



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"

L-Clip Installation with 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. L-Clip with Screws at Mulls Install/WDMA Instruction / Impact**

SHEET: 1 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

TEST REPORT SUMMARY:

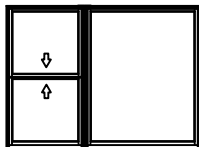
- OVERALL BASIC UNIT FRAME SIZE:
103.06" (2618mm) x 76.63" (1946mm)
DOUBLE HUNG OPERATING UNIT MAXIMUM SIZE:
41.31" (1049mm) X 76.63" (1946mm)
DOUBLE HUNG PICTURE UNIT MAXIMUM SIZE:
61.31" (1557mm) X 76.63" (1946mm)
- OVERALL DESIGN PRESSURE: **+65 / - 85 psf**
- RATING: **+65/-85, Missile D, Wind Zone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

DATE: 07/29/14

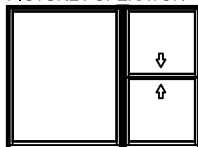
DWG. No.: HURD0004

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.

ROBERT J. AMORUSO, P.E.
FL PE NO. 49752
PTC PRODUCT DESIGN GROUP, LLC
PO BOX 5307/3
LONGWOOD, FLORIDA 32752
FBPE C.A. NO. 25955



L-CLIP INSTALL & SCREWS AT MULL LOCATIONS ANCHOR REQUIREMENTS TABLE

INSTALLATION UTILIZING L-CLIPS & SCREWS

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: Fasten 1-1/2" x 5" 20 gauge galvanized hurricane L-clip to the window unit with (1) #6 x 1/2" Tek screw into the cladding, (2) #7 x 1/2" PFH screws & (2) #8 x 1-1/4" PPH SS screws into the jambs at these locations: • Head: Locate and install L-Clips 6" from the outside corner and (1) at mid-span. • Jamb: Locate and install L-Clips 6" down from the corner then at 15"-17" on center thereafter and 6" from the sill corner. Picture Unit: Fasten 1-1/2" x 5" 20 gauge galvanized hurricane L-clip to the window unit with (1) #6 x 1/2" Tek screw into the cladding and (2) #7 x 1/2" PFH screws & (2) #8 x 1-1/4" PPH SS screws into the jambs at these locations: • Head: Install L-Clips 6" from the outside corner then at 15"-17" on center thereafter. • Jamb: Install L-Clips 6" from the head corner then at 15" on center thereafter and 6" from the sill corner. Sill: • Install 1-1/2" x 5" 20 gauge galvanized hurricane L-clips spaced 6" from the outside corner and one mid-span of the double hung and 6" from the outside corner of the picture and the 15"-17" on center thereafter. Each clip is installed with (3) #6 x 1/2" Tek screws into the window unit sill & (2) #8 x 1-1/4" PPH SS screws into the wood buck framing material. 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.

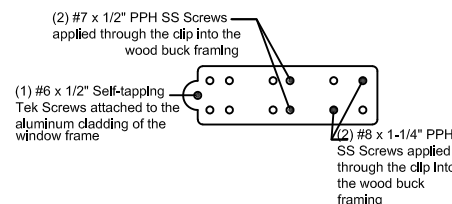
INSTALLATION NOTES:

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. Cap bead between the window frame and the buck, full perimeter.
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 3 for GLAZING SPECIFICATION.

- 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.

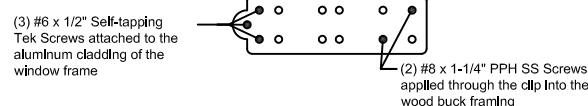
Screw types and locations for
Hurricane L-Clips

At the Head and Jambs



Screw types and locations for
Hurricane L-Clips

At the Sill





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SHEET: 2 OF 5

DRAWING REV. A, 4/22/21

DRAWN BY: H.W.D.

CHECKED BY: R.J.A.

