



Planning Department

## **Permit Service Center RESTRICTIONS IN FIRE ZONE**

**a.k.a. HILLSIDE ORDINANCE INFORMATION**

Chapter 7a

*CALIFORNIA BUILDING CODE as amended by the CITY OF BERKELEY*

### **Sec.19.28.140 Fire Zones Defined.**

For the purpose of this Code, three fire zones are created and established in the city, said fire zones to be known and designated as Fire Zone One, Fire Zone Two, and Fire Zone Three.

### **Sec.19.28.150 Restrictions in Fire Zone One.**

Fire Zone One shall encompass the entire City of Berkeley except for Fire Zones Two and Three. Buildings or structures complying with the requirements of this code may be erected, constructed, moved within or into Fire Zone One.

### **Sec.19.28.160 Restrictions in Fire Zone Two.**

**A. General.** Fire Zone Two encompasses those areas designated as Combined Hillside Districts in the Official Zoning Map of the City of Berkeley as it may be amended from time to time. Buildings or structures hereafter erected, constructed, or moved within or into Fire Zone Two shall comply with the requirements for buildings or structures in Fire Zone One and in addition shall meet the requirements of this section.

Except as expressly limited herein, the following requirements, standards, and provisions shall apply to the construction, re-construction, alteration, re-roofing and repair of any building and or structure located in Fire Zone Two:

**Exception:** Structures exempt from a building permit under CBC Sec 106.2

**B. Roofing.** A minimum Class 'A' roofing assembly, as defined in the latest edition of the California Building Code, is required for all new construction and for re-roofing. Acceptable standards for Class 'A' rating shall be any assembly, except as noted below, defined in the latest applicable edition of this code as Class 'A', and any Class 'A' assembly listed by an approved listing agency including but not limited to ICBO, Warnock-Hersey, and Underwriters Lab. Tile roofs shall be stopped at the eave ends to preclude entry of flame or embers under the tile. Wooden shakes and shingles are prohibited roof coverings regardless of the assembly rating of the roof system.

**Exception:** Replacement of less than 50% of the roof area within a 5-year period. Whenever a structure is re-roofed, a spark arrestor as specified in section "H" below is required.

**C. Solid roofed structures.** Solid roofed structures, such as gazebos, carports and patio covers, shall be of heavy timber, non-combustible or one-hour fire resistive construction throughout.

**Exception:** Structures located over non-combustible surfaces extending a minimum of 5 feet measured horizontally in any direction beyond the footprint of such structures.

**D. Roof decks.** Roof decks shall be of any approved non-combustible material or 3" thick spaced wood decking.

**Exceptions:**

1. Replacement of less than 50% of legally constructed roof deck within a 5-year period.
2. Portable roof decks less than 16 square feet per module.

**E. Exterior walls.** Exterior walls of buildings or structures shall be constructed with materials approved for one-hour fire resistive construction on the exterior side or any alternate equivalent assembly approved by the Building Official. Additionally, wood shingles and shakes applied to vertical surfaces shall be fire retardant treated by the manufacturer.

**Exception:** Where less than 50% of any wall surface is being replaced or repaired, and the matching of the new plane to the existing plane on that wall is not possible.

**Note:** These provisions apply only where rated fire resistive exterior walls are not otherwise required.

**F. Decks, balconies, and exterior stairs.** All decks, balconies, and stairs located on a slope of 15% or greater shall be one of the following:

1. One-hour fire resistive construction
2. Heavy timber construction
3. Non-combustible Materials
4. Any combination of the above

**Exceptions:**

1. Decks, balconies and exterior stairs located on a slope of less than 15% that extends a minimum of 5 feet measured horizontally in any direction beyond the footprint of such structures.
2. Decks, balconies and exterior stairs located over non-combustible surfaces extending a minimum of 5 feet measured horizontally in any direction beyond the footprint of such structures.
3. Portions of decks, stairs and balconies more than fifteen (15) feet above grade shall not be required to be protected as otherwise required herein regardless of slope.
4. New or replaced landings and stairs with a combined projected area of 25 square feet or less.
5. The replacement of decking boards on legally constructed existing decks.
6. Handrails, guardrails and trim.

The underside of decks, balconies, and exterior stairs may be unprotected if totally enclosed with materials approved for one-hour fire resistive construction on the exterior side or any alternate equivalent assembly approved by the Building Official, and is carried down to the ground such that fire cannot enter underneath.

**Note:** Heavy timber construction for decks, balconies and exterior stairs is defined in section 605.6 of the California Building Code as modified to require the following nominal minimum member sizes: 8" x 8" columns, 6" x 10" floor framing members, 3" thick spaced decking, 3" x minimum ledgers, 4" x minimum stringers and 3" x minimum treads.

