



Product Selection Guide

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**Supporting documents for this product:**

CSI Specs (readable using Microsoft Word or other text editing application):

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/08552-HIG.rtf](https://media.pella.com/professional/adm/Wood-CSI_Specs/08552-HIG.rtf)

AIA Masterspec (readable using Microsoft Word or other text editing application):

[https://media.pella.com/professional/adm/Wood-CSI\\_Specs/Masterspec/085200\\_fl.doc](https://media.pella.com/professional/adm/Wood-CSI_Specs/Masterspec/085200_fl.doc)

Detailed Product Description (readable using Microsoft Word or other text editing application):

<https://media.pella.com/professional/adm/Clad-Wood/PR-ImpactResistant-DoubleHung-C.rtf>

Size Tables (requires appropriate CAD software to read and use):

[https://media.pella.com/professional/adm/Clad-Wood/ASCM6HIGE\\_D.dwg](https://media.pella.com/professional/adm/Clad-Wood/ASCM6HIGE_D.dwg)

CAD cross sections (requires appropriate CAD software to read and use):

[https://media.pella.com/professional/adm/Clad-Wood/AS-RES-M6DH-HiG-Detail\\_D.dwg](https://media.pella.com/professional/adm/Clad-Wood/AS-RES-M6DH-HiG-Detail_D.dwg)

3D & BIM (requires appropriate software to read and use):

[https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Window-Double\\_Hung-Pella-Reserve-Traditional.zip](https://media.pella.com/professional/adm/RevitFiles/PR-Revit/Window-Double_Hung-Pella-Reserve-Traditional.zip)

Sketchup (requires appropriate software to read and use):

[https://media.pella.com/professional/adm/Clad-Wood/PellaSKP\\_PellaReserve\\_Traditional\\_Double-Hung.zip](https://media.pella.com/professional/adm/Clad-Wood/PellaSKP_PellaReserve_Traditional_Double-Hung.zip)

Installation Details:

[https://media.pella.com/professional/adm/Clad-Wood/F\\_InstallationDetails.pdf](https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf)

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The information published in this document is believed to be accurate at the time of publication. However, because we are constantly working to improve our products, specifications are subject to change without notice. Consult your local Pella representative for up-to-date product information.

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# Pella® Reserve™ Impact-Resistant Hung Window

## Size and Performance Data

	Clad
<b>Sizes</b>	
Standard Double-Hung Vent/Fixed Sizes	●
Transom Sizes	●
Egress Sizes	●
Cottage Sash Split	●
Variable Sash Split	●
Special Sizes Available	●
<b>Performance<sup>1</sup> — Impact-Resistant Glass</b>	
Meets or Exceeds AAMA/WDMA Ratings	H-CW50 Hallmark Certified
Air Infiltration (cfm/ft <sup>2</sup> of frame @ 1.57 wind pressure)	0.11
Water Resistance	7.5 psf
Design Pressure	50 psf
<b>Other Performance Criteria</b>	
Forced Entry Resistance Level (Minimum Security Grade) <sup>2</sup>	10
Operating Force (lb) Initiate Motion / Maintain Motion (of Hallmark tested size and glazing) <sup>3</sup>	40/45

### Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested <sup>4</sup>	Glazing System			STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness		
Clad Hung Window Impact Resistant Glazing	With Grilles-Between-the-Glass or No Grilles					
	48" x 60"	13/16"	3mm	7.6mm PVB	34	28

(-) = Not Available

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. See Design Data pages in this section for specific product performance class and grade values.

(2) The higher the level, the greater the product's ability to resist forced entry.

(3) Glazing configurations may result in higher operational forces.

(4) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



# Pella® Reserve™ Impact-Resistant Hung Window

## Glazing Performance - Total Unit

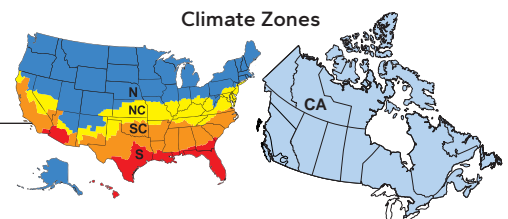
Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	U-Factor	SHGC	VLT %	CR	Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown				
			Ext.	Int.						U. S.				Canada <sub>2</sub>
										Zone				ER
<b>Laminated Impact-Resistant</b>										N	NC	SC	S	CA
13/16"	Clear IG	PEL-N-235-02713-00001	3	8	Air	0.43	0.51	0.55	44					
	with grilles-between-the-glass	PEL-N-235-02714-00001				0.44	0.45	0.49	44					
	with integral grilles	PEL-N-235-02715-00001				0.44	0.45	0.49	44					
13/16"	Advanced Low-E IG	PEL-N-235-02737-00001	3	8	Argon	0.28	0.25	0.47	58					
	with grilles-between-the-glass	PEL-N-235-02738-00001				0.29	0.23	0.42	58				S	
	with integral grilles	PEL-N-235-02739-00001				0.29	0.23	0.42	58				S	
13/16"	SunDefense™ Low-E IG	PEL-N-235-02865-00001	3	8	Argon	0.28	0.19	0.44	58			SC	S	
	with grilles-between-the-glass	PEL-N-235-02866-00001				0.29	0.17	0.39	58				S	
	with integral grilles	PEL-N-235-02867-00001				0.28	0.17	0.39	58			SC	S	
<b>Tinted Glazing</b>														
13/16"	Bronze Advanced Low-E IG	PEL-N-235-02785-00001	5	8	Argon	0.30	0.23	0.18	56				S	
	with grilles-between-the-glass	PEL-N-235-02786-00001				0.32	0.21	0.16	56				S	
	with integral grilles	PEL-N-235-02787-00001				0.31	0.21	0.16	56				S	
13/16"	Gray Advanced Low-E IG	PEL-N-235-02817-00001	5	8	Argon	0.30	0.24	0.22	56					
	with grilles-between-the-glass	PEL-N-235-02818-00001				0.32	0.21	0.19	56				S	
	with integral grilles	PEL-N-235-02819-00001				0.31	0.21	0.19	56				S	
13/16"	Green Advanced Low-E IG	PEL-N-235-02849-00001	5	8	Argon	0.30	0.24	0.37	56					
	with grilles-between-the-glass	PEL-N-235-02850-00001				0.32	0.22	0.33	56				S	
	with integral grilles	PEL-N-235-02851-00001				0.31	0.22	0.33	56				S	

R-Value = 1/U-Factor  
 SHGC = Solar Heat Gain Coefficient  
 VLT % = Visible Light Transmission  
 CR = Condensation Resistance  
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated for Pine using NFRC 100, NFRC 200 and NFRC 500. Thermal performance of other wood species may vary. ENERGY STAR® values are updated to 2023 (Version 7) criteria.

(2) The Canadian values shown are based on the updated ENERGY STAR® 2020 initiative.

See the Product Performance section for more detailed information or visit [www.energystar.gov](http://www.energystar.gov) for Energy Star guidelines.



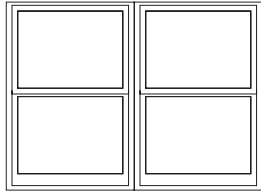


Combination Assemblies

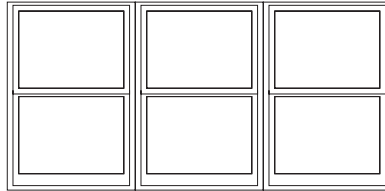
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. See the Combination Recommendations document for typical combinations requirements and limitations.

