

**INITIAL EXPRESS TERMS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
OFFICE OF THE STATE FIRE MARSHAL (SFM)  
REGARDING THE ADOPTION BY REFERENCE OF THE  
2009 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE (IRC)  
WITH AMENDMENTS INTO THE 2010 CALIFORNIA RESIDENTIAL CODE (CRC)  
CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 2.5**

---

The Office of the State Fire Marshal (SFM) proposes to adopt the 2009 edition of the International Residential Code (IRC) into the 2010 edition of the California Residential Code (CRC). SFM further proposes to:

- Repeal the adoption by reference of the 2006 International Building Code and incorporate and adopt by reference the 2009 International Residential Code for application and effectiveness in the 2010 California Residential Code.
  - Repeal certain amendments to the 2006 International Building Code and/or California Building Standards not addressed by the model code that are no longer necessary.
  - Adopt new building standards or necessary amendments to the 2009 International Residential Code that address inadequacies of the 2009 International Residential Code as they pertain to California laws.
  - Bring forward previously existing California building standards or amendments, which represent no change in their effect from the 2007 California Building Standards Code.
  - Codify non-substantive editorial and formatting amendments from the format based upon the 2006 International Building Code to the format of the 2009 International Residential Code.
- 

**Legend for Express Terms:**

1. **Existing California regulations or amendments brought forward with modification:** *All such language appears in Italics, modified language is underlined.*
  2. **IBC language with new California amendment:** IBC language is shown in normal Arial 9-point. California amendments to IBC text appear *underlined and in italics*.
  3. **New California regulation or amendment:** *California language appears underlined and in Italics*.
  4. **Repealed Text:** Shown as ~~Strikeout~~.
  5. **Existing California amendments brought forward that remove IRC language:** Shown as ~~Strikeout~~.
  6. **New California amendments that remove IRC language:** Shown as ~~Strikeout~~.
  7. **Notation:** Authority and Reference citations are provided at the end of each chapter.
-

---

[1. The SFM proposes to adopt specific Sections of Chapter 1 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

**Part I — Administrative**

**CHAPTER 1  
SCOPE AND ADMINISTRATION**

**Part I — Scope and Application**

**DIVISION I  
CALIFORNIA GENERAL CODE PROVISIONS**

**SECTION 1.1  
GENERAL**

**1.1.1 Title.** *These regulations shall be known as the California Residential Code, may be cited as such and will be referred to herein as “this code.” The California Residential Code is Part 2.5 of twelve parts of the official compilation and publication of the adoption, amendment, and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2009 International Residential Code of the International Code Council with necessary California amendments.*

**1.1.2 Purpose.** *The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.*

**1.1.3 Scope.** *The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every detached one-and two-family dwelling, townhouse not more than three stories above grade plane in height with a separate means of egress, or structures and appurtenance accessory thereto such buildings throughout the State of California.*

**Exception:** *Live/work units complying with the requirements of Section 419 of the California Building Code shall be permitted to be built as one- and two-family dwellings or townhouses. Fire suppression required by Section 419.5 of the California Building Code when constructed under the California Residential Code for one- and two-family dwellings shall conform to Section 903.3.1.3 of the California Building Code.*

**(302 CBC/IBC)**

**1.1.3.1 Classification.** *Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508 of the California Building Code. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved in accordance with this code or the California Building Code.*

**(310.1 CBC)**

**1.1.3.1.1 Residential Group R.** *Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I. Residential occupancies shall include the following:*

**R-3 Residential occupancies** *where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-2.1, R-3.1, R-4 or I, including:*

Buildings that do not contain more than two dwelling units.  
Townhouses not more than three stories above grade in height with a separate means of egress.  
Adult facilities that provide accommodations for six or fewer persons of any age for less than 24-hours. Licensing categories that may use this classification include, but are not limited to: Adult Day Programs.  
Child care facilities that provide accommodations for six or fewer persons of any age for less than 24-hours. Licensing categories that may use this classification include, but are not limited to: Day-care Center for Mildly Ill Children, Infant Care Center and School Age Child Day-care Center.  
Family Day-care Homes that provide accommodations for 14 or fewer children, in the provider's own home for less than 24-hours.  
Congregate living facilities or congregate residences with 16 or fewer persons.

**R-3.1 This occupancy group may include facilities licensed by a governmental agency for a residentially based 24-hour care facility providing accommodations for six or fewer clients of any age. Clients may be classified as ambulatory, nonambulatory or bedridden. A Group R-3.1 occupancy shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in Section R325 Special Provisions For Licensed 24-Hour Care Facilities in a Group R-3.1 Occupancy. This group may include:**

Adult Residential Facilities  
Congregate Living Health Facilities  
Foster Family Homes  
Group Homes  
Intermediate Care Facilities for the Developmentally Disabled Habilitative  
Intermediate Care Facilities for the Developmentally Disabled Nursing  
Nurseries for the full-time care of children under the age of six, but not including "infants" as defined in Section 202  
Residential Care Facilities for the Elderly  
Small Family Homes and Residential Care Facilities for the Chronically Ill

**Exception:** Group Homes licensed by the Department of Social Services which provide nonmedical board, room and care for six or fewer ambulatory children or children two years of age or younger, and which do not have any nonambulatory clients shall not be subject to regulations found in Section R325.

Pursuant to Health and Safety Code Section 13143 with respect to these exempted facilities, no city, county, or public district shall adopt or enforce any requirement for the prevention of fire or for the protection of life and property against fire and panic unless the requirement would be applicable to a structure regardless of the special occupancy. Nothing shall restrict the application of state or local housing standards to such facilities if the standards are applicable to residential occupancies and are not based on the use of the structure as a facility for ambulatory children. For the purpose of this exception, ambulatory children does not include relatives of the licensee or the licensee's spouse.

**(310.3 CBC)**

**Large Family Day-Care Homes. See Section R326.**

**(312 CBC/IBC)**

**1.1.3.1.2 Utility and Miscellaneous Group U. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:**

Agricultural buildings  
Aircraft hangars, accessory to a one- or two-family residence (see Section 412.5 of the California Building Code)  
Barns  
Carpports  
Fences more than 6 feet (1829 mm) high  
Grain silos, accessory to a residential occupancy  
Greenhouses  
Livestock shelters

Private garages  
Retaining walls  
Sheds  
Stables  
Tanks  
Towers

**1.1.3.2 Regulated buildings, structures, and applications.** *The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions shall apply to detached one- and two-family dwellings, townhouses, and structures accessory thereto. State agencies with regulatory authority are referenced in the Matrix Adoption Tables and as specified in Sections 1.2 through 1.11, except where modified by local ordinance pursuant to Section 1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.*

**Note:** *See Preface to distinguish the model code provisions from the California provisions.*

1. One- and two-family dwellings, employee housing, factory-built housing, and other types of dwellings containing sleeping accommodations with common toilets or cooking facilities. See Section 1.2.1.1.1.
2. Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development. See Section 1.2.1.1.3.
3. Applications regulated by the Office of the State Fire Marshal include, but are not limited to, the following in accordance with Section 1.11:

3.1. Buildings or structures used or intended for use as an:

1. Home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.
2. Small family day care homes, large family day care homes, residential facilities and residential facilities for the elderly, residential care facilities.
3. State institutions or other state-owned or state-occupied buildings.
4. Residential structures.
5. Tents, awnings or other fabric enclosures used in connection with any occupancy.
6. Fire alarm devices, equipment and systems in connection with any occupancy.
7. Wildland-urban interface fire areas.

**1.1.4 Appendices.** *Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section 18901 et. seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section 1.1.8 of this code.*

**1.1.5 Referenced codes.** *The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes, standards, and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.*

**1.1.6 Nonbuilding standards, orders and regulations.** *Requirements contained in the International Residential Code, or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For nonbuilding standards, orders and regulations, see other titles of the California Code of Regulations.*

**1.1.7 Order of precedence and use.**

**1.1.7.1 Differences.** *In the event of any differences between these building standards and the standard reference*

documents, the text of these building standards shall govern.

**1.1.7.2 Specific provisions.** Where a specific provision varies from a general provision, the specific provision shall apply.

**1.1.7.3 Conflicts.** When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.

**1.1.7.3.1 Detached one-and two-family dwellings.** Detached one-and two-family dwellings and townhouses not more than three stories above grade plane with a separate means of egress and their accessory structures shall not be required to comply with more restrictive requirements contained in Title 24, Part 2, the California Building Code, unless the proposed structure(s) exceed the design limitations established in the California Residential Code and the code user is specifically directed to use the California Building Code.

**1.1.8 City, county or city and county amendments, additions or deletions.** The provisions of this code do not limit the authority of city, county or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 1.1.8.1. The effective date of amendments, additions or deletions to this code of a city, county or a city and county filed pursuant to Section 1.1.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.

Local modifications shall comply with Health and Safety Code Section 18941.5 for Building Standards Law, Health and Safety Code Section 17958 for State Housing Law or Health and Safety Code Section 13869.7 for Fire Protection Districts.

**1.1.8.1 Findings and filings.**

1. The city, county or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical or geological conditions.

**Exception:** Hazardous building ordinances and programs mitigating unreinforced masonry buildings.

2. The city, county or city and county shall file the amendments, additions or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.

3. Findings prepared by fire protection districts shall be ratified by the local city, county or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P.O. Box 1407, Sacramento, CA 95812-1407 or 1800 3rd Street, Room 260, Sacramento, CA 95811.

**1.1.9 Effective date of this code.** Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.

**1.1.10 Availability of codes.** At least one entire copy each of Titles 8, 19, 20, 24 and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county or city and county shall have an up-to-date copy of the code available for public inspection. See Health and Safety Code Section 18942(d)(1) and (2).

**1.1.11 Format.** This part fundamentally adopts the International Residential Code by reference on a chapter-by-chapter basis. Such adoption is reflected in the Matrix Adoption Table of each chapter of this part. When the Matrix Adoption Tables make no reference to a specific chapter of the International Residential Code such chapter of the International Residential Code is not adopted as a portion of this code.

**1.1.12 Validity.** If any chapter, section, subsection, sentence, clause or phrase of this code is for any reason held to

be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.

**SECTION 1.2**  
**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**

**SECTION 1.3 Reserved**  
**SECTION 1.4 Reserved**  
**SECTION 1.5 Reserved**  
**SECTION 1.6 Reserved**  
**SECTION 1.7 Reserved**  
**SECTION 1.8 Reserved**  
**SECTION 1.9 Reserved**  
**SECTION 1.10 Reserved**

**SECTION 1.11**  
**OFFICE OF THE STATE FIRE MARSHAL**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

---

[1.1. The SFM proposes to adopt specific Sections of Chapter 1 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]

1.11.1 SFM—Office of the State Fire Marshal. Specific scope of application of the agency responsible for enforcement, the enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

**Application:**

**Institutional, educational or any similar occupancy.** Any building or structure used or intended for use as an asylum, jail, mental hospital, hospital, sanitarium, home for the aged, children's nursery, children's home, school or any similar occupancy of any capacity.

