

**BUILDING STANDARDS COMMISSION**

2525 Natomas Park Drive, Suite 130  
Sacramento, California 95833-2936  
(916) 263-0916 FAX (916) 263-0959



January 10, 2011

Michael Lavallee, Chief Building Official  
Town of Truckee  
10183 Truckee Airport Road  
Truckee, CA 96161-3306

Dear Mr. Lavallee:

This letter is to acknowledge receipt on December 13, 2010 of the Town of Truckee submittal pertaining to Ordinance No. 2010-06 with findings and is acceptable for filing. Per Health and Safety Code Section 17958.8 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

  
Jane Taylor  
Senior Architect

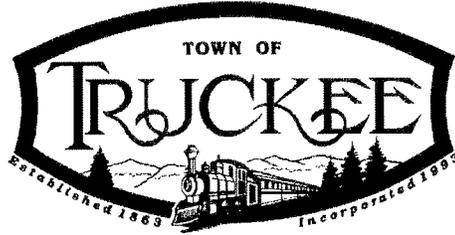
cc: Chron  
Local Filings

Town Council

Richard S. Anderson, Mayor

Joan deRyk Jones, Vice Mayor

Barbara Green, Council Member  
Dr. Mark Brown D.C., Council Member  
Carolyn Wallace Dee, Council Member



Department Heads

Tony Lashbrook, Town Manager  
J. Dennis Crabb, Town Attorney  
Nicholas Sensley, Chief of Police  
John McLaughlin, Community Development Director  
Kim Szczurek, Administrative Services Director  
Judy Price, Town Clerk  
Alex Terrazas, Assistant Town Manager  
Daniel Wilkins, Public Works Director/Town Engineer

December 10, 2010

Building Standards Commission  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA 95833

Subject: Town of Truckee Code Modification

Dear Building Standards Commission:

The Town of Truckee has adopted the 2010 Editions of the California Codes and has made local amendments for specific climatic, geological and topographical conditions. A copy of the ordinance adopting the codes is attached. It includes the Express Findings and all code modifications.

If you should have any questions or comments in this regard, I may be reached directly at (530) 582-2905.

Sincerely,

Michael Lavalley, Chief Building Official

Cc: Town Clerk

2010 DEC 13 P 12:19  
COMMUNITY DEVELOPMENT  
SACRAMENTO, CA 95833

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Animal Services/Vehicle Abatement: 530-582-7830 / Fax: 530-582-7889 / email: animalservices@townoftruckee.com  
Police Department: 530-550-2328 / Fax: 530-550-2326 / email: policedepartment@townoftruckee.com  
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**TOWN OF TRUCKEE  
California**

**ORDINANCE 2010-06**

**AN ORDINANCE AMENDING TITLE 15, TO ADOPT THE 2010 CALIFORNIA BUILDING, RESIDENTIAL, PLUMBING, ELECTRICAL, MECHANICAL, ENERGY AND GREEN BUILDING CODES, THE 2009 EDITIONS OF THE UNIFORM SOLAR ENERGY AND UNIFORM SWIMMING POOL, SPA AND HOT TUB CODES, AND THE 1997 EDITIONS OF THE UNIFORM HOUSING CODE AND UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS**

***The Town Council of the Town of Truckee Does Ordain as Follows:***

**Section 1. Enactment.** Title 15, of the Truckee Municipal Code is hereby amended as designated in Exhibit "A" attached hereto and incorporated herein by reference.

**WHEREAS**, Health & Safety Code Section 17958 mandates that the Town of Truckee shall adopt ordinances or regulations imposing the same requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and Government Code Section 50022.2 and

**WHEREAS**, the State of California is mandated by the Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the Uniform Housing Code of the International Conference of Building Officials, the Uniform Building Code of the International Conference of Building Officials, the Uniform Plumbing Code of the International Association of Plumbing and Mechanical Officials, the Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials, and the National Electrical Code of the National Fire Protection Association (hereinafter referred to collectively as "Codes").

