



# WIND LOAD RESIDENTIAL PRODUCT GUIDE



THE  
QUALITY  
GARAGE  
DOOR™



Your defense against mother nature.



## CHOOSE YOUR WIND LOAD GARAGE DOOR

Wind Loaded garage doors are specified for regions that are at risk for storms with high winds such as hurricanes.

Utilizing independent testing labs, our wind rated garage doors are built to meet the wind speed and pressure requirements for Wind Load Zones, including Florida. With the addition of impact rated windows, you won't have to sacrifice your home's style for safety.

Wind Load products are tested to **ASTM E330** and **ANSI/DASMA 108**.

Impact doors and windows are additionally tested to **ANSI/DASMA 115**.

Check out our General Wind Speed map on pages 4-5 to find your zone requirements to apply to our Product Window Guide Charts.

The local code authority ultimately determines the rating requirements for your garage door. However, there are general guidelines that you can use to determine which C.H.I. products are available for you.

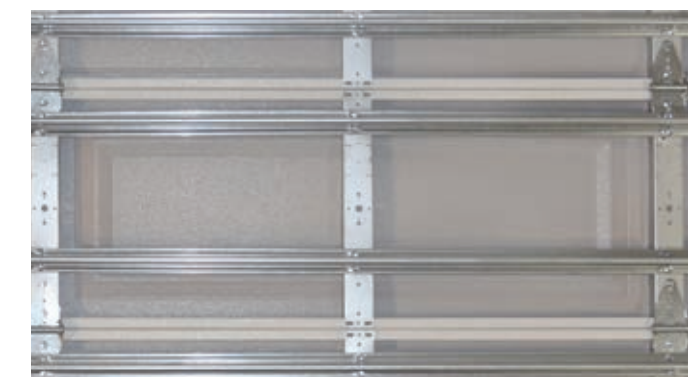
### Built to Meet Pressure Requirements

Garage doors are often the largest opening in the wall of a structure. If that door fails during a storm, significant wind could potentially collapse the entire building. Because of these dangers, wind codes pay particular attention to garage doors.

C.H.I. doors are built, tested, and approved to meet pressure requirements for their respective wind load zones. Approved Wind Load garage doors are available in a variety of styles and construction types to ensure your door matches your home's style and meets performance requirements.



Smaller doors will often meet lower pressure requirements without additional reinforcement.



As doors get larger and/or pressure requirements grow, additional reinforcement may be required.

## PICK YOUR GARAGE DOOR STYLE

Pages 4-5 Wind Load Zones

Pages 26-27 Flush Carriage House

Pages 6-9 Raised Panel

Pages 28-31 Accents Woodtones

Pages 10-13 Stamped Carriage House

Pages 32-35 Overlay Carriage House

Pages 14-17 Stamped Shaker

Pages 36-37 Full-View Aluminum

Pages 18-21 Skyline Flush

Page 38 Window Inserts and Designs Options Chart

Pages 22-25 Planks

Page 39 Terminology and Wind Load Information



# FIND YOUR C.H.I. WIND LOAD ZONE

While wind speeds give initial information, pressures provide actual scientific data on your local requirements. Our General Wind Speed map allows you to pinpoint your specific zone or refer to the Minimum Pressure Requirements map for more detailed information.

## Minimum Pressure Requirements

### 1. Determine Exposure Category.

- **Exposure B:** Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the same size of single family dwellings or larger.
- **Exposure C:** Open terrain with scattered obstructions having heights generally less than 30'.

### 2. Identify Building Type.

- **Single Story:** Buildings with mean roof height up to 15'
- **Two Story:** Buildings with mean roof height up to 30'

### PSF\* for Exposure B

Mean Roof Height	Door Size	1	2	3	4	5	6	7	8	9
Less than 30'	Single Car 9'x7'	12.8	15.8	19.1	22.8	26.7	31.0	35.6	38.3	43.6
		-14.5	-17.9	-21.6	-25.8	-30.2	-35.1	-40.2	-43.3	-49.3
	Double Car 16'x7'	12.3	15.2	18.3	21.8	25.6	29.7	34.1	38.8	41.8
		-13.7	-16.9	-20.4	-24.3	-28.5	-33.1	-38	-43.3	-46.6

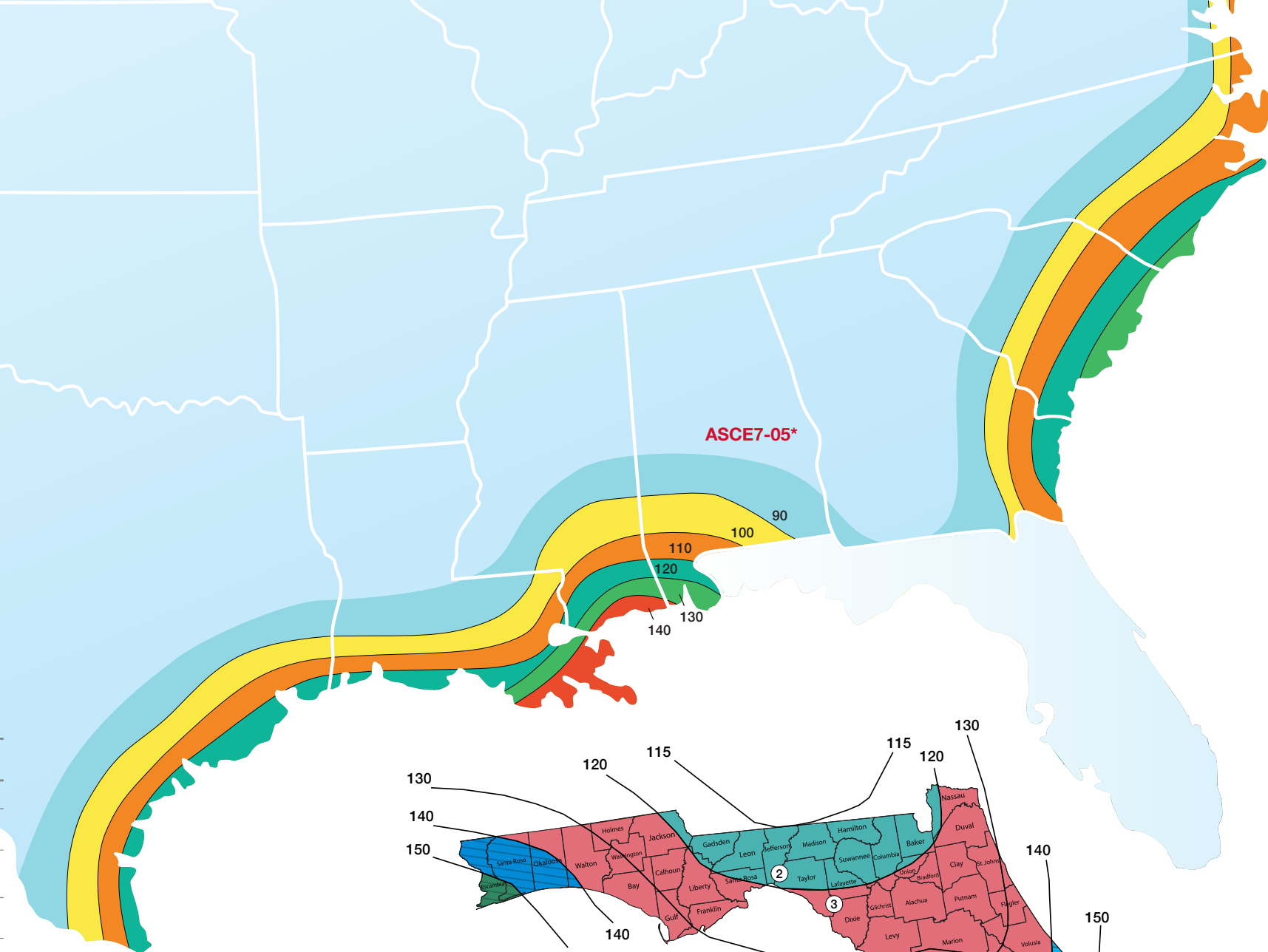
### PSF\* for Exposure C

15' Single Story	Single Car 9'x7'	15.5	19.2	23.2	27.7	32.5	37.7	43.2	46.6	52.8
		-17.5	-21.7	-26.3	-31.3	-36.7	-42.6	-48.9	-52.6	-59.7
	Double Car 16'x7'	14.9	18.4	22.3	26.5	31.1	36.1	41.4	46.8	50.6
		-16.6	-20.5	-24.8	-29.5	-34.7	-40.2	-46.2	-52.2	-56.4
25' Double Story	Single Car 9'x7'	17.2	21.2	25.7	30.6	35.9	41.6	47.8	51.5	58.4
		-19.4	-24.0	-29.1	-34.6	-40.6	-47.1	-54.0	-58.2	-66.0
	Double Car 16'x7'	16.4	20.3	24.6	29.3	34.4	39.9	45.8	51.8	55.9
		-18.3	-22.7	-27.4	-32.7	-38.3	-44.5	-51.0	-57.8	-62.3

C.H.I. Zone	1	2	3	4	5	6	7	8	9
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\*pounds per square foot

Determine your exact pressure requirement at [chiohd.com/feel-the-pressure](http://chiohd.com/feel-the-pressure)



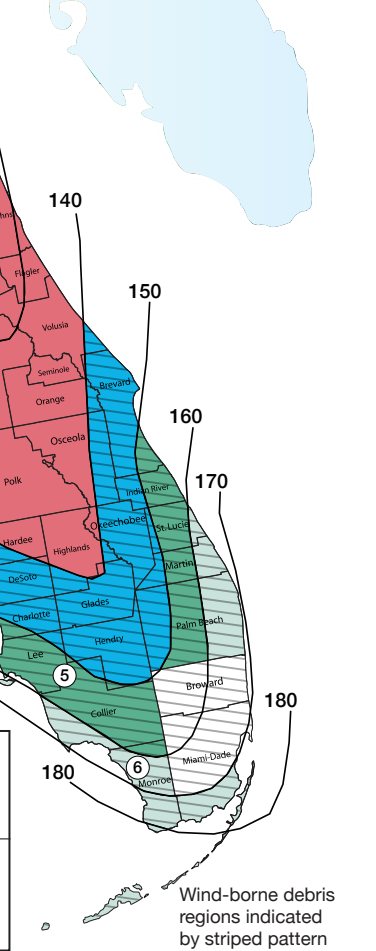
## General Wind Speed

1. Use the map and charts to determine the general wind speed requirements for your area.

<b>C.H.I. Zone</b>	1	2	3	4	5	6	7	8	9
<b>Basic Wind Speed based on ASCE7-05*</b>	90	100	110	120	130	140	150	154	166
<b>C.H.I. Zone [Florida]</b>	1	2	3	4	5	6	7	8	9
<b>Ultimate Wind Speed based on ASCE7-10†</b>	116	129	142	155	168	181	194	199	214

\*Importance Factor 1.00 †Risk Category II

Exposure B Wind speed calculated using fully enclosed 60' x 40' building size with 2' edge distance of door to corner of building



Wind-borne debris regions indicated by striped pattern



RAISE THE STANDARD

## RAISED PANEL

Add depth to your garage door with C.H.I.'s raised panel design, available in both short and long panel options. The raised panels start with a recessed edge, but the interior surface of each panel is brought slightly forward, adding just a hint of definition to a classic garage door design.