**Authority cited—Health and Safety Code Section 13143.**

**Reference—Health and Safety Code Section 13143.**

**Assembly or similar place of assemblage.** Any theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.

**Authority cited—Health and Safety Code Section 13143.**

**Reference—Health and Safety Code Section 13143.**

**Small family day care homes.**

**Authority cited—Health and Safety Code Sections 1597.45, 1597.54, 13143 and 17921.**

**Reference - Health and Safety Code Section 13143.**

**Large family day care homes.**

**Authority cited**—Health and Safety Code Sections 1597.46, 1597.54 and 17921.  
**Reference** - Health and Safety Code Section 13143.

**Residential facilities and residential facilities for the elderly.**

**Authority cited**—Health and Safety Code Section 13133.  
**Reference**—Health and Safety Code Section 13143.

**Any state institution or other state-owned or state-occupied building.**

**Authority cited**—Health and Safety Code Section 13108.  
**Reference**—Health and Safety Code Section 13143.

**High-rise structures.**

**Authority cited**—Health and Safety Code Section 13211.  
**Reference**—Health and Safety Code Section 13143.

**Motion picture production studios.**

**Authority cited**—Health and Safety Code Section 13143.1.  
**Reference**—Health and Safety Code Section 13143.

**Organized camps.**

**Authority cited**—Health and Safety Code Section 18897.3.  
**Reference**—Health and Safety Code Section 13143.

**Residential.** All hotels, motels, lodging houses, apartment houses and dwellings, including congregate residences and buildings and structures accessory thereto. Multiple-story structures existing on January 1, 1975, let for human habitation, including and limited to, hotels, motels and apartment houses, less than 75 feet (22 860 mm) above the lowest floor level having building access, wherein rooms used for sleeping are let above the ground floor.

**Authority cited**—Health and Safety Code Sections 13143.2 and 17921.  
**Reference**—Health and Safety Code Section 13143.

**Residential care facilities.** Certified family care homes, out-of-home placement facilities, halfway houses, drug and/or alcohol rehabilitation facilities and any building or structure used or intended for use as a home or institution for the housing of any person of any age when such person is referred to or placed within such home or institution for protective social care and supervision services by any governmental agency.

**Authority cited**—Health and Safety Code Section 13143.6.  
**Reference**—Health and Safety Code Section 13143.

**Tents, awnings or other fabric enclosures used in connection with any occupancy.**

**Authority cited**—Health and Safety Code Section 13116.  
**Reference**—Health and Safety Code Section 13143.

**Fire alarm devices, equipment and systems in connection with any occupancy.**

**Authority cited**—Health and Safety Code Section 13114.  
**Reference**—Health and Safety Code Section 13143.

**Hazardous materials.**

**Authority cited**—Health and Safety Code Section 13143.9.

Reference—Health and Safety Code Section 13143.

**Flammable and combustible liquids.**

Authority cited—Health and Safety Code Section 13143.6.

Reference—Health and Safety Code Section 13143.

**Public School Automatic Fire Detection, Alarm and Sprinkler Systems.**

Authority cited—Health and Safety Code Section 13143 and California Education Code Article 7.5, Sections 17074.50, 17074.52 and 17074.54.

Reference—Government Code Section 11152.5, Health and Safety Code Section 13143 and California Education Code Chapter 12.5, Leroy F. Greene School Facilities Act of 1998, Article 1.

**Wildland-Urban Interface Fire Area.**

Authority cited—Health and Safety Code Sections 13143, 13108.5(a) and 18949.2(b) and (c) and Government Code Section 51189.

Reference—Health and Safety Code Sections 13143, Government Code Sections 51176, 51177, 51178 and 51179 and Public Resources Code Sections 4201 through 4204.

**1.11.2 Duties and powers of the enforcing agency.**

**1.11.2.1 Enforcement.**

1.11.2.1.1 The responsibility for enforcement of building standards adopted by the State Fire Marshal and published in the California Building Standards Code relating to fire and panic safety and other regulations of the State Fire Marshal shall except as provided in Section 1.11.2.1.2 be as follows:

1. The city, county or city and county with jurisdiction in the area affected by the standard or regulation shall delegate the enforcement of the building standards relating to fire and panic safety and other regulations of the State Fire Marshal as they relate to Group R-3 occupancies, as described in Section 1.1.3.1 or CCR, Part 2 California Building Code,, Section 310.1, to either of the following:

1.1. The chief of the fire authority of the city, county or city and county, or an authorized representative.

1.2. The chief building official of the city, county or city and county, or an authorized representative.

2. The chief of any city or county fire department or of any fire protection district, and authorized representatives, shall enforce within the jurisdiction the building standards and other regulations of the State Fire Marshal, except those described in Item 1 or 4.

3. The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in areas outside of corporate cities and districts providing fire protection services.

4. The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in corporate cities and districts providing fire protection services on request of the chief fire official or the governing body.

5. Any fee charged pursuant to the enforcement authority of this section shall not exceed the estimated reasonable cost of providing the service for which the fee is charged pursuant to Section 66014 of the Government Code.

1.11.2.1.2 Pursuant to Health and Safety Code Section 13108, and except as otherwise provided in this section, building standards adopted by the State Fire Marshal published in the California Building Standards Code relating to fire and panic safety shall be enforced by the State Fire Marshal in all state-owned buildings, state-occupied buildings, and state institutions throughout the state. Upon the written request of the chief fire official of any city, county or fire protection district, the State Fire Marshal may authorize such chief fire official and his or her authorized representatives, in their geographical area of responsibility, to make fire prevention inspections of state-owned or state-occupied buildings, other than state institutions, for the purpose of enforcing the regulations relating to fire and panic safety adopted by the State Fire Marshal pursuant to this section and building standards relating to fire and

panic safety published in the California Building Standards Code. Authorization from the State Fire Marshal shall be limited to those fire departments or fire districts which maintain a fire prevention bureau staffed by paid personnel.

Pursuant to Health and Safety Code Section 13108, any requirement or order made by any chief fire official who is authorized by the State Fire Marshal to make fire prevention inspections of state-owned or state-occupied buildings, other than state institutions, may be appealed to the State Fire Marshal. The State Fire Marshal shall, upon receiving an appeal and subject to the provisions of Chapter 5 (commencing with Section 18945) of Part 2.5 of Division 13 of the Health and Safety Code, determine if the requirement or order made is reasonably consistent with the fire and panic safety regulations adopted by the State Fire Marshal and building standards relating to fire and panic safety published in the California Building Code.

Any person may request a code interpretation from the State Fire Marshal relative to the intent of any regulation or provision adopted by the State Fire Marshal. When the request relates to a specific project, occupancy or building, the State Fire Marshal shall review the issue with the appropriate local enforcing agency prior to rendering such code interpretation.

1.11.2.1.3 Pursuant to Health and Safety Code Section 13112, any person who violates any order, rule or regulation of the State Fire Marshal is guilty of a misdemeanor punishable by a fine of not less than \$100.00 or more than \$500.00, or by imprisonment for not less than six months, or by both. A person is guilty of a separate offense each day during which he or she commits, continues or permits a violation of any provision of, or any order, rule or regulation of, the State Fire Marshal as contained in this code.

Any inspection authority who, in the exercise of his or her authority as a deputy State Fire Marshal, causes any legal complaints to be filed or any arrest to be made shall notify the State Fire Marshal immediately following such action.

1.11.2.2 Right of entry. The fire chief of any city, county or fire protection district, or such person's authorized representative, may enter any state institution or any other state-owned or state-occupied building for the purpose of preparing a fire suppression preplanning program or for the purpose of investigating any fire in a state-occupied building.

The State Fire Marshal, his or her deputies or salaried assistants, the chief of any city or county fire department or fire protection district and his or her authorized representatives may enter any building or premises not used for dwelling purposes at any reasonable hour for the purpose of enforcing this chapter. The owner, lessee, manager or operator of any such building or premises shall permit the State Fire Marshal, his or her deputies or salaried assistants and the chief of any city or county fire department or fire protection district and his or her authorized representatives to enter and inspect them at the time and for the purpose stated in this section.

### **1.11.2.3 More restrictive fire and panic safety building standards.**

1.11.2.3.1 Any fire protection district organized pursuant to Health and Safety Code Part 2.7 (commencing with Section 13800) of Division 12 may adopt building standards relating to fire and panic safety that are more stringent than those building standards adopted by the State Fire Marshal and contained in the California Building Standards Code. For these purposes, the district board shall be deemed a legislative body and the district shall be deemed a local agency. Any changes or modifications that are more stringent than the requirements published in the California Building Standards Code relating to fire and panic safety shall be subject to Section 1.1.8.1.

1.11.2.3.2 Any fire protection district that proposes to adopt an ordinance pursuant to this section shall, not less than 30 days prior to noticing a proposed ordinance for public hearing, provide a copy of that ordinance, together with the adopted findings made pursuant to Section 1.11.2.3.1, to the city, county or city and county where the ordinance will apply. The city, county or city and county may provide the district with written comments, which shall become part of the fire protection district's public hearing record.

1.11.2.3.3 The fire protection district shall transmit the adopted ordinance to the city, county or city and county where the ordinance will apply. The legislative body of the city, county or city and county may ratify, modify or deny an adopted ordinance and transmit its determination to the district within 15 days of the determination. Any modification or denial of an adopted ordinance shall include a written statement describing the reasons for any modifications or

denial. No ordinance adopted by the district shall be effective until ratification by the city, county or city and county where the ordinance will apply. Upon ratification of an adopted ordinance, the city, county or city and county shall file a copy of the findings of the district, and any findings of the city, county or city and county, together with the adopted ordinance expressly marked and identified to which each finding refers, in accordance with Section 1.1.8.1:3.

**1.11.2.4 Request for alternate means of protection.** Requests for approval to use an alternative material, assembly or materials, equipment, method of construction, method of installation of equipment or means of protection shall be made in writing to the enforcing agency by the owner or the owner's authorized representative and shall be accompanied by a full statement of the conditions. Sufficient evidence or proof shall be submitted to substantiate any claim that may be made regarding its conformance. The enforcing agency may require tests and the submission of a test report from an approved testing organization as set forth in Title 19, California Code of Regulation, to substantiate the equivalency of the proposed alternative means of protection.

When a request for alternate means of protection involves hazardous materials, the authority having jurisdiction may consider implementation of the findings and recommendations identified in a Risk Management Plan (RMP) developed in accordance with Title 19, Division 2, Chapter 4.5, Article 3.

Approval of a request for use of an alternative material, assembly of materials, equipment, method of construction, method of installation of equipment or means of protection made pursuant to these provisions shall be limited to the particular case covered by request and shall not be construed as establishing any precedent for any future request.

**1.11.2.5 Appeals.** When a request for an alternate means of protection has been denied by the enforcing agency, the applicant may file a written appeal to the State Fire Marshal for consideration of the applicant's proposal. In considering such appeal, the State Fire Marshal may seek the advice of the State Board of Fire Services. The State Fire Marshal shall, after considering all of the facts presented, including any recommendations of the State Board of Fire Services, determine if the proposal is for the purposes intended, at least equivalent to that specified in these regulations in quality, strength, effectiveness, fire resistance, durability and safety, and shall transmit such findings and any recommendations to the applicant and to the enforcing agency.

