As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING	THERMA-TRU	THERMA-TRU BENCHMARK DOORS	21135.1
B. SLIDING			
C. SECTIONAL/ROLL UP			
D. OTHER			
2. WINDOWS			
A. SINGLE/DOUBLE HUNG	PGT INDUSTRIES	SH3500 IMPACT	239.2
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. FIXED			
E. MULLION			
F. SKYLIGHTS			
G. OTHER			
3. PANEL WALL			
A. SIDING	MIDA METAL	29g MR WALL PANEL	31397.1
B. SOFFITS			
C. STOREFRONTS			
D. GLASS BLOCK			
E. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES			
B. NON-STRUCT METAL	MIDA METAL	29g MR STRUCTURAL	23490.1
C. ROOFING TILES			
D. SINGLE PLY ROOF			
E. OTHER UNDERLAYMENT	LEVI'S BUILDING COMP	ROLOSHIELD PREMESA	41620-R1
5. STRUCT COMPONENTS			
A. WOOD CONNECTORS			
B. WOOD ANCHORS			
C. TRUSS PLATES			
D. INSULATION FORMS			
E. LINTELS			
F. OTHERS			
6. NEW EXTERIOR			
ENVELOPE PRODUCTS			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.
Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

Kurt Bowers 8/6/24
Contractor or Owner Signature

NOTES: _____

FL #	FL31397-R2
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Mid Florida Metal Roofing Supply/Supplies, Inc.
Address/Phone/Email	28328 County Road 561 Tavares, FL 32778 (352) 742-7070 amyprince@mfmrs.com
Authorized Signature	Amy Prince amyprince@mfmrs.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	
Category	Structural Components
Subcategory	Structural Wall
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Johnathan E. Green, P.E.
Florida License	PE-88223
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	02/10/2026
Validated By	Steven M. Urich, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL31397_R2_COI_Letter_of_Certification.pdf
Referenced Standard and Year (of Standard)	
Equivalence of Product Standards Certified By	
Sections from the Code	1709.2
Product Approval Method	Method 2 Option B

Date Submitted	09/10/2023
Date Validated	09/13/2023
Date Pending FBC Approval	09/17/2023
Date Approved	12/13/2023

Summary of Products

FL #	Model, Number or Name	Description
31397.1	29 Ga. MFMRS Multi-Rib Wall Panel over 2x4 Wood Girts	29 Ga. MFMRS Multi-Rib Wall Panel over 2x4 Wood Girts
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-105psf **Other:** See evaluation report for limits of use.		**Installation Instructions** FL31397_R2_II_29 Ga. MFMRS Multi-Rib Wall Panel.pdf Verified By: Johnathan E. Green, P.E. 88223 Created by Independent Third Party: Yes **Evaluation Reports** FL31397_R2_AE_29 Ga. MFMRS Multi-Rib Wall Panel.pdf Created by Independent Third Party: Yes

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Product Approval Accepts:

Credit Card Safe securityMETRICS

MID FLORIDA MetalRoofing SUPPLY, INC.
352-742-7070 · Toll Free: 866-479-8080 · Fax 352-742-7075
www.mfmrs.com · 28328 County Road 561, Tavares, Florida 32778

Product Evaluation Report

MID FLORIDA METAL ROOFING SUPPLY, INC.

Minimum 29 Ga. MFMRS Multi-Rib Wall Panel Over 2x4 Wood Girts

Florida Product Approval # 31397.1 R2

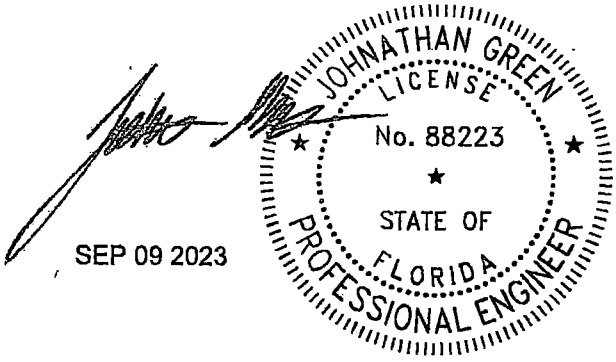
Florida Building Code 2023
Per Rule 61G20-3
Method: 2-B

Category: Structural Components
Subcategory: Structural Wall
Compliance Method: 61G20-3.005(2)(b)
NON HVHZ

Product Manufacturer:
Mid Florida Metal Roofing Supply, Inc.
28328 County Road 561
Tavares, Florida 32778

Engineer Evaluator:
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Contents:
Evaluation Report: Page 1 - 3
Installation Detail: Page 4



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352-742-7070 · Toll Free: 866-479-8080 · Fax 352-742-7075
www.mfmrs.com · 28328 County Road 561, Tavares, Florida 32778

Compliance Statement:

The product as described in this report has demonstrated compliance with the Florida Building Code 2023, Section 1709.2.

Product Description:

MFMRS Multi-Rib Panel, Min. 29 Ga. Steel, 36" Wide, through fastened wall panel. Structural Application.

Panel Material/Standards:

Material: Minimum 29 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2023.
Yield Strength: Min. 80.0 ksi.
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2023.

Panel Dimension(s):

Thickness: 0.0145" min.
Width: 36" maximum coverage
Rib Height: ¾" major rib at 9" O.C.

Panel Fastener:

#12 x 1 1/2" WoodZac or WoodZip w/ sealing washer or approved equal.
¼-14 x 7/8" HWH SD1 w/ EPDM washer through panel side laps at 12" O.C.
Corrosion Resistance: Per Florida Building Code 2023.

Substrate Description:

Minimum #2 SYP 2x4 wood girts spaced a maximum 24" O.C. Framing must be designed in accordance w/ Florida Building Code 2023.

Allowable Design Pressures:

Table "A"

Maximum Design Pressure:	-105.0 psf
Fastener Pattern:	9"-9"-9"-6"-3"
Fastener Spacing:	24" O.C.

*Design Pressure Includes a Safety Factor = 1.5.

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www.mfmrs.com · 28328 County Road 561, Tavares, Florida 32778

Code Compliance:
The product described herein has demonstrated compliance with
The Florida Building Code 2023, Section 1709.2.

Evaluation Report Scope:
The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2023, as relates to Rule 61G20-3.

Performance Standards:
The product described herein has demonstrated compliance with:

- ASTM E 1592-05 (2017) Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.

Reference Data:

1. ASTM E 1592-01
   PRI Construction Materials Technologies
   Report No. FAE-008-02-01
2. Certificate of Independence
   By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
   (FBC Organization # ANE ID: 12901)

Test Standard Equivalency:
The ASTM E 1592-01 test standard is equivalent to the ASTM E 1592-05 (2017) test standard.

Quality Assurance Entity:
The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

Installation:
Install per manufacturers recommended details.

Shear Diaphragm:
Shear diaphragm values are outside the scope of this report.

Design Procedure:
Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2023 for wall cladding wind loads. These component wind loads for wall cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2023 Chapter 22 for steel, and Chapter 16 for structural loading.

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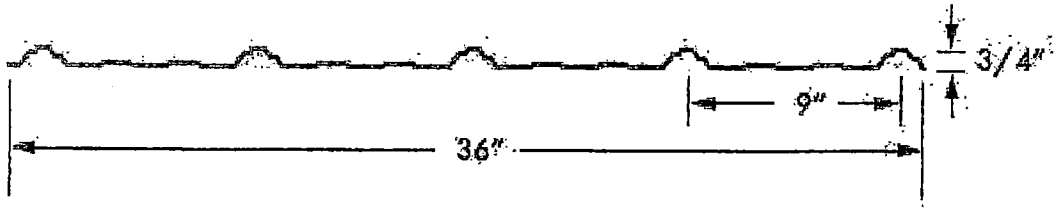
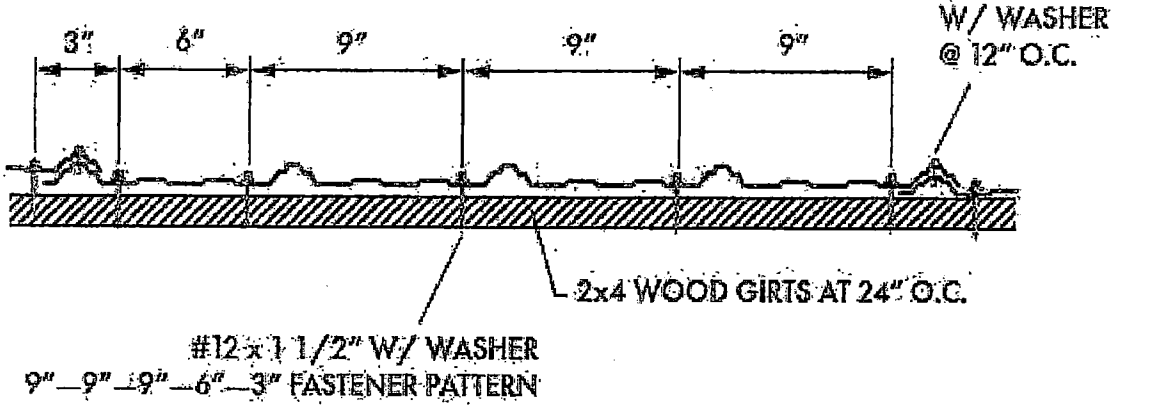
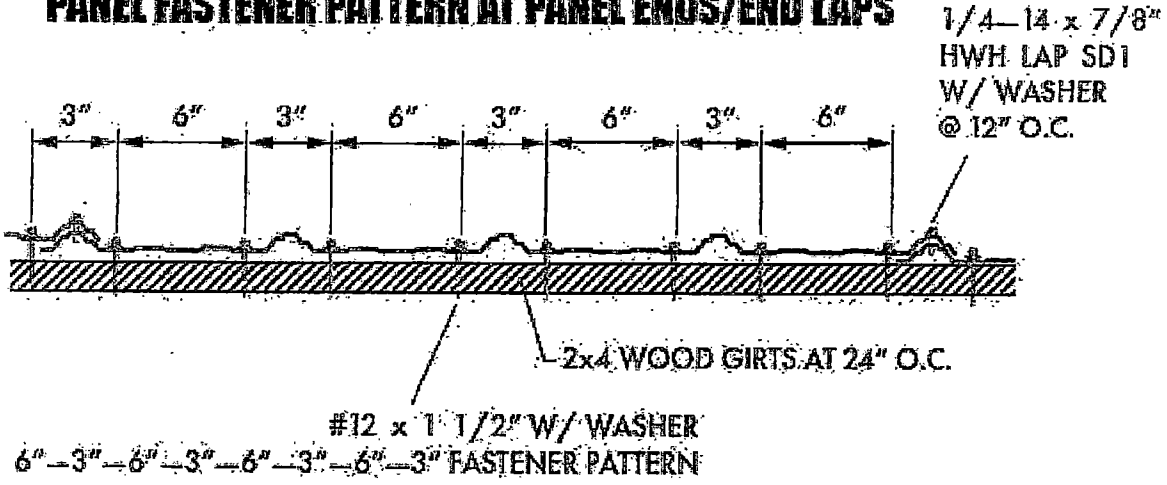


PANEL FASTENER PATTERN AT INTERIOR



PANEL FASTENER PATTERN AT PANEL ENDS/END LAPS



FL #	FL23490-R4
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Mid Florida Metal Roofing Supply/Supplies, Inc.
Address/Phone/Email	28328 County Road 561 Tavares, FL 32778 (352) 742-7070 amyprince@mfmrs.com
Authorized Signature	Amy Prince amyprince@mfmrs.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	
Category	Structural Components
Subcategory	Roof Deck
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Johnathan E. Green, P.E.
Florida License	PE-88223
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	02/10/2026
Validated By	Steven M. Urich, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL23490_R4_COI_Letter of Certification.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM E1592	2005
FM 4471	1992

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	09/10/2023
Date Validated	09/13/2023
Date Pending FBC Approval	09/17/2023
Date Approved	12/13/2023

Summary of Products

FL #	Model, Number or Name	Description
23490.1	Multi-Rib Structural	29 Ga. Through-Fastened Structural Roof Panels Over Minimum 2x4 Purlins
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-105.0psf **Other:**		**Installation Instructions** FL23490_R4_II_29 Ga. MFMRS Multi-Rib Structural Roof.pdf Verified By: Johnathan E. Green, P.E. 88223 Created by Independent Third Party: Yes **Evaluation Reports** FL23490_R4_AE_29 Ga. MFMRS Multi-Rib Structural Roof.pdf Created by Independent Third Party: Yes

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Product Approval Accepts:

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www.mfmrs.com · 28328 County Road 561, Tavares, Florida 32778

Product Evaluation Report

MID FLORIDA METAL ROOFING SUPPLY, INC.

Minimum 29 Ga. MFMRS Multi-Rib Roof Panel over 2x4 Wood Purlins

Florida Product Approval # 23490.1 R4

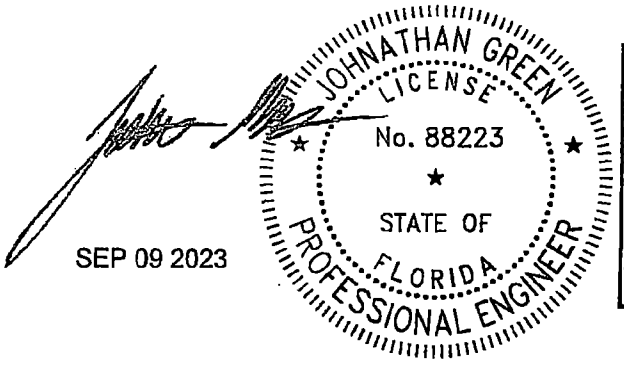
Florida Building Code 2023
Per Rule 61G20-3
Method: 1 –D

Category: Structural Components
Subcategory: Roof Deck
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Mid Florida Metal Roofing Supply, Inc.
28328 County Road 561
Tavares, Florida 32778

Engineer Evaluator:
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Contents:
Evaluation Report: Page 1 - 3
Installation Detail: Page 4



SEP 09 2023

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www.mfmrs.com · 28328 County Road 561, Tavares, Florida 32778

Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2023, Sections 1504.3.2, 1504.7.

Product Description: MFMRS Multi-Rib Roof Panel, 29 Ga. Steel, 36" Wide, through fastened structural roof panel over 2x4 wood purlins. Structural Application.

Panel Material/Standards: Material: Minimum 29 Ga. Steel, ASTM A792 or ASTM A653 G90 conforming to Florida Building Code 2023 Section 1507.4.3.
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2023, Section 1507.4.3.

Panel Dimension(s):

Thickness:	0.0145" min.
Width:	36" maximum coverage
Rib Height:	¾" major rib at 9" O.C.

Panel Fastener: #12 x 1 1/2" WoodZac or WoodZip w/ sealing washer or approved equal.
¼-14 x 7/8" HWH SD1 w/ EPDM washer through panel side laps at 12" O.C.
Corrosion Resistance: Per Florida Building Code 2023, Section 1507.4.4.

Substrate Description: Min. 2x4 No. 2 SYP wood purlins at 24" O.C. complying with 2023 Florida Building Code. Framing must be designed in accordance w/ Florida Building Code 2023.

Allowable Design Uplift Pressures:

Table "A"

Maximum Design Uplift Pressure:	-105.0 psf
Fastener Pattern:	9"-9"-9"-6"-3"
Fastener Pattern Spacing:	24" O.C.

*Design Pressure includes a Safety Factor = 2.0

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Code Compliance: The product described herein has demonstrated compliance with The Florida Building Code 2023, Section 1504.3.2, 1504.7.

Evaluation Report Scope: The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2023, as relates to Rule 61G20-3.

Performance Standards: The product described herein has demonstrated compliance with:

- ASTM E 1592-05 (2017) Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
- FM 4471-92, Foot Traffic Resistance Test for Roof Panels.

Reference Data:

1. ASTM E 1592-01
   PRI Construction Materials technologies LLC
   Report No. FAE-008-02-01
2. FM 4471-92, Section 5.4 Foot Traffic Resistance Test
   Force Engineering & Testing, Inc.
   Report No. 194-0134T-11A
3. Certificate of Independence
   By Johnathan Green, P.E. #88223

Test Standard Equivalency: The ASTM E 1592-01 test standard is equivalent to the ASTM E 1592-05 (2017) test standard.

Quality Assurance Entity: The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

Minimum Slope Range: Minimum Slope shall comply with Florida Building Code 2023, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.

Installation: Install per manufacturers recommended details.

Insulation: Manufacturer's approved product (Optional)

Roof Panel Fire Classification: Fire classification is not part of this acceptance.

Shear Diaphragm: Shear diaphragm values are outside the scope of this report.

Design Procedure: Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2023 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2023 Chapter 23 for wood, and Chapter 16 for structural loading.

