

Washoe County
Risk Category of Buildings & Structures

I Codes 2012 — September 1, 2013

Risk Category	Use or Occupancy of Buildings & Structures Risk Category ¹	Examples of Use or Occupancy ^{2,3}	Ultimate Wind Speed (V _{ult}) ⁴
I	<ul style="list-style-type: none"> Buildings & structures that represent a low risk to human life in the event of failure. 	Agriculture facilities; Certain temporary facilities; Minor storage facilities.	120 MPH
II	<ul style="list-style-type: none"> Buildings & structures which the failure of could pose a substantial risk to human life. 	Single Family Dwellings; Duplexes; Townhomes; Other buildings not listed in I, III, or IV.	130 MPH
III	<ul style="list-style-type: none"> Buildings & structures, not included in Risk Category IV, with potential to cause a substantial economic impact or mass disruption of day-to-day civilian life in the event of failure. Buildings & structures not included in Risk Category IV 	Any occupant load >5000; Public assemblies >300; Certain I-2 >50; I-3; Day care & schools >250; Adult education facilities >500; Water treatment facilities; Power generating stations.	140 MPH
IV	<ul style="list-style-type: none"> Buildings & structures designated as essential facilities. Buildings & structures, which the failure of could pose a substantial hazard to the community. Buildings and other structures required to maintain the functionality of other Risk Category IV structures. 	Emergency operation centers & shelters; Fire, rescue, ambulance & police facilities & garages; Hospitals; I-2 with surgery or emergency treatment facilities; Manufacturer or storage of hazards materials; Aviation control towers and centers; Water storage facilities & pump stations.	140 MPH

1. Summary of ASCE 7-10, Table 1.5-1.
2. Summary of 2012 IBC, Table 1604.5.
3. Where approved by the building official.
4. No reduction for density of wind.



Snow Load Requirements

Table 1608.2.1 - GROUND SNOW LOADS

Elevation	WEST of U.S. Hwy 395 Sierra slope Pg (Pounds Per Square Foot)	EAST of U.S. Hwy 395 Pg (Pounds Per Square foot)	Lake Tahoe Basin Pg (Pounds Per Square foot)
4500	30	30	
5000	30	30	
5100	41	31	
5200	52	33	
5300	64	34	
5354	70	34	
5400	75	35	
5500	86	37	
6000	142	43	220
6500	171	43	235
7000	200	57	250
7500	215	57	265
7724	221	70	271
8000	229	86	280
8500	243	86	295
9000	271	114	330
9500	300	142	390
10000	357	142	420

1. Drift load design in the 30-psf zones may utilize ASCE 7 -10 table C7-1 ground snow values.
2. The final roof design loads shall not be less than 20 psf after all reductions are factored.
3. Intermediate values may be interpolated by proportion.
4. IBC conventional light frame construction is limited to 50 Pg. (IBC 2308.2)
5. IRC prescriptive design is limited to 70 Pg. (IRC R301.2.3)
6. Ice barrier is required above 5300' or where there has been a history of ice forming along the eaves. (IRC R905.2.7.1, IBC 1507.2.8.2)

IRC Prescriptive Design

1. IRC prescriptive design is limited to 70 Pg. (IRC R301.2.3)
2. Provide braced wall analysis per IRC R602.10.1.
3. Provide foundation details per IRC R403.
4. Max Stud height is 10'-0". (IRC R602.3(5))
5. Footing
 - A. Footing width for one story is 12" min.
 - B. Footing width for two story is 15" min.
 - C. Min,. Footing depth is 24"
5. Provide Electrical and Mechanical Details.
6. Provide Energy Compliance (Prescriptive or ResCheck)

IRC Prescriptive Insulation Requirements¹ Climate Zone 5B (Dry)

Ceiling R-Value ²	Wood Frame Wall R-Value ³	Mass Wall R-Value ⁴	Floor R-Value	Basement or Crawl Space Wall R-Value ⁵	Slab R-value & Depth ⁶
38	20 or 13+5	13/17	30	10 or 13	10, 2 ft.

1. Summary of 2009 IECC Table R402.1.1.
2. See IECC R402.2 for exceptions or reductions. R-30 may be allowed wherever the full uncompressed height of R-30 insulation extends over the wall top plat at eaves.
3. 13+5; R-13 cavity insulation and R-5 continuous insulation or insulated siding.
4. R-17 shall apply when more than half of the insulation is on the interior of the mass wall.
5. R-10 continuous insulation on interior or exterior; or R-13 cavity insulation at the interior.
6. R-15 required for heated slabs.