adjusted by the ratio of the frame load at critical wind directions as determined from wind tunnel testing without specific adjacent buildings, but including appropriate upwind roughness, to that determined in Section 6.5 of ASCE 7.

1609.1.1.2.2 Lower limits on components and cladding. The design pressures for components and cladding on walls or roofs shall be selected as the greater of the wind tunnel test results or 80 percent of the pressure obtained for Zone 4 for walls and Zone 1 for roofs as determined in Section 6.5 of ASCE 7, unless specific testing is performed that demonstrates it is the aerodynamic coefficient of the building, rather than shielding from nearby structures, that is responsible for the lower values. Alternatively, limited tests at a few wind directions without specific adjacent buildings, but in the presence of an appropriate upwind roughness, shall be permitted to be used to demonstrate that the lower pressures are due to the shape of the building and not to shielding.

1609.3 Basic wind speed.. Basic wind speed shall be in accordance with local jurisdiction requirements. Basic wind speeds determined by the local jurisdiction shall be in accordance with Section 6.5.4 of ASCE 7.

When the basic wind speed is estimated from regional climatic data, the basic wind speed shall be not less than the wind speed associated with an annual probability of 0.02 (50-year mean recurrence interval), and the estimate shall be adjusted for equivalence to a 3-second gust wind speed at 33 feet (10 m) above ground in Exposure Category C. The data analysis shall be performed in accordance with Section 6.5.4.2 of ASCE 7.

1609.3.1 Wind speed conversion. When required, the 3-second gust basic wind speeds shall be converted to fastest-mile wind speeds, V_{fm}, using Table 1609.3.1 or Equation 16-32.

$$V_{fm} = \frac{(V_{3S} - 10.5)}{1.05}$$ **(Equation 16-32)**

where:

V_{3S} = 3-second gust basic wind speed

TABLE 1609.3.1 EQUIVALENT BASIC WIND SPEEDS[a, b, c]

V_{3S} (m/s)	38	40	43	46	49	52	55	58	61	64	67	70	76
V_{3S} (mph)	85	89	96	103	110	116	123	130	136	143	150	157	170
V_{fm} (mph)	71	75	82	88	94	101	107	114	120	126	133	139	152

For SI: 1 mile per hour (mph) = 0.447 m/s within the same measuring system.