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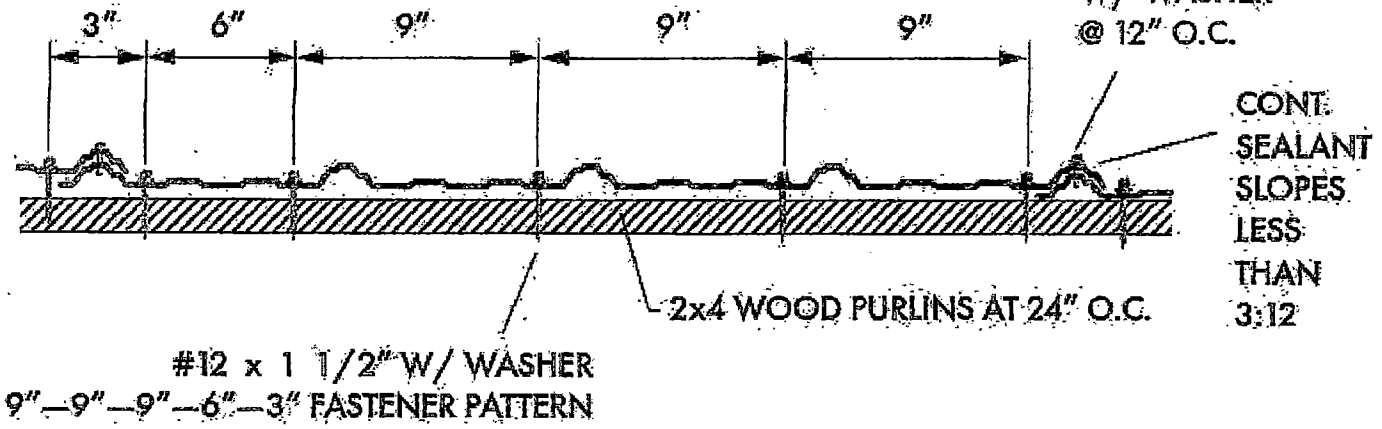
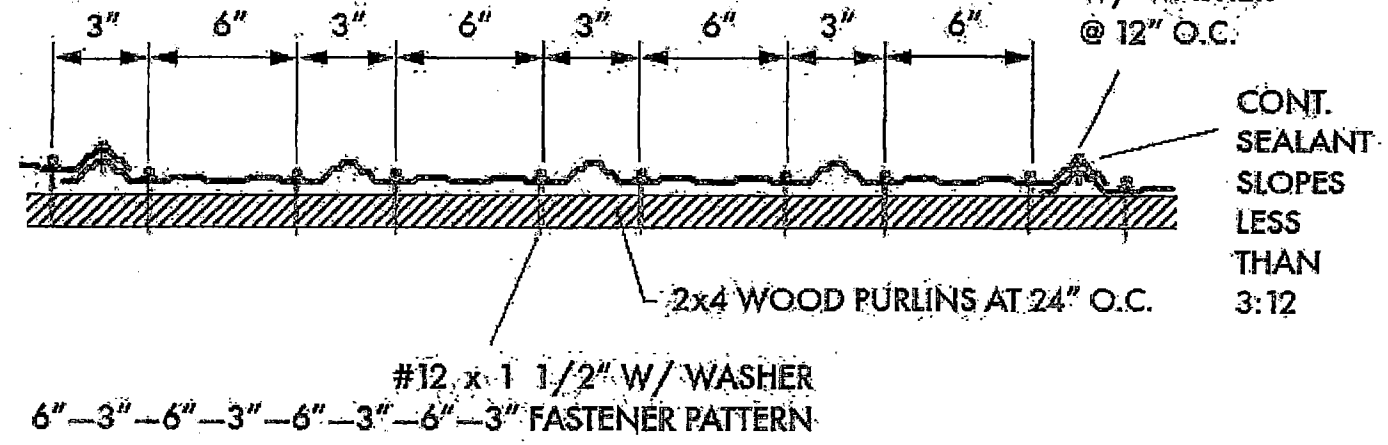
PANEL FASTENER PATTERN AT INTERIOR



PANEL FASTENER PATTERN AT PANEL ENDS/END LAPS



FL #	FL239-R29
Application Type	Revision
Code Version	2023
Application Status	Approved
	*Approved by DBPR. Approvals by DBPR shall be reviewed and ratified by the POC and/or the Commission if necessary.
Comments	
Archived	☐
Product Manufacturer	PGT Industries
Address/Phone/Email	1070 Technology Drive North Venice, FL 34275 (941) 486-0100 Ext 21140 jrosowski@pgtindustries.com
Authorized Signature	Jens Rosowski jrosowski@pgtindustries.com
Technical Representative	Lynn Miller, P.E.
Address/Phone/Email	1070 Technology Dr N Venice, FL 34275 (941) 486-0100 Ext 21142 lmiller@pgtindustries.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Windows
Subcategory	Single Hung
Compliance Method	Certification Mark or Listing
Certification Agency	Miami-Dade BCCO - CER
Validated By	Steven M. Urich, PE
	☑ Validation Checklist - Hardcopy Received

Referenced Standard and Year (of Standard)	Standard	Year
	TAS 201, 202, 203	1994

Equivalence of Product Standards Certified By	
Product Approval Method	Method 1 Option A
Date Submitted	08/10/2023
Date Validated	08/20/2023

Date Pending FBC Approval
Date Approved 08/24/2023

Summary of Products

FL #	Model, Number or Name	Description
239.1	SH5400 (Non-Impact)	Vinyl Single Hung Window
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** Please see Miami-Dade County Notice of Acceptance (NOA) for product performance information, anchorage details, and anchor type, size, and spacing information.		**Certification Agency Certificate** FL239_R29_C_CAC_23-0707.13.pdf **Quality Assurance Contract Expiration Date** 07/30/2025 **Installation Instructions** FL239_R29_II_23-0707.13.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:
239.2	SH5500 (Large Missile Impact)	Vinyl Single Hung Window
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** N/A **Other:** Please see Miami-Dade County Notice of Acceptance (NOA) for product performance information, anchorage details, and anchor type, size, and spacing information.		**Certification Agency Certificate** FL239_R29_C_CAC_23-0707.12.pdf **Quality Assurance Contract Expiration Date** 07/30/2025 **Installation Instructions** FL239_R29_II_23-0707.12.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:
239.3	SH7600 (Non-Impact)	Aluminum Single Hung Window
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** Please see Miami-Dade County Notice of Acceptance (NOA) for product performance information, anchorage details, and anchor type, size, and spacing information.		**Certification Agency Certificate** FL239_R29_C_CAC_23-0707.11.pdf **Quality Assurance Contract Expiration Date** 08/23/2028 **Installation Instructions** FL239_R29_II_23-0707.11.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:
239.4	SH7700 (Large Missile Impact)	Aluminum Single Hung Window
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** N/A **Other:** Please see Miami-Dade County Notice of Acceptance (NOA) for product performance information, anchorage details, and anchor type, size, and spacing information.		**Certification Agency Certificate** FL239_R29_C_CAC_23-0707.10.pdf **Quality Assurance Contract Expiration Date** 08/23/2028 **Installation Instructions** FL239_R29_II_23-0707.10.pdf Verified By: Miami-Dade BCCO - CER Created by Independent Third Party: **Evaluation Reports** Created by Independent Third Party:

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Product Approval Accepts:

Credit Card Safe
Security METRICS

MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/building

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

NOTICE OF ACCEPTANCE (NOA)

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-5500" PVC Single Hung Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. **MD-SH5500 REV D** titled "Single Hung Window Installation - LM", sheets 1 through 13 of 13, dated 05/15/15 and last revised on 07/05/23, 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 No. 20-0401.03** and consists of this page 1 and evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

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

MIAMI-DADE COUNTY APPROVED

Ishaq I. Chanda

NOA No. 23-0707.12
Expiration Date: July 30, 2025
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
   (Submitted under NOA No. 15-0519.05)
2. Drawing No. **MD-SH5500-01** titled "Single Hung Window Installation - LM", sheets 1 through 13 of 13, dated 05/15/15, with revision **B** dated 06/06/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 17-0630.05)

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® spacer system, Super Spacer® NXT™ spacer system and XL Edge™ 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.
   (Submitted under NOA No. 16-0714.03)
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
   5) Large Missile Impact Test per FBC, TAS 201-94
   6) Cyclic Wind Pressure Loading per FBC, TAS 203-94
   along with marked-up drawings and installation diagram of a series 5500 PVC single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7964**, dated 11/15/14, signed and sealed by Idalmis Ortega, P.E.
   (Submitted under NOA No. 15-0519.05)
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 a series 5500 PVC single hung window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-7966**, dated 08/21/14, signed and sealed by Idalmis Ortega, P.E.
   (Submitted under NOA No. 15-0519.05)

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-07071.12
Expiration Date: July 30, 2025
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

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

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, dated 05/15/15 and 08/29/17, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 15-0519.05)
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. **16-1117.01** issued to **Kuraray America, Inc.** for their **"Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers"** dated 01/19/17, expiring on 07/08/19.
2. 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.
3. Notice of Acceptance No. **16-0712.03** issued to ENERGI Fenestration Solutions USA for their **"White Rigid PVC Exterior Extrusions for Windows and Doors"** dated 08/10/17, expiring on 02/28/18.
4. Notice of Acceptance No. **16-0712.04** issued to ENERGI Fenestration Solutions USA, Inc. for their **"Bronze and Lighter Shades of Cap Coated White Rigid PVC Exterior Extrusions for Windows and Doors"** dated 09/15/16, expiring on 04/16/20.
5. Notice of Acceptance No. **16-0712.05** issued to ENERGI Fenestration Solutions USA, Inc. for their **"Performance Core Rigid PVC Exterior Extrusions for Windows and Doors"** dated 09/15/16, expiring on 04/16/20.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 5th Edition (2014)** and **FBC 6th Edition (2017),** dated June 22, 2017, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 17-0630.05
2. Statement letter of no financial interest, dated June 22, 2017, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
   (Submitted under NOA No. 17-0630.05
3. Proposal No. **16-0125** issued by the Product Control Section, dated March 09, 2016, signed by Ishaq Chanda, P.E.
   (Submitted under NOA No. 16-0714.03)
4. Proposal issued by Product Control, dated 6/26/14 and revised on 8/19/14, signed by Jaime Gascon, P.E., Supervisor, Product Control Section.
   (Submitted under NOA No. 15-0519.05)

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.12
Expiration Date: July 30, 2025
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED previous approval

A. DRAWINGS

1. Drawing No. **MD-SH5500-01** titled "Single Hung Window Installation - LM", sheets 1 through 13 of 13, dated 05/15/15, with revision **C** dated 03/10/20, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
   2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
   3) Water Resistance Test, per FBC, TAS 202-94
   4) Large Missile Impact Test per FBC, TAS 201-94
   5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
   6) Forced Entry Test, per ASTM F588 and TAS 202-94

   along with marked-up drawings and installation diagram of all PGT Industries, Inc. representative units listed below and tested to qualify **Dowsil 791** and **Dowsil 983** silicones, prepared by Fenestration Testing Laboratory, Inc., Test Reports No.:
   FTL-7897, PGT PW5520 PVC Fixed Window (unit 6 in proposal), dated 09/03/14
   FTL-20-2107.1, PGT SGD780 Aluminum Sliding Glass Door (unit 7 in proposal)
   FTL-20-2107.2, PGT CA740 Alum. Outswing Casement Window (unit 8 in proposal)
   FTL-20-2107.3, PGT PW7620A Aluminum Fixed Window (unit 9 in proposal) and
   FTL-20-2107.4, PGT PW7620A Aluminum Fixed Window (unit 10 in proposal)
   dated 07/13/20, all signed and sealed by Idalmis Ortega, P.E

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 5th Edition (2014)**, dated 05/15/15, 08/29/17 and updated on 03/10/20 to the new **FBC 7th Edition (2020)**, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

D. QUALITY ASSURANCE

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

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.12
Expiration Date: July 30, 2025
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED under previous approval(CONTINUED)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their **"Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers"** dated 05/09/19, expiring on 07/08/24.
2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their **"Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer"** dated 05/23/19, expiring on 05/23/24.
3. Notice of Acceptance No. **18-0122.02,** issued to **ENERGI Fenestration Solutions USA, Inc.,** for their **White Rigid PVC Exterior Extrusions for Windows and Doors,** approved on 03/08/18, expiring on 02/28/23.
4. Notice of Acceptance No. **18-1217.15,** issued to **ENERGI Fenestration Solutions USA, Inc.,** for their **Bronze and Lighter Shades of Cap Coated Rigid PVC Exterior Extrusions for Windows and Doors,** approved on 01/17/19, expiring on 04/16/20.
5. Notice of Acceptance No. **18-1217.16,** issued to **ENERGI Fenestration Solutions USA, Inc.,** for their **Performance Core Rigid PVC Exterior Extrusions for Windows and Doors,** approved on 01/17/19, expiring on 02/04/21.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 6th Edition (2017)** and the **FBC 7th Edition (2020)**, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Statement letter of no financial interest, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
3. Proposal No. **19-1155 TP** issued by the Product Control Section, dated January 10, 2020, signed by Ishaq Chanda, P.E.

G. OTHERS

1. Notice of Acceptance No. **17-0630.05,** issued to PGT Industries, Inc. for their Series "SH-5500" PVC Single Hung Window - L.M.I. approved on 11/30/17 and expiring on 07/30/20.
2. *Notice of Acceptance No. **16-0714.03**, issued to PGT Industries, Inc. for their Series "5500" PVC Single Hung Window - L.M.I. approved on 08/18/16 and expiring on 07/30/20.*

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.12
Expiration Date: July 30, 2025
Approval Date: July 27, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **MD-SH5500-01REV D** titled "Single Hung Window Installation - LM", sheets 1 through 13 of 13, dated 05/15/15 and last revised on 07/05/23, prepared by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.

B. TESTS (submitted under previous approval)

1. **None.**

C. CALCULATIONS (submitted under previous approval)

1. **None.**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their **"Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers"** dated 05/09/19, expiring on 07/08/24.
2. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their **"Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer"** dated 05/23/19, expiring on 05/23/24
3. NOA No. **21-1109.04** issued to Vision Extrusions Group Limited, for their **"White Rigid PVC Exterior Extrusions for Windows and Doors"**, expiring on 09/30/24.
4. NOA No. **22-0104.04** issued to Vision Extrusions Group limited for their **"Bronze and Lighter Shades of Cap Coated Rigid PVC Exterior Extrusions for Windows and Doors"**, expiring on 04/16/25.
5. NOA No. **20-0203.04** issued to ENERGI Fenestration Solutions USA, Inc. for their **"Performance Core Rigid PVC Exterior Extrusions for Windows and Doors"** dated 02/27/20, expiring on 04/16/25.

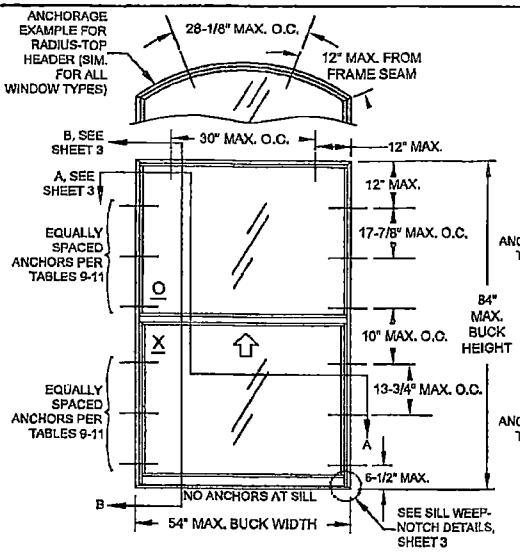
F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020)** and the **FBC 8th Edition (2023)**, dated 07-05-23, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E.
2. Statement letter of conformance, complying with **FBC 6th Edition (2017)** and the **FBC 7th Edition (2020)**, dated March 10, 2020, issued by manufacturer, signed and sealed by Anthony Lynn Miller, P.E. (submitted under previous approval)

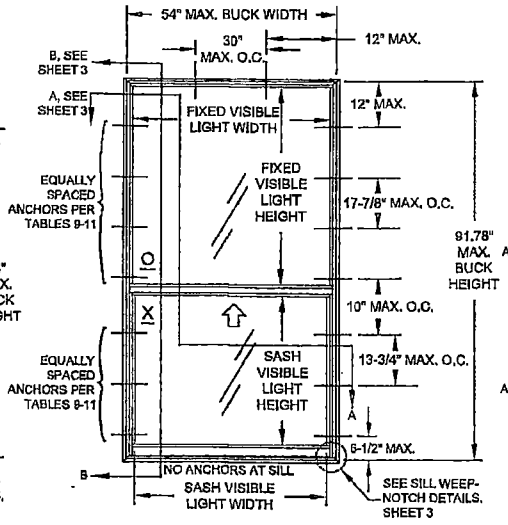
G. OTHERS

1. *This NOA **revises NOA No. 20-0401.03**, expiring on 07/30/25.* Ishaq I. Chanda

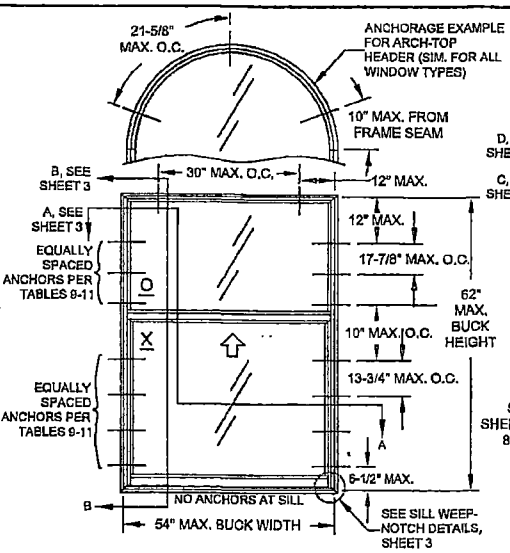
Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0707.12
Expiration Date: July 30, 2025
Approval Date: July 27, 2023



ELEVATION FOR TYP. EQUAL LEG FRAME
SHOWN WITH EQUAL-LITE CONFIGURATION

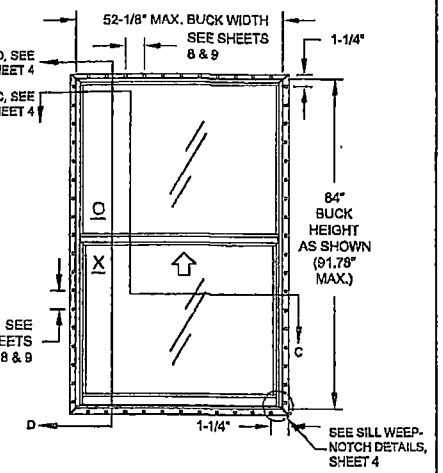


ELEVATION FOR TYP. FLANGE FRAME
SHOWN WITH ORIEL/PROVIEW CONFIGURATION



ELEVATION FOR TYP. FLANGE FRAME
SHOWN WITH STANDARD COTTAGE CONFIGURATION
FOR CUSTOM COTTAGE CONFIGURATION UP TO
75" HEIGHT SEE TABLES 4-11

DESIGN PRESSURE RATING	IMPACT RATING
VARIES PER REINFORCEMENT LEVEL, SEE SHEETS 6-7	LARGE & SMALL MISSILE IMPACT RESISTANT



ELEVATION FOR TYP. FIN OR J-CHANNEL FRAME
SHOWN WITH EQUAL-LITE CONFIGURATION
ANCHORED THROUGH THE NAIL-FIN
(SIMILAR ANCHOR DIMENSIONS FOR OTHER CONFIGURATIONS)

GENERAL NOTES: SERIES 5500 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. 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 AND SECURED 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 LENGTH TO ACHIEVE REQUIRED MIN. EMBEDMENT. INST. 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) 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:
   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.
   C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.
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) METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.
10) REFERENCES: TEST REPORTS FTL-7964 & 7966; ELCO ULTRACON NOA; DEWALT ULTRACON+ NOA;ELCO/DEWALT CRETEFLEX NOA; ELCO/DEWALT AGGRE-GATOR NOA; VISION EXTRUSION. LTD WHITE & BRONZE/LIGHTER SHADES OF CAP COATED PVC EXTRUSION NOA'S; NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSI/AF&PA NDS & ALUMINUM DESIGN MANUAL
11) APPLICABLE EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.
12) FRAME FLANGES OR INTEGRAL FINS MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL-LEG FRAME.

USER INSTRUCTIONS:

1) DETERMINE THE SITE SPECIFIC, WINDOW OPENING'S DESIGN PRESSURE REQUIREMENT FROM ASCE 7.
2) DETERMINE THE MOST SUITABLE ANCHOR GROUP FROM TABLES 2 OR 3 ACCORDING TO THE INSTALLATION CONDITIONS.
3) KNOWING YOUR GLAZING OPTION (TABLE 1), WINDOW CONFIGURATION AND SIZE, DETERMINE YOUR WINDOW'S DESIGN PRESSURE FROM TABLES 4-8. IT MUST EQUAL OR EXCEED THE DESIGN PRESSURE REQUIREMENT FOR THE WINDOW OPENING OBTAINED IN STEP 1.
4) DETERMINE THE ANCHOR QUANTITY FROM TABLES 9-11. VERIFY THE ANCHOR/SUBSTRATE WILL MEET REQUIREMENTS FOR YOUR OPENING'S CONDITION FROM TABLES 2 OR 3, AND THAT ALL MIN. REQUIREMENTS FROM THIS SHEET-SET ARE MET.
5) INSTALL AS PER SHEET 3 FOR THRU-FRAME INSTALLATION OR SHEET 4 FOR INTEGRAL FIN INSTALLATION.

NOTE:DESIGN PRESSURE RATING DETERMINATION IS THE SAME PROCESS FOR ALL FRAME TYPES (J-CHANNEL, FLANGE, INTEGRAL FIN OR EQUAL LEG/BOX).