### **1.11.3 Construction documents.**

**1.11.3.1 Public schools.** Plans and specifications for the construction, alteration or addition to any building owned, leased or rented by any public school district shall be submitted to the Division of the State Architect.

**1.11.3.2 Movable walls and partitions.** Plans or diagrams shall be submitted to the enforcing agency for approval before the installation of, or rearrangement of, any movable wall or partition in any occupancy. Approval shall be granted only if there is no increase in the fire hazard.

### **1.11.3.3 New construction high-rise buildings.**

1. Complete plans or specifications, or both, shall be prepared covering all work required to comply with new construction high-rise buildings. Such plans and specifications shall be submitted to the enforcing agency having jurisdiction.
2. All plans and specifications shall be prepared under the responsible charge of an architect or a civil or structural engineer authorized by law to develop construction plans and specifications, or by both such architect and engineer. Plans and specifications shall be prepared by an engineer duly qualified in that branch of engineering necessary to perform such services. Administration of the work of construction shall be under the charge of the responsible architect or engineer except that where plans and specifications involve alterations or repairs, such work of construction may be administered by an engineer duly qualified to perform such services and holding a valid certificate under Chapter 7 (commencing with Section 65700) of Division 3 of the Business and Professions Code for performance of services in that branch of engineering in which said plans, specifications and estimates and work of construction are applicable.

This section shall not be construed as preventing the design of fire-extinguishing systems by persons holding a C-16 license issued pursuant to Division 3, Chapter 9, Business and Professions Code. In such instances, however, the responsibility charge of this section shall prevail.

#### **1.11.3.4 Existing high-rise buildings.**

1. Complete plans or specifications, or both, shall be prepared covering all work required by Section 3412 for existing high-rise buildings. Such plans or specifications shall be submitted to the enforcing agency having jurisdiction.
2. When new construction is required to conform with the provisions of these regulations, complete plans or specifications, or both, shall be prepared in accordance with the provisions of this subsection. As used in this section, "new construction" is not intended to include repairs, replacements or minor alterations which do not disrupt or appreciably add to or affect the structural aspects of the building.

**1.11.3.5 Retention of plans.** Refer to Building Standards Law, Health and Safety Code Sections 19850 and 19851 for permanent retention of plans.

#### **1.11.4 Fees.**

**1.11.4.1 Other fees.** Pursuant to Health and Safety Code Section 13146.2, a city, county or district which inspects a hotel, motel, lodging house or apartment house may charge and collect a fee for the inspection from the owner of the structure in an amount, as determined by the city, county or district, sufficient to pay its costs of that inspection.

**1.11.4.2 Large family day care.** Pursuant to Health and Safety Code Section 1597.46, Large Family Day Care Homes, the local government shall process any required permit as economically as possible, and fees charged for review shall not exceed the costs of the review and permit process.

**1.11.4.3 High-rise.** Pursuant to Health and Safety Code Section 13217, High-rise Structure Inspection: Fees and costs, a local agency which inspects a high-rise structure pursuant to Health and Safety Code Section 13217 may charge and collect a fee for the inspection from the owner of the high-rise structure in an amount, as determined by the local agency, sufficient to pay its costs of that inspection.

**1.11.4.4 Fire clearance preinspection.** Pursuant to Health and Safety Code Section 13235, Fire Clearance Preinspection, fee, upon receipt of a request from a prospective licensee of a community care facility, as defined in Section 1502, of a residential care facility for the elderly, as defined in Section 1569.2, or of a child day care facility, as defined in Section 1596.750, the local fire enforcing agency, as defined in Section 13244, or State Fire Marshal, whichever has primary jurisdiction, shall conduct a preinspection of the facility prior to the final fire clearance approval. At the time of the preinspection, the primary fire enforcing agency shall price consultation and interpretation of the fire safety regulations and shall notify the prospective licensee of the facility in writing of the specific fire safety regulations which shall be enforced in order to obtain fire clearance approval. A fee of not more than \$50.00 may be charged for the preinspection of a facility with a capacity to serve 25 or fewer persons. A fee of not more than \$100.00 may be charged for a preinspection of a facility with a capacity to serve 26 or more persons.

**1.11.4.5 Care facilities.** The primary fire enforcing agency shall complete the final fire clearance inspection for a community care facility, residential care facility for the elderly, or child day care facility within 30 days of receipt of the request for the final inspection, or as of the date the prospective facility requests the final prelicensure inspection by the State Department of Social Services, whichever is later.

Pursuant to Health and Safety Code Section 13235, a preinspection fee of not more than \$50.00 may be charged for a facility with a capacity to serve 25 or less clients. A fee of not more than \$100.00 may be charged for a preinspection of a facility with a capacity to serve 26 or more clients.

Pursuant to Health and Safety Code Section 13131.5, a reasonable final inspection fee, not to exceed the actual cost of inspection services necessary to complete a final inspection may be charged for occupancies classified as residential care facilities for the elderly (RCFE)

Pursuant to Health and Safety Code Section 1569.84, neither the State Fire Marshal nor any local public entity shall charge any fee for enforcing fire inspection regulations pursuant to state law or regulation or local ordinance, with respect to residential care facilities for the elderly (RCFE) which service six or fewer persons.

**1.11.4.6 Requests of the Office of the State Fire Marshal.** Whenever a local authority having jurisdiction requests

that the State Fire Marshal perform plan review and/or inspection services related to a building permit, the applicable fees for such shall be payable to the Office of the State Fire Marshal.

1.11.5 Inspections. Work performed subject to the provisions of this code shall comply with the inspection requirements of Sections R109.1 through R109.1.6.

1.11.5.1 Existing Group I -1 or R occupancies. Licensed 24-hour care in a Group I-1 or R occupancy in existence and originally classified under previously adopted state codes shall be reinspected under the appropriate previous code, provided there is no change in the use or character which would place the facility in a different occupancy group.

1.11.6 Certificate of occupancy. A Certificate of Occupancy shall be issued as specified in Section R110.

1.11.7 Temporary structures and uses. See Section R107.

1.11.8 Service utilities. See Section R111.

1.11.9 Stop work order. See Section R114.

1.11.10 Unsafe buildings, structures and equipment. See Title 24, Part 2, California Building Code, Section 115.

**SECTION 1.12 Reserved**

**SECTION 1.13 Reserved**

**SECTION 1.14 Reserved**

**Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

---

**[1.2. The SFM proposes to adopt specific Sections of Chapter 1 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]  
(IRC Chapter 1 Administrative provisions - Sections 101 through 114 relocated to Division II of Chapter 1.)**

**CHAPTER 1  
DIVISION II**

**SECTION R101  
GENERAL**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

---

**[2. The SFM proposes to adopt specific Sections and definitions of Chapter 2 with the following amendments and California regulations, adopt only those Sections or definitions listed the corresponding Matrix Adoption Table.]**

**Part II—Definitions**

**CHAPTER 2  
DEFINITIONS**

**(201.3 CBC)**

**R201.3 Terms defined in other codes.** Where terms are not defined in this code such terms shall have meanings ascribed to them as in ~~other code publications of the International Code Council~~ the California Building Standards Code, Title 24, California Code of Regulations.

**(201.4 CBC)**

**R201.4 Terms not defined.** Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

For applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged, shall be considered as providing ordinarily accepted meanings.

**Section R202**

**(310.2 CBC)**

**AGED HOME OR INSTITUTION** is a facility used for the housing of persons 65 years of age or older in need of care and supervision. (See definition of "care and supervision")

**(202 CBC)**

**APPROVED AGENCY.** An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved by the building official.

"Approved agency shall mean "Approved Listing Agency" and "Approved Testing agency."

**(202 CBC)**

**APPROVED LISTING AGENCY.** "Approved Listing Agency" is any agency approved by the enforcing agency, unless otherwise provided by statute, which is in the business of listing and labeling and which makes available at least an annual published report of such listings in which specific information is included that the product has been tested to recognized standards and found to comply.

**(202 CBC)**

**APPROVED TESTING AGENCY.** "Approved Testing Agency" is any agency which is determined by the enforcing agency, except as otherwise provided by statute, to have adequate personnel and expertise to carry out the testing of systems, materials, and construction fixtures or appliances.

**(310.2 CBC)**

**BEDRIDDEN PERSON** means a person, requiring assistance in turning and repositioning in bed, or being unable to independently transfer to and from bed, except in facilities with appropriate and sufficient care staff, mechanical devices if necessary, and safety precautions as determined in Title 22 regulations, by the Director of Social Services or his or her designated representative.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of persons with developmental disabilities, in consultation with the Director of Developmental Services or his or her designated representative.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of all other persons with disabilities who are not developmentally disabled.

**(202 CBC)**

**BUILDING.** Building shall mean any one- and two-family dwelling or portion thereof, including townhouses, that is used, or designed or intended to be used for human habitation, for living, sleeping, cooking or eating purposes, or any combination thereof, and shall include accessory structures thereto.

*Note: Building shall have the same meaning as defined in Health and Safety Code Section 17920 and 18908 for the applications specified in Section 1.11.*

**(310.2 CBC)**

**CARE AND SUPERVISION** means any one or more of the following activities provided by a person or facility to meet the needs of the clients:

Assistance in dressing, grooming, bathing and other personal hygiene.

Assistance with taking medication.

Central storing and/or distribution of medications.

Arrangement of and assistance with medical and dental care.

Maintenance of house rules for the protection of clients.

Supervision of client schedules and activities.

Maintenance and/or supervision of client cash resources or property.

Monitoring food intake or special diets.

Providing basic services required by applicable law and regulation to be provided by the licensee in order to obtain and maintain a community-care facility license.

**(310.2 CBC)**

**CATASTROPHICALLY INJURED**, as termed, means a person whose origin of disability was acquired through trauma or nondegenerative neurologic illness, for whom it has been determined by the Department of Health Services Certification and Licensing that active rehabilitation would be beneficial.

**(310.2 CBC)**

**CHILD-CARE CENTER** is any facility of any capacity other than a large or small family day-care home as defined in these regulations in which less than 24-hour-per-day nonmedical supervision is provided for children in a group setting.

**(310.2 CBC)**

**CHILD OR CHILDREN** is a person or persons under the age of 18 years.

**(310.2 CBC)**

**CHRONICALLY ILL.** See "Terminally ill."

**(310.2 CBC)**

**CONGREGATE LIVING HEALTH FACILITY (CLHF)**, as termed, is a residential home with a capacity of no more than six beds, which provides inpatient care, including the following basic services: medical supervision, 24-hour skilled nursing and supportive care, pharmacy, dietary, social recreational, and at least provides services for persons who are diagnosed with a terminal illness or who are catastrophically and severely disabled.