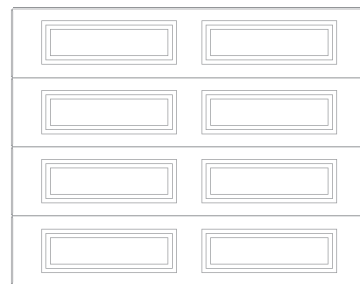


Short Raised Panel, Model 2241 shown in white.

### GARAGE DOOR STYLES

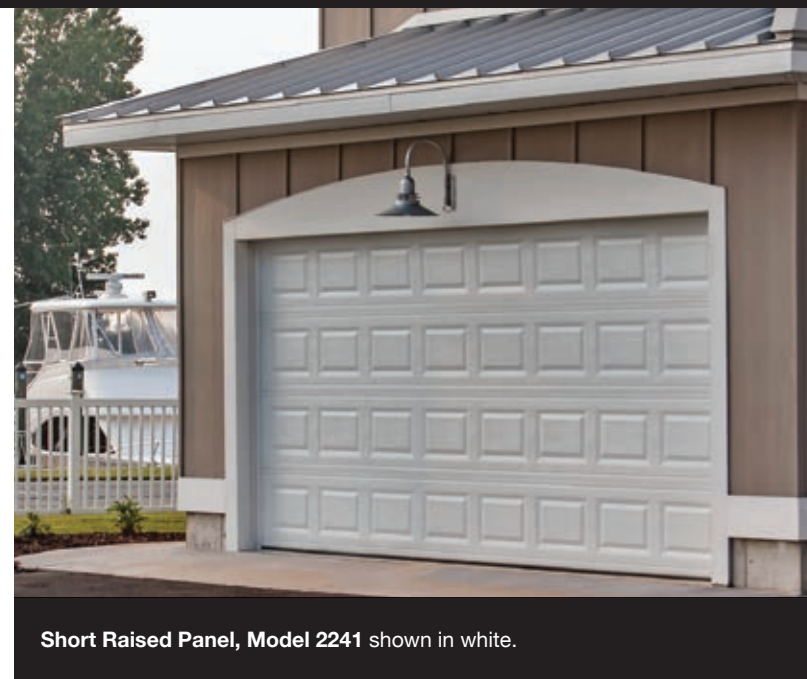


Short Raised Panel



Long Raised Panel

Learn more at  
[chiohd.com/raised-panel](http://chiohd.com/raised-panel)



Short Raised Panel, Model 2241 shown in white.

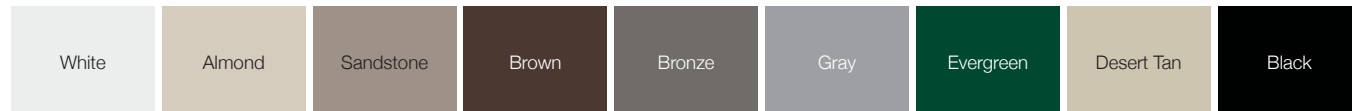


Long Raised Panel, Model 4240 shown in evergreen.

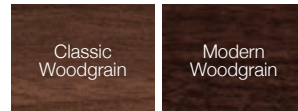


## RAISED PANEL PERSONALIZING OPTIONS

### COLORS<sup>1</sup>



### PAINTED WOODTONES<sup>1</sup>

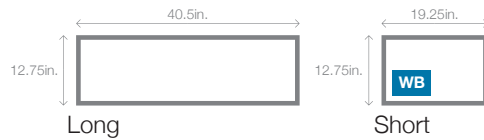


### ACCENTS WOODTONES<sup>1</sup>

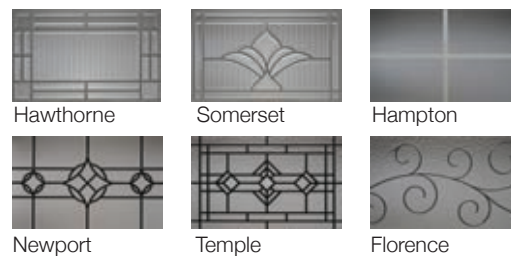


### WINDOWS

Windows for Raised Panel doors are available in two sizes: Long and Short. Short windows are available as certified impact windows to meet zone requirements.

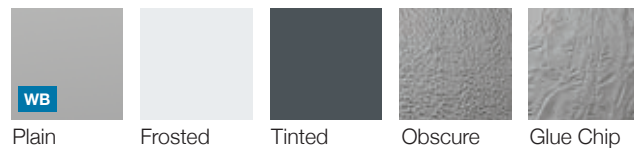


### DECORATIVE GLASS



Decorative Glass is available in long and short windows. Not available impact rated.

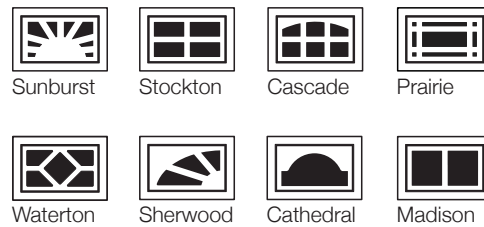
### GLASS



Plain polycarbonate available for impact rated windows.

### WINDOW INSERTS

A variety of inserts are available for both short and long windows. Inserts can be added to any of the glass options to add style to your garage door facade. Refer to the chart on page 38 for design availability in long and short windows.



## RAISED PANEL MODEL SELECTION CHART

Select Your Garage Door Model					
	GOOD		BETTER		BEST
<b>Section Construction</b>	1-Sided Steel - 2" Thick		1-Sided Steel with Vinyl Back - 2" Thick	2-Sided Steel Sandwich - 2" Thick	
<b>Materials</b>	Standard/ 25 <sup>2</sup> Ga. Steel	Heavy Duty/ 24 <sup>2</sup> Ga. Steel	Standard/ 25 <sup>2</sup> Ga. Steel	Heavy Duty/ 24 <sup>2</sup> Ga. Steel	Medium Duty/ 27 <sup>2</sup> Ga. Steel
<b>Insulation Type</b>	No Insulation		1-3/8" Polystyrene		1-13/16" Polystyrene
<b>R-value / Thermal Performance</b>	N/A		R-7.94	R-9.65	R-17.19

Panel Style / Model Number <sup>3</sup>	GOOD	BETTER	BETTER	BETTER	BEST
Short Raised Panel	2250	2240	2251	2241	2283
Long Raised Panel	4250	4240	4251	4241	4283

Personalize Your Garage Door					
Colors <sup>1</sup> All Models are available in:	White	Almond	Sandstone	Brown	
Bronze					
Gray					
Evergreen					
Desert Tan					
Black					
Painted Woodtones <sup>1</sup>					
Accents Woodtones <sup>1</sup>					
Designer Glass					

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel. <sup>3</sup> Model number indicates window styles.

### Windows for 1-Sided Steel Doors (No-Insulation and Vinyl Back)

Door Widths	WINDLOAD ZONES*								
	1	2	3	4	5	6	7	8	9
8'-9'	Long Window, Short Window								
10'	Long Window, Short Window								
14'-16'	Long Window, Short Window								
18'	Long Window, Short Window								

<sup>1</sup> Short impact windows available in all widths and all zones.  
<sup>2</sup> Only one row of windows allowed in wind-borne debris regions.

### Windows for 2-Sided Steel Doors (Polystyrene and Polyurethane)

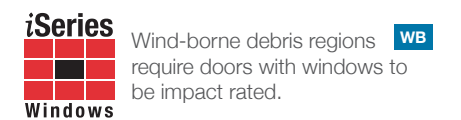
Long and Short windows available for all zones.

iSeries Windows Impact windows available in short windows only.

\*Refer to pages 4-5 to determine the wind load zone for your door.  
<sup>1</sup> Only short impact rated windows are available for Impact zones



C.H.I. Raised Panel door models available for all zones. Refer to chart above for window options.





REKINDLE THE PAST

# STAMPED CARRIAGE HOUSE

Rustic craftsmanship brings unparalleled warmth and individuality to our line of carriage house style garage doors. Built with handcrafted details and a deeply embossed wood grain finish, this series perfectly captures the appeal of traditional carriage house doors.



Stamped Carriage Short, Model 5216 shown in almond with optional stockton window inserts and spade hardware.

## GARAGE DOOR STYLES



Stamped Carriage Short



Stamped Carriage Long



Stamped Carriage Short, Model 5951 shown in white with optional spade hardware.



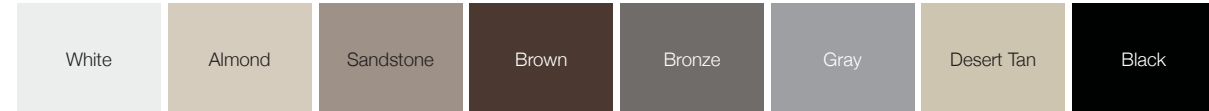
Stamped Carriage Long, Model 5983 shown in cedar with optional impact rated short windows, plain glass.

