Town of Paradise
Community Development Department
Building Resiliency Center
6295 Skyway
Paradise, CA 95969
(530) 872-6291 x411

Building and Structural Design Criteria

The purpose of this guideline is to provide a summary of the code adoption and design criteria applicable to the Town of Paradise. The design criteria shall be used as the basis for building and structural design of structures proposed in this jurisdiction.

Building Design Criteria

- 2025 California Building Code (CBC)
- 2025 California Residential Code (CRC) (For detached one and two-family dwelling, townhouse not more than three stories above grade in height)
- 2025 California Mechanical Code (CMC)
- 2025 California Electrical Code (CEC)
- 2025 California Plumbing Code (CPC)
- 2025 California Energy Code (CEnC)
- 2025 California Fire Code (CFC)
- 2025 California Wildland-Urban Interface Code (Paradise is in a Very High Hazard Severity Zone)
- Town of Paradise Municipal Code (PMC)

Structural Design Criteria:

- Wind Speed: 95 mph (3 second gust)
- Wind Exposure Category: C (R301.2.1.4)
- Seismic Design Category: D for 2025 CBC, D^0 for 2025 CRC
- Roof Snow loads: The minimum design snow load and roof live load for all structures within the Town of Paradise shall be thirty (30) pounds per square foot (psf).
  ****Roof design snow load may not be less than 30psf on the roof after ASCE 7-22 load combinations are applied, with no reductions permitted, see reverse side for design software guidelines****

Foundation Design Parameters:

- ***The following foundation design parameters shall be used unless higher values are justified by a soils report:***

Footing

- Allowable Soil Bearing Pressure = 1500 psf
- Allowable Lateral Bearing Pressure = 100 psf/ft below natural grade
- Allowable Sliding Resistance = (130 psf x D x A), not to exceed (0.5 x DL)
- D = footing depth below natural grade
- A = footing/soil contact area
- DL = dead load on footing

Pier/Poles

- Allowable Frictional Resistance for Piers = 250 psf
- Allowable Lateral Bearing Pressure for Isolated Poles (for uses such as flagpoles, signs and fences that are not adversely affected by a 0.5" motion at the ground surface due to short-term lateral load) = 266 psf/ft

Energy Design Criteria:

- Climate Zone: 11

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****Snow Loading Requirements****

The minimum design snow load shall be 30 psf ASD, with no reductions permitted.

For structural analysis software utilizing ASD load combinations from ASCE 7-22 Chapter 2 (e.g., EnerCalc, WoodWorks, RISA, etc.), the input strength-level roof snow load shall be 43 psf.

For truss design, where the software requires a strength-level ground snow load (Pg) as the input parameter, use:

Ground Snow Load (Pg) = 52 psf

Apply the following ASCE 7-22 modifiers:

Surface Roughness Category: C
Roof Exposure Factor (Ce): 1.0 (Partially Exposed)
Thermal Factor (Ct): 1.2
Slope Factor (Cs): 1.0 (No slope reduction permitted)

Using these values:

Flat Roof Snow Load (Pf) ≈ 43.7 psf

Per ASCE 7-22 §2.4.1:

ASD Design Snow Load = 0.7 × 43.7 psf = 30.6 psf

Therefore, the resulting design snow load satisfies the Town's minimum requirement of 30 psf ASD.

Note: Roof slope reductions shall not be applied. Structural calculations and truss designs shall be based on a minimum roof snow load of 30 psf ASD regardless of roof pitch.