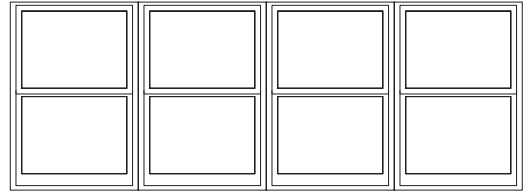
Contact your local Pella sales representative for more information.



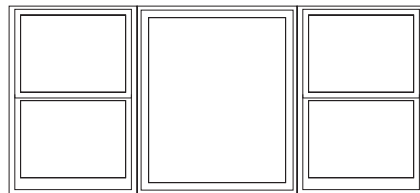
Two-Wide



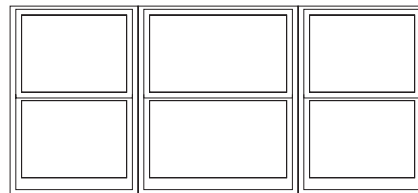
Three-Wide Equal



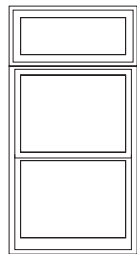
Four-Wide Equal



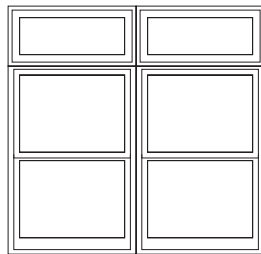
Center Fixed with Flankers



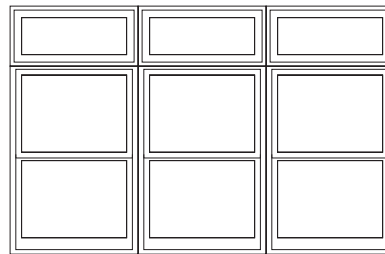
Three-Wide Unequal



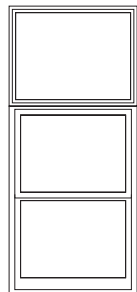
Transom over Single



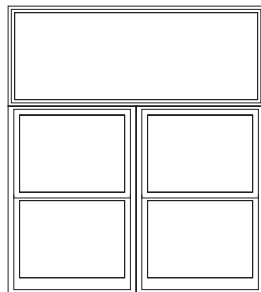
Two-Wide Transoms over Two-Wide



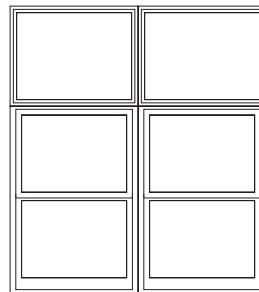
Three-Wide Transoms over Three-Wide



Clad Frame over Single



Single Clad Frame over Two-Wide



Two Wide Clad Frame over Two-Wide

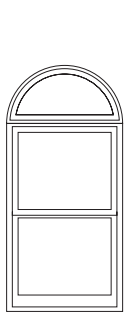


## Combination Assemblies

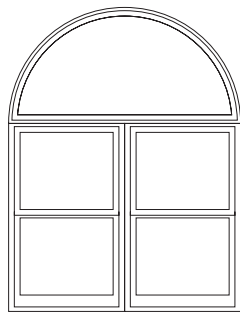
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Pella window combinations are available in an endless variety of arrangements. See the Combination Recommendations document for typical combinations requirements and limitations.

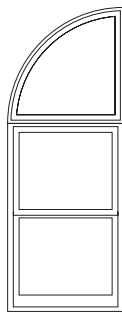
Contact your local Pella sales representative for more information.



