

**BOARD OF SUPERVISORS  
COUNTY OF SIERRA, STATE OF CALIFORNIA**

**ORDINANCE NO. 1037**

**IN THE MATTER OF AMENDING CHAPTER 12 OF THE SIERRA COUNTY CODE  
PERTAINING TO BUILDINGS AND CONSTRUCTION INCLUDING THE ADOPTION  
OF THE 2010 CALIFORNIA BUILDING CODES IDENTIFIED AS THE CALIFORNIA  
CODE OF REGULATIONS, TITLE 24,  
PARTS 2, 2.5, 3, 4, 5, 6, 9, 11**

**THE BOARD OF SUPERVISORS OF THE COUNTY OF SIERRA, STATE OF CALIFORNIA, DOES ORDAIN AS FOLLOWS:**

**Ordinance Section One**

Section 12.04.030 of the Sierra County Code is amended to read as follows:

**Section 12.04.030 Exemptions from Building Permits**

The following work, in addition to those categories as outlined in the 2010 California Residential Code, Section R105.2 and California Building Code, Section 105.2, shall be exempt from a building permit provided that any exempt structure is required to be in compliance with County zoning standards, the County Floodplain Management Ordinance; and in compliance with any materials or construction methods for exterior wildfire exposure as required pursuant to CBC Chapter 7A and CRC Section R327:

- 1) Cases, counters, partitions not exceeding five (5) feet in height.
- 2) Roof replacement that involves no structural modifications or repairs to the roof understructure or roof sheathing and which only involves replacement of the roof surfacing for which the new roofing surface is not cumulatively in excess of two (2) layers of roofing. Ice dams and flashing shall still be required by the Building Official.
- 3) Portable storage containers with no electrical, plumbing, or permanent foundation.
- 4) One story detached accessory structures used as tool and storage sheds, wood sheds, playhouses, garden sheds, and similar uses provided the floor area does not exceed 120 square feet and there is no electrical or plumbing service to the structure
- 5) Construction, alteration, moving, demolition, or repair of any building for which the use is conducted exclusively for agricultural purposes and which is limited to the storage of agricultural products or agricultural animals; farm implements, accessories, and materials required for agricultural purposes; and for which there is no human habitation, commercial sales, retail sales, or employees operating within the structure; the use of the structure does not include packaging, processing, or treating of agricultural products; and, there is no access to or use by the public. This exemption shall only apply to land designated as Agricultural or General Forest zoning district and located outside of those mapped community areas identified within the Sierra County General Plan as "community core" or "community influence". This exemption does not apply to electrical service but applies to solar panels not attached to the barn and/or containing a stand alone, low voltage distribution center on the agricultural structure. Agricultural

structures shall not be used for storage of non-agricultural vehicles, boats, travel trailers, or household items and in no case shall a septic system be connected to any agricultural structure deemed exempt from a building permit.

**Ordinance Section Two**

Section 12.04.080 of the Sierra County Code is amended to read as follows:

**Section 12.04.080 Uniform Building Codes Adopted**

The following codes, standards, and regulations are adopted as if set forth herein:

- 1) The International Building Code, 2009 edition, as published by the International Code Council (ICC), as adopted and amended by the California Building Standards Commission (CBSC), California Building Standards Code, Title 24, Part 2 Volumes 1 and 2, of the California Code of Regulations (California Building Code, 2011 edition).
- 2) The International Residential Code, 2009 edition, as published by the International Code Council, as adopted and amended by the California Building Standards Commission, California Building Standards Code, Title 24, Part 2.5, of the California code of Regulations (California Residential Code, 2010 edition).
- 3) The National Electric Code, 2008 edition, as published by the National Fire Protection Association, as adopted and amended by the California Building Standards Commission, California Building Standards Code, Title 14, part 3, of the California Code of Regulations (California Electric Code, 2010 edition).
- 4) The Uniform Mechanical Code, 2009 edition, as published by the International Association of Plumbing and Mechanical Officials, as adopted and amended by the California Building Standards Commission, California Building Standards Code, Title 24, Part 4 of the California Code of Regulations (California Mechanical Code, 2010 edition).
- 5) The Uniform Plumbing Code, 2009 edition, as published by the International Association of Plumbing and Mechanical Officials, as adopted and amended by the California Building Standards Commission, California Building Standards Code, Title 24, Part 5, of the California Code of Regulations (California Plumbing Code, 2010 edition).
- 6) California Energy Code, as published by ICC, triennial compilation and publication of the California Building Standards Commission, California Code of Regulations, Title 24, Part 6.
- 7) The International Fire Code, 2009 edition, as published by the National Fire Protection Association, as adopted and amended by the California Building Standards Commission, California Building Standards Code, Title 24, Part 9 of the California Code of Regulations (California Fire Code, 2010 edition).

