



FAST FACTS

Understanding Changes to FL
Building Code Under ASCE 7-10

DID YOU KNOW?

What is ASCE 7-10...

The American Society of Civil Engineers (ASCE):

Founded in 1852, ASCE represents more than 140,000 members of the civil engineering profession worldwide and is America's oldest national engineering society.

- ASCE 7-10 is a standard for engineering buildings to meet criteria for wind, earthquakes, snow loads and other design conditions. The standard describes wind load requirements using design conditions based on historical wind events.
- The wind load requirements defined in ASCE 7-10 are used as a basis for determining some requirements of building codes, including the 2010 Florida Building Codes. The calculations used in the code may affect product selection and installation methods.
- ASCE-7 was updated in 2010, and the new edition has now been incorporated into the model codes. Those codes are being adopted at the state level, and the change in wind speed terminology in ASCE-7 may cause some confusion in the market.

DID YOU KNOW?

Building Codes: Important for High Wind Areas



The First Baptist Church in Gulfport, MS, sustained heavy damage from a 25-foot tidal surge and hurricane-force winds during Hurricane Katrina in 2005.

Photo cred: ARMA

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DID YOU KNOW?

What has changed...

The 2010 update ...

- The new provisions set differing levels of wind speed requirements, depending on the type of building or “risk category.” For example, a school, hospital or emergency facility would have to meet higher wind speeds than a single-family residence; a retail store would have higher requirements than a farm storage building. The separate maps in the Florida codes establish the standard for the design wind speeds.

The 2010 FBC-R Code and Shingle Selection Process

Three easy steps...

1. Refer to the map in Figure R301.2(4) to determine the design wind speed for the specific project.
2. Review the values for Maximum Basic Wind Speed in Table R905.2.6.1 to determine the lowest value that equals or exceeds the design wind speed in step 1 above.
3. Contact your manufacturer or check packaging or literature for confirmation of classification from either ASTM D 7158 or D 3161 that corresponds to the Maximum Basic Wind Speed determined in step 2 above.

DID YOU KNOW?

Residential Criteria

EXAMPLE:

Citrus County, FL ranch style home...

140 Ultimate Wind Zone

Requires a shingle that meets

ASTMD 7158 Type G or H

OR

ASTM D 3161 Type F

TABLE R905.2.6.1

WIND RESISTANCE OF ASPHALT SHINGLES

Classification of Asphalt Shingles			
MAXIMUM BASIC WIND SPEED, V_{ult} FROM FIGURE R301.2(4)	V_{asd} as determined in accordance with Section R301.2.1.3	ASTM D 7158	ASTM D 3161
110	85	D, G or H	A, D or F
116	90	D, G or H	A, D or F
129	100	G or H	A, D or F
142	110	G or H	F
155	120	G or H	F
168	130	H	F
181	140	H	F
194	150	H	F