DATE: 07/29/14

DWG. No.: HURD0004

TEST REPORT SUMMARY:

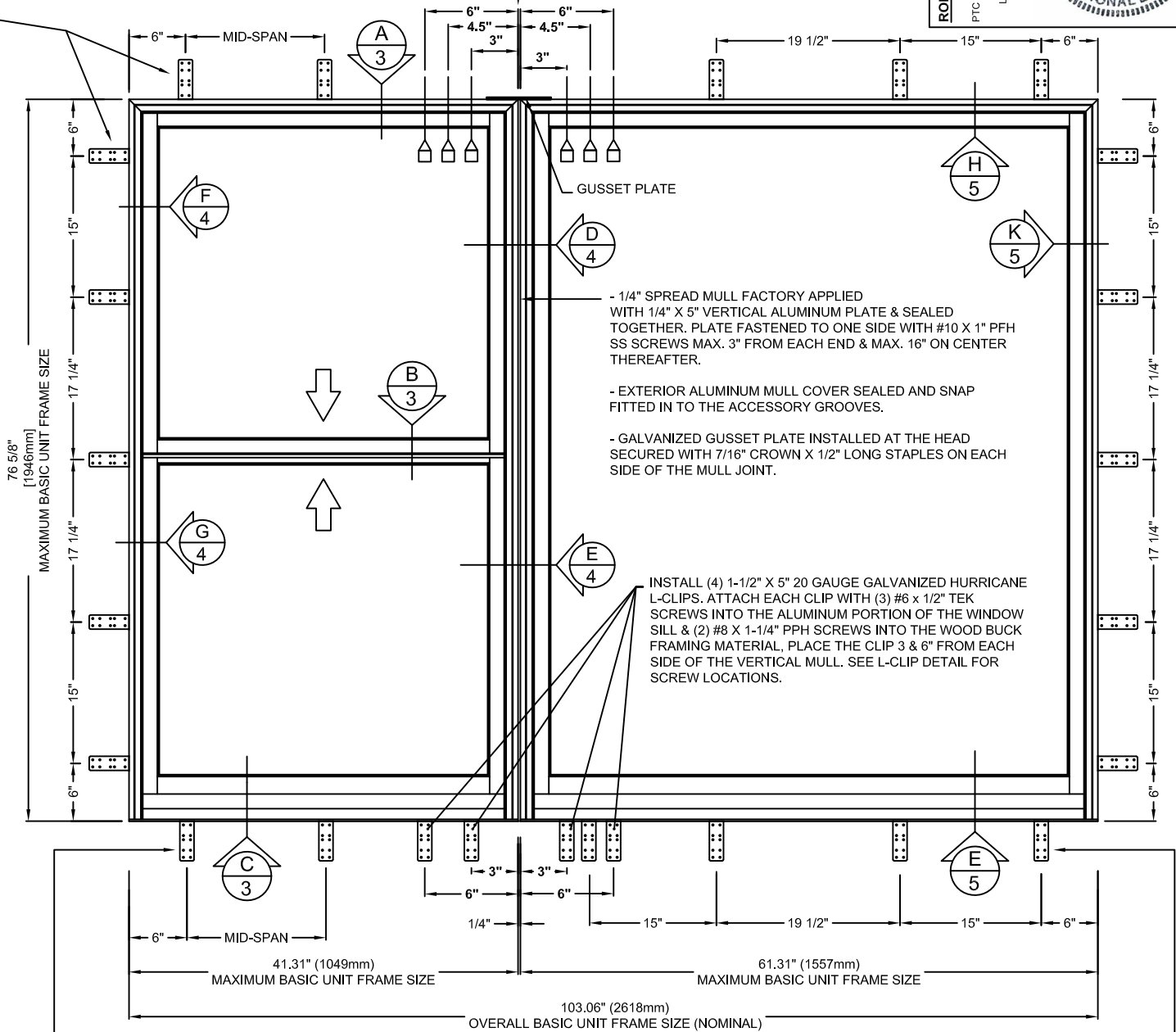
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**ELEVATION SHOWING
FASTENER LOCATION & SPACING**

At the Head & Jamb: Fasten 1-1/2" x 5" 20 gauge galvanized hurricane L-clip to the window unit with (1) #6 x 1/2" Tek screw into the cladding and (2) #7 x 1/2" PFH screws & (2) #8 x 1-1/4" PPH SS screws into the jambs at these locations:

INSTALL (6) #10 x 2-1/2" PFH SS SCREWS THRU THE HEAD JAMB INTO THE FRAMING MATERIAL, APPROXIMATELY 3", 4.5" & 6" FROM EACH SIDE OF THE VERTICAL MULL