**(310.2 CBC)**

**CONGREGATE RESIDENCE** is any building or portion thereof that contains facilities for living, sleeping and sanitation, as required by this code, and may include facilities for eating and cooking, for occupancy by other than a family. A congregate residence may be a shelter, convent, monastery, dormitory, fraternity or sorority house, but does not include jails, hospitals, nursing homes, hotels or lodging houses.

**(310.2 CBC)**

**DAYCARE** shall, for the purposes of these regulations, mean the care of persons during any period of a 24-hour day where permanent sleeping accommodations are not provided.

*Note: "Daycare" shall not be construed to preclude the use of cots or mats for napping purposes, provided all employees, attendants and staff personnel are awake and on duty in the area where napping occurs.*

**(310.2 CBC)**

**DAY-CARE HOME, FAMILY.** A home that regularly provides care, protection, and supervision for 14 or fewer children, in the provider's own home, for periods of less than 24 hours per day, while the parents or guardians are away, and is either a large family day-care home or a small family day-care home.

**(310.2 CBC)**

**DAY-CARE HOME, LARGE FAMILY.** A provider's own home which is licensed to provide day care for periods less than 24 hours per day for nine to 14 persons, including children under the age of 10 years who reside at the home.

**(310.2 CBC)**

**DAY-CARE HOME, SMALL FAMILY.** A home which provides family day-care to eight or fewer children, including children under the age of 10 years who reside at the home, in the provider's own home, for periods of less than 24 hours per day. Small family day-care homes are exempted from state fire and life safety regulations other than those state and local standards applicable to Group R-3 Occupancies. [See Health and Safety Code, Section 13143 (b).]

**(202 CBC)**

**ENFORCING AGENCY.** Enforcing Agency is the designated department or agency as specified by statute or regulation.

**(310.2 CBC)**

**FULL-TIME CARE** shall mean the establishment and routine care of persons on an hourly, daily, weekly, monthly, yearly or permanent basis, whether for 24-hours per day or less, and where sleeping accommodations are provided.

**(310.2 CBC)**

**INFANT,** for the purpose of these regulations, shall mean any child who because of age only, is unable to walk and requires the aid of another person to evacuate the building. In no case shall the term "infant" mean a child beyond two years of age.

**(202 CBC)**

**LISTED.** Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

For applications listed in Section 111 regulated by the Office of the State Fire Marshal, "listed" shall also mean equipment or materials accepted by the state fire marshal as conforming to the provisions of the State Fire Marshal's regulations and which are included in a list published by the State Fire Marshal.

**(310.2 CBC)**

**MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY,** shall mean any retarded person who is unable to evacuate a building unassisted during emergency conditions.

**Note:** The determination as to such incapacity shall be made by the Director of the State Department of Public Health or his or her designated representative pursuant to Health and Safety Code Section 13131.3.

**(310.2 CBC)**

**NONAMBULATORY PERSONS** are persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend on mechanical aids such as crutches, walkers and wheelchairs and any person who is unable to physically and mentally respond to a sensory signal approved by the state fire marshal or an oral instruction relating to fire danger.

The determination of ambulatory or nonambulatory status of persons with developmental disabilities shall be made by the Director of Social Services or his or her designated representative, in consultation with the director of Developmental Services or his or her designated representative. The determination of ambulatory or nonambulatory status of all other disabled persons placed after January 1, 1984, who are not developmentally disabled shall be made by the Director of Social Services or his or her designated representative.

**(202 CBC)**

**NONCOMBUSTIBLE MATERIAL.** Materials that pass the test procedure for defining noncombustibility of elementary materials set forth in ASTM E 136. *Noncombustible as applied to building construction material means a material which, in the form in which it is used, is either one of the following:*

1. *Material of which no part will ignite and burn when subjected to fire. Any material passing ASTM E 136 shall be considered noncombustible.*
2. *Material having a structural base of noncombustible material as defined in Item 1 above, with a surfacing material not over  $\frac{1}{8}$  inch (3.2 mm) thick which has a flame-spread index of 50 or less.*

*“Noncombustible” does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances or other sources of high temperature shall refer to material conforming to Item 1. No material shall be classed as noncombustible which is subject to increase in combustibility or flame-spread index, beyond the limits herein established, through the effects of age, moisture or other atmospheric condition.*

**(310.2 CBC)**

**PROTECTIVE SOCIAL CARE FACILITY.** A facility housing persons, who are referred, placed or caused to be placed in the facility, by any governmental agency and for whom the services, or a portion thereof, are paid for by any governmental agency. These occupancies shall include, but are not limited to, those commonly referred to as “assisted living facilities”, “social rehabilitation facilities”, “certified family care homes,” “out-of-home placement facilities,” and “halfway houses.”

**(310.2 CBC)**

**RESIDENTIAL CARE FACILITY FOR THE CHRONICALLY ILL (RCF/CI),** as termed, means a housing arrangement with a maximum capacity of 25 residents that provides a range of services to residents who have chronic, life-threatening illnesses.

**(310.2 CBC)**

**RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE),** as defined in Health and Safety Code Section 1569.2, shall mean a facility with a housing arrangement chosen voluntarily by persons 60 years of age or over, or their authorized representative, where varying levels and intensities of care and supervision, protective supervision or personal care are provided, based on their varying needs, as determined in order to be admitted and to remain in the facility. Persons under 60 years of age with compatible needs, as determined by the Department of Social Services in regulations, may be allowed to be admitted or retained in a residential-care facility for the elderly.

Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Group R, Division 2 Occupancies classified as Residential Facilities (RF) and Residential-care Facilities for the Elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is in consistent with these regulations. A city, county, city and county, including a charter city or charter county may pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by the state fire marshal that are reasonably necessary to accommodate local climate, geological, or topographical conditions relating to roof coverings for Residential-care Facilities for the Elderly.

**(310.2 CBC)**

**RESIDENTIAL FACILITY (RF),** as defined in Section 1502 of the Health and Safety Code, shall mean any family home, group care facility, or similar facility determined by the director of Social Services, for 24-hour nonmedical care of persons in need of personal services, supervision, or assistance essential for sustaining the activities of daily living or for the protection of the individual. Such facilities include small family homes and social rehabilitation facilities.

Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Group R Occupancies classified as Residential Facilities (RF) and Residential-care Facilities for the Elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is in consistent with these regulations. A city, county, city and county, including a charter city or charter county may

pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by the state fire marshal that are reasonably necessary to accommodate local climate, geological, or topographical conditions relating to roof coverings for Residential-care Facilities for the Elderly.

**(202 CBC)**

**RESTRAINT.** Restraint shall mean the physical retention of a person within a room, cell or cell block by any means, or within the exterior walls of a building by means of locked doors inoperable by the person restrained. Restraint shall also mean the physical binding, strapping or similar restriction of any person in a chair, walker, bed or other contrivance for the purpose of deliberately restricting the free movement of ambulatory persons.

Restraint shall not be construed to include nonambulatory persons nor shall it include the use of bandage material, strip sheeting or other fabrics or materials (soft ties) used to restrain persons in hospital-type beds or wheelchairs to prevent injury, provided an approved method of quick release is maintained. Facilities employing the use of soft ties, however, shall be classified as a building used to house nonambulatory persons.

Restraint shall not be practiced in licensed facilities classified as Group I-1, R-3.1 and R-4 occupancies unless constructed as a Group I-3 occupancy. For Group I-3 Occupancies see Section 408.1.1 of the California Building Code.

**(202 CBC)**

**STATE-OWNED/LEASED BUILDING.** State-Owned/Leased Building is a building or portion of a building that is owned, leased or rented by the state. State-leased buildings shall include all required exits to a public way serving such leased area or space. Portions of state- leased buildings that are not leased or rented by the state shall not be included within the scope of this section unless such portions present an exposure hazard to the state-leased area or space.

**(310.2 CBC)**

**TERMINALLY ILL,** as termed for an individual, means the individual has a life expectancy of six months or less as stated in writing by his or her attending physician and surgeon.

**Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

---

**[3. The SFM proposes to adopt specific Sections of Chapter 3 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]**

**Part III—Building Planning and Construction**

**CHAPTER 3  
BUILDING PLANNING**

**(302.1 CBC)**

**R301.1 Application.** Buildings and structures, and all parts thereof, shall be constructed to safely support all loads, including dead loads, live loads, roof loads, flood loads, snow loads, wind loads and seismic loads as prescribed by this code. The construction of buildings and structures in accordance with the provisions of this code shall result in a system that provides a complete load path that meets all requirements for the transfer of all loads from their point of

origin through the load-resisting elements to the foundation. Buildings and structures constructed as prescribed by this code are deemed to comply with the requirements of this section.

Existing buildings housing existing protective social care homes or facilities established prior to 1972 (see Section 3413 of the California Building Code).

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**R302.1 Exterior walls.** Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1); or for dwellings and accessory buildings equipped throughout with an automatic residential fire sprinkler system installed in accordance with Section 313 shall comply with Table R302.1(2).

**Exceptions:**

1. Walls, projections, openings, or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of dwellings and accessory structures located on the same lot.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.

**TABLE R302.1(1)  
EXTERIOR WALLS – DWELLINGS WITHOUT AUTOMATIC RESIDENTIAL FIRE SPRINKLER PROTECTION**

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure form both sides	<5 feet
	(Not fire-resistance rated)	0 hours	≥5 feet
Projections	(Fire-resistance rated)	1 hour on the underside	≥ 2 feet to 5 feet
	(Not fire-resistance rated)	0	5 feet
Openings in walls	Not allowed	N/A	< 3 feet
	25% Maximum of Wall Area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section <del>R317.3</del> R302.4	< 5 feet
		None required	5 feet

For SI: 1 foot = 304.8 mm.

N/A = Not Applicable

**TABLE R302.1(2)  
EXTERIOR WALLS – DWELLINGS WITH AUTOMATIC RESIDENTIAL FIRE SPRINKLER PROTECTION**

<u>Exterior Wall Element</u>		<u>Minimum Fire-Resistance Rating</u>	<u>Minimum Fire Separation Distance</u>
<u>Walls</u>	<u>(Fire-resistance rated)</u>	<u>1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure form both sides</u>	<u>&lt;3 feet</u>

	<i>(Not fire-resistance rated)</i>	<i>0 hours</i>	<i>≥3 feet</i>
<i>Projections</i>	<i>(Fire-resistance rated)</i>	<i>1 hour on the underside</i>	<i>≥ 2 feet to 3 feet</i>
	<i>(Not fire-resistance rated)</i>	<i>0</i>	<i>3 feet</i>
<i>Openings in walls</i>	<i>Not allowed</i>	<i>N/A</i>	<i>&lt; 3 feet</i>
	<i>Unlimited</i>	<i>0 hours</i>	<i>3 feet</i>
<i>Penetrations</i>	<i>All</i>	<i>Comply with Section R302.4</i>	<i>&lt; 3 feet</i>
		<i>None required</i>	<i>3 feet</i>

For SI: 1 foot = 304.8 mm.