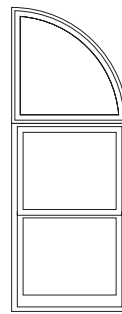
Half Circle over Single



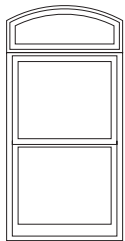
Half Circle over Two-Wide



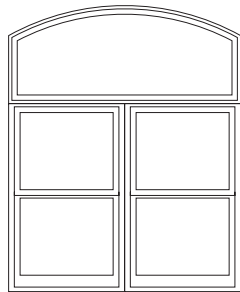
Left Quarter Circle over Single



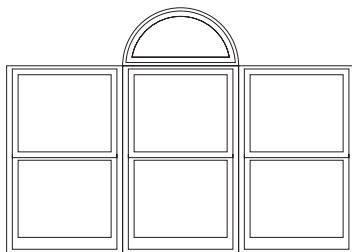
Right Quarter Circle over Single



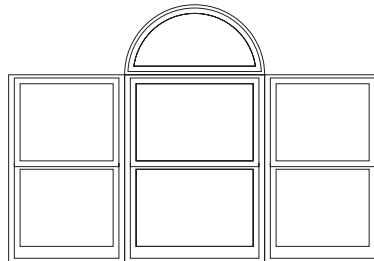
Arch Head over Single



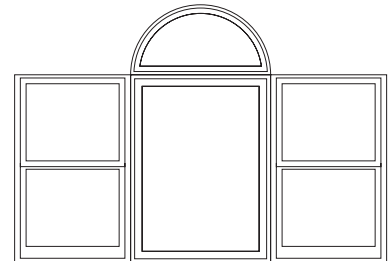
Arch Head over Two-Wide



Half Circle centered on Three-Wide Equal



Half Circle over Three-Wide Unequal



Half Circle over Center Fixed with Flankers

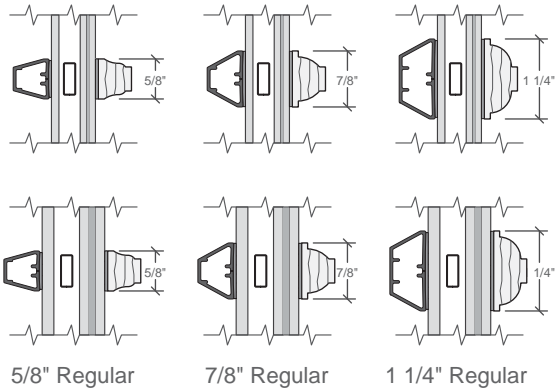


Grille Profiles

Traditional Style Collection - Integral Light Technology

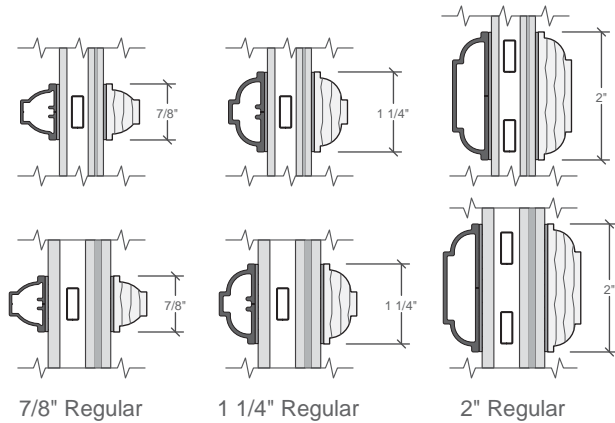
Putty Glaze and Ogee Grilles

Clad Exterior - Wood Interior

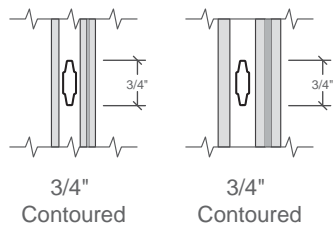


Ogee Grilles

Clad Exterior - Wood Interior



Grilles-Between-the-Glass



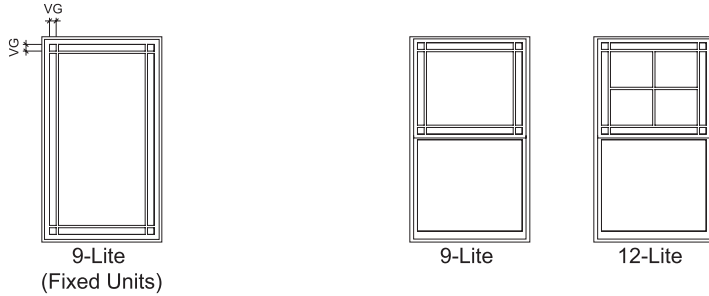
Interior wood ILT grilles available in Pine, Mahogany or Douglas Fir to match complete unit.



Grille Patterns

Integral Light Technology® Grille Patterns

Prairie Lite Patterns

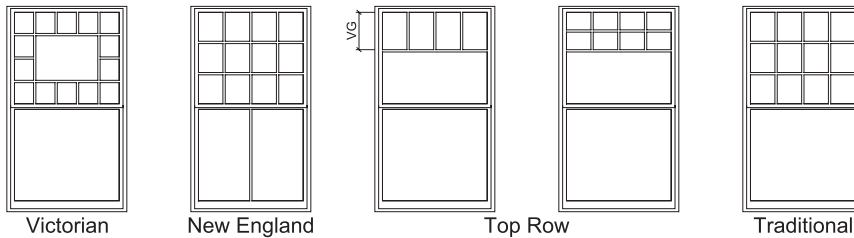


Standard corner lite dimension for Prairie patterns = 2-1/2" VG.

Available in transoms ≥ 1'3" height and width.

Available in all standard and special sizes.

Other Available Integral Light Technology Grille Patterns

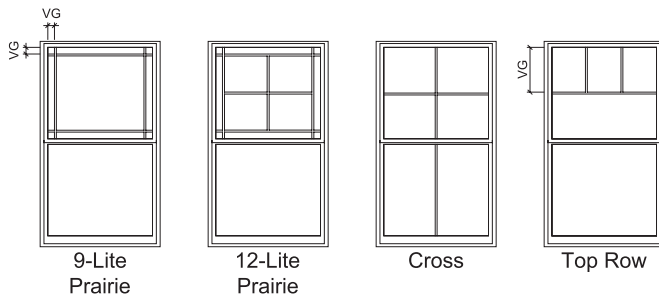


VG = Visible Glass

Lite dimensions noted can vary.

For size and pattern availability contact your local Pella sales representative.

Grilles-Between-the-Glass



Prairie

- Standard corner lite dimension for Prairie patterns = 2-1/2" VG.
- Available in transoms ≥ 1'3" height and width.

Cross

- Minimum DH frame height 35".
- Horizontal bar will be at 1/2" of the VG height of the top sash.

Top Row

- Minimum DH frame height 35".
- Horizontal bar will be at 1/2" of the VG height of the top sash.

For traditional patterns, see size tables.



# Pella® Reserve™ Impact-Resistant Hung Window

## Size Tables

### Vent Units

	(552) (533)	(654) (635)	(756) (737)	(857) (838)	(959) (940)	(1 060) (1 041)	(1 162) (1 143)	(1 238) (1 219)
Opening	1' 9 3/4"	2' 1 3/4"	2' 5 3/4"	2' 9 3/4"	3' 1 3/4"	3' 5 3/4"	3' 9 3/4"	4' 0 3/4"
Frame	1' 9"	2' 1"	2' 5"	2' 9"	3' 1"	3' 5"	3' 9"	4' 0"
(908) (889)								
(1 060) (1 041)								
(1 213) (1 194)								
(1 365) (1 346)								
(1 467) (1 448)								
(1 518) (1 499)								
(1 670) (1 651)								
(1 822) (1 803)								
(1 975) (1 956)								
(2 153) (2 134)								

### Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

E2 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E3 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

See Design Data pages in this section for clear opening dimensions and egress ratings for impact-resistant units.

### Opening Dimensions

#### Clad exterior units:

Dimensions shown in tables are rough opening dimensions.

For units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.





# Pella® Reserve™ Impact-Resistant Hung Window

## Replacement Size Table

### Vent Units

	(616) (597)	(718) (699)	(762) (749)	(819) (800)	(921) (902)	(1 022) (1 003)	(1 073) (1 054)
Opening	2' 0 1/4"	2' 4 1/4"	2' 6 1/4"	2' 8 1/4"	3' 0 1/4"	3' 4 1/4"	3' 6 1/4"
Frame	1' 11 1/2"	2' 3 1/2"	2' 5 1/2"	2' 7 1/2"	2' 11 1/2"	3' 3 1/2"	3' 5 1/2"
(921) (902)	23.5 x 35.5	27.5 x 35.5	29.5 x 35.5	31.5 x 35.5	35.5 x 35.5	39.5 x 35.5	41.5 x 35.5
(972) (953)	23.5 x 37.5	27.5 x 37.5	29.5 x 37.5	31.5 x 37.5	35.5 x 37.5	39.5 x 37.5	41.5 x 37.5
(1 073) (1 054)	23.5 x 41.5	27.5 x 41.5	29.5 x 41.5	31.5 x 41.5	35.5 x 41.5	39.5 x 41.5	41.5 x 41.5
(1 175) (1 156)	23.5 x 45.5	27.5 x 45.5	29.5 x 45.5	31.5 x 45.5	35.5 x 45.5	39.5 x 45.5	41.5 x 45.5
(1 226) (1 206)	23.5 x 47.5	27.5 x 47.5	29.5 x 47.5	31.5 x 47.5	35.5 x 47.5	39.5 x 47.5	41.5 x 47.5
(1 327) (1 499)	23.5 x 51.5	27.5 x 51.5	29.5 x 51.5	31.5 x 51.5	35.5 x 51.5	39.5 x 51.5	41.5 x 51.5
(1 378) (1 359)	23.5 x 53.5	27.5 x 53.5	29.5 x 53.5	31.5 x 53.5	35.5 x 53.5	39.5 x 53.5	41.5 x 53.5
(1 473) (1 461)	23.5 x 57.5	27.5 x 57.5	29.5 x 57.5	31.5 x 57.5	35.5 x 57.5	39.5 x 57.5	41.5 x 57.5
(1 530) (1 511)	23.5 x 59.5	27.5 x 59.5	29.5 x 59.5	31.5 x 59.5	35.5 x 59.5 E1	39.5 x 59.5 E	41.5 x 59.5 E
(1 581) (1 562)	23.5 x 61.5	27.5 x 61.5	29.5 x 61.5	31.5 x 61.5	35.5 x 61.5 E1	39.5 x 61.5 E	41.5 x 61.5 E
(1 683) (1 664)	23.5 x 65.5	27.5 x 65.5	29.5 x 65.5	31.5 x 65.5 E1	35.5 x 65.5 E	39.5 x 65.5 E	41.5 x 65.5 E
(1 835) (1 816)	23.5 x 71.5	27.5 x 71.5	29.5 x 71.5 E1	31.5 x 71.5 E1	35.5 x 71.5 E	39.5 x 71.5 E	41.5 x 71.5 E

### Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Windows using the standard balance meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E1 = Window using the standard balance meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

E2 = Windows using the upgraded balance meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E3 = Window using the upgraded balance meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

See Design Data pages in this section for clear opening dimensions and egress ratings for impact-resistant units.