CODES / STANDARDS USED:

- 2023 FLORIDA BUILDING CODE (FBC), 8TH EDITION
- 2020 FLORIDA BUILDING CODE (FBC), 7TH EDITION
- ASTM E1300-09
- ANSI/AF&PA NDS-2018 FOR WOOD CONSTRUCTION
- ALUMINUM DESIGN MANUAL, ADM-2020
- AISI S100-16
- AISC 360-16

GENERAL NOTES..... 1
ELEVATIONS..... 1
FRAME, GLASS & ANCHOR OPTIONS..... 2
INSTALLATION, FLANGE & EQUAL LEG/BOX..... 3
INSTALLATION, INTEGRAL FIN & J-CHANNEL..... 4
GLAZING DETAILS..... 5
DESIGN PRESSURES..... 6-7
ANCHOR QUANTITIES..... 8-10
EXTRUSION PROFILES..... 11
ASSEMBLY & PARTS LIST..... 12-13

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Ishay I. Chanin
Miami-Dade Product Control

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29298

Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	GENERAL NOTES & ELEVATION	Drawn By	JENS ROSOWSKI
Rev	UPDATED TO 2023 BUILDING CODE - LY	Rev Date	07/05/23
Series	SH5500	Sheet	1 OF 13
DWG No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER
07/05/23

A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 1: ALLOWABLE GLASS TYPES

Glass Type	Description (Listed from Exterior to Interior)	Design Pressure Table #	Design Pressure Sheet #
5	7/8" Laminated I.G.: 1/8" A Exterior Cap + 7/16" Air Space + 5/16" Laminated; (2) Lites of 1/8" A Glass with .090" PVB Interlayer	4, 5	6
6	7/8" Laminated I.G.: 1/8" T Exterior Cap + 7/16" Air Space + 5/16" Laminated; (2) Lites of 1/8" A Glass with .090" PVB Interlayer	4, 6	6
7	7/8" Laminated I.G.: 3/16" A Exterior Cap + 3/8" Air Space + 5/16" Laminated; (2) Lites of 1/8" A Glass with .090" PVB Interlayer	4, 6	6
8	7/8" Laminated I.G.: 3/16" T Exterior Cap + 3/8" Air Space + 5/16" Laminated; (2) Lites of 1/8" A Glass with .090" PVB Interlayer	4, 6	6
9	7/8" Laminated I.G.: 1/8" A Exterior Cap + 7/16" Air Space + 5/16" Laminated; (2) Lites of 1/8" H Glass with .090" SG Interlayer	7	7
10	7/8" Laminated I.G.: 1/8" T Exterior Cap + 7/16" Air Space + 5/16" Laminated; (2) Lites of 1/8" H Glass with .090" SG Interlayer	7	7
11	7/8" Laminated I.G.: 3/16" A Exterior Cap + 3/8" Air Space + 5/16" Laminated; (2) Lites of 1/8" H Glass with .090" SG Interlayer	7	7
12	7/8" Laminated I.G.: 3/16" T Exterior Cap + 3/8" Air Space + 5/16" Laminated; (2) Lites of 1/8" H Glass with .090" SG Interlayer	7	7
13	7/8" Laminated I.G.: 1/8" A Exterior Cap + 5/16" Air Space + 7/16" Laminated; (2) Lites of 3/16" A Glass with .090" SG Interlayer	8	7
14	7/8" Laminated I.G.: 1/8" T Exterior Cap + 5/16" Air Space + 7/16" Laminated; (2) Lites of 3/16" A Glass with .090" SG Interlayer	8	7
15	7/8" Laminated I.G.: 3/16" A Exterior Cap + 1/4" Air Space + 7/16" Laminated; (2) Lites of 3/16" A Glass with .090" SG Interlayer	7	7
16	7/8" Laminated I.G.: 3/16" T Exterior Cap + 1/4" Air Space + 7/16" Laminated; (2) Lites of 3/16" A Glass with .090" SG Interlayer	7	7

TABLE 2: ALLOWABLE ANCHORS THROUGH THE FRAME

Group	Anchor	Substrate	Min. Edge Distance	Min. Embedment*
A	#10 SMS (steel, 18-8 S.S. or 410 S.S.)	P.T. Southern Pine (SG=0.55)	7/16"	1-3/8"
		Steel, A36*	3/8"	0.050"
		Steel Stud, A653 Gr. 33*	3/8"	0.0451" (16 Ga.)
		Aluminum, 6063-T5*	3/8"	0.050"
	3/16" steel Ultracon+	P.T. Southern Pine (SG=0.55)	7/16"	1-3/8"
		Concrete (min. 3 ksi)	1"	1-3/8"
		Ungrouted CMU, (ASTM C-90)	1"	1-1/4"
B	#12 SMS (steel, 18-8 S.S. or 410 S.S.)	P.T. Southern Pine (SG=0.55)	9/16"	1-3/8"
		Steel, A36*	3/8"	0.050"
		Steel Stud, A653 Gr. 33*	3/8"	0.0451" (16 Ga.)
		Aluminum, 6063-T5*	3/8"	0.063"
	1/4" steel Ultracon+	P.T. Southern Pine (SG=0.55)	1"	1-3/8"
	1/4" steel Creteflex	P.T. Southern Pine (SG=0.55)	1"	1-3/8"
	1/4" steel Aggre-Gator	P.T. Southern Pine (SG=0.55)	1"	1-3/8"
C	1/4" steel Ultracon+	Concrete (min. 3 ksi)	1-3/16"	1-3/4"
		Ungrouted CMU, (ASTM C-90)	1"	1-1/4"
	1/4" steel Creteflex	Concrete (min. 3.35 ksi)	1"	1-3/4"
D	1/4" steel Ultracon+	Concrete (min. 3 ksi)	2-1/2"	1-3/4"
		Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
	1/4" steel Creteflex	Concrete (min. 3.35 ksi)	2-1/2"	1-3/4"
		Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
	1/4" steel Aggre-Gator	Concrete (min. 3.275 ksi)	1-1/2"	1-3/8"
		Grouted CMU, (ASTM C-90)	2"	2"

* MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.

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

GLASS TYPES 5, 7, 9, 11, 13 & 15 MAY NOT BE USED IN THE HVHZ ABOVE 30'.

TABLE 3: ALLOWABLE ANCHORS THROUGH THE INTEGRAL FIN

Group	Anchor	Substrate	Min. Edge Distance	Min. Embedment*
E	2-1/2" x .131" Common Nail	P.T. Southern Pine (SG=.55)	3/8"	2-7/16"
F	2-1/2" Ring-shank Roofing Nail	P.T. Southern Pine (SG=.55)	3/8"	2-7/16"
	#10 Trusshead SMS (steel, 18-8 S.S. or 410 S.S.)	P.T. Southern Pine (SG=.55)	1/2"	1-3/8"
		Aluminum, 6063-T5*	3/8"	0.050"
		Steel Stud, Gr. 33*	3/8"	0.0451" (18 Ga.)
		Steel, A36*	3/8"	0.050"
	#12 SMS (steel, 18-8 S.S. or 410 S.S.)	P.T. Southern Pine (SG=.55)	9/16"	1-3/8"
		Aluminum, 6063-T5*	3/8"	0.063"
		Steel Stud, Gr. 33*	3/8"	0.050"
		Steel, A36*	3/8"	0.050"

* MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.

Frame Types (see Fig B)	Glass Options (see Table 1)	Frame Configs. (see Fig A)	Frame Shapes (see Fig C)	Installation Options that may be used	
Flange (#2)	5 - 16	Equal-Lite, Oriel/Proview & Cottage	Square/Rect., Arch-Top & Radius-Top	Through the frame of the window.....	....into 2X Wood Frame/Buckstrip - sheet 3, option 1
					....into Concrete/CMU - sheet 3, option 2
					....through 1X Buckstrip into Concrete/CMU - sheet 3, option 3
					....into Metal - sheet 3, option 4
Box / Equal-Leg (#4)	5 - 16	Equal-Lite, Oriel/Proview & Cottage	Square/Rect., Arch-Top & Radius-Top	Through the frame of the window.....	....into 2X Wood Frame/Buckstrip - sheet 3, option 1
					....into Concrete/CMU - sheet 3, option 2
					....through 1X Buckstrip into Concrete/CMU - sheet 3, option 3
					....into Metal - sheet 3, option 4
J-Channel (#1)	5 - 8	Equal-Lite, Oriel/Proview & Cottage	Square/Rect., Arch-Top & Radius-Top	Through the integral fin.....	....into 2X Wood Frame/Buckstrip - sheet 4, option 5
					....into Metal - sheet 4, option 7
				Through the frame of the window.....	....into 2X Wood Frame/Buckstrip - sheet 4, option 6
					....into Metal - sheet 4, option 8
Integral Fin (#3)	5 - 8	Equal-Lite, Oriel/Proview & Cottage	Square/Rect., Arch-Top & Radius-Top	Through the integral fin.....	....into 2X Wood Frame/Buckstrip - sheet 4, option 5
					....into Metal - sheet 4, option 7
				Through the frame of the window.....	....into 2X Wood Frame/Buckstrip - sheet 4, option 6
					....into Metal - sheet 4, option 8

FIGURE A: FRAME CONFIGURATIONS

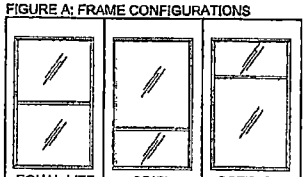
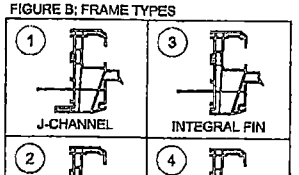


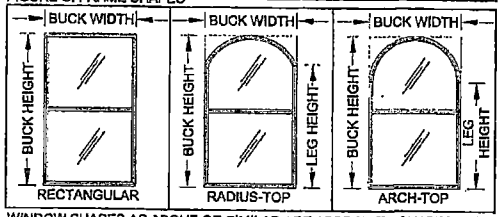
FIGURE B: FRAME TYPES



"A" = ANNEALED
"H" = HEAT STRENGTHENED
"T" = TEMPERED
"PVB" = .090" TROSIFOL® PVB BY KURARAY AMERICA, INC.

"SG" = .090" SENTRYGLAS® INTERLAYER BY KURARAY AMERICA, INC.

FIGURE C: FRAME SHAPES



WINDOW SHAPES AS ABOVE OR SIMILAR ARE APPROVED. SHAPES MAY BE USED BY INSCRIBING THE SHAPE IN A BLOCK AND OBTAINING DESIGN PRESSURES AND ANCHORAGE FOR THAT BLOCK SIZE FROM THE TABLES ON SHEETS 6-10.

Material	Min. F_y	Min. F_u
Steel Screw	92 ksi	120 ksi
18-8 Screw	60 ksi	95 ksi
410 Screw	90 ksi	110 ksi
Elco/DeWalt Aggre-Gator®	57 ksi	95 ksi
3/16" DeWalt UltraCon+®	117 ksi	164 ksi
1/4" DeWalt UltraCon+®	148 ksi	164 ksi
410 SS Elco/Dewalt CreteFlex®	127.4 ksi	189.7 ksi
6063-T5 Aluminum	16 ksi	22 ksi
A36 Steel	36 ksi	58 ksi
Gr. 33 Steel Stud	33 ksi	45 ksi

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Isthy L. Chanda
Miami-Dade Product Control

PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

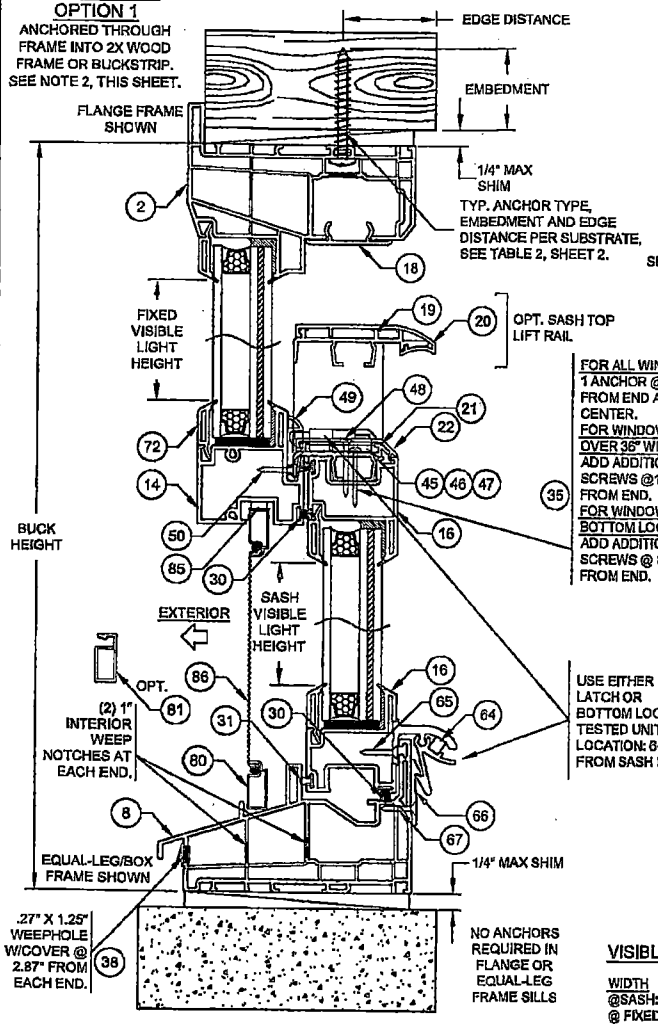
PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

File	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	GLASS/ANCHOR/FRAME OPTIONS	Drawn By	JENS ROSOWSKI
Rev	REMOVED ULTRACONS - LY	Rev Date	07/05/23
Series	SH5500	Sheet	2 OF 13
DWG No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER
LICENSE
No. 68705
07/05/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 68705

INSTALLATION DETAILS FOR FLANGE & EQUAL-LEG/BOX FRAMES

INSTALLATION OPTION 1
ANCHORED THROUGH FRAME INTO 2X WOOD FRAME OR BUCKSTRIP. SEE NOTE 2, THIS SHEET.

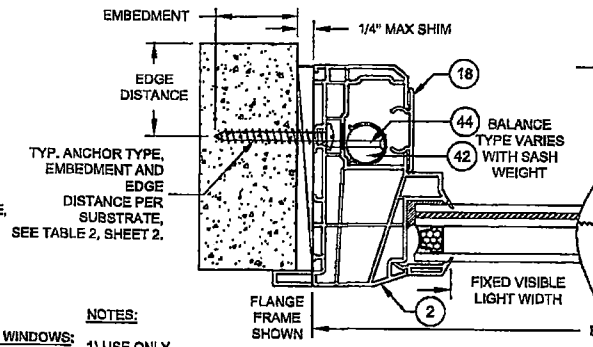


FOR ALL WINDOWS: 1 ANCHOR @ 3.55" FROM END AND AT CENTER.
FOR WINDOWS OVER 36" WIDE: ADD ADDITIONAL SCREWS @16-3/8" FROM END.
FOR WINDOWS WITH BOTTOM LOCKS: ADD ADDITIONAL SCREWS @ 8-3/8" FROM END.

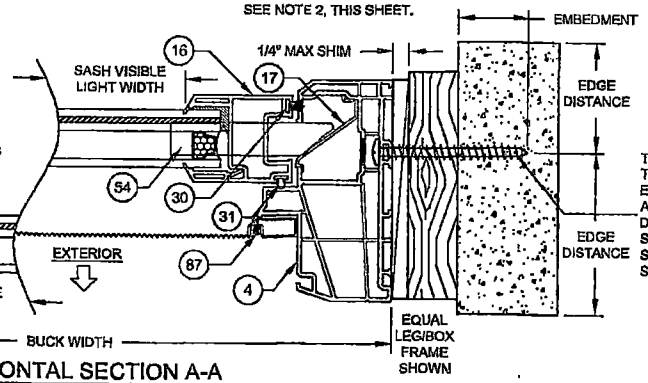
USE EITHER LATCH OR BOTTOM LOCK. TESTED UNIT LOCATION: 8-5/8" FROM SASH END.

VERTICAL SECTION B-B

INSTALLATION OPTION 2
ANCHORED THROUGH FRAME DIRECTLY INTO CONCRETE/CMU.



INSTALLATION OPTION 3
ANCHORED THROUGH FRAME AND 1X BUCKSTRIP INTO CONCRETE/CMU. SEE NOTE 2, THIS SHEET.



NOTES:

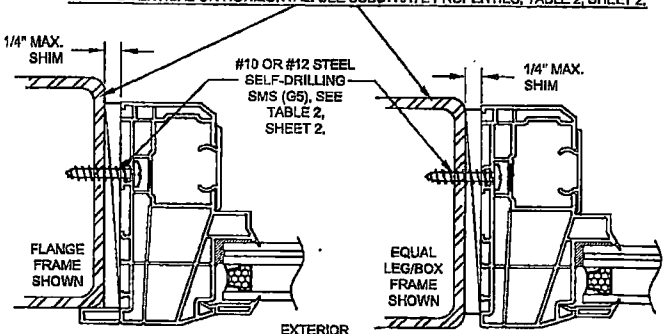
1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLE 2, SHEET 2. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.

2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 2, SHEET 2. 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.

3) VISIBLE LIGHT WIDTH OR HEIGHT (ALSO REFERRED TO AS DAYLIGHT OPENING) IS MEASURED FROM BEADING TO BEADING.

4) ALL ANCHOR HEAD TYPES ARE ACCEPTABLE.

HORIZONTAL SECTION A-A
DADE APPROVED MULLION, FBC COMPLIANT ALUMINUM/STEEL FRAMING OR STEEL STUD, MAY BE VERTICAL OR HORIZONTAL. SEE SUBSTRATE PROPERTIES, TABLE 2, SHEET 2.



