



FeelSafe & FeelSafe IG
Monument Double Hung/Single Hung
Operating Window Mull to Picture Window
with 1/4" x 5" Aluminum Vertical Plate Mull
103.06" x 76.63", Fin Installation w/ L-Clips
& Screws at Mulls / Impact

Element Materials Technology TEST REPORT #: **ESP015004P-1482**

**FeelSafe Monument Clad Double Hung/Single Hung Operating Mull to Picture Window with 1/4"x5"
Alum. Vertical Plate Mull Reinforcement. Fin Installation w/ L-Clips & Screws at Mulls / WDMA / Impact**

SHEET: 1 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

TEST REPORT SUMMARY:

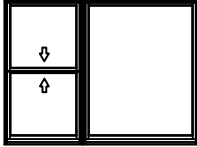
- OVERALL BASIC UNIT FRAME SIZE:
103.06" (2618mm) x 76.63" (1946mm)
DOUBLE HUNG OPERATING UNIT MAXIMUM SIZE:
41.31" (1049mm) X 76.63" (1946mm)
DOUBLE HUNG PICTURE UNIT MAXIMUM SIZE:
61.31" (1557mm) X 76.63" (1946mm)
- OVERALL DESIGN PRESSURE: **+65 / - 85 psf**
- RATING: **+65/-85, Missile D, Wind Zone 4**

DATE: 07/29/14

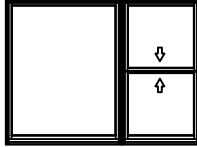
DWG. No.: HURD0005

QUALIFIES:

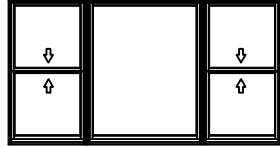
OPERATOR / PICTURE



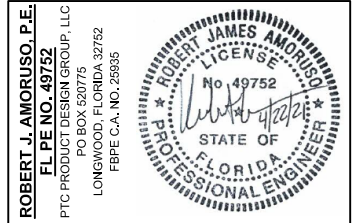
PICTURE / OPERATOR



OPERATOR / PICTURE / OPERATOR



**NOTE: SILL MUST BE A MINIMUM OF 7"
WHEN INSTALLING WITH THE 1/4"
VERTICAL ALUMINUM PLATE MULL. SILL
MAY BE 2 PIECE CONSTRUCTION.**



FIN INSTALL WITH L-CLIPS AND SCREWS AT MULL LOCATIONS ANCHOR REQUIREMENTS TABLE

FIN INSTALLATION UTILIZING L-CLIPS & SCREWS AT MULL LOCATIONS

Opening type (Substrate)	JAMB TO OPENING FASTENER TYPE, FASTENER SPACING	Minimum embed	Minimum edge distance
2X_ Wood frame or buck	4. Double Hung Operating Unit and Picture Unit Fin Perimeter: • Head, Sill and Jamb: #8 X 1-1/4" PPH SS Screws spaced maximum 2" from each corner & maximum 8" on center thereafter through applied nail fin into 2x wood member. • Applied Nail Fin: (1) #6 x 5/8" or (1) #6 x 1/2" PPH SS Screw through applied nail fin into window unit cladding. Screw nail fin at end holes and spaced 8" to 10" on center typical. Predrilling of frame optional. Mull Locations: • Head: Install #10 x 2-1/2" PFH SS screws thru the unit head jamb of the double hung and the picture into the wood buck framing material, spaced 3", 4.5" & 6" on each side of the vertical mull seam, for a total of (6) screws. • Sill: Install 1/2" x 5" 20 gauge galvanized hurricane L-clips. Each clip is installed with (3) #6 x 1/2" Tek screws into the window unit sill cladding & (2) #8 x 1-1/4" PPH SS Screws into the wood buck framing material, spaced 3 & 6" from each side of the vertical mull.	1-1/4"	3/4"
		Maximum shim space	Shim Placement
		1/4" each side	Every 6-10"

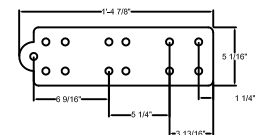
Anchors must be into a min. 2x_ wood member. If space between wall frame & window frame is greater than that required for a 2x_ wood member and a space exists, the space must be filled with a wood member of equal depth to the window frame member or buck and of length = min. 20". The frame anchor must then be run through the frame & wood shim and into the opening.