**WHEREAS**, the Health and Safety Code Sections 18941.5 and 17958 permits the Town to make such changes or modifications to the Codes as are reasonably necessary because of local conditions; and

**WHEREAS**, the Health Code Sections 18941.5, 17958.5 and 17958.7 make express findings that such changes or modifications are needed due to climatic, geographic or topographic conditions; and

**WHEREAS**, the Town Building Official has recommended that changes and modifications be made to the Codes and has advised that certain of said changes and modifications to the Codes are reasonably necessary due to local conditions in the Town of Truckee and has further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Codes or are reasonably necessary to safeguard life and property within the Town of Truckee; and

**WHEREAS**, the Town Council of the Town of Truckee makes the following express findings that said changes to the Codes are necessary because:

The provisions contained in Town of Truckee Municipal Code Sections (hereinafter referred to as Section) 15.01.010 Purpose, 15.02.010 Utility Connections, 15.02.020 Final Inspection Enforcement, 15.02.040 Severability, 15.02.050 Penalties, 15.02.060 Fees, 15.02.070 Board of Appeals, are reasonably necessary to administratively adopt and enforce the codes and collect fees due to local conditions.

Due to local climatic conditions of cold, rain and snow that shorten the building season, Section 15.03.010 Permit Expiration, provides an increased permit duration that is reasonably necessary to allow completion of construction projects.

Due to the local topographical conditions of the Town of Truckee being located in a mountainous region and to assure that buildings are properly situated on parcels of land, Section 15.03.030 Topographic Survey and Boundary Survey Requirements is determined to be reasonably necessary.

Due to the local climatic condition of the Town of Truckee being declared a snow area and the associated high snow conditions, the following Sections are reasonably necessary to protect the life safety of the community and assure functional buildings. 15.02.030 Mobile Home Ramadas, 15.03.020 Engineering Requirement, 15.03.070 Sheet Metal Roofing Underlayment, 15.03.080 Declaration as High Snow Area, 15.03.090 Metal Valley Flashing Underlayment, 15.03.100 Ice Dam Membrane, 15.03.110 Snow Loads, 15.03.120 Snow Load Design, 15.03.140 Chimneys, Protection from Sliding Snow, 15.04.030 Liquefied Petroleum Gas Facilities and Piping, 15.05.010 Exit Terminals, and 15.05.020 Sidewall Venting.

Due to the geographic condition of the Town of Truckee being surrounded by National Forest and the need to reasonably protect buildings from wildland fires, the Town determines the following Sections to be reasonably necessary; 15.03.040 Fire Hazard Severity Zone Classification, 15.03.050 Roof Fire Rating, and 15.03.060 Wood Shake and Wood Shingle Roofs.

Due to the geographic condition of the Town being located in an active seismic area and the need to provide engineering requirements for timber framed structures to resist seismic loading, the Town determines Section 15.03.130 is reasonably necessary.

Due to the local cold climate condition of the Town of Truckee and the need to reasonably protect foundations from frost heave and pipes from freezing, the Town determines the following Sections to be reasonably necessary: 15.03.150 Foundation Depth, 15.04.010 Protection of Piping from Freezing, 15.04.020 Valves, and 15.04.030 Liquefied Petroleum Gas Facilities and Piping Requirements.

Because the Town of Truckee is located in a geographically mountainous region and due to the need to protect sensitive local waterways and satisfy the state requirements for pollutant discharge, Sections 15.03.160 Grading Permit Exceptions and 15.03.170 Erosion Prevention Standard for One and Two Family Dwelling Construction Projects are reasonably necessary.

**Section 2.** This Ordinance will take effect January 1, 2011.

**Section 3. Summary Publication.** This ordinance or a summary thereof shall be published once in a newspaper of general circulation within 15 days after its adoption.

\*\*\*\*\*

The foregoing Ordinance was introduced at a regular meeting of the Truckee Town Council held on the 4th day of November 2010, and adopted at a regular meeting of the Truckee Town Council, on the 18<sup>th</sup> day of November 2010, Council Member Green moved for the adoption, the motion was seconded by Council Member Brown was carried by the following vote:

**AYES:** Council Member Green, Council Member Brown, Council Member deRyk Jones, Vice Mayor Anderson and Mayor Wallace Dee.

**NOES:** None.

**ABSENT:** None.

  
Carolyn Wallace Dee, Mayor

ATTEST:

  
Judy Price, CMC, Town Clerk

APPROVED AS TO FORM:

  
Dennis Crabb, Town Attorney

I hereby certify that this is a true and correct copy of the original document which is on file at Town Hall.