### Opening Dimensions

#### Clad exterior units:

Dimensions shown in tables are rough opening dimensions.

For units with impact-resistant glass, see the product installation instructions or refer to local building code requirements.

Not to scale.

Traditional grille patterns shown. Refer to Grille Types section for additional patterns and profiles.

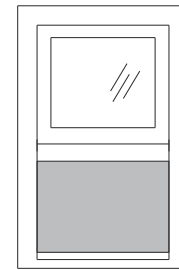
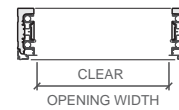


Miscellaneous Formulas

Frame Dimensions	Minimum	Maximum
Rectangular Only	13-3/4" W x 24" H (349 x 610 mm)	54" W x 96" H (372 x 2 438 mm)

Miscellaneous Formulas

Vent (Equal Sash)	
Visible Glass (inches)	Width = Frame - 7.594
	Height = (Frame - 10.572) ÷ 2
Actual Glass (inches)	Width = Frame - 6.245
	Height = (Frame - 7.874) ÷ 2
Clear Opening (inches)	COW = Frame - 4.928
	Standard Balances: COH = AGH - 1.313*
	Upgraded Balances: COH = AGH - 8.688
Vent Area (ft <sup>2</sup> )	(COW x COH) ÷ 144



- \* Addition of Sash Lug will reduce Clear Opening width and height by 1.25"
- Standard balance not available when sash weight > 70 lbs.
- Vivid View Screen Cloth not available when Frame Height > 84" or frame width > 48" & frame height > 48"

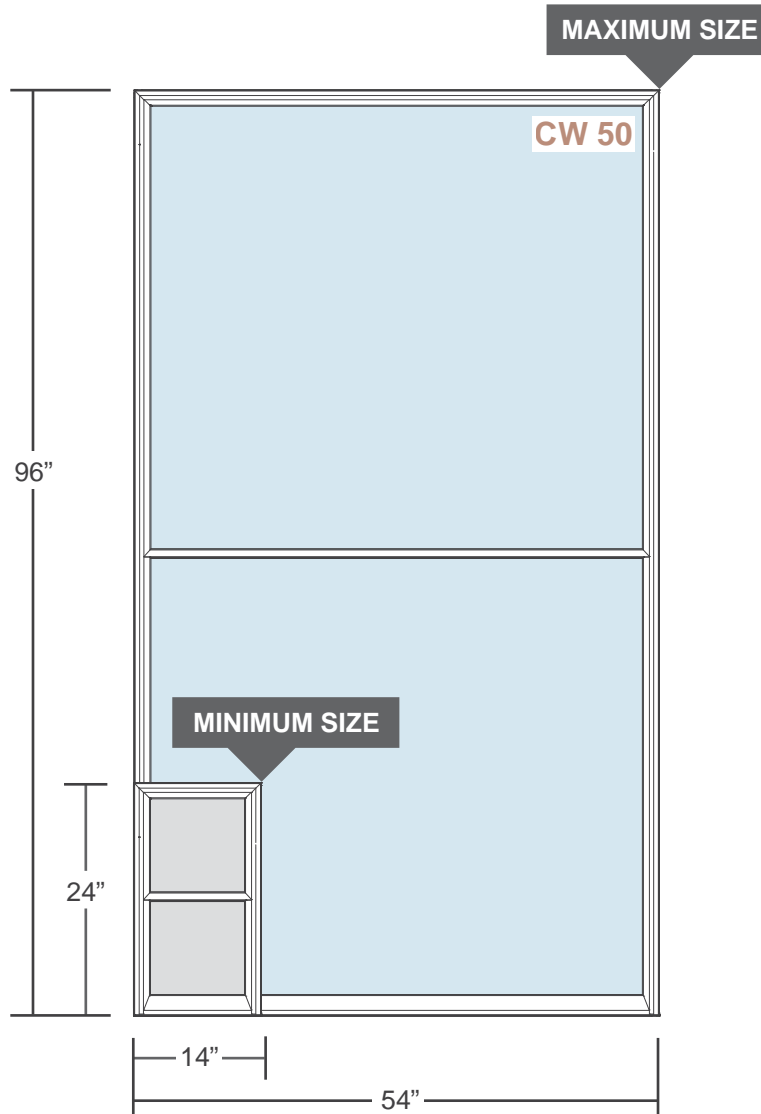
Sash Configuration	Vent-Equal	Cottage	Fixed
Sash Glass Ratio % (Top : Bottom)	50 : 50	40 : 60	NA
Shortest Unit Frame Size	24-3/8" (889)	42-1/4" (1 073)	17" (432)
Tallest Unit Frame Size **	96" (2 438)	71" (1 803)	71" (1 803)
Unit Frame Width Range	14" to 54" (533 to 1 372)	21" to 52-1/4" (533 to 1 327)	17" to 59" (432 to 1 499)

\*\* See size tables for width restrictions on taller units. Units wider than 48" are limited to 65" height.



# Pella® Reserve™ Impact-Resistant Hung Window

## Design Data and Performance Class



Maximum performance when glazed with the appropriate glass thickness.



