



ERRATA
to the 2015 Edition of
Commentary for the Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings
(printed version dated 10-15)

Page Revision

3 Revise text on page 3 as follows:

Design wind pressures in *ASCE 7-10* are based on an ultimate 700-year return period. Since the *WFCM* uses allowable stress design, forces calculated from design wind pressures are multiplied by 0.60 in accordance with load combination factors per *ASCE 7-10*.

For example, the ASD velocity pressure, *q*, at 150 mph for Exposure B is calculated as follows:

$$q = 0.6(0.00256)(0.72)(1.0)(0.85)(150)^2 \text{ (lbs/ft}^2\text{)}$$
$$= 21.15 \text{ (lbs/ft}^2\text{)}$$

~~In order to use the 2015 WFCM with basic wind speeds from the 2015 International Residential Code (IRC), see the wind speed conversion Table C1.2 based on the following calculations:~~

~~Equating wind pressures calculated using ASCE 7-10 wind speeds with those from the 2015 IRC:~~

~~Velocity pressure for the ASCE 7-05 basic wind speed of 90 mph (Exposure B) is calculated as follows:~~

$$q = 0.00256(0.72)(0.85)90^2 = 12.7 \text{ psf}$$

~~ASD velocity pressure using the ASCE 7-10 wind speed of 116 mph (Exposure B) is calculated as follows:~~

$$q = (0.60)[0.00256(0.72)(0.85)116^2] = 12.7 \text{ psf}$$

~~On the basis of equating wind pressures, the 90 mph ASCE 7-05 basic wind speed is "equivalent" to the 116 mph ASCE 7-10 basic wind speed.~~

Table C1.2 Wind Speed Conversion Table

ASCE 7-05 Basic Wind Speeds (mph)							
85	90	100	110	120	130	140	150
Equivalent ASCE 7-10 Basic Wind Speeds (mph)							
110	116	129	142	155	168	181	194

~~Wind speed contour maps in the 2015 IRC show the 90 mph contour as covering approximately the same geographical area as that for the 115 mph wind speed contour in ASCE 7-10. The velocity pressure for the 115 mph (Exposure B) ASCE 7-10 wind speed (12.4 psf) however, is slightly less than the velocity pressure corresponding to the 90 mph 2015 IRC (Exposure B) wind speed (12.7 psf).~~

Note that the worst case of internal pressurization is used in design. Internal pressure and internal suction for MWFRS are outlined in *WFCM* Tables C1.3A and C1.3B, respectively. Pressure coefficients and loads for wind parallel and perpendicular to ridge are tabulated. Parallel to ridge coefficients are used to calculate wind loads acting perpendicular to end walls. Perpendicular-to-ridge coefficients are used to calculate wind loads acting perpendicular to side walls.

Pressures resulting in shear, uplift, and overturning forces are applied to the building as follows:

REASON: Since the 2015 IRC has incorporated ultimate wind speed maps, the wind speed conversion table as shown in Table C1.2 is no longer necessary.