ROBERT J. AMORUSO, P.E.
FL PE NO. 49752
PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520773
LONGWOOD, FLORIDA 32752
FBPE CA. NO. 28935



INSTALL 1-1/2" X 5" 20 GAUGE GALVANIZED HURRICANE L-CLIPS SPACED 6" FROM THE OUTSIDE CORNER AND ONE MID-SPAN OF THE DOUBLE HUNG AND 6" FROM THE OUTSIDE CORNER OF THE PICTURE AND THE 15"-17" ON CENTER THEREAFTER, EACH CLIP IS INSTALLED WITH (3) #6 X 1/2" TEK SCREWS INTO THE WINDOW UNIT SILL & (2) #8 X 1-1/4" PPH SCREWS & INTO THE WOOD BUCK FRAMING MATERIAL.



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SHEET: 3 OF 5

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DRAWN BY: H.W.D.

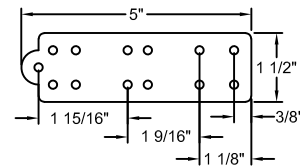
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Hurricane L-Clip

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



**Screw types and locations for
Hurricane L-Clips**

At the Head and Jamb

- (1) #6 x 1/2" Self-tapping Tek Screws attached to the aluminum cladding of the window frame
- (2) #7 x 1/2" PFH SS Wood Screws applied through the clip into the window frame
- (2) #8 x 1-1/4" PPH SS Screws applied through the clip into the wood buck framing

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.

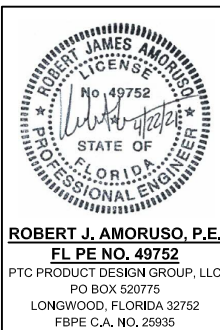
**Screw types and locations for Hurricane L-Clips
At the Sill**

- (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

HEAD DETAIL

- 1. 2" x _ WOOD BUCK OR FRAME
- 2. FEELSAFE HURD MONUMENT CLAD DOUBLE HUNG WINDOW
- 3. 1/4" MAX. SHIM SPACE
- 4. (2) #8 X 1-1/4" PPH SCREWS THROUGH L-CLIP INTO WOOD BUCK FRAMING. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.
- 5. CAP BEAD BETWEEN THE WINDOW FRAME AND THE BUCK, FULL PERIMETER
- 4. (1) #6 x 1/2" TEK SCREWS THROUGH L-CLIP INTO WINDOW UNIT. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.
- 3. WOOD SHIMS PLACED EVERY 6-10" & AT SCREW LOCATIONS
- 4. (2) #7 X 1/2" PFH SCREWS THROUGH L-CLIP INTO WOOD PORTION OF THE WINDOW FRAME. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.

MEETING RAIL DETAIL
FEELSAFE HURD MONUMENT CLAD DOUBLE HUNG WINDOW



SILL DETAIL

- 1. 2" x _ WOOD BUCK OR FRAME
- 2. FEELSAFE HURD MONUMENT CLAD DOUBLE HUNG WINDOW
- 3. 1/4" MAX. SHIM SPACE
- 4. (3) #6 x 1/2" TEK SCREWS THROUGH L-CLIP INTO WINDOW UNIT. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.
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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.



FeelSafe & FeelSafe IG
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SHEET: 4 OF 5