INSTALLATION NOTES:

1. Anchors must be into a min. 2x_ wood member. If space between wall frame & window frame is greater than that required for a 2x_ wood member and a space exists, the space must be filled with a wood member of equal depth to the window frame member or buck and of length = min. 20". The frame anchor must then be run through the frame & wood shim and into the opening.
2. Use 2" x _ wood frame or buck.
 - Sill must be a minimum of 7" when installing with the 1/4" vertical aluminum plate mull.
 - Sill may be 2 piece construction.
 - Single unit installation do not require l-clips at sill.
 - Single unit installation require separate framing or the use of 2" tube mull.
3. 1/4" maximum shim space at head, sill & jambs.
 - Place wood shim every 6-10" and where screw anchors are located.
4. 1-1/4" minimum fastener embedment into framing material, silicone seal over screw heads. See ANCHOR REQUIREMENTS TABLE above and SCREW TYPES & LOCATIONS FOR HURRICANE L-CLIPS at right.
5. Apply a continuous bead of sealant between the aluminum nail fin at head, jambs and sill and the buck.
6. MAXIMUM WINDOW SIZES: B.U.S. (Basic Unit Size) =
DOUBLE HUNG/SINGLE HUNG OPERATING UNIT MAXIMUM SIZE: **41.31" (1049mm) X 76.63" (1946mm)**
PICTURE UNIT MAXIMUM SIZE: **61.31" (1557mm) X 76.63" (1946mm)**
7. See Sheet 5 for GLAZING SPECIFICATION.

Hurricane L-Clip

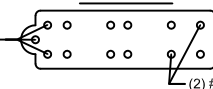
1 1/2" X 5", 20 GAUGE (.035") GALVANIZED
STEEL ANCHOR STRAP



Screw types and locations for
Hurricane L-Clips

At the Sill

(3) #6 x 1/2" Self-tapping
Tek Screws attached to the
aluminum cladding of the
window frame



(2) #8 x 1-1/4" PPH SS Screws
applied through the clip into the
wood buck framing

- Check rough opening for proper size, plumb, level and square.
- Make all necessary adjustments to ensure rough opening is plumb, level & square.
- Sill must be flat, level and capable of supporting the weight of the unit.
- Opening should allow a maximum of 1/4" shim space at head, sill and jambs.
- Wood buck, framing, fasteners, sealant and all wall system materials are provided by others.

Installation requirements may vary in particular locations and in other types of construction. Proper installation is essential, and Hurd Windows & Doors, recommends consultation with an AAMA Certified Installer, or other qualified, registered building professional before installation of any Hurd product. Proper installation of Hurd products is the responsibility of the installer. Hurd is not responsible for proper installation. Hurd is not responsible for the design of, conditions in, or performance of building construction beyond the perimeters of the Hurd units. Hurd is not responsible for proper integration of the Hurd units with the weather-repellent systems of the building.



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Operating Window Mull to Picture Window
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103.06" x 76.63", Fin Installation w/ L-Clips
& Screws at Mulls / Impact

Element Materials Technology TEST REPORT #: **ESP015004P-1482**

FeelSafe Monument Clad Double Hung/Single Hung Operating Mull to Picture Window with 1/4"x5" Alum. Vertical Plate Mull Reinforcement. Fin Installation w/ L-Clips & Screws at Mulls / WDMA / Impact

SHEET: 2 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

TEST REPORT SUMMARY:

- OVERALL BASIC UNIT FRAME SIZE:
103.06" (2618mm) x 76.63" (1946mm)
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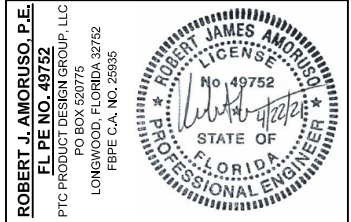
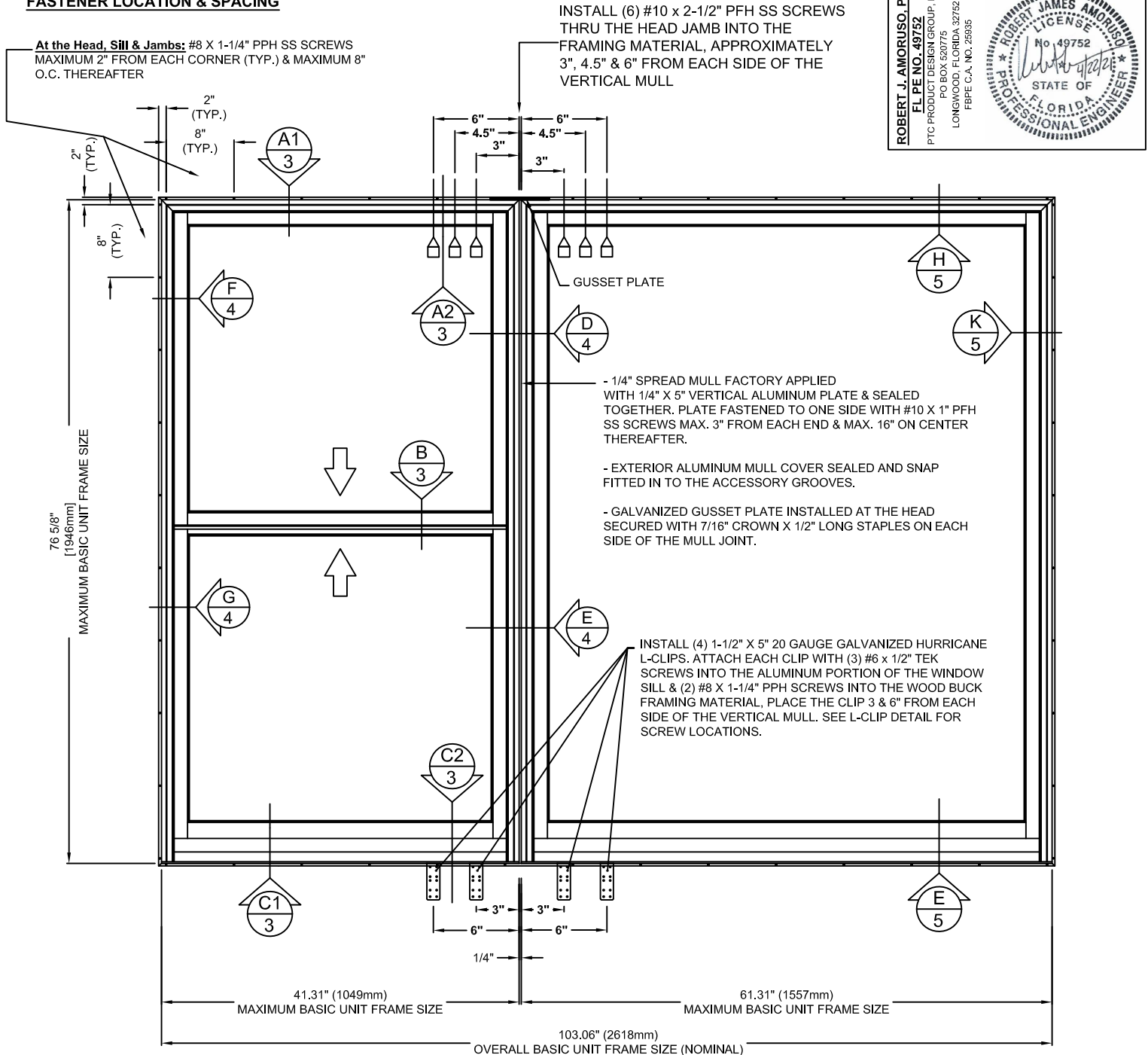
- OVERALL DESIGN PRESSURE: **+65 / - 85 psf**

- RATING: **+65/-85, Missile D, Wind Zone 4**

DATE: 07/29/14

DWG. No.: HURD0005

**ELEVATION SHOWING
FASTENER LOCATION & SPACING**





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SHEET: 3 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

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DATE: 07/29/14	DWG. No.: HURD0005

HEAD DETAIL

SCREW INSTALL

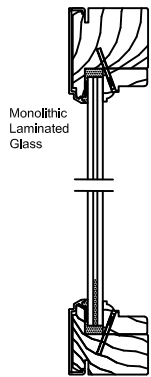
FEELSAFE HURD MONUMENT
CLAD DOUBLE HUNG WINDOW

1. 2" x _ WOOD
BUCK OR FRAME

3. WOOD SHIMS
PLACED EVERY 6-10" &
AT SCREW LOCATIONS

5. CONTINUOUS BEAD
OF SEALANT BEHIND
ALUMINUM NAIL FIN

4. #6 X 5/8" PPH OR #6 X 1/2"
PPH SCREW. SCREW NAIL FIN
AT END HOLES AND 8"-10" O.C.
(TYPICAL). PREDRILLING OF
FRAME OPTIONAL.