INSTALLATION OPTION 4
ANCHORED THROUGH FRAME INTO METAL

INSTALLATION OPTION 4
ANCHORED THROUGH FRAME INTO METAL

VISIBLE LIGHT FORMULAS

WIDTH
@SASH: BUCK WIDTH - 6-1/2"
@ FIXED LITE: BUCK WIDTH - 4-3/8"

HEIGHT (EQUAL-LITE)
BUCK HEIGHT/2 - 3-15/16"

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Ishaq I. Chanda
Miami-Dade Product Control

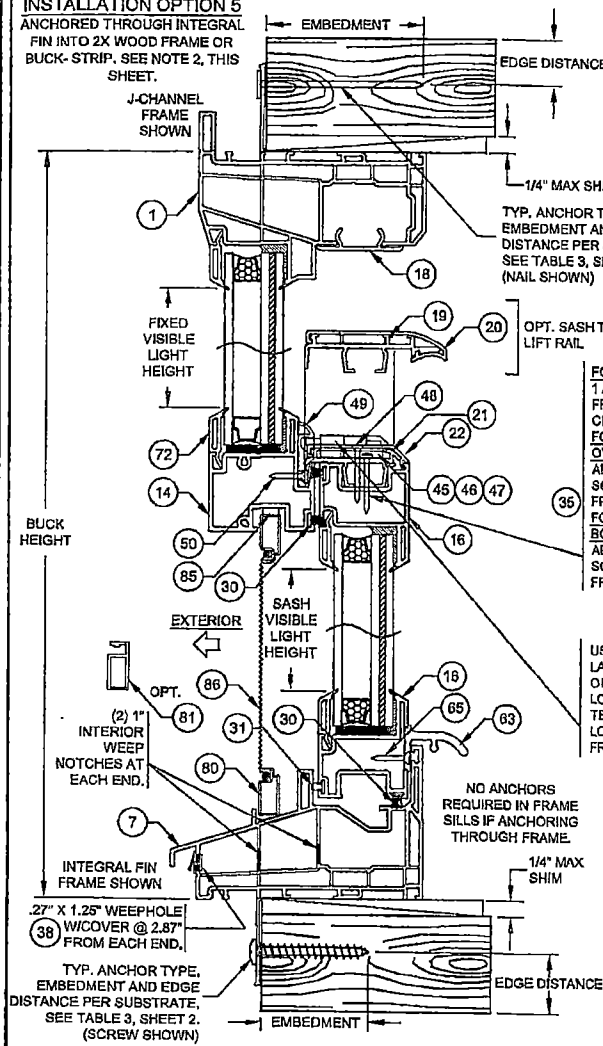
PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29298

Series	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc. / Title	FLANGE & EQUAL-LEG FRAMES	Drawn By	JENS ROSOWSKI
Rev	ANCHOR HEAD TYPE NOTE - LY	Rev Date	07/05/23
SH5500	Sheet 3 OF 13	DWG No. SH5500-NOA	Rev. D

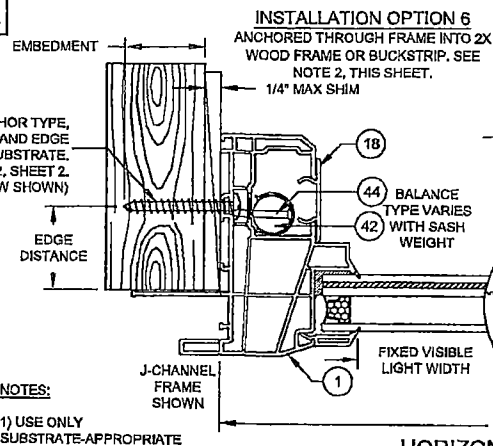
ANTHONY LYNN MILLER LICENSE No. 58705 07/05/23 STATE OF FLORIDA PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

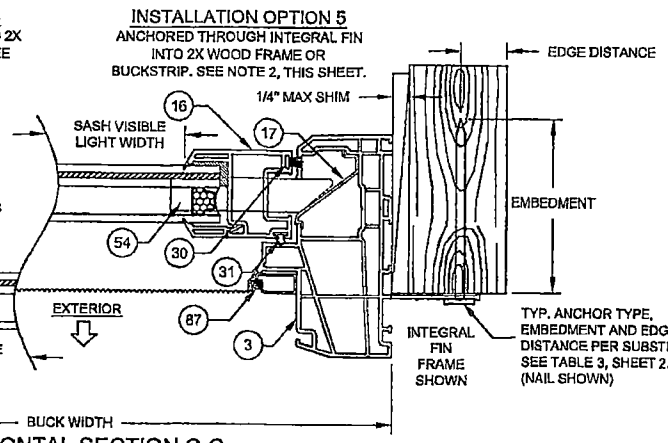
INSTALLATION DETAILS FOR INTEGRAL FIN & J-CHANNEL FRAMES



INSTALLATION OPTION 5
ANCHORED THROUGH INTEGRAL FIN INTO 2X WOOD FRAME OR BUCK-STRIP. SEE NOTE 2, THIS SHEET.

VERTICAL SECTION D-D





NOTES:

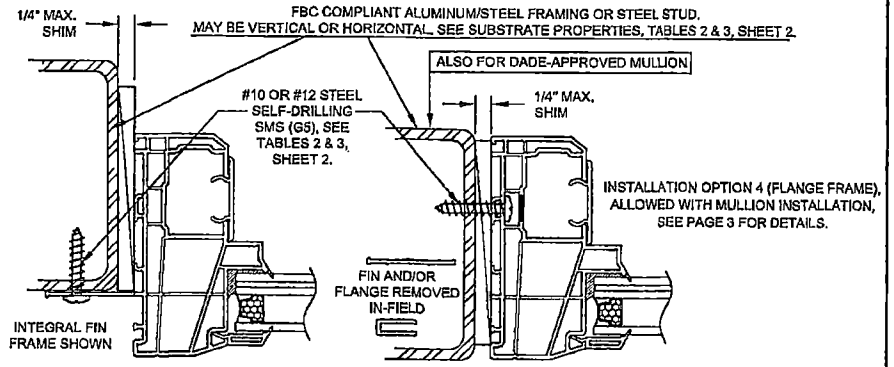
1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLES 2 & 3 OF SHEET 2. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.

2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 2, SHEET 2. 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.

3) VISIBLE LIGHT WIDTH OR HEIGHT (ALSO REFERRED TO AS DAYLIGHT OPENING) IS MEASURED FROM BEADING TO BEADING.

4) ALL ANCHOR HEAD TYPES ARE ACCEPTABLE.

HORIZONTAL SECTION C-C



INSTALLATION OPTION 7
ANCHORED THROUGH INTEGRAL FIN INTO METAL

EXTERIOR

INSTALLATION OPTION 8
ANCHORED THROUGH FRAME INTO METAL (INTEGRAL FIN/FLANGE REMOVED)

VISIBLE LIGHT FORMULAS

WIDTH
@SASH: BUCK WIDTH - 6-1/2"
@ FIXED LITE: BUCK WIDTH - 4-3/8"

HEIGHT (EQUAL-LITE)
BUCK HEIGHT/2 - 3-15/16"

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Isling I. Chua
Miami-Dade Product Control

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PREPARED BY A. LYNN MILLER
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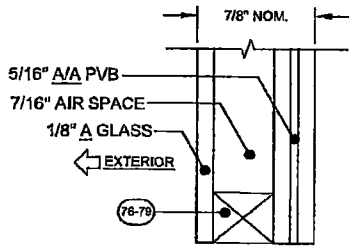
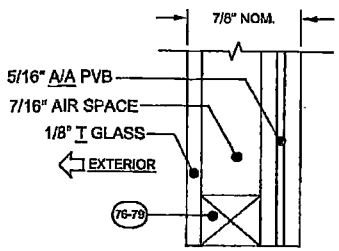
(941) 480-1600
REGISTRATION #29296

Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	J-CHANNEL AND INT. FIN FRAMES	Drawn By	JENS ROSOWSKI
Rev	ANCHOR HEAD TYPE NOTE - LY	Rev Date	07/05/23
Series	SH5500	Sheet	4 OF 13
DWG No.	SH5500-NOA	Rev.	D

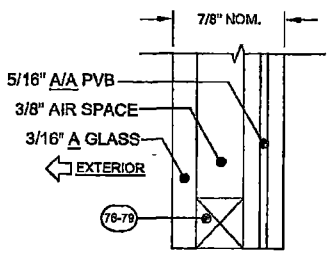
ANTHONY LYNN MILLER LICENSE No. 68705 STATE OF FLORIDA PROFESSIONAL ENGINEER
07/05/23
A. LYNN MILLER, P.E.
P.E.# 68705



GLASS TYPE 5



GLASS TYPE 6



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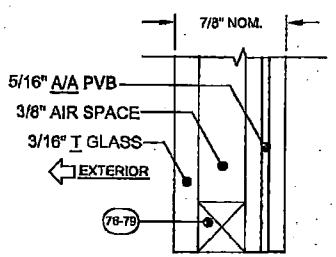
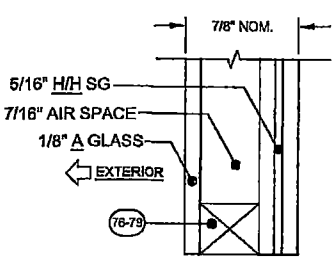
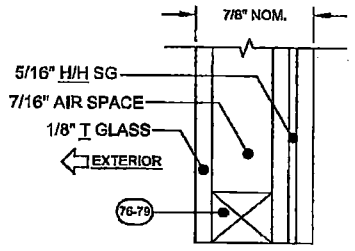


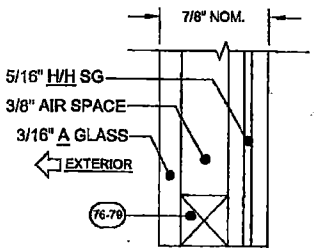
GLASS TYPE 8



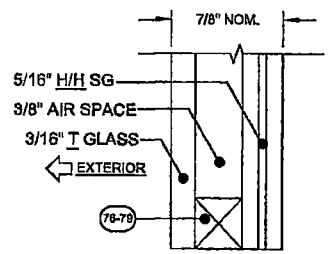
GLASS TYPE 9



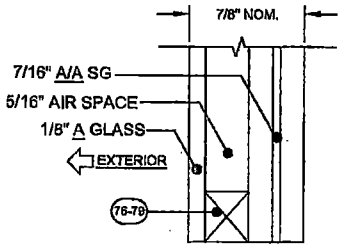
GLASS TYPE 10



GLASS TYPE 11



GLASS TYPE 12



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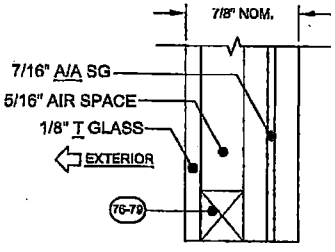
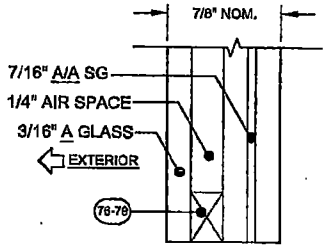
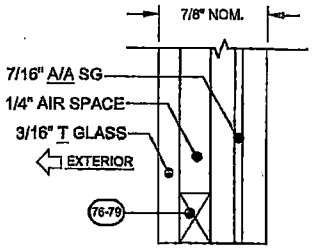


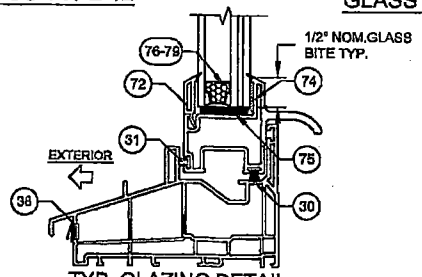
GLASS TYPE 14



GLASS TYPE 15



GLASS TYPE 16



TYP. GLAZING DETAIL

GLASS TYPES 9 THROUGH 16 MAY NOT BE USED WITH J-CHANNEL OR INTEGRAL FIN FRAMES

GLASS TYPES 5, 7, 9, 11, 13 & 15 MAY NOT BE USED IN THE HVHZ ABOVE 30'.

GLAZING NOTES:
"A" = ANNEALED
"H" = HEAT STRENGTHENED
"T" = TEMPERED
"PVB" = .090" TROSIFOL® PVB BY KURARAY AMERICA, INC.
"SG" = .090" SENTRYGLAS® BY KURARAY AMERICA, INC.

FOR LAMINATED GLAZING COMPONENTS, SEE TABLE 1, SHEET 2.

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as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Ishaq I. Ghani
Miami-Dade Product Control

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PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
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(941) 480-1600
REGISTRATION #29296

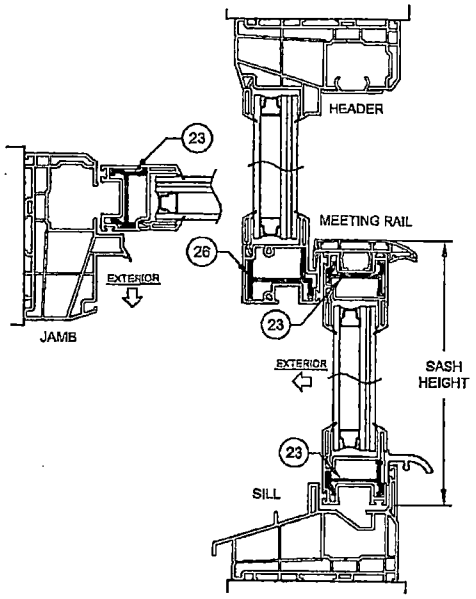
Desc. / Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
	GLAZING DETAILS	Drawn By	JENS ROSOWSKI
Rev	NO CHANGES THIS SHEET - LY	Rev Date	07/05/23
Series	SH5500	Sheet	5 OF 13
Dwg No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER
LICENSE
No. 58705
07/05/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 4:

Glass Types 5, 6, 7 & 8	Design Pressure, lbs/ft²
	+/- 50.0
Reinf. Level R1	For all window & sash sizes

SEE TABLE 9, SHEET 8 FOR ANCHOR GROUP AND QUANTITY.



SECTION DETAIL FOR WINDOWS WITH LEVEL R1 REINFORCEMENT & GLASS TYPES 5, 6, 7 & 8

(REINFORCEMENTS SHOWN IN FIGURES ABOVE APPLY TO ALL FRAME TYPES & CONFIGURATIONS)

TABLE 5:

Glass Type 5 Reinf. Level R2	Window Buck Height (in)	Bottom Sash Description for given Range @ Window Height Shown	Sash Height Range (in)	Design Pressure, lbs/ft² Window Buck Width (in) up to 48		52.125	
	23.5	Equal-Rite	11.391	+65.0	-70.0	+65.0	-70.0
	28	Standard Cottage	14.517 - 15.870	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	11.583 - 14.516	+65.0	-70.0	+65.0	-70.0
		Standard Preview	11.377 - 11.582	+65.0	-70.0	+65.0	-70.0
	37.375	Tallest	23.517 - 25.285	+65.0	-70.0	+65.0	-70.0
		Standard Cottage	20.958 - 23.516	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	17.517 - 20.957	+65.0	-70.0	+65.0	-70.0
		Standard Preview	14.517 - 17.516	+65.0	-70.0	+65.0	-70.0
		Shortest	11.377 - 14.516	+65.0	-70.0	+65.0	-70.0
	44	Tallest	27.583 - 31.911	+65.0	-70.0	+65.0	-70.0
		Custom Size	26.517 - 27.582	+65.0	-70.0	+65.0	-70.0
		Standard Cottage	23.517 - 26.516	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	20.517 - 23.516	+65.0	-70.0	+65.0	-70.0
		Standard Preview	17.517 - 20.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	14.517 - 17.516	+65.0	-70.0	+65.0	-70.0
		Shortest	11.377 - 14.516	+65.0	-70.0	+65.0	-70.0
	48	Tallest	31.583 - 36.911	+65.0	-70.0	+65.0	-70.0
		Standard Cottage	26.517 - 31.582	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	20.517 - 26.516	+65.0	-70.0	+65.0	-70.0
		Standard Preview	17.517 - 20.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	14.517 - 17.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	12.517 - 14.516	+65.0	-70.0	+65.0	-70.0
		Shortest	11.377 - 12.516	+65.0	-70.0	+65.0	-70.0
	49.625	Tallest	33.208 - 37.536	+65.0	-70.0	+65.0	-70.0
		Standard Cottage	26.517 - 33.207	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	23.517 - 26.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	20.517 - 23.516	+65.0	-70.0	+65.0	-70.0
		Standard Preview	17.517 - 20.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	14.517 - 17.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	12.517 - 14.516	+65.0	-70.0	+65.0	-70.0
		Shortest	11.377 - 12.516	+65.0	-70.0	+65.0	-70.0
	62	Tallest	36.517 - 41.644	+65.0	-70.0	+65.0	-70.0
		Standard Cottage	31.517 - 36.516	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	28.517 - 31.516	+65.0	-70.0	+65.0	-70.0
		Standard Preview	23.517 - 26.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	20.517 - 23.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	17.517 - 20.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	14.517 - 17.516	+65.0	-70.0	+65.0	-68.1
		Custom Size	13.017 - 14.516	+65.0	-70.0	+65.0	-67.3
		Shortest	11.884 - 13.016	+65.0	-70.0	+65.0	-66.5
	75	Tallest	39.517 - 41.644	+65.0	-70.0	+65.0	-70.0
		Custom Size	38.517 - 39.516	+65.0	-70.0	+65.0	-70.0
		Equal-Rite	35.517 - 38.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	32.517 - 35.516	+65.0	-70.0	+65.0	-70.0
		Standard Preview	29.517 - 32.516	+65.0	-70.0	+65.0	-70.0
		Custom Size	26.517 - 29.516	+65.0	-70.0	+65.0	-67.3
		Shortest	24.884 - 26.516	+65.0	-70.0	+65.0	-66.5
	84	Equal-Rite	38.517 - 41.644	+65.0	-70.0	+65.0	-70.0
		Custom Size	35.517 - 38.516	+65.0	-70.0	+65.0	-67.3
		Standard Preview	33.884 - 35.516	+65.0	-70.0	+65.0	-66.5
	91.78	Tallest	** - 41.644	+65.0	-70.0	+65.0	-66.5

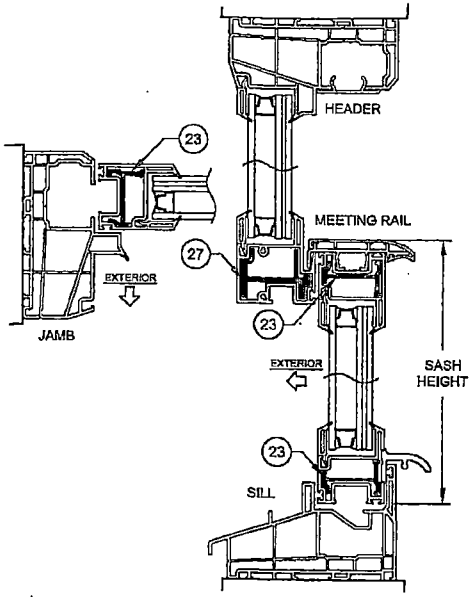
SEE TABLE 10, SHEET 9 FOR ANCHOR GROUP AND QUANTITY.

** MIN. SASH HEIGHT = WINDOW BUCK HEIGHT - 50.136 (APPLIES TO ANY HEIGHT 91.78" OR LESS)

TABLE 6:

Glass Types 6, 7 & 8	Design Pressure, lbs/ft²
	+65.0 / -70.0
Reinf. Level R2	For all window and sash sizes

SEE TABLE 10, SHEET 9 FOR ANCHOR GROUP AND QUANTITY.



SECTION DETAIL FOR WINDOWS WITH LEVEL R2 REINFORCEMENT & GLASS TYPES 5, 6, 7 & 8

(REINFORCEMENTS SHOWN IN FIGURES ABOVE APPLY TO ALL FRAME TYPES & CONFIGURATIONS)

NOTES:

1) USE THESE TABLES FOR ALL WINDOWS INSTALLED THROUGH THE FRAME OR INTEGRAL FIN.

2) FRAME DIMENSIONS ARE BUCK. SASH HEIGHT IS AS PER THE FIGURE.

3) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Ishay I. Chana
Miami-Dade Product Control

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	DESIGN PRESSURE TABLE	Drawn By	JENS ROSOWSKI
Rev	NO CHANGES THIS SHEET - LY	Rev Date	07/05/23
Series	SH5500	Sheet	6 OF 13
Dwg No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER LICENSE No. 58705 STATE OF FLORIDA PROFESSIONAL ENGINEER
07/05/23

A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 7:

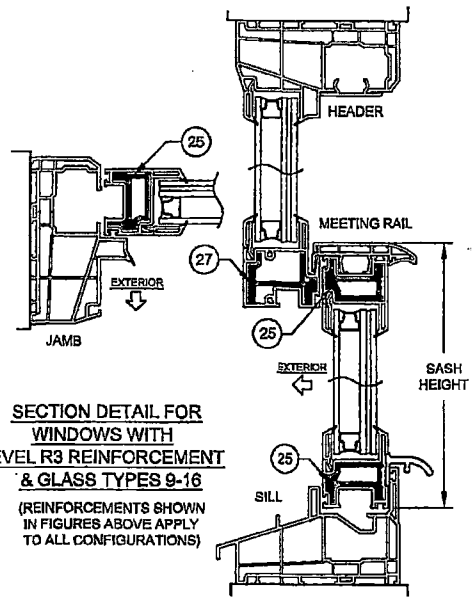
Glass Type 9-12, 15 & 16	Reinf. Level 3	Bottom Sash Description for given Range @ Window Height Shown	Sash Height Range (in)	Design Pressure, lbs/ft² — Window Buck Width (in)									
				up to 40		48		52.125		64			
Window Buck Height (in)	23.5	Equal-lite	11.394	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	28	Standard Cottage	14.517 - 15.870	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	11.583 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	11.377 - 11.582	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	37.375	Tallest	23.517 - 25.256	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Cottage	20.658 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	17.517 - 20.957	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-109.0		
		Standard Preview	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Shortest	11.377 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-107.0	+70.0	-103.0		
	44	Tallest	27.583 - 31.911	+70.0	-110.0	+70.0	-99.0	+70.0	-93.0	+70.0	-90.0		
		Custom Size	26.517 - 27.582	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Cottage	23.517 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	20.517 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Shortest	11.377 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-107.0	+70.0	-103.0		
	48	Tallest	31.583 - 35.911	+70.0	-110.0	+70.0	-99.0	+70.0	-93.0	+70.0	-90.0		
		Standard Cottage	26.517 - 31.582	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	20.517 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	12.517 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Shortest	11.377 - 12.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	49.625	Tallest	33.208 - 37.536	+70.0	-110.0	+70.0	-99.0	+70.0	-93.0	+70.0	-90.0		
		Standard Cottage	28.517 - 33.207	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	23.517 - 28.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	20.517 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	12.517 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Shortest	11.377 - 12.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	62	Tallest	39.517 - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Cottage	31.517 - 36.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	26.517 - 31.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	23.517 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	20.517 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	13.017 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Shortest	11.864 - 13.016	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	75	Tallest	39.517 - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	36.517 - 39.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Equal-lite	35.517 - 38.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	32.517 - 35.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	29.517 - 32.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	26.517 - 29.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Shortest	24.864 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	84	Equal-lite	38.517 - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Custom Size	35.517 - 38.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
		Standard Preview	33.864 - 35.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		
	91.78	Tallest	** - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0		

SEE TABLE 11, SHEET 10 FOR ANCHOR GROUP AND QUANTITY.
** MIN. SASH HEIGHT = WINDOW BUCK HEIGHT - 50.136
(APPLIES TO ANY HEIGHT 91.78" OR LESS)

TABLE 8:

Glass Type 13 & 14	Reinf. Level 3	Bottom Sash Description for given Range @ Window Height Shown	Sash Height Range (in)	Design Pressure lbs/ft² — Window Buck Width (in)															
				16		24		32		36		40		48		52.125		64	
Window Buck Height (in)	23.5	Equal-lite	11.394	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	28	Standard Cottage	14.517 - 15.870	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Equal-lite	11.583 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Preview	11.377 - 11.582	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	37.375	Tallest	23.517 - 25.256	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Cottage	20.658 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Equal-lite	17.517 - 20.957	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-109.0
		Standard Preview	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Shortest	11.377 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-107.0	+70.0	-107.0	+70.0	-103.0
	44	Tallest	27.583 - 31.911	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-99.0	+70.0	-93.0	+70.0	-90.0
		Custom Size	26.517 - 27.582	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Cottage	23.517 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Equal-lite	20.517 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Preview	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	12.517 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Shortest	11.377 - 12.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	49.625	Tallest	33.208 - 37.536	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-99.0	+70.0	-93.0	+70.0	-90.0
		Standard Cottage	28.517 - 33.207	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Equal-lite	23.517 - 28.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	20.517 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Preview	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	12.517 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Shortest	11.377 - 12.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	62	Tallest	39.517 - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Cottage	31.517 - 36.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Equal-lite	26.517 - 31.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Preview	23.517 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	20.517 - 23.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	17.517 - 20.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	14.517 - 17.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	13.017 - 14.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Shortest	11.864 - 13.016	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	75	Tallest	39.517 - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	36.517 - 39.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Equal-lite	35.517 - 38.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	32.517 - 35.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Preview	29.517 - 32.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	26.517 - 29.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Shortest	24.864 - 26.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	84	Equal-lite	38.517 - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Custom Size	35.517 - 38.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
		Standard Preview	33.864 - 35.516	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0
	91.78	Tallest	** - 41.644	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0	+70.0	-110.0

SEE TABLE 11, SHEET 10 FOR ANCHOR GROUP AND QUANTITY.
** MIN. SASH HEIGHT = WINDOW BUCK HEIGHT - 50.136
(APPLIES TO ANY HEIGHT 91.78" OR LESS)



SECTION DETAIL FOR WINDOWS WITH LEVEL R3 REINFORCEMENT & GLASS TYPES 9-16

(REINFORCEMENTS SHOWN IN FIGURES ABOVE APPLY TO ALL CONFIGURATIONS)

GLASS TYPES 9 THROUGH 16 MAY NOT BE USED WITH J-CHANNEL OR INTEGRAL FIN FRAMES

NOTES:

1) USE THESE TABLES FOR ALL WINDOWS INSTALLED THROUGH THE FRAME.

2) FRAME DIMENSIONS ARE BUCK. SASH HEIGHT IS AS PER THE FIGURE.

3) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION SHOWN ON THE TABLE.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Ishaq I. Ghanchi
Miami-Dade Product Control

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	DESIGN PRESSURE TABLE	Drawn By	JENS ROSOWSKI
Rev	NO CHANGES THIS SHEET - LY	Rev Date	07/05/23
Series	SH5500	Sheet	7 OF 13
DWG No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER LICENSE No. 68705 STATE OF FLORIDA PROFESSIONAL ENGINEER
07/05/23
A. LYNN MILLER, P.E.
P.E.# 68705

TABLE 9:

FOR ANCHOR GROUP D, TABLE 10, SHEET 9 MAY BE USED.

Anchor Quantities Required for "Through-Frame" Installation

| Glass Types S, S, T & S Reinf. Level R1 | Bottom Sash Description (non Range or Window Height Shown) | Sash Height Range (in) | Anchor Group A | | |

TABLE 10:

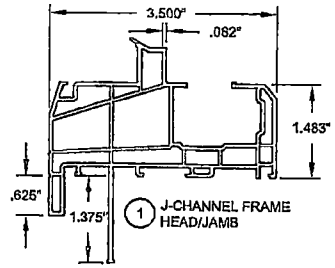
Anchor Quantities Required for "Through-Frame" Installation

| Glass Types 5, 6, 7 & 8 Reinf. Level R2 | Bottom Sash Description for given Range @ Window Height Shown | Sash Height Range (in) | Anchor Group B | | |

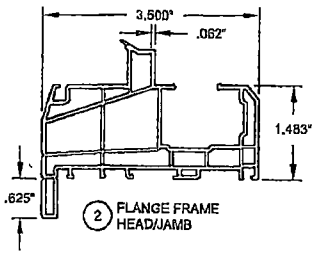
TABLE 11:

Anchor Quantities Required for "Through-Frame" Installation

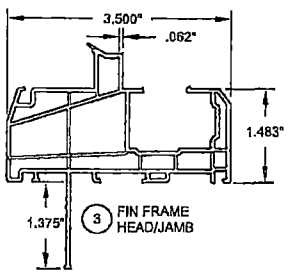
| Glass Types 9 - 16 Reinf. Level R3 | Bottom Sash Description for ghen Range @ Window Height Shown | Sash Height Range (in) | Anchor Group B | | |



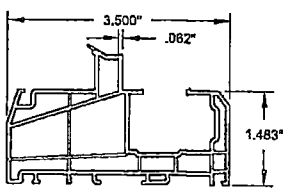
1 J-CHANNEL FRAME HEAD/JAMB



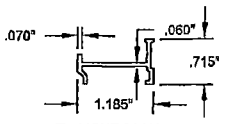
2 FLANGE FRAME HEAD/JAMB



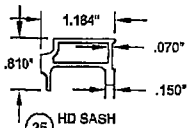
3 FIN FRAME HEAD/JAMB



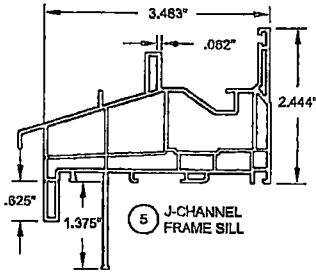
4 EQUAL LEG FRAME HEAD/JAMB



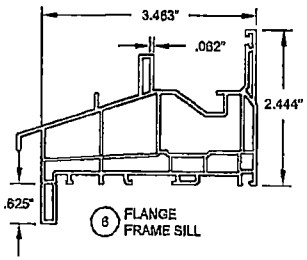
23 LIGHT SASH REINFORCEMENT



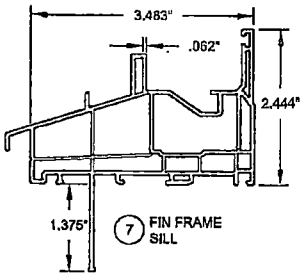
25 HD SASH REINFORCEMENT



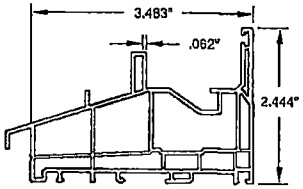
5 J-CHANNEL FRAME SILL



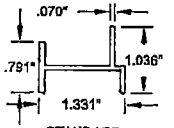
8 FLANGE FRAME SILL



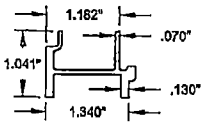
7 FIN FRAME SILL



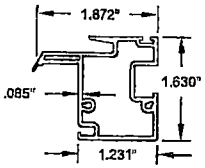
8 EQUAL LEG FRAME SILL



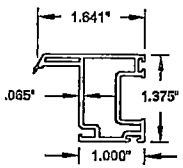
26 STANDARD MEETING RAIL REINFORCEMENT



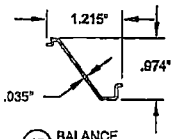
27 HD MEETING RAIL REINFORCEMENT



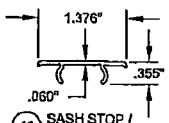
14 FIXED MEETING RAIL



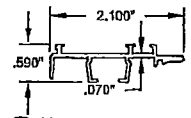
16 SASH RAIL



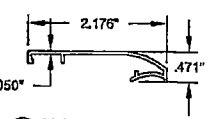
17 BALANCE COVER



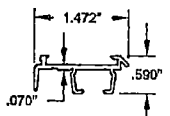
18 SASH STOP / SCREW COVER



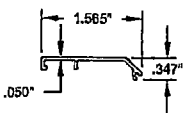
19 LIFT RAIL INTERLOCK



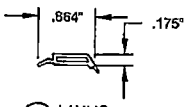
20 LIFT RAIL INTERLOCK COVER



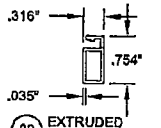
21 BEVELED INTERLOCK



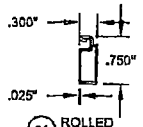
22 BEVELED INTERLOCK COVER



72 LAMI IG BEADING



80 EXTRUDED SCREEN FRAME



81 ROLLED SCREEN FRAME

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 23-0707.12
Expiration Date 07/30/2025
By Isling L. Chanin
Miami-Dade Product Control

PGT
Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	WINDOW EXTRUSIONS	Drawn By	JENS ROSOWSKI
Rev	NO CHANGES THIS SHEET - LY	Rev Date	07/05/23
Series	SH5500	Sheet	11 OF 13
DWG No.	SH5500-NOA	Rev.	D

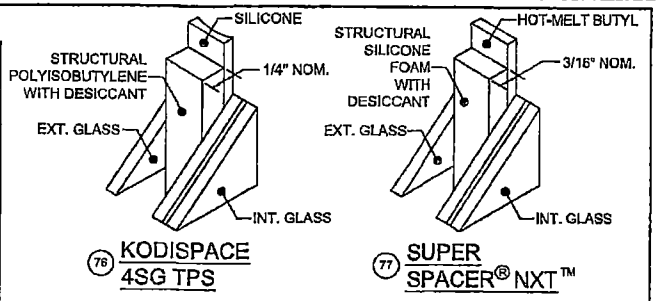
ANTHONY LYNN MILLER
LICENSE
No. 58705
07/05/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705

TABLE 12:

Bill of Material			
#	Part #	Description	Material
1	620101	Single Hung Frame Head & Jambs - J-Channel	PVC
2	620102	Single Hung Frame Head & Jambs - Flange	PVC
3	620103	Single Hung Frame Head & Jambs - Fin	PVC
4	620104	Single Hung Frame Head & Jambs - Equal Leg/Box	PVC
5	620105	SH/DH Frame Sill - J-Channel	PVC
6	620106	SH/DH Frame Sill - Flange	PVC
7	620107	SH/DH Frame Sill - Fin	PVC
8	620108	SH/DH Frame Sill - Equal Leg/Box	PVC
14	620131	Fixed Meeting Rail	PVC
16	620129	Sash Rail (Sides, Top & Bottom)	PVC
17	620134	Balance Cover	PVC
18	620133	Sash Stop/Screw Cover	PVC
19	620156	Pull Rail Interlock	6005 T5 Al
20	620144	Pull Rail Interlock Cover	PVC
21	620157	Beveled Interlock	6005 T5 Al
22	620145	Beveled Interlock Cover	PVC
23	620150	Light Sash Reinforcement	6063 T6 Al
25	620152	HD Sash Reinforcement	6063 T6 Al
26	620153	Standard Meeting Rail Reinforcement	6005 T5 Al
27	620154	HD Meeting Rail Reinforcement	6005 T5 Al
30	61644	Weatherstrip, .187" x .270" Fin Pile	
31	6Q300	Weatherstrip, .190" x .300" Foam Bulb	Flex PVC
32	61719	Weatherstrip, .187" x .220" PolyPile	
33	61825	Weatherstrip Plug, .220" Finseal	
35	78X1MTTT	#8 x 1" Ph. PH SDS (Interlock Mounting Screw)	
36	78X3THPX	#8 x 3" Ph. PH SMS (Meeting Rail Screw)	410 SS
37	71669SP	Meeting Rail Screw Support Plate	6063 T6 Al
38	720210	Weep Hole Cover	PVC
40	720XXXX	Constant Force Balance	
41		#8 x 3/4" Ph. FH SMS (Con. Force Balance Screw)	SS
42		Spiral Balance	
43	720205	Spiral Balance Shoe	Nylon
44	78X114FPAX	#8 x 1-1/4" Ph. FH SMS (Spiral Balance Screw)	410 SS

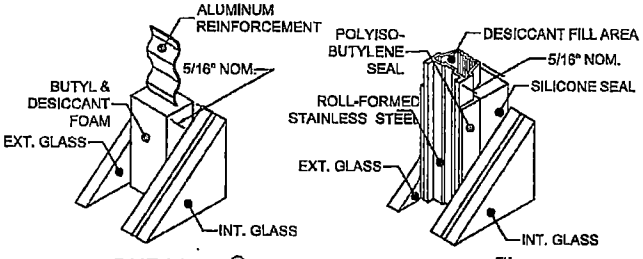
TABLE 12, CONT.:

Bill of Material, cont.			
#	Part #	Description	Material
45	720197	Auto Lock Mechanism	C Steel
46	720198&9	Sweep Lock	Cast Zinc
47	720195&6	Auto Lock Cover Assembly	Cast Zinc
48	76X1180PTX	#6 x 1-1/8" Ph. FH SDS (Auto and Sweep Lock Screw)	SS
49	720200	Auto and Sweep Lock Keeper	Cast Zinc
50	776X34PPA	#6 x 3/4" PH. PH SDS (Keeper Screw)	SS
51	420181 L/R	Beveled Tilt Latch Corner Key	PVC
52	420182 L/R	Pull Rail Tilt Latch Corner Key	PVC
53	7634PHFL	#6 x 3/4" Ph. FH SDS (Corner Key Screw)	SS
54	420183	Tilt Latch	PVC
55	420184	Tilt Latch Retainer	PVC
56	720207	1" Tilt Latch Spring	SS
57	420186	Plastic Tilt Latch Finger Pull	PVC
58	720192	Metal Tilt Latch Finger Pull	Cast Zinc
59	420180	Pivot Bar Corner Key	PVC
.60	720206	Pivot Bar	SS
63	720191	Sash Pull Handle	Cast Zinc
64	720194	Sash Pull Handle With Latch Assembly	Cast Zinc
65	7834FPT	#8 x 3/4" Ph. FH SDS (Pull Handle Screw)	SS
66	420188	Bottom Latch Strike Plate	Cast Zinc
67	77858B	#8 x 5/8" Ph. FH SMS (Strike Plate Screw)	SS
72	720135	Lami I.G. Bead	PVC
74		Backbedding, GE 7700 or Dow 791 or Dow 983	Silicone
75	71646N	Setting Block (7/8" x 1" x 1/8"), 85 +/- 5 duro.	EPDM
80	61012	Extruded Screen Frame	Alum
81	61011	Roll-Formed Screen Frame	Alum
82	7CKGLB21	Screen Corner Key for Extruded Frame X 4	PVC
83	47042	Screen Corner Key with Pull Ring X 2	PVC
84	47041	Screen Corner Key without Pull Ring X 2	PVC
85	7CASPM	Tension Spring	SS
86	61816C48	Screen Cloth	Fiberglass
87	61635/61614	.140" Screen Spline (Machine/Hand Rolled)	Vinyl



(76) KODISPACE 4SG TPS

(77) SUPER SPACER® NXT™



(78) DURASEAL® SPACER

(79) XL EDGE™ SPACER

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

REFERENCE TEST REPORTS: FTL-8717, 8968 & 8970

NOTES:

1) PVC BY VISION EXTRUSION, LTD., TO BE LABELED FOR AAMA EXTRUDER CODE.
2) ITEMS # 9-13, 15, 24, 28, 29, 34, 39, 61, 62, 68-71, & 73 ARE NOT USED AND ARE NOT PART OF THIS APPROVAL.