- 8) California Green Building Standards, as published by ICC, triennial compilation and publication of the California Building Standards Commission, California Code of Regulations, Title 24, Part 11, this part is intended to be known as the CAL Green Code. The adoption of Part 11 identifies the required green building measures necessary to meet the minimum requirements and shall not include voluntary tier measures.
- 9) National Fire Protection Association (NFPA) Standards, 2010 edition-Chapters 13 and 13d (fire sprinklers) and Chapter 58 (Liquefied Petroleum Gas tanks and installation).
- 10) Uniform Code for the Abatement of Dangerous Buildings, 1997 edition published by the International Code Council.
- 11) Uniform Solar Energy Code by International Association of Plumbing and Mechanical Officials (IAPMO), 2009 edition.
- 12) Water Well Standards, California State Department of Water Resources Bulletin 74-90 (supplement to bulletin 74-81) by CDWR.
- 13) Uniform Sign Code, as published by International Code Council, 1997 edition.

### **Ordinance Section Three**

Section 12.04.100 of the Sierra County Code is amended to read as follows:

#### **Section 12.04.100 Snow Load Requirements**

The provisions of CBC Chapter 16 and Section 1608 and CRC Sections R301.2 and R301.2.3 are hereby amended to include the following additional requirements for roof snow load design. The unincorporated area of Sierra County shall be divided into zones, established by climatic and geographic analysis, to determine applicable snow loads for a parcel of property and the zone within which a parcel is located. The location within a zone combined with the elevation of the parcel of property shall be the basis for determining the roof snow load design requirements for any construction project. A cartographic representation of the zones shall be maintained in the office of the County Building Official. The zones hereby established are described as follows:

- (a) Zone I: All of the area encompassed within the following:  
T. 22 N., R. 9 E.; T. 22 N., R. 10 E.; T. 21 N., R. 9 E.;  
T. 21 N., R. 10 E.; T. 20 N., R. 9 E., M.D.M., excepting those portions lying outside Sierra County.
- (b) Zone II: All of the area encompassed within the following:  
T. 22 N., R. 11 E.; T. 21 N., R. 11 E.; T. 21 N., R. 12 E.;  
T. 21 N., R. 13 E.; T. 20 N., R. 8 E.; T. 20 N., R. 10 E.;  
T. 20 N., R. 11 E.; T. 20 N., R. 12 E.; T. 20 N., R. 13 E.;  
T. 19 N., R. 8 E.; T. 19 N., R. 9 E.; T. 19 N., R. 10 E.;  
T. 19 N., R. 11 E.; T. 19 N., R. 12 E.; T. 19 N., R. 13 E.;  
T. 18 N., R. 8 E.; T. 18 N., R. 9 E.; T. 18 N., R. 10 E.;  
T. 18 N., R. 11 E.; T. 18 N., R. 13 E.; M.D.M., excepting those portions lying outside Sierra County.

- (c) Zone III: All of the area encompassed within the following:  
T. 21 N., R. 14 E.; T. 20 N., R. 14 E.; T. 20 N., R. 15 E.;  
T. 19 N., R. 14 E.; T. 18 N., R. 14 E.; M.D.M., excepting those portions lying outside Sierra County.
  
- (d) Zone IV: All of the area encompassed within the following:  
T. 20 N., R. 16 E.; T. 19 N., R. 15 E.; T. 19 N., R. 16 E.;  
T. 18 N., R. 15 E.; T. 18 N., R. 16 E.; M.D.M., excepting those portions lying outside Sierra County, and Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, T. 20 N., R. 17 E., M.D.M.; and Sections 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, T. 19 N., R. 17 E., M.D.M.; and Sections 4, 5, 6, T. 18 N., R. 17 E., M.D.M., excepting those portions lying outside Sierra County.
  
- (e) Zone V: All of the area encompassed within the following:  
T. 21 N., R. 15 E.; T. 21 N., R. 16 E.; T. 21 N., R. 17 E.;  
T. 21 N., R. 18 E.; T. 20 N., R. 18 E.; T. 19 N., R. 18 E.;  
T. 18 N., R. 18 E.; M.D.M., excepting those portions lying outside Sierra County; and Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, and 36, T. 20 N., R. 17 E., M.D.M.; and Sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, and 36, T. 19 N., R. 17 E., M.D.M.; and Sections 1, 2, 3, T. 18 N., R. 17 E., M.D.M., excepting those portions lying outside Sierra County.