# Pella® Reserve™ Impact-Resistant Hung Window

## Design Data – Large Missile Rating D

13/16" Laminated Insulated Glass											
Unit	Egress	Clear Opening			Vent Area Ft <sup>2</sup> (Standard Balance)	Vent Area Ft <sup>2</sup> (Balance Upgrade)	Visible Glass Ft <sup>2</sup>	Frame Area Ft <sup>2</sup>	PVB <sub>1</sub>		
		Width (Inches)	Height (Standard Balance) (Inches)	Height (Balance Upgrade) (Inches)					CLAD		
									Design Pressure Large Missile Rating D	Hallmark Certified	Florida Product Approval System
2135		16-1/16	12-1/4	4-7/8	1.4	0.5	1.1	5.1	+50 / -50	411-H-1478	FL17769
2141		16-1/16	15-1/4	7-7/8	1.7	0.9	1.4	5.9	+50 / -50	411-H-1478	FL17769
2147		16-1/16	18-1/4	10-7/8	2.0	1.2	1.7	6.8	+50 / -50	411-H-1478	FL17769
2153		16-1/16	21-1/4	13-7/8	2.4	1.5	2.0	7.7	+50 / -50	411-H-1478	FL17769
2157		16-1/16	23-1/4	15-7/8	2.6	1.8	2.2	8.3	+50 / -50	411-H-1478	FL17769
2159		16-1/16	24-1/4	16-7/8	2.7	1.9	2.3	8.6	+50 / -50	411-H-1478	FL17769
2165		16-1/16	27-1/4	19-7/8	3.0	2.2	2.5	9.4	+50 / -50	411-H-1478	FL17769
2171		16-1/16	30-1/4	22-7/8	3.4	2.6	2.8	10.3	+50 / -50	411-H-1478	FL17769
2177		16-1/16	33-1/4	25-7/8	3.7	2.9	3.1	11.2	+50 / -50	411-H-1478	FL17769
2184		16-1/16	36-3/4	29-3/8	4.1	3.3	3.4	12.2	+50 / -50	411-H-1478	FL17769
2535		20-1/16	12-1/4	4-7/8	1.7	0.7	1.5	6.0	+50 / -50	411-H-1478	FL17769
2541		20-1/16	15-1/4	7-7/8	2.1	1.1	1.8	7.1	+50 / -50	411-H-1478	FL17769
2547		20-1/16	18-1/4	10-7/8	2.5	1.5	2.2	8.1	+50 / -50	411-H-1478	FL17769
2553		20-1/16	21-1/4	13-7/8	3.0	1.9	2.6	9.2	+50 / -50	411-H-1478	FL17769
2557		20-1/16	23-1/4	15-7/8	3.2	2.2	2.8	9.8	+50 / -50	411-H-1478	FL17769
2559		20-1/16	24-1/4	16-7/8	3.4	2.4	2.9	10.2	+50 / -50	411-H-1478	FL17769
2565		20-1/16	27-1/4	19-7/8	3.8	2.8	3.3	11.2	+50 / -50	411-H-1478	FL17769
2571		20-1/16	30-1/4	22-7/8	4.2	3.2	3.7	12.3	+50 / -50	411-H-1478	FL17769
2577		20-1/16	33-1/4	25-7/8	4.6	3.6	4.0	13.3	+50 / -50	411-H-1478	FL17769
2584	E1	20-1/16	36-3/4	29-3/8	5.1	4.1	4.4	14.5	+50 / -50	411-H-1478	FL17769
2935		24-1/16	12-1/4	4-7/8	2.0	0.8	1.8	7.0	+50 / -50	411-H-1478	FL17769
2941		24-1/16	15-1/4	7-7/8	2.5	1.3	2.3	8.2	+50 / -50	411-H-1478	FL17769
2947		24-1/16	18-1/4	10-7/8	3.1	1.8	2.7	9.4	+50 / -50	411-H-1478	FL17769
2953		24-1/16	21-1/4	13-7/8	3.6	2.3	3.2	10.6	+50 / -50	411-H-1478	FL17769
2957		24-1/16	23-1/4	15-7/8	3.9	2.7	3.5	11.4	+50 / -50	411-H-1478	FL17769
2959		24-1/16	24-1/4	16-7/8	4.1	2.8	3.6	11.8	+50 / -50	411-H-1478	FL17769
2965		24-1/16	27-1/4	19-7/8	4.6	3.3	4.0	13.0	+50 / -50	411-H-1478	FL17769
2971	E1	24-1/16	30-1/4	22-7/8	5.1	3.8	4.5	14.2	+50 / -50	411-H-1478	FL17769
2977	E1	24-1/16	33-1/4	25-7/8	5.6	4.3	4.9	15.5	+50 / -50	411-H-1478	FL17769
2984		24-1/16	36-3/4	29-3/8	6.1	4.9	5.5	16.9	+50 / -50	411-H-1478	FL17769
3335		28-1/16	12-1/4	4-7/8	2.4	1.0	2.2	8.0	+50 / -50	411-H-1478	FL17769
3341		28-1/16	15-1/4	7-7/8	3.0	1.5	2.7	9.3	+50 / -50	411-H-1478	FL17769
3347		28-1/16	18-1/4	10-7/8	3.6	2.1	3.2	10.7	+50 / -50	411-H-1478	FL17769
3353		28-1/16	21-1/4	13-7/8	4.1	2.7	3.7	12.1	+50 / -50	411-H-1478	FL17769
3357		28-1/16	23-1/4	15-7/8	4.5	3.1	4.1	13.0	+50 / -50	411-H-1478	FL17769
3359		28-1/16	24-1/4	16-7/8	4.7	3.3	4.3	13.5	+50 / -50	411-H-1478	FL17769
3365	E1	28-1/16	27-1/4	19-7/8	5.3	3.9	4.8	14.8	+50 / -50	411-H-1478	FL17769
3371	E	28-1/16	30-1/4	22-7/8	5.9	4.5	5.3	16.2	+50 / -50	411-H-1478	FL17769
3377	E, E3	28-1/16	33-1/4	25-7/8	6.5	5.0	5.9	17.6	+50 / -50	411-H-1478	FL17769
3384	E, E2	28-1/16	36-3/4	29-3/8	7.2	5.7	6.5	19.2	+50 / -50	411-H-1478	FL17769

Continued on next page

### Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

E2 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.

E3 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

(1) All impact sizes and glass types are certified for wind zone 3, large missile rating D. Not approved for use in Miami-Dade County.