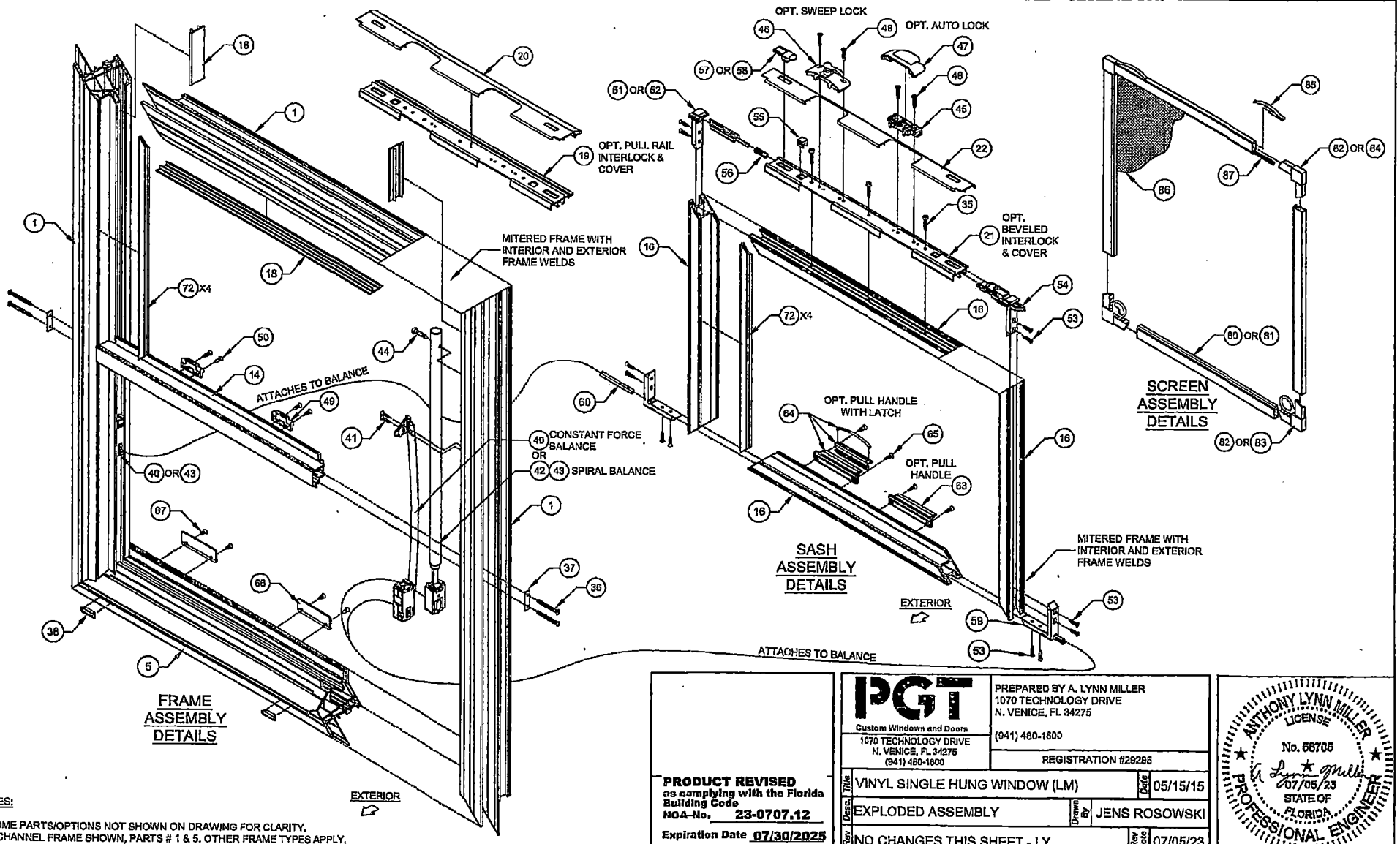
PRODUCT REVISED
as complying with the Florida Building Code
NOA No. 23-0707.12
Expiration Date 07/30/2025
By Miami-Dade Product Control

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29296

Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	BILL OF MATERIALS	Drawn By	JENS ROSOWSKI
Rev	CHANGED EXTRUDER TO VISION - LY	Rev Date	07/05/23
Series	SH5500	Sheet	12 OF 13
DWG No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER LICENSE No. 58705 07/05/23 STATE OF FLORIDA PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



NOTES:

1) SOME PARTS/OPTIONS NOT SHOWN ON DRAWING FOR CLARITY.
2) J-CHANNEL FRAME SHOWN, PARTS # 1 & 5. OTHER FRAME TYPES APPLY.
3) FOR REINFORCEMENT TYPES, SEE DETAILS ON SHEETS 6 & 7.
4) USE EITHER SASH TOP LOCKS OR SASH BOTTOM LOCKS.

PRODUCT REVISED
as complying with the Florida Building Code
NOA No. 23-0707.12
Expiration Date 07/30/2025
By Miami-Dade Product Control

PGT Custom Windows and Doors
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

PREPARED BY A. LYNN MILLER
1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600
REGISTRATION #29286

Desc. Title	VINYL SINGLE HUNG WINDOW (LM)	Date	05/15/15
Desc.	EXPLODED ASSEMBLY	Drawn By	JENS ROSOWSKI
Rev	NO CHANGES THIS SHEET - LY	Rev Date	07/05/23
Series	SH5500	Sheet	13 OF 13
DWG No.	SH5500-NOA	Rev.	D

ANTHONY LYNN MILLER
LICENSE
No. 56705
07/05/23
STATE OF FLORIDA
PROFESSIONAL ENGINEER

A. LYNN MILLER, P.E.
P.E.# 56705

Florida dbpr

Product Approval
USER: Public User

FL #	FL21135-R6
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Therma-Tru Corporation
Address/Phone/Email	1750 Indian Wood Circle Maumee, OH 43537 (800) 843-7628 sjasperson@thermatru.com
Authorized Signature	Vivian Wright rickw@rwbldgconsultants.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	
Category	Exterior Doors
Subcategory	Swinging Exterior Door Assemblies
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Lyndon F. Schmidt, P.E.
Florida License	PE-43409
Quality Assurance Entity	National Accreditation and Management Institute
Quality Assurance Contract Expiration Date	12/31/2026
Validated By	Ryan J. King, P.E. ☒ Validation Checklist - Hardcopy Received
Certificate of Independence	FL21135_R6_COI_(k)_Cert of Independence.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM E1300	2004
ASTM E330	2002
ASTM E331	2000
TAS 202	1994

Equivalence of Product Standards Certified By	Florida Licensed Professional Engineer or Architect FL21135_R6_Equiv_of Standards (k).pdf

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	08/21/2023
Date Validated	08/21/2023
Date Pending FBC Approval	08/29/2023
Date Approved	10/17/2023

Summary of Products

FL #	Model, Number or Name	Description
21135.1	a. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Opaque Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.1 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.1.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.1.pdf Created by Independent Third Party: Yes
21135.2	b. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Opaque Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.2 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.2.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.2.pdf Created by Independent Third Party: Yes
21135.3	c. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Opaque Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.3 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.3.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.3.pdf Created by Independent Third Party: Yes
21135.4	d. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Opaque Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.4 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.4.pdf Verified By: Lyndon F. Schmidt, P.E. P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.4.pdf Created by Independent Third Party: Yes
21135.5	e. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Glazed Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door

		(Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.5 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark door panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.5.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.5.pdf Created by Independent Third Party: Yes
21135.6	f. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Glazed Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.6 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.6.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.6.pdf Created by Independent Third Party: Yes
21135.7	g. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Glazed Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.7 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.7.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.7.pdf Created by Independent Third Party: Yes
21135.8	h. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Glazed Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.8 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.8.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.8.pdf Created by Independent Third Party: Yes
21135.9	i. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Opaque Wood Edge Fiberglass Door Panels with Vented Sidelite(s) (Inswing; XX, XXX or XXXX configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.9 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.9.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.9.pdf Created by Independent Third Party: Yes
21135.10	j. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Opaque Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)

Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.10 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.10.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.10.pdf Created by Independent Third Party: Yes
21135.11	k. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Opaque Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.11 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.11.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.11.pdf Created by Independent Third Party: Yes
21135.12	l. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Opaque Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.12 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.12.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.12.pdf Created by Independent Third Party: Yes
21135.13	m. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Opaque Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.13 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.13.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.13.pdf Created by Independent Third Party: Yes
21135.14	n. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Glazed Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.14 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.14.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.14.pdf Created by Independent Third Party: Yes
21135.15	o. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Glazed Wood Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.15.pdf Verified By: Lyndon F. Schmidt, P.E. 43409

Impact Resistant: No **Design Pressure:** N/A **Other:** See INST 21135.15 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.15.pdf Created by Independent Third Party: Yes
21135.16	p. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Glazed Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door (Inswing/Outswing; X configuration)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.16 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.16.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.16.pdf Created by Independent Third Party: Yes
21135.17	q. Therma-Tru Benchmark Doors	Nominal 8'0 "Non-Impact" Glazed Composite Edge "Smooth Surface" or "Wood Grain" Fiberglass Single Door with Sidelite(s) (Inswing/Outswing; XO, OX or OXO configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.17 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.17.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.17.pdf Created by Independent Third Party: Yes
21135.18	r. Therma-Tru Benchmark Doors	Nominal 6'8 "Non-Impact" Opaque Composite Edge Fiberglass Door Panels with Vented Sidelite(s) (Inswing; XX, XXX or XXXX configurations)
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** See INST 21135.18 for Design Pressure Ratings, any additional use limitations, installation instructions and product particulars. (For Benchmark Door and Sidelite panels, this product approval requires the use of "J" part numbers for these doors, which have been stained or painted within six months of installation.)		**Installation Instructions** FL21135_R6_II_(k)_Inst_21135.18.pdf Verified By: Lyndon F. Schmidt, P.E. 43409 Created by Independent Third Party: Yes **Evaluation Reports** FL21135_R6_AE_(k)_Eval_21135.18.pdf Created by Independent Third Party: Yes

Back Next

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click here.

Product Approval Accepts:

Credit Card Safe

securityMETRICS

THERMA-TRU®
Benchmark® Doors

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Lyndon F Schmidt
Date: 2023.08.21 10:01:51 -04'00'

This item has been digitally signed and sealed by L. F. Schmidt, P.E. on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

THIS PRODUCT APPROVAL IS VALID ONLY FOR THE STATE OF FLORIDA

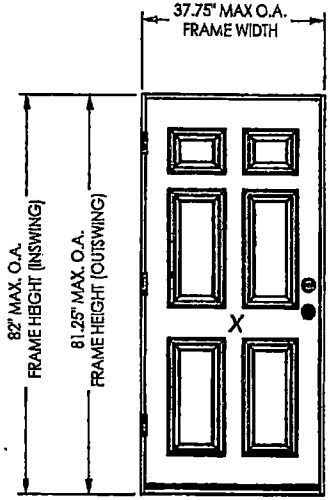
WOOD EDGE
OPAQUE FIBERGLASS SINGLE DOOR
INSWING/OUTSWING
"NON-IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements excluding the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
4. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
5. Benchmark Door panels require the use of "J" part numbers and must be stained or painted within six months of installation.

TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Typical Elevations, Design Pressures & General Notes
2	Door Panel Details
3	Elevations
4	Horizontal & Vertical Cross Sections (2X Buck)
5	Horizontal & Vertical Cross Sections (1X Buck)
6	Horizontal & Vertical Cross Sections (Direct to Masonry)
7	Vertical Cross Sections (Thresholds)
8	Buck & Frame Anchoring
9	Hardware Details
10	Components
11	Bill of Materials



CONFIGURATION	LOCK HARDWARE	DESIGN PRESSURE (PSF) INSWING		DESIGN PRESSURE (PSF) OUTSWING	
		POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
X	Latch & Deadbolt	+67.0	-67.0	+67.0	-67.0

See Sheet 3 for Hardware Specifications

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PO
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 1 OF 11

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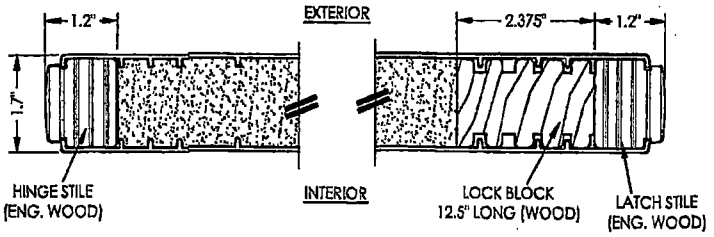
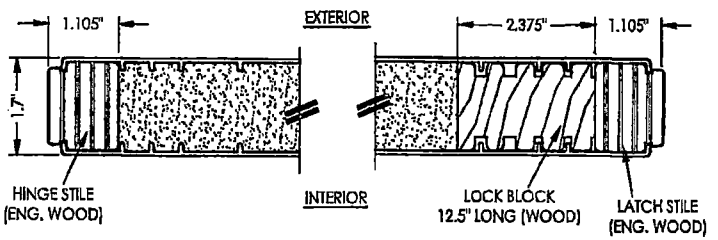
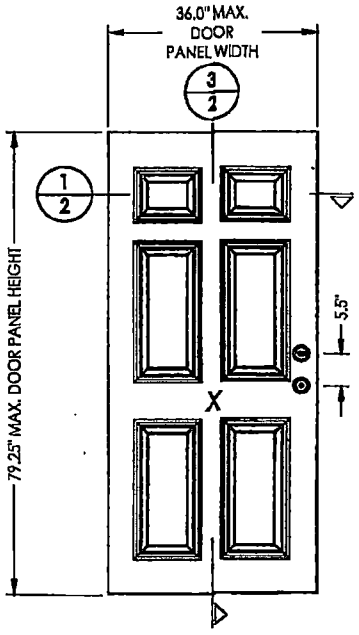


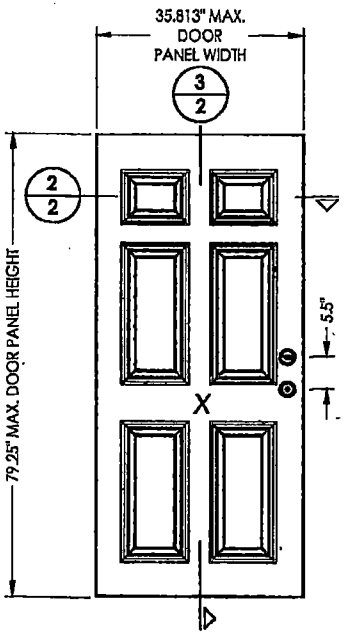
1/2 HORIZONTAL CROSS SECTION



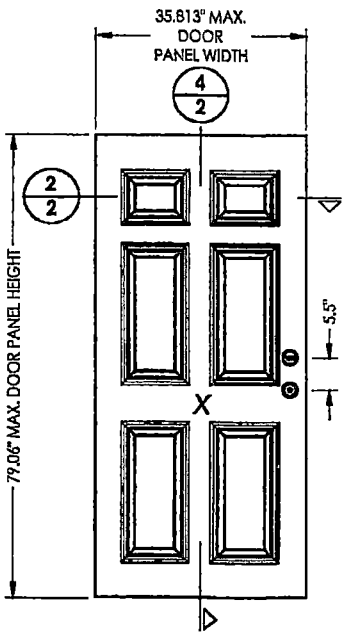
2/2 HORIZONTAL CROSS SECTION



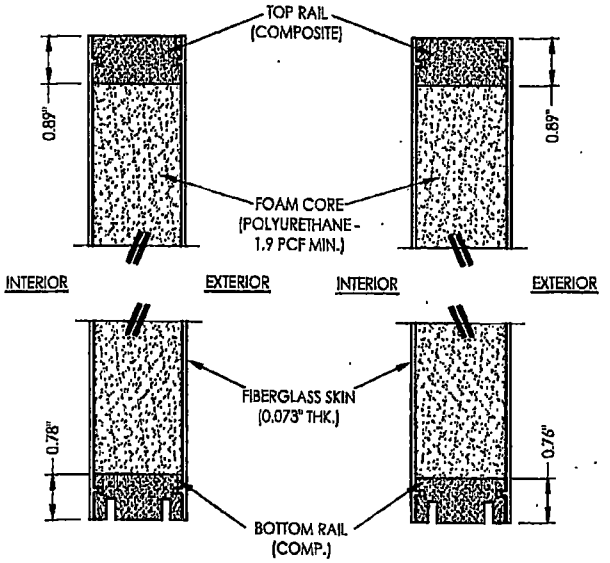
40 DOOR PANEL
BOOK



41 DOOR PANEL
Hybrid Door



42 DOOR PANEL
U1 Door



3/2 VERTICAL CROSS SECTION

4/2 VERTICAL CROSS SECTION

Documents Prepared By:
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RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: DOOR PANEL DETAILS

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PD
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 2 OF 11

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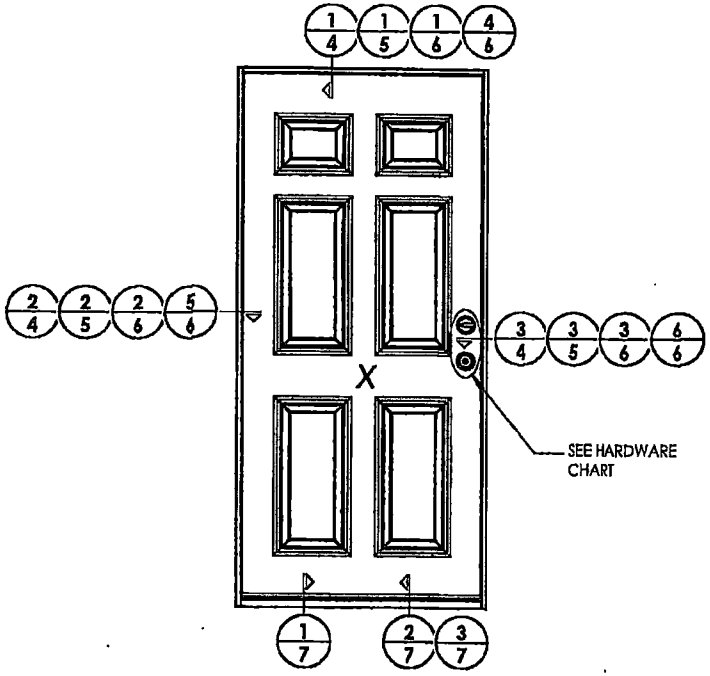
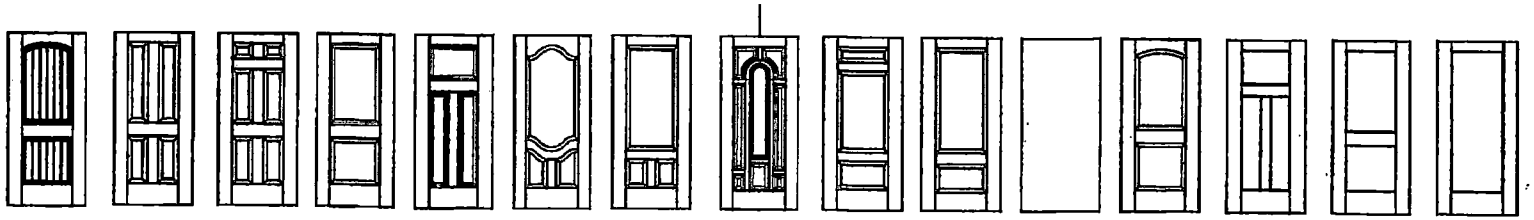


ELEVATION
X

HARDWARE TABLE	
MANUFACTURER	MODEL
SCHLAGE	KNOB: F51 DEADBOLT: B60
KWIKSET	KNOB: SIGNATURE SERIES DEADBOLT: SIGNATURE SERIES (980)



Benchmark Door Panel Options

Products approved include all embossed and recessed panel doors.
Similar opaque panel configurations are allowed.
Panels shown are for illustration and are representative only.