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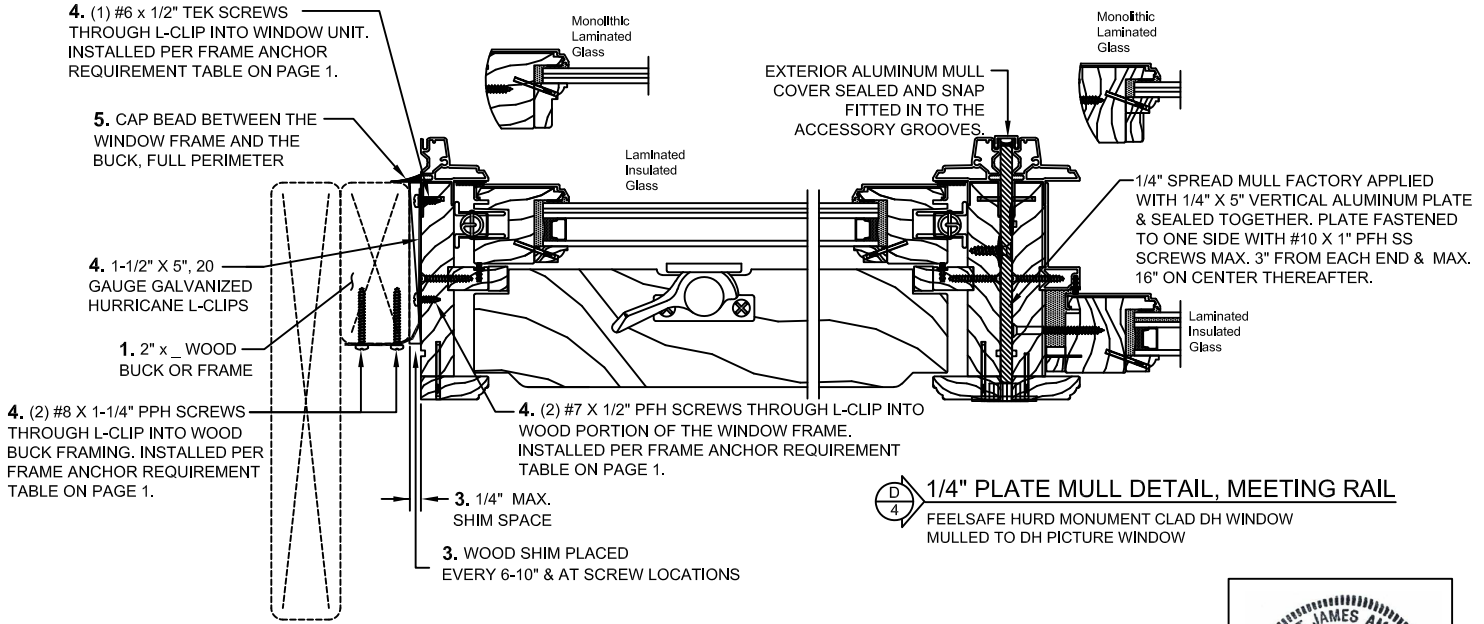
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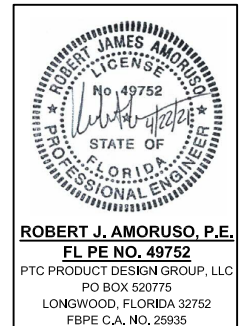
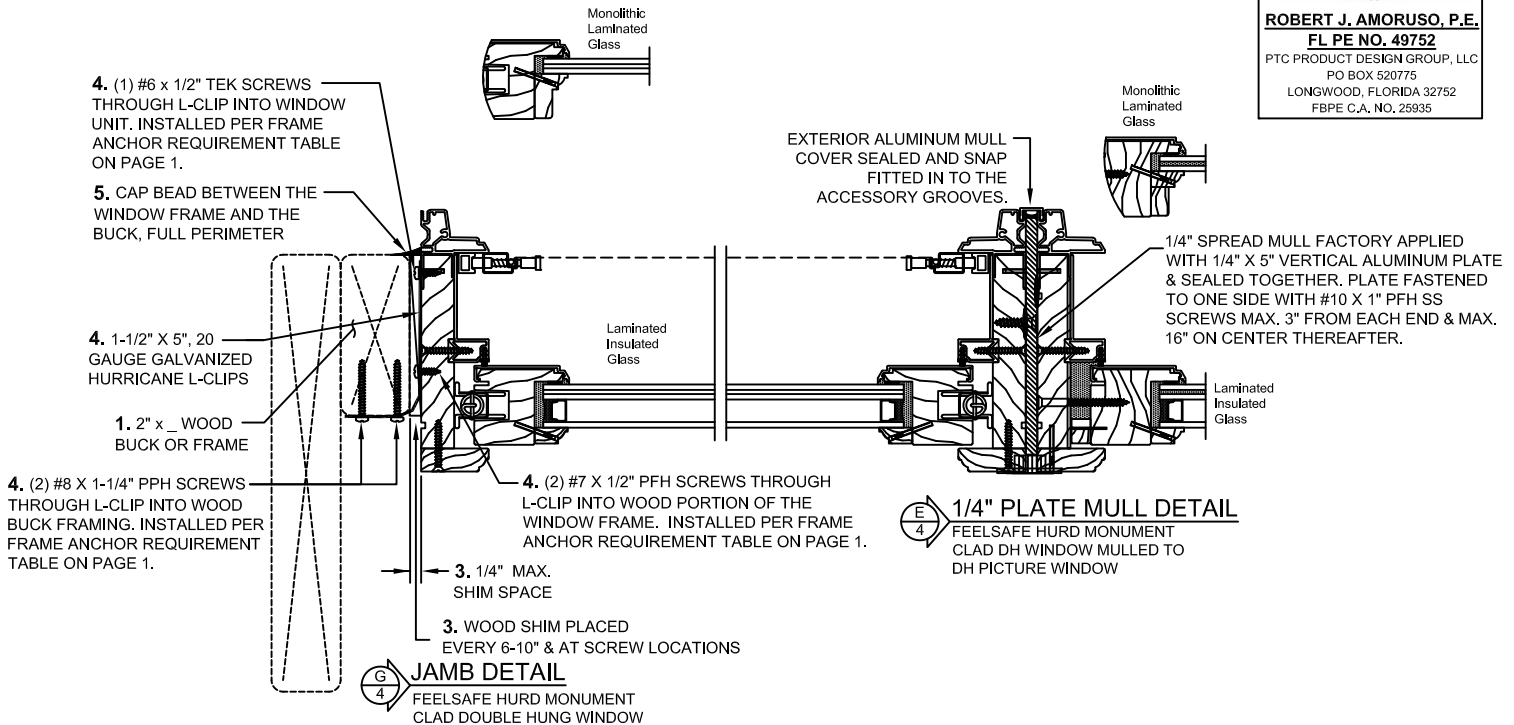
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JAMB DETAIL
FEELSFAE HURD MONUMENT CLAD DOUBLE HUNG WINDOW