Snow roof load design requirements cross referenced by elevation and proximity to the established zones are as follows:

Elevation Range  (Ft. Above Sea Level)	Snow Load Design Requirements (Lbs./Sq. Ft.)				
	Zone I	Zone II	Zone III	Zone IV	Zone V
2000-2500					
2501-3000		50			
3001-3500	180	70			
3501-4000	210	100			
4001-4500	230	120			
4501-5000	260	150	70		
5001-5500	290	180	120		70
5501-6000	310	220	170	100	90
6001-6500	340	260	210	160	110
6501-7000	370	300	260	210	130
7001-7500	390	350	300	260	150
Over 7500	To be determined by Building Official.				

The following design criteria are hereby adopted for roof snow loads within the unincorporated areas of Sierra County:

- 1) The roof snow loads are the snow loads on "flat roofs" (NOT ground snow loads). If desired or required by your engineering software, use ASCE equation 7-1  $P_f = 0.7 C_e C_t I P_g$ , to determine the ground snow load where the  $P_f$  listed above is based on an exposure factor  $C_e = 0.9$ , thermal factor  $C_t = 1.1$ , and importance factor  $I = 1.0$  per ASCE Standard 7-05. The flat roof snow load for each site should have these factors-adjusted as appropriate.
- 2) Snow loads may be reduced for sloped roofs in accordance with ASCE Standard 7-05, Section 7.4 providing a minimum of 8 feet of vertical eave height is provided for each 100 pounds of snow load. This minimum eave height is measured from the eave down to either grade or the first obstruction, such as a deck etc., and must be maintained for a minimum distance of 10 feet out from the eave. In areas with snow loads in excess of 100 lbs which do not have a 16 foot or greater eave height, the allowable slope reduction can be pro-rated (i.e. snow loads greater than 100 lbs eave height of 9 feet; 9/16 of the allowable reduction can be taken).

- 3) Snow reduction for sloped roofs shall not be used for structural members affected by valleys, dormers, slope changes, chimney chases or other areas where the snow may be restricted from sliding.
- 4) No roof material shall be considered "slippery" for the purposes of snow reduction for sloped roofs per ASCE Standard 7-05, Section 7.4.
- 5) Uncovered decks, and all similar structures, may be designed for the flat roof snow load as provided herein. Covered, but not fully enclosed decks and all similar structures shall be designed for floor loads from CBC Table 1607.1 or 50% of the flat roof snow load, whichever is greater.
- 6) The 3 second gust basic wind speed for Sierra County is 85 mph per ASCE Standard 7-05 figure 6.1.
- 7) Roof design snow load may be reduced up to 80% for use in seismic calculations per CBC Section 1605.3.1.
- 8) Allowable soil bearing factor to be used in design without the preparation of a special soils report is 2000psf.
- 9) Frost depth shall be 18" below finished grade and all footings shall extend a minimum of 12" into undisturbed native soil. Exterior finished grade shall provide a minimum footing coverage of 18".
- 10) Conventional light-frame construction is not permitted in Sierra County per CBC Section 2308.2.(3.3).

The provisions of CBC Sections 1507.2.8.2, 1507.5.4, 1507.6.4, 1507.7.4, 1507.8.4, 1507.9.4 and CRC Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1 are hereby amended to require additional design and construction requirements for ice barriers. In areas where there has been a history of ice forming along the eaves causing a backup of water as designated in CRC Table R301.2(1) (or below the 6200 foot elevation level), an ice barrier that consists of at least two layers of underlayment cemented together or a self-adhering polymer modified bitumen sheet shall be used in place of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches inside the interior wall line of the building. For areas above the 6200 feet elevation level, a self adhering polymer modified bitumen sheet shall be used in place of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 72 inches inside the interior wall line of the building.

A cricket or saddle-type diverter shall be installed on the ridge side of any chimney, flue or vent that is adjacent to, or penetrates the roof. Crickets or saddle coverings shall be a minimum 24 gauge sheet metal or the same material as the roof covering. Plumbing vents through the barge rafter shall be approved by the building official prior to installation, provided adequate clearances are maintained from windows, vents, combustion air and exhaust vents.