Documents Prepared By:
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FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: ELEVATIONS

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PO
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 3 OF 11

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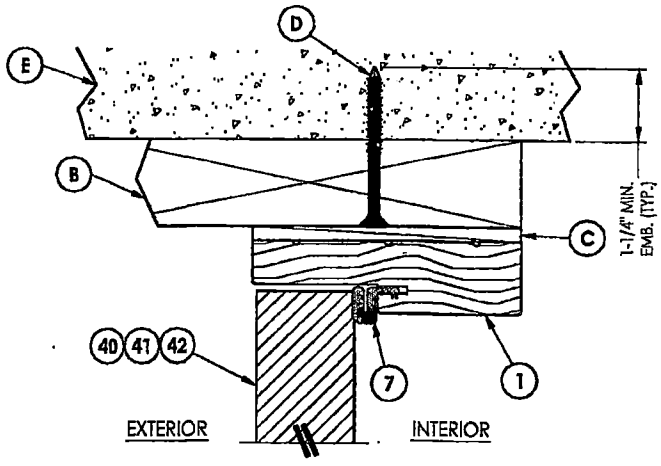
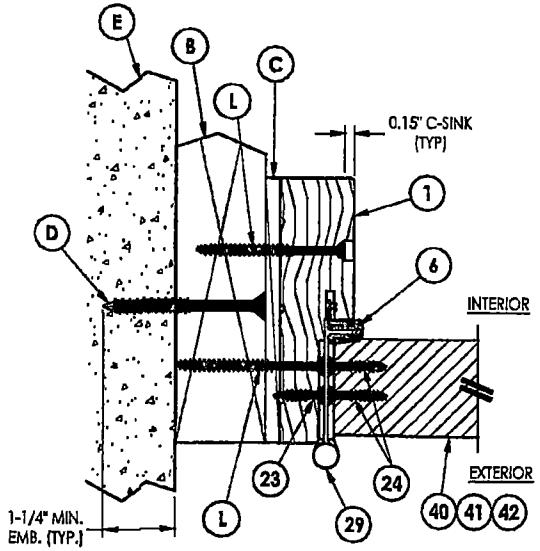
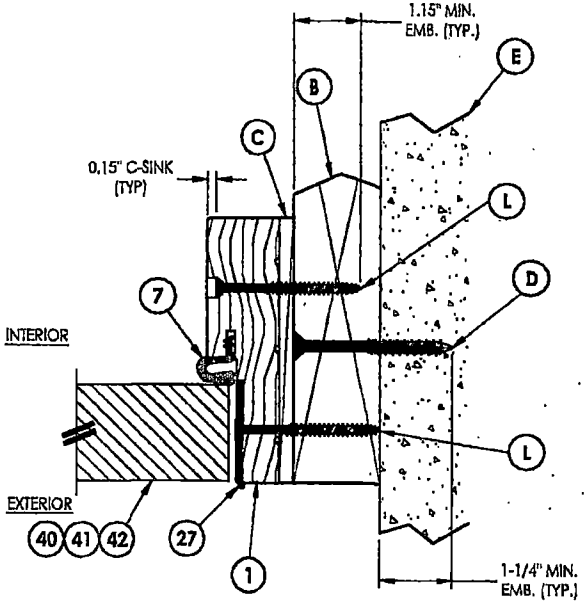


1/4 **VERTICAL CROSS SECTION**
Shown w/ 2X Buck
Outswing shown (Inswing similar)



2/4 **HORIZONTAL CROSS SECTION**
Shown w/ 2X Buck
Outswing shown (Inswing similar)



3/4 **HORIZONTAL CROSS SECTION**
Shown w/ 2X Buck
Outswing shown (Inswing similar)

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (2X BUCK)

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PO
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 4 OF 11

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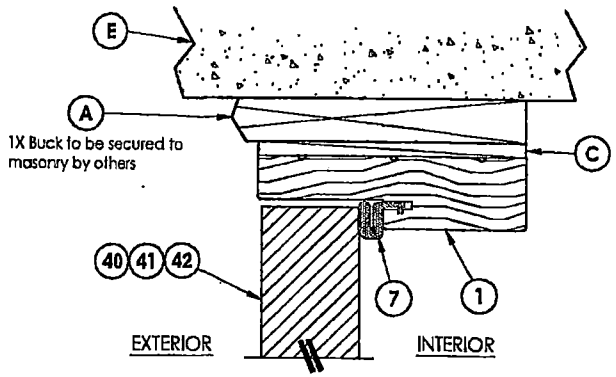
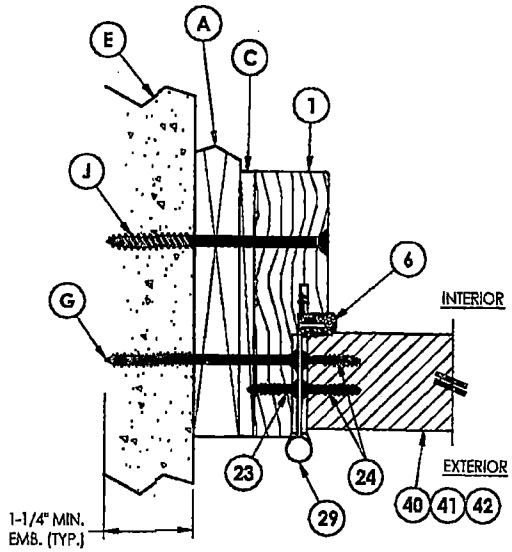
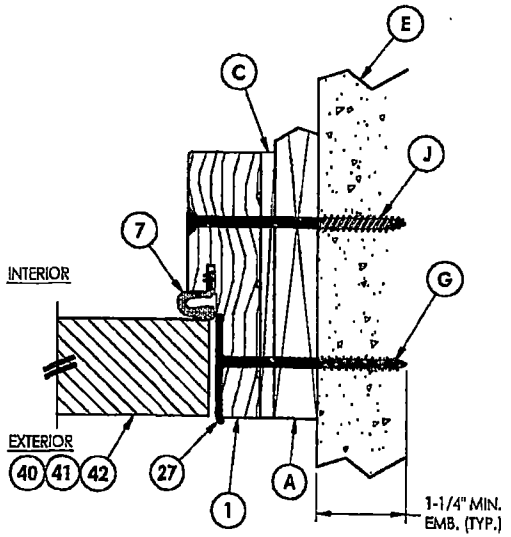


1/5 VERTICAL CROSS SECTION
Shown w/ 1X sub-buck
Outswing shown (Inswing similar)



2/5 HORIZONTAL CROSS SECTION
Shown w/ 1X sub-buck
Outswing shown (Inswing similar)



3/5 HORIZONTAL CROSS SECTION
Shown w/ 1X sub-buck
Outswing shown (Inswing similar)

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.8187
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (1X BUCK)

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PO
2	10/05/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 5 OF 11

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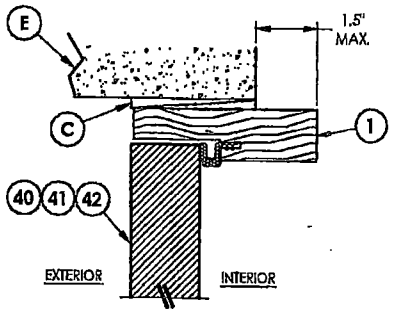
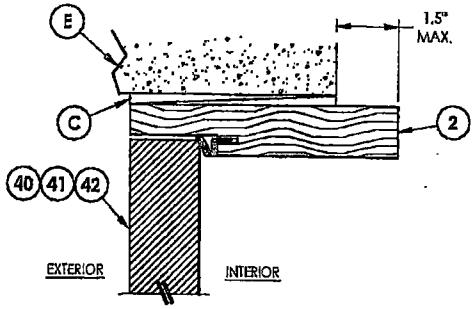
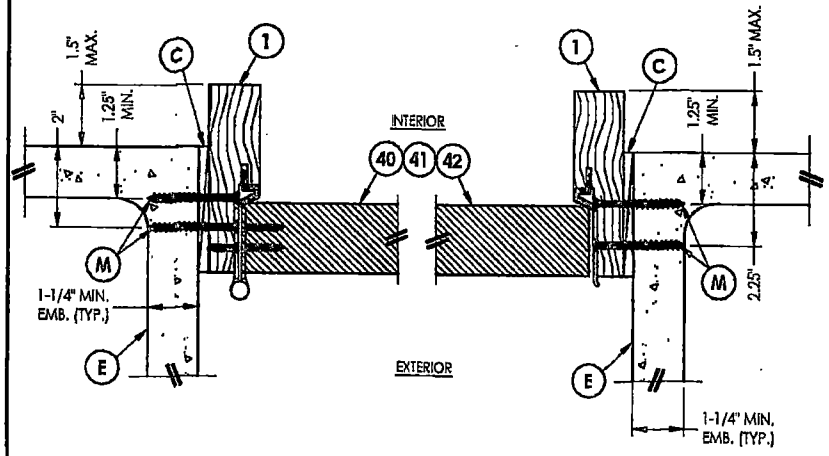


1/6 **VERTICAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb

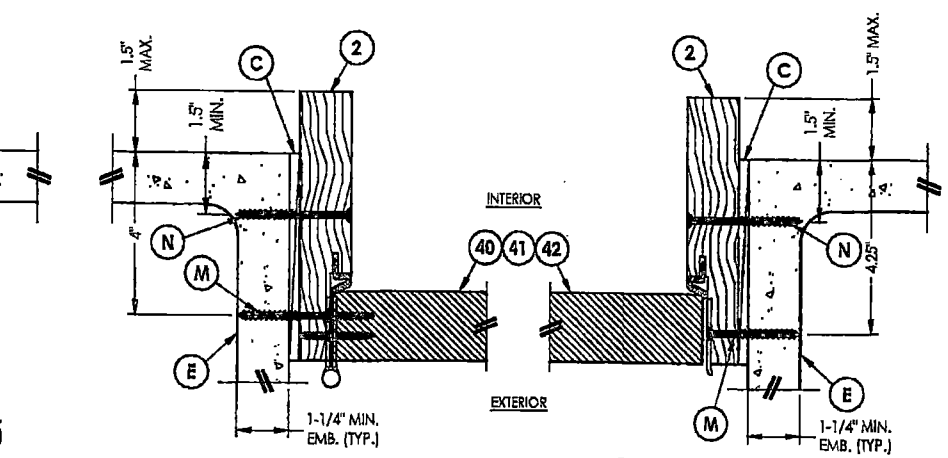


4/6 **VERTICAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

DIRECT TO MASONRY MAX. DESIGN PRESSURE:
w/ STANDARD STRIKE = ± 55 PSF
w/ SECURITY STRIKE = ± 65 PSF



2/6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb



3/6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb

5/6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

6/6 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

Documents Prepared By:
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FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL SECTIONS (DIRECT TO MASONRY)

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	FO
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 6 OF 11

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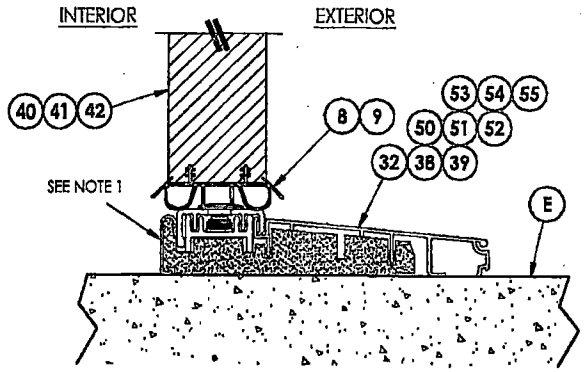
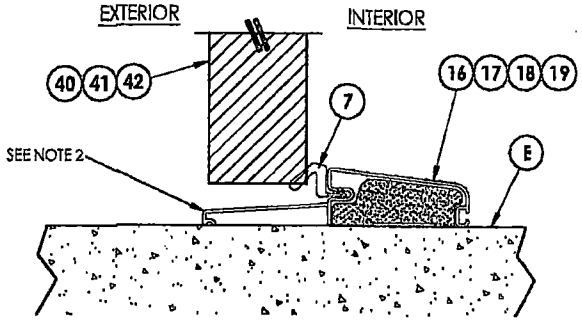
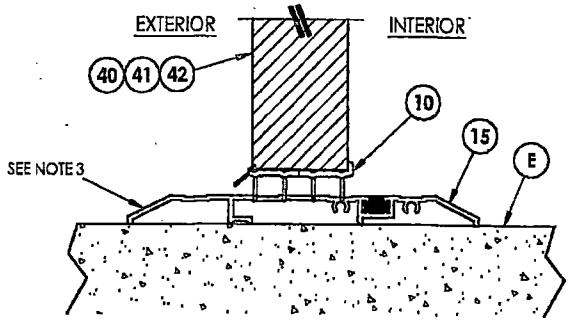
Notes:
1. Sill Item #'s 32, 38, 39, 50, 51, 52, 53, 54 & 55 are attached to jambs w/ (3) #8 X 2-1/2" pfh screws or (3) 2.5" staples at each end.
2. Sill Item #'s 16, 17, 18 & 19 are attached to jambs w/ (2) #8 X 2-1/2" pfh screws at each end.
3. Sill Item #15 is attached to jambs utilizing (2) #10 X 2" pph SMS screws at each end.



1/7 VERTICAL CROSS SECTION
Inswing Sill



2/7 VERTICAL CROSS SECTION
Outswing Sill



3/7 VERTICAL CROSS SECTION
Public Access Sill

Documents Prepared By:
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BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.658.8187
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: VERTICAL CROSS SECTIONS (THRESHOLDS)

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PD
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 7 OF 11

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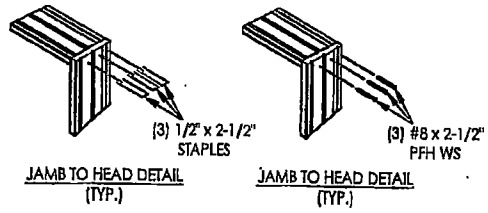
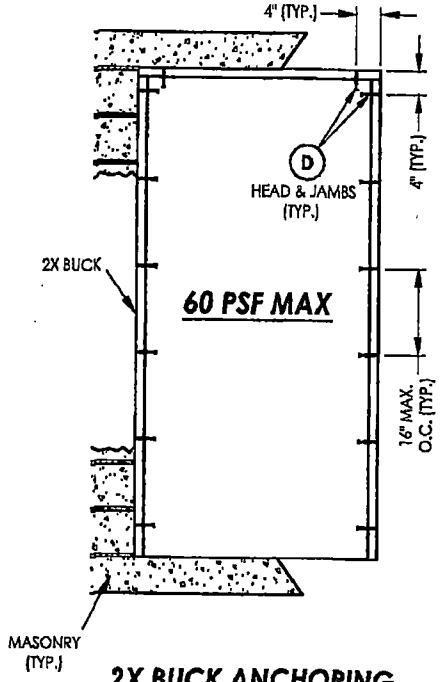
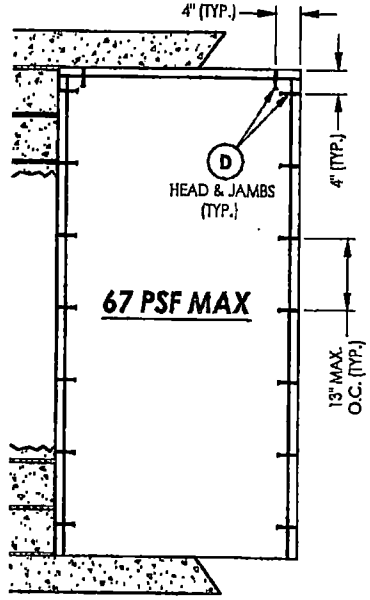


JAMB TO HEAD DETAIL (TYP.)

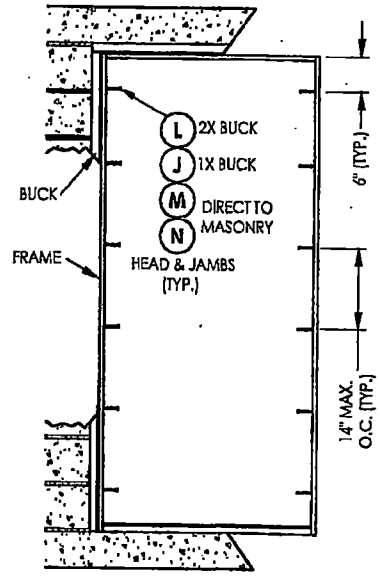
JAMB TO HEAD DETAIL (TYP.)



2X BUCK ANCHORING



2X BUCK ANCHORING



FRAME ANCHORING

Documents Prepared By:
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P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: BUCK & FRAME ANCHORING

NO	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PD
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 8 OF 11

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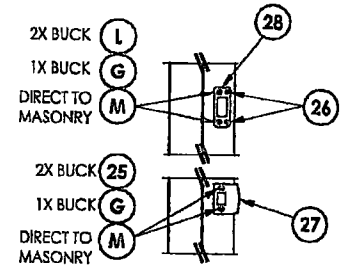
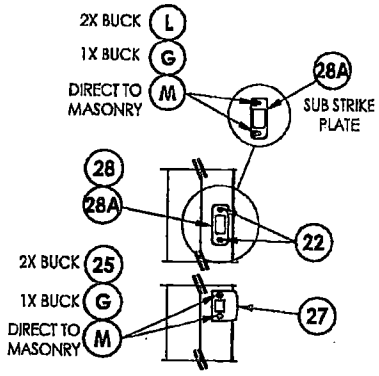
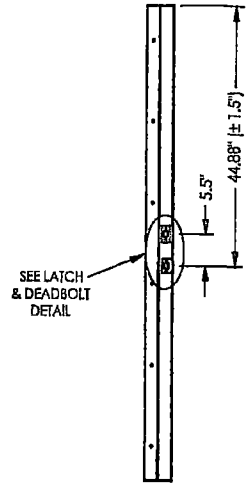


LATCH & DEADBOLT DETAIL
Kwikset

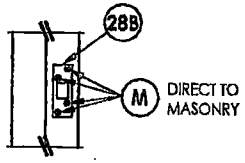


LATCH & DEADBOLT DETAIL
Schlage

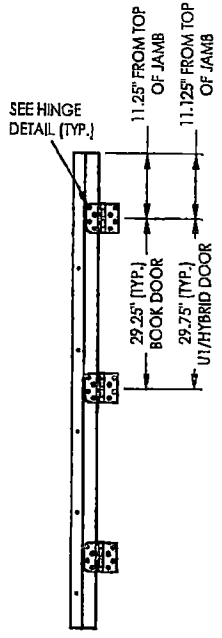
LATCH & DEADBOLT STRIKE DETAILS
(Standard Deadbolt Strike Plate)



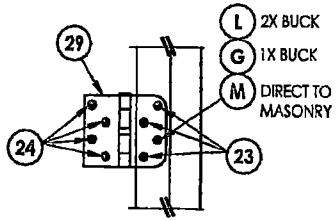
STRIKE JAMB
Latch and Deadbolt



DEADBOLT STRIKE DETAILS
(Security Deadbolt Strike Plate)



HINGE JAMB



HINGE DETAIL

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.8197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: HARDWARE DETAILS

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PO
2	10/05/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 9 OF 11

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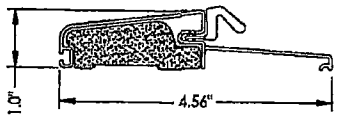
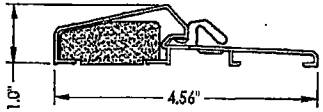
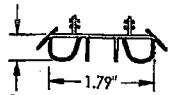


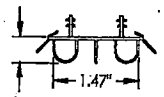
16 **OUTSWING THRESHOLD**
Composite Sill



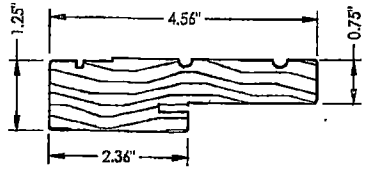
17 **OUTSWING THRESHOLD**
Composite / Aluminum Sill



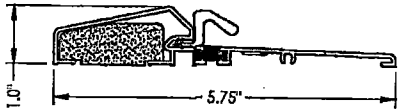
8 **SWEEP**



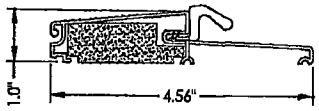
9 **SWEEP**



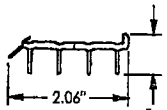
1 **WOOD JAMB**



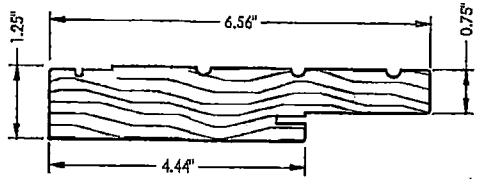
18 **OUTSWING THRESHOLD**
Composite / Aluminum Sill
(Thermal Break)



