

Note: For ASCE 7-10 the wind forces have been multiplied by 0.6

LOADING COMBINATION #7: ZONE 1	(0.6)(DL _{Rf} + DL _{SOLAR}) + WIND UP	(C _D =1.6)
$P_7 := TA \times (P_{up} - 0.6 \times DL_{Solar} \times \cos(\theta))$		150.16
$M_7 := \left(P_7 \times \frac{L}{a} \right) - wDL_{tc} \times \frac{L^2}{8} \times \cos(\theta)$		201.57
$S_r := M_7 \times \frac{12}{F_b \times C_{dWind} \times C_{f_x} \times C_r \times C_{LS}}$		1.10
$\% := \frac{S_x \times 100}{S_r} \ll \text{IF EQUAL TO OR MORE THAN 100\% CODE COMPLIANT, OK}$		199.44

LIMITS OF SCOPE OF WORK AND LIABILITY

Existing deficiencies which may be readily observable, and conditions which may not be code compliant, or may be in need of repair, or are concealed in any way that is not observable at the time of any inspections, are not included in this scope of work. There is no implication that any visual inspections by the Solar Company or the Engineer of Record, are intended to be technically exhaustive, or that such inspections indicate that every aspect of every component was analyzed, or that every conceivable deficiency was reported. The calculations do not include an analysis of the overall structural stability, and code compliance of an existing building, nor prediction of satisfactory performance or life expectancy of any existing building.