*N/A = Not Applicable*

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**R302.2 Townhouses.** Each townhouse shall be considered a separate building and shall be separated by fire-resistance-rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

**Exception:** A common 1-hour fire-resistance-rated wall is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installations shall be installed in accordance with ~~Chapters 33 through 42~~ the California Electrical Code. Penetrations of electrical outlet boxes shall be in accordance with Section R302.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(406.1.4 item 1 CBC)**

**R302.5.1 Opening protection.** Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. ~~Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.~~ Doors shall be self-closing and self-latching.

**Exception:** Where the dwelling and the private garage is protected by fire sprinklers, other openings between the garage and residence need only be self-closing and self-latching.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(406.1.4 item 3 CBC)**

**R302.6 Dwelling/garage or carport fire separation.** The garage or carport shall be separated as required by Table R302.6. Openings in garage walls shall comply with Section R302.5. This provision does not apply to garage walls that are perpendicular to the adjacent dwelling unit wall. A separation is not required between the dwelling and carport, provided the carport is entirely open on two or more sides and there are not enclosed areas above.

**TABLE R302.6  
DWELLING/GARAGE SEPARATION**

SEPARATION	MATERIAL
------------	----------

From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From all habitable rooms above the garage <u>or carport</u>	Not less than 5/8-inch Type X gypsum board or equivalent <sup>1</sup>
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

1. Not less than 1/2-inch gypsum board or equivalent shall be permitted where the dwelling and the private garage or carport is protected by fire sprinklers.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(803.1.2 CBC)**

**R302.9.4 Alternate test method.** As an alternate to having a flame-spread classification of not greater than 200 and a smoke developed index of not greater than 450 when tested in accordance with ASTM E 84, wall and ceiling finishes, other than textiles, shall be permitted to be tested in accordance with NFPA 286. Materials tested in accordance with NFPA 286 shall meet the following criteria:

During the 40 kW exposure, the interior finish shall comply with Item 1. During the 160 kW exposure, the interior finish shall comply with Item 2. During the entire test, the interior finish shall comply with Item 3 and 4.

1. During the 40kW exposure, flames shall not spread to the ceiling.
2. During the 160 kW exposure, the interior finish shall comply with the following:
  - 2.1. Flame shall not spread to the outer extremity of the sample on any wall or ceiling.
  - 2.2. Flashover, as defined in NFPA 286, shall not occur.
3. The total smoke released throughout the NFPA 286 test shall not exceed 1,000 m<sup>2</sup>.
4. The peak rate of heat release throughout the NFPA 286 test shall not exceed 800 kW.

**(803.10 CBC)**

**R302.9.5 Stability.** Interior finish materials regulated by this chapter shall be applied or otherwise fastened in such a manner that such materials will not readily become detached where subjected to room temperatures of 200°F (93°C) for not less than 30 minutes.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**R302.13 Combustible insulation clearance.** Combustible insulation shall be separated a minimum of 3 inches (76 mm) from recessed luminaires, fan motors and other heat-producing devices.

**Exception:** Where heat-producing devices are listed for lesser clearances, combustible insulation complying with the listing requirements shall be separated in accordance with the conditions stipulated in the listing.

Recessed luminaires installed in the building ~~thermal~~ envelope shall meet or exceed the minimum requirements of ~~Section N1102.4.3~~ specified in the California Energy Code for recessed luminaires installed in insulated ceilings.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**R309.5 Fire Sprinklers.** *Private carports with habitable space above and attached garages shall be protected by fire sprinklers. Sprinklers in garages shall be connected to a system that complies with Section 313 or NFPA 13D. Garage sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a density of 0.05 gpm/ft<sup>2</sup>. Garage doors shall not be considered obstructions with respect to sprinkler placement.*

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(1026.4 CBC)**

**R310.1.4 Operational constraints.** Emergency escape and rescue openings shall be maintained free of any obstructions other than those allowed by this section and shall be operational from the inside of the room without the use of keys, tools or special knowledge.

**(1026.4 CBC)**

**R310.4 Bars, grilles, covers and screens.** Bars, grilles, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net clear opening size complies with Sections R310.1.1 to R310.1.3, and such devices shall be releasable or removable from the inside without the use of a key, tool, special knowledge or force greater than that which is required for normal operation of the escape and rescue opening. The release mechanism shall be maintained operable at all times.

**(1026.4 CBC)**

Such bars, grills, grates or any similar devices shall be equipped with an approved exterior release device for use by the fire department only when required by the authority having jurisdiction.

Where security bars (burglar bars) are installed on emergency egress and rescue windows or doors, on or after July 1, 2000, such devices shall comply with California Building Standards Code, Part 12, Chapter 12-3 and other applicable provisions of this Code.

~~**R310.5 Emergency escape windows under decks and porches.** Emergency escape windows are allowed to be installed under decks and porches provided the location of the deck allows the emergency escape window to be fully opened and provides a path not less than 36 inches (914 mm) in height to a yard or court.~~

**Notation:**

Authority: Health and Safety Code Sections 13108, 13113.9, 13114.1, 13114.2, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**R311.4 Vertical egress.** Egress from habitable levels including habitable attics and basements not provided with an egress door in accordance with Section R311.2 shall be by a one or more ramps in accordance with Section R311.8 or a one or more stairways in accordance with Section R311.7 or both. Habitable levels larger than 500 square feet (46.45 m<sup>2</sup>) located more than one story above or below an egress door shall be provided with not less than two means of egress.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13113.9, 13114.1, 13114.2, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(1013.3 CBC)**

**R312.2 Height.** Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than ~~36 inches (914 mm)~~ 42 inches (1067 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads.

**Exceptions:**

1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**SECTION R313  
AUTOMATIC FIRE SPRINKLER SYSTEMS**

**R313.1 Townhouse automatic fire sprinkler systems.** An automatic residential fire sprinkler system shall be installed in townhouses.

**Exception:** An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

**R313.1.1 Design and installation.** Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with Section ~~P2904~~ R313.3 or NFPA 13D.

**R313.2 One- and two-family dwellings automatic fire sprinkler systems.** ~~Effective January 1, 2011, a~~An automatic residential fire sprinkler system shall be installed in one- and two- family dwellings.

**Exception:** An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.

**R313.2.1 Design and installation.** Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section ~~P2904~~ R313.3 or NFPA 13D.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(Provisions of Section P2904 of the IRC relocated here with modification)**

**SECTION ~~P2904~~ R313.3  
DWELLING UNIT FIRE SPRINKLER SYSTEMS**

~~P2904.4~~**R313.3.1 General.** Where installed, residential fire sprinkler systems, or portions thereof, shall be in accordance with NFPA 13D or Section ~~P2904.4~~ R313.3, which shall be considered equivalent to NFPA 13D. Section ~~P2904.4~~ R313.3 shall apply to stand-alone and multipurpose wet-pipe sprinkler systems that do not include the use of antifreeze. A multipurpose fire sprinkler system shall supply domestic water to both fire sprinklers and plumbing fixtures. A stand-alone sprinkler system shall be separate and independent from the water distribution system. A

backflow flow preventer shall not be required to separate a stand-alone sprinkler system from the water distribution system.

**~~P2904.1.1~~ R313.3.1.1 Required sprinkler locations.** Sprinklers shall be installed to protect all areas of a dwelling unit.

**Exceptions:**

1. Attics, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be installed above the equipment; however, sprinklers shall not be required in the remainder of the space.
2. Clothes closets, linen closets and pantries not exceeding 24 square feet (2.2 m<sup>2</sup>) in area, with the smallest dimension not greater than 3 feet (915 mm) and having wall and ceiling surfaces of gypsum board.
3. Bathrooms not more than 55 square feet (5.1m<sup>2</sup>) in area.
4. Detached ~~Garages~~; carports with no habitable space above; open attached ~~exterior~~ porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

**~~P2904.2~~ R313.3.2 Sprinklers.** Sprinklers shall be new listed residential sprinklers and shall be installed in accordance with the sprinkler manufacturer's installation instructions.

**~~P2904.2.1~~ R313.3.2.1 Temperature rating and separation from heat sources.** Except as provided for in Section ~~P2904.2.2~~ R313.3.2.2, sprinklers shall have a temperature rating of not less than 135°F (57°C) and not more than 170°F (77°C). Sprinklers shall be separated from heat sources as required by the sprinkler manufacturer's installation instructions.

**~~P2904.2.2~~ R313.3.2.2 Intermediate temperature sprinklers.** Sprinklers shall have an intermediate temperature rating not less than 175°F (79°C) and not more than 225°F (107°C) where installed in the following locations:

1. Directly under skylights, where the sprinkler is exposed to direct sunlight.
2. In attics.
3. In concealed spaces located directly beneath a roof.
4. Within the distance to a heat source as specified in Table ~~P2904.2.2~~ R313.3.2.2.

**~~P2904.2.3~~ R313.3.2.3 Freezing areas.** Piping shall be protected from freezing as required by ~~Section P2603.6~~ the California Plumbing Code. Where sprinklers are required in areas that are subject to freezing, dry-sidewall or dry-pendent sprinklers extending from a nonfreezing area into a freezing area shall be installed. Where fire sprinkler piping cannot be adequately protected against freezing, the system shall be designed and installed in accordance with NFPA 13D.

**~~P2904.2.4~~ R313.3.2.4 Sprinkler coverage.** Sprinkler coverage requirements and sprinkler obstruction requirements shall be in accordance with Sections ~~P2904.2.4.1~~ R313.3.2.4.1 and ~~P2904.2.4.2~~ R313.3.2.4.2.

**~~P2904.2.4.1~~ R313.3.2.4.1 Coverage area limit.** The area of coverage of a single sprinkler shall not exceed 400 square feet (37 m<sup>2</sup>) and shall be based on the sprinkler listing and the sprinkler manufacturer's installation instructions.

**~~P2904.2.4.2~~ R313.3.2.4.2 Obstructions to coverage.** Sprinkler discharge shall not be blocked by obstructions unless additional sprinklers are installed to protect the obstructed area. Sprinkler separation from obstructions shall comply with the minimum distances specified in the sprinkler manufacturer's instructions, and/or the provisions of NFPA 13D.

**~~P2904.2.4.2.1~~ R313.3.2.4.2.1 Additional requirements for pendent sprinklers.** Pendent sprinklers within 3 feet (915 mm) of the center of a ceiling fan, surface-mounted ceiling luminaire or similar object shall be considered to be obstructed, and additional sprinklers shall be installed.

~~P2904.2.4.2.2~~ ~~R313.3.2.4.2.2~~ **Additional requirements for sidewall sprinklers.** Sidewall sprinklers within 5 feet (1524mm) of the center of a ceiling fan, surface-mounted ceiling luminaire or similar object shall be considered to be obstructed, and additional sprinklers shall be installed.

~~P2904.2.5~~ ~~R313.3.2.5~~ **Sprinkler installation on systems assembled with solvent cement.** The solvent cementing of threaded adapter fittings shall be completed and threaded adapters for sprinklers shall be verified as being clear of excess cement prior to the installation of sprinklers on systems assembled with solvent cement.

~~P2904.2.6~~ ~~R313.3.2.6~~ **Sprinkler modifications prohibited.** Painting, caulking or modifying of sprinklers shall be prohibited. Sprinklers that have been painted, caulked, modified or damaged shall be replaced with new sprinklers.