# Pella® Reserve™ Impact-Resistant Hung Window

## Design Data – Large Missile Rating D

13/16" Laminated Insulated Glass											
Unit	Egress	Clear Opening			Vent Area Ft <sup>2</sup> (Standard Balance)	Vent Area Ft <sup>2</sup> (Balance Upgrade)	Visible Glass Ft <sup>2</sup>	Frame Area Ft <sup>2</sup>	PVB <sub>1</sub>		
		Width (Inches)	Height (Standard Balance) (Inches)	Height (Balance Upgrade) (Inches)					CLAD		
									Design Pressure Large Missile Rating D	Hallmark Certified	Florida Product Approval System
3735		32-1/16	12-1/4	4-7/8	2.7	1.1	2.5	8.9	+50 / -50	411-H-1478	FL17769
3741		32-1/16	15-1/4	7-7/8	3.4	1.8	3.1	10.5	+50 / -50	411-H-1478	FL17769
3747		32-1/16	18-1/4	10-7/8	4.1	2.4	3.7	12.0	+50 / -50	411-H-1478	FL17769
3753		32-1/16	21-1/4	13-7/8	4.7	3.1	4.3	13.6	+50 / -50	411-H-1478	FL17769
3757		32-1/16	23-1/4	15-7/8	5.2	3.5	4.7	14.6	+50 / -50	411-H-1478	FL17769
3759	E1	32-1/16	24-1/4	16-7/8	5.4	3.8	4.9	15.1	+50 / -50	411-H-1478	FL17769
3765	E	32-1/16	27-1/4	19-7/8	6.1	4.4	5.6	16.7	+50 / -50	411-H-1478	FL17769
3771	E	32-1/16	30-1/4	22-7/8	6.7	5.1	6.2	18.2	+50 / -50	411-H-1478	FL17769
3777	E, E2	32-1/16	33-1/4	25-7/8	7.4	5.8	6.8	19.7	+50 / -50	411-H-1478	FL17769
3784	E2	32-1/16	—	29-3/8	—	6.5	7.5	21.5	+50 / -50	411-H-1478	FL17769
4135		36-1/16	12-1/4	4-7/8	3.1	1.2	2.8	9.9	+50 / -50	411-H-1478	FL17769
4141		36-1/16	15-1/4	7-7/8	3.8	2.0	3.5	11.6	+50 / -50	411-H-1478	FL17769
4147		36-1/16	18-1/4	10-7/8	4.6	2.7	4.2	13.3	+50 / -50	411-H-1478	FL17769
4153		36-1/16	21-1/4	13-7/8	5.3	3.5	4.9	15.0	+50 / -50	411-H-1478	FL17769
4157		36-1/16	23-1/4	15-7/8	5.8	4.0	5.4	16.2	+50 / -50	411-H-1478	FL17769
4159	E	36-1/16	24-1/4	16-7/8	6.1	4.2	5.6	16.7	+50 / -50	411-H-1478	FL17769
4165	E	36-1/16	27-1/4	19-7/8	6.8	5.0	6.3	18.5	+50 / -50	411-H-1478	FL17769
4171		36-1/16	—	22-7/8	—	5.7	7.0	20.2	+50 / -50	411-H-1478	FL17769
4177		36-1/16	—	25-7/8	—	6.5	7.7	21.9	+50 / -50	411-H-1478	FL17769
4184		36-1/16	—	29-3/8	—	7.4	8.5	23.9	+50 / -50	411-H-1478	FL17769
4535		40-1/16	12-1/4	4-7/8	3.4	1.4	3.2	10.9	+50 / -50	411-H-1478	FL17769
4541		40-1/16	15-1/4	7-7/8	4.2	2.2	4.0	12.8	+50 / -50	411-H-1478	FL17769
4547		40-1/16	18-1/4	10-7/8	5.1	3.0	4.7	14.6	+50 / -50	411-H-1478	FL17769
4553		40-1/16	21-1/4	13-7/8	5.9	3.9	5.5	16.5	+50 / -50	411-H-1478	FL17769
4557		40-1/16	23-1/4	15-7/8	6.5	4.4	6.0	17.8	+50 / -50	411-H-1478	FL17769
4559	E	40-1/16	24-1/4	16-7/8	6.7	4.7	6.3	18.4	+50 / -50	411-H-1478	FL17769
4565		40-1/16	—	19-7/8	—	5.5	7.1	20.3	+50 / -50	411-H-1478	FL17769
4571		40-1/16	—	22-7/8	—	6.4	7.8	22.1	+50 / -50	411-H-1478	FL17769
4577	E2	40-1/16	—	25-7/8	—	7.2	8.6	24.0	+50 / -50	411-H-1478	FL17769
4584	E2	40-1/16	—	29-3/8	—	8.2	9.5	24.1	+50 / -50	411-H-1478	FL17769
4835		40-1/16	12-1/4	4-7/8	3.7	1.5	3.4	11.6	+50 / -50	411-H-1478	FL17769
4841		43-1/16	15-1/4	7-7/8	4.6	2.4	4.3	13.6	+50 / -50	411-H-1478	FL17769
4847		43-1/16	18-1/4	10-7/8	5.5	3.3	5.1	15.6	+50 / -50	411-H-1478	FL17769
4853		43-1/16	21-1/4	13-7/8	6.4	4.2	6.0	17.6	+50 / -50	411-H-1478	FL17769
4857		43-1/16	23-1/4	15-7/8	7.0	4.7	6.5	19.0	+50 / -50	411-H-1478	FL17769
4859		43-1/16	—	16-7/8	—	5.0	6.8	19.6	+50 / -50	411-H-1478	FL17769
4865		43-1/16	—	19-7/8	—	5.9	7.6	21.6	+50 / -50	411-H-1478	FL17769
4871		43-1/16	—	22-7/8	—	6.8	8.5	23.6	+50 / -50	411-H-1478	FL17769
4877	E2	43-1/16	—	25-7/8	—	7.7	9.3	23.7	+50 / -50	411-H-1478	FL17769
4884	E2	43-1/16	—	29-3/8	—	8.8	10.3	23.8	+50 / -50	411-H-1478	FL17769

### Egress Notes:

Check all applicable local codes for emergency egress requirements.

- E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.
- E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.
- E2 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.7 ft<sup>2</sup>.
- E3 = With optional side pivot hardware, window meets minimum clear opening of 24" height, 20" width, and 5.0 ft<sup>2</sup>.

(1) All impact sizes and glass types are certified for wind zone 3, large missile rating D. Not approved for use in Miami-Dade County.



### Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany].
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks.
- Vinyl Jamb liner includes wood/clad inserts.
- Overall frame depth is 5-7/8" (149mm) for a wall depth of 4-9/16" (116mm).
- Optional factory applied jamb extensions available from 4-9/16" (116mm) and 7-3/16" (183mm) wall depths.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.

### Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are [clear pine] [mahogany (not available if sash weight > 200 lbs.)].
- Exterior surfaces are clad with extruded aluminum and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 2-1/4" (57mm).
- Exterior sash profile is [ogee] [putty glaze], interior profile is ogee.
- Double-hung upper sash (if sash weight ≤ 92 lbs.) has surface-mounted wash locks for tilt-in cleaning.
- Double-hung and single-hung lower sash (if sash weight ≤ 92 lbs.) has concealed wash locks in lower check rail for tilt-in cleaning.

### Weatherstripping

- Santoprene-wrapped foam at head and sill.
- Full length glass filled polypropylene interlocker with integrated slip-coated thermoplastic elastomer leaf.
- Secondary nylon bristle rainstrip on lower sash at sill.
- Vinyl-wrapped foam with secondary nylon bristle rainstrip inserted into jamb liner to seal against sides of sash.

### Glazing System

- Quality float glass complying with ASTM C 1036.
- Impact-Resistant
  - Silicone-glazed 13/16" dual-seal impact-resistant insulating glass<sub>2</sub> PVB. [[tempered] [annealed]] exterior light is [[Advanced Low-E with argon] [clear]]. Laminated [clear] interior light, or [[tempered] [annealed]] exterior light is [[Advanced Low-E] [SunDefense] with argon] [clear]]. Laminated [[bronze] [gray] [green]] interior light.

### Exterior

- Aluminum clad exteriors shall be finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
  - Color is [Standard] [custom]<sub>1</sub>. - or -
- Aluminum clad exteriors shall be finished with EnduraClad Plus protective finish with 70% fluoropolymer resin in a multi-step, baked-on finish.
  - Color is [Standard] [custom]<sub>1</sub>.

### Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [paint] [stain]<sub>1</sub>].

### Hardware

- Galvanized block-and-tackle balances are attached to self-locking balance shoes connected to the sashes using zinc die cast terminals concealed within the frame. - or -
- Class 5 hybrid balance attached to [locking] [non-locking] balance shoes connected to the sashes using zinc die cast terminals and concealed within the frame. - or -
- Galvanized block-and-tackle balances combined with a Class 5 hybrid balance attached to non-locking balance shoes connected to the sashes using zinc die cast terminals and concealed within the frame.
- All balances comply with AAMA 902 specification
- Lock hardware is [standard lock (cam-action)] [spoon-style lock] [air-conditioner lock] [simulated lock (Single-piece lock ties upper and lower sash together. When removed, lower sash becomes operable)]. Two sash locks on all unit widths.
- Optional sash lift furnished for field installation. Two lifts on unit make width 37" and greater.
- Hardware Finish is [baked enamel] [Champagne] [White] [Brown] [Matte Black] [Bright Brass] [Satin Nickel] [Oil-Rubbed Bronze] [Antique Brass] [Distressed Bronze] [Distressed Nickel].

### Optional Products

#### Sash

- Exterior sash lugs
  - Optional factory applied accessory. Exterior finish is [Standard<sub>1</sub>] [Custom<sub>1</sub>].

#### Grilles

- Integral Light Technology® grilles
  - Interior grilles are [5/8"] [7/8"] [1-1/4"] [2"] ogee profile that are solid [pine] [mahogany]. Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [paint] [stain]].
  - Exterior grilles are [5/8" putty profile] [7/8" [putty glaze] [ogee] profile] [1-1/4" [putty glaze] [ogee] profile] [2" ogee profile] that are extruded aluminum.
  - Patterns are [Traditional] [Prairie] [Top Row] [New England] [Victorian].
  - Insulating glass contains non-glare spacer between the panes of glass.
  - Grilles are adhered to both sides of the insulating glass with VHB acrylic adhesive tape and aligned with the non-glare spacer. - or -
- Grilles-Between-the-Glass<sub>2</sub>
  - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass (exterior air-space on triple-pane insulating glass)
  - Patterns are [Traditional] [Prairie] [Cross] [Top Row]
  - Interior color is [White] [Tan<sub>3</sub>] [Brown<sub>3</sub>] [Putty<sub>3</sub>] [Black] [Morning Sky Gray] [Ivory] [Sand Dune] [Harvest] [Cordovan] [Brickstone].
  - Exterior color<sub>4</sub> is [standard<sub>1</sub>].

#### Screens

- InView™ Screens
  - [Full-screen (not available on units > 120" tall)] [half-screen] black Vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in a [extruded (optional on units < 84" height, standard on units >84")] [standard] aluminum frame fitted to outside of window, supplied complete with all necessary hardware.
  - Full screen spreader bar placed on units > 37" width or > 65" height.
  - Screen frame finish is baked enamel, color to match window cladding.

#### Hardware

- Optional factory applied limited opening device available for venting units; nominal 3-3/4" opening. Limiting device concealed from view.
- Optional window opening control device available for field installation. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-10.

(1) Contact your local Pella sales representative for current designs and color options.

(2) Low-E coated insulating glass is argon-filled (except high altitude). All other insulating glass (including high altitude Low-E) is air-filled.

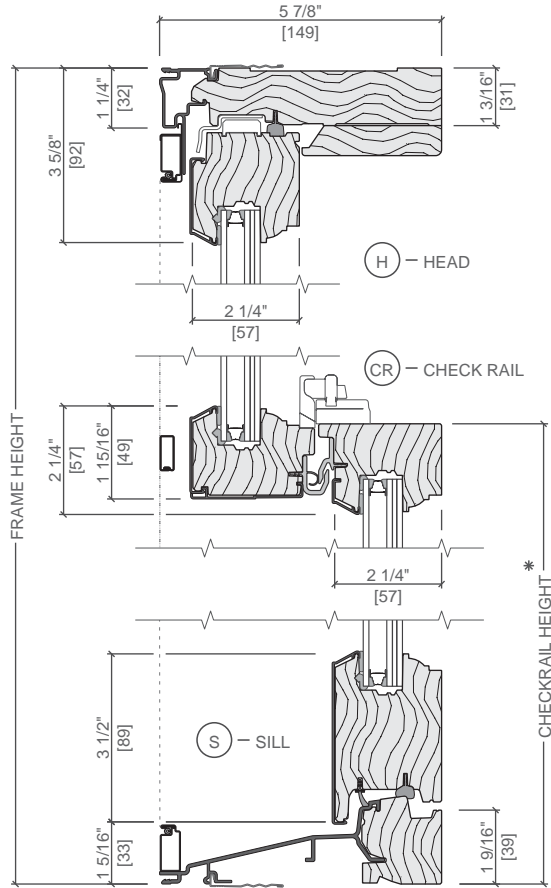
(3) Tan, Brown and Putty Interior GBG colors are available in single-tone (Brown/Brown, Tan/Tan or Putty/Putty). Other interior colors are also available with Tan or Brown exterior.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.

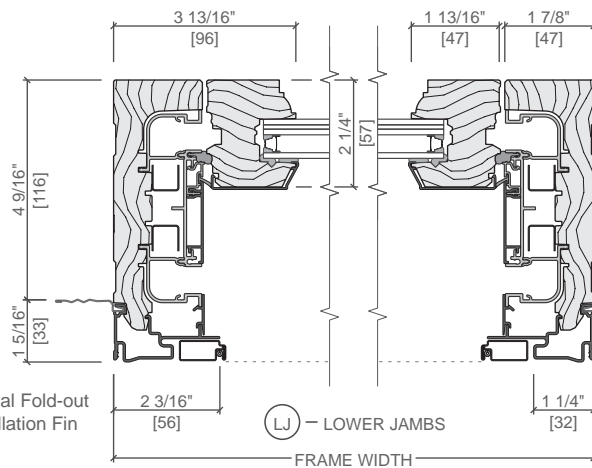
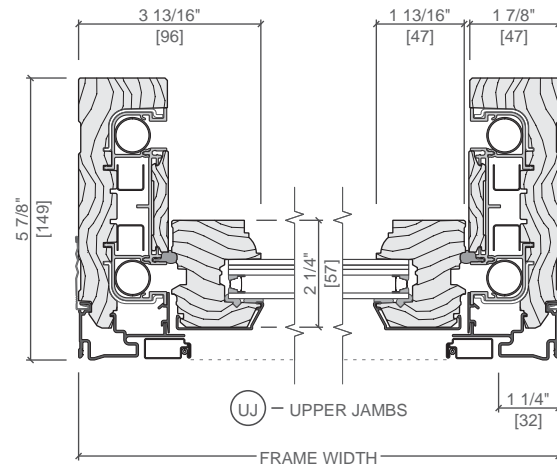
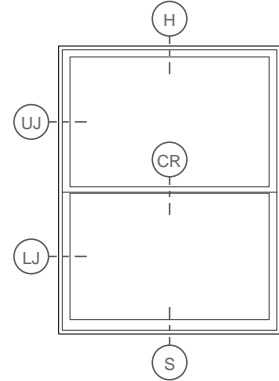


# Pella® Reserve™ Impact-Resistant Hung Window

Unit Sections - 13/16" Laminated Insulated Glazing  
Pella® Reserve™ Traditional Double-Hung



\* Dimension required for ordering units with unequal sash.



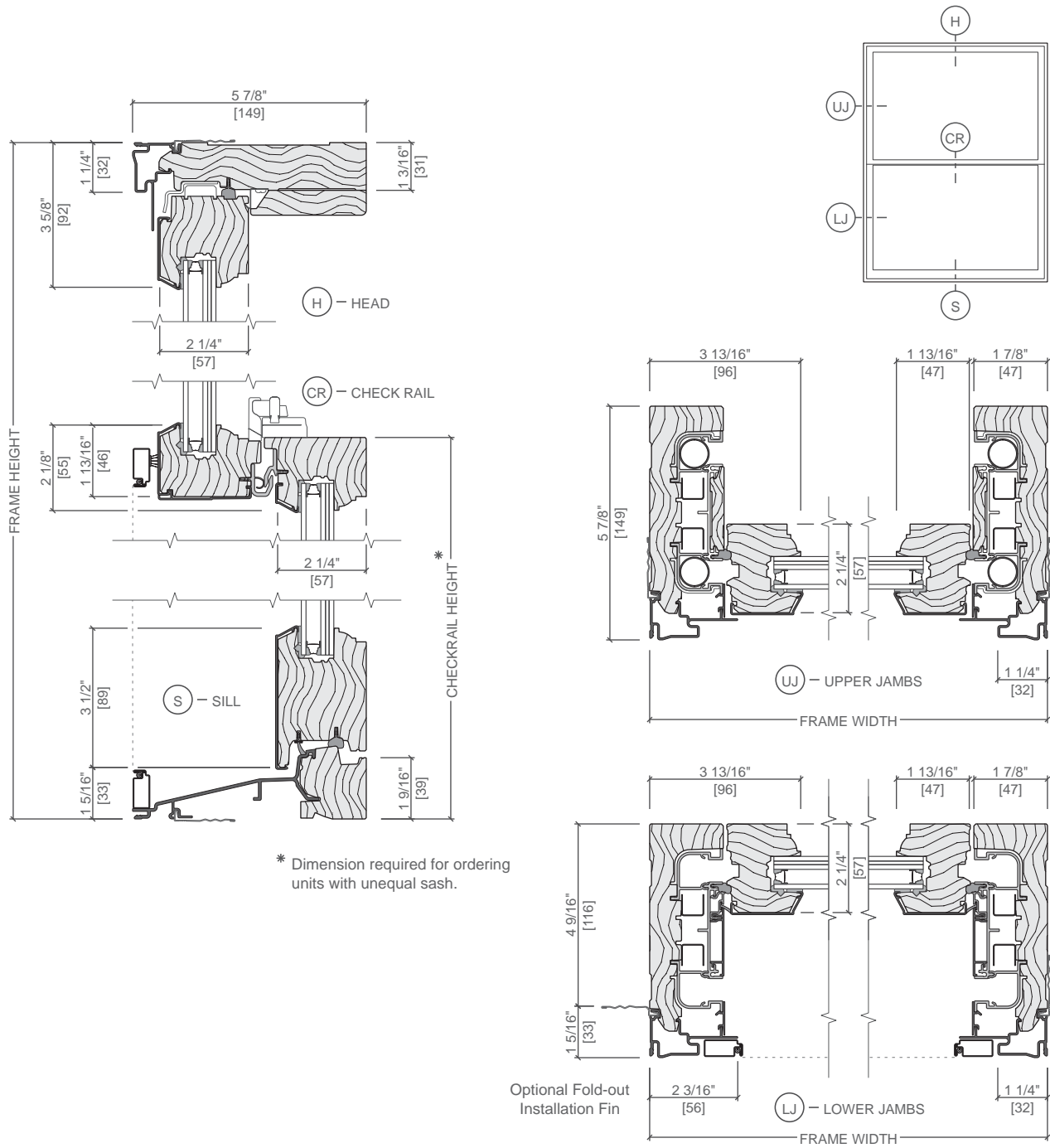
Scale 3" = 1' 0"

All dimensions are approximate.



# Pella® Reserve™ Impact-Resistant Hung Window

Unit Sections - 13/16" Laminated Insulated Glazing  
Pella® Reserve™ Traditional Single-Hung



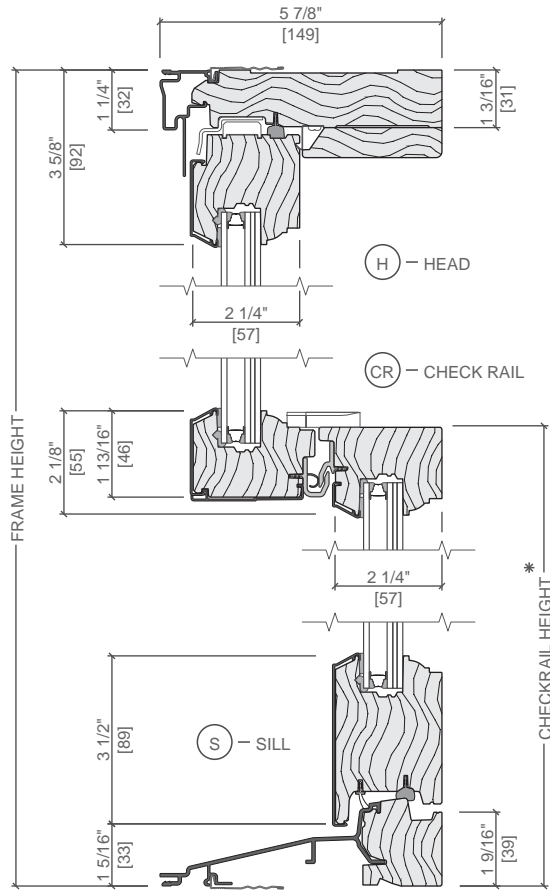
Scale 3" = 1' 0"  
All dimensions are approximate.



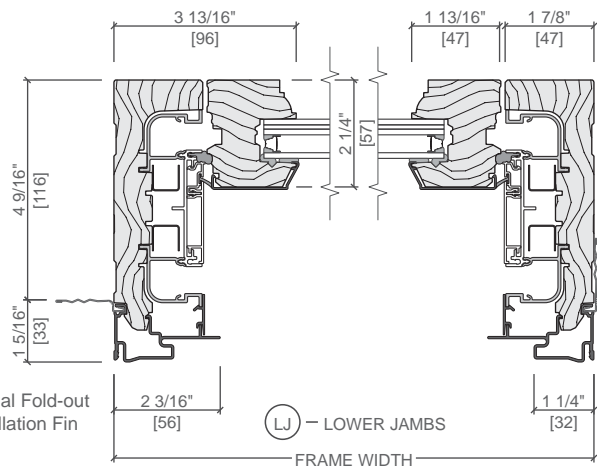
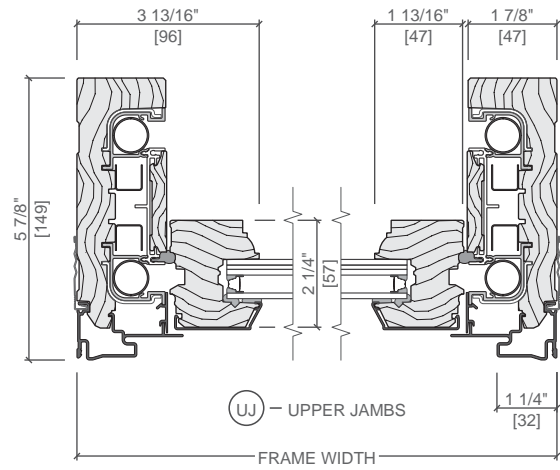
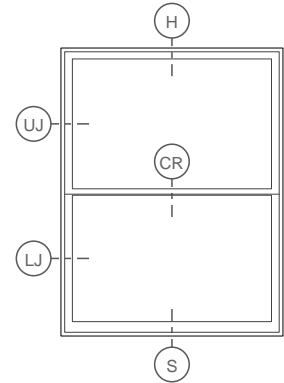


# Pella® Reserve™ Impact-Resistant Hung Window

Unit Sections - 13/16" Laminated Insulated Glazing  
 Pella® Reserve™ Traditional Simulated-Hung



\* Dimension required for ordering units with unequal sash.



Scale 3" = 1' 0"

All dimensions are approximate.