  
Judy Price, Town Clerk

# Ordinance 2010-06 Attachment A

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## TITLE 15

### CHAPTER 15.01 CODES ADOPTED

#### 15.01.010 Purpose

The following codes are adopted by the Town of Truckee for the purpose of prescribing regulations for erecting, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment use, height and area of buildings and structures:

- (b) BUILDING CODE ADOPTED, the 2010 Edition of the California Building Code, known as the California Code of Regulations, Title 24 Part 2, incorporating the 2009 Edition of the International Building Code, published by the International Code Council, including Appendix Chapters C, H, I and J of the 2010 Edition of the California Building Code, are hereby adopted by reference.
- (c) RESIDENTIAL CODE ADOPTED, the 2010 Edition of the California Residential Code, known as the California Code of Regulations, Title 24 Part 2.5, incorporating the 2009 Edition of the International Residential Code, published by the International Code Council, including Appendix Chapters A, D, E, F, G, H, J, K and O of the 2010 Edition of the California Residential Code, are hereby adopted by reference.
- (d) PLUMBING CODE ADOPTED, the 2010 Edition of the California Plumbing Code, known as the California Code of Regulations, Title 24 Part 5, incorporating the 2009 Edition of the Uniform Plumbing Code, published by the International Association of Plumbing and Mechanical Officials, including the appendices are hereby adopted by reference.
- (e) ELECTRICAL CODE ADOPTED, the 2010 Edition of the California Electrical Code, known as the California Code of Regulations, Title 24 Part 3, incorporating the 2008 Edition of the National Electrical Code, published by BNi Publications, Inc., is hereby adopted by reference.
- (f) MECHANICAL CODE ADOPTED, the 2010 Edition of the California Mechanical Code, known as the California Code of Regulations, Title 24 Part 4, incorporating the 2009 Edition of the Uniform Mechanical Code, together with the appendices, and the non-building and administrative regulations of the 2009 Edition of the Uniform Mechanical Code, published by the International Association of Plumbing and Mechanical Officials, are hereby adopted by reference.
- (g) ENERGY CODE ADOPTED, the 2010 California Building Energy Efficiency Standards for Residential and Nonresidential Buildings, known as the California Code of Regulations, Title 24 Part 6, published by the California Energy Commission, is hereby adopted by reference.
- (f) HOUSING CODE ADOPTED, the 1997 Edition of the Uniform Housing Code published by the International Conference of Building Officials as referenced by the California Department of Housing and Community Development and pursuant to the provisions of Section 17958, 17958.5, 17958.7, 17958.9 and 17959 of the California Health and Safety code, is hereby adopted by reference.
- (g) ABATEMENT OF DANGEROUS BUILDINGS CODE ADOPTED, the 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings published by the International Conference of Building Officials is hereby adopted by reference.
- (h) SOLAR ENERGY CODE ADOPTED, the 2009 Edition of the Uniform Solar Energy Code published by the International Association of Plumbing and Mechanical Officials is hereby adopted by reference.
- (i) SWIMMING POOL, SPA AND HOT TUB CODE CODE, the 2009 Edition of the Uniform Swimming Pool, Spa and Hot Tub Code published by the International Association of Plumbing and Mechanical Officials is hereby adopted by reference.
- (j) GREEN BUILDING CODE ADOPTED, the 2010 Edition of the California Green Building Standards Code, known as the California Code of Regulations, Title 24 Part 11 published by the International Code Council is hereby adopted by reference.

Where the California Code of Regulations of the State Building Standards Code Regulations differs from any provisions of the Uniform or International Codes, State Building Code Regulations shall prevail.

One copy of the Codes will be on file in the office of the Building Official for use and examination by the Public.

## **CHAPTER 15.02 GENERAL CONSTRUCTION PROVISIONS**

### **15.02.010 Utility Connections**

It is unlawful for any person, including utility companies, to connect electric power lines or liquefied petroleum gas or natural gas sources permanently to any building or structure for which a permit is required by this Title until an inspection has been made of the installation and the approval signed by the Building Inspector. This provision shall not prohibit the erection and use of temporary power poles approved by the power company during the course of construction, when approved by the Building Official.

### **15.02.020 Final Inspection Enforcement**

All work authorized pursuant to any permit issued by the Town of Truckee shall be fully completed before the expiration of the term of the permit. Failure to complete all work within the permit's life shall result in a voiding of the permit issued for the project.

Whenever a parcel of real property is conveyed and a permit has been issued for work on the property which has not been completed as attested by the issuance of a certificate of occupancy or final approval for the project, the new owner of the property shall request a transfer of all permits for the property to his/her name and shall assume full responsibility for the proper completion of the work authorized by the permit. A transfer fee equal to all administrative fees of the permit shall be established by the Building Official and shall be paid by the new owners upon application for a permit transfer.