Monolithic
Laminated
Glass

Laminated
Insulated
Glass

4. 1-1/4" MINIMUM
EMBEDMENT

3. 1/4" MAX.
SHIM SPACE

4. #8 X 1-1/4" PPH SCREWS
MAXIMUM 2" FROM EACH CORNER
MAXIMUM 8" ON CENTER SILICONE
SEAL OVER SCREW HEADS

5. CONTINUOUS BEAD
OF SEALANT BEHIND
ALUMINUM NAIL FIN

4. #6 X 5/8" PPH OR #6 X 1/2" PPH
SCREW. SCREW NAIL FIN AT END
HOLES AND 8"-10" O.C. (TYPICAL).
PREDRILLING OF FRAME OPTIONAL.

4. 1-1/4" MIN. EMBEDMENT
INTO FRAMING MATERIAL (TYP.)

1. 2" x _ WOOD
BUCK OR FRAME

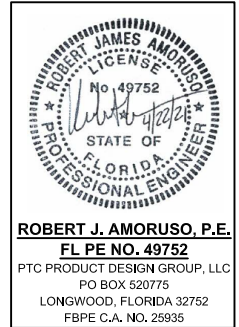
3. WOOD SHIMS
PLACED
EVERY 6-10"

3. 1/4" MAXIMUM
SHIM SPACE

HEAD DETAIL

FIN INSTALL

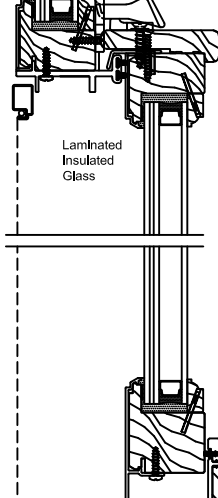
FEELSAFE HURD MONUMENT
CLAD RECTANGULAR,
SPRINGLINE or ARCH TOP DOUBLE
HUNG



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MEETING RAIL DETAIL

FEELSAFE HURD MONUMENT CLAD
DOUBLE HUNG WINDOW



Laminated
Insulated
Glass

4. #6 X 5/8" PPH OR #6 X 1/2" PPH SCREW.
SCREW NAIL FIN AT END HOLES AND 8"-10"
O.C. (TYPICAL). PREDRILLING OF FRAME
OPTIONAL.

4. #8 X 1-1/4" PPH SCREWS
MAXIMUM 2" FROM
EACH CORNER
& MAXIMUM 8" ON
CENTER THEREAFTER
SILICONE SEAL OVER
SCREW HEADS

SILL DETAIL

L-CLIP INSTALL

FEELSAFE HURD MONUMENT
CLAD DOUBLE HUNG WINDOW

4. (3) #6 x 1/2" TEK SCREWS
THROUGH L-CLIP INTO WINDOW
UNIT. INSTALLED PER FRAME
ANCHOR REQUIREMENT TABLE
ON PAGE 1. (NAIL FIN #6 X 1/2"
PPH SCREW NOT SHOWN FOR
CLARITY.)

5. CONTINUOUS BEAD
OF SEALANT BEHIND
ALUMINUM NAIL FIN

1. 2" x _ WOOD
BUCK OR FRAME

4. 1-1/2" X 5", 20-
GAUGE GALVANIZED
HURRICANE L-CLIPS

3. WOOD SHIMS
PLACED EVERY 6-10" &
AT SCREW LOCATIONS

3. 1/4" MAX.
SHIM SPACE

5. CONTINUOUS BEAD
OF SEALANT BEHIND
ALUMINUM NAIL FIN

1. 2" x _ WOOD
BUCK OR FRAME

4. 1-1/4" MIN. EMBEDMENT
INTO FRAMING
MATERIAL (TYP.)

SILL DETAIL

FIN INSTALL

FEELSAFE HURD MONUMENT
CLAD DOUBLE HUNG WINDOW



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SHEET: 4 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