**Ordinance Section Four**

Section 12.04.090 of the Sierra County Code is amended to read as follows:

**Section 12.04.090 Additional Requirements**

The following requirements shall be established in addition to the uniform codes adopted herein.

(a) Plumbing and heating vents shall terminate near the highest point of the roof as practical where the snow load is determined by the County Building Official to be in excess of sixty (60) pounds per square foot.

(b) All newly added wood-burning chimneys shall have installed and approved type spark arresters.

(c) Reports concerning the construction of water wells, including well logs, shall be filed with the County Building Official.

(d) All commercial structures designated in the codes adopted by this part as A, B1, E, H, and I occupancies shall be wired in rigid or thin wall conduit or in raceways approved by the County Building Official.

(e) Aluminum or copper clad aluminum wiring shall be installed in structures containing less than size #6 American Wire Gauge (AWG).

f) Class "A" Fire Rating is required for all new roofs and for any roof covering applied in the alteration, repair or replacement of the roof.

g) The 2010 California Plumbing Code, Section 604.1.2 is clarified as follows:

The installation and use of cross-linked polyethylene (PEX) piping is considered by Sierra County as an alternate material and method and pursuant to CPC 1.8.7.2, shall be subject to approval by the Building Official on a case by case basis. The applicant or their contractor shall complete the PEX certification form.

**Ordinance Section Five**

Section 12.04.050 is amended to read as follows:

**Section 12.04.050 Permit Required**

A permit, issued by the County Building Official, shall be required for the construction, erection, enlarging, alteration, repair, demolition, conversion, moving, improvement, and use of any building or structure. Building or structure includes, but is not limited to, any structure having a roof supported by columns and/or by walls and intended for the shelter, housing, and/or enclosure of any person, animal, chattel, or mechanical equipment or that which is built or

constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner, including but not limited to garages, carports, bridges, installation of road culvert, playhouses, kennels, tool sheds, garden houses, storage buildings, decks, fences in excess of six (6) feet in height, retaining walls, signs, septic tanks, water wells, and water tanks.

A separate permit shall be required for each house or building except that a private garage on the same lot with a residence may be included in the initial permit for the residence.

### **Ordinance Section Six**

Section 12.04.051 is added as follows:

#### **Section 12.04.051 Time Limitation for Permit Application**

CBC Section 105.3.2 and CRC Section R105.3.2 is clarified to provide that an application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated. In order to renew action on an application after expiration, the applicant shall resubmit plans and payment of a new plan review fee, if resubmitted plans need further or initial plan review separate from the original submittal.

### **Ordinance Section Seven**

Section 12.05.052 is added as follows:

#### **Section 12.05.052 Permit Expiration**

CBC Section 105.5 and CRC Section R105.5 is clarified to provide that every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing one or more extensions of time, for periods of not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated. The extension shall not be valid until fees prescribed have been paid in accordance with the percentage of level of completion which is based on the building permit fee. Every permit issued by the building official under the provisions of the California Building Code shall expire and become invalid three years from the date of issuance. The building official is authorized to grant, in writing one or more extensions of time, for periods not more than 180 days each. The maximum validity of a permit shall not exceed four years. An extension shall not be valid until fees prescribed have been paid in accordance with the percentage of level of completion which is based on the building permit fee. Before any work can be recommenced on an expired permit, a new permit shall be obtained. On permits expired for one year or more, the Codes in effect at the time a new permit is issued shall be the Codes which apply to that permit through the point of completion or expiration.

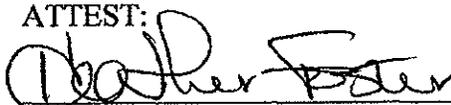
This ordinance shall take effect thirty (30) days after its passage. Before the expiration of fifteen (15) days after passage of this Ordinance, it shall be published once with the names of the members of the Board of Supervisors voting for and against the Ordinance in the Mountain Messenger, a newspaper of general circulation published in the County of Sierra, State of California.

Introduced at a regular meeting of the Board of Supervisors, passed and adopted by the Board of Supervisors of the County of Sierra, State of California on this 3<sup>rd</sup> day of January 201~~2~~, by the following roll call vote:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:

COUNTY OF SIERRA

  
\_\_\_\_\_  
, CHAIRMAN  
Board of Supervisors

ATTEST:  
  
\_\_\_\_\_  
HEATHER FOSTER,  
Clerk of the Board

  
\_\_\_\_\_  
JAMES CURTIS, County Counsel