### **15.02.030 Mobile Home Ramadas**

All mobile homes and commercial coaches will conform to the mobile home snow load requirements of Tables 1608.3 and 1608.4.

Mobile homes and commercial coaches that do not meet the snow load requirements for their location must be protected by a ramada. Such ramada must be designed by a registered civil or structural engineer or architect.

Exception: Mobile homes located in mobile home parks need not be protected by a ramada provided the operator/owner of the mobile home park enters into a snow removal maintenance agreement with the Town in a format approved by the Building Official.

### **15.02.040 Severability**

If any section or portion thereof of this Title is for any reason held to be invalid by a court of competent jurisdiction, such decision or determination shall not affect the validity of the remaining provisions of any part thereof.

### **15.02.050 Penalties**

Any person who violates any of the provisions of the Title or who violates or fails to comply with any order made hereunder or who builds in violation of any detailed statement of specifications or plans submitted and approved hereunder is severally for each and every such violation and noncompliance guilty of an infraction unless otherwise provided, and punishable by a fine of not more than five hundred dollars (\$500) and/or imprisonment for not more than six (6) months in the Town Jail. The imposition of one penalty for any violation shall not excuse the violation or

permit it to continue, and all such persons shall be required to correct or remedy such violations or defects within a reasonable time. When not otherwise specified, each five (5) days that prohibited conditions are maintained shall constitute a separate offense.

The application of the above penalty shall not be the exclusive remedy nor shall the penalty be held to prevent the enforced removal of prohibited conditions. Any violation of this Title shall additionally constitute a public nuisance subject to abatement.

Violation of this Title shall be punishable per offense by a fine set forth in the Town of Truckee Fee schedule. Adjudication of any such violation shall occur using the administrative hearing process established by the Town for Town code violations. In addition if a violation is found to have taken place the hearing officer may also require payment of the Town's reasonable costs of processing and collection.

#### **15.02.060 Fees**

The fees referenced in the Codes shall be those fees adopted by the Town Council of the Town of Truckee.

#### **15.02.070 Board of Appeals**

Appeal of any provision of this ordinance shall be made in accordance with this section.

#### **General**

In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business.

#### **Limitations on Authority**

An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder has been incorrectly interpreted, the provision of this code does not fully apply or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

#### **Qualifications**

The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction.

## **CHAPTER 15.03 REVISIONS AND ADDITIONS TO THE CALIFORNIA BUILDING AND RESIDENTIAL CODES**

### **15.03.010 Permit Expiration**

California Building Code Section 105.5 and California Residential Code Section R105.5 are deleted and replaced to read:

Every permit issued shall expire two years from the date of issuance. Every permit shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within 360 days from the date of such permit, or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of more than 360 days. Once a building permit has expired, work can be recommenced only after that permit is renewed or a new permit is issued. The fee therefore shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work; and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit expired, suspended or abandoned by over one year, the permittee shall pay a new full permit fee.

### **15.03.020 Engineering Requirement**

The following shall be added to California Building Code Section 107.1 and California Residential Code Section R106.1:

All structures or buildings classified in Occupancy Groups A, B, E, F, H, I, L, M, R, S and U shall be designed by an architect or civil/structural engineer, licensed/registered in the State of California. All plans will be deemed to have complied with the requirements of this Section, provided that they are prepared in accordance with sections 6731, 6737, 6737.1 of the Business and Professions Code.

### **15.03.030 Topographic Survey and Boundary Survey Requirements**

The effective date for this section is January 1, 2000.

The following shall be added to California Building Code Section 107.2 and California Residential Code Section R106.1.1:

For new construction, all lots will require a Topographic Survey prepared by a California licensed Land Surveyor, or Civil Engineer licensed to perform such services.

Exception: The Building Official may waive the Topographic Survey requirements for minor additions and alterations. The Building Official may also consider a waiver of this requirement based on a written request and a determination that topographic information is not necessary for the proposed project.

For new construction all lots will require a Boundary Survey prepared by a California licensed Land Surveyor or Civil engineer licensed to perform such services.

Exception: The Building Official may consider a waiver of the Boundary Survey requirements when a California licensed General Contractor can show the building department all the corner markers identified on an existing survey. The Building Official may also waive the Boundary Survey requirements for minor additions or alterations.

#### **15.03.040 Fire Hazard Severity Zone Classification**

For purposes of clarification and enforcement of California Building Code Chapter 7A and California Residential Code Section R327, Materials and Construction Methods for Exterior Wildfire Exposure, the Truckee Fire District adopted ordinance 1-96 which was mandated by AB 337 in 1992 (Bates Bill), it designates all areas within the Town of Truckee a Very High Fire Severity Zone. The effective date of this code section is modified by the California Building Standards Commission to be July 1, 2008.

#### **15.03.050 Roof Fire Rating**

California Building Code Section 1505.1 and California Residential Code Section R902.1.1 are written here for emphasis and clarity:

“The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.”

#### **15.03.060 Wood Shake and Wood Shingle Roofs**

Add new Section 1505.6.1 to the California Building Code and Section R905.1.1 to the California Residential Code as follows:

With the exception of the Historic District, wood shake and wood shingle roofs are prohibited. Where installed in the Historic District, wood roof assemblies shall be Class A fire rated.

#### **15.03.070 Sheet Metal Roofing Underlayment**

Add the following to California Building Code Section 1507.4.3 and to California Residential Code Section R905.10.5:

Sheet metal roofing shall be applied over an underlayment of not less than 15 lb. felt. The underlayment shall be applied horizontally. Fasteners and their spacing shall be as specified by the manufacturer.

#### **15.03.080 Declaration as High Snow Area**

Add Section 1504.9 to the California Building Code and Section R903.6 to the California Residential Code as follows:

For purposes of shingle, shake and tile roofs, all of the Town of Truckee is classified as a severe climate and "high snow" area.

#### **15.03.090 Metal Valley Flashing Underlayment**

Add Section 1503.7 to the California Building Code and Section R904.5 to the California Residential Code as follows:

Metal valley flashing underlayment used in conjunction with shingle, tile and shake roofs, shall be solid cemented to the roofing underlayment for roof slopes under 8 units vertical in 12 units horizontal (58.3% slope).

#### **15.03.100 Ice Dam Membrane**

Add Section 1506.5 to the California Building Code and Section R904.6 to the California Residential Code as follows:

An "Ice Guard" is required on roofs of heated areas of buildings. Roofs, regardless of covering, with a pitch of less than 8 in 12 shall be protected against leakage (caused by ice and snow) using an approved manufactured membrane installed per the manufacturer's specifications and as approved by the Building Official. This application shall extend from the eave edge of the roof up the roof slope measured 5 feet beyond the wall line separating the conditioned and unconditioned space, and up 30 inches along each side of a valley. This "Ice Guard" shall be in addition to any underlayment otherwise required.

**15.03.110 Snow Loads**

Add Section 1608.3 to the California Building Code and Section R301.2.3.1 to the California Residential Code as follows:

All of the Town of Truckee shall be declared a snow area. This pertains to all structures, mobile homes, modular buildings, factory-built houses and commercial coaches. The following snow load requirements are established for all structures.

- (a) Applicable west of the west section line of Township 17 North, Range 16 East, Sections 5, 8 and 17 and Township 18 North, Range 16 East, Section 32.

TABLE 1608.3 GROUND SNOW LOADS\*

<u>Elevation above Sea Level in Feet</u>	<u>Ground Snow Load, Pg. in Pounds Per Square Foot</u>
5501-6000	315
6001-6500	375
6501-7000	430
7001-7500	490
7501-8000	545

- (b) Applicable east of the east section line of Township 17 North, Range 16 East, Sections 5, 8 and 17 and Township 18 North, Range 16 East, Section 32.

TABLE 1608.4 GROUND SNOW LOADS\*

<u>Elevation above Sea Level in Feet</u>	<u>Ground Snow Load, Pg. in Pounds Per Square Foot</u>
5501-6000	190
6001-6500	245
6501-7000	300
7001-7500	360
7501-8000	400
8001-8500	445

\* Intermediate values may be interpolated by proportion.

- (c) The snow loads within Township 17 North, Range 16 East, Sections 5, 8 and 17 and Township 18 North, Range 16 East, Section 32 shall be on a straight line proportion between the values shown in Tables 1608.3 and 1608.4 based on the distance of the site from the boundary of the transition zone.
- (d) Higher snow loading than those shown in Tables 1608.3 and 1608.4 may be required by the Building Official in local areas of known higher snow accumulation.
- (e) Deviations from the above set forth snow loading may be permitted by the Building Official, provided the snow load and conditions in each individual case are derived and certified by a registered civil/structural engineer who can show proper experience in snow load evaluation.
- (f) In the design of buildings and structures, consideration shall be given to the following:
  - (1) Unbalanced loading of roofs.
  - (2) Drifting due to adjacent obstructions.
  - (3) Accumulations in valleys and adjacent to parapet walls and chimneys.
  - (4) Ice loads on cornices of at least one and one half times the roof snow load.
  - (5) Possible impact loadings from snow falling on structure from higher roofs.
  - (6) Effect on structure from dynamic loading caused by snow sliding off roof.
  - (7) Snow sliding off roof and dynamically loading sidewalls by being forced against same due to snow embankment adjacent to the structure.
  - (8) Protection of entrances, exits and windows from the danger of falling icicles and snow sliding off pitched roofs.
  - (9) Ice weight where it will refreeze on unheated overhangs after having melted and run off from portions of roofs with heat below same.
  - (10) Projections through the roof, such as ventilation and plumbing vents, which may be torn off or damaged by sliding snow.
  - (11) Gas meter sheds shall be designed to resist 1.4 times the ground snow load,  $P_g$ .
  - (12) Decks located above the anticipated snow load may be designed as flat roofs. The snow load for decks located below the anticipated snow level may be interpolated between the roof and ground snow load based on the appropriate height. Consider impact, uplift and drift as appropriate.
- (g) Pitch reductions shall not apply to A-Frame or similar structures where the eave line extends below the anticipated snow depth. "A-Frame" buildings and other similar types wherein the roof extends below the depth of the snow on the ground, the tabulated ground snow load values must be used on the roof below the ground snow level. Also, special design consideration must be made for the stress condition wherein the snow from the upper portion of the roof slides down on top of the ground snow and consequently further increases the loading on the lower portion of said roof.

**15.03.120 Snow Load Design**

- (a) Add the following to ASCE 7-05, Section 7.6.1 Unbalanced Snow Loads for Hip and Gable Roofs:
  - (1) For roof pitches of less than 6/12 where the ground snow load ( $P_g$ ) exceeds 100 psf, the unbalanced load ( $P_{un}$ ) need not exceed:

0 psf at the ridge and

$hr*\gamma$  psf at the eave

Where:  $hr$  = Vertical distance between the eave and ridge in feet

$\gamma$  = Density of the snow in pounds per cubic foot (pcf)

This unbalanced load is determined from the maximum amount of drift snow that can accumulate on

the leeward side of the roof.

- (A) For roof pitches of 6/12 and greater where the ground snow load ( $P_g$ ) exceeds 100 psf, the unbalanced load ( $P_u$ ) need not be greater than the sloped roof snow load ( $P_s$ ) in Terrain Categories B & C which are Partially Exposed or Sheltered or in Terrain Category D which is Sheltered. The Terrain Categories referred to may be found in Table 7-2 of ASCE 7-05.
  - (B) Where the ground snow load ( $P_g$ ) exceeds 100 psf and a pitch reduction is taken for the roof snow load, a valley load of  $0.25 * P_s$  shall be added to the sloped roof snow load ( $P_s$ ) in the influence area of all valleys created by intersecting roofs where the roof intersection angle is between 45 degrees and 90 degrees. For roof intersection angles less than 45 degrees design shall be in accordance with ASCE 7-05 section 7.6.3.
  - (C) Valley and drift loads need not be applied concurrently.
- (b) ASCE 7-05 equation 7-3 (density):  
Density need not exceed 25 pcf.
- (c) ASCE 7-05 section 12.14.8.1 Seismic Base Shear:  
ASCE 12.14.8.1 – Note 4, use 20% of the actual (not flat) roof snow load that is used for the roof design.