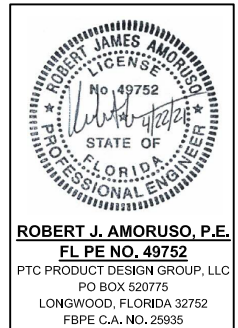
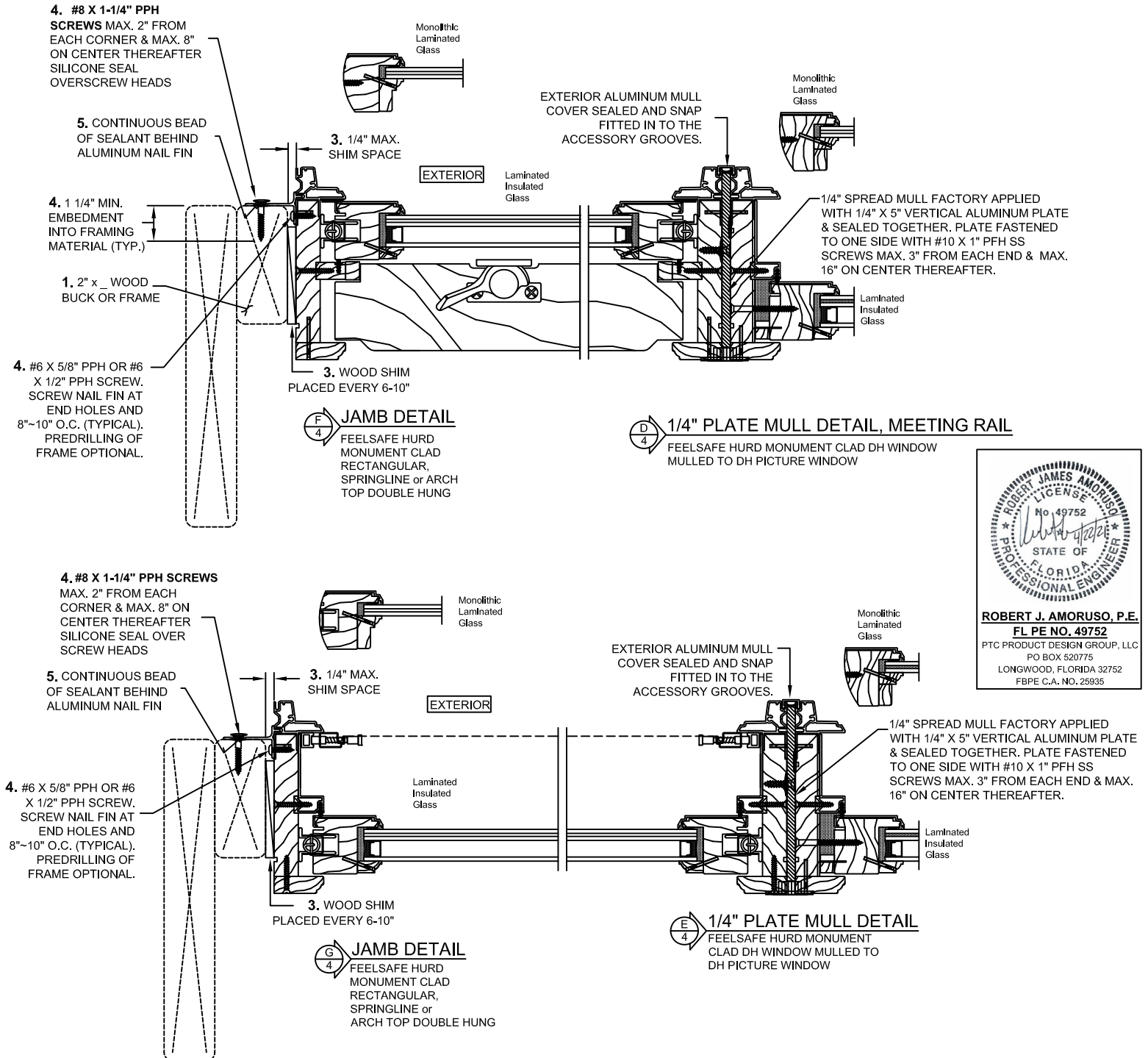
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SHEET: 5 OF 5

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4. #8 X 1-1/4" PPH

SCREWS MAX. 2" FROM EACH CORNER & MAX. 8" ON CENTER THEREAFTER SILICONE SEAL OVERSCREW HEADS

4. #6 X 5/8" PPH OR #6 X 1/2" PPH SCREW. SCREW NAIL FIN AT END HOLES AND 8"-10" O.C. (TYPICAL). PREDRILLING OF FRAME OPTIONAL.

5. CONTINUOUS BEAD OF SEALANT BEHIND ALUMINUM NAIL FIN

4. 1 1/4" MIN. EMBEDMENT INTO FRAMING MATERIAL (TYP.)

1. 2" x _ WOOD BUCK OR FRAME

EXTERIOR

Laminated Insulated Glass

3. WOOD SHIMS PLACED EVERY 6-10" & AT SCREW LOCATIONS

Monolithic Laminated Glass

JAMB DETAIL (TYPICAL)
HURD FEELSAFE MONUMENT CLAD PICTURE

4. 1-1/4" MIN. EMBEDMENT INTO FRAMING MATERIAL (TYP.)