Learn more at [chiohd.com/stamped-carriage-house](http://chiohd.com/stamped-carriage-house)

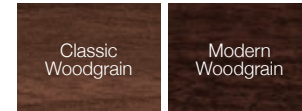


## STAMPED CARRIAGE HOUSE PERSONALIZING OPTIONS

### COLORS<sup>1</sup>



### PAINTED WOODTONES<sup>1</sup>

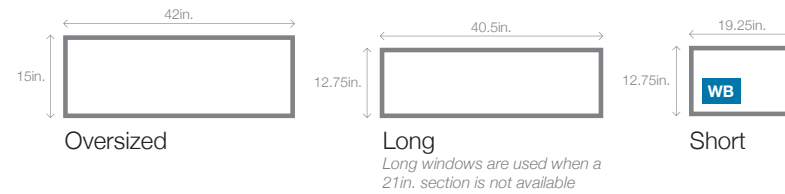


### ACCENTS WOODTONES<sup>1</sup>

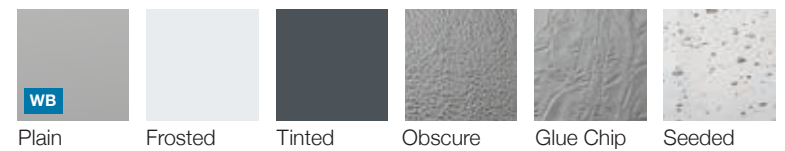


### WINDOWS

Windows for Stamped Carriage House doors are available in three sizes: Oversized, Long, and Short. Short windows are available as certified impact windows to meet zone requirements.



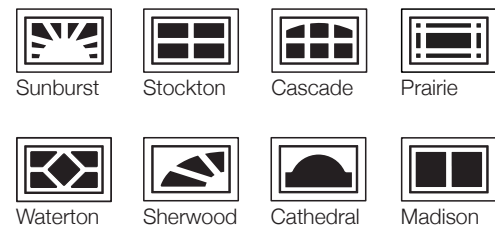
### GLASS



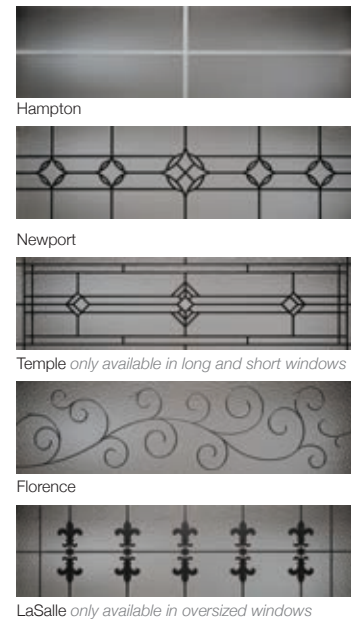
Plain polycarbonate available for impact rated windows.

### WINDOW INSERTS

A variety of inserts are available for all window sizes. Inserts can be added to any of the glass options to add style to your garage door facade. Refer to the chart on page 38 for design availability in oversized, long, and short window.

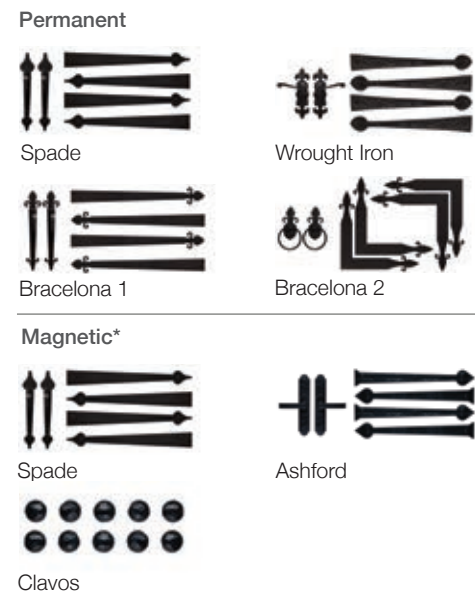


### DECORATIVE GLASS



Decorative Glass is available in oversized, long, and short windows. Not available impact rated.

### EXTERIOR HARDWARE



\*Check with your local authority having jurisdiction for compliance in your zone.

## STAMPED CARRIAGE HOUSE MODEL SELECTION CHART

Select Your Garage Door Model			
	GOOD	BETTER	BEST
<b>Section Construction</b>	1-Sided Steel - 2" Thick	1-Sided Steel with Vinyl Back - 2" Thick	2-Sided Steel Sandwich - 2" Thick
<b>Materials</b>	Standard/ 25 <sup>2</sup> Ga. Steel	Standard/ 25 <sup>2</sup> Ga. Steel	Medium Duty/ 27 <sup>2</sup> Ga. Steel
<b>Insulation Type</b>	No Insulation	1-3/8" Polystyrene	1-13/16" Polystyrene
<b>R-value / Thermal Performance</b>	N/A	R-7.94	R-9.65
<b>Panel Style / Model Number</b>			
<b>Stamped Carriage Short</b>	5250	5251	5283
<b>Stamped Carriage Long</b>	5950	5951	5983
			5216
			5916

Personalize Your Garage Door			
Colors <sup>1</sup> All Models are available in:	White	Almond	Sandstone
<b>Painted Woodtones<sup>1</sup></b>			
<b>Accents Woodtones<sup>1</sup></b>			
<b>Designer Glass</b>			

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel.

### Windows for 1-Sided Steel Doors (No-Insulation and Vinyl Back)

Door Widths	WINDLOAD ZONES*								
	1	2	3	4	5	6	7	8	9
8'-9'	Oversized Window, Long Window, Short Window								
10'	Oversized Window, Long Window, Short Window								
14'-16'	Oversized Window, Long Window, Short Window								
18'	Oversized Window, Long Window, Short Window								

**Short Windows Only** (Zones 7, 8, 9)

**iSeries Windows** Short impact windows available in all widths and all zones.<sup>1</sup> Only one row of windows allowed in wind-borne debris regions.

\*Refer to page 4-5 to determine the wind load zone for your door.  
<sup>1</sup> Only short impact rated windows are available for Impact zones

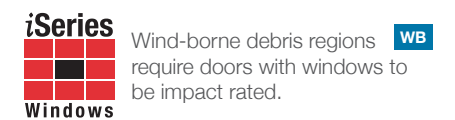
### Windows for 2-Sided Steel Doors (Polystyrene and Polyurethane)

Oversized, Long, and Short windows available for all zones.

**iSeries Windows** Impact windows available in short windows only.



C.H.I. Stamped Carriage House door models available for all zones. Refer to chart above for window options.





A HISTORY OF STYLE

# STAMPED SHAKER

Clean, simple lines and a minimalist design characterize our line of stamped shaker garage doors. The timeless style, expert craftsmanship, and attention to detail will create a lasting impression.

## GARAGE DOOR STYLES



Stamped Shaker



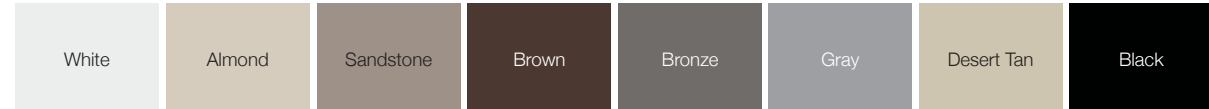
**Stamped Shaker, Model 2518** shown in white with optional madison window inserts with plain glass.

Learn more at [chiohd.com/stamped-shaker](http://chiohd.com/stamped-shaker)

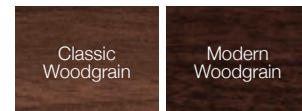


## STAMPED SHAKER PERSONALIZING OPTIONS

### COLORS<sup>1</sup>



### PAINTED WOODTONES<sup>1</sup>

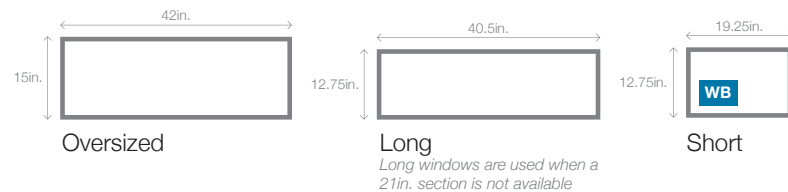


### ACCENTS WOODTONES<sup>1</sup>

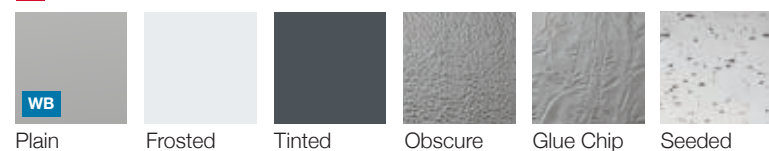


### WINDOWS

Windows for Stamped Shaker doors are available in three sizes: Oversized, Long, and Short. Short windows are available as certified impact windows to meet zone requirements.



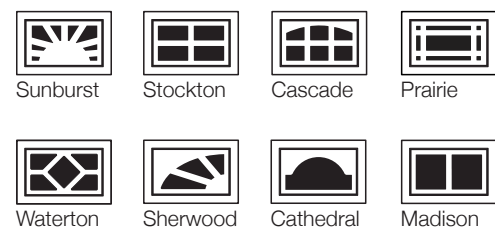
### GLASS



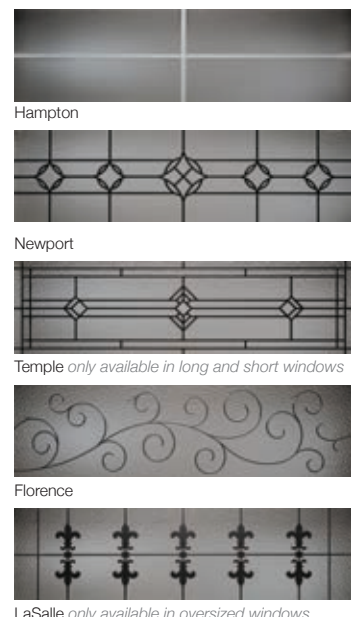
Plain polycarbonate available for impact rated windows.

