



Butte County Department of Development Services

PERMIT CENTER

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FORM NO

DPC-5

BUILDING DESIGN CRITERIA

CURRENT CODES:

2013 California Building Code (CBC)
2013 California Residential Code (CRC)
2013 California Electrical Code (CEC)
2013 California Mechanical Code (CMC)
2013 California Plumbing Code (CPC)
2013 California Energy Standards
2013 California Fire Code
2013 California Green Building Standards Code
ASCE/SEI 7-10 Minimum Design Loads for Buildings and Other Structures
ACI 318-11 Building Code Requirements for Structural Concrete
TMS 402-11/ACI 530-11/ASCE 5-11 Building Code Requirements for Masonry Structures

The 2013 California Codes are available for purchase from the International Code Council at www.iccsafe.org and may be downloaded free at <https://law.resource.org/pub/us/code/bsc.ca.gov/>

LIVE LOADS: (per 2013 CBC Table 1607.1)

WIND DESIGN:

Per Chapters 26 - 31 of ASCE/SEI 7-10

Wind Speed: 100 mph, 110 mph, or 115 mph (based on 3-second gust) depending on risk category

Risk Category:

- I Miscellaneous Occupancy
- II Standard Occupancy (not I, III, or IV)
- III High Occupancy
- IV Essential Facility, Hazardous Facility

Wind Exposure Category: B or C depending on building height, terrain, and surface roughness:

Exposure B = Terrain with buildings, forest, etc. 20' or more in height covering at least 20% within 1 mile of the site.

Exposure C = Flat and generally open terrain within ½ mile or more from the site.

SEISMIC DESIGN:

Per Chapters 11 - 23 of ASCE/SEI 7-10

Permissible structural systems, limitations on height and irregularity, permitted lateral force procedure, and required level of strength and seismic detailing are based on Seismic Design Category (SDC). SDC must be determined in accordance with Chapter 16 of the 2013 California Building Code and ASCE/SEI 7-10. SDC is dependent on earthquake ground motion, soil characteristics, and risk category. See ASCE/SEI 7-10 Sec 11.6.

FOUNDATION DESIGN VALUES - WITHOUT A GEOTECHNICAL REPORT:

Design values for Class 5 materials per 2013 CBC Table 1806.2 are required unless a geotechnical report is provided to substantiate higher design values.

Class 5 Material (2013 CBC Table 1806.23):

Allowable Bearing Pressure = 1500 psf.

Allowable Lateral Bearing (Passive) = 100 psf/ft.

Allowable Cohesion = 130 psf times the contact area
(lateral sliding resistance may not exceed ½ the dead load)

Geotechnical reports are required for structures proposed in areas known to contain highly expansive soils.

Manufactured homes and commercial modular buildings shall be designed for a maximum 1000 psf soil bearing capacity unless a geotechnical report is provided to substantiate higher design values. (California Code of Regulations Title 25, Division I, Chapter 2, Section 1334(d))

FLOOD ZONE:

Flood zone and other information can be found by entering the assessor's parcel number or address at the Butte County Data Search website:

<http://gismaps.buttecounty.net/flexviewer/bcdatasearch/index.html>

See Butte County Code Chapter 26 for construction requirements in FEMA designated flood zones.

SNOW LOADS:

<u>Elevation (Feet)</u>	<u>Ground Snow</u>
0 - 1499	No Requirements
1500 - 1999	20 psf
2000 - 2499	37 psf
2500 - 2999	55 psf
3000 - 3499	75 psf
3500 - 3999	97 psf
4000 - 4499	122 psf
4500 - 4999	149 psf
5000 - 5499	180 psf
5500 - 6000	215 psf

Snow load values on this chart may be interpolated. Elevations may be determined from Google Earth, USGS topo maps, or other sources.

Structures proposed in areas where snow loads exceed 50 psf require design by a Registered Design Professional (California Licensed Engineer or Architect).

Approximate elevations for some Butte County locations:

Berry Creek	2200	Feather Falls	3000
Butte Meadows	4500	Forbestown	2800
Clipper Mills	3600	Forest Ranch	2400
Cohasset	3200	Magalia	2400
Concow	2200	Stirling City	3600
De Sabla	2720	Yankee Hill	2200