**G. Miscellaneous structures.** Trellises, arbors and similar garden structures shall be of one-hour heavy timber or non-combustible construction.

**Exceptions:**

1. Miscellaneous structures located more than 20 feet from another structure and more than 10 feet from a property line.
2. Trellises, arbors and similar garden structures constructed over non-combustible surfaces which extend at least 5 feet measured horizontally in any direction beyond the outer edge of the structure.

**H. Spark arrestors.** All chimneys, fireplaces, stoves, barbecues or heating appliances using solid fuel shall be provided with an approved spark arrestor as prescribed in this code. Whenever modification has been made to any of these appliances, or whenever a structure is re-roofed, a spark arrestor is required. The net free area of the spark arrestor shall be not less than four times the net free area of the outlet of the chimney. The spark arrestor shall have heat and corrosion resistance equivalent to 12 gauge wire, 19 gauge galvanized wire or 24 gauge stainless steel. Openings shall not permit the passage of spheres having a diameter larger than one-half inch and shall not block the passage of spheres having a diameter of less than three-eighths inch. The arrestor shall be securely attached to the chimney or stovepipe and shall be adequately supported. The use of bands, mollicies, masonry anchors or mort ties are recommended depending upon the individual need.

**I. Windows and doors.** Exterior windows, window walls, doors with glazing and skylights shall be tempered glass or multi-layered glazed panels.

**J. Overhangs.** Roof overhangs extending more than ten inches from exterior walls shall be protected by any one of the following:

1. One-hour fire resistive materials are required on the underside of the overhangs. Fascias are required and shall be protected on the backside by materials approved for one-hour fire-resistive construction or 2" x minimum fascia shall be used.
2. "Heavy timber" construction;

**Exception:** When all portions of the eave or overhang are greater than 16 feet above grade, or when the eaves or overhangs are above noncombustible patios, sidewalks or driveways which extend at least 5 feet beyond the roof drip edge, these requirements and standards shall not apply.

**K. Vents.** Vents shall meet the following requirements:

1. Underfloor and roof vents shall be prohibited on any side of a structure facing a slope down and away from the structure.
2. Eave vents, where installed, shall not be a continuous strip, and shall incorporate features which shall inhibit intrusion of fire including but not limited to "midget louvers".

**Exception:** Vents equipped with manual or automatic dampers.

**L. Unenclosed under floor area.** Buildings or structures shall have all under floor areas enclosed to the ground with construction as required for exterior walls.

**Exception:** Complete enclosure shall not be required where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior one-hour resistive construction.

**M. Underground utility connections.** For new construction, provisions shall be made for the undergrounding of all utilities serving the property, including but not limited to electrical, telephone, and cable television, by the installation of appropriately sized underground conduits extending from the street property line to the location of the electric service panel and/or other applicable utility panel or junction. The conduit shall be extended a minimum of twelve inches above grade adjacent to the house and capped off. The installation must be in accordance with the

most current PG&E standards and other applicable laws.

**Sec. 19.28.170. Restrictions in Fire Zone 3.**

**A. General.** Fire Zone Three encompasses those areas designated as Environmental Safety Districts on the Official Zoning Map of the City of Berkeley, as it may be amended from time to time. Buildings or structures hereinafter erected, constructed, moved, altered, added, or repaired within or into Fire Zone Three shall comply with the requirements for buildings and structures in Fire Zones One and Two and in addition shall meet the requirements of this section.

**B. Fire Warning System.** All residential units shall be equipped with a Fire Warning System as specified by the residential smoke detector requirements of the current edition of the California Building Code and with an audible exterior alarm. The exterior alarm must meet the requirements of NFPA 72 or equivalent and generate 45 decibels ten feet from the alarm, or more.

**C. Utilities.** Utilities, pipes, furnaces, water heaters or other mechanical devices located in an exposed underfloor area of a building or structure shall be enclosed with material as required for exterior one-hour fire resistive construction. Adequate covered access openings for servicing and ventilation of such facilities shall be provided as required by appropriate codes.

**D. Control of brush or vegetation.** Brush and vegetation shall be controlled as required in the Berkeley Fire Code.

**E. Special Conditions.** The following additional conditions must be met:

1. **Public access roads and fire trails.** No person(s) shall use any public access road or fire trail for the storage of any construction material, stationary construction equipment, construction office, portable refuse container, or earth from any grading or excavating.
2. **Water service.** The water service to the site shall be installed with a  $\frac{3}{4}$  inch hose bib connection prior to beginning any wood framing. The person responsible for the construction shall have at the site a 75 foot  $\frac{3}{4}$  inch hose available.