### WINDOWS INSERTS

A variety of inserts are available for all window sizes. Inserts can be added to any of the glass options to add style to your garage door facade. Refer to the chart on page 38 for design availability in oversized, long, and short window.

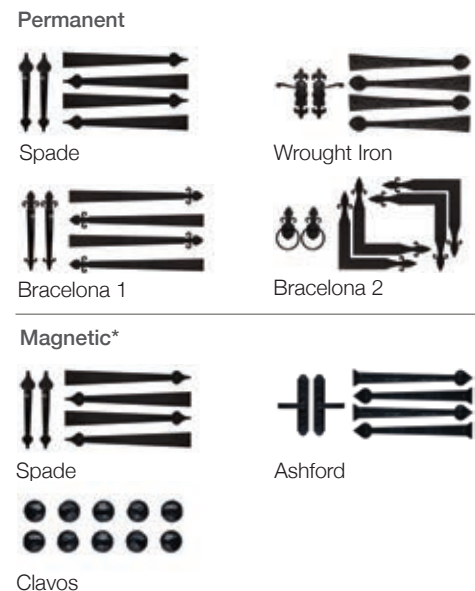


### DECORATIVE GLASS



Decorative Glass is available in oversized, long, and short windows. Not available impact rated.

### EXTERIOR HARDWARE



\*Check with your local authority having jurisdiction for compliance in your zone.

## STAMPED SHAKER MODEL SELECTION CHART

Select Your Garage Door Model			
	GOOD	BETTER	BEST
<b>Section Construction</b>	1-Sided Steel - 2" Thick	1-Sided Steel with Vinyl Back - 2" Thick	2-Sided Steel Sandwich - 2" Thick
<b>Materials</b>	Standard / 25 <sup>2</sup> Ga. Steel	Standard / 25 <sup>2</sup> Ga. Steel	Medium Duty / 27 <sup>2</sup> Ga. Steel
<b>Insulation Type</b>	No Insulation	1-3/8" Polystyrene	1-13/16" Polystyrene
<b>R-value / Thermal Performance</b>	N/A	R-7.94	R-9.65
<b>Panel Style / Model Number<sup>3</sup></b>			
	2550	2551	2583
	2518		
<b>Personalize Your Garage Door</b>			
<b>Colors<sup>1</sup> All Models are available in:</b>	White	Almond	Sandstone
	Brown	Desert Tan	Bronze
	Black	Gray	
<b>Painted Woodtones<sup>1</sup></b>	•	•	
<b>Accents Woodtones<sup>1</sup></b>			•
<b>Designer Glass</b>			•

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel. <sup>3</sup> Model number indicates window styles.

### Windows for 1-Sided Steel Doors (No-Insulation and Vinyl Back)

Door Widths	WINDLOAD ZONES*								
	1	2	3	4	5	6	7	8	9
8'-9'	Oversized Window, Long Window, Short Window								
10'	Oversized Window, Long Window, Short Window								
14'-16'	Oversized Window, Long Window, Short Window								
18'	Oversized Window, Long Window, Short Window								
	Short impact windows available in all widths and all zones. <sup>1</sup> Only one row of windows allowed in wind-borne debris regions.								

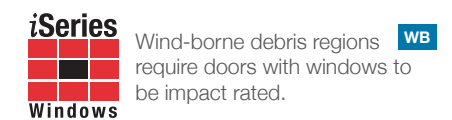
\*Refer to page 4-5 to determine the wind load zone for your door.  
<sup>1</sup> Only short impact rated windows are available for Impact zones

### Windows for 2-Sided Steel Doors (Polystyrene and Polyurethane)

Oversized, Long, and Short windows available for all zones.
Impact windows available in short windows only.



C.H.I. Stamped Shaker door models available for all zones. Refer to chart above for window options.





# STUDIO COLLECTION

LESS IS MORE

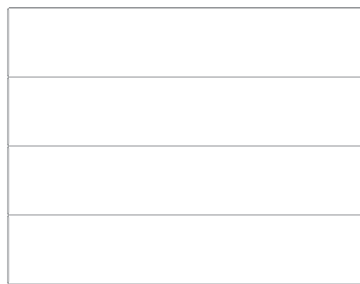
## SKYLINE FLUSH

Elevate your home's style with crisp, clean lines and a geometric silhouette.



Skyline Flush, Model 2158 shown in cedar accents woodtones with optional right stacked windows with tinted glass.

### GARAGE DOOR STYLES



Flush

Learn more at [chiohd.com/flush-panel](http://chiohd.com/flush-panel)

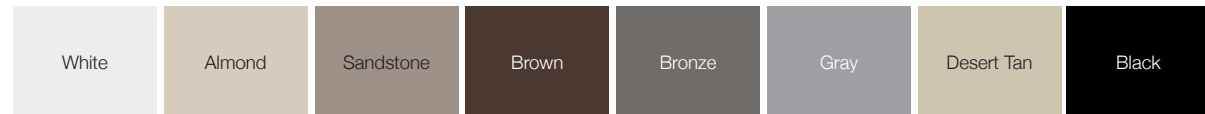


Skyline Flush, Model 2147 shown in black.



## SKYLINE FLUSH PERSONALIZING OPTIONS

### COLORS<sup>1</sup>

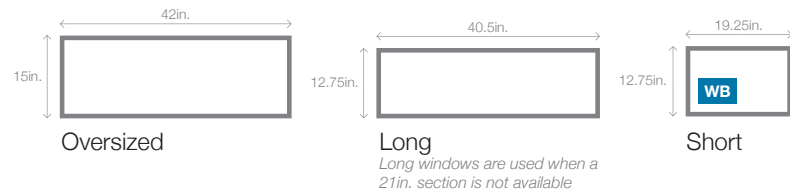


### ACCENTS WOODTONES<sup>1</sup>



### WINDOWS

Windows for Skyline Flush doors are available in three sizes: Oversized, Long, and Short. Short windows are available as certified impact windows to meet zone requirements.



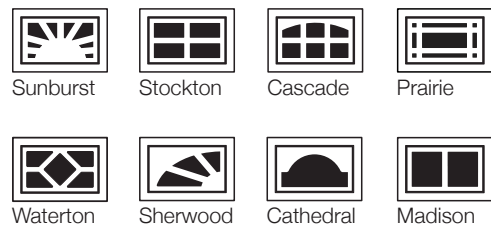
### GLASS



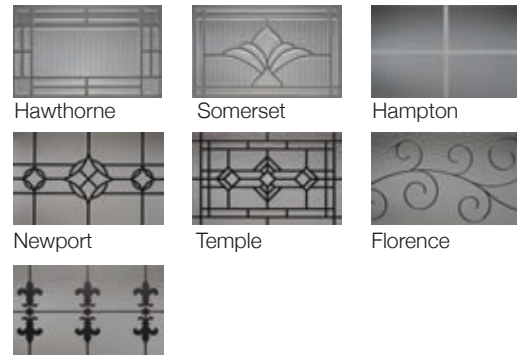
Plain polycarbonate available for impact rated windows.

### WINDOWS INSERTS

A variety of inserts are available for all window sizes. Inserts can be added to any of the glass options to add style to your garage door facade. Refer to the chart on page 38 for design availability in oversized, long, and short window.



### DECORATIVE GLASS



LaSalle only available in oversized windows

Decorative Glass is available in oversized, short, and long windows. Not available impact rated.

### WINDOW PLACEMENT INSPIRATION\*

Studio Collection doors offer customizable window placement for endless potential in unparalleled appearance and design. See examples below:



Oversized



Long\*

Windows placed in multiple window sections require approval from the Authority Having Jurisdiction.



Short

\*Impact rated doors are available with one window section only.

## SKYLINE FLUSH MODEL SELECTION CHART

Select Your Garage Door Model															
GOOD				BETTER				BEST							
<b>Section Construction</b>		2" Thick - 1-Sided Steel		2" Thick - 1-Sided Steel with Vinyl Back		2" Thick - 2-Sided Steel		2" Thick - 2-Sided Steel		2" Thick - 2-Sided Steel		2" Thick - 2-Sided Steel			
<b>Material</b>		Standard / 25 <sup>2</sup> Ga. Steel		Heavy Duty / 24 <sup>2</sup> Ga. Steel		Heavy Duty / 25 <sup>2</sup> Ga. Steel		Heavy Duty / 24 <sup>2</sup> Ga. Steel		Heavy Duty / 27 <sup>2</sup> Ga. Steel		Heavy Duty / 27 <sup>2</sup> Ga. Steel			
<b>Insulation Type</b>		No Insulation		1-3/8" Polystyrene		1-3/8" Polystyrene		1-13/16" Polystyrene		1-13/16" Polystyrene		1-7/8" Polyurethane			
<b>R-value / Thermal Performance</b>		-		R-7.94		R-7.94		R-10.29		R-10.29		R-17.54			
<b>Panel Style / Model Number</b>															
Flush		2150	4150	2140	4140	2151	4151	2141	4141	2127	2147	2157	2128	2148	2158

### Personalize Your Garage Door

Window Style <sup>3</sup>	Short	Long	Short	Long	Short	Long	Short	Long	Short	Long	Oversized	Short	Long	Oversized	
<b>Designer Glass</b>												•	•	•	
<b>Colors<sup>1</sup> All Models are available in:</b>	White Almond Sandstone Brown														
Bronze															•
Gray															•
Desert Tan															•
Black															•
<b>Accents Woodtones<sup>1</sup></b>															•

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel. <sup>3</sup> Model number indicates window style.

### Windows for 1-Sided Steel Doors (No-Insulation and Vinyl Back)

Door Widths	WINDLOAD ZONES*								
	1	2	3	4	5	6	7	8	9
8'-9'	Oversized Window, Long Window, Short Window								
10'	Oversized Window, Long Window, Short Window								
14'-16'	Oversized Window, Long Window, Short Window								
18'	Oversized Window, Long Window, Short Window								
	Short impact windows available in all widths and all zones. <sup>1</sup> Only one row of windows allowed in wind-borne debris regions.								