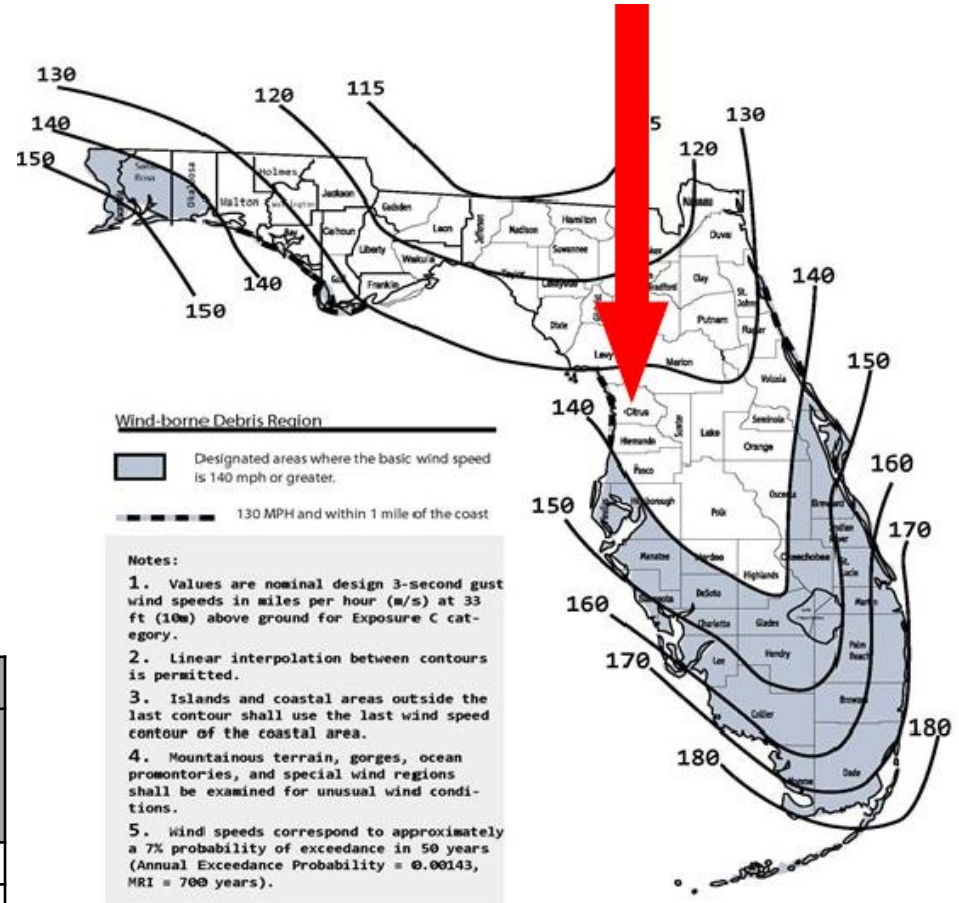


Figure R301.2(4) Ultimate Design Wind Speeds, V_{ult}

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DID YOU KNOW?

Commercial Building Example

The same process applies for commercial project selection, but the charts and maps used are different.

**TABLE 1507.2.7.1
CLASSIFICATION OF ASPHALT SHINGLES**

Classification of Asphalt Shingles			
MAXIMUM BASIC WIND SPEED FROM FIGURE 1609A, B, C or ASCE-7	V_{asd}	ASTM D 7158	ASTM D 7158
110	85	D, G or H	A, D or F
116	90	D, G or H	A, D or F
129	100	G or H	A, D or F
142	110	G or H	F
155	120	G or H	F
168	130	H	F
181	140	H	F
194	150	H	F

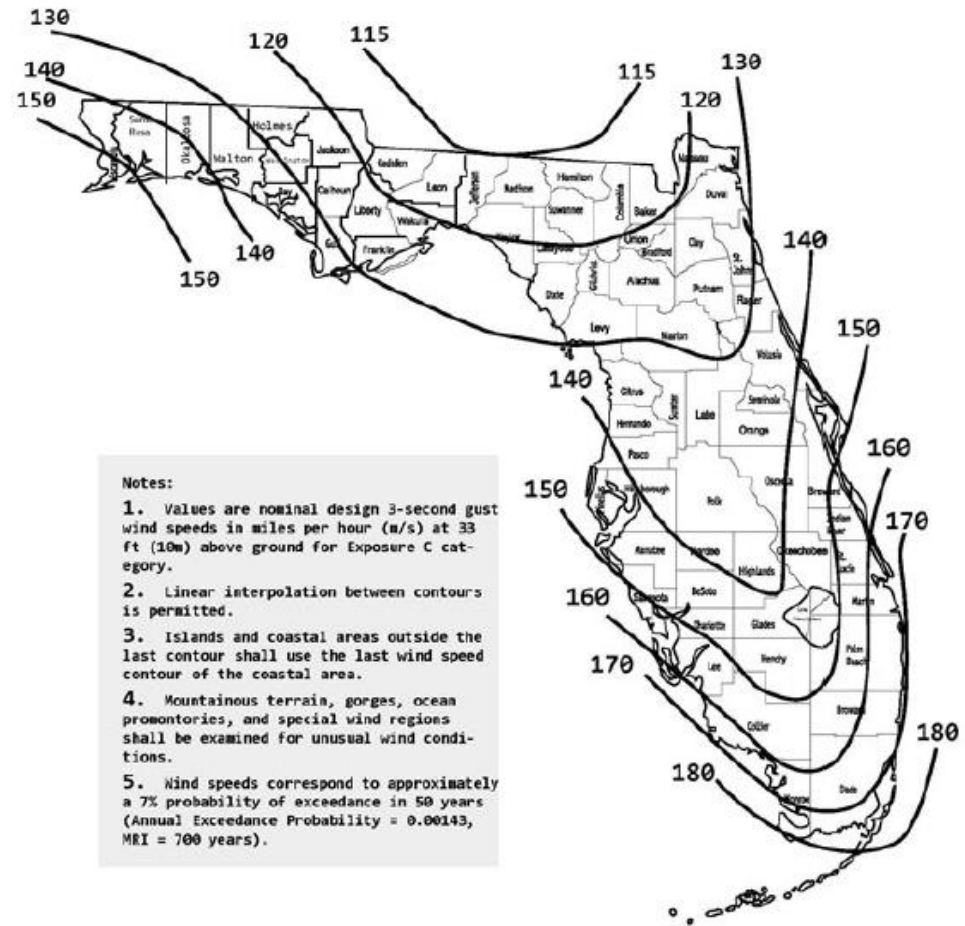


Figure 1609A Ultimate Design Wind Speeds, V_{ult} , for Risk Category II Buildings and Other Structures

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Commercial Building Example

The same process applies for commercial project selection, but the charts and maps used are different.