#### 15.03.130 Earthquake Design

Add Section 1613.1.3 as follows:

**1613.1.2 Earthquake Design.** Modify ASCE 7, Table 12.2-1 as follows:

Add a new line item under A. Bearing Wall Systems in Table 12.2-1 as follows:

16. Heavy timber braced frames where the bracing carries gravity loads  
ASCE 7 section where detailing requirements are specified - 14.5  
Response modification coefficient,  $R$  - 3.3  
System overstrength factor,  $\omega$  - 2.4  
Deflection amplification factor,  $C_d$  - 3.5  
Structural system limitations and building height (ft) limit  
Seismic design category
- |        |        |        |        |        |
|--------|--------|--------|--------|--------|
| B - NL | C - NL | D - 65 | E - 65 | F - 65 |
|--------|--------|--------|--------|--------|

#### 15.03.140 Chimneys, Protection from Sliding Snow

Add new California Building Code Section 1608.3 and California Residential Code Section R1007 as follows:

Chimneys, chimney chases, flues and heating appliance vents projecting through the roof shall be protected from damage by sliding snow or ice as follows:

- (a) When roof pitch is 0 in 12 through 2 in 12, inclusive, no snow splitter is required.
- (b) When roof pitch is steeper than 2 in 12 provide metal-formed snow splitter with a minimum vertical height (at the apex) at least one-half of the required vertical height of the vent extension above the roof. In no case shall a snow splitter measuring less than 8 inches at the apex be used.
- (c) When framed chimney chases or masonry chimneys project above the roof, they shall be engineered and protected by a snow splitter with a minimum height equal to one-half of the required height of the flue or chimney. The width, at the base of the snow splitter, shall be equal to or greater than the width of the

- chimney or chase.
- (d) All snow splitters shall be secured to the roof frame and sheathing to withstand the shear loads anticipated. All heating appliance vents, flues and chimneys shall be strapped to the snow splitter near its apex with a galvanized steel strap. Minimum thickness of the steel strap shall be 16 gauge.  
Exception to the above: Flues, appliance vents and chimneys greater than four (4) inches in diameter which penetrate the roof within 36 inches of the ridge shall be permitted without snow splitters.
- (e) All chimneys attached to solid fuel burning appliances shall be equipped with spark arresters.

#### **15.03.150 Foundation Depth**

Delete and replace California Building Code Section 1809.5 and California Residential Code Section R403.1.4.1 as follows:

Unless erected on solid rock, to protect against frost and freezing, the minimum foundation depth is 18 inches below grade if below 7000 foot elevation and 24 inches below grade for 7000 foot elevation and above.

Exception: Interior footings shall be a minimum of 12 inches below grade.

#### **15.03.160 Grading Permit Exceptions**

Delete and replace California Building Code Appendix Chapter J, Section J103.2 as follows:

J103.2 Exempted Work. A grading permit is not required for the following:

- (a) Clearing, grubbing, and excavation or fills less than 20 cubic yards that disturb less than 500 square feet.
- (b) Excavation for construction of a structure permitted under this code.
- (c) Cemetery graves.
- (d) Refuse disposal sites controlled by other regulations.
- (e) Excavations for wells or trenches for utilities.
- (f) Mining, quarrying, excavating, processing or stockpiling of rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase the stresses in, soil on adjoining property.
- (g) Exploratory excavations under the direction of a registered design professional.
- (g) Existing nursery and agricultural operations conducted as a permitted main or accessory use.
- (i) Tree cutting without ground disturbance.

Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction.

#### **15.03.170 Erosion Prevention Standard for One and Two Family Dwelling Construction Projects**

Add a new Section J110.3 to California Building Code Appendix Chapter J as follows:

J110.3 Standard for One and Two Family Dwelling Construction Projects. The Town of Truckee Minimum Standards for Erosion Prevention on One and Two Family Dwelling Construction Projects is adopted by reference to be enforced as part of this code.

## CHAPTER 15.04 REVISIONS AND ADDITIONS TO THE CALIFORNIA PLUMBING CODE

### 15.04.010 Protection of Piping from Freezing

The following is added to Section 313:

- 313.13 All water supply piping shall be protected from freezing by a minimum of 36 inches of earth covering. When structural conditions necessitate installation of water piping in exterior walls or above ceilings, the pipes shall be installed to the inside surface of the wall or ceiling framing and insulated, on the unheated side of the pipes, with insulation equivalent to the R value required for the wall or ceiling. Water piping shall not be installed or concealed in unheated walls, ceilings and attics.

### 15.04.020 Valves

The following is added to Section 605:

- 605.9 The water supply system, including hot and cold, shall be designed and installed for winterization and freeze protection, such as allowing for routine drainage of the system to prevent freezing. The water supply shall be equipped with a readily accessible shut off valve. Valve(s) and/or drain port(s) when used shall be readily accessible, insulated for protection from freezing, and shall be protected from the potential for back flow.

### 15.04.030 Liquefied Petroleum Gas Facilities and Piping

The following is added to Section 1213.0:

#### 1213.1 Liquefied Petroleum Gas Installation Policy Procedures

This subsection shall apply to all new liquefied petroleum gas (LPG) installations and to existing installations when LPG service is reconnected after service is interrupted.

- (a) Two stage regulator/systems shall be installed on all LPG installations with approval steel, or PE piping, installed in accordance with the California Plumbing Code and manufacturing specification.
- (b) The first stage regulator shall be installed under the hinged gauge cover supplied with the tank. The atmospheric pressure aperture of the regulator shall be pointed downward. The first stage regulator shall be plumbed to the riser of the yard piping with soft copper tubing or schedule 40 steel pipe with two 90 degree elbow swing joints (one at the top and one below grade) to allow flexibility should tank shifting occur. The riser from the yard piping shall be located not more than three inches (horizontally) from the walls of the tank. The propane tank shall be placed on reinforced concrete supports.
- (c) The second stage regulator and riser pipe shall be installed on the gable end of the building at least 20 feet from or out of the direct line of discharge of adjacent shedding roofs. The riser shall have swing joints below grade and be 1 ½ to 3 ½ inches from the wall surface and securely supported/braced to the wall approximately ten inches below the regulator so as to prevent bending of the pipe by lateral snow/ice loads. Second stage regulators installed on the front of a garage shall be protected by a three inch bollard.

Exception #1: On round, octagon and similarly-shaped structures (without gable ends) the riser may be located under the eaves when approved by the Building Official.

Exception #2: On existing services that are reconnected after service is interrupted, where relocation of the riser is not possible due to structural or topographical constraints the riser may be located under the eave with the approval of the Building Official.

Exception #3: When approved by the Building Official, the second stage regulator and riser may be located under the eaves if protected by a deck which is designed for 1.4 times the snow load for the area approved by the Building Official.

- (d). A protective cover, engineered for two times the snow load of the area, shall be installed over the second stage regulator and securely supported to the ground or diagonally to the building wall. When supported to the ground, the footing for the supports shall be founded 18 inches below finish grade and the supporting posts shall be securely fastened to the footing and the cover to prevent dislocation of the supports. When supported diagonally to the wall, the supports shall extend from the drip edge of the cover back to the wall. The angle formed by the supports and the wall shall not exceed 45 degrees from vertical. Existing decks that are used to cover the second stage regulator shall be designed for the snow load.
- (e). The riser pipes for the yard piping shall not be imbedded in concrete. Concrete placed around such risers shall be held back at least one inch from all sides of the pipe.
- (f). At the time of application for any building permit which involved the installation of the LPG system, the applicant shall submit two copies of LPG system plot plan prepared to scale. Both copies must carry the stamp of approval of the prospective LPG supplier and Fire Marshall. The LPG plot plan shall include, but not be limited to, the tank location, proposed tank capacity (in US gallons), route of yard piping, location of the riser pipe at the building, property boundaries, an outline of all existing/proposed buildings on the lot and a depiction of the ridge line and slope of roofs of any building to be supplied with LPG. The LPG plot plan may be included on the normal site plan but must contain the stamp of approval of the gas supplier and Fire Marshall at the time of the submission to the Building Department.
- (g). Location of the shutoff valve at the LPG tank shall be permanently marked by the use of a color-coded snow stake identifying the gas supplier. This stake shall be placed directly adjacent to the tank at the center line of the valve cover and on the side opposite the yard piping riser. Such stake shall be of sufficient height to be visible through anticipated maximum snow depth at the respective location. Installation and maintenance of this snow stake is the responsibility of the LPG user. An LPG shutoff valve shall also be installed at the house under the regulator cover. This valve shall be identified by a placard on the wall directly over the regulator cover and above the anticipated depth of snow.

## **CHAPTER 15.05 REVISIONS AND ADDITIONS TO THE CALIFORNIA MECHANICAL CODE**

### **15.05.010 Exit Terminals**

The following is added to Section 802.5.2 of the California Mechanical Code:

802.5.2.5 Exit terminals and combustion air intakes shall not be located under decks which could be sealed off around the perimeter with snow accumulation.

### **15.05.020 Sidewall Venting**

The following is added to Section 802.8 of the California Mechanical Code:

802.8.6 Sidewall venting of direct vent heaters and room heaters shall terminate above the anticipated snow depth.