\*Refer to page 4-5 to determine the wind load zone for your door.

<sup>1</sup>Only short impact rated windows are available for Impact zones

### Windows for 2-Sided Steel Doors (Polystyrene and Polyurethane)

Door Widths	WINDLOAD ZONES*								
	1	2	3	4	5	6	7	8	9
8'-9'	All Window Options								
10'	All Window Options								
14'-15'	All Window Options								
16'	All Window Options								
18'	Short Windows Only								
	Short impact windows available in all widths and all zones. <sup>1</sup> Only one row of windows allowed in wind-borne debris regions.								

\*Refer to page 4-5 to determine the wind load zone for your door.

<sup>1</sup>Only short impact rated windows are available for Exposure C or Impact zones



C.H.I. Skyline Flush door models available for all zones. Refer to the charts on the left for window options.



Wind-borne debris regions require doors with windows to be impact rated.





# STUDIO COLLECTION

LESS IS MORE

## PLANKS

Horizontal grooves lend texture and interest to Planks doors, creating depth and subtle dimensions.

### GARAGE DOOR STYLES



Planks

Learn more at [chiohd.com/planks](http://chiohd.com/planks)



Windows placed in multiple window sections require approval from the Authority Having Jurisdiction.

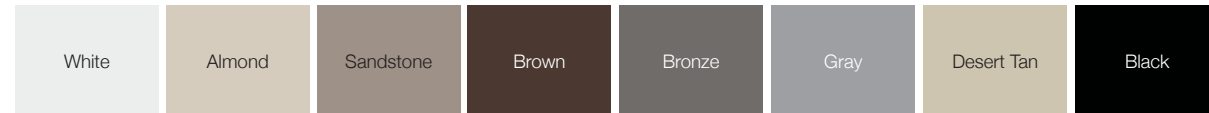
Impact rated doors are available with one window section only.

Planks, Model 2348 shown in cedar accents woodtones with optional right stacked windows with obscure glass (black frames not standard).



## PLANKS PERSONALIZING OPTIONS

### COLORS<sup>1</sup>

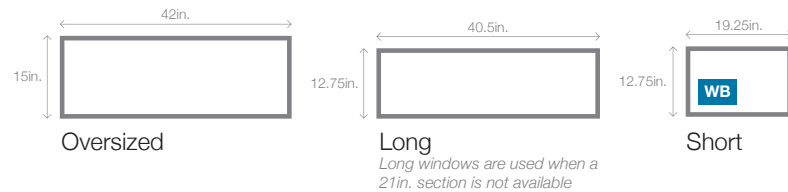


### ACCENTS WOODTONES<sup>1</sup>

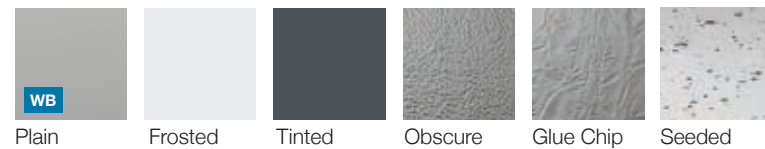


### WINDOWS

Windows for Planks doors are available in three sizes: Oversized, Long, and Short. Short windows are available as certified impact windows to meet zone requirements.



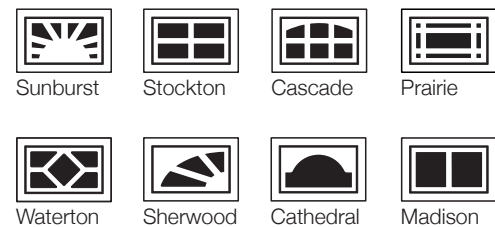
### GLASS



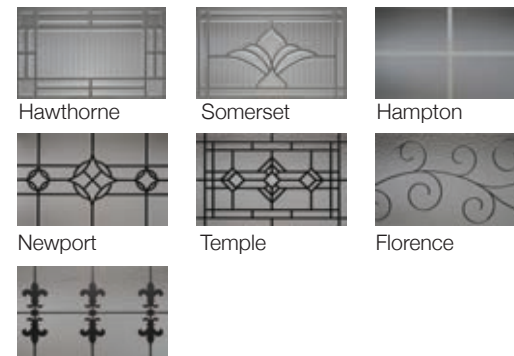
*Plain polycarbonate available for impact rated windows.*

### WINDOWS INSERTS

A variety of inserts are available for both short and long windows. Inserts can be added to any of the glass options to add style to your garage door facade. Refer to the chart on page 38 for design availability in oversized, long, and short window.



### DECORATIVE GLASS



*LaSalle only available in oversized windows*

Decorative Glass is available in oversized, short, and long windows. Not available impact rated.

### WINDOW PLACEMENT INSPIRATION\*

Studio Collection doors offer customizable window placement for endless potential in unparalleled appearance and design. See examples below:

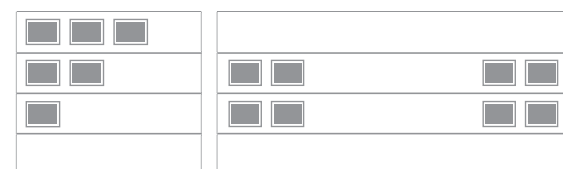


Oversized



Long\*

Windows placed in multiple window sections require approval from the Authority Having Jurisdiction.



Short

\*Impact rated doors are available with one window section only.

## PLANKS MODEL SELECTION CHART

Select Your Garage Door Model							
BETTER			BEST				
<b>Section Construction</b>	2" Thick - 2-Sided Steel			2" Thick - 2-Sided Steel			
<b>Material</b>	Heavy Duty / 27 <sup>2</sup> Ga. Steel			Heavy Duty / 27 <sup>2</sup> Ga. Steel			
<b>Insulation Type</b>	1-13/16" Polystyrene			1-7/8" Polyurethane			
<b>R-value / Thermal Performance</b>	R-10.29			R-17.54			
<b>Panel Style / Model Number<sup>3</sup></b>							
<b>Planks</b>	2327	2347	2357	2328	2348	2358	
Personalize Your Garage Door							
<b>Window Type<sup>2</sup></b>	Short	Long	Oversized	Short	Long	Oversized	
<b>Designer Glass</b>	•	•	•	•	•	•	
<b>Colors<sup>1</sup> All Models are available in:</b>	White	Almond	Sandstone	Brown	Gray	Black	
<b>Accents Woodtones<sup>1</sup></b>	•	•	•	•	•	•	

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel. <sup>3</sup> Model number indicates window style.

### Windows for 2-Sided Steel Doors (Polystyrene and Polyurethane)

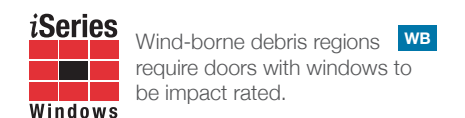
Door Widths	WINDLOAD ZONES*									iSeries Windows
	1	2	3	4	5	6	7	8	9	
8'-9'	All Window Options									Oversized, Long, and Short windows availability.
10'	All Window Options									
14'-15'	All Window Options									
16'	All Window Options									
18'	Short Windows Only									
	Short impact windows available in all widths and all zones. <sup>1</sup> Only one row of windows allowed in wind-borne debris regions.									Impact windows available in short windows only.

\*Refer to page 4-5 to determine the wind load zone for your door.

<sup>1</sup> Only short impact rated windows are available for Impact zones



C.H.I. Planks door models available for all zones. Refer to chart above for window options.





CLASSIC STYLE IN ONE-DIMENSION

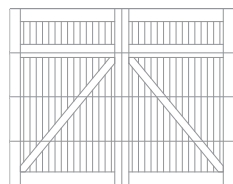
# FLUSH CARRIAGE HOUSE

A unique blend of light and shadow, these one-dimensional doors are the perfect complement to carriage house applications. Insulated steel offers high quality, low maintenance doors, manufactured using ground breaking advances in design and technology.



Flush Carriage House, Model 5217-D33 shown in dark oak with optional plain glass and madison window inserts. This door family delivers the image of a carriage house overlay door on a completely flat surface.

## GARAGE DOOR STYLES



Flush Carriage House shown in design 33

## FLUSH CARRIAGE HOUSE PERSONALIZING OPTIONS

All available personalizing options and colors can be found on p. 31. Options include Accents Woodtones, windows and inserts, glass and decorative glass, and exterior hardware.

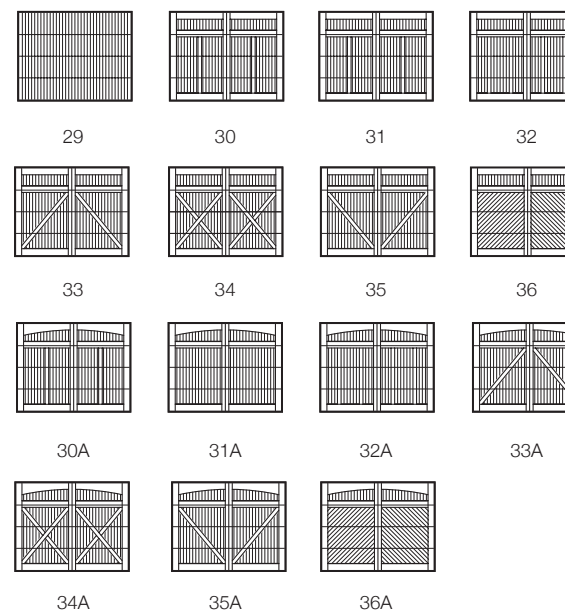
### Windows for 2-Sided Steel Doors (Polyurethane)

Door Widths	WINDLOAD ZONES*								
	1	2	3	4	5	6	7	8	9
8'-9'	All Window Options								
10'	All Window Options								
14'-15'	All Window Options								
16'	All Window Options								
18'	Short Windows Only								Not Available

\*Short impact windows available in all widths and all zones.<sup>1</sup> Only one row of windows allowed in wind-borne debris regions.