HEAD DETAIL

FIN INSTALL*

HURD FEELSAFE MONUMENT CLAD PICTURE

* Thru-frame screw install at head for PW similar to Section A2/3 for DH/SH on Sheet 2.

1. 2" x _ WOOD BUCK OR FRAME

4. #8 X 1-1/4" PPH SCREWS MAXIMUM 2" FROM EACH CORNER MAXIMUM 8" ON CENTER SILICONE SEAL OVER SCREW HEADS

5. CONTINUOUS BEAD OF SEALANT BEHIND ALUMINUM NAIL FIN

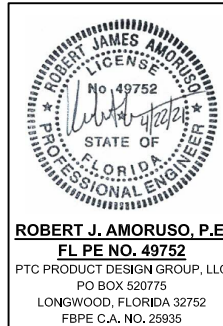
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3. WOOD SHIMS PLACED EVERY 6-10" & AT SCREW LOCATIONS

3. 1/4" MAX. SHIM SPACE

Laminated Insulated Glass

Monolithic Laminated Glass



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4. #6 X 1/2" PPH SCREW. SCREW NAIL FIN AT END HOLES AND 8"-10" O.C. (TYPICAL). PREDRILLING OF FRAME OPTIONAL.

EXTERIOR

4. #8 X 1-1/4" PPH SCREWS MAXIMUM 2" FROM EACH CORNER & MAXIMUM 8" ON CENTER THEREAFTER SILICONE SEAL OVER SCREW HEADS

5. CONTINUOUS BEAD OF SEALANT BEHIND ALUMINUM NAIL FIN

1. 2" x _ WOOD BUCK OR FRAME

3. WOOD SHIMS PLACED EVERY 6-10" & AT SCREW LOCATIONS

3. 1/4" MAX. SHIM SPACE

4. 1-1/4" MIN. EMBEDMENT INTO FRAMING MATERIAL (TYP.)

SILL DETAIL

FIN INSTALL**

HURD FEELSAFE MONUMENT CLAD PICTURE



* L-Clip install at sill for PW similar to Section C2/3 for DH/SH on Sheet 2.

GLAZING SPECIFICATION

Laminated Insulated Glass - DH/SH

15/16" O.A. Thickness IGU Old Castle KeepSafe: consisting of 3mm tempered interior lite x .438" aluminum box spacer bar x 8.6mm lami consisting of 3mm annealed glass x .090" Saflex PVB Interlayer x 3mm annealed glass

Laminated Insulated Glass - Picture Window

1.023" O.A. Thickness IGU Old Castle KeepSafe: consisting of 6mm annealed interior lite x .438" aluminum box spacer bar x 8.6mm lami consisting of 3mm annealed glass x .075" Saflex CP or Oldcastle StormGlass interlayer x 3mm annealed glass.

Monolithic Laminated Glass - DH/SH

11/32" O.A. Thickness Single Laminated Old Castle KeepSafe: consisting of 3mm annealed glass x .090" Saflex PVB interlayer x 3mm annealed glass.

Monolithic Laminated Glass - Picture Window

9/16" O.A. Thickness Single Laminated Old Castle KeepSafe: consisting of 6mm heat strengthened glass x .100" Saflex HP Interlayer x 6mm heat strengthened glass

MD NOA Component Approvals. Current 2020 FBC approvals shown. Later approvals may be applicable.

- Saflex PVB Interlayer: NOA No. 20-0622.01
- Saflex HP Interlayer: NOA No. 20-0622.02
- Saflex CP Interlayer: NOA No. 20-0622.03
- Oldcastle Stormglass Interlayer: NOA No. 20-0622.07

Notes:

1. A minimum of two (2) neoprene setting blocks with 70 to 90 shore a durometer hardness are required at bottom (sill) of glazing lites more than 3 feet in width.
2. As-tested single-ply laminated and IGU laminated systems shown.
3. Glazing Stop Attachment:
 - 3.1. Mechanically attached to adjacent panel member.
 - 3.2. Continuous bead of Tremco S-900 glazing compound 1/8" x 1/4" applied to the glass/exposed sash cladding with a 9/16" glass bite and backfilled.
 - 3.3. Interior glazing stops secured with 1" galvanized T-nails spaced 2" from each corner and 8" - 10" on center thereafter. 3m bump-on glass shims placed between glass and sash cladding.

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