



Building and Safety Division • Public Information

County of Ventura • Resource Management Agency • http://www.ventura.org/rma/build_safe
Main Office • 800 S. Victoria Ave, Ventura, CA. 93009 • 805 654-2771
East County Office • 3855-F Alamo St., 2nd Fl. #2091A, Simi Valley, CA. 93065 • 805 582-8064

OVERVIEW OF STRUCTURAL REQUIREMENTS OF THE 2007 VENTURA COUNTY BUILDING CODE (VCBC)

GRAVITY LOADS

- Dead load and live loads for roof and floor design: CBC Table 1607.1
- Snow Loads: Refer to CBC Section 1608. To calculate design snow load for flat and sloped roof per chapter 7 of ASCE 7-05, use snow load value of "P_f" or "P_s" according to the Snow Load Table below.

SNOW LOADS – PSF

ROOF PITCH	4,000 TO 6,000 FOOT ELEVATION	GREATER THAN 6,000 FOOT ELEVATION
4½:12 or less	40	50
5:12	39	48
6:12	37	45
9:12	32	37
12:12	28	31

RAIN LOADS: CBC 1611

WIND LOADING: CBC 1609

- Basic Wind Speed = 85 miles per hour is the 3-second gust wind speed.
- Exposure = C
- Wind Pressure = CBC Section 1620

EARTHQUAKE LOADING: CBC 1613

- Seismic Design Categories, D, E, F
- Seismic Forces: CBC 1613 and ASCE 7-05

SPECIAL REQUIREMENT FOR WOOD CONSTRUCTION

1. Stucco and Drywall:
 - a. Section 2306.4.5 does not permit "stucco" or "drywall" for resisting lateral loads.
2. Plywood:
 - a. Special inspection of shear walls, panels and diaphragms is required when:
 - i. Edge and end nailing is required to be spaced at 4" or less on center.
 - ii. The values reflected in VCBC. Tables 2306.3.1 and 2306.4.1 are not reduced to 75%.
 - b. Nominal 3" thick boundary and panel edge members are required for all plywood shear walls with shear values exceeding 350 #/foot.
 - c. The maximum allowable shear for 3-ply plywood, shall not exceed 200 #/ft. when used as shear over framing of Douglas Fir-Larch or Southern Pine.
3. Hold-down Connectors and Washers:
 - a. All bolt-holes shall be drilled 1/16" (max.) over-sized at the connection of hold-downs to posts (Note on plans "Inspectors to Verify").
 - b. Specify that hold-down connection bolts/nuts shall be tightened ½ turn beyond finger tight or as required by the manufacturer. Inspectors shall verify by random inspection prior to covering walls.
 - c. Approved plate washers, in-lieu of cut washers, shall be provided for all plywood shearwall sill plate anchor bolts and hold-down anchor bolts. Use VCBC Table 2305.3.11 below for compliance.

TABLE 2305.3.11
MINIMUM SIZE FOR SQUARE PLATE WASHERS

BOLT SIZE	PLATE SIZE
½"	3/16" x 2" x 2"
5/8"	¼" x 2½" x 2½"
¾"	5/16" x 2¾" x 2¾"
7/8"	5/16" x 3" x 3"
1"	3/8" x 3½" x 3½"

4. Plan Requirements:

- a. The lateral-force resisting system of the structure shall be clearly shown on the plans and accounted for in the calculations.
- b. Sufficient details and detail references for all shear-walls, frames, etc., shall be provided on the plans to clearly show horizontal and vertical load paths.