<sup>1</sup>Refer to page 4-5 to determine the wind load zone for your door.  
<sup>2</sup>Only short impact rated windows are available for Exposure C or Impact zones

## FLUSH CARRIAGE HOUSE DESIGNS



## FLUSH CARRIAGE HOUSE MODEL SELECTION CHART

Select Your Garage Door Model

**BEST**

Section Construction	2-Sided Steel Sandwich - 2" Thick
Materials	Heavy Duty / 27 <sup>2</sup> Ga. Steel
Insulation Type	1-7/8" Polyurethane
R-value / Thermal Performance	R-17.54
Panel Style / Model Number	5217

Flush Carriage House

Personalize Your Garage Door

Accents Woodtones<sup>1</sup> Mahogany Cedar Dark Oak

Designer Glass All Models are available with hampton, newport, and florence.

Hawthorne  
 Somerset  
 Temple  
 LaSalle

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel. <sup>3</sup> Model number indicates window style.

**LIMITED LIFETIME WARRANTY**

SECTIONS Limited Lifetime

SPRINGS 3 Years

HARDWARE 3 & 6 Years



C.H.I. Flush Carriage House door model available for all zones. Refer to the charts on the left for window options.

**iSeries Windows**

Wind-borne debris regions require doors with windows to be impact rated.

Learn more at [chiohd.com/accents](http://chiohd.com/accents)



PREMIUM WOODTONE DOORS

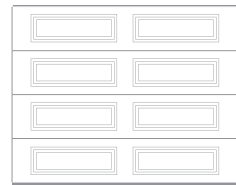
# ACCENTS WOODTONES

Featuring the most advanced, highest resolution finishes available, Accents Woodtones accurately portray a non-repeating wood grain to achieve the warmth, appeal, and beauty of a handcrafted wood garage door while providing the strength and durability of steel.

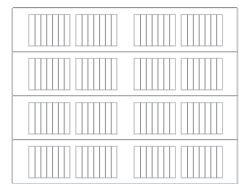
**GARAGE DOOR STYLES**



Short Raised Panel



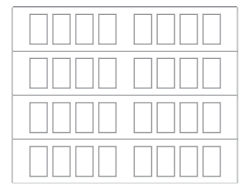
Long Raised Panel



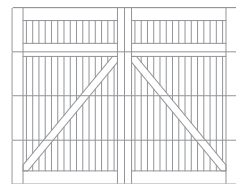
Stamped Carriage Short



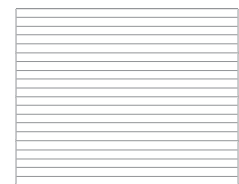
Stamped Carriage Long



Stamped Shaker



Flush Carriage House  
*shown in design 33*



Planks



Skyline Flush



**Stamped Carriage Short, Model 5983** shown in driftwood with optional spade hardware.



**Long Raised Panel, Model 4216** shown in walnut with optional tinted glass and prairie window inserts.



**Planks, Model 2328** shown in cedar.

Learn more at [chiohd.com/accents](http://chiohd.com/accents)



ACCENTS WOODTONES **PERSONALIZING OPTIONS\***

ACCENTS WOODTONES<sup>1</sup>



Walnut      Driftwood      Mahogany      Cedar      Dark Oak

At C.H.I. Overhead Doors, we believe garage doors should demonstrate both durability and class. Our Accents Woodtones garage doors are meticulously designed and manufactured using full color digital imaging and insulated steel to create the highest quality, most realistic woodtone doors available. Utilizing groundbreaking advances in design and technology, found only at C.H.I. Overhead Doors, each Accents Woodtones garage door is as colorful and authentic as real wood.



**Step 1: Hand Select Premium Lumber**

We start with carefully selected premium lumber that is milled with precision to uncover each board's unique grain pattern. Only the highest quality boards, chosen for their natural design and texture, become part of our Accents Woodtones family.



**Step 2: Digitally Craft Each Door**

High-resolution digital scanning captures each detail of the wood and allows our design engineers to digitally construct each door board-by-board. This craftsmanship provides a non-repeating grain pattern that reflects the true color and appeal of real wood.



**Step 3: Flawlessly Create Every Section**

In order to ensure the classic woodtone appearance for the life of your door, the finished product is treated with an industry leading UV topcoat, providing years of protection from the natural elements.

\*Refer to specific product pages for personalizing options and wind load information.



ACCENTS WOODTONES **MODEL SELECTION CHART**

Select Your Garage Door Model

BETTER				BEST			
<b>Section Construction</b>		2-Sided Steel Sandwich - 2" Thick		<b>Section Construction</b>		2-Sided Steel Sandwich - 2" Thick	
<b>Materials</b>		Medium Duty/ 27 <sup>2</sup> Ga. Steel	Heavy Duty/ 27 <sup>2</sup> Ga. Steel	<b>Materials</b>		Heavy Duty/ 27 <sup>2</sup> Ga. Steel	
<b>Insulation Type</b>		1-13/16" Polystyrene		<b>Insulation Type</b>		1-7/8" Polyurethane	
<b>R-value / Thermal Performance</b>		R-9.65	R-10.29	R-16.55	R-17.19	R-17.54	
<b>Panel Style / Model Number</b>							
	2283					2216	
	4283					4216	
		5283			5216		
		5983			5916		
			2583			2518	
				2127	2147	2157	2128 2148 2358
				2327	2347	2357	2328 2348 2358
							5217

Personalize Your Garage Door

Accents Woodtones<sup>1</sup> Mahogany Cedar Dark Oak

Walnut	•	•	•	•	•	•	•	•
Driftwood	•	•	•	•	•	•	•	•
<b>Designer Glass</b> All Models are available with hampton, newport, and florence.								
Hawthorne	•						•	
Somerset	•						•	
Temple	•						•	
LaSalle		•	•	•	•	•	•	•

1 Refer to your local C.H.I. Dealer for exact color and woodtones match. 2 Lower steel gauge [ga.] number indicates stronger steel.



CLASSIC STYLE IN A BOLD WAY

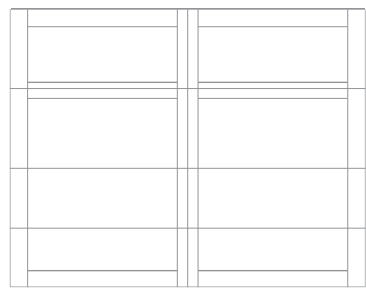
# OVERLAY CARRIAGE HOUSE

C.H.I.'s line of carriage style doors are carefully crafted, resulting in an exceptional collection of traditional doors. Whether you prefer the strength of steel, the durability of fiberglass or the beauty of rich, natural wood, you'll find the garage doors you want here with details you won't find anywhere else.

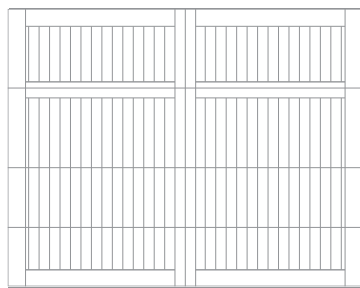


Wood Overlay Carriage, Model 5432 shown in cedar, field stained with optional stockton window designs, plain glass and optional spade hardware.

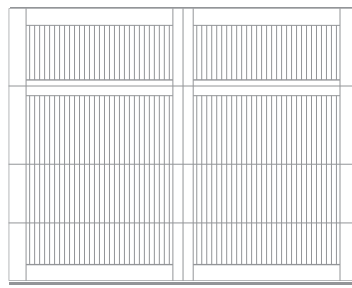
## GARAGE DOOR STYLES



Steel Overlay Carriage



Wood Overlay Carriage



Fiberglass Overlay Carriage



Steel Overlay Carriage, Model 5333 shown in white with optional arched madi-son designs, plain glass and optional wrought iron hardware.



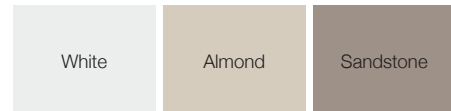
Fiberglass Overlay Carriage, Model 5830A shown in white with optional 4 piece arched stockton window designs and tinted glass.

Learn more at [chiohd.com/overlay-carriage-house](http://chiohd.com/overlay-carriage-house)



## OVERLAY CARRIAGE HOUSE PERSONALIZING OPTIONS

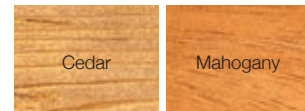
### COLORS<sup>1</sup>



### 2-TONE<sup>2</sup>

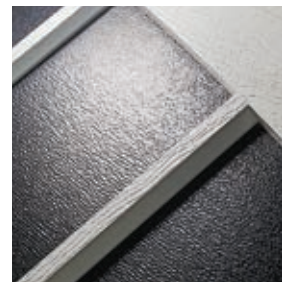


### WOOD<sup>3</sup>



### WINDOWS

Windows for Overlay Carriage House doors are available as certified impact windows to meet zone requirements. Standard window sizes vary according to design and door size.



### FAUX WINDOWS

Give the illusion of installed tinted windows and keep the integrity of the door intact. Available as an option with all overlay window sections.

### GLASS

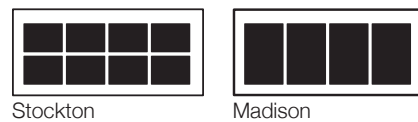


Plain polycarbonate available for impact rated windows.

### WINDOWS DESIGNS

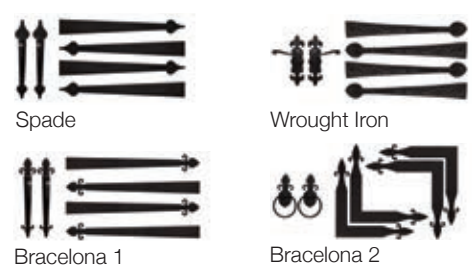
Add character to your carriage house windows with one-piece decorative inserts that give the illustration of divided-lites.

Decorative window designs will vary based on overlay design and door size.

