



Structural Design Required Minimum Load Assumptions and Data

Structural Design Load Minimum Requirements IBC 2018

- a- Floor live loads. (Section 1603.1.1)
- b- Any special additional superimposed dead load if applicable.
- c- Roof live loads. (Section 1603.1.2). Minimum roof live load is **30psf. (County amendment)**
- d- Snow Loads: (Section 1603.1.3)
 - Ground snow load (P_g) Minimum ground snow load shall be **30 psf (County amendment)**
 - Minimum flat roof snow load (P_f), if applicable. If none specified, P_f will be calculated per ASCE 7/IBC. Calculated as per ASCE 7-16- based on the risk category.
 - Minimum sloped roof snow load (P_s), if applicable. If none specified, P_s will be calculated per ASCE 7/IBC. Calculated as per ASCE 7-16.
 - List all assumed coefficients utilized for the calculation of the flat /slope roof snow load
Snow exposure factor, C_e ; Snow importance factor, I_s ; Thermal factor, C_t ; Drift surcharge loads(s), P_d , where the sum of P_d and P_f exceeds 20psf.; Width of snow drift(s), w .
- e- Wind Loads: (Section 1603.1.4)

Based on the risk category verification by SER V and V_{asd} values required by County are as follows;

Risk Category I: $V=105$ mph; $V_{asd}=82$ mph

Risk Category II: $V=115$ mph; $V_{asd}=89$ mph

Risk Category III : $V=120$ mph; $V_{asd}=93$ mph

Risk Category IV: $V=125$ mph; $V_{asd}=97$ mph

Additional to the assumed wind speed following information shall be shown on structural notes;

- Internal pressure coefficient
 - Exposure category
 - Minimum and maximum design wind pressure for component and cladding.
 - Importance factor based on the selected risk category as per **ASCE 7-16, table 1.5-2**.
 - For roof types (Monoslope, pitched or troughed) verified information on the notes and provide required wind load reference table for the manufacturer.
- f- Earthquake Design Data: (Section 1603.1.5)
- Parameters and coefficients required to be shown on drawings:
- Risk category
 - Seismic importance factor (I_e).

- Mapped spectral response accelerations S_s and S_1 . Spectral response accelerations for short period and one second shall be **$S_s=13.5\%$ and $S_1=4.3\%$** . (County amendment)
- Site class.
- Design spectral response acceleration parameters, S_{ds} and S_{d1} .
- Seismic design category.
- Basic seismic force-resisting system(s).
- Design base shear(s).
- Seismic response coefficient(s), C_s .
- Response modification factor(s), R .
- Analysis procedure used.