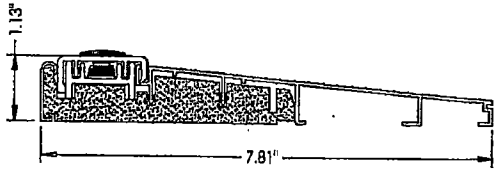
19 **OUTSWING THRESHOLD**
Composite Sill



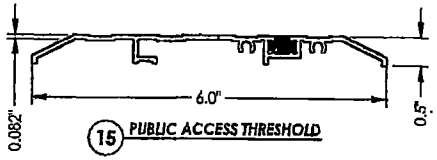
10 **SWEEP**



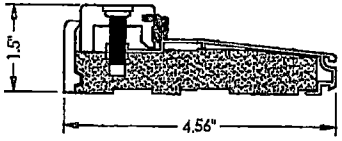
2 **WOOD JAMB**



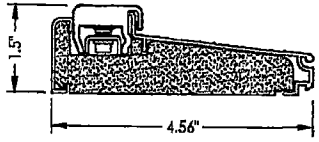
32 **INSWING THRESHOLD**
Inswing Composite Adjustable 7-3/4" Sill



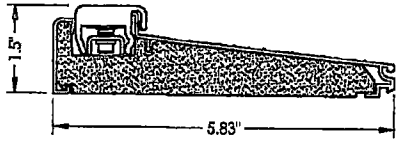
15 **PUBLIC ACCESS THRESHOLD**



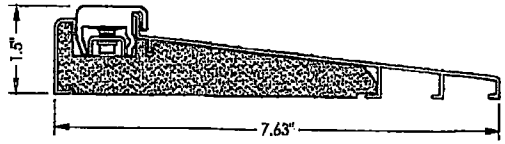
38 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill



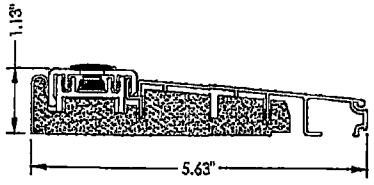
50 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill
Book, Hybrid



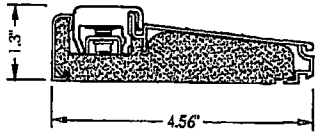
51 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill
Book, Hybrid



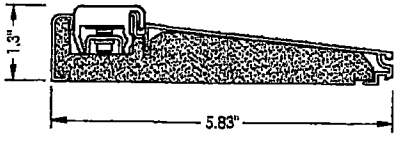
52 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill
Book, Hybrid



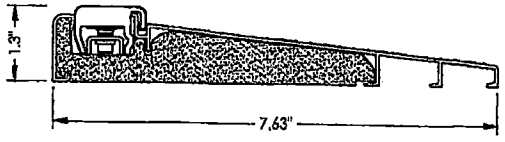
39 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill



53 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill
U1



54 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill
U1



55 **INSWING THRESHOLD**
Inswing Composite Adjustable Sill
U1

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: COMPONENTS

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PD
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 10 OF 11

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BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK (SG >= 0.42)	WOOD
B	2X BUCK (SG >= 0.42)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	3/16" X 3-1/4" ITW CONCRETE SCREW	STEEL
J	1/4" X 3-3/4" PFH DeWALT OR ITW CONCRETE SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
M	3/16" X 2-1/4" ITW CONCRETE SCREW	STEEL
N	3/16" X 2-3/4" ITW CONCRETE SCREW	STEEL
1	JAMB (FINGER JOINT PINE)	WOOD
2	JAMB (FINGER JOINT PINE)	WOOD
6	WEATHERSTRIP (MEDIUM REACH)	FOAM
7	WEATHERSTRIP (LONG REACH)	FOAM
8	SWEEP	VINYL
9	SWEEP	VINYL
10	SWEEP (USE w/ PUBLIC ACCESS THRESHOLD)	VINYL
15	PUBLIC ACCESS THRESHOLD	ALUM
16	OUTSWING THRESHOLD	ALUM/COMP
17	OUTSWING THRESHOLD	ALUM/COMP
18	OUTSWING THRESHOLD	ALUM/COMP
19	OUTSWING THRESHOLD	ALUM/COMP
22	#8 x 3/4" PFH WOOD SCREW	STEEL
23	#10 x 3/4" PFH WOOD SCREW	STEEL
24	#10 x 1" PFH WOOD SCREW	STEEL

BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
25	#8 x 2-1/2" PFH WOOD SCREW	STEEL
26	#8 x 5/8" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE (STANDARD)	STEEL
28A	DEADBOLT SUB STRIKE PLATE	STEEL
28B	DEADBOLT STRIKE PLATE (SECURITY)	STEEL
29	4" X 4" HINGE	STEEL
32	INSWING THRESHOLD	ALUM/COMP
38	INSWING THRESHOLD	ALUM/COMP
39	INSWING THRESHOLD	ALUM/COMP
40	DOOR PANEL (BOOK)	-
41	DOOR PANEL (HYBRID)	-
42	DOOR PANEL (U1)	-
50	INSWING THRESHOLD	ALUM/COMP
51	INSWING THRESHOLD	ALUM/COMP
52	INSWING THRESHOLD	ALUM/COMP
53	INSWING THRESHOLD	ALUM/COMP
54	INSWING THRESHOLD	ALUM/COMP
55	INSWING THRESHOLD	ALUM/COMP

CONCRETE ANCHOR NOTES:

1. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints.*
2. *Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.*
3. *Concrete anchor table:*

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
DeWALT ULTRACON®	1/4"	1-1/4"	1"	4"
ITW TAPCON®	3/16"	1-1/4"	AS SHOWN	1-1/2"

WOOD SCREW INSTALLATION NOTES:

1. *Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.*

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43408

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: THERMA-TRU FIBERGLASS DOOR

PART OR ASSEMBLY: BILL OF MATERIALS

NO.	DATE	REVISIONS	BY
3	7/16/20	UPDATE TO 7th ED (2020) FBC	PO
2	10/08/18	REV. DOOR PANEL OPTION NOTE	MT
1	12/03/17	RECESSED PANEL NOTATION	JK

DATE: 07/07/17
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-21135.1
SHEET 11 OF 11

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R W B C

R W Building Consultants, Inc.

Consulting and Engineering Services for the Building Industry
P.O. Box 230 Valrico, FL 33595 Phone 813.659.9197
Florida Board of Professional Engineers Registry License No. 9813

Product Evaluation Report

Report No.: *FL-21135.1*
Date: *August 18, 2023*

Product Category	Sub Category	Manufacturer	Product Name
Exterior Doors	Swinging Exterior Door Assemblies	Therma Tru Corporation 118 Industrial Drive Edgerton, OH 43517 Phone 419.298.1740	ThermaTru Benchmark Doors "Smooth Surface" and "Wood Grain" Fiberglass Door "Non-Impact" Inswing/Outswing

Scope: This is a Product Evaluation report issued by R W Building Consultants, Inc. and Lyndon F. Schmidt, P.E. for Therma Tru Corporation based on Rule Chapter No. 61G20-3, Method 1D of the State of Florida Product Approval, Department of Business & Professional Regulation.

RW Building Consultants and Lyndon F. Schmidt, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

Limitations:

1. This product has been evaluated and is in compliance with the 8th Edition (2023) Florida Building Code (FBC) structural requirements excluding the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
4. Site conditions that deviate from the details of drawing FL-21135.1 require further engineering analysis by a licensed engineer or registered architect.
5. Benchmark Door panels require the use of "J" part numbers and must be stained or painted within six months of installation.
6. See drawing FL-21135.1 for size and design pressure limitations.

Supporting Documents:

1. **Test Report No.**	**Test Standard**	**Testing Laboratory**	**Signed by**
ETC 01-741-10702.0	TAS 202 (94)	ETC Laboratories	Wendell W. Haney, P.E.
TEL 01460145	ASTM E330 (02)	Testing Evaluation Lab.,Inc.	V.K. Wright
TEL 01461612	ASTM E330 (02) / E331 (00)	Testing Evaluation Lab.,Inc.	V.K. Wright
2. **Drawing No.**	**Prepared by**		**Signed & Sealed by**
No. FL-21135.1	RW Building Consultants, Inc. (# 9813)		Lyndon F. Schmidt, P.E.
3. **Calculations**	**Prepared by**		**Signed & Sealed by**
Anchoring	RW Building Consultants, Inc. (# 9813)		Lyndon F. Schmidt, P.E.

4. **Quality Assurance**
Certificate of Participation issued by National Accreditation and Management Institute, certifying that Therma Tru Corporation is manufacturing products within a quality assurance program that complies with ISO/IEC 17020 and Guide 53.

Digitally signed by Lyndon F Schmidt
Date: 2023.08.21 08:51:48 -04'00'

LYNDON F. SCHMIDT, State of Florida, Professional Engineer, License No. 43409
This item has been digitally signed and sealed by L. F. Schmidt on 8-21-23.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
THIS PRODUCT APPROVAL IS VALID ONLY FOR THE STATE OF FLORIDA

OFFICE OF THE SECRETARY

FL #	FL41620-R1
Application Type	Revision
Code Version	2023
Application Status	Approved
	*Approved by DBPR. Approvals by DBPR shall be reviewed and ratified by the POC and/or the Commission if necessary.
Comments	
Archived	☐
Product Manufacturer	Levi's Building Components LLC
Address/Phone/Email	400 Burkholder Drive Ephrata, PA 17522 (717) 868-7175 justin@levisbc.com
Authorized Signature	Justin Smoker justin@levisbc.com
Technical Representative	Justin Smoker
Address/Phone/Email	400 Burkholder Drive Ephrata, PA 17522 (717) 868-7175 Justin@levisbuildingcomponents.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Roofing
Subcategory	Underlayments
Compliance Method	Evaluation Report from a Product Evaluation Entity
Evaluation Entity	Intertek Testing Services NA, Inc.
Quality Assurance Entity	Intertek Testing Services NA, Inc. - QA Entity
Quality Assurance Contract Expiration Date	12/31/2026
Validated By	Intertek Testing Services NA, Inc.
Certificate of Independence	

Referenced Standard and Year (of Standard)	Standard	Year
	ASTM D1970	2017

Equivalence of Product Standards Certified By	
Sections from the Code	

Roloshield™ Prime SA Installation Instructions

Roloshield™ Prime SA is a weatherproof barrier used as underlayment for asphalt shingles, synthetic shingles, metal roofing, concrete and clay tiles, slate, and cedar shakes. It can be used on various decking materials such as plywood, composite wood, wood plank, metal, concrete, and gypsum sheathing. Please read and understand all instructions and precautions before application, and make sure to follow all local building codes while applying this product.

Storage

- Store at room temperature preferably between 40° and 90°F.
- Keep upright in original packaging until ready for use.
- Keep clear from open flames and corrosive substances.

Preparation

- Ensure deck surface is clean, dry, and free of protrusions or other debris that may damage the product.
- Priming is not required when attaching to wood or wood based surfaces.
- Concrete and masonry decks should be primed with a solvent or a water-based primer that meets ASTM D41 for asphalt-based self-adhesive membranes.
- For re-roofing projects, replace any water-damaged sheathing and ensure surface is free of dirt, dust, and obstructions.
- Use of salt for ice removal is not recommended.

Application

- Apply on dry deck in fair weather -- preferable temperature of 40°F or higher.
- For cold weather applications below 40°F a primer should be used and the laps blind nailed. Blind nail with 3/8" head roofing nails of 1" or longer in the 3" overlap area.
- It is also recommended to blind nail in the overlap area when applying on steep slopes of 6:12 or greater, or when applying at temperatures greater than 100°F.
- When installing lay parallel to the eave with the printed side up, using 3" horizontal laps and 6" vertical laps.
- Roloshield™ Prime SA can also be applied vertically. For vertical installation anchor with 3/8" head roofing nails along the uppermost edge 3" down with 6 equally spaced nails across the 36" width. Make sure roofing nails are perpendicular to the roof deck ensuring the head lays flat and seals well to the top surface of the product. Ensure vertical overlaps are a minimum of 6" and horizontal laps a minimum of 3".
- Always work from the low point to the high point of the roof. Make sure to apply the membrane in valleys before it is applied to the eaves.

- Cut the membrane into 10-15 ft lengths and re-roll loosely. Peel back 1-2ft of release liner, align the membrane, and continue to peel the release liner from the membrane. Hand press or walk on, following with a 40lb or heavier pressure roller to smooth and secure the membrane onto the roof deck and overlap.
- For valley and ridge application, peel the release liner, then center the sheet over the valley or ridge. Drape and press it into place. Work from the center of the valley or ridge outward in each direction, once again starting from the low point and working up the roof.
- For eave installation Roloshield™ Prime SA should be applied over the metal drip edge at the eave. Do not fold the product over the roof edge unless the edge is covered by a drip edge or other flashing material. Roloshield™ Prime SA should extend form the eave up the roof to a point 24" inside the exterior wall. Refer to local building codes for specific requirements.
- Repair holes, tears, or other damage to the membrane with a patch of membrane extending past the damaged area by 6" in all directions. If fasteners are removed leaving holes they also must be patched.
- Do not install fasteners in the membrane over any unsupported areas of the deck, such as over joints between adjacent structural panels.
- In areas with high elevation, high wind, and/or wind driven rain it is recommended to cover the entire roof with Roloshield™ Prime SA.

Precautions

- Do not leave Roloshield™ Prime SA exposed to outdoor elements for a long period of time. Final roofing should be installed within 180 days of Roloshield™ Prime SA installation.
- Depending on roof pitch and surface conditions, blocking may be recommended to support roofing materials placed on the roof. Make sure to seal the holes left by fasteners after they have been removed.
- Remember to protect completed roof areas to avoid damage during installation and material transportation by installing boardwalks.
- Do not place too much material in one area on the roof deck. Distribute weight over supports as much as possible.

Caution

As with any roofing product, always follow safe roofing codes & practices (OSHA), and always use and wear fall protection devices when working on roofs. Release liners are slippery and should be removed from work area immediately after application. Use caution when walking or standing as slip resistance may vary with surface conditions, weather, footwear and roof pitch. Failure to use proper safety gear and footwear can result in serious injury.

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Total Quality. Assured.

Code Compliance Research Report
CCRR-0429

Issue Date: 09-14-2021
Revision Date: 10-16-2023
Renewal Date: 10-31-2024

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:
Levi's Building Components LLC
400 Burkholder Drive,
Ephrata, PA 17522
USA
(717) 868-7175
www.levisbuildingcomponents.com

REPORT SUBJECT:
Roloshield Prime (ROLOPRIME SA) Self-adhered Roofing Underlayment

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018, and 2015 *International Building Code®* (IBC)
- 2021, 2018, and 2015 *International Residential Code®* (IRC)
- 2023 and 2020 *Florida Building Code* (FBC)

1.2 The underlayment has been evaluated for the following properties (see Table 1):

- Physical Properties
- Ice Barrier

1.3 The underlayment has been evaluated for the following uses (see Table 1):

- Use in the field of the roof as an alternative to ASTM D226, Type I and Type II, roof underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC
- Use in areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier roof underlayment, when installed as noted in Section 4.2

2.0 STATEMENT OF COMPLIANCE

Roloshield Prime self-adhered underlayment complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 5.0.

3.0 DESCRIPTION

Roloshield Prime underlayment is a self-adhered synthetic underlayment comprised of a synthetic facer (non-woven scrim laminated onto a woven scrim), modified bitumen as the adhesive material, and a release liner. The underlayment is grey in color on the exposed side. The nominal weight of the underlayment is 15.4 pounds per 100 square feet. The underlayment is available in rolls of 36 inches wide by 72 feet long.

4.0 INSTALLATION

4.1 General: Roloshield Prime underlayment must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

4.2 Application: The roof deck must be in proper condition to ensure adhesion. Installation is limited to solid-sheathed decks of plywood substrates. The membrane is self-adhered to the substrate after the release liner is removed.

The membrane must be lapped a minimum of 3 inches on horizontal seams and 6 inches on vertical seams. Flashings around protrusions must be installed under the underlayment.

When used as an ice barrier, the membrane is applied from the lower edge of the roof, extending up the roof a distance of 24 inches inside the exterior wall line of the building.

The roof covering may be installed immediately following the underlayment application, and the underlayment must be covered within the time designated in the report holder's published installation instructions.

5.0 CONDITIONS OF USE

5.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

5.2 Installation is limited to use with approved mechanically attached roof covering systems.

5.3 Installation is limited to structures where non-classified roof coverings are permitted or as a component of a classified roofing assembly when specifically recognized as such in a listing approved by the Code Official.

5.4 Installation is limited to roof systems that do not involve hot asphalt or coal-tar pitch.

5.5 Installation is limited to roofs with slope of 2:12 (17%) or greater.

5.6 Attic ventilation must be provided in accordance with the applicable Code since there are no requirements to evaluate vapor permeability of the underlayments.

5.7 Roloshield Prime underlayment is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

6.0 SUPPORTING EVIDENCE

6.1 Reports of tests in accordance with ASTM D1970-18.

6.2 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

6.3 Intertek Listing Report "Levi's Synthetic Roofing Underlayments", on the Intertek Directory of Building Products.

7.0 IDENTIFICATION

Roloshield Prime self-adhered roofing underlayment is identified with the manufacturer's name (Levi's Building Components), address and telephone number, the product name (Roloshield Prime), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0429).

Intertek

8.0 OTHER CODES

8.1 Florida Building Code:

8.1.1 Scope of Evaluation: Roloshield Prime underlayment was evaluated for compliance with the 2023 and 2020 *Florida Building Code – Building* and the 2023 and 2020 *Florida Building Code – Residential.*

8.1.2 Conclusion: The Roloshield Prime underlayment described in Sections 2.0 to 7.0 of this report complies with the 2023 and 2020 *Florida Building Code – Building* and the 2023 and 2020 *Florida Building Code – Residential* including High-Velocity Hurricane Zones (HVHZ), subject to the following conditions:

- The underlayment must be installed in accordance with the provisions noted in Section 2.0 through 7.0 of this report, Sections 1507.1.1.1, 1507.1.1.2, or 1507.1.1.3 of the *Florida Building Code – Building*, and Section R905.1.1.1, R905.1.1.2, or R905.1.1.3 of the *Florida Building Code – Residential*
- Roloshield Prime may be used where underlayments complying with ASTM D1970 are permitted in TAS 110, as referenced in *Florida Building Code – Building*, Section 1515.1.4
- Roloshield Prime underlayment may be installed with clay and concrete tiles outside of the HVHZ when installed in accordance with *Florida Building Code – Building*, Section 1507.3.3 and *Florida Building Code – Residential*, Section R905.3.3
- Intertek is an approved evaluation entity and quality assurance entity pursuant to Florida Statute 553.842 *– Product Evaluation and Approval*

9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

9.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

9.3 Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION	2021 IRC SECTION	2023 FBC Section (BUILDING)	2023 FBC Section (RESIDENTIAL)
Physical Properties	104.11, 1506, and 1507	R104.11, R904, and R905	1506, 1507.1.1, and 1515.1.4	R904, R905.1.1
Ice Barrier	1507	R905	N/A	N/A

NOTE: Section numbers may be different for earlier versions of the Codes.

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