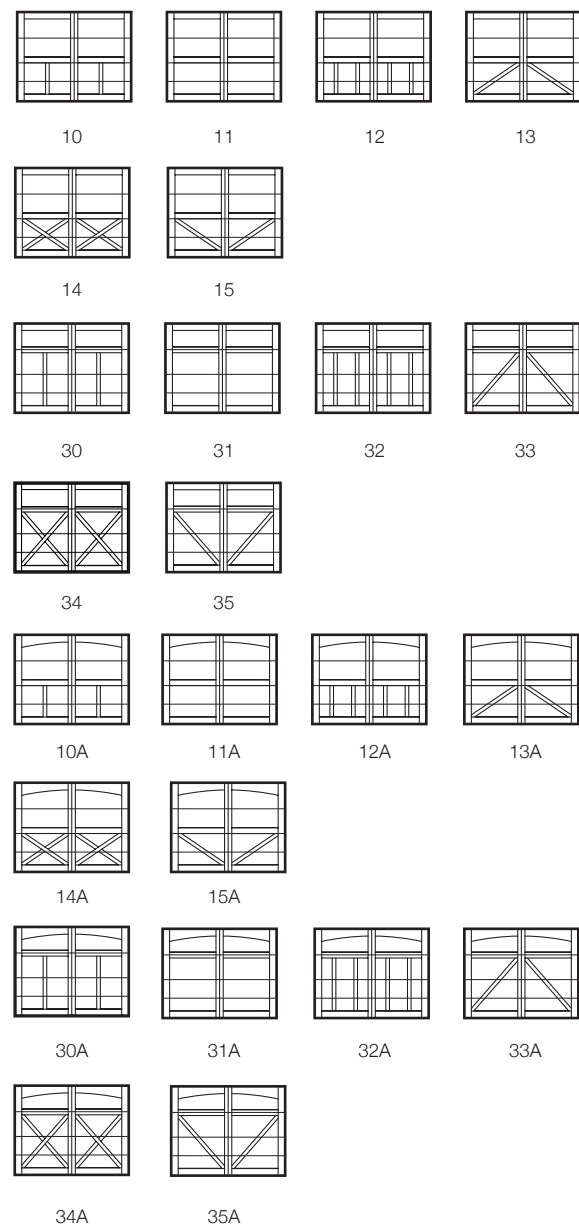


### EXTERIOR HARDWARE

#### Permanent



### OVERLAY CARRIAGE HOUSE DESIGNS



## OVERLAY CARRIAGE HOUSE MODEL SELECTION CHART

### Select Your Garage Door Model

		BETTER		BEST	
<b>Section Construction</b>	2-Sided Steel Sandwich - 2" Thick	2-Sided Steel Sandwich - 2" Thick	2-Sided Steel Sandwich - 2" Thick	2-Sided Steel Sandwich - 2" Thick	2-Sided Steel Sandwich - 2" Thick
<b>Materials</b>	Heavy Duty / 27 <sup>2</sup> Ga. Steel				
<b>Insulation Type</b>	1-13/16" Polystyrene	1-13/16" Polystyrene	1-7/8" Polyurethane	1-7/8" Polyurethane	1-7/8" Polyurethane
<b>R-value / Thermal Performance</b>	R-10.29	R-10.67	R-10.78	R-17.54	R-17.92
<b>Panel Style / Model Number</b>	5300 Steel Overlay Carriage	5400 Wood Overlay Carriage	5500 Fiberglass Overlay Carriage	5600	5700
			5800		

### Personalize Your Garage Door

#### Colors<sup>1</sup>

White	•	•	•	•	•
Almond	•	•	•	•	•
Sandstone	•	•	•	•	•

#### 2-Tone<sup>1</sup>

White / Almond	•	•	•	•	•
White / Sandstone	•	•	•	•	•

#### Wood<sup>3</sup>

Cedar	•	•	•	•	•
Mahogany	•	•	•	•	•

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color and woodtones match. <sup>2</sup> Lower steel gauge [ga.] number indicates stronger steel. <sup>3</sup> Wood types used are Western Red Cedar and Fijian Mahogany.

### Florida Wind Load Windows Zone Chart for Overlay Carriage House Doors

Zones*	1	2	3	4	5	6	7	8	9
<b>Widths</b>									
8'	All glass options								
9'-10'	All glass options								
14'-16'	All glass options								
18'	All glass options								

\*Refer to pages 4-5 to determine the wind load zone for your door.

<sup>1</sup> Impact windows available as faux windows only all widths and all zones.

Please Note: Zones 2-9 are available with only one row of windows.



C.H.I. Overlay Carriage House door models available for all zones. Refer to chart above for window options.



Impact doors available with faux windows only.



MODERN PERFECTION

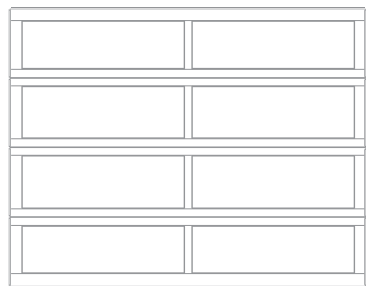
# FULL-VIEW ALUMINUM

A dramatic statement, made to fit your contemporary garage door application. Our full-view aluminum garage doors are expertly engineered of aluminum and glass that will give your home the perfect blend of industrial and ultra modern.



Full-View, Model 3295 shown in optional anodized finish with optional tinted glass.

## GARAGE DOOR STYLES



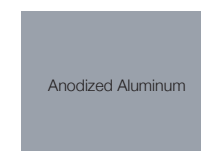
Full-View



Full-View, Model 3295 shown in optional powder coat black and white laminate glass.

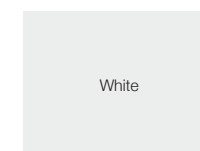
## FULL-VIEW ALUMINUM PERSONALIZING OPTIONS

### FINISH<sup>1</sup>

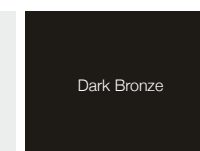


standard

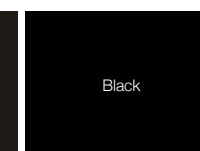
### STOCK POWDER COAT COLORS<sup>1</sup>



White



Dark Bronze

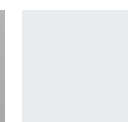


Black

### GLASS



Plain

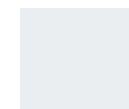


Frosted



Tinted

Plain polycarbonate available for impact rated windows.



White Laminated



Clear Laminated



SECTIONS  
Limited Lifetime

SPRINGS  
3 Years

HARDWARE  
3 & 6 Years



This model is available with all glass options for wind load doors. Impact rated not an option.

## FULL-VIEW ALUMINUM MODEL SELECTION CHART

Select Your Garage Door Model

Section Construction Aluminum

Material Heavy Duty

Insulation Type No Insulation



R-value / Thermal Performance N/A

Panel Style / Model Number

Full-View 3295

<sup>1</sup> Refer to your local C.H.I. Dealer for exact color match.



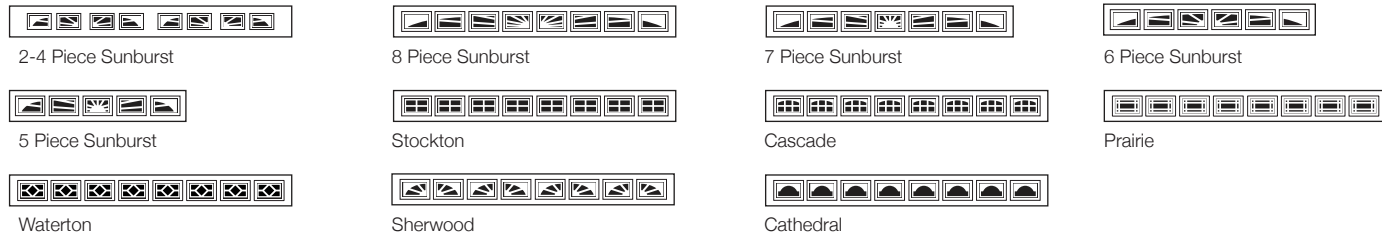
Our in-house powder coating provides 100's of color options and can add another layer of protection from the outside elements.

Refer to your local C.H.I. Dealer for more information.

Learn more at [chiohd.com/full-view](http://chiohd.com/full-view)

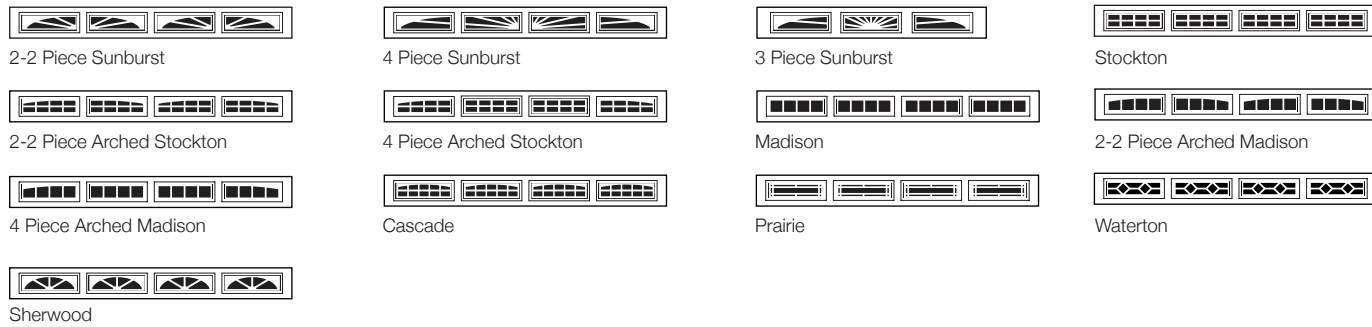


**SHORT WINDOW INSERTS**



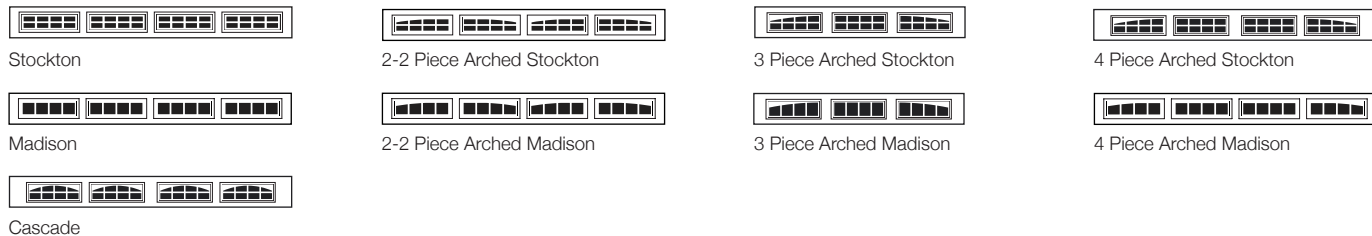
**AVAILABLE IN:** Raised Panel Stamped Carriage House Stamped Shaker Skyline Flush Planks Accents Woodtones