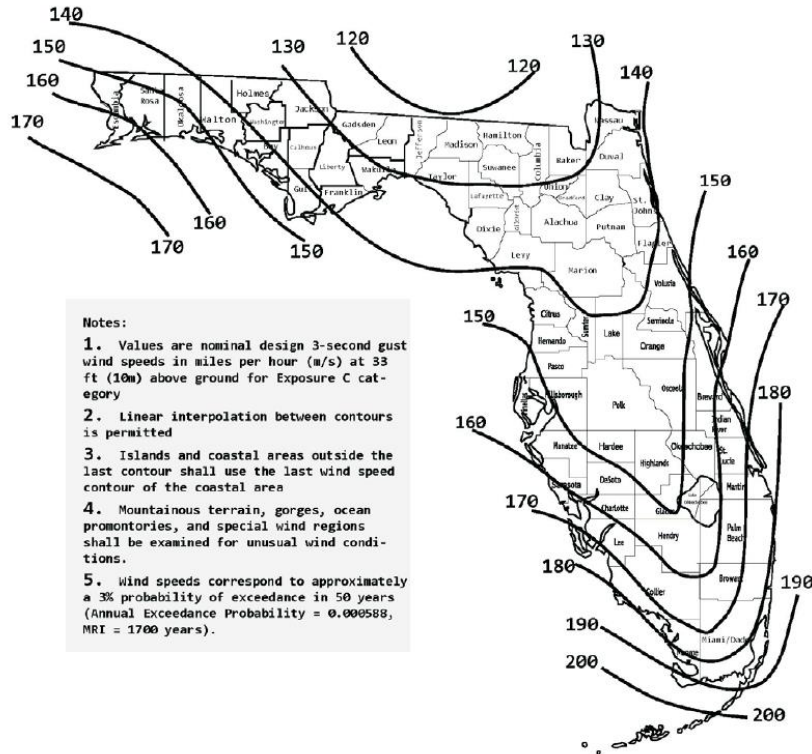


FIGURE 1609B
ULTIMATE DESIGN WIND SPEEDS, V_{ult} FOR RISK CATEGORY III AND IV BUILDINGS AND OTHER STRUCTURES

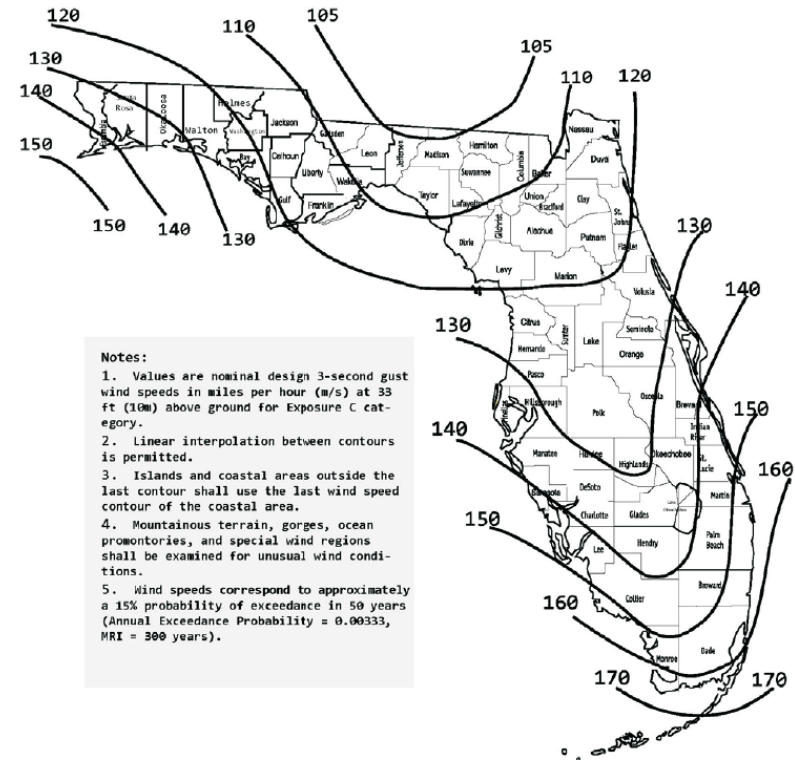


FIGURE 1609C
ULTIMATE DESIGN WIND SPEEDS, V_{ult} FOR RISK CATEGORY I BUILDINGS AND OTHER STRUCTURES

DID YOU KNOW?

Asphalt Shingles Are Code Compliant

- What Does it Mean to Contractors, Property Owners and Specifiers?
- To Contractors...
 - FL contractors are familiar with the impact of code criteria on system choice
 - Check wind speed map, make sure you offer compliant product
- Property Owners & Specifiers...
 - Asphalt shingles **are available in all zones**
 - Be sure to check with the manufacturer of the selected product to verify if it is appropriate in your area

Need More Information?

ARMA Technical Bulletins

[Residential Bulletin](#)

[Non-Residential Buildings Bulletin](#)

Building Code Documents

[Purchase ASCE 7-10 \(Minimum Design Loads for Buildings and Other Structures\) here.](#)

Check with your participating ARMA manufacturer to verify current code compliance

[ARMA Member Companies](#)

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