~~P2904.3~~ ~~R313.3.3~~ **Sprinkler piping system.** Sprinkler piping shall be supported in accordance with the requirements for cold water distribution piping. Sprinkler piping shall comply with all requirements for cold water distribution piping. For multipurpose piping systems, the sprinkler piping shall connect to and be a part of the cold water distribution piping system.

~~P2904.3.1~~ ~~R313.3.3.1~~ **Nonmetallic pipe and tubing.** Nonmetallic pipe and tubing, such as CPVC and PEX, shall be listed for use in residential fire sprinkler systems.

~~P2904.3.1.1~~ ~~R313.3.3.1.1~~ **Nonmetallic pipe protection.** Nonmetallic pipe and tubing systems shall be protected from exposure to the living space by a layer of not less than 3/8 inch (9.5 mm) thick gypsum wallboard, 1/2 inch thick plywood (13 mm), or other material having a 15 minute fire rating.

**Exceptions:**

1. Pipe protection shall not be required in areas that do not require protection with sprinklers as specified in Section ~~P2904.1.1~~ ~~R313.3.1.1~~.
2. Pipe protection shall not be required where exposed piping is permitted by the pipe listing.

~~P2904.3.2~~ ~~R313.3.3.2~~ **Shutoff valves prohibited.** With the exception of shutoff valves for the entire water distribution system, valves shall not be installed in any location where the valve would isolate piping serving one or more sprinklers.

~~P2904.3.3~~ ~~R313.3.3.3~~ **Single dwelling limit.** Piping beyond the service valve located at the beginning of the water distribution system shall not serve more than one dwelling

**TABLE ~~P2904.2.2~~ ~~R313.3.2.2~~  
LOCATIONS WHERE INTERMEDIATE TEMPERATURE SPRINKLERS ARE REQUIRED**

HEAT SOURCE	RANGE OF DISTANCE FROM HEAT SOURCE WITHIN WHICH INTERMEDIATE TEMPERATURE SPRINKLERS ARE REQUIRED <sup>a,b</sup> (inches)
Fireplace, side of open or recessed fireplace	12 to 36
Fireplace, front of recessed fireplace	36 to 60
Coal and wood burning stove	12 to 42
Kitchen range top	9 to 18
Oven	9 to 18
Vent connector or chimney connector	9 to 18
Heating duct, not insulated	9 to 18
Hot water pipe, not insulated	6 to 12
Side of ceiling or wall warm air register	12 to 24
Front of wall mounted warm air register	18 to 36
Water heater, furnace or boiler	3 to 6
Luminaire up to 250 watts	3 to 6

- a. Sprinklers shall not be located at distances less than the minimum table distance unless the sprinkler listing allows a lesser distance.
- b. Distances shall be measured in a straight line from the nearest edge of the heat source to the nearest edge of the sprinkler.

**~~P2904.3.4~~ ~~R313.3.3.4~~ Drain.** A means to drain the sprinkler system shall be provided on the system side of the water distribution shutoff valve.

**~~P2904.4~~ ~~R313.3.4~~ Determining system design flow.** The flow for sizing the sprinkler piping system shall be based on the flow rating of each sprinkler in accordance with Section ~~P2904.4.1~~ ~~R313.3.4.1~~ and the calculation in accordance with Section ~~P2904.4.2~~ ~~R313.3.4.2~~.

**~~P2904.4.1~~ ~~R313.3.4.1~~ Determining required flow rate for each sprinkler.** The minimum required flow for each sprinkler shall be determined using the sprinkler manufacturer's published data for the specific sprinkler model based on all of the following:

1. The area of coverage
2. The ceiling configuration
3. The temperature rating
4. Any additional conditions specified by the sprinkler manufacturer.

**~~P2904.4.2~~ ~~R313.3.4.2~~ System design flow rate.** The design flow rate for the system shall be based on the following:

1. The design flow rate for a room having only one sprinkler shall be the flow rate required for that sprinkler, as determined by Section ~~P2904.4.1~~ ~~R313.3.4.1~~.
2. The design flow rate for a room having two or more sprinklers shall be determined by identifying the sprinkler in that room with the highest required flow rate, based on Section ~~P2904.4.1~~ ~~R313.3.4.1~~, and multiplying that flow rate by 2.
3. Where the sprinkler manufacturer specifies different criteria for ceiling configurations that are not smooth, flat and horizontal, the required flow rate for that room shall comply with the sprinkler manufacturer's instructions.
4. The design flow rate for the sprinkler system shall be the flow required by the room with the largest flow rate, based on Items 1, 2 and 3.
5. For the purpose of this section, it shall be permissible to reduce the design flow rate for a room by subdividing the space into two or more rooms, where each room is evaluated separately with respect to the required design flow rate. Each room shall be bounded by walls and a ceiling. Openings in walls shall have a lintel not less than 8 inches (203 mm) in depth and each lintel shall form a solid barrier between the ceiling and the top of the opening.

**~~P2904.5~~ ~~R313.3.5~~ Water supply.** The water supply shall provide not less than the required design flow rate for sprinklers in accordance with Section ~~P2904.4.2~~ ~~R313.3.4.2~~ at a pressure not less than that used to comply with Section ~~P2904.6~~ ~~R313.3.6~~. Where a water supply serves both domestic and fire sprinkler systems, 5 gpm (19 L/min) shall be added to the sprinkler system demand at the point where the systems are connected, to determine the size of common piping and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of a sprinkler.

**~~P2904.5.1~~ ~~R313.3.5.1~~ Water supply from individual sources.** Where a dwelling unit water supply is from a tank system, a private well system, a pump, or a combination of these, the available water supply shall be based on the minimum pressure control setting for the pump.

**~~P2904.5.2~~ ~~R313.3.5.2~~ Required capacity.** The water supply shall have the capacity to provide the required design flow rate for sprinklers for a period of time as follows:

1. 7 minutes for dwelling units one story in height and less than 2,000 square feet (186 m<sup>2</sup>) in area, not including attached garages, open attached porches, balconies and patios.
2. 10 minutes for dwelling units two or more stories in height or equal to or greater than 2,000 square feet (186 m<sup>2</sup>) in area, not including attached garages, open attached porches, balconies and patios.

Where a well system, a water supply tank system, a pump, or a combination thereof, is used, the water supply shall serve both domestic and fire sprinkler systems. ~~a~~Any combination of well capacity and tank storage shall be permitted to meet the capacity requirement.

~~P2904.6~~ **R313.3.6 Pipe sizing.** The piping to sprinklers shall be sized for the flow required by Section ~~P2904.4.2~~ R313.3.4.2. The flow required to supply the plumbing fixtures shall not be required to be added to the sprinkler design flow.

~~P2904.6.1~~ **R313.3.6.1 Method of sizing pipe.** Piping supplying sprinklers shall be sized using the prescriptive method in Section ~~P2904.6.2~~ R313.3.6.2 or by hydraulic calculation in accordance with NFPA 13D. The minimum pipe size from the water supply source to any sprinkler shall be 3/4 inch (19 mm) nominal. Threaded adapter fittings at the point where sprinklers are attached to the piping shall be a minimum of 1/2 inch (13 mm) nominal.

~~P2904.6.2~~ **R313.3.6.2 Prescriptive pipe sizing method.** Pipe shall be sized by determining the available pressure to offset friction loss in piping and identifying a piping material, diameter and length using the equation in Section ~~P2904.4.6.2.1~~ R313.3.6.2.1 and the procedure in Section ~~P2904.6.2.2~~ R313.3.6.2.2.

~~P2904.6.2.1~~ **R313.3.6.2.1 Available pressure equation.** The pressure available to offset friction loss in the interior piping system (Pt) shall be determined in accordance with the Equation 29-1.

$$P_t = P_{sup} - P_{Lsvc} - P_{Lm} - P_{Ld} - P_{Le} - P_{sp} \text{ (Equation 29-1)}$$

Where:

P<sub>t</sub> = Pressure used in applying Tables ~~P2904.6.2(4)~~ R313.3.6.2(4) through ~~P2904.6.2(9)~~ R313.3.6.2(9).

P<sub>sup</sub> = Pressure available from the water supply source.

P<sub>Lsvc</sub> = Pressure loss in the water-service pipe.

P<sub>Lm</sub> = Pressure loss in the water meter.

P<sub>Ld</sub> = Pressure loss from devices other than the water meter.

P<sub>Le</sub> = Pressure loss associated with changes in elevation.

P<sub>sp</sub> = Maximum pressure required by a sprinkler

~~P2904.6.2.2~~ **R313.3.6.2.2 Calculation procedure.** Determination of the required size for water distribution piping shall be in accordance with the following procedure:

#### Step 1 - Determine P<sub>sup</sub>

Obtain the static supply pressure that will be available from the water main from the water purveyor, or for an individual source, the available supply pressure shall be in accordance with Section ~~P2904.5.1~~ R313.3.5.1.

#### Step 2 – Determine P<sub>Lsvc</sub>

Use Table ~~P2904.6.2(1)~~ R313.3.6.2(1) to determine the pressure loss in the water service pipe based on the selected size of the water service.

#### Step 3 – Determine P<sub>Lm</sub>

Use Table ~~P2904.6.2(2)~~ R313.3.6.2(2) to determine the pressure loss from the water meter, based on the selected water meter size.

#### Step 4 – Determine PLd

Determine the pressure loss from devices other than the water meter installed in the piping system supplying sprinklers, such as pressure-reducing valves, backflow preventers, water softeners or water filters. Device pressure losses shall be based on the device manufacturer's specifications. The flow rate used to determine pressure loss shall be the rate from Section ~~P2904.4.2~~ R313.3.4.2, except that 5 gpm (0.3 L/S) shall be added where the device is installed in a water-service pipe that supplies more than one dwelling. As alternative to deducting pressure loss for a device, an automatic bypass valve shall be installed to divert flow around the device when a sprinkler activates.

#### Step 5 – Determine PLe

Use Table ~~P2904.6.2(3)~~ R313.3.6.2(3) to determine the pressure loss associated with changes in elevation. The elevation used in applying the table shall be the difference between the elevation where the water source pressure was measured and the elevation of the highest sprinkler.

#### Step 6 – Determine Psp

Determine the maximum pressure required by any individual sprinkler based on the flow rate from Section ~~P2904.4.1~~ R313.3.4.1. The required pressure is provided in the sprinkler manufacturer's published data for the specific sprinkler model based on the selected flow rate.

#### Step 7 – Calculate Pt

Using Equation 29-1, calculate the pressure available to offset friction loss in water-distribution piping between the service valve and the sprinklers.

#### Step 8 – Determine the maximum allowable pipe length

Use Tables ~~P2904.6.2(4)~~ R313.3.6.2(4) through ~~P2904.6.2(9)~~ R313.3.6.2(9) to select a material and size for water distribution piping. The piping material and size shall be acceptable if the developed length of pipe between the service valve and the most remote sprinkler does not exceed the maximum allowable length specified by the applicable table. Interpolation of Pt between the tabular values shall be permitted.