**LONG WINDOW INSERTS**



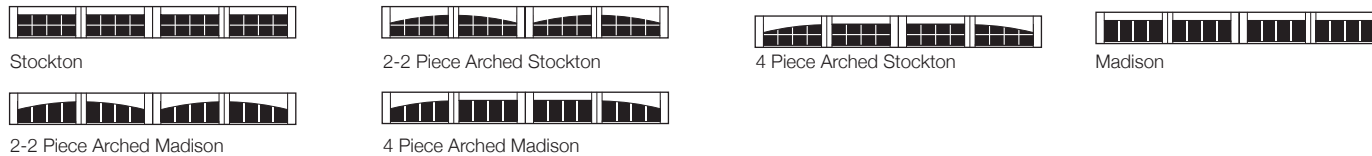
**AVAILABLE IN:** Raised Panel Stamped Carriage House Stamped Shaker Skyline Flush Planks Accents Woodtones

**OVERSIZED WINDOW INSERTS**



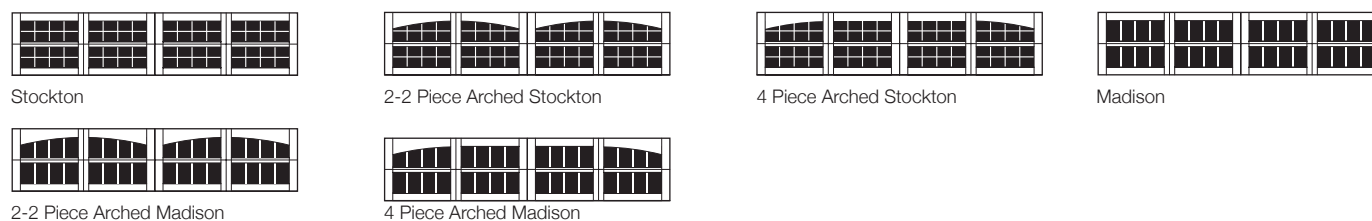
**AVAILABLE IN:** Stamped Carriage House Stamped Shaker Skyline Flush Planks Accents Woodtones

**CARRIAGE HOUSE WINDOW DESIGNS**



**AVAILABLE IN:** Overlay Carriage House

**CARRIAGE HOUSE DOUBLE ROW WINDOW DESIGNS**



**AVAILABLE IN:** Overlay Carriage House

# WIND LOAD BASIC TERMINOLOGY

Several key terms which are used in wind load design and specification are important to know.

**Wind Direction:** While wind seldom flows in just one direction, there is usually a predominate source of wind flow.

**Basic Wind Speed:** Three-second gust speed measured at 33 feet above the ground in an Exposure C area, such as an airport.

**Exposure Category:** Classification of terrain 'roughness' which determines how easily the wind travels at ground level. Exposure B is most common, covering many urban areas.

**Windward Side:** The side of a building to which the wind is acting against.

**Leeward Side:** The side of the building opposite the windward side.

**Mean Roof Height:** The average of the roof eave height and the height to the highest point on the roof surface. For roof angles of less than or equal to 10 degrees, the mean roof height is the roof eave height.

**Roof Slope:** The angle of the roof.

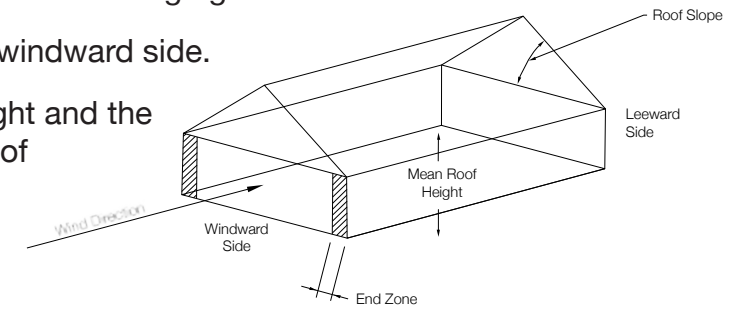
**End Zone:** An area of the building used in calculating the effects of negative pressure.

**Positive Pressure:** Wind force which is directed toward a surface results in positive pressure.

**Negative Pressure:** Wind force which is either directed away from a surface (vacuum), or to the inside of a door (acting to push it out of the opening), results in negative pressure.

**Design Pressure:** Usually expressed in Pounds per Square Foot (P.S.F.), this is the pressure equivalent of wind speed (in M.P.H) used in the design of wind resisting structures. The design pressure is the level at which doors are initially tested.

**Test Pressure:** Normally a level one and one-half times the design pressure, this value is used in testing and is not intended for use in the specification of a product.



**APPEARANCE PACKAGE**

All hardware, including struts and track, is powder coated, creating a complete garage door system with a lasting impression.



**POWDER COATING**

Our in-house powder coating provides 100's of color options while providing a maintenance free, durable finish. Powder Coating is not available on all models; refer to your local C.H.I. Dealer for more information.



**LIFETIME PACKAGE**

Extend your lifetime warranty to the entire door with the Lifetime Package. This option provides upgraded hardware and springs and lifetime coverage for as long as you own your home.



**LIFETIME WARRANTY**

Part of owning a C.H.I. garage door is knowing that you can rely on the industry's best warranty. To maintain proper operation, an annual service inspection by a C.H.I. Dealer is encouraged. [chiohd.com/warranty](http://chiohd.com/warranty)

The Lifetime Package is only available on Models 2283, 2216, 4283, 4216, 5283, 5216, 5983, 5916, 2583, 2518, 2127, 2128, 2147, 2148, 2157, 2158, 2327, 2328, 2347, 2348, 2357, 2358, and 5217.

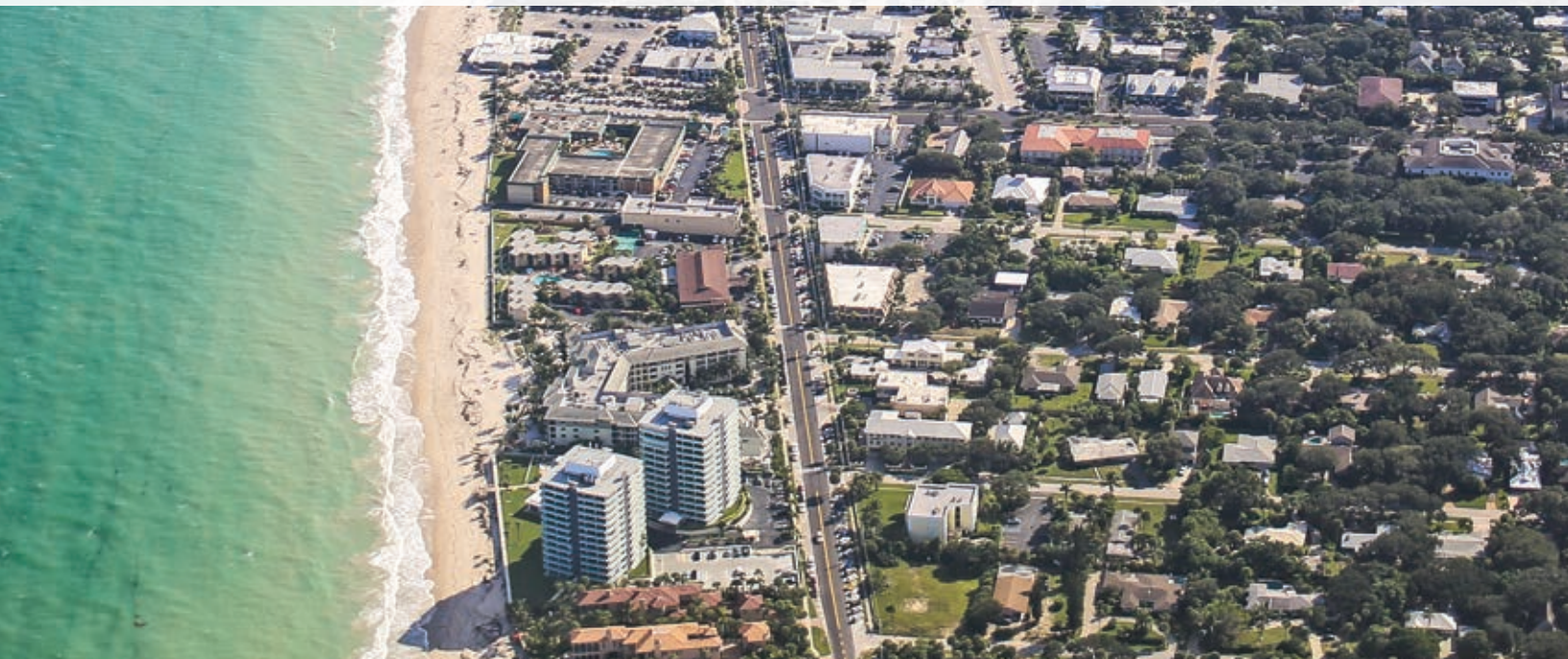
Consult with your C.H.I. Dealer for specific warranty coverage as each model varies in coverage.





# WIND LOAD DOORS

*Built, tested, and approved.*



C.H.I. ADDITIONAL RESOURCES

## WIND LOAD

**DASMA** [dasma.com](http://dasma.com)

**Florida Building Codes** [floridabuilding.org/c/default.aspx](http://floridabuilding.org/c/default.aspx)

**Texas Department of Insurance** [tdi.texas.gov](http://tdi.texas.gov)

[chiohd.com](http://chiohd.com) | 1485 Sunrise Drive | Arthur, IL 61911 | USA

Your Local Garage Door Professional