-63.5						
	56	+/-75.8	+/-72	+/-68.6	+/-65.3							
	58	+/-74.2	+/-70.3	+/-66.8								
	60	+/-72.7	+/-68.7	+/-65		· · · ·						
	62	+/-71.2	+/-67.1			1						
	64	+/-69.7	+/-65.5									
	66	+/-68.3										
	67-7/8	+/-67										

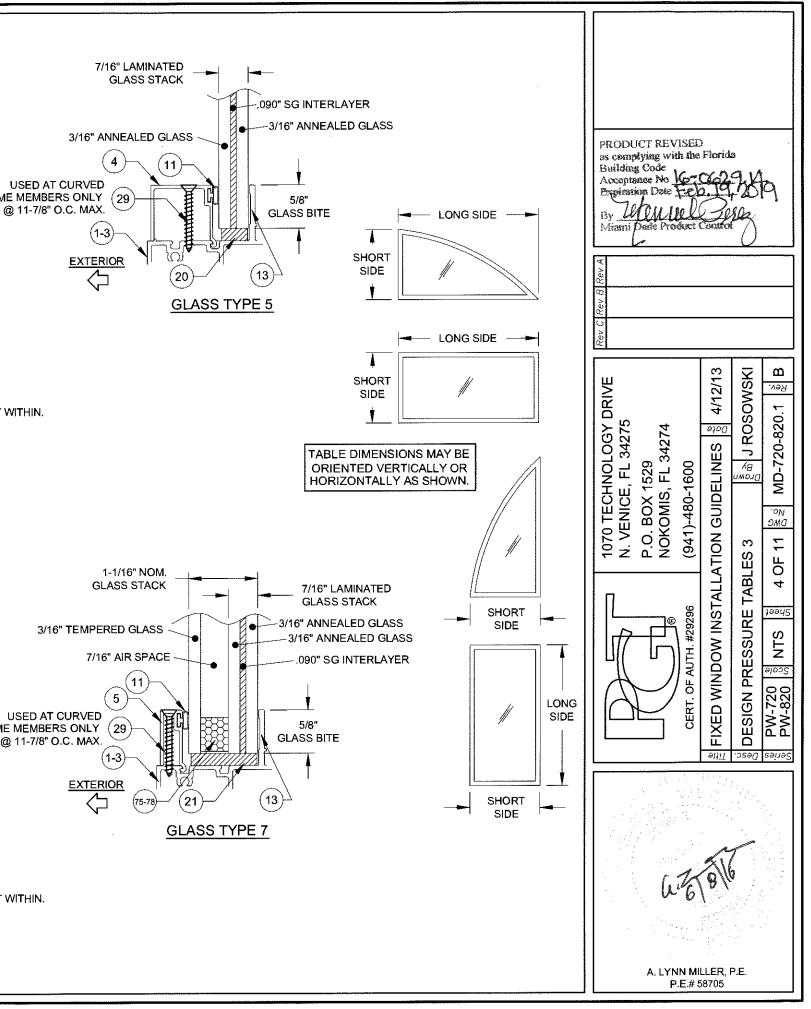


1) BUCK DIMENSIONS SHOWN. FOR FLANGED WINDOWS, SUBTRACT 1" FROM THE TIP-TO-TIP DIMENSION TO DETERMINE THE BUCK DIMENSION. 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SHORT OR LONG DIMENSION. 3) FOR ARCHITECTURAL WINDOWS, FIND THE SMALLEST WINDOW SIZE IN THE TABLE ABOVE WHICH THE OVERALL DIMENSIONS COMPLETELY FIT WITHIN.

4) THIS SHEET APPLIES ONLY TO FLANGE AND EQUAL-LEG WINDOWS. DO NOT USE WITH FIN-FRAMED WINDOWS.

TABLE 6:

				١	Nindow D	esign Pres	ssure (+/-,	psf) for Gl	ass Type 7			
							Long Side (in	)				
		67-7/8	72	76	80	84	88	92	96	100	104	109-1/2
	30	+90/-130	+90/-130	+90/-130	+90/-126	+90/-122.6	+90/-119.8	+90/-118.1	+90/-117	+90/-115.8	+90/-112.7	+90/-109.
	32	+90/-130	+90/-125.1	+90/-118.9	+90/-114.8	+90/-111.5	+90/-108.1	+90/-104.3	+90/-102.4	+90/-102	+90/-101.4	+90/-99.7
	34	+90/-123.1	+90/-116.4	+90/-111.7	+90/-107.5	+90/-103.8	+90/-99.7	+90/-95.3	+90/-92.1	+90/-90.5	+/-90	+/-89.6
	36	+90/-116	+90/-109.8	+90/-104.8	+90/-100.5	+90/-96.6	+90/-93.3	+/-90	+/-87.3	+/-84.9	+/-82.3	+/-81.2
	38	+90/-111.2	+90/-104.2	+90/-97.9	+90/-94	+90/-91.1	+/-88.2	+/-84.9	+/-81.9	+/-79.4	+/-76.4	+/-74.3
	40	+90/-106.9	+90/-99.6	+90/-93.4	+90/-90.1	+/-87.2	+/-84	+/-80.5	+/-76.7	+/-73.5	+/-70.9	+/-69
	42	+90/-103.2	+90/-95.7	+90/-91.2	+/-87.4	+/-84	+/-80.6	+/-77	+/-73.1	+/-69.6	+/-66.9	+/-65.2
_	44	+90/-99.7	+90/-93.1	+/-89.1	+/-85.2	+/-81.4	+/-77.8	+/-74.1	+/-70.3	+/-67.5	+/-63.9	
Ē	46	+90/-96.5	+90/-91.3	+/-87.2	+/-83.2	+/-79.2	+/-75.4	+/-71.7	+/-68.1	+/-65.1		
Side	48	+90/-93.5	+/-89.6	+/-85.4	+/-81.2	+1-77.2	+/-73.3	+/-69.5	+/-65.8			
Ω t	50	+90/-91.4	+/-87.6	+/-83.7	+/-79.4	+/-75.3	+/-71.3	+/-67.5				
Short	52	+/-89.4	+/-85.5	+/-81.8	+/-77.7	+/-73.5	+/-69.5					
ល	54	+/-87.5	+/-83.4	+/-79.6	+/-76	+/-71.8						
	56	+/-85.6	+/-81.4	+/-77.5	+/-73.8							
	58	+/-83.8	+/-79.4	+/-75.4								
	60	+/-82.1	+/-77.6	+/ 73.5								
	62	+/-80.4	+/-75.8									
	64	+/-78.8	+/-74									
	66	+/-77.2										
	67-7/8	+/-74.9										



1) BUCK DIMENSIONS SHOWN. FOR FLANGED WINDOWS, SUBTRACT 1" FROM THE TIP-TO-TIP DIMENSION TO DETERMINE THE BUCK DIMENSION.

2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE SHORT OR LONG DIMENSION.

3) FOR ARCHITECTURAL WINDOWS, FIND THE SMALLEST WINDOW SIZE IN THE TABLE ABOVE WHICH THE OVERALL DIMENSIONS COMPLETELY FIT WITHIN.

4) THIS SHEET APPLIES ONLY TO FLANGE AND EQUAL-LEG WINDOWS. DO NOT USE WITH FIN-FRAMED WINDOWS.

NOTES:

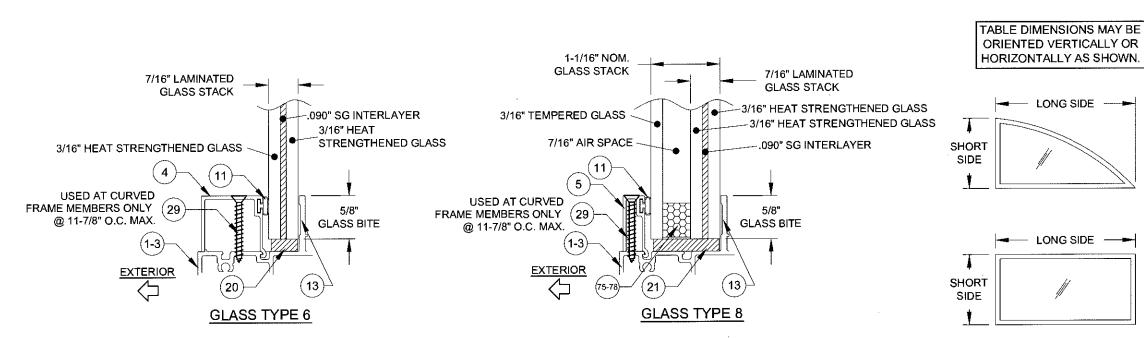
	DLE /.																				
1									Window	Design P	ressure (+	/-, psf) for (	Glass Typ	es 6 & 8							
											Long S	ide (in)									
		67-7/8	72	76	80	84	88	92	96	100	104	109-1/2	112	116	120	124	128	132	136	140	144
	30	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130
	32	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	
	34	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130			<u> </u>
1	36	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130				
ľ	38	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-129.2	+90/-127.3					ļ	L
	40	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-126.8	+90/-123.2	+90/-122							L	L
	42	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-129.3	+90/-123.2		+90/-116.4			<i></i>						
	44	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130		+90/-124.5												<u> </u>
	46	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130		+90/-120.5											ļ	
19 19	48	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-129.7	+90/-123	+90/-116.5												<b></b>
ι Ω	50	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+90/-126.2	+89_4/-119.5			· ·										1
<u>ا</u> کے ا	52	+90/-130	+90/-130	+90/-130	+90/-130	+90/-130	+88.8/-123													ļ	4
<b>ω</b>	54	+90/-130	+90/-130	+90/-130	+90/-130	+88.8/-127.1														<b></b>	
	56	+90/-130	+90/-130	+90/-130	+89.4/-129											<u>~</u>				<b></b>	· .
[	58	+90/-130	+90/-130	+90/-130																<u> </u>	───
	60	+90/-130		+89.6/-129.3																<u> </u>	───
	62	+90/-130	+90/-130					· · · · · · · · · · · · · · · · · · ·			<u> </u>									<u> </u>	
	64	+90/-130	+90/-130								ļ									l	<u> </u>
	66	+90/-130									L									<u> </u>	<u></u>
1	67-7/8	+90/-130																			

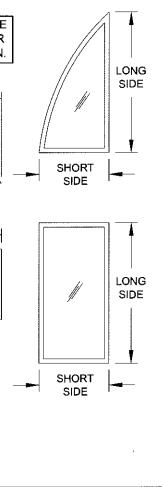
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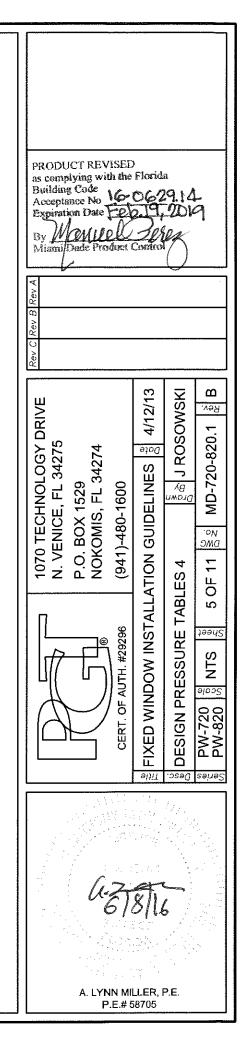
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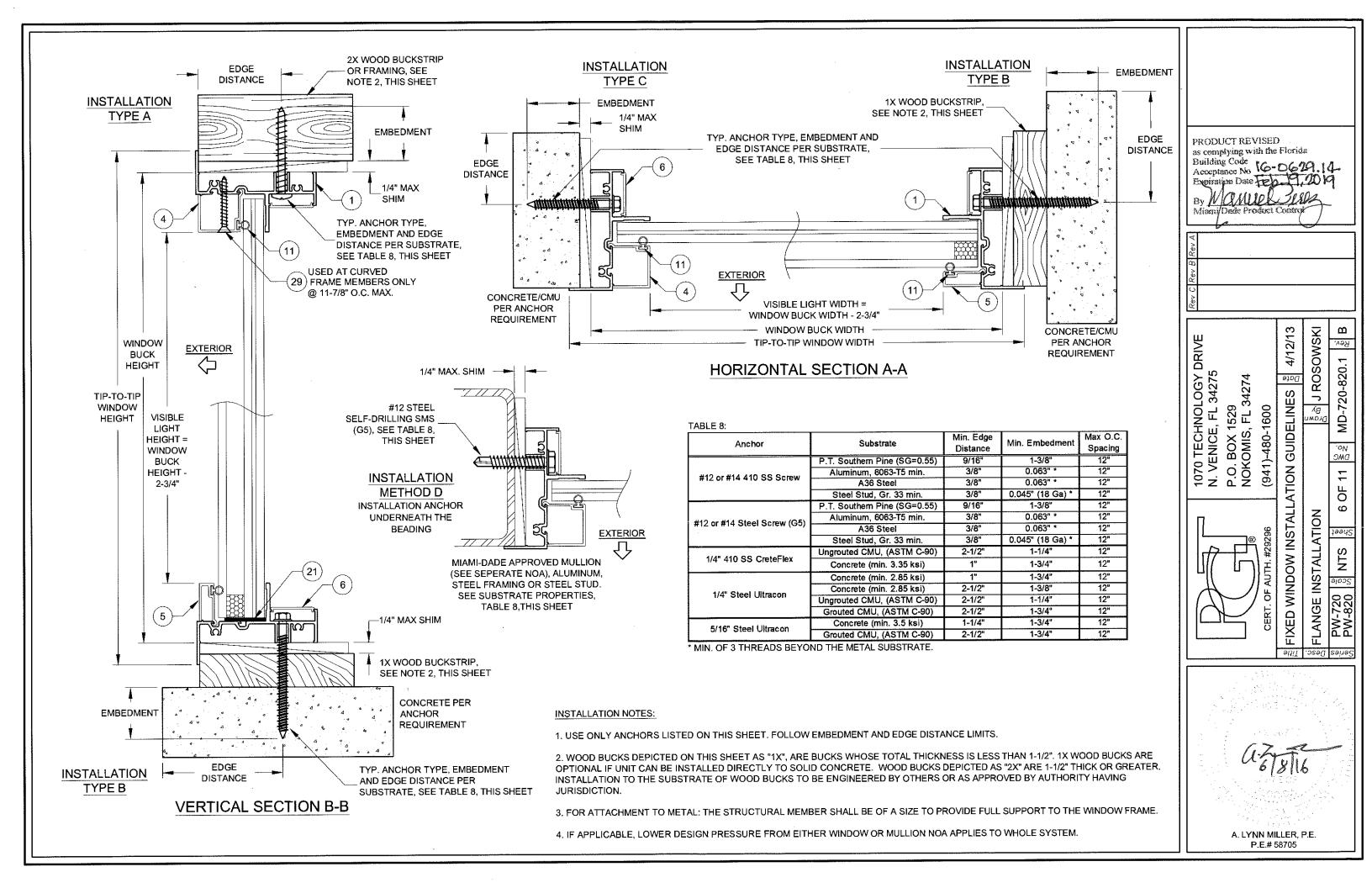
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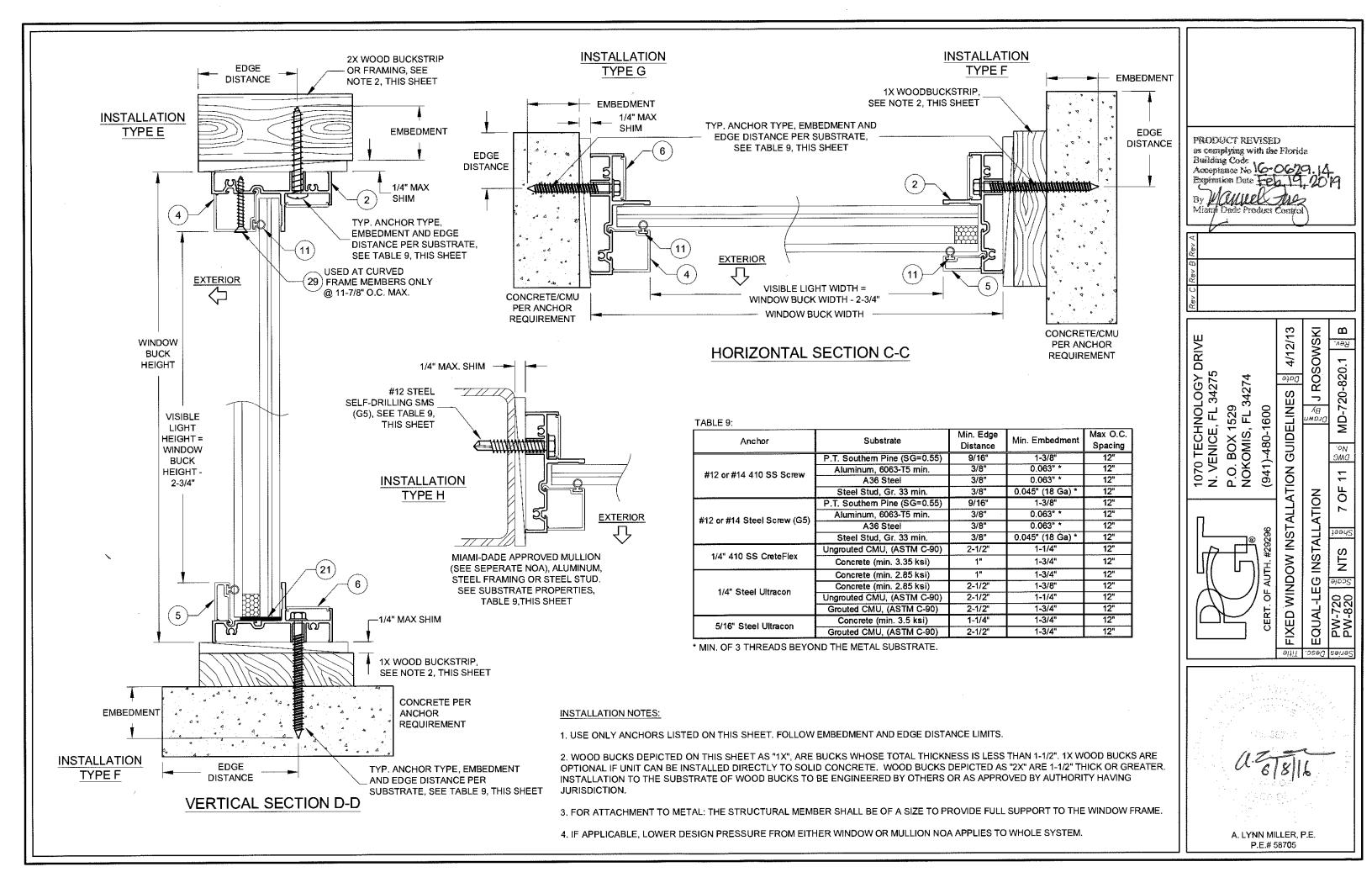
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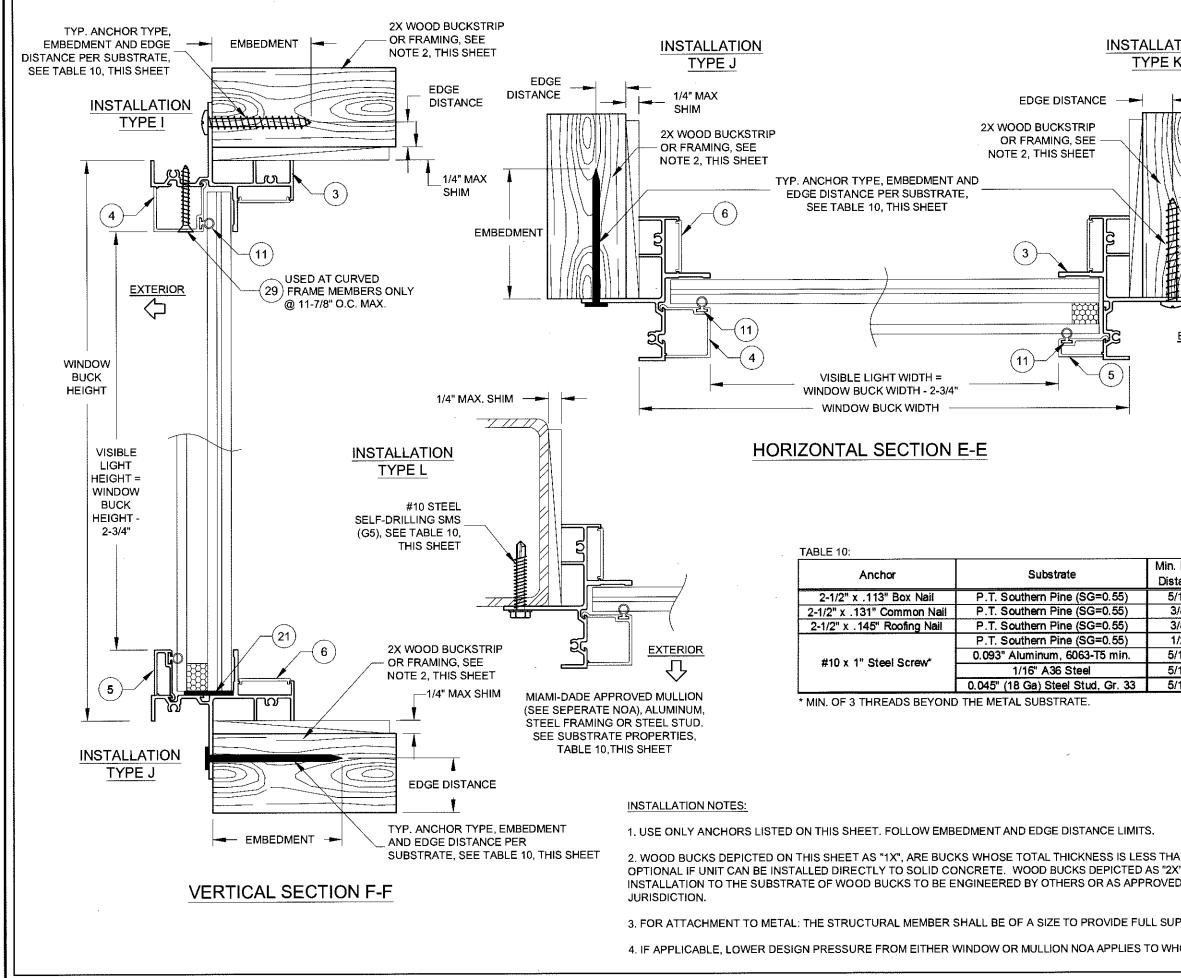






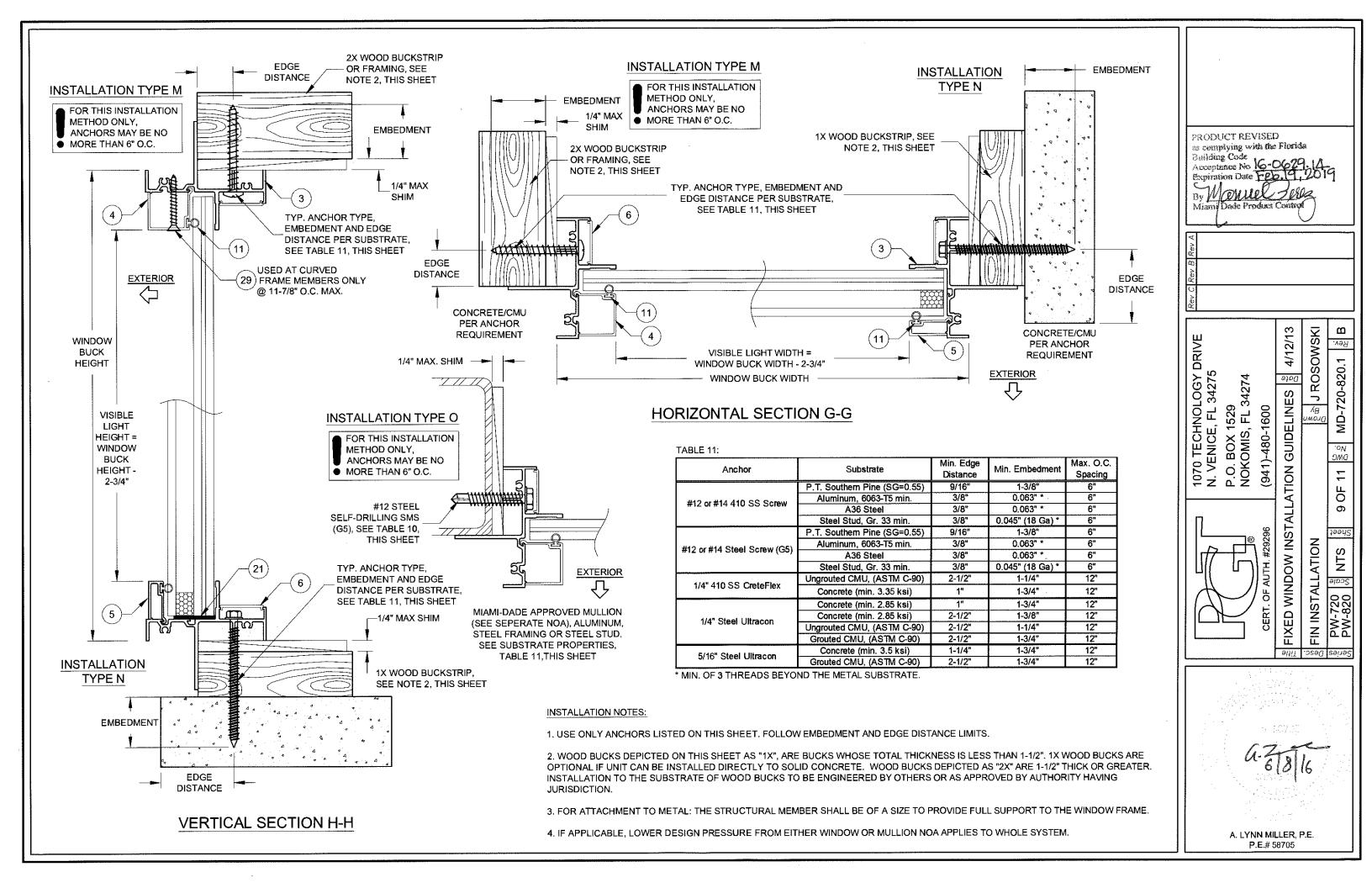


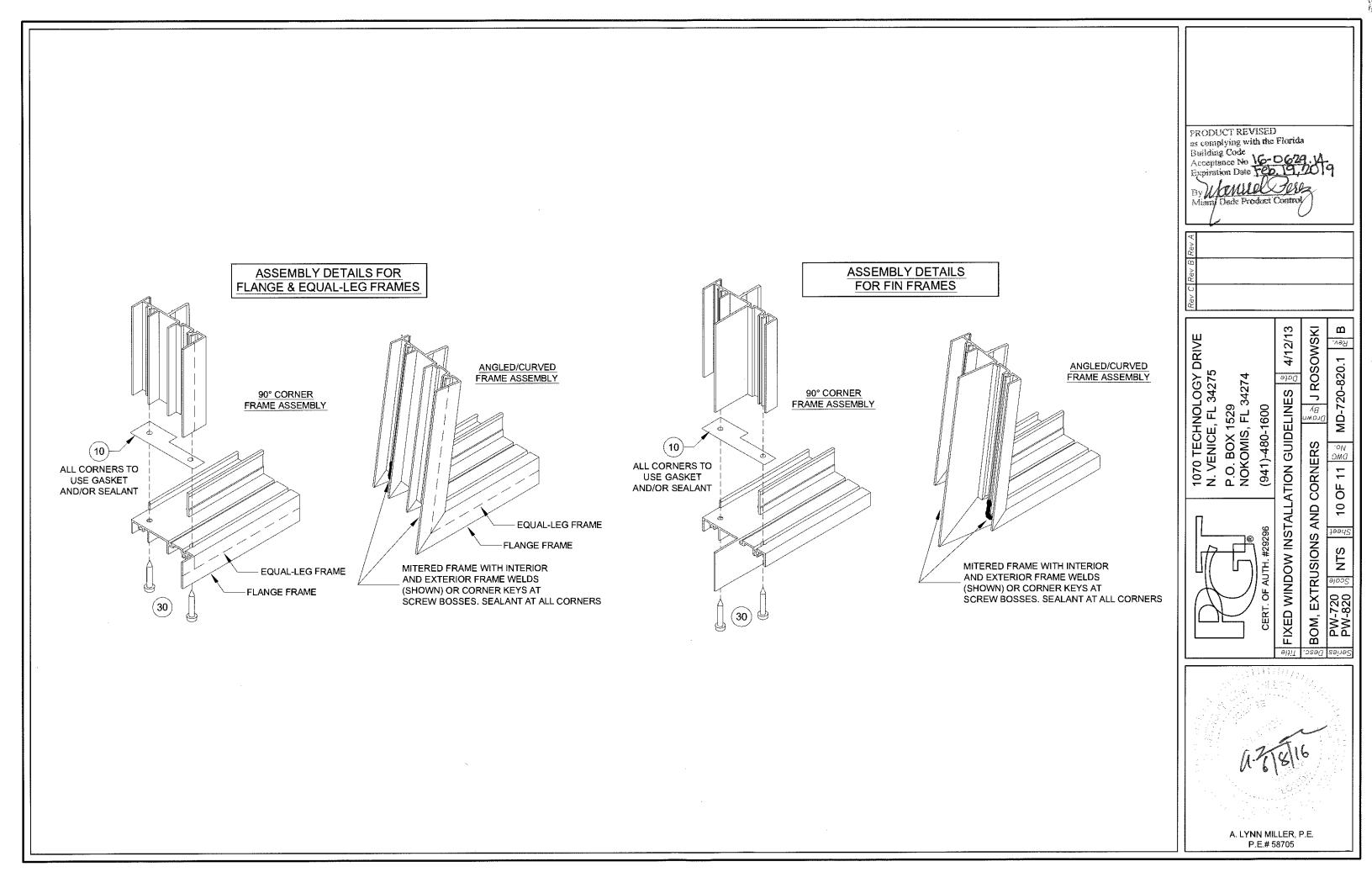


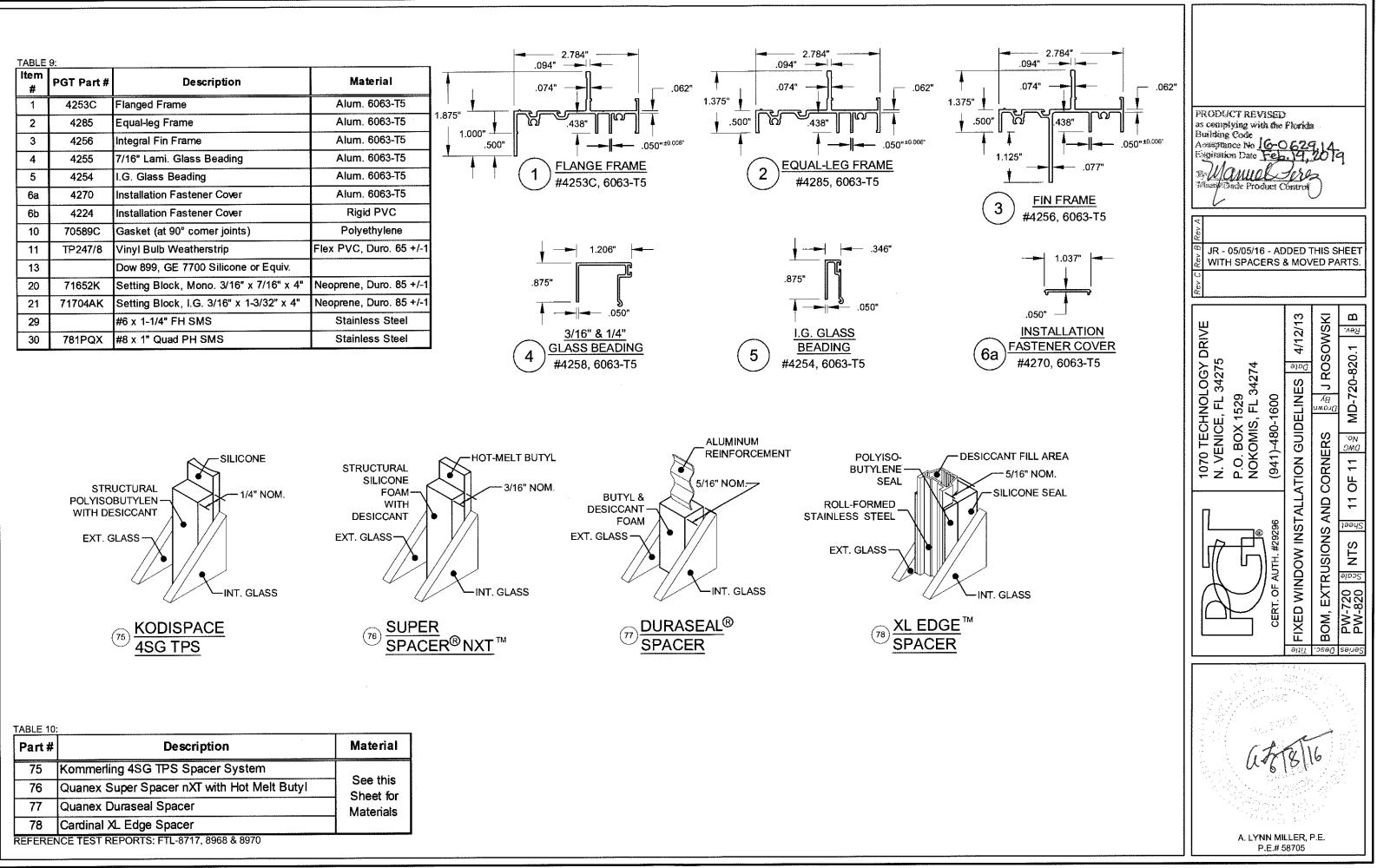


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	PRODUCT REVISED as complying with the Florida Building Code Acceptance No 16-0629.14 Expiration Date By Manuflet Ho Miann/Dade Product Compose
EXTERIOR Max. O.C. stance Spacing 5/16" 5" 3/8" 5" 3/8" 5" 1/2" 5" 5/16" 5" 5/16" 5"	1070 TECHNOLOGY DRIVE        1070 TECHNOLOGY DRIVE        N. VENICE, FL 34275        N. VENICE, FL 34275        P.O. BOX 1529        P.O. BOX 1529        NOKOMIS, FL 34274        CERT. OF AUTH. #29296        P.O. BOX 1529        NOKOMIS, FL 34274        CERT. OF AUTH. #29296        P.O. BOX 1529        NOKOMIS, FL 34274        CERT. OF AUTH. #29296        P.O. BOX 1529        NOKOMIS, FL 34274        CERT. OF AUTH. #29296        P.O. BOX 1529        P.O. BOX 1600        P.O. BOX 17        P.M. B20      P.M. B20        P.M. B20      P.M. B20      P.M. B20
HAN 1-1/2". 1X WOOD BUCKS ARE 2X" ARE 1-1/2" THICK OR GREATER. ED BY AUTHORITY HAVING UPPORT TO THE WINDOW FRAME. WHOLE SYSTEM.	4. 67816 A. LYNN MILLER, P.E. P.E.# 58705







Part #	Description	Material
75	Kommerling 4SG TPS Spacer System	
76	Quanex Super Spacer nXT with Hot Melt Butyl	See this
77	Quanex Duraseal Spacer	Materials
78	Cardinal XL Edge Spacer	



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

PGT Industries, Inc. 1070 Technology Drive, Nokomis, Fl. 34275

#### SCOPE:

MIAMI-DADE COUNTY, FLORIDA PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315–2590 F (786) 315–2599 www.miamidade.gov/economy

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 "FD-750" Outswing Aluminum French Door w/ Sidelites - L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **8000–11**, titled "Alum. French Door & Side Lites, Impact", sheets 1 through 12 of 12, dated 12/23/04, with revision "F" dated 05/05/16, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P. E., bearing the Miami–Dade County Product Control Section 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. 14-1117.05 and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

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



NOA No. 16-0629.16 Expiration Date: February 24, 2020 Approval Date: July 28, 2016 Page 1

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. *(Submitted under previous NOA No. 09–1028.10)*
- 2. Drawing No. 8000–11, titled "Alum. French Door & Side Lites, Impact", sheets 1 through 12 of 12, dated 12/23/04, with revision "F" dated 05/05/16, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P. E.

#### **B. TESTS**

Reference Test report on 1) Uniform Static Air Pressure Test, 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 Aluminum Sliding Glass Doors (w/ PS, Super, Cardinal & Duraseal Spacers), prepared by Fenestration Testing Laboratory, Inc., Test Reports No(s) **FTL-8717**, **FTL-8970** and **FTL-8968**, dated 02/15/16, 06/07/16 and 06/20/16, all signed & sealed by Idalmis Ortega, P.E.

- 2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202–94
  - 4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202–94

along with marked-up drawings and installation diagram of an aluminum sliding glass door using a low sill threshold, glazed with 7/16" laminated glass, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5941**, dated 05/20/09, signed and sealed by Julio E. Gonzalez, P. E.

### (Submitted under previous NOA No. 09–1028.10)

- **3.** 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

along with marked-up drawings and installation diagram of an aluminum doors of OXXO configuration, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-4921**, dated 07/17/06, signed and sealed by Edmundo J. Largaespada, P. E. *(Submitted under previous NOA No. 05-0419.03)* 

Jorge M. Plasencia, P. E. Product Control Unit Supervisor NOA No. 16-0629.16 Expiration Date: February 24, 2020 Approval Date: July 28, 2016

6.

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### B. TESTS (CONTINUED)

- 4. 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
  - 4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94

along with marked-up drawings and installation diagram of an aluminum doors of OXXX configuration, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-4527, dated 02/10/05, signed and sealed by Edmundo J. Largaespada, P. E. (Submitted under previous NOA No. 05-0419.03)

- 5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202–94
  - 4) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202–94

along with marked-up drawings and installation diagram of an aluminum doors of OXXO configuration, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.'s FTL-4528, dated 02/14/05, FTL-4315, dated 09/13/04, both signed and sealed by Edmundo J. Largaespada, P. E. (Submitted under previous NOA No. 05-0419.03)

Test reports on: 1) Large Missile Impact Test per FBC, TAS 201–94

2) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of an aluminum doors of XXXO configuration, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.'s FTL-4529, dated 02/14/05, FTL-4530, dated 02/14/05, FTL-4311, dated 09/01/04, all signed and sealed by Edmundo J. Largaespada, P. E.

### (Submitted under previous NOA No. 05–0419.03)

- 7. 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 an aluminum outswing French door, prepared by Fenestration Testing Laboratory, Inc., Test Report No. FTL-4312, dated 09/13/04, signed and sealed by Edmundo J. Largaespada, P. E. (Submitted under previous NOA No. 05-0419.03)

### C. CALCULATIONS

 Anchor verification calculations and structural analysis, complying with FBC 2010 and FBC 2014, 5<sup>th</sup> Edition, prepared by manufacturer, dated 10/11/11, signed and sealed by A. Lynn Miller, P. E.
 (Submitted under previous NOA No. 14, 1117,05)

(Submitted under previous NOA No. 14-1117.05)

2. Glazing complies with ASTM E1300–04/09

Jorge M. Plasencia, P. E. Product Control Unit Supervisor NOA No. 16-0629.16 Expiration Date: February 24, 2020 Approval Date: July 28, 2016

#### D. QUALITY ASSURANCE

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

#### E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 14–0916.10 issued to Kuraray America, Inc. for their "Kuraray Butacite PVB Glass Interlayer" dated 02/19/15, expiring on 12/11/16.
- Notice of Acceptance No. 14-0423.15 issued to Eastman Chemical Company (MA) for their "Saflex CP Saflex and Saflex HP Composite Glass Interlayers with PET Core" (formerly Saflex Keepsafe Maximum) dated 06/19/14, expiring on 12/11/18.
- 3. Notice of Acceptance No. 14–0423.16 issued to Eastman Chemical Company (MA) for their "Saflex HP Clear or Color Glass Interlayers" (formerly Vanceva) dated 06/19/14, expiring on 04/14/18.

#### F. STATEMENTS

- 1. Test proposal No. 16-0152 dated 03/09/16 approved by RER.
- 2. Lab compliance as part of the above referenced Test Report No(s) FTL-8717, FTL-8970 and FTL-8968.
- Statement letter of conformance to FBC-2010 and complying with FBC 5<sup>th</sup> Edition (2014), issued by manufacturer, dated 11/06/14, signed and sealed by A. Lynn Miller, P. E.

(Submitted under previous NOA No. 14-1117.05)

Statement letter of no financial interest, issued by manufacturer, dated 11/06/14, signed and sealed by A. Lynn Miller, P. E.
 (Submitted under previous NOA No. 14-1117.05)

(Submitted under previous NOA No. 14-1117.05)

- Laboratory compliance letter for Test Report No. FTL-5941, issued by Fenestration Testing Laboratory, Inc., dated 05/20/09, signed and sealed by Julio E. Gonzalez, P. E. (Submitted under previous NOA No. 09–1028.10)
- 6. Proposal No. 08–1891 issued by Product Control, dated 01/26/09, signed by Ishaq Chanda, P. E.

(Submitted under previous NOA No. 09–1028.10)

Laboratory compliance letter for Test Reports No.'s FTL-4921, dated 07/17/06, FTL-4527, dated 02/10/05, FTL-4528, dated 02/14/05, FTL-4315, dated 09/13/04, FTL-4529, dated 02/14/05, FTL-4530, dated 02/14/05, FTL-4311, dated 09/01/04 and FTL-4312, dated 09/13/04, all issued by Fenestration Testing Laboratory, Inc., all signed and sealed by Edmundo J. Largaespada, P. E. (Submitted under previous NOA No. 05-0419.03)

Jorge M. Plasencia, P. E.

Jorge M. Plasencia, P. E. Product Control Unit Supervisor NOA No. 16-0629.16 Expiration Date: February 24, 2020 Approval Date: July 28, 2016

# **<u>PGT Industries</u>**

#### **NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

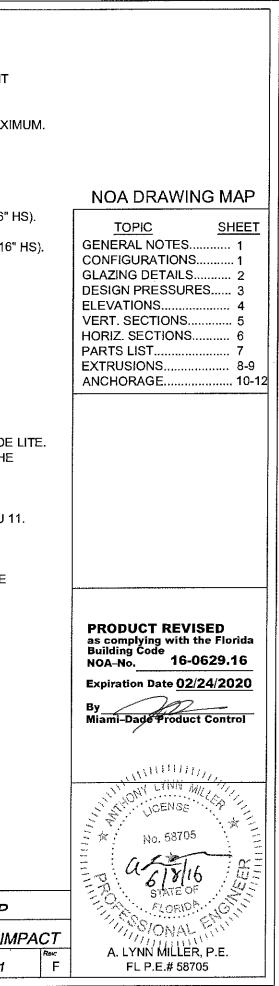
#### G. OTHERS

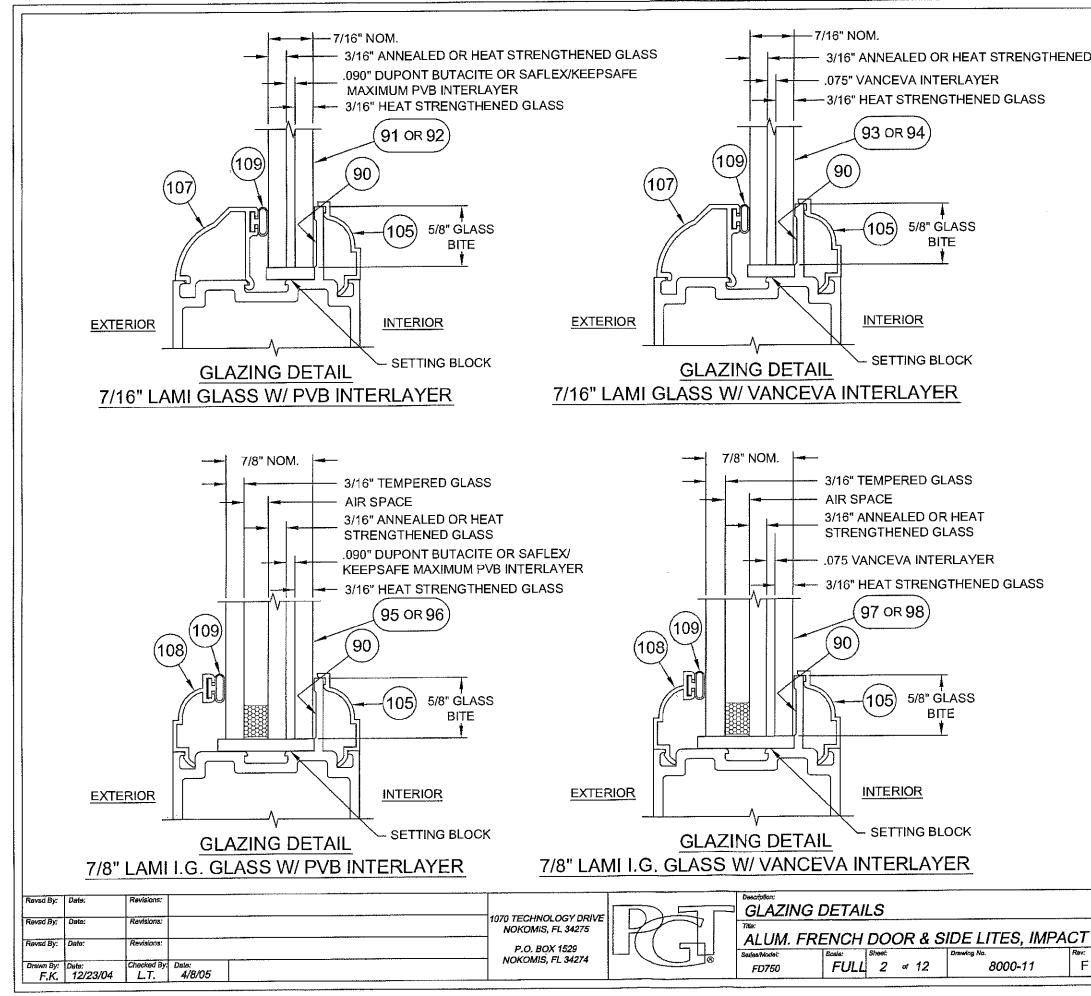
1. Notice of Acceptance No. 14-1117.05, issued to PGT Industries for their Series "FD-750" Outswing Aluminum French Door w/Sidelites – L.M.I., approved on 02/19/15 and expiring on 02/24/20.

Jorge M. Plasencia, P. E. Product Control Unit Supervisor NOA No. 16-0629.16 Expiration Date: February 24, 2020 Approval Date: July 28, 2016

# NOTES: OUTSWING IMPACT FRENCH DOOR(S) AND SIDE LITE(S)

Drawn By:      Date:      Checked By:      Date:        F.K.      12/23/04      L.T.      4/8/05
Revisions: P.O. BOX 1529 NOVCOMIS EL 24074
Revisions:    Revisions:    Description:      J.R.    05/05/16    F    ADDED SPACERS TO SHEET 9.      Revisions:    1070 TECHNOLOGY DRIVE    Description:    GENERAL NOTES AND DRAWING MAP      NOKCOMIS, FL 34275    1170 TECHNOLOGY DRIVE    Title:    Title:
STANDARDS USED: •2014 FLORIDA BUILDING CODE (FBC), 5TH EDITION •ASTM E1300-09 •ANSI/AF&PA NDS-2012 FOR WOOD CONSTRUCTION •ALUMINUM DESIGN MANUAL, ADM-2010 •AISI-S100-07/S2-2010
8. THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
7. REFERENCES: TEST REPORTS: FTL-4311, FTL-4312, FTL-4315, FTL-4527, FTL-4528, FTL-4529, FTL-4530, FTL-4921 AND FTL-5941. ANSI/AF&PA NDS-2005 FOR WOOD CONSTRUCTION ADM-2005 ALUMINUM DESIGN MANUAL
6. SEALANT: INSTALLATION SCREWS, FRAME AND PANEL CORNERS SEALED WITH CLEAR COLORED SEALANT. VERTICAL ASSEMBLY BEAM SEAMS SEALED ON THE INTERIOR AND EXTERIOR WITH CONTRACTOR'S SEALANT.
5. SHUTTERS ARE NOT REQUIRED.
4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. FOR ANCHORAGE REQUIREMENTS SEE SHEETS 9 THRU
3. CONFIGURATIONS: X, O, XX, XO, OX, XXX, XXO, OXX, OXO, XXXX, XXXO, OXXX, OR OXXO WHERE O REPRESENTS EITHER THE NARROW JAMB OR FULL JAMB SIDE ANY TWO ADJACENT X UNITS CAN BE EITHER TWO SINGLE, X DOORS OR A DOUBLE, XX DOOR' BOTH USING EITHER THE STANDARD OR THE LOW-RISE SILL. TH FRENCH DOOR ASSEMBLY BEAM IS USED TO ASSEMBLE X, XX, AND O UNITS TO MAKE THE ABOVE CONFIGURATIONS.
B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE AND GLASS TABLES ASTM E1300-02.
2. DESIGN PRESSURES: TABLE 1, SHEET 3. A. NEGATIVE DESIGN LOADS BASED ON TESTED PRESSURE AND GLASS TABLES ASTM E1300-02.
H. 7/8" LAMI I.G. CONSISTING OF (1) LITE OF 3/16" TEMPERED GLASS OUTSIDE, 1/4" AIR SPACE AND (1) 7/16" LAMI GLASS ASSEMBLY INSIDE (3/16" HS, 075 VANCEVA, 3/16" HS).
G. <u>7/8" LAMI I.G.</u> CONSISTING OF (1) LITE OF 3/16" TEMPERED GLASS OUTSIDE, 1/4" AIR SPACE AND (1) 7/16" LAMI GLASS ASSEMBLY INSIDE (3/16" A,.075 VANCEVA, 3/16" HS).
F. 7/8" LAMI I.G. CONSISTING OF (1) LITE OF 3/16" TEMPERED GLASS OUTSIDE, 1/4" AIR SPACE AND (1) 7/16" LAMI GLASS ASSEMBLY INSIDE (3/16" HS,.090 PVB, 3/1
E. 7/8" LAMI I.G. CONSISTING OF (1) LITE OF 3/16" TEMPERED GLASS OUTSIDE, 1/4" AIR SPACE AND (1) 7/16" LAMI GLASS ASSEMBLY INSIDE (3/16" A,.090 PVB, 3/16"
D. 7/16" LAMI CONSISTING OF (2) LITES OF 3/16" HEAT STRENGTHENED GLASS WITH AN .075 VANCEVA INTERLAYER.
C. 7/16" LAMI CONSISTING OF (1) LITE OF 3/16" ANNEALED GLASS AND (1) LITE OF 3/16" HEAT STRENGTHENED GLASS WITH AN .075 VANCEVA INTERLAYER.
B. 7/16" LAMI CONSISTING OF (2) LITES OF 3/16" HEAT STRENGTHENED GLASS WITH AN .090 PVB INTERLAYER OF DUPONT BUTACITE OR SAFLEX/KEEPSAFE MAX
1. GLAZING OPTIONS: A. <u>7/16" LAMI</u> CONSISTING OF (1) LITE OF 3/16" ANNEALED GLASS AND (1) LITE OF 3/16" HEAT STRENGTHENED GLASS WITH AN .090 PVB INTERLAYER OF DUPONT BUTACITE OR SAFLEX/KEEPSAFE MAXIMUM.





ENGTHENED (	GLASS
ASS	
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ASS	
	PRODUCT REVISED as complying with the FI Building Code
	NOA-No. 16-0629 Expiration Date 02/24/2
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	Miami-bade Product Cor
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Table 1.	Maximum Design Pressur	es (psf)

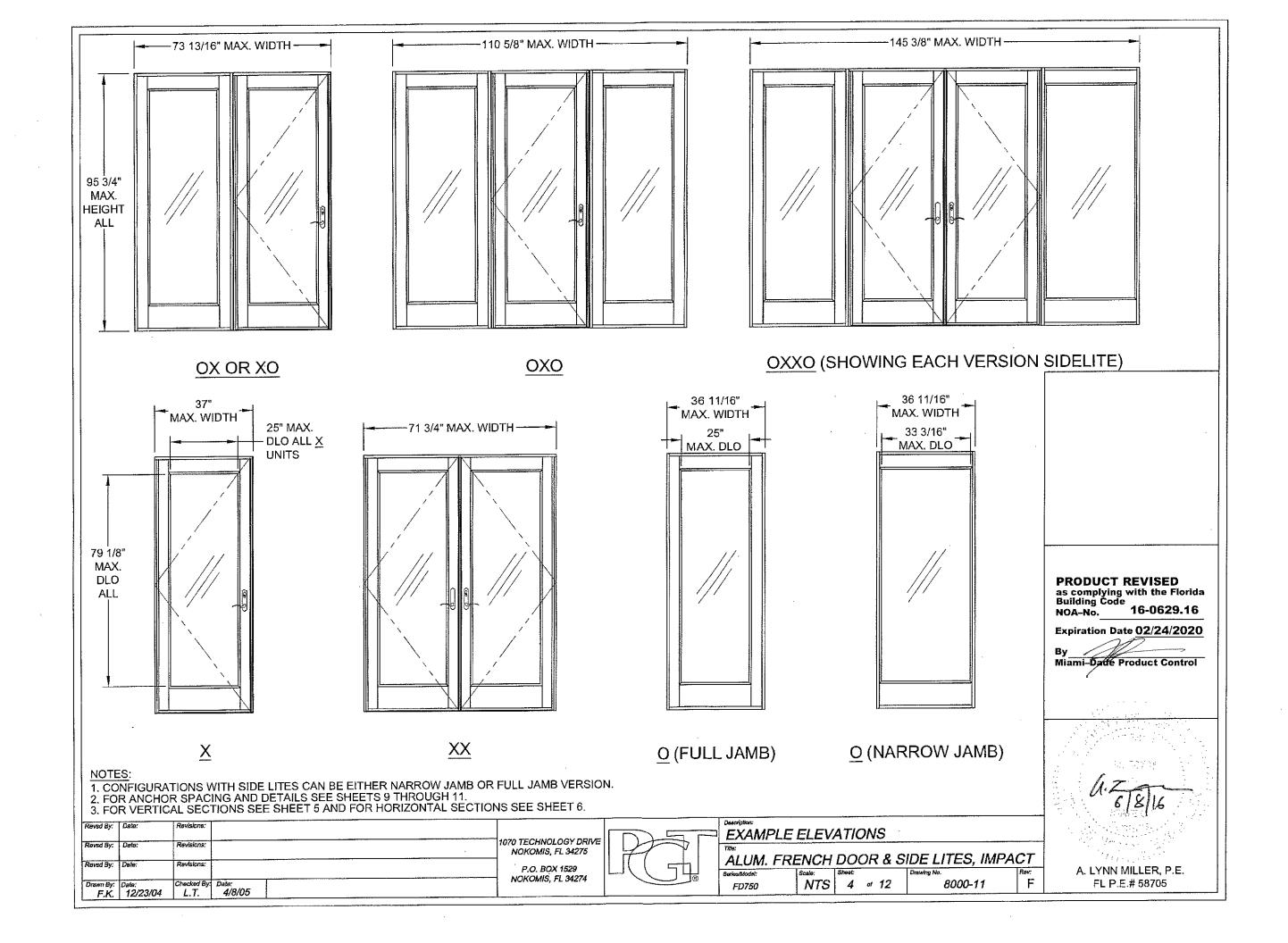
			Allowed					Heigl	nt (in)				
Configu	ration	Width (in)	Glass Types	79 3/4" (6 <sup>8</sup> )		83 3/4	83 3/4" (7 <sup>0</sup> )		3/4"	91 3/4"		95 3/4" (8 <sup>0</sup> )	
			A,E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
French	Х	37" (3 <sup>0</sup> )	C,G	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0
Door			A,E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
	XX	71 3/4" (6 <sup>0</sup> )	C,G	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0
	Full	36 11/16"	A,E	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
÷ .	Jamb		C,G	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0
		30 11/16"	C,G	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0
Sidelite	Norrow	33 11/16"	C,G	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+97.4	-97.4
	Narrow Jamb		A, B, E, F	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0	+70.0	-80.0
		36 11/16"	C,G	+100.0	-100.0	+99.9	-99.9	+95.3	-95.3	+91.4	-91.4	+87.9	-87.9
		30 11/10	D,H	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0	+100.0	-100.0

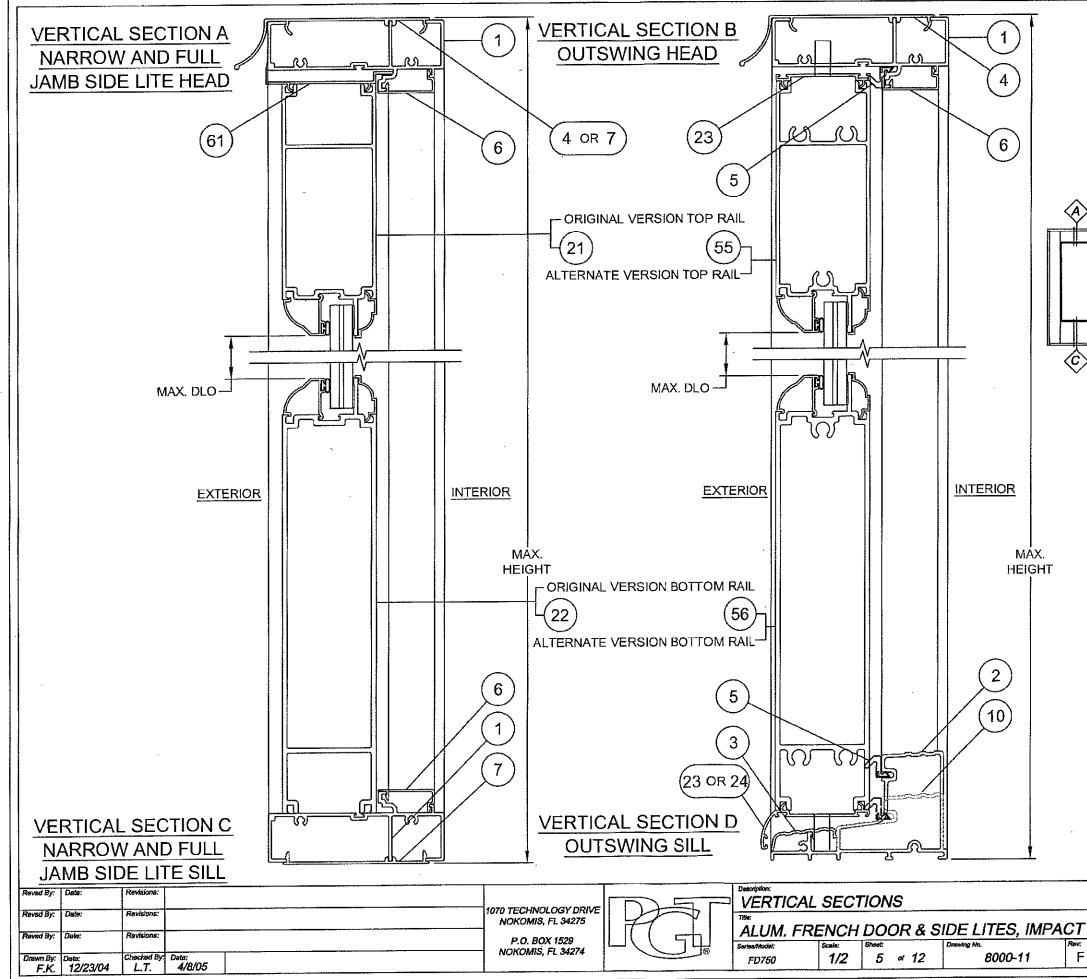
# Table 1a. Glass Type and Test Report Number

A - 7/16" LAMI (3/16"A, 090 PVB, 3/16"HS)	FTL-4311, 4312, 4315
B - 7/16" LAMI (3/16"HS,.090 PVB, 3/16"HS)	UPGRADE FTL-4311, 4312, 4315
C - 7/16" LAMI (3/16"A, 075 VANCEVA, 3/16"HS)	FTL-4527, 4528, 4529, 4530
D - 7/16" LAMI (3/16"HS,.075 VANCEVA, 3/16"HS)	UPGRADE FTL-4527, 4528, 4529, 4530
E - 7/8" LAMI I.G. (3/16"T, 1/4" AIR SPACE, 3/16"A, 090 PVB, 3/16"HS)	FTL-4311, 4312, 4315
F - 7/8" LAMI I.G. (3/16"T, 1/4" AIR SPACE, 3/16"HS, 090 PVB, 3/16"HS)	UPGRADE FTL-4311, 4312, 4315
G - 7/8" LAMII.G. (3/16"T, 1/4" AIR SPACE, 3/16"A, 075 VANCEVA, 3/16"HS)	FTL-4527, 4528, 4529, 4530
H - 7/8" LAMI I.G. (3/16"T, 1/4" AIR SPACE, 3/16"HS,.075 VANCEVA, 3/16"HS)	UPGRADE FTL-4527, 4528, 4529, 4530

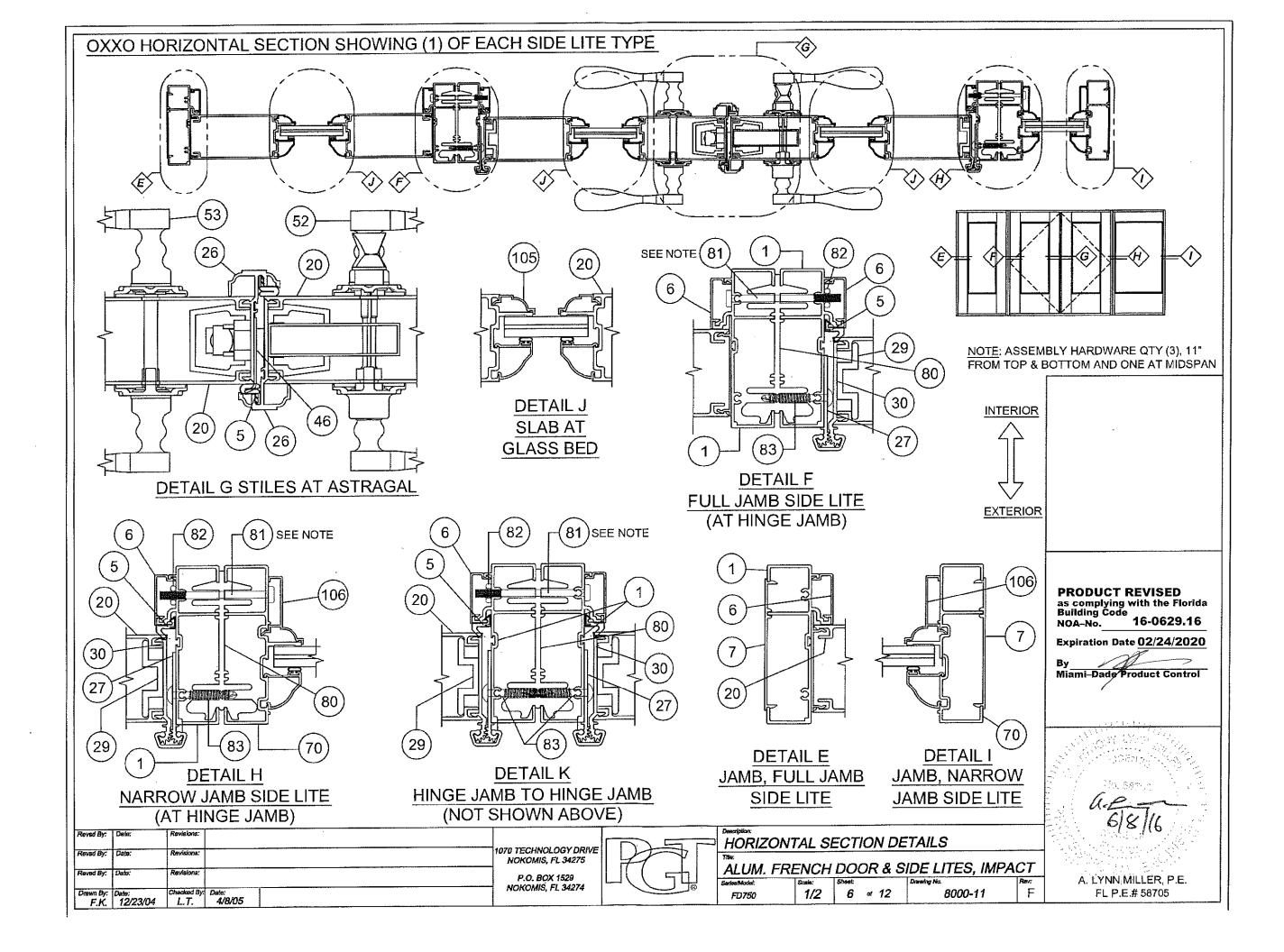
le; Revisiona;		Description:				
		DESIGN F	PRESS	URE	S	
te: Revisions:	1070 TECHNOLOGY DRIVE NOKOMIS, FL 34275	Trife:				
e: Revisions:	P.O. BOX 1529	ALUM. FR	ENCH	DOC	JK & S	SIDE LITES, IN
01/25/10 D	NOKOMIS, FL 34274	Series/Model:	1	Sheel:		Drawing No.
e: Checked By: Date: 2/23/04 L.T. 4/8/05	NOROMIO, 7 L 34274	FD750	NTS	3	of 12	8000-11

OVERHANG LENGTH OVERHANG OOR HEIGHT NOTES: 1. IF USING THE OPTIONAL LOW-RISE SILL (PART 10, SHEET 8 OF 12), THE OVERHANG LENGTH MUST BE GREATER THAN OR EQUAL TO THE OVERHANG HEIGHT (SEE DIAGRAM). IF NOT, THE MAXIMUM POSITIVE (+) DESIGN PRESSURE IS LIMITED TO +50.0 PSF FOR ALL STYLES AND SIZES OF THE DOOR AND ANY ADJOINING SIDELITES. (REF. FTL-5941) PRODUCT REVISED as complying with the Florida Building Code NOA-No. 16-0629.16 Expiration Date 02/24/2020 By Miami-Dade Product Control MPACT A. LYNN MILLER, P.E. Rev: F FL P.E.# 58705





 $\langle A \rangle$  $\diamond$  $\otimes$  $\Diamond$  $\langle \mathfrak{O} \rangle$ PRODUCT REVISED as complying with the Florida Building Code NOA-No. 16-0629.16 NOA-No. Expiration Date 02/24/2020 By Miami-Dade Product Control 8 A. LYNN MILLER, P.E. F FL P.E.# 58705

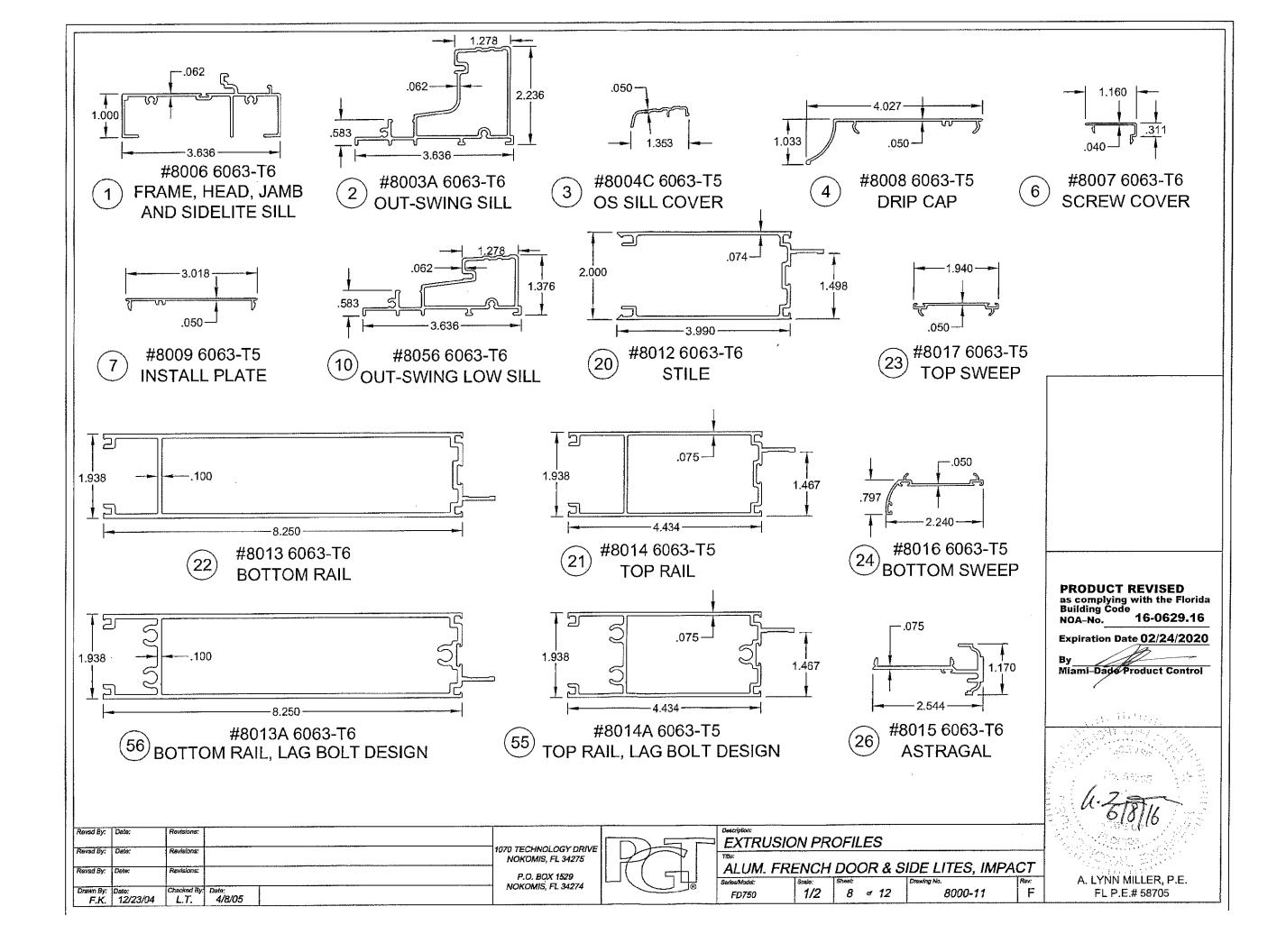


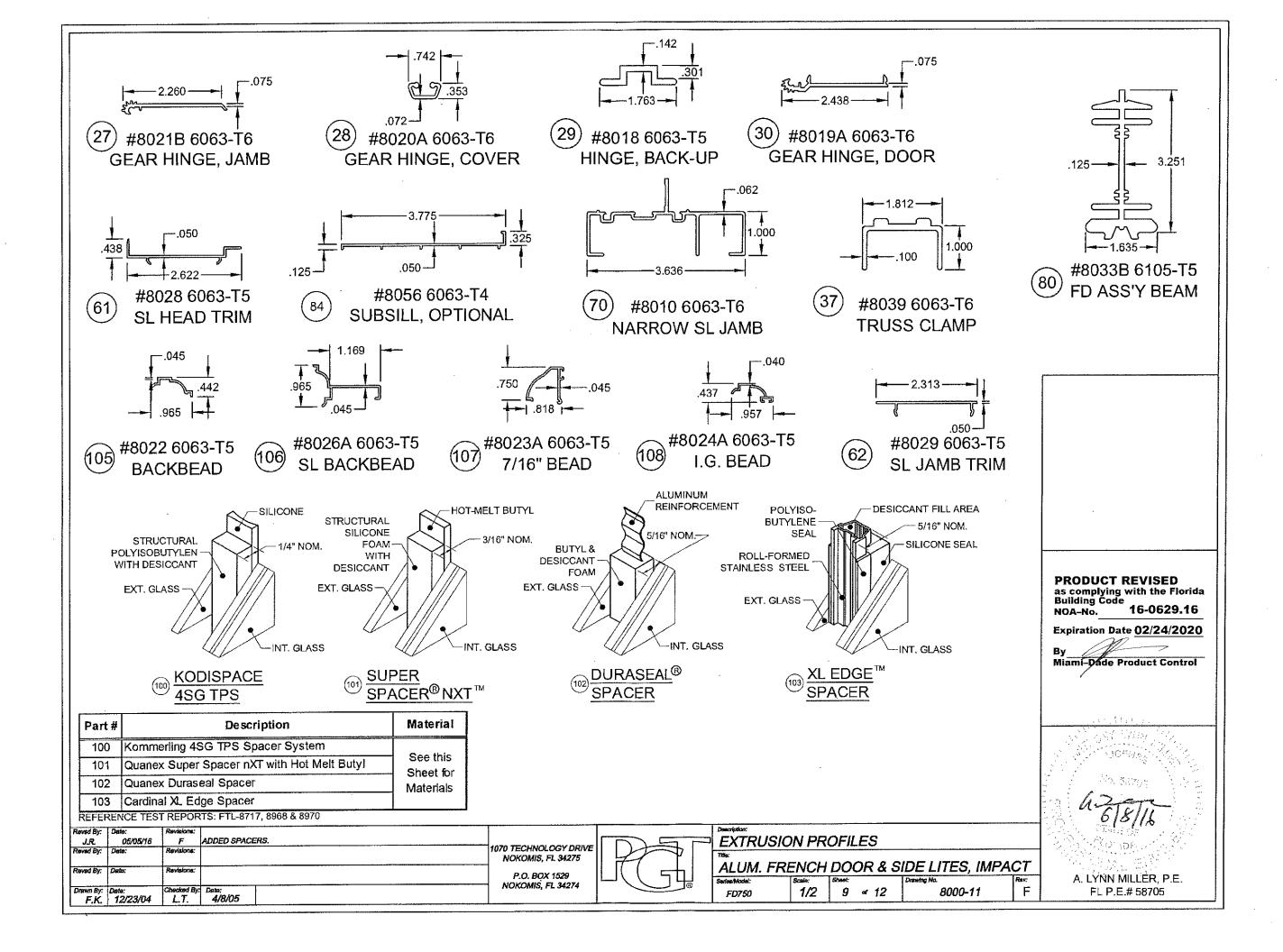
ITEM I	DWG#	DESCRIPTION	PGT#
		FRAME KIT PARTS	
1	8006	FRAME - HEAD & HINGE JAMB	68006
2	3003A	OUT-SWING SILL	68003A
3	8004C	OUT-SWING SELL COVER	68004C
4	8008	DRIP CAP	68008
5		HEAD, SILL & JAMB WEATHERSTRIP (SCHLEGAL)	U83337T8500
6	8007	SCREW COVER	68007
7	8009	INSTALLPLATE	68009
8		FRAME ASSEMBLY SCREW #8 X 1" PH QUAD	781PQA
9	8032	ASTRAGALEND SEAL	48032
10	8058	OUT-SWING SILL (LOW RISE)	48058
F		DOOR PANEL	
5 -		HEAD, SILL & JAMB WEATHERSTRIP (SCHLEGAL)	U83337T8500
20	8012	STILE	68012
21		TOP RAIL, (THREADED ROD DESIGN)	68014
22		BOTTOM RAIL, (THREA DED ROD DESIGN)	68013
23		TOP SWIEP	68017
24		BOTTOM SWEEP	68016
25 -		SWEEP SCREWS, #4 X 1/2" PHIL PH	
26		ASTRAGAL ACTIVE & INACTIVE	68015
<u> </u>		GEAR HINGE, JAMB SIDE	68021B
	<u> </u>	GEAR HINGE, COVER	68020A
29		GEAR HINGE, BACK-UP PLATE	68018
		GEAR HINGE, DOOR SIDE	68019A
31		GEAR HINGE, BEARING	68035
32 -		GEAR HINGE SET-SCREW #6-32 x 1/4"	
33 -		GEAR HINGE, MTG. SCREW #12 x 3/4" TRUSS HD.	
34 -		GEAR HINGE, MTG. SCREW #12 x1 1/2" TRUSS HD.	
35 -		THREADED ROD 5/16-18 X 36"	6TRODA
36 -		FLANGED HEX NUT 5/16-18	7990NUTA
37	8039	TRUSS CLAMP	60378M
38	8043	S/S GEAR LATCH MECHANISM (A SHLAND)	
39	8030	LOCK BLOCK	48030
40		LATCH ASS'Y SCREWS #8 X 2" SS PHILL TR HD	78X2TPAX
41	8037	S/S SHOOT BOLT ROD (SULLIVAN)	
42	8045	STANDARD FLUSH BOLTS W/ SS ROD (SULLIVAN)	
43	8031	SHOOT BOLT GUIDE	48031
44		SHOOT BOLT GUIDE & STRIKE SCREW 8-32 X 3/8" SS PHILL TR HD	78X38PFTX
45	8038R	RIGHT-STRIKE PLATE AT ASTRAGAL (ACTIVE HINGED LEFT)	W5110-43S1
46	8038L	LEFT - STRIKE PLATE AT ASTRAGAL (A CTIVE HINGED RIGHT)	W5110-44S1
47		STRIKE PLATE SCREWS 8-32 X 3/8" SS PHILL TR HD	78X38PFTX
48 -		STRIKE PLATE MIDDLE SCREW 6-24 X 1/2" FH	7612FPTX
49	8036	STRIKE PLATE AT HEAD & SILL	
50 -		HEAD STRIKE SCREWS SS 8 X 1/2 PHILL FH	7858ZAX
51		STRIKE PLATE SCREWS @SILL SS 8 X 1/2 PHILL UNDERCUT FH	78X12PFHUX
52	8041	ACTIVE TRIM SET (ASHLAND)	
53	8042	PASSIVE TRIM SET (ASHLAND)	
54	8044	STAINLESS STEEL PASSIVE LOCK GEAR (ASHLAND)	
⊢†		TOP RAIL (LAG BOLT DESIGN)	68014A
		BOTTOM RAIL (LAG BOLT DESIGN)	68013A
57 -		5/16" x2 1/2" LAGBOLTS	7516LBOLTX
1 <del>.</del>			
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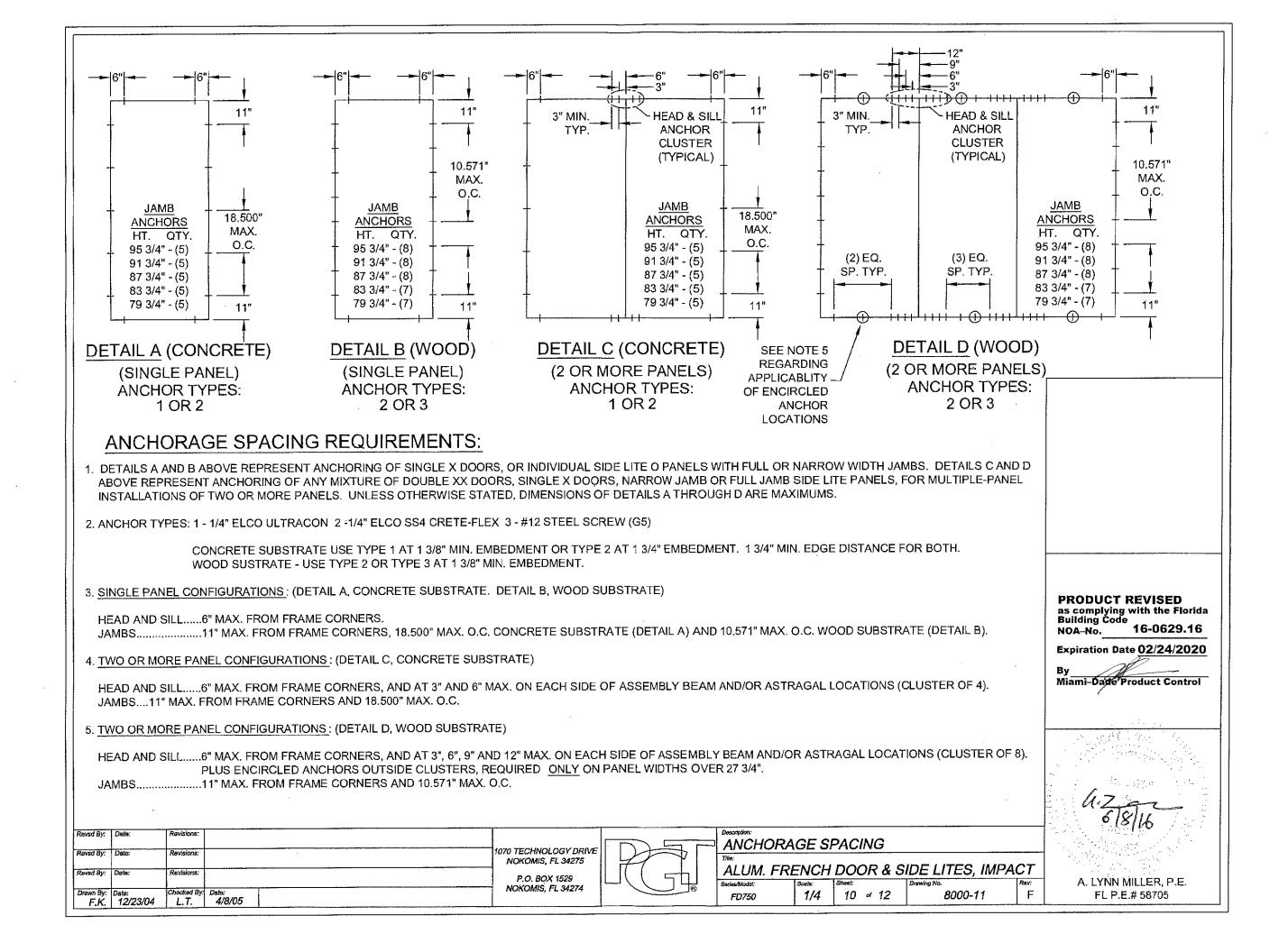
FD750 FULL JAMB SIDE LITE					
TTEM	DWG#	DESCRIPTION	PGT#		
1	8006	FRAME - HEAD, SILL & JAMB	68006		
4	8008	3 DRIP CAP			
6	8007	07 SCREW COVER			
7	8009				
8		FRAME ASSEMBLY SCREW #8 X 1" PH QUAD	781PQA		
20	8012	STILE	68012		
21		TOP RAIL	68014		
22		BOTTOM RAIL	68013		
35		THREADED ROD 5/16-18 X 36"	6TRODA		
36		FLANGED HEX NUT 5/16-18	7990NUTA		
37	8039	TRUSS CLAMP	60378M		
60		#8 X 3/4" PH SQ DRIVE TEK SCREW	78X34PSTW		
61	8028	SIDE LITE HEAD TRIM	68028		
62		SIDE LITE JAMB TRIM	68029		
		ROW JAMB SIDE LITE			
1	[	FRAME - HEAD & SILL	68006		
4		DRIP CAP	68008		
6	i	SCREW COVER	68007		
1	8009	INSTALL PLATE	68009		
8	0003	FRAME ASSEMBLY SCREW #8 X 1* PH QUAD	781PQA		
21	8014	TOP RAIL	68014		
22		BOTTOM RAIL	68013		
	8015	THREADED ROD 5/16-18 X 36"	6TRODA		
35		FLANGED HEX NUT 5/16-18	7990NUTA		
36		TRUSS CLAMP	60378M		
<u>37</u> 60		#8 X 3/4" PH SQ DRIVE TEK SCREW	78X34PSTW		
61	8028	SIDE LITE HEAD TRIM	68028		
70		FRAME JAMB	68010		
	MBLY				
80	1	FRENCH DOOR ASSEMBLY BEAM	68033B		
81	00000	#10-24 X 2 1/2" PH SCREW			
82		#10-24 HEX NUT			
83		#12 X 1 1/2" TR HD TEK SCREW			
<u>84</u>	POSE	SUBSILL (OPTIONAL)	68056		
		ADS & SILICONE			
90	55, 114	GLAZING SEALANT, DOW CORNING 899, 983, 995 OR EQUIVALENT			
<u>91</u>		7/16" LAMINATED GLASS (3/16" ANN., 090 PVB, 3/16" HS)			
92		7/16" LAMINATED GLASS (3/16" HS., 090 PVB, 3/16" HS)			
<u>92</u> 93		7/16" LAMINATED GLASS (3/16" ANN.,075 VANCEVA, 3/16" HS)			
 94					
<u>95</u>		7/8" LAMILG (3/16" T, 1/4" SPACE 3/16" ANN.,090 PVB, 3/16" HS)			
		7/8" LAMILG (3/16" T, 1/4" SPACE, 3/16" HS., 090 PVB, 3/16" HS)			
<u>96</u> 07		7/8" LAMILG (3/16" T, 1/4" SPACE, 3/16" HS., 0/07 VE, 2/16" HS. 7/8" LAMILG (3/16" T, 1/4" SPACE, 3/16" ANN., 0/5 VANCEVA, 3/16" HS)			
97 08					
98	P				
105	8022	BACK BEAD	68026A		
106	8026A	SL BACKBEAD	68023A		
107		7/16" BEAD	68024A		
108	8024A	7/8" IGBEAD	6TP247		

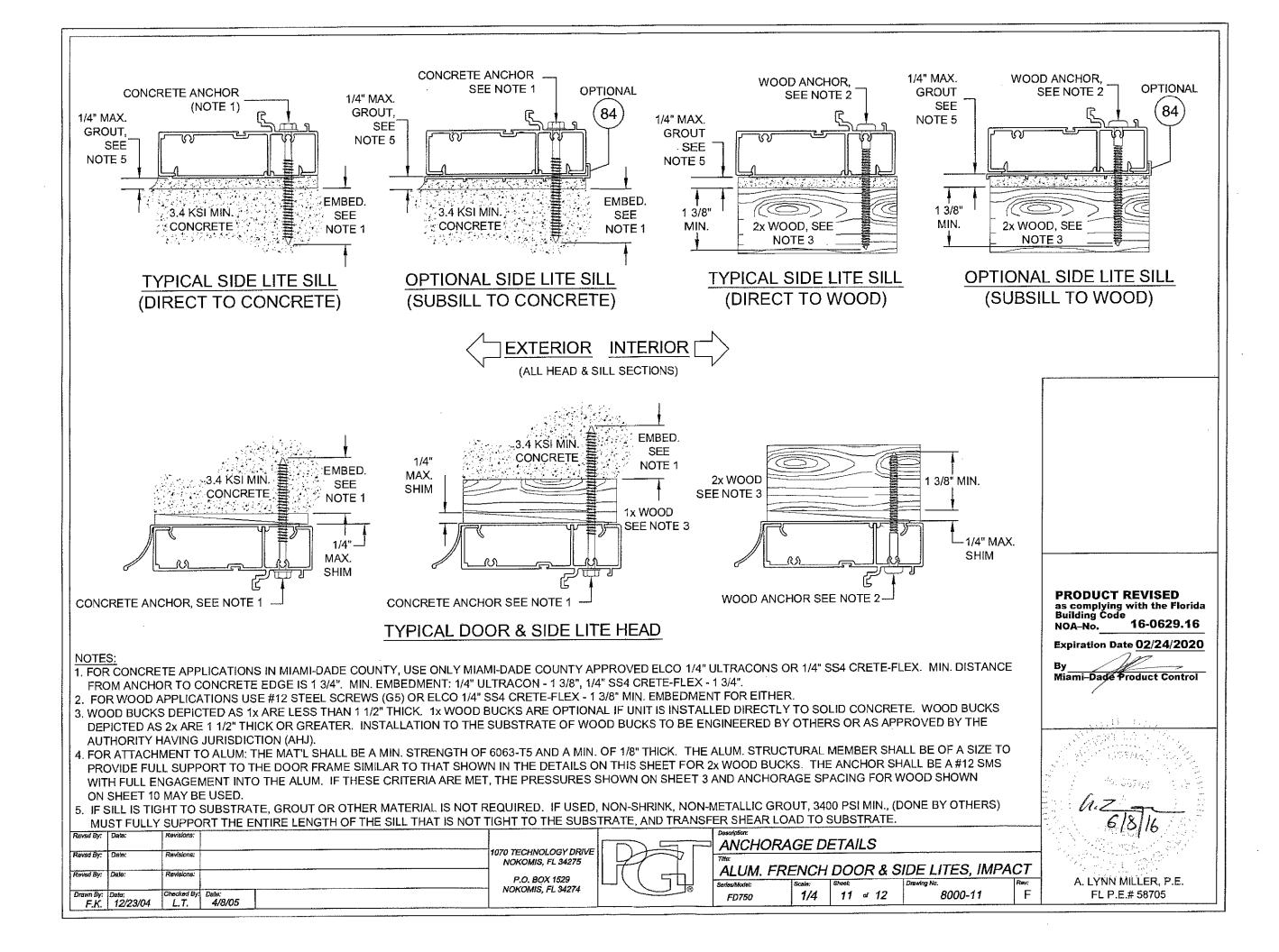
Į			Revisions			Description:			
	Reved By:			1070 TECHNOLOGY DRIVE		PARTS LIS	ST		· · · · · · · · · · · · · · · · · · ·
	Revsd By:		(DDBA/HG.	NOKOMIS, FL 34275	P	ALUM. FRI	FNCH	DOOR & S	IDE LITES, IMP
	Reved By:		Revisions:	P.O. BOX 1529 NOKOMIS, FL 34274		Series/Model:	Scale:	Sheet	Drawing No.
	Drewn By: F.K.	Date: 12/23/04	Checked By: Date: L.T. 4/8/05			FD750	NA	7 a 12	8000-11

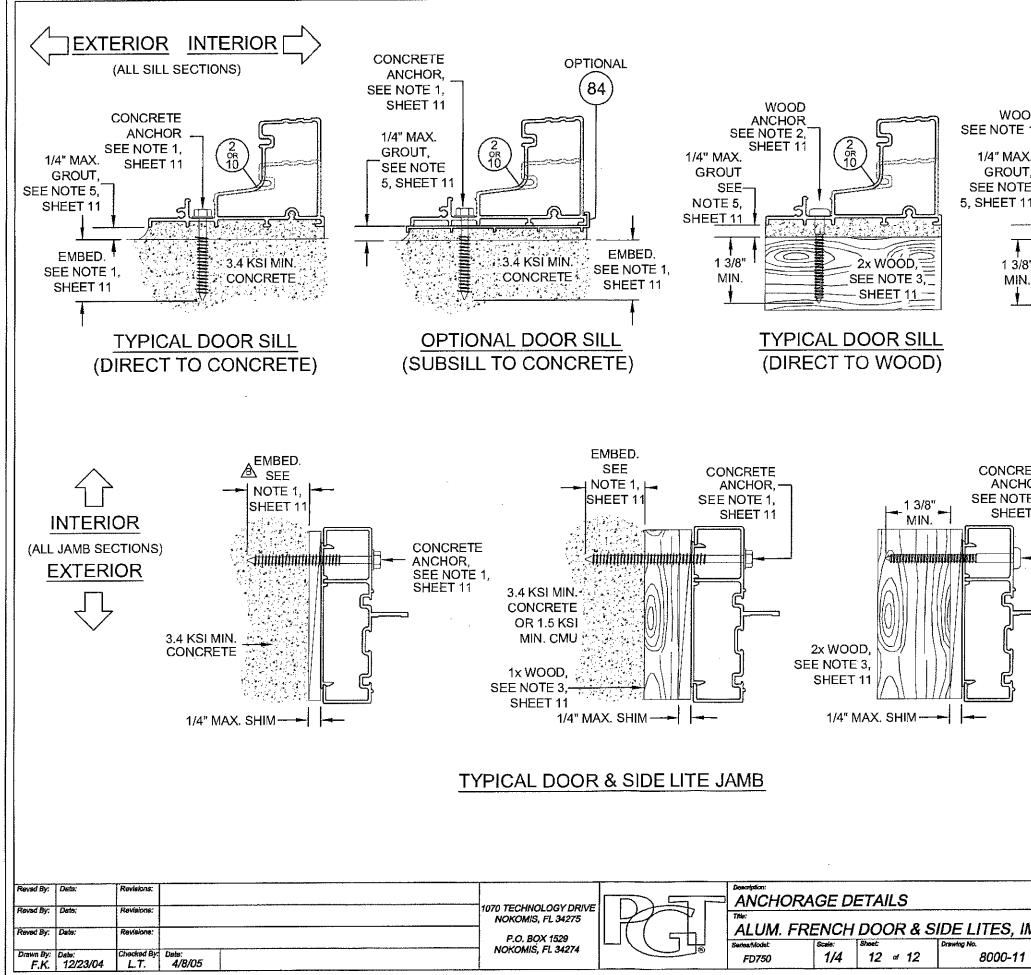
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	PRODUCT REVISED as complying with the Florida Building Code NOA-No. 16-0629.16
	Expiration Date <u>02/24/2020</u> By Miami-Date Product Control
:	CANTERNA STATES
	Q-7- 67874
IMPACT	A. LYNN MILLER, P.E. FL P.E.# 58705











OD ANCHOR 1, SHEET 1 X. T, E 11 8"	
	ONAL DOOR SILL SILL TO WOOD)
ETE IOR,	
	PRODUCT REVISED as complying with the Florida Building Code NOA-No. 16-0629.16 Expiration Date 02/24/2020 By Miami-Dade Product Control
MPACT F	G 78/16 6. LYNN MILLER, P.E. FL P.E.# 58705



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

## PGT Industries, Inc. 1070 Technology Drive North Venice, FL 34275

#### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "SGD-780" Aluminum Sliding Glass Door w/90° & 135° corner (Reinf/Non-Reinf)- L.M.I.

**APPROVAL DOCUMENT:** Drawing No. **MD-780.0** Rev **A**, titled "Aluminum Sliding Glass Door (LM)", sheets 1 through 18 of 18, dated 10/05/15 and last revised on 06/08/16, prepared by PGT Industries, signed and sealed by Anthony Lynn Miller, P. E., bearing the Miami–Dade County Product Control Revision stamp with the Notice of Acceptance number and Expiration date by the Miami–Dade County Product Control Section.

# MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

#### Limitations:

- 1. Max Panels configuration is allowed per tables 1 thru 3, not to exceed 462.11 ft<sup>2</sup>. The inside/outside 90<sup>0</sup> & 135<sup>0</sup> corner units are limited to straight panel each corner side per tables 1 thru 3.
- 2. See sheets <u>7</u> & <u>8</u> for Design Pressure (DP), glass type, sill type for positive DP limit, applicable reinforcement and anchorage quantity requirements. See sheets 12 thru 15 for anchors lay out at tracks and corners. See Pocket anchor details in sheet <u>6</u>.
- 3. Pockets wall, cavity are not part of this approval. Exterior/Interior Pocket wall & applicable Egress requirement to be reviewed by Building official.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and series and following statement: "Miami-Dade County Product Control Approved", 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 #15-0903.09 and consists of this page 1 and evidence pages E-1 & E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Ishaq I. Chanda, P.E.



NOA No. 16-0629.10 Expiration Date: August 02, 2017 Approval Date: August 11, 2016 Page 1

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections (Submitted under files # listed below)
- 2. Drawing No. **MD-780.0** Rev A, titled "Aluminum Sliding Glass Door (LM)", sheets 1 through 18 of 18, dated 10/05/15 and last revised on 06/08/16, prepared by PGT Industries, signed and sealed by Anthony Lynn Miller, P.E.

## B. TESTS

1. REF Test report on 1) Uniform Static Air Pressure Test, 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 Aluminum Sliding Glass Doors (w/ TPS, Super, Cardinal & Duraseal Spacers), prepared by Fenestration Testing Laboratory, Inc., Test Reports No(s) **FTL-8717**, **FTL-8970** and **FTL-8968**, dated 02/15/16, 06/07/16 and 06/20/16, all signed & sealed by Idalmis Ortega, P.E

- 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 Aluminum SGD w/135<sup>0</sup> interior/Exterior corner & interior pocket mount, prepared by Fenestration Testing Laboratory, Inc., Test Reports No(s) **FTL-8322** and **FTL-8374**, dated 08/06/15, both signed and sealed by Idalmis Ortega, P. E. (Addendum letter dated Jan 18, 2016, issued by Fenestration Testing Lab) Along with marked-up drawings and installation diagram of Aluminum SGD, prepared by Architectural Testing, Inc., Test Report No. **ATI-8124.01-401-18 R**, dated 11/13/2008, signed and sealed by Joseph A. Reed, P.E. (submitted under files #15-0903.09/#12-0516.04) Along with marked-up drawings and installation diagram of Aluminum SGD, prepared by Fenestration Testing Laboratory, Inc., Test Reports No(s) **FTL-5618**, dated 06/21/2008, **FTL-5619**, dated 07/07/2008, **FTL-5254**, dated 05/17/2007 and **FTL-5273**, dated 05/07/2007 respectively, all signed and sealed by Carlos S. Rionda, P. E.(Submitted under file #11-1018.12)

# C. CALCULATIONS (submitted under files #15-0903.09)

- Anchor verification calculations and structural analysis dated 01/20/16, complying with FBC-2014 (5<sup>th</sup> Edition), prepared by PGT, signed and sealed by Lynn Miller, P.E.
- 2. Glazing complies w/ ASTME-1300-02, 04 & -09.

# D. QUALITY ASSURANCE

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

Ishaq I. Chanda, P.E. Ishaq I. Chanda, P.E. Product Control Examiner NOA No. 16-0629.10 Expiration Date: August 02, 2017 Approval Date: August 11, 2016

#### PGT Industries, Inc.

## **NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

#### E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 14-0916.11 issued to Kuraray America, Inc. (Former E.I. DuPont DeNemours & Co., Inc.) for the "Sentry Glass ® (Clear and White) Glass Interlayers", expiring on 07/04/18.
- 2. Notice of Acceptance No. 14-0916.10 issued to Kuraray America, Inc. (Former E.I. DuPont DeNemours & Co., Inc.) for the "Kurray Butacite PVB Interlayers", expiring on 12/11/2016.

#### F. STATEMENTS

- Statement letter of conformance to FBC 2014(5<sup>th</sup> edition) and letter of no financial interest, prepared by PGT, dated 08/28/15, signed and sealed by Lynn Miller, P.E.(submitted under files #15-0903.09)
- 2. Spacer reference e-mail by PGT dated Jan 13, 2016, signed by Lynn Miller, P.E.
- 3. Lab compliance as part of the above referenced test report.

### G. OTHER

- 1. This NOA revises NOA #15-0903.09, expiring 08/02/17.
- 2. Test proposal # 16-0152 dated 03/09/16, #14-1739, Test proposals No(s) 09-0177, 0177-A, B & C and approved by RER and Test proposal # 07-2583, approved by BCCO.
- 3. AAMA's Technical Paper for SGD & Bi-fold doors referenced to FBC 2014 (5<sup>th</sup> edition).

Istłaq I. Chanda, P.E. Product Control Examiner NOA No. 16-0629.10 Expiration Date: August 02, 2017 Approval Date: August 11, 2016

# SERIES 780, IMPACT RESISTANT SLIDING GLASS DOOR INCLUDING POCKETS & 90°/135° CORNERS

#### GENERAL NOTES

1) GLAZING TYPE OPTIONS: SEE TABLE B, THIS SHEET & GLAZING DETAILS ON SHEET 11. 2) DESIGN PRESSURES:

A. NEGATIVE DESIGN LOADS BASED ON TESTED PRESSURE AND GLASS TABLES ASTM E1300. B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE AND GLASS TABLES ASTM E1300. 3) ANCHORAGE: THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE CURRENT FLORIDA BUILDING CODE.

4) SHUTTERS ARE NOT REQUIRED PER FBC REQUIREMENTS, AS APPLICABLE.

5) INSTALLATION SCREWS, FRAME SPLICES, FRAME AND PANEL CORNERS TO BE SEALED WITH NARROW JOINT SEALANT.

6) REFERENCES: ELCO ULTRACON, CRETEFLEX AND AGGREGATOR NOA'S, ANSI/AF&PA NDS FOR WOOD CONSTRUCTION AND ADM, ALUMINUM DESIGN MANUAL.

7) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ). 8) DOOR SIZES MUST BE VERIFIED FOR COMPLIANCE WITH EGRESS REQUIREMENTS PER THE CURRENT FLORIDA BUILDING CODE, AS APPLICABLE.

9) APPLICABLE TEST REPORTS: FTL-5254, 5273, 5618, 5619, 8322, 8374 & ATI-81241.01-401-18.

TABLE B: SEE DETAILS ON SHEET 11

Glass Type	Description (Listed from Exterior to Interior)	Table #	Sheet #
	7/16" Laminated: (1) Lite of 3/16" ANN Glass and (1) Lite of 3/16" HS Glass with .090" PVB Interlayer	2	7
2	9/16" Laminated: (1) Lite of 1/4" ANN Glass and (1) Lite of 1/4" HS Glass with .090" PVB Interlayer	2	7
3	1-1/16" Laminated I.G.: 3/16" T Exterior Cap + 7/16" Air Space + 7/16" Laminated consisting of (1) Lite of 3/16" ANN Glass and (1) Lite of 3/16" HS Glass with .090" PVB Interlayer	2	7
4	1-1/16" Laminated I.G.: 1/4" T Exterior Cap + 3/8" Air Space + 7/16" Laminated consisting of (1) Lite of 3/16" ANN Glass and (1) Lite of 3/16" HS Glass with .090" PVB Interlayer	2	7
5	7/16" Laminated: (1) Lite of 3/16" ANN Glass and (1) Lite of 3/16" HS Glass with .090" SG Interlayer	1	7
6	9/16" Laminated: (1) Lite of 1/4" ANN Glass and (1) Lite of 1/4" HS Glass with .090" SG Interlayer	1	7
7	7/16" Laminated: (2) Lites of 3/16" HS Glass with .090" SG Interlayer	3	8
8	9/16" Laminated: (2) Lites of 1/4" HS Glass with .090" SG Interlayer	3	8
9	1-1/16" Laminated I.G.: 3/16" T Exterior Cap + 7/16" Air Space + 7/16" Laminated consisting of (1) Lite of 3/16" ANN Glass and (1) Lite of 3/16" HS Glass with .090" SG Interlayer	1	7
10	1-1/16" Laminated I.G.: 1/4" T Exterior Cap + 3/8" Air Space + 7/16" Laminated consisting of (1) Lite of 3/16" ANN Glass and (1) Lite of 3/16" HS Glass with .090" SG Interlayer	1	7
11	1-1/16" Laminated I.G.: 3/16" T Exterior Cap + 7/16" Air Space + 7/16" Laminated consisting of (2) Lites of 3/16" HS Glass with .090" SG Interlayer	3	8
12	1-1/16" Laminated I.G.: 1/4" T Exterior Cap + 3/8" Air Space + 7/16" Laminated consisting of (2) Lites of 3/16" HS Glass with .090" SG Interlayer	3	8

#### ANCHOR NOTES

1) FOR CONCRETE/CMU SUBSTRATE APPLICATIONS IN MIAMI-DADE COUNTY, USE ONLY MIAMI-DADE COUNTY APPROVED ELCO ANCHORS. SEE TABLE A ON THIS SHEET FOR EMBEDMENT, EDGE DISTANCE AND SUBSTRATE REQUIREMENTS. 2) FOR OTHER SUBSTRATE APPLICATIONS SEE TABLE A ON THIS SHEET.

3) WOOD BUCKS DEPICTED AS 1X ARE LESS THAN 1-1/2" THICK. PROPERLY SECURED, 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SOLID CONCRETE OR CMU. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR

GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD & TO BE REVIEWED BY THE BUILDING OFFICIAL.

4) METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION .

5) IF SILL IS TIGHT TO SUBSTRATE, GROUT OR OTHER MATERIAL IS NOT REQUIRED. IF USED, NON-SHRINK, NON-METALLIC GROUT, MAX. 1/4" THICK & 3400 PSI MIN., (DONE BY OTHERS) MUST FULLY SUPPORT THE ENTIRE LENGTH OF THE SILL THAT IS NOT TIGHT TO THE SUBSTRATE, AND TRANSFER SHEAR LOAD TO SUBSTRATE. IF SUBSTRATE IS WOOD, 30# FELT PAPER OR MASTIC IS REQUIRED BETWEEN THE GROUT AND WOOD SUBSTRATE, OR AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.

# STANDARDS USED:

- 2014 FLORIDA BUILDING CODE (FBC), 5TH EDITION
- ASTM E1300-09 ANSI/AF&PA NDS-2012 FOR WOOD CONSTRUCTION
  - ALUMINUM DESIGN MANUAL, ADM-2010
  - •AISI-S100-07/S2-2010

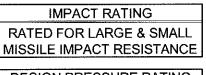
	₽ ALUMINUM SLIDING GLASS
CERT. OF AUTH, #29296	ADDED SPACERS TO SHEE
1070 TECHNOLOGY DRIVE	8 197
N. VENICE, FL 34275 (941)-480-1600	sgd-780 sg NTS sg 1 OF 1

TABLE A	\; Ⅰ			Min Edge	
Group	Anchor	Substrate	Frame Member	Min. Edge Distance	Min. Embedment
		Concrete (min. 2.85 ksi)	Head/Sill/Jamb/P-hook	2-1/2"	1-3/8"
A	1/4" Elco Ultracon	Ungrouted CMU, (ASTM C-90)	Jamb/P-hook	2-1/2"	1-1/4"
		Concrete (min. 3.35 ksi)	Head/Sill/Jamb/P-hook	1"	1-3/4"
В	1/4" Elco 410 S.S. CreteFlex	P.T. Southern Pine (SG=0.55)	Head/Sill/Jamb/P-hook	1"	1-3/8"
	CIELEFIEX	Ungrouted CMU, (ASTM C-90)	Jamb/P-hook	1-3/4"	1-1/4"
		Concrete (min. 2.85 ksi)	Head/Sill/Jamb/P-hook	1"	1-3/8"
	1/4" Elco Ultracon		Jamb	1"	1-1/4"
		Ungrouted CMU, (ASTM C-90)	P-hook	2-1/2"	1-1/4"
		P.T. Southern Pine (SG=0.55)	Head/Sill/Jamb/P-hook	9/16"	1-3/8"
С	#12, steel SMS (G5)		Head/Sill/Jamb	3/8"	0.0713"
	or 410 S.S. SMS,	Aluminum, 6063-T5*	P-hook	3/8"	0.125"
	(min. 11 threads/in)	Steel, A36*	Head/Sill/Jamb/P-hook	3/8"	0.060"
		Steel Stud, A653 Gr. 33*	Head/Sill/Jamb/P-hook	3/8"	0.056"
		Concrete (min. 2.22 ksi)	Head/Sill/Jamb/P-hook	1-1/2"	1-3/8"
	1/4" Elco 18-8 S.S.	Ungrouted CMU, (ASTM C-90)	Jamb/P-hook	2"	1-1/4"
. D	Aggre-Gator	Grouted CMU (ASTM C-90, min. 2 ksi grout)	Jamb/P-hook	2"	2"
		P.T. Southern Pine (SG=0.55)	Head/Sill/Jamb/P-hook	1"	1-3/8"

\* MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE, METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.

FOR STEEL STUDS. MIN, FU=45 KSI & MIN. FY=33 KSI.

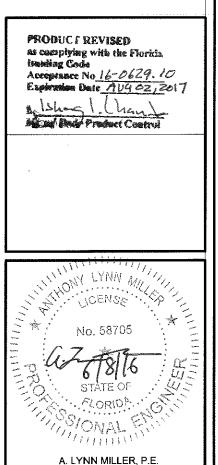
"UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.



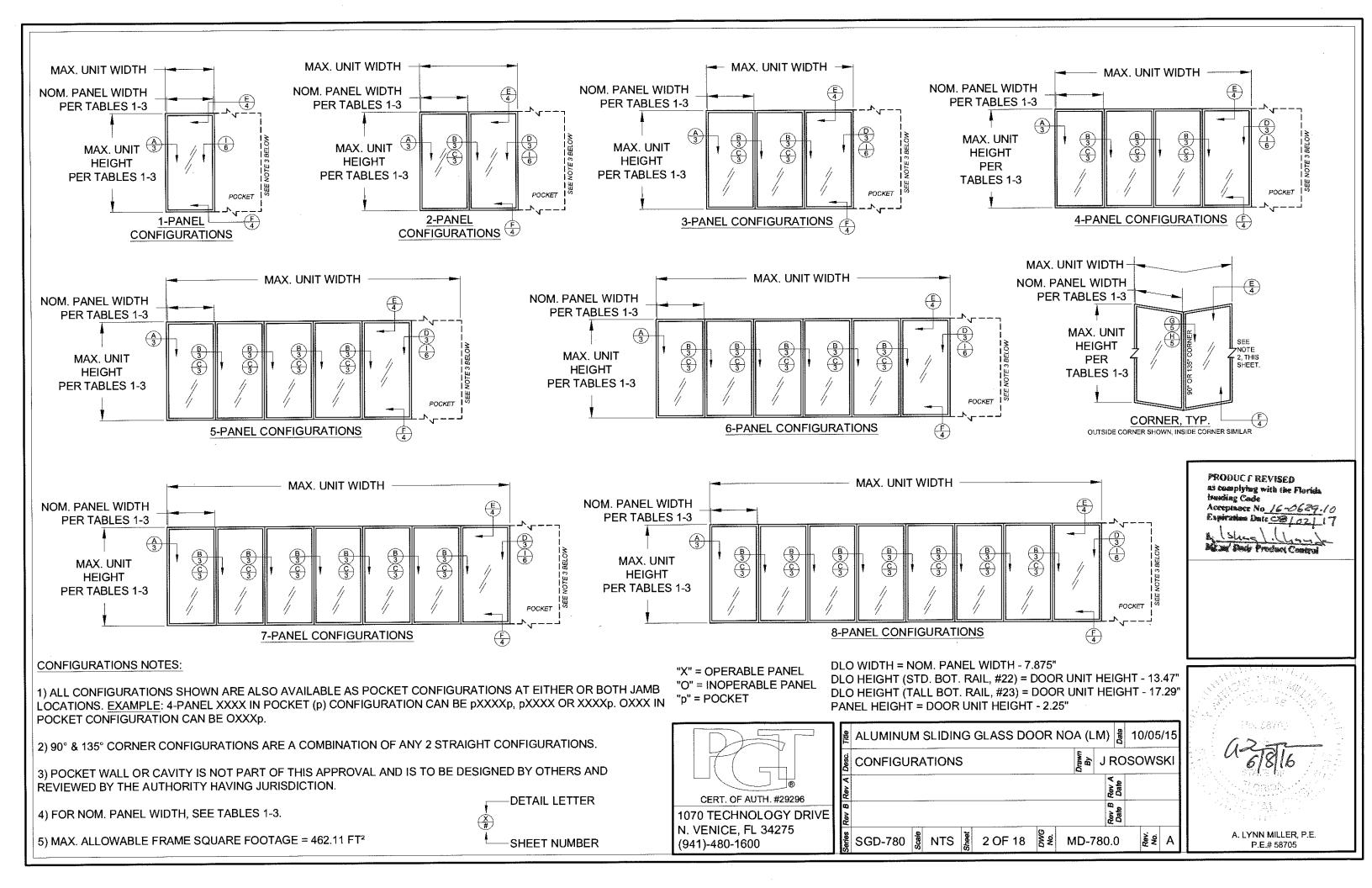
DESIGN PRESSURE RATING SEE TABLES 1-3 & C1-C2 ON SHEETS 7 & 8

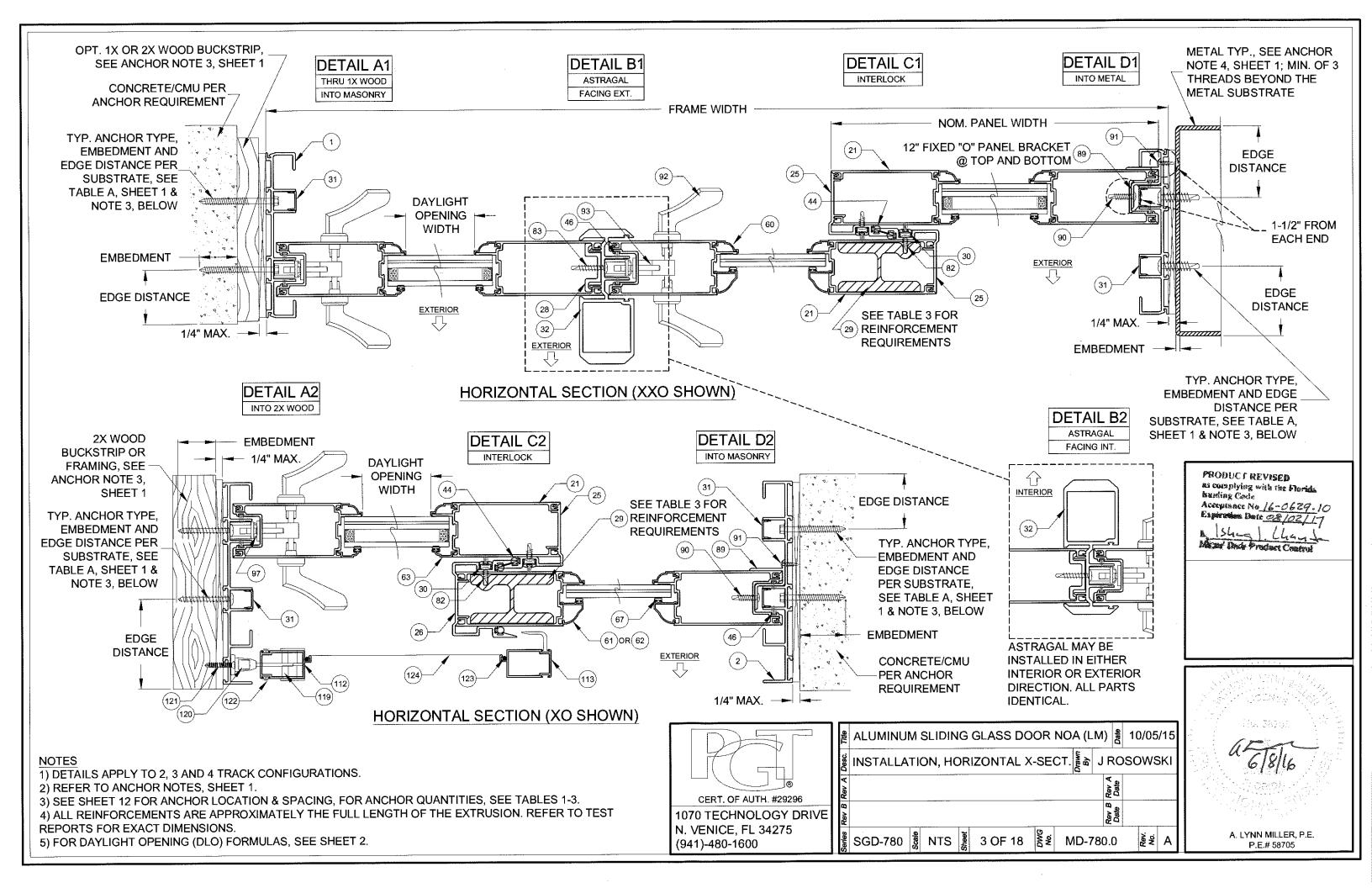
GENERAL NOTES	. 1
EXAMPLE CONFIGS	2
INSTALL DETAILS	3-6
DP/ANCHOR TABLES	7-8
EXAMPLES	9-10
GLAZING DETAILS	. 11
ANCHOR LOCATIONS	12-15
PANEL TYPES	. 16
EXTRUSIONS	17
PARTS LIST	18

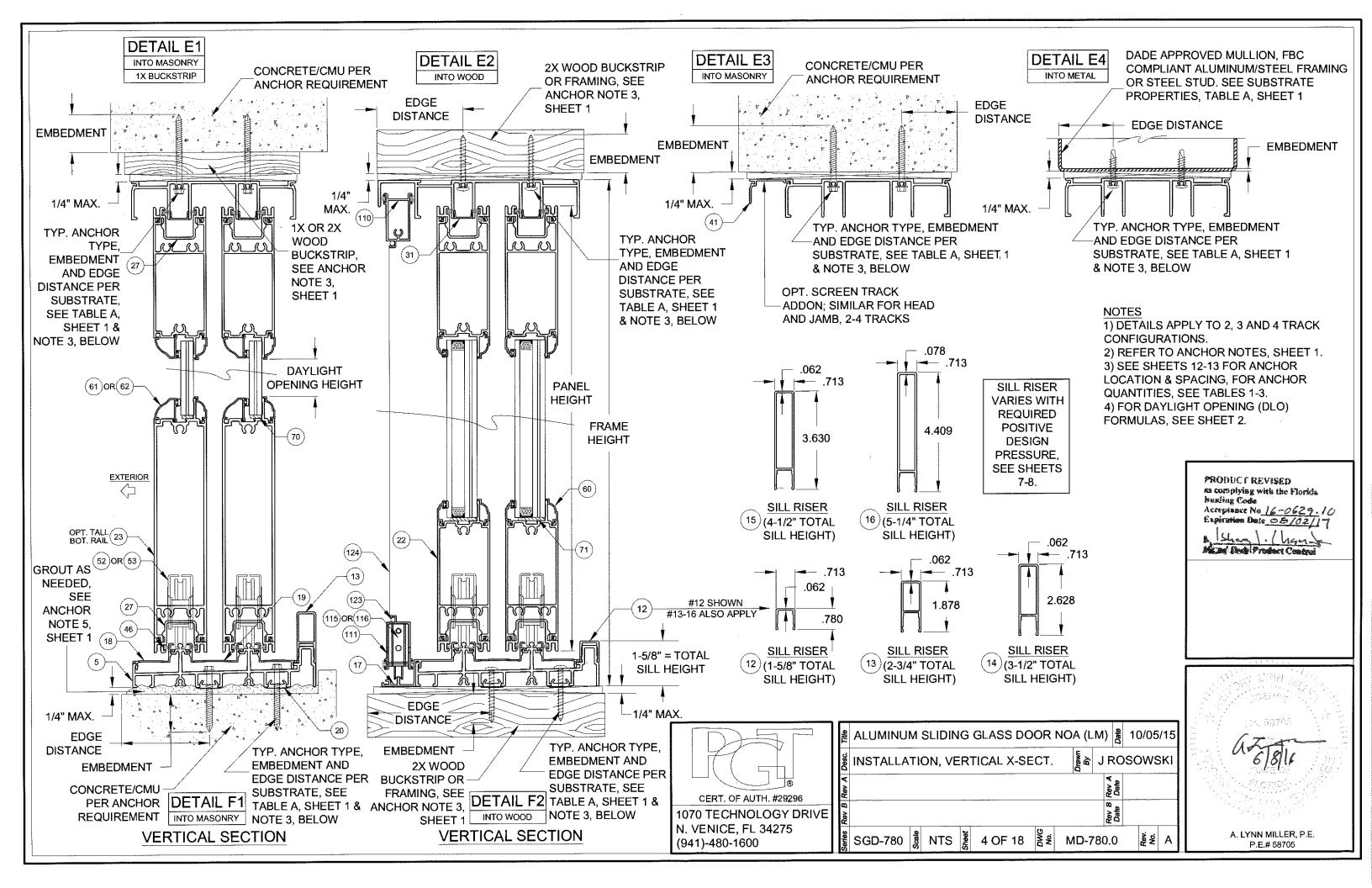
S DO	OR	NOA (L	M)	Date	1(	0/05	/15
		Drawn By	JI	٦C	sc	ows	SKI
ET 11	J	R	Dair A	Date	05	5/15	/16
			0				
<sup>-</sup> 18	DWG No.	MD-7	780	.0		Rev. 79. 19.	А

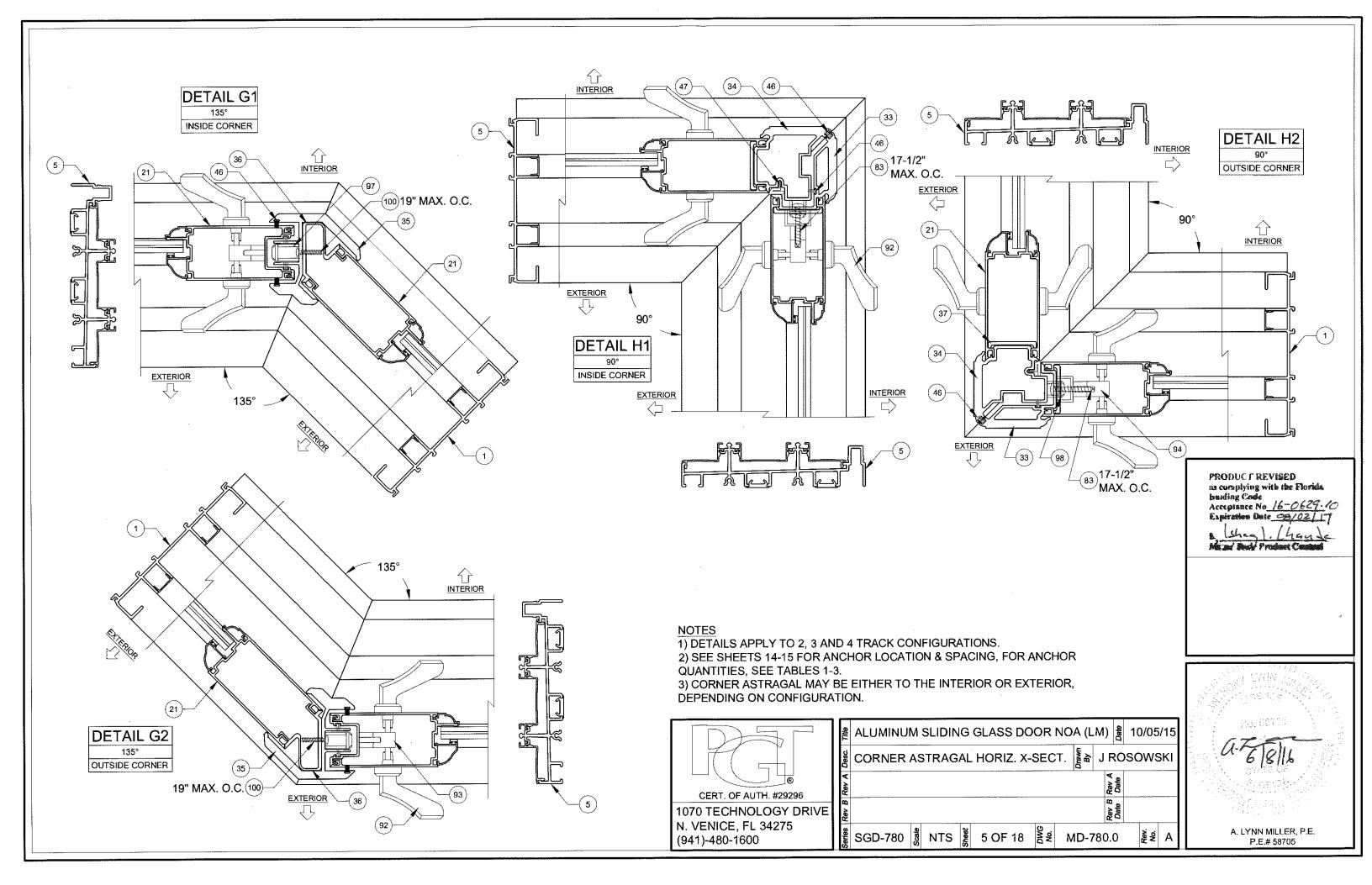


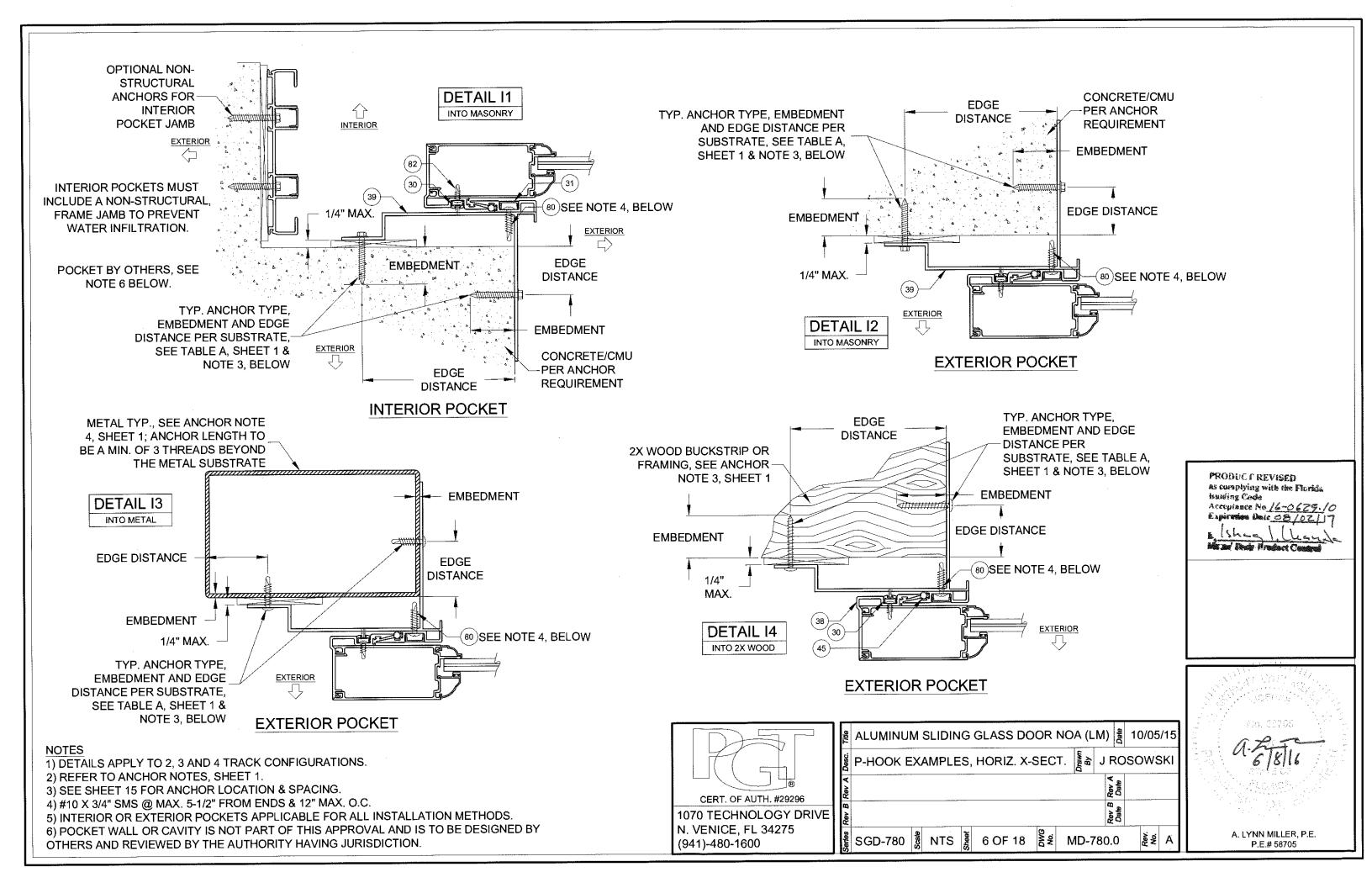
P.E.# 58705











		Desi	gn Pre	essur	e (DP) For cor	and / ner ast	Ancho ragal an	r Qua chorage	ntities on 90°	6 <b>Req</b> i 8 & 135	i <b>red,</b> comer	(for all units, e	approv see she	ed con ets 14 &	figurati 1 15	ions or	Sheel	2)							REQUIRE
	<b>T</b> - <b>h</b> 1	- 12 - 4 -									[	Door Un	it Heigh	t										,	QUANTIE
	Table app	8 10 containing		8	D"			8	H			9(	ô"			10	8"			12	20"				TABLE A,
		inated Glazing.	77-3	3/4" Par	nel Heig	ht**	81-3	/4" Par	el Heig	ht**	93-3	8/4" Par	nel Heig	ht**	105-	3/4" Pa	nel Heig	jht**	117-	3/4" Pa	nel Hei	ght**		/	ANCHOR
Reinfor	cement (p	part #29) is not		Ancho	r Group			Ancho	Group			Ancho	r Group			Anchor	Group			Ancho	r Group			1	THE MAXIMU
equired	in the Ex	terior Interlock.	A	В	C	D	A	В	С	D	Α	В	С	D	Α	В	С	D	Α	В	С	D		I	QUANTITIES.
		Design Pressure		+80/-	80 psf			+80/-	80 psf			+80/-	80 psf			+60/-	70 psf			+60/-	-70 psf		-		MAXIMUM PC
	28-1/8"	Head/Sill	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C6+1	C4+1	C4+1			HEIGHT MUS
36"	DLO Width	Jamb	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	10	10	10	10			SEE TABLE C
	VAIGUI	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5	5+5	5+5			TOTAL # O
		Design Pressure		+80/-	-80 psf		+80 / -80 psf					80 psf			+60/-				+60/-	· ·			$\backslash /$	THROUGH	
42"	34-1/8" DLO	Head/Sill	C4+1	C4+2	C4+2	C4+1	C4+1	C4+2	C4+2	C4+1	C4+1	C4+2	C6+2	C4+1	C4+1	C6+1	C6+2	C4+1	C4+1		C6+2	-			PANEL ME 4 ANCHOR
42	Width	Jamb	6	6	6	8	8	8	8	8	8	8	8	10	8	8	8	10	10	10	10	10			4 ANCHOR MEETING F
		P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5		5+5			REQUIRED
	10 4 10 1	Design Pressure		+80/-				+80/-			-		-80 psf			+60/-				+60/-					TOTAL
48"	40-1/8" DLO	Head/Sill	C4+1	C4+2	C4+2	C4+2	C4+1	C4+2	C4+2		C4+1			C4+2		C6+2		C4+2	C4+1		C6+2				THRO
40	Width	Jamb	6	6	6	8	8	8	8 (	8	8	8	8	10	8	8	8	10	10	10	10	12			
	•	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5	5+5	5+5	, L		THE # (
	46-1/8"	Design Pressure		+80/-				+80/-		7			-80 psf										1		P-HOO
54"	46-1/8 DLO	Head/Sill	C4+2	C4+2			C4+2		C6+2		C4+2			C4+2									1		
	Width	Jamb	6	6	6	8	8	8	8	8	8	8	8	10										$\frown$	INSTAL
Ļ		P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4		N	lot ava	ilable	in thes	se size	S		_ (		
	52-1/8"	Design Pressure			-80 psf	04.0			80 psf	0410			76.2 psi										, <b>\</b>	、	
60"	DLO	Head/Sill		C4+3			(C4+2)	C6+3	C6+3		C4+2 8	8	C6+3 8	12										$\sim$	,
	Width	Jamb P-hook	6 4+4	6 4+4	6 4+4	8 4+4	8 \ 4+4	) 8 4+4	8 4+4	10 4+4	8 4+4	0 4+4	0 4+4	4+4											

TABLE 2:

	F	-	In Pressure (DI (for all appro astragal anchorage	ved co	nfigura	tions o	n Shee	t 2)			
	ble enn	line to C	lass Types 1 - 4,			[	Door Un	it Heigh	t		
18			N-HS PVB		80	)"			9	6"	
		-	Glazing.	77-3	3/4" Par	nel Heig	ht**	93-3	V4" Par	nel Heig	ht**
	Reinford	ement (	oart #29) is not		Ancho	Group			Ancho	r Group	
r	equired	in the Ex	cterior Interlock.	A	В	С	D	Α	В	С	D
			Design Pressure		+65/-	65 psf			+65/-	65 psf	
	36"	28-1/8"	Head/Sill	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1
	36	DLO Width	Jamb	6	6	6	6	8	8	8	8
lth		VIGUI	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4
anel Width			Design Pressure		+65/-	65 psf			+65/-	65 psf	
nel	42"	34-1/8" DLO	Head/Sill	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1
	42	Width	Jamb	6	6	6	6	8	8	8	8
Nominal		Trider	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4
L D D			Design Pressure		+65/-	65 psf			+65/-	65 psf	
Z	48"	40-1/8" DLO	Head/Sill	C4+1	C4+2	C4+2	C4+2	C4+1	C4+2	C4+2	C4+2
	40	Width	Jamb	6	6	6	6	8	8	8	8
			P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4
**SI	EE FO	RMULA	S BELOW								

DLO WIDTH = NOM. PANEL WIDTH - 7.875" DLO HEIGHT (STD. BOT. RAIL, #22) = DOOR UNIT HEIGHT - 13.47" DLO HEIGHT (TALL BOT. RAIL, #23) = DOOR UNIT HEIGHT - 17.29" PANEL HEIGHT = DOOR UNIT HEIGHT - 2.25"

TABLE C1: Water-Limited (+) Design Pressul Total Sill Max. Sill Riser Height Alic 1-5/8" See 12 13 2-3/4" +50 +73 3-1/2" 14 +80 15 4-1/2" 5-1/4" +80 16



	FIG 1:	PRODUC I REVISED as complying with the Florida
re	<u>OH LENGTH</u>	building Code
		Accuptance No 16-06-29.10 Expiration Date 02/02117
(+) DP		Experie areas and Cost Cost
owed		B Charg I. Jussie
Note 2		Mitpuel Dealer Pirodiace Construit
.0 psf		
.3 psf	8	
.0 psf		
.0 psf	DOOR ASSEMBLIES INSTALLED WHERE THE OVERHANG	
	(OH) LENGTH IS EQUAL TO OR GREATER THAN THE	
	OVERHANG HEIGHT IS EXEMPTED FROM WATER	
	INFILTRATION RESISTANCE.	
		1 mg the Carrow in
		U. TRIL
	B DP & ANCHOR QUANTITY TABLE  L L L L L L L L L L L L L L L L L	
	Rev A Date	
CERT, OF AUTH. #29296		
1070 TECHNOLOGY DRIVE	Rev B Date B	
N. VENICE, FL 34275		
(941)-480-1600	अग्र के कि      NTS      अग्र कि      7 OF 18      अग्र कि      MD-780.0      क्र कि      A	A. LYNN MILLER, P.E. P.E.# 58705
(341)-400-1000		F.E.# 30703

TYPE PER SUBSTRATE ACHIEVE THE DESIGN SING THE ANCHOR TED BELOW. SEE ET 1 FOR COMPLETE TATIONS.

AT THESE ANCHOR TIONALLY, THE /E DP DUE TO THE SILL SO BE CONSIDERED, IS SHEET.

CHORS CLUSTERED HEAD & SILL AT EACH POINT. (EX: FOR C4+1, QUIRED AT PANEL AND 1 ANCHOR 11DSPAN OF PANEL).

ANCHORS THE JAMB.

NCHORS THROUGH THE TALLED FROM THE THE # OF ANCHORS FROM THE EXTERIOR.

LE 2, SHEET 10

#### TABLE NOTES:

1) IF WATER INFILTRATION RESISTANCE IS REQUIRED THE LESSER VALUES OF EITHER TABLE 1 OR 2 AND TABLE C1 DETERMINES THE WATER LIMITED (+) DP.

2) THE 1-5/8" SILL RISER, #12, MAY ONLY BE USED WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED OR OVERHANG IS PER FIG 1. IF SO, +DP'S SHOWN IN TABLES 1 OR 2 MAY BE USED.

3) SEE SILL RISER TYPES ON SHEET 4.

4) DETAILS APPLY TO 2, 3 AND 4 TRACK CONFIGURATIONS.

5) REFER TO ANCHOR NOTES, SHEET 1.

6) SEE SHEETS 12-15 FOR ANCHOR LOCATION & SPACING TABLE 3:

#### Design Pressure (DP) and Anchor Quantities Required, (for all approved configurations on Sheet 2) For corner astragal anchorage on 90° & 135° corner units, see sheets 14 & 15

													• • •																
	Table ap	plies to													۵	oor Un	it Heigh	nt											
ss Typ	-	11 & 12 containing		8	0"			8	4"	•••••		9	6" .				)8"			12					32"				44
HS-HS	S SG lam	inated glazing.	77-3	/4" Pa	nel Hei	ght**	81-3	8/4" Par	nel Heig	ght**	93-3	/4" Pai	nel Hei	ght**			inel Hei	-		3/4" Pa		-		3/4" Pa		-		-3/4" P	
einforce	əment (pa	rt #29) is required		Ancho	r Group	)		Ancho	*****				r Group				r Group		Anchor Group				<u> </u>	Ancho				Anche	уr Т
in t	the Exteri	or Interlock.	A	В	<u> </u>	D	A	8	С	D	A	В	<u> </u>	D	A	B	<u> </u>	D	<u> </u>	B	<u> </u>	<u>D</u>	A	B		D	Â	B	Ť
	22-1/8"	Design Pressure			115 ps			+105 / -					115 ps				-115 ps		L	105 / -	-			-104 / -				+92.7	-
30"	DLO	Head/Sill	C4+1	C4+1	C4+1	C4+1	C4+1	C4+1			C4+1		I				C6+1	L		C6+1		<u> </u>		C6+1				C6+1	_
50	Width	Jamb	6	6	6	8	8	8	8	8	8	8	8	10	8	8	8	12	10	10	10	12	10	10	10	12	12	12	╇
		P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5	5+5	5+5	6+6	6+6	6+6	6+6	6+6		
		Design Pressure	E		-115 ps			+105 / -					-115 ps				-115 ps			- / 105				01.6/-				+77.9/	
	28-1/8"	Head/Sill	C4+1	C6+2	C6+2	C4+1	C4+1	C6+2	C6+2	C4+1	C4+1	C6+2	C6+2	C6+1	C4+1	C6+2	C8+2	C6+1	C6+1	C8+2		C6+1	C6+1	C8+2	C8+2	C8+1		C8+1	_
36"	DLO Width	Jamb	6	6	8	10	8	8	8	10	8	8	10	12	8	8	10	14	10	10	12	14	10	10	12	16	12	12	
	VV IQUIT	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5	5+5	5+5	6+6	6+6	6+6	6+6	6+6		_
		Design Pressure		+105 /	-115 ps	1		+105 / -	115 ps	f		+105/	115 ps	f	-	-105/-	-115 ps	f	-	+105/-	115 ps	1		+88 / -9				+67.3/	
	34-1/8"	Head/Sill	C4+2	C6+2	C6+2	C4+2	C4+2	C6+2	C6+2	C6+2	C4+2	C6+2	C6+2	C6+2	C6+2	C8+2	C8+2	C6+2	C6+2	C8+2	C8+2	C8+2	C6+1	C6+1 C8+2 C8+2 C8+2			C6+1	C6+2	2
42"	DLO	Jamb	6	6	8	10	8	8	8	10	8	8	10	12	8	8	12	14	10	10	12	16	10	10	12	16	12	12	T
	Width	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	T
		Design Pressure			-115 ps	1		+105 / -	115 ps	f	-	+105/	115 ps	f	-	- 105 / -	-115 ps	f	<u> </u>	+105/-	115 ps	f		+78 / -8	35.4 ps:	ſ	+	+59.6/	-6
	40-1/8"	Head/Sill									C6+2	C8+3	C8+3	C6+2	C6+2	C8+3	C8+3	C8+2	C6+2	C10+3	C10+3	C8+2	C6+2	C8+2	C8+2	C6+2	C6+1	C6+2	ŗ
48"	DLO	Jamb	6	6	8	12	8	8	10	12	8	8	10	14	8	8	12	16	10	10	14	18	10	10	12	16	12	12	
	Width	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4/	1	4+4	4+4	4+4	5+5	5+5	5+5	5+5	5+5	5+5	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	6+6	t
		Design Pressure			-115 ps			+105 /				+105/	-115 ps	f	-	+105/-	-115 ps	f	+	94.8 / -	103.8 p	osf		1			•		
	46-1/8"	Head/Sill											•		C6+2	C8+3	C10+3	C8+3	C6+2	C10+3	C10+3	C8+3	1						
54"	DLO	Jamb	6	6	10	12	8	8	10	12	8	8	12	14	8	8	14	18	10	10	14	18							
	Width	P-hook	4+4		4+4		4+4	4+4		4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	6+6	5+5	5+5	5+5	6+6							
		Design Pressure		1	-115 ps			+105/-	115 ps	if	<u> </u>	+105/-	-115 ps	f	+1	03.4/	-113.2	DSf		+86.7/	-95 ps	f	1	N	ot ava	ilable	in the	se siz	:e
	52-1/8"	Head/Sill	1		C6+4										C6+3				C6+2	C10+3	C10+3	C8+3	8+3						
60"	DLO	Jamb	6	6	10	12	8	8	10	14	8	8	12	16	8	8	14	18	10	10	14	18	1						
	Width	P-hook	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	4+4	-	4+4	5+5	_	5+5	5+5	6+6	5+5	5+5	5+5	6+6	1						
					, -	1	<u> </u>		1			1	1			1		1		I	I	<u> </u>	1						

\*\*SEE FORMULAS BELOW

#### TABLE C2:

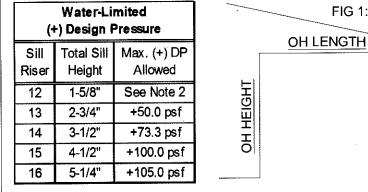


TABLE NOTES:

FIG 1:

1) IF WATER INFILTRATION RESISTANCE IS REQUIRED, THE LESSER VALUE OF TABLE 3 AND TABLE C2 DETERMINES THE WATER LIMITED (+) DP.

2) THE 1-5/8" SILL RISER, #12, MAY ONLY BE USED WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED OR OVERHANG IS PER FIG 1. IF SO, +DP'S SHOWN IN TABLE 3 MAY BE USED.

3) SEE SILL RISER TYPES ON SHEET 4.

4) DETAILS APPLY TO 2, 3 AND 4 TRACK CONFIGURATIONS.

5) REFER TO ANCHOR NOTES, SHEET 1.

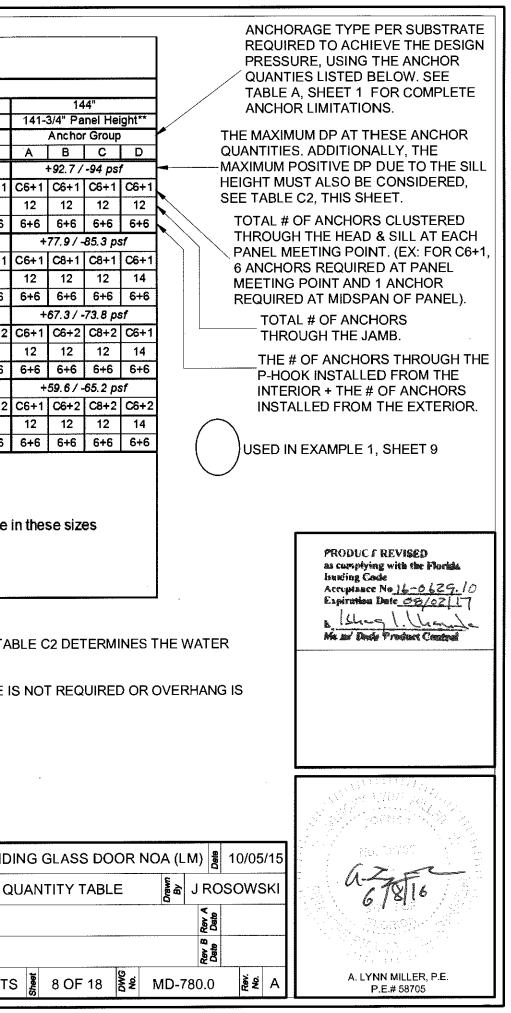
6) SEE SHEETS 12-15 FOR ANCHOR LOCATION & SPACING

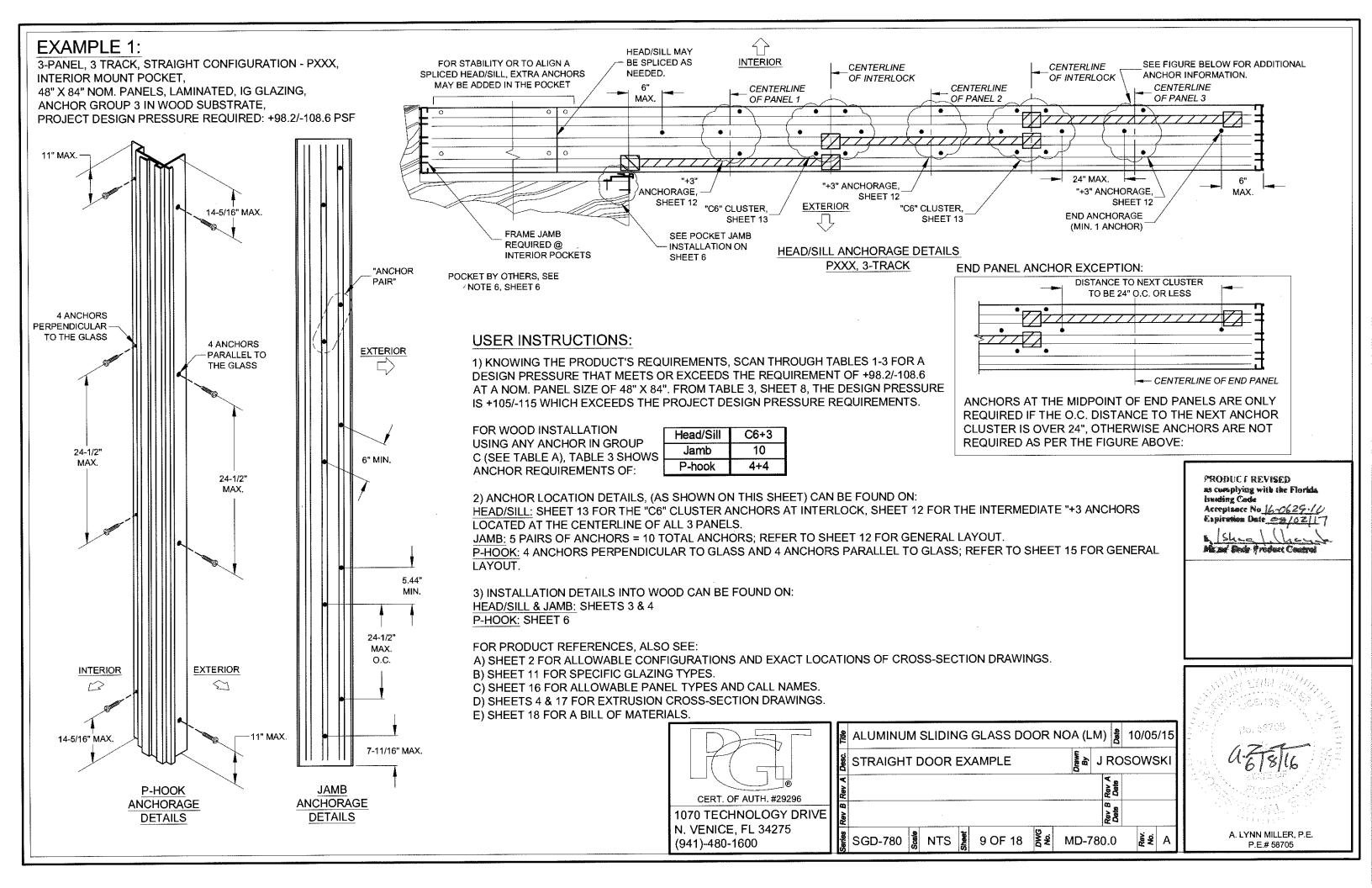
	Title	ALUMINU	M	SLI
	Desc.	DP & ANC	н	DR
CERT. OF AUTH. #29296	Rev A			
1070 TECHNOLOGY DRIVE	Rev B			
N. VENICE, FL 34275 (941)-480-1600	Series	SGD-780	Scale	N

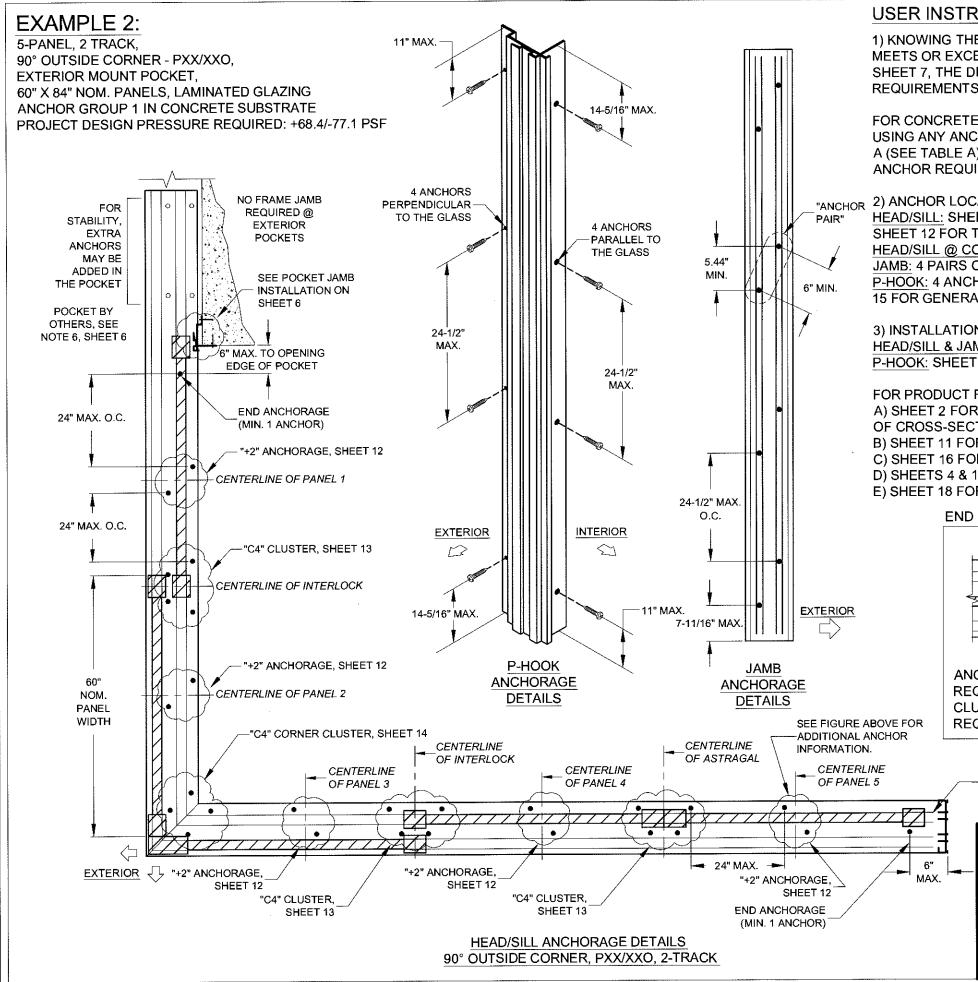
DOOR ASSEMBLIES INSTALLED WHERE THE OVERHANG (OH) LENGTH IS EQUAL TO OR GREATER THAN THE OVERHANG HEIGHT IS EXEMPTED FROM WATER INFILTRATION RESISTANCE.

DLO WIDTH = NOM. PANEL WIDTH - 7.875" DLO HEIGHT (STD, BOT, RAIL, #22) = DOOR UNIT HEIGHT - 13.47" DLO HEIGHT (TALL BOT. RAIL, #23) = DOOR UNIT HEIGHT - 17.29" PANEL HEIGHT = DOOR UNIT HEIGHT - 2.25"

rs 🛓







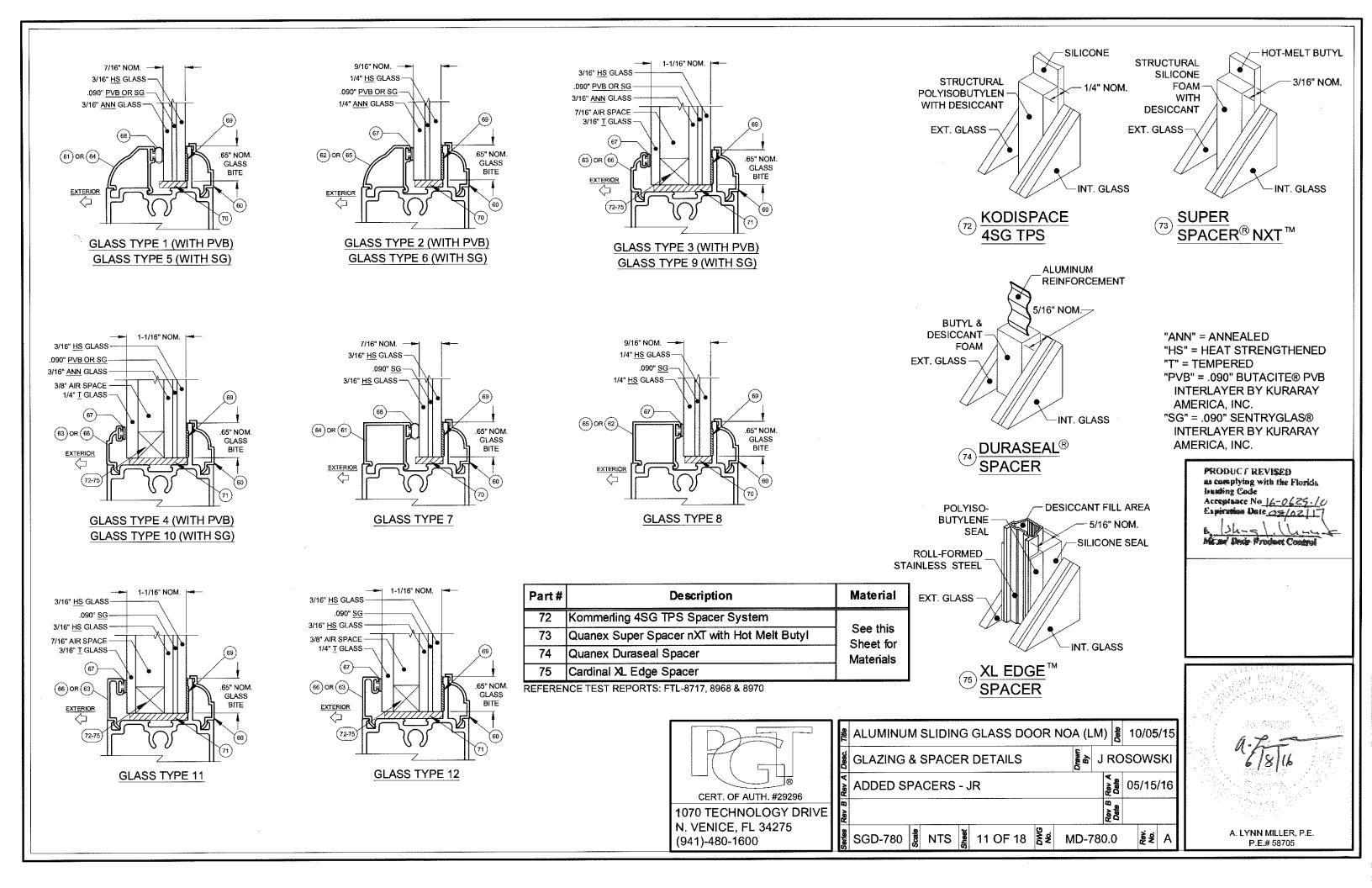
# **USER INSTRUCTIONS:**

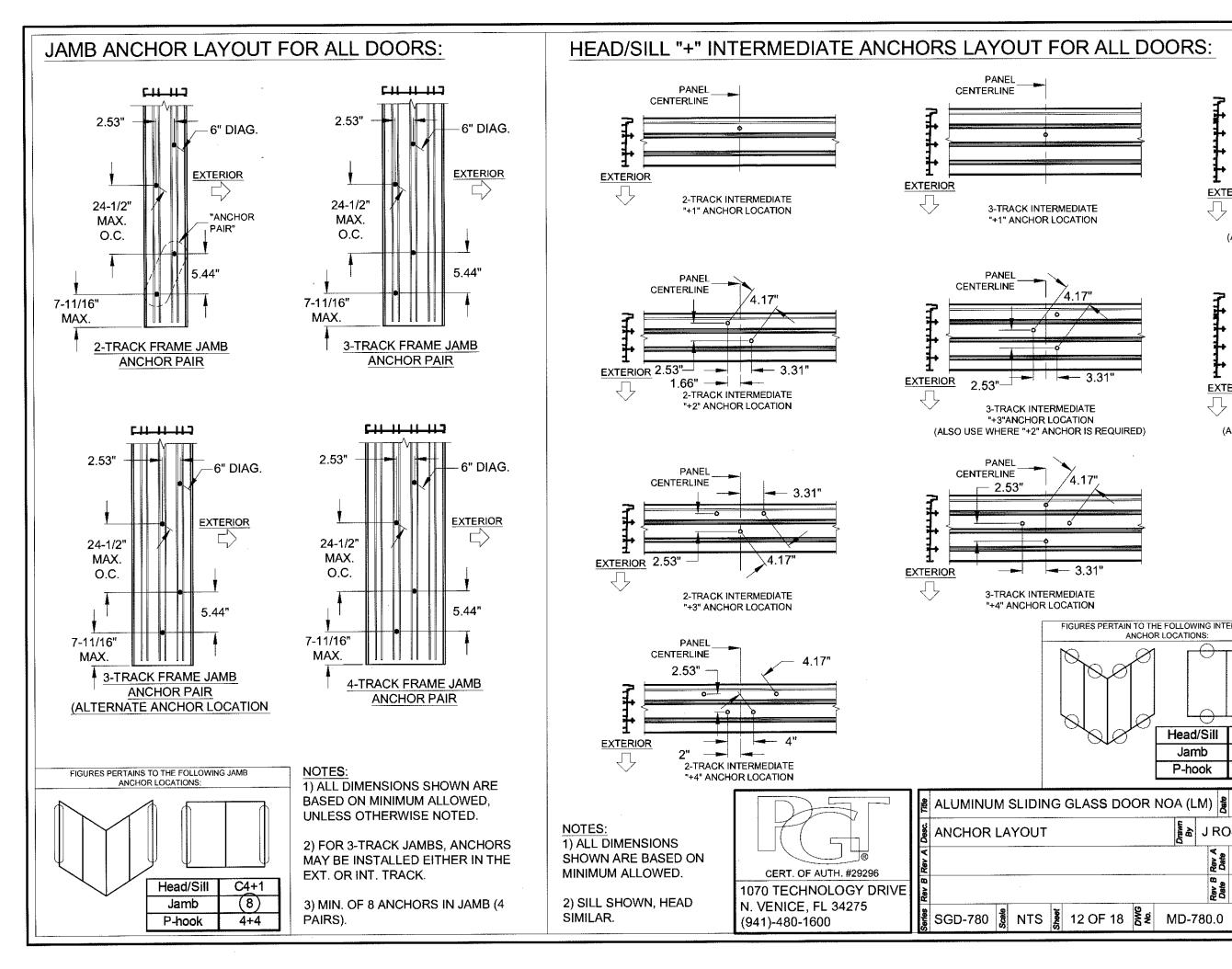
Head/Sill C4+2 Jamb 8 4+4 P-hook PRODUCT REVISED as complying with the Florida Beating Code Acceptance No 16-0629.11 Expiration Date 05/0211-Mind Deds Product Centra END PANEL ANCHOR EXCEPTION: DISTANCE TO NEXT CLUSTER TO BE 24" O.C. OR LESS - CENTERLINE OF END PANEL ANCHORS AT THE MIDPOINT OF END PANELS ARE ONLY REQUIRED IF THE O.C. DISTANCE TO THE NEXT ANCHOR CLUSTER IS OVER 24", OTHERWISE ANCHORS ARE NOT REQUIRED AS PER THE FIGURE ABOVE: FOR FIXED PANEL, REFER TO "O" PANEL BRACKET DETAILS, SHEET 3 A. LYNN MILLER, P.E. P.E.# 58705 윤 ALUMINUM SLIDING GLASS DOOR NOA (LM) [욹 10/05/15 🚡 🖻 J ROSOWSKI CORNER DOOR EXAMPLE CERT, OF AUTH. #29296 26V Efection 1070 TECHNOLOGY DRIVE ેટ્ટે રું A 🖁 SGD-780 💆 NTS 🛢 10 OF 18 💐 MD-780.0

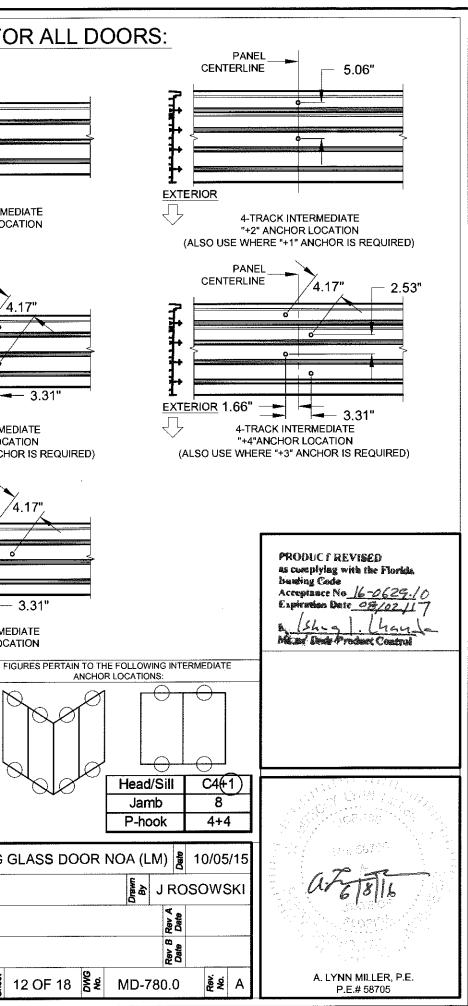
1) KNOWING THE PRODUCT REQUIREMENTS, SCAN THROUGH TABLES 1-3 FOR A DESIGN PRESSURE THAT MEETS OR EXCEEDS THE REQUIREMENT OF +68.4/-77.1 AT A NOM. PANEL SIZE OF 60" X 84". FROM TABLE 1, SHEET 7. THE DESIGN PRESSURE IS +80/-80 WHICH EXCEEDS THE PROJECT DESIGN PRESSURE REQUIREMENTS. FOR CONCRETE INSTALLATION USING ANY ANCHOR IN GROUP A (SEE TABLE A), TABLE 1 SHOWS ANCHOR REQUIREMENTS OF: HEAD/SILL: SHEET 13 FOR THE "C4" CLUSTER ANCHORS LOCATED AT THE ASTRAGAL AND INTERLOCKS, SHEET 12 FOR THE INTERMEDIATE "+2 ANCHORS. HEAD/SILL @ CORNER: SHEET 14 FOR THE "C4" CLUSTER ANCHORS @ THE 90° CORNER. JAMB: 4 PAIRS OF ANCHORS = 8 TOTAL ANCHORS; REFER TO SHEET 12 FOR GENERAL LAYOUT. P-HOOK: 4 ANCHORS PERPENDICULAR TO GLASS AND 4 ANCHORS PARALLEL TO GLASS: REFER TO SHEET 15 FOR GENERAL LAYOUT. 3) INSTALLATION DETAILS INTO CONCRETE CAN BE FOUND ON: HEAD/SILL & JAMB: SHEETS 3 & 4 P-HOOK: SHEET 6 FOR PRODUCT REFERENCES, ALSO SEE: A) SHEET 2 FOR ALLOWABLE CONFIGURATIONS AND EXACT LOCATIONS OF CROSS-SECTION DRAWINGS. B) SHEET 11 FOR SPECIFIC GLAZING TYPE. C) SHEET 16 FOR ALLOWABLE PANEL TYPES AND CALL NAMES. D) SHEETS 4 & 17 FOR EXTRUSION CROSS-SECTION DRAWINGS. E) SHEET 18 FOR A BILL OF MATERIALS.

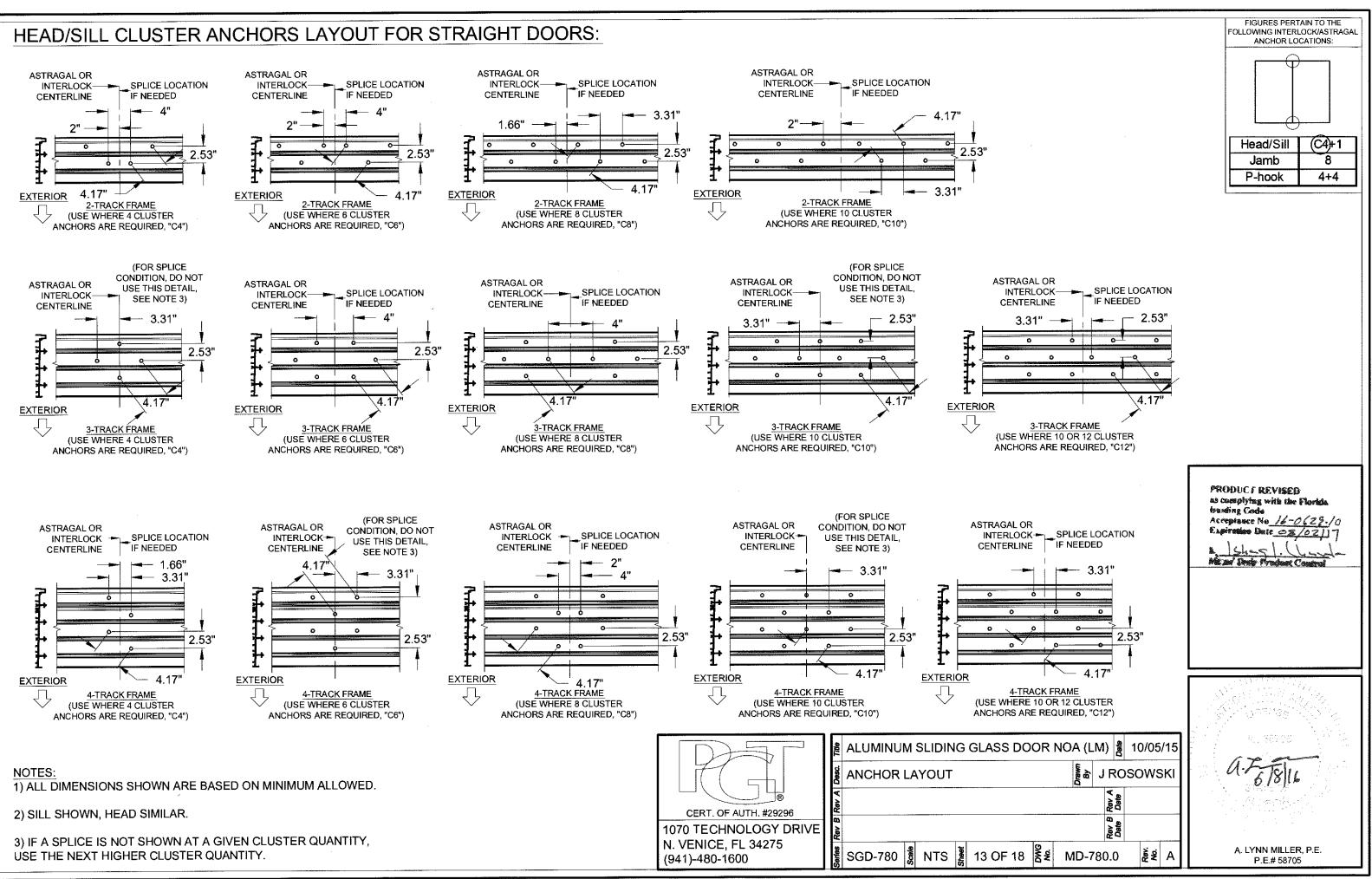
"ANCHOR 2) ANCHOR LOCATION DETAILS, (AS SHOWN ON THIS SHEET) CAN BE FOUND ON:









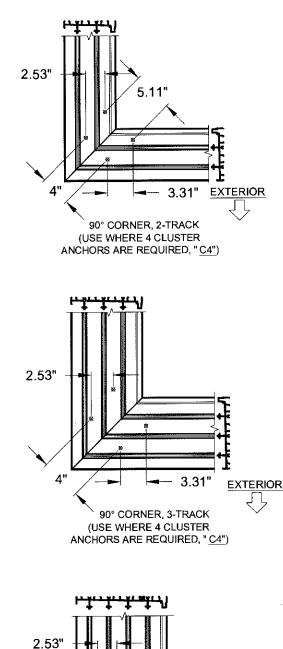


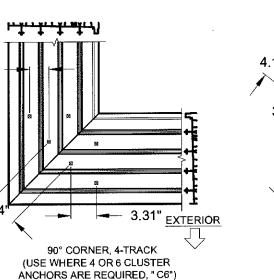
# HEAD/SILL 90° CORNER CLUSTER ANCHORS LAYOUT:

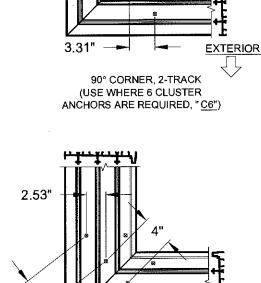
2.53"

4.17'

3.31"





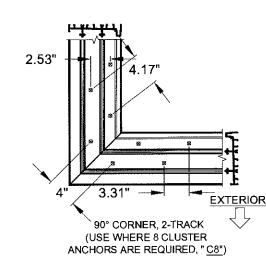


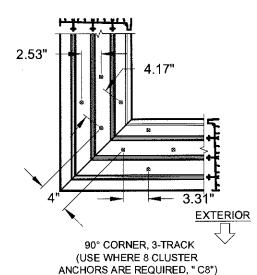
90° CORNER, 3-TRACK

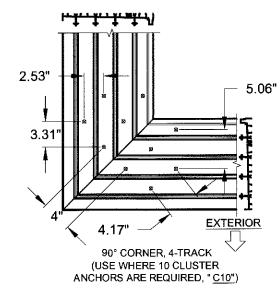
(USE WHERE 6 CLUSTER ANCHORS ARE REQUIRED, " <u>C6"</u>)

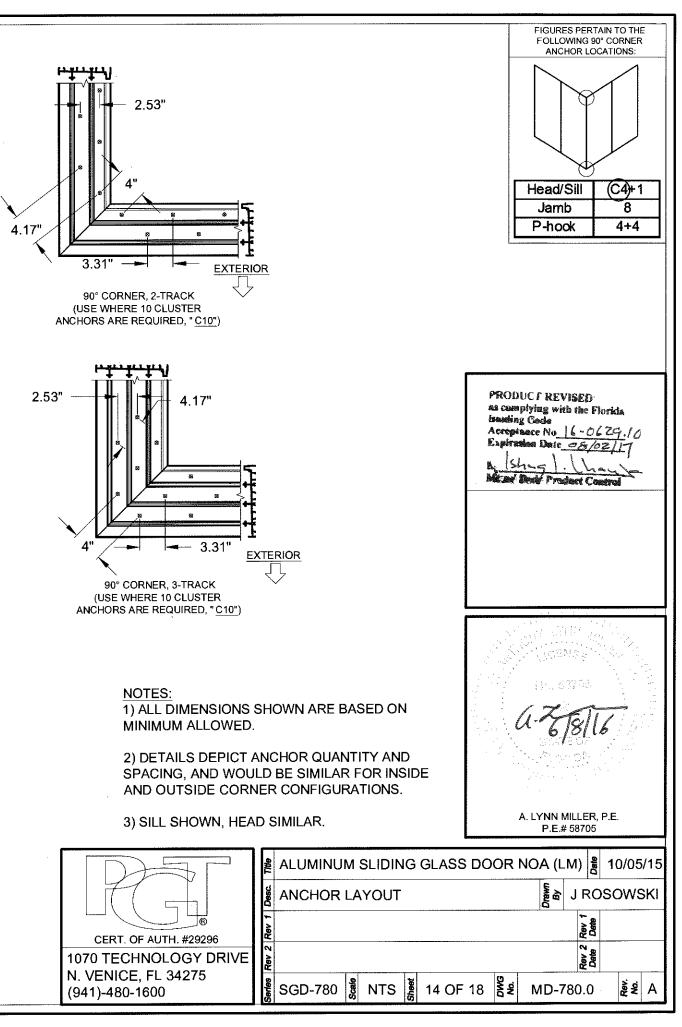
EXTERIOR

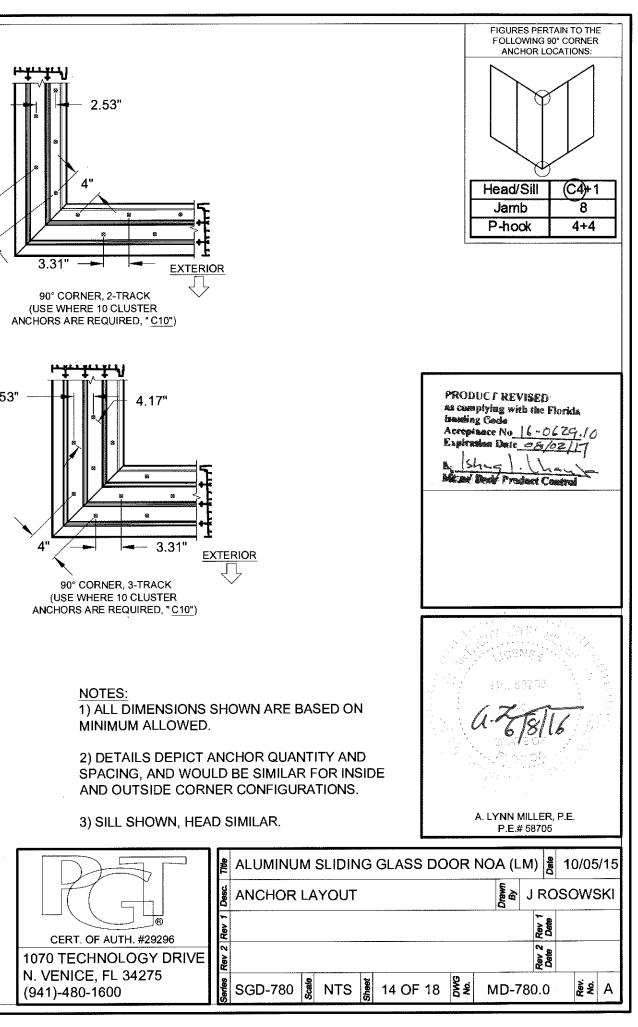
4.17"

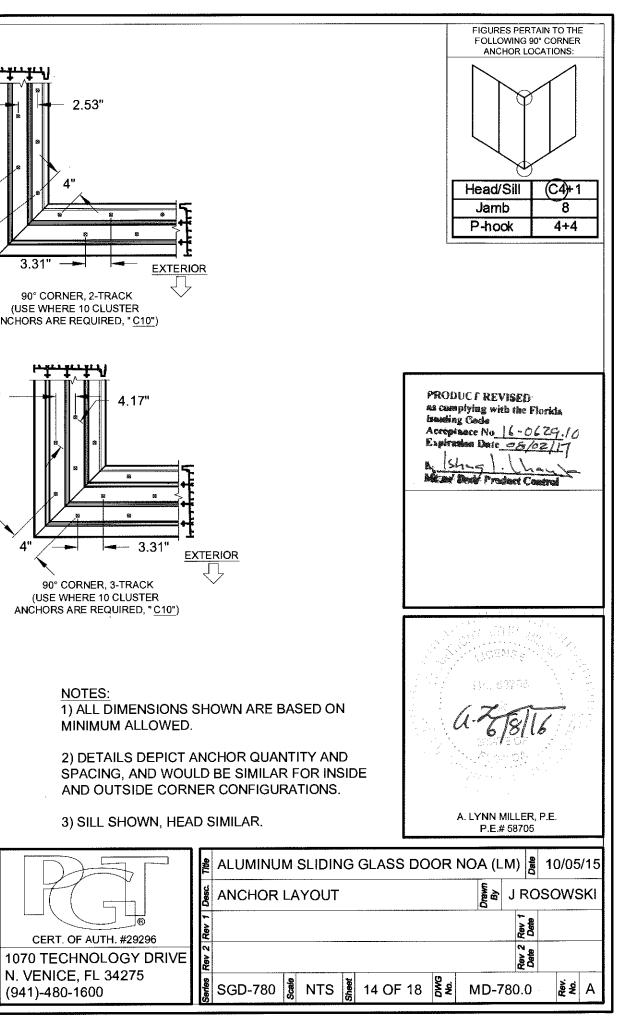


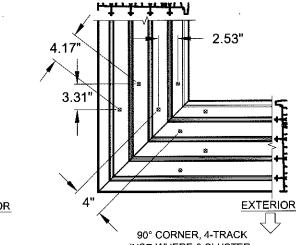




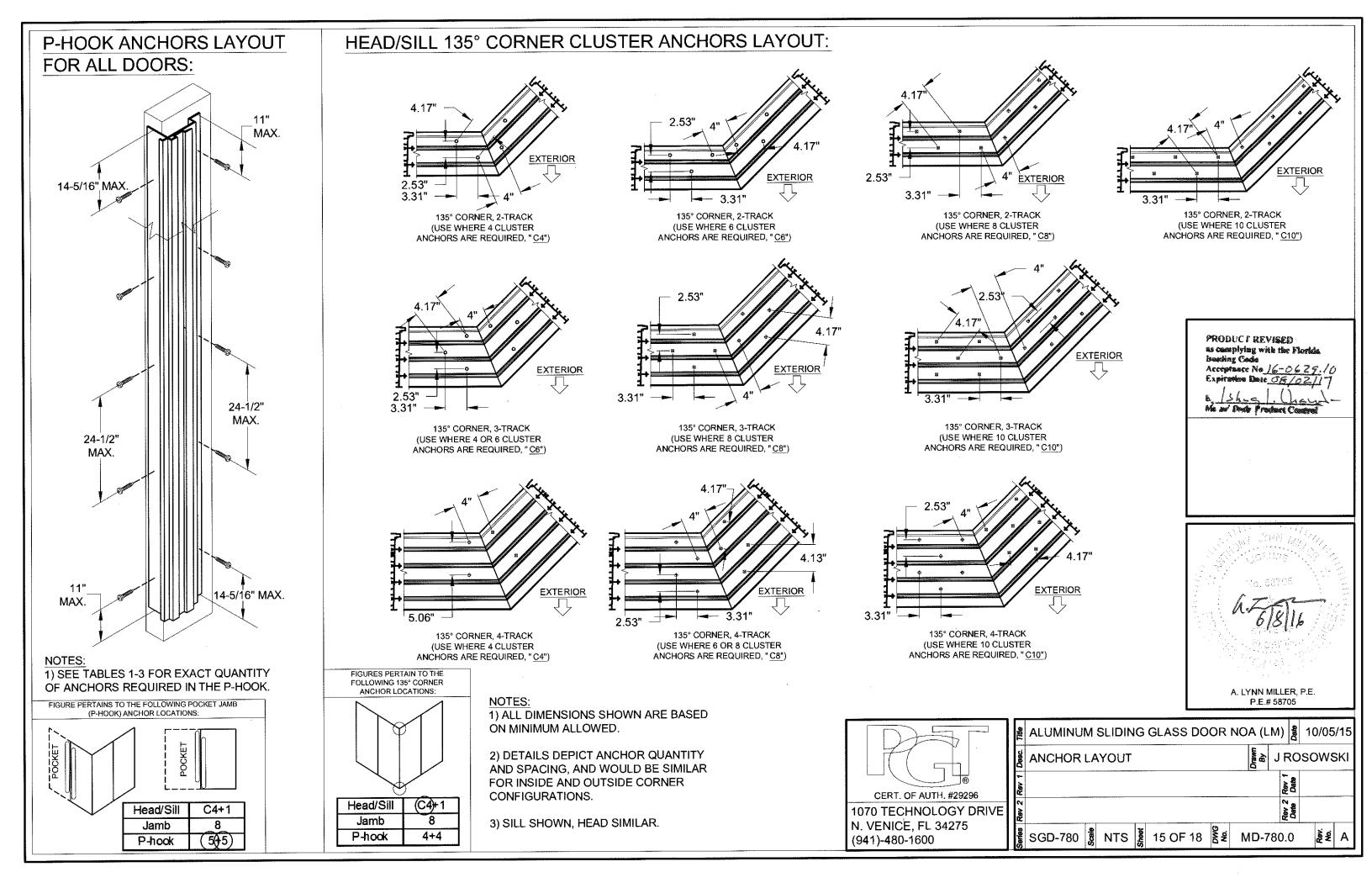




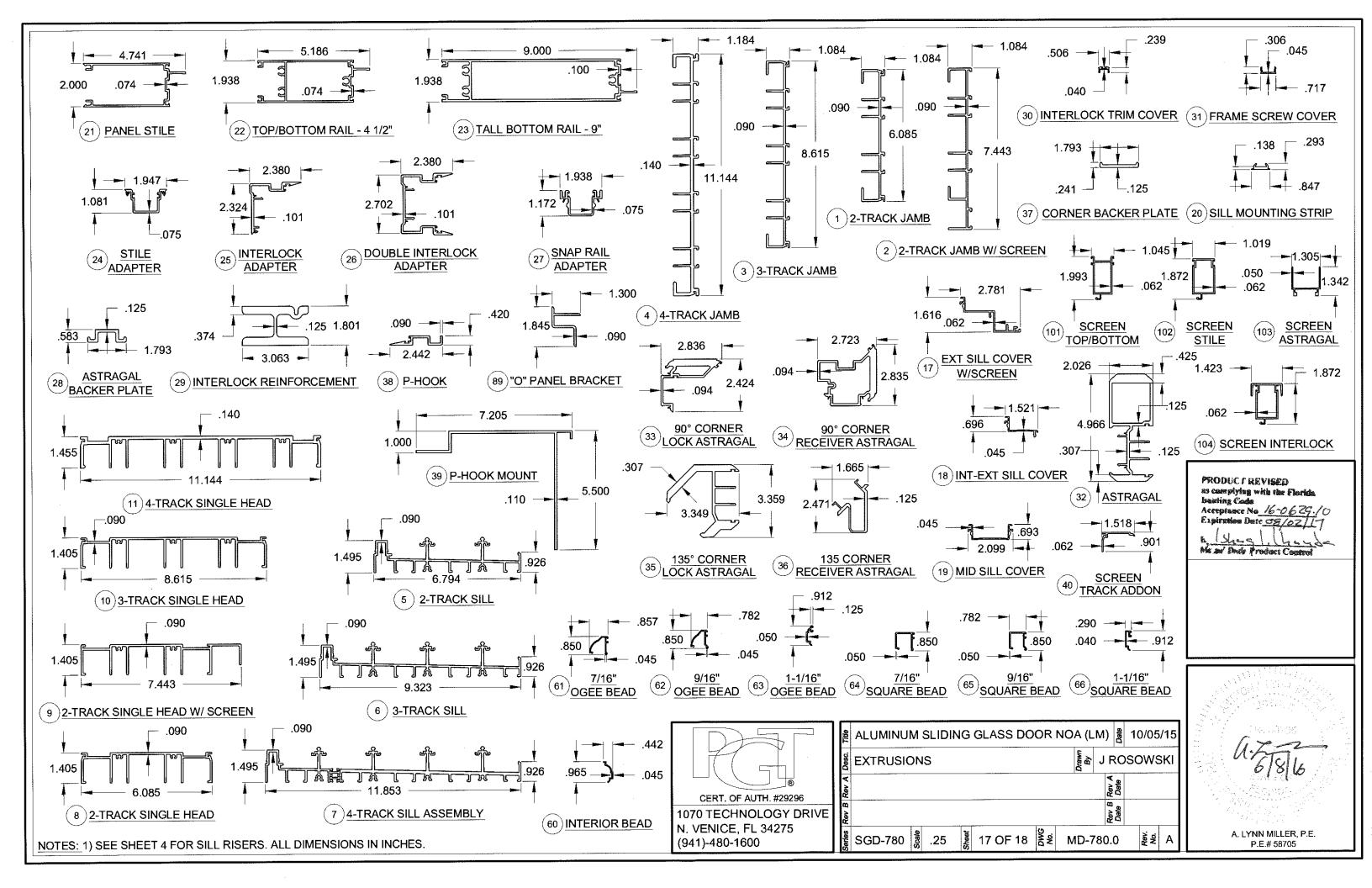




(USE WHERE & CLUSTER ANCHORS ARE REQUIRED, " C8")



PANEL TYPES		SINGLE INTERLOCK IN			LOCKSTILE W/ HANDLE	ASTRAGAL BO BOX IN W/ H/		ASTRAGAL BOX BOX OUT W/ H	RAGAL X OUT HANDLE	INSIDE 90° ASTRAGAL RECEIVER W/ HANDLE	OUTSIDE 90° ASTRAGAL RECEIVER	OUTSIDE 90° ASTRAGAL RECEIVER W/ HANDLE	INSIDE 90° CORNER LOCKSTILE W/ HANDLE	W/HANDLE	OUTSIDE 135° ASTRAGAL RECEIVER	INSIDE 135° ASTRAGAL RECEIVER	OUTSIDE 135 ASTRAGAL RECEIVER W/ HANDLE	ASTRAGAL RECEIVER W/HANDLE	
	E	F		PP	K	(BC	X IN)	В	<b>L</b> 100 х ОИТ)	TA		TC	TR	TQ				TW	
SINGLE INTERLOCK	В			Р	Α					SA		SC	IC	SQ			SV	SW	
			1	YR	GR														
FIXED STILE	RR	R	Y			S (BOX IN)		S (BOX OUT)		FD	FC				FV	FW			
	D	М	G				<b>V</b> × IN)	вохоит) (во											
ASTRAGAL BOX IN				T (BOX IN)	U (BOX IN)			<u></u>			DICUT		NOTES:						
ASTRAGAL BOX IN W/ HANDLE		N (BOX IN)								ŧ,	RIGHT PANEL STILE	2. PAN		NOT SHOWN				& DESIGN PI	
ASTRAGAL BOX OUT				(BOX OUT)				. SEE TABLE F			TYPES AN	п	ot availae Imum <u>nom</u>		. WIDTH FOI	R ALL PANE	L CONFIGU	RATIONS IS	60".
ASTRAGAL BOX OUT W/ HANDLE						AFFLICAD				MENTO.									
INS. 90° ASTRAGAL	AT	AS		DF											SILICONE BY OTHERS	6	Γ	PRODUCT RE	IVISED vito the Florida
OUTSIDE 90° ASTRAGAL RECEIVER				CF		Je -			51	) 5/16" WASHEF	R		and the second se			3 X 1" PH SM	IS,	Bauling Code Accéptance No Espiration Dat	16-0(29.10 - 98/02/17
OUT. 90° ASTRAGAL	СТ	CS													US US	TRACK SHO SE 2 SCREW DR 2-TRACK	/S	B. (Shand Bridge	Marile Marile
INS. 90° CORNER LOCKSTILE W/ HANDLE	RT	CI													4 \$	RAMES & SCREWS FC TRACK FRAI			
OUT. 90° CORNER	QT	QS									X 2" BOLT								
OUTSIDE 135° ASTRAGAL RECEIVER				VF				CORNER D					CORNE	R DETAI	L		Г		anten Man <sub>de</sub> 167
INSIDE 135° ASTRAGAL RECEIVER			-	WF								┓							
OUTSIDE 135° AST. RECEIVER W/ HANDLE	VT	VS										울 ALUMI 왕 PANEL		NG GLASS	1	A (LM) 용 10		ú.77	Terla and
INSIDE 135° AST. RECEIVER W/ HANDLE	WT	WS									® . #29296	Rev A D				Rev A Date Date		<b>b</b>	
			1						N. VEN	ECHNOLO NCE, FL 3 480-1600	DGY DRIVE 4275	α 	80 👸 NTS	3 16 OF	18 8 M	۹۵ (۲۹۹ ۱D-780.0	A Ko	A. LYNN P.E	MILLER, P.E. # 58705



#	Part #	Description	Material
1	8134	2-Track Jamb	6063 T6 A
2	8135	2-Track Jamb with Screen Rail	6063 T6 A
3	8133	3-Track Jamb	6063 T6 A
4	8132	4-Track Jamb	6063 T6 A
5	8118	2-Track Sill	6063 T6 A
6	8116	3-Track Sill	6063 T6 A
7	8120	4-Track Sill	6063 T6 A
8	8127A	2-Track Head	6063 T6 A
9	8128A	2-Track Head with Screen Rail	6063 T6 A
10	8124	3-Track Head	6063 T6 A
11	8121	4-Track Head	6063 T6 A
12	8140	Sill Riser - 1-5/8"	6063 T6 A
13	8139	Sill Riser - 2-3/4"	6063 T6 A
14	8138	Sill Riser - 3-1/2"	6063 T6 A
15	8137	Sill Riser - 4-1/2"	6063 T6 A
16	8182	Sill Riser - 5-1/4"	6063 T6 A
17	8119A	Ext. Sill Cover with Screen Rail	6063 T6 A
18	8117	Int-Ext. Sill Cover	6063 T6 A
19	8115	Mid-Sill Cover	6063 T6 A
20	8183	Sill Mounting Strip/Anchor Plate	6063 T6 A
21	8012	Panel Stile	6063 T6 A
22	8014C	Top/Bottom Rail	6063 T6 A
23	8013C	9" Tall Bottom Rail 6063	
24	8104	Stile Adaptor	6063 T6 A
25	8102	Interlock Adaptor (Single)	6063 T6 A
26	8101	Interlock Adaptor (Double)	6063 T6 A
27	8103	Top Snap Rail Adaptor	6063 T6 A
28	8105	Astragal Backup Plate	6063 T6 A
29	8192	Interlock Reinforcement	6105 T5 A
30	8200	Interlock Screw Cover with T-slot	6063 T6 A
31	8136	Frame Screw Cover	6063 T6 A
32	8107C	Astragal	6063 T6 A
33	8110	90° Corner Lock Astragai	6063 T6 A
34	8111	90° Corner Astragal Receiver	6063 T6 A
35	8204	135° Corner Astragal	6063 T6 A
36	8205	135° Passive Corner Mount	6063 T6 A
37	8112	90° Corner Astragal Backup Plate	6063 T6 A
38	8108	Pocket Door P-Hook	6063 T6 A
39	8109	Pocket Door P-Hook Mount	6063 T6 A
40	8141	Screen Frame Add-on (Sill)	6063 T6 A
41	8142A	Screen Frame Add-on (Head)	6063 T6 A
42	8143A	Screen Track Addon	6063 T6 A

TABLE D, CONTINUED:

Bill of Material					
#	Part #	Description	Material		
44	6TP248	Vinyl Bulb Weatherstrip @ Interlock	Flex PVC		
45	6TP247	Vinyl Bulb Weatherstrip @ P-hook	Flex PVC		
46	1644	.187" X .270" Weatherstrip			
47	1673	.500" Door Seal			
50		5/16" X 2" Lagbolt	SS		
51	8197	Lagbolt Washer	SS		
52	8153	Tandem Roller Assembly	SS		
53	8153	Tandem Roller Assembly	Nylon		
54		#10" X 1-1/2" Ph. PH. SMS @ Roller	SS		
55	8052	Roller Adj. Hole Plug	PVC		
60	8022	Interior Bead	6063 T5 AI		
61	8150	7/16" OG Bead	6063 T5 AI		
62	8145	9/16" OG Bead	6063 T5 AI		
63	8146	1-1/16" OG Bead	6063 T5 AI		
64	8150	7/16" Square Bead	6063 T5 AI		
65	8148	9/16" Square Bead	6063 T5 AI		
66	8149	1-1/16" Square Bead	6063 T5 AI		
67	6TP247	Vinyl Glazing Bulb			
68	1643	Foam-filled Glazing Bulb (7/16" glazing only)			
69		Dow 899, 995 or Instantglaze Glazing Silicone	Silicone		
70	1725	Setting Block, 1/2" X 4" X 1/16", 85 +/- 5 duro.	EPDM		
71	1726	Setting Block, 1" X 4" X 1/16" (IG), 85 +/- 5 duro.	EPDM		
80	710X34PPSDAX	#10 X 3/4" Ph. PH. SMS @ P-hook	SS		
82	710X58PPTX	#8 X 5/8" Ph. PH. SMS @ Interlock	SS		
83	710X115PPX	#10 X 1-1/2" Ph. PH. SMS @ Astragal	SS		
84	1155	#8 X 1" PH. Quad. SMS @ Main frame	SS		
85	72087K	Jamb Bumper			
86	76X38PPAX	#6 X .375" Ph. PH. SMS	SS		
87	4385	4 Hole Bumper Stop			
88	78X38PPTX	#8 X 3/8" Ph. PH. SMS	Steel		
89	8193	"O" Panel Bracket - 12" long			
90		#10 X 3/4" Ph. PH. SMS @ Fixed "O" Bracket to Stile	SS		
91		#8 X 3/4" Ph. FH. SMS @ Fixed "O" Bracket to Frame	SS		

-

Bill of Material					
#	Part #	Description	Material		
92	Varies	Handle Kit	Cast Zinc		
93	8185X	Gemini Mortice Lock w/Long Trim Plate	SS		
94	8184X	Gemini Mortice Lock w/Pocket Trim Plate	SS		
95		#10-32 X 1" Ph. FH. MS Stee!			
96	· · · · · · · · · · · · · · · · · · ·	#10-32 U-Nut	Steel		
97		1" Mortice Keeper, 135° Corner & Straight	SS		
98	8187X	3/4" Mortice Keeper, 90° Corner	SS		
99		#10 X 1-1/2" Ph. PH. SMS @ Keeper	SS		
100	1032X1FPFX	10-32 X 1" Ph. FH. MS	SS		
110	4317	Screen Top Rail	6063 T6 AI		
111	4318	Screen Bottom Rail	6063 T6 AI		
112	4319	Screen Side Rail/Lockstile	6063 T6 AI		
113	8152	Screen Interlock Adapter	6063 T6 AI		
114	4344	Screen Astragal	6063 T6 AI		
115	7SRAZ	Roller	Nylon		
116	7SRAX	Roller	SS		
117		1/4" X 1" MS @ Top Rail	SS		
118		1/4" X 1-1/2" MS @ Bottom Rail	SS		
119		Screen Lockset	Steel		
120	653	Screen Lock Keeper	Steel		
121	1179	#10 X 3/4" Ph. PH. SMS @ Keeper	SS		
122	1793	.270" X .150" Weatherstrip			
123	1692	Screen Spline165"	Vinyl		
124		Screen Cloth	Fiberglass		

	₽ ALUMINUM SLIDING GLAS
	🛔 PARTS LIST
CERT. OF AUTH. #29296	Rev A
1070 TECHNOLOGY DRIVE	Rav B
N. VENICE, FL 34275 (941)-480-1600	SGD-780 By NTS 18 O

NOTES:

1) ITEMS # 43, 48-49, 56-59, 76-79, 81 & 101-109 ARE NOT USED AND ARE NOT PART OF THIS APPROVAL.

PRODUC F REVISED es complying with the Florida benting Code Acceptance No. 16-0629.10 Espiretion Date <u>AUGO2</u>,2017 B. <u>LCL</u> Mit au Date Product Composi AND LYDEN AND Bo. 9279A SS DOOR NOA (LM) 💈 10/05/15 調査 JROSOWSKI 6 Rev A Dete Rav B Date DF 18 🖁 💈 MD-780.0 A. LYNN MÌLLER, P.E. P.E.# 58705 àg Sg A