The maximum allowable length of piping in Tables ~~P2904.6.2(4)~~ R313.3.6.2(4) through ~~P2904.6.2(9)~~ R313.3.6.2(9) incorporates an adjustment for pipe fittings, and no additional consideration of friction losses associated with pipe fittings shall be required.

~~P2904.7~~ R313.3.7 **Instructions and signs.** An owner's manual for the fire sprinkler system shall be provided to the owner. A sign or valve tag shall be installed at the main shutoff valve to the water distribution system stating the following: "Warning, the water system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtration systems and automatic shutoff valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign."

~~P2904.8~~ R313.3.8 **Inspections.** The water distribution system shall be inspected in accordance with Sections ~~P2904.8.1~~ R313.3.8.1 and ~~P2904.8.2~~ R313.3.8.2.

~~P2904.8.1~~ R313.3.8.1 **Preconcealment Inspection.** The following items shall be verified prior to the concealment of any sprinkler system piping:

1. Sprinklers are installed in all areas as required by Section ~~P2904.1.1~~ R313.3.1.1.
2. Where sprinkler water spray patterns are obstructed by construction features, luminaires or ceiling fans, additional sprinklers are installed as required by Section ~~P2904.2.4.2~~ R313.3.2.4.2.
3. Sprinklers are the correct temperature rating and are installed at or beyond the required separation distances from heat sources as required by Sections ~~P2904.2.1~~ R313.3.2.1 and ~~P2904.2.2~~ R313.3.2.2.

4. The pipe size equals or exceeds the size used in applying Tables R313.3.6.2(4) through P2904.6.2(9) R313.3.6.2(9) or, if the piping system was hydraulically calculated in accordance with Section P2904.6.1 R313.3.6.1, the size used in the hydraulic calculation.
5. The pipe length does not exceed the length permitted by Tables P2904.6.2(4) R313.3.6.2(4) through P2904.6.2(9) R313.3.6.2(9) or, if the piping system was hydraulically calculated in accordance with Section R313.3.6.1, pipe lengths and fittings do not exceed those used in the hydraulic calculation.
6. Nonmetallic piping that conveys water to sprinklers is listed for use with fire sprinklers.
7. Piping is supported in accordance with the pipe manufacturer's and sprinkler manufacturer's installation instructions.
8. The piping system is tested in accordance with Section P-2503.7 the California Plumbing Code.

**P2904.8.2 R313.3.8.2 Final Inspection.** The following items shall be verified upon completion of the system:

1. Sprinkler are not painted, damaged or otherwise hindered from operation.
2. Where a pump is required to provide water to the system, the pump starts automatically upon system water demand.
3. Pressure-reducing valves, water softeners, water filters or other impairments to water flow that were not part of the original design have not been installed.
4. The sign or valve tag required by Section P2904.7 R313.3.7 is installed and the owner's manual for the system is present.

**TABLE P2904.6.2(1) R313.3.6.2(1)  
WATER SERVICE PRESSURE LOSS (PL<sub>svc</sub>)<sup>a,b</sup>**

FLOW RATE <sup>c</sup> (gpm)	3/4 INCH WATER SERVICE PRESSURE LOSS (psi)				1 INCH WATER SERVICE PRESSURE LOSS (psi)				1 1/4 INCH WATER SERVICE PRESSURE LOSS (psi)			
	Length of water service pipe (feet)				Length of water service pipe (feet)				Length of water service pipe (feet)			
	40 or less	41 to 75	76 to 100	101 to 150	40 or less	41 to 75	76 to 100	101 to 150	40 or less	41 to 75	76 to 100	101 to 150
8	5.1	8.7	11.8	17.4	1.5	2.5	3.4	5.1	0.6	1.0	1.3	1.9
10	7.7	13.1	17.8	26.3	2.3	3.8	5.2	7.7	0.8	1.4	2.0	2.9
12	10.8	18.4	24.9	NP	3.2	5.4	7.3	10.7	1.2	2.0	2.7	4.0
14	14.4	24.5	NP	NP	4.2	7.1	9.6	14.3	1.6	2.7	3.6	5.4
16	18.4	NP	NP	NP	5.4	9.1	12.4	18.3	2.0	3.4	4.7	6.9
18	22.9	NP	NP	NP	6.7	11.4	15.4	22.7	2.5	4.3	5.8	8.6
20	27.8	NP	NP	NP	8.1	13.8	18.7	27.6	3.1	5.2	7.0	10.4
22	NP	NP	NP	NP	9.7	16.5	22.3	NP	3.7	6.2	8.4	12.4
24	NP	NP	NP	NP	11.4	19.3	26.2	NP	4.3	7.3	9.9	14.6
26	NP	NP	NP	NP	13.2	22.4	NP	NP	5.0	8.5	11.4	16.9
28	NP	NP	NP	NP	15.1	25.7	NP	NP	5.7	9.7	13.1	19.4
30	NP	NP	NP	NP	17.2	NP	NP	NP	6.5	11.0	14.9	22.0
32	NP	NP	NP	NP	19.4	NP	NP	NP	7.3	12.4	16.8	24.8
34	NP	NP	NP	NP	21.7	NP	NP	NP	8.2	13.9	18.8	NP
36	NP	NP	NP	NP	24.1	NP	NP	NP	9.1	15.4	20.9	NP

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 gallon per minute = 0.063 L/s, 1 pound per square inch = 6.895 kPa.  
NP - Not permitted. Pressure loss exceeds reasonable limits.

- a. Values are applicable for underground piping materials listed in Table P2905.4 the California Plumbing Code and are based on an SDR of 11 and a Hazen Williams C Factor of 150.
- b. Values include the following length allowances for fittings: 25% length increase for actual lengths up to 100 feet and 15% length increase for actual lengths over 100 feet.

c. Flow rate from Section ~~P2904.4.2~~ R313.3.4.2. Add 5 gpm to the flow rate required by Section ~~P2904.4.2~~ R313.3.4.2 where the water-service pipe supplies more than one dwelling.

**TABLE ~~P2904.6.2(2)~~ R313.3.6.2(2)**  
**MINIMUM WATER METER PRESSURE LOSS (PL<sub>m</sub>)<sup>a</sup>**

FLOW RATE (gallons per minute, gpm) <sup>b</sup>	5/8 INCH METER PRESSURE LOSS (pounds per square inch, psi)	3/4 INCH METER PRESSURE LOSS (pounds per square inch, psi)	1 INCH METER PRESSURE LOSS (pounds per square inch, psi)
8	2	1	1
10	3	1	1
12	4	1	1
14	5	2	1
16	7	3	1
18	9	4	1
20	11	4	2
22	NP	5	2
24	NP	5	2
26	NP	6	2
28	NP	6	2
30	NP	7	2
32	NP	7	3
34	NP	8	3
36	NP	8	3

For SI: 1 inch = 25.4 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.063 L/s.

NP - Not permitted unless the actual water meter pressure loss is known.

a. Table ~~P2904.6.2(2)~~ R313.3.6.2(2) establishes conservative values for water meter pressure loss or installations where the water meter loss is unknown. Where the actual water meter pressure loss is known, P<sub>m</sub> shall be the actual loss.

b. Flow rate from Section ~~P2904.4.2~~ R313.3.4.2. Add 5 gpm to the flow rate required by Section ~~P2904.4.2~~ R313.3.4.2 where the water-service pipe supplies more than one dwelling.

**TABLE ~~P2904.6.2(3)~~ R313.3.6.2(3)**  
**ELEVATION LOSS (PL<sub>e</sub>)**

ELEVATION (feet)	PRESSURE LOSS (psi)
5	2.2
10	4.4
15	6.5
20	8.7
25	10.9
30	13
35	15.2
40	17.4

For SI: 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa.

**TABLE ~~P2904.6.2(4)~~ R313.3.6.2(4)**  
**ALLOWABLE PIPE LENGTH FOR 3/4 INCH TYPE M COPPER WATER TUBING**

SPRINKLER	WATER	AVAILABLE PRESSURE - P <sub>t</sub>	(psi)
-----------	-------	-------------------------------------	-------

FLOW RATE <sup>a</sup> (gpm)	DISTRIBUTION SIZE (inch)	15	20	25	30	35	40	45	50	55	60
		Allowable length of pipe from service valve to farthest sprinkler (feet)									
8	3/4	217	289	361	434	506	578	650	723	795	867
9	3/4	174	232	291	349	407	465	523	581	639	697
10	3/4	143	191	239	287	335	383	430	478	526	574
11	3/4	120	160	200	241	281	321	361	401	441	481
12	3/4	102	137	171	205	239	273	307	341	375	410
13	3/4	88	118	147	177	206	235	265	294	324	353
14	3/4	77	103	128	154	180	205	231	257	282	308
15	3/4	68	90	113	136	158	181	203	226	248	271
16	3/4	60	80	100	120	140	160	180	200	220	241
17	3/4	54	72	90	108	125	143	161	179	197	215
18	3/4	48	64	81	97	113	129	145	161	177	193
19	3/4	44	58	73	88	102	117	131	146	160	175
20	3/4	40	53	66	80	93	106	119	133	146	159
21	3/4	36	48	61	73	85	97	109	121	133	145
22	3/4	33	44	56	67	78	89	100	111	122	133
23	3/4	31	41	51	61	72	82	92	102	113	123
24	3/4	28	38	47	57	66	76	85	95	104	114
25	3/4	26	35	44	53	61	70	79	88	97	105
26	3/4	24	33	41	49	57	65	73	82	90	98
27	3/4	23	30	38	46	53	61	69	76	84	91
28	3/4	21	28	36	43	50	57	64	71	78	85
29	3/4	20	27	33	40	47	53	60	67	73	80
30	3/4	19	25	31	38	44	50	56	63	69	75
31	3/4	18	24	29	35	41	47	53	59	65	71
32	3/4	17	22	28	33	39	44	50	56	61	67
33	3/4	16	21	26	32	37	42	47	53	58	63
34	3/4	NP	20	25	30	35	40	45	50	55	60
35	3/4	NP	19	24	28	33	38	42	47	52	57
36	3/4	NP	18	22	27	31	36	40	45	49	54
37	3/4	NP	17	21	26	30	34	38	43	47	51
38	3/4	NP	16	20	24	28	32	36	40	45	49
39	3/4	NP	15	19	23	27	31	35	39	42	46
40	3/4	NP	NP	18	22	26	29	33	37	40	44

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.963 L/s.

NP - Not permitted

a. Flow rate from Section ~~P2904.4.2~~ R313.3.4.2.