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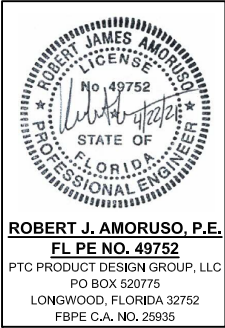
SHEET: 5 OF 5

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HEAD DETAIL
HURD FEELSAFE MONUMENT
CLAD PICTURE

1. 2" x _ WOOD BUCK OR FRAME
4. 1-1/2" X 5", 20 GAUGE GALVANIZED HURRICANE L-CLIPS
5. CAP BEAD BETWEEN THE WINDOW FRAME AND THE BUCK, FULL PERIMETER
3. WOOD SHIMS PLACED EVERY 6-10" & AT SCREW LOCATIONS
4. (1) #6 x 1/2" TEK SCREWS THROUGH L-CLIP INTO WINDOW UNIT. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.
4. (2) #7 X 1/2" PFH SCREWS THROUGH L-CLIP INTO WOOD PORTION OF THE WINDOW FRAME. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.
3. 1/4" MAX. SHIM SPACE
4. (2) #8 X 1-1/4" PPH SCREWS THROUGH L-CLIP INTO WOOD BUCK FRAMING. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.

Laminated Insulated Glass

Monolithic Laminated Glass

4. (1) #6 x 1/2" TEK SCREWS THROUGH L-CLIP INTO WINDOW UNIT. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.

5. CAP BEAD BETWEEN THE WINDOW FRAME AND THE BUCK, FULL PERIMETER

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

1. 2" x _ WOOD BUCK OR FRAME

4. (2) #8 X 1-1/4" PPH SCREWS THROUGH L-CLIP INTO WOOD BUCK FRAMING. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.

4. (2) #7 X 1/2" PFH SCREWS THROUGH L-CLIP INTO WOOD PORTION OF THE WINDOW FRAME. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.

3. WOOD SHIMS PLACED EVERY 6-10" & AT SCREW LOCATIONS
3. 1/4" MAX. SHIM SPACE

EXTERIOR

EXTERIOR

JAMB DETAIL (TYPICAL)
HURD FEELSAFE MONUMENT CLAD PICTURE

4. (3) #6 x 1/2" TEK SCREWS THROUGH L-CLIP INTO WINDOW UNIT. INSTALLED PER FRAME ANCHOR REQUIREMENT TABLE ON PAGE 1.
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SILL DETAIL
HURD FEELSAFE MONUMENT
CLAD PICTURE