**TABLE ~~P2904.6.2(5)~~ R313.3.6.2(5)**

**ALLOWABLE PIPE LENGTH FOR 1 INCH TYPE M COPPER WATER TUBING**

SPRINKLER FLOW RATE <sup>a</sup> (gpm)	WATER DISTRIBUTION SIZE (inch)	AVAILABLE PRESSURE - P <sub>t</sub> (psi)									
		15	20	25	30	35	40	45	50	55	60
		Allowable length of pipe from service valve to farthest sprinkler (feet)									
8	1	806	1075	1343	1612	1881	2149	2418	2687	2955	3224
9	1	648	864	1080	1296	1512	1728	1945	2161	2377	2593
10	1	533	711	889	1067	1245	1422	1600	1778	1956	2134
11	1	447	586	745	894	1043	1192	1341	1491	1640	1789
12	1	381	508	634	761	888	1015	1142	1269	1396	1523
13	1	328	438	547	657	766	875	985	1094	1204	1313
14	1	286	382	477	572	668	763	859	954	1049	1145
15	1	252	336	420	504	588	672	756	840	924	1008
16	1	224	298	373	447	522	596	671	745	820	894
17	1	200	266	333	400	466	533	600	666	733	799
18	1	180	240	300	360	420	479	539	599	659	719
19	1	163	217	271	325	380	434	488	542	597	651
20	1	148	197	247	296	345	395	444	493	543	592
21	1	135	180	225	270	315	360	406	451	496	541
22	1	124	165	207	248	289	331	372	413	455	496
23	1	114	152	190	228	267	305	343	381	419	457
24	1	106	141	176	211	246	282	317	352	387	422
25	1	98	131	163	196	228	261	294	326	359	392
26	1	91	121	152	182	212	243	273	304	334	364
27	1	85	113	142	170	198	226	255	283	311	340
28	1	79	106	132	159	185	212	238	265	291	318
29	1	74	99	124	149	174	198	223	248	273	298
30	1	70	93	116	140	163	186	210	233	256	280
31	1	66	88	110	132	153	175	197	219	241	263
32	1	62	83	103	124	145	165	186	207	227	248
33	1	59	78	98	117	137	156	176	195	215	234
34	1	55	74	92	111	129	148	166	185	203	222
35	1	53	70	88	105	123	140	158	175	193	210
36	1	50	66	83	100	116	133	150	166	183	199
37	1	47	63	79	95	111	126	142	158	174	190
38	1	45	60	75	90	105	120	135	150	165	181
39	1	43	57	72	86	100	115	129	143	158	172
40	1	41	55	68	82	96	109	123	137	150	164

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.963 L/s.

a. Flow rate from Section ~~P2904.4.2~~ R313.3.4.2.

**TABLE P2904.6.2(6)-R313.3.6.2(6)**  
**ALLOWABLE PIPE LENGTH FOR 3/4 INCH CPVC PIPE**

SPRINKLER FLOW RATE <sup>a</sup> (gpm)	WATER DISTRIBUTION SIZE (inch)	AVAILABLE PRESSURE - P <sub>t</sub> (psi)									
		15	20	25	30	35	40	45	50	55	60
		Allowable length of pipe from service valve to farthest sprinkler (feet)									
8	3/4	348	465	581	697	813	929	1045	1161	1278	1394
9	3/4	280	374	467	560	654	747	841	934	1027	1121
10	3/4	231	307	384	461	538	615	692	769	845	922
11	3/4	193	258	322	387	451	515	580	644	709	773
12	3/4	165	219	274	329	384	439	494	549	603	658
13	3/4	142	189	237	284	331	378	426	473	520	568
14	3/4	124	165	206	247	289	330	371	412	454	495
15	3/4	109	145	182	218	254	290	327	363	399	436
16	3/4	97	129	161	193	226	258	290	322	354	387
17	3/4	86	115	144	173	202	230	259	288	317	346
18	3/4	78	104	130	155	181	207	233	259	285	311
19	3/4	70	94	117	141	164	188	211	234	258	281
20	3/4	64	85	107	128	149	171	192	213	235	256
21	3/4	58	78	97	117	136	156	175	195	214	234
22	3/4	54	71	89	107	125	143	161	179	197	214
23	3/4	49	66	82	99	115	132	148	165	181	198
24	3/4	46	61	76	91	107	122	137	152	167	183
25	3/4	42	56	71	85	99	113	127	141	155	169
26	3/4	39	52	66	79	92	105	118	131	144	157
27	3/4	37	49	61	73	86	98	110	122	135	147
28	3/4	34	46	57	69	80	92	103	114	126	137
29	3/4	32	43	54	64	75	86	96	107	118	129
30	3/4	30	40	50	60	70	81	91	101	111	121
31	3/4	28	38	47	57	66	76	85	95	104	114
32	3/4	27	36	45	54	63	71	80	89	98	107
33	3/4	25	34	42	51	59	68	76	84	93	101
34	3/4	24	32	40	48	56	64	72	80	88	96
35	3/4	23	30	38	45	53	61	68	76	83	91
36	3/4	22	29	36	43	50	57	65	72	79	86
37	3/4	20	27	34	41	48	55	61	68	75	82
38	3/4	20	26	33	39	46	52	59	65	72	78
39	3/4	19	25	31	37	43	50	56	62	68	74
40	3/4	18	24	30	35	41	47	53	59	65	71

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.963 L/s.

a. Flow rate from Section P2904.4.2-R313.3.4.2.

**TABLE ~~P2904.6.2(7)~~-R313.3.6.2(7)**  
**ALLOWABLE PIPE LENGTH FOR 1 INCH CPVC PIPE**

SPRINKLER FLOW RATE <sup>a</sup> (gpm)	WATER DISTRIBUTION SIZE (inch)	AVAILABLE PRESSURE - Pt (psi)									
		15	20	25	30	35	40	45	50	55	60
		Allowable length of pipe from service valve to farthest sprinkler (feet)									
8	1	1049	1398	1748	2098	2447	2797	3146	3496	3845	4195
9	1	843	1125	1406	1687	1968	2249	2530	2811	3093	3374
10	1	694	925	1157	1388	1619	1851	2082	2314	2545	2776
11	1	582	776	970	1164	1358	1552	1746	1940	2133	2327
12	1	495	660	826	991	1156	1321	1486	1651	1816	1981
13	1	427	570	712	854	997	1139	1281	1424	1566	1709
14	1	372	497	621	745	869	993	1117	1241	1366	1490
15	1	328	437	546	656	765	874	983	1093	1202	1311
16	1	291	388	485	582	679	776	873	970	1067	1164
17	1	260	347	433	520	607	693	780	867	954	1040
18	1	234	312	390	468	546	624	702	780	858	936
19	1	212	282	353	423	494	565	635	706	776	847
20	1	193	257	321	385	449	513	578	642	706	770
21	1	176	235	293	352	410	469	528	586	645	704
22	1	161	215	269	323	377	430	484	538	592	646
23	1	149	198	248	297	347	396	446	496	545	595
24	1	137	183	229	275	321	366	412	458	504	550
25	1	127	170	212	255	297	340	382	425	467	510
26	1	118	158	197	237	276	316	355	395	434	474
27	1	111	147	184	221	258	295	332	368	405	442
28	1	103	138	172	207	241	275	310	344	379	413
29	1	97	129	161	194	226	258	290	323	355	387
30	1	91	121	152	182	212	242	273	303	333	364
31	1	86	114	143	171	200	228	257	285	314	342
32	1	81	108	134	161	188	215	242	269	296	323
33	1	76	102	127	152	178	203	229	254	280	305
34	1	72	96	120	144	168	192	216	240	265	289
35	1	68	91	114	137	160	182	205	228	251	273
36	1	65	87	108	130	151	173	195	216	238	260
37	1	62	82	103	123	144	165	185	206	226	247
38	1	59	78	98	117	137	157	176	196	215	235
39	1	56	75	93	112	131	149	168	187	205	224
40	1	53	71	89	107	125	142	160	178	196	214

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.963 L/s.

a. Flow rate from Section ~~P2904.4.2~~ R313.3.4.2.

**TABLE ~~P2904.6.2(8)~~ R313.3.6.2(8)**  
**ALLOWABLE PIPE LENGTH FOR 3/4 INCH PEX TUBING**

SPRINKLER FLOW RATE <sup>a</sup> (gpm)	WATER DISTRIBUTION SIZE (inch)	AVAILABLE PRESSURE - P <sub>t</sub> (psi)									
		15	20	25	30	35	40	45	50	55	60
		Allowable length of pipe from service valve to farthest sprinkler (feet)									
8	3/4	93	123	154	185	216	247	278	309	339	370
9	3/4	74	99	124	149	174	199	223	248	273	298
10	3/4	61	82	102	123	143	163	184	204	225	245
11	3/4	51	68	86	103	120	137	154	171	188	205
12	3/4	44	58	73	87	102	117	131	146	160	175
13	3/4	38	50	63	75	88	101	113	126	138	151
14	3/4	33	44	55	66	77	88	99	110	121	132
15	3/4	29	39	48	58	68	77	87	96	106	116
16	3/4	26	34	43	51	60	68	77	86	94	103
17	3/4	23	31	38	46	54	61	69	77	84	92
18	3/4	21	28	34	41	48	55	62	69	76	83
19	3/4	19	25	31	37	44	50	56	62	69	75
20	3/4	17	23	28	34	40	45	51	57	62	68
21	3/4	16	21	26	31	36	41	47	52	57	62
22	3/4	NP	19	24	28	33	38	43	47	52	57
23	3/4	NP	17	22	26	31	35	39	44	48	52
24	3/4	NP	16	20	24	28	32	36	40	44	49
25	3/4	NP	NP	19	22	26	30	34	37	41	45
26	3/4	NP	NP	17	21	24	28	31	35	38	42
27	3/4	NP	NP	16	20	23	26	29	33	36	39
28	3/4	NP	NP	15	18	21	24	27	30	33	36
29	3/4	NP	NP	NP	17	20	23	26	28	31	34
30	3/4	NP	NP	NP	16	19	21	24	27	29	32
31	3/4	NP	NP	NP	15	18	20	23	25	28	30
32	3/4	NP	NP	NP	NP	17	19	21	24	26	28
33	3/4	NP	NP	NP	NP	16	18	20	22	25	27
34	3/4	NP	NP	NP	NP	NP	17	19	21	23	25
35	3/4	NP	NP	NP	NP	NP	16	18	20	22	24
36	3/4	NP	NP	NP	NP	NP	15	17	19	21	23
37	3/4	NP	NP	NP	NP	NP	NP	16	18	20	22
38	3/4	NP	NP	NP	NP	NP	NP	16	17	19	21
39	3/4	NP	NP	NP	NP	NP	NP	NP	16	18	20
40	3/4	NP	NP	NP	NP	NP	NP	NP	16	17	19

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.963 L/s.  
 NP - Not permitted.

a. Flow rate from Section ~~P2904.4.2~~ ~~R313.3.4.2~~.

**TABLE ~~P2904.6.2(9)~~ ~~R313.3.6.2(9)~~**  
**ALLOWABLE PIPE LENGTH FOR 1 INCH PEX TUBING**

SPRINKLER FLOW RATE <sup>a</sup> (gpm)	WATER DISTRIBUTION SIZE (inch)	AVAILABLE PRESSURE - P <sub>t</sub> (psi)									
		15	20	25	30	35	40	45	50	55	60
		Allowable length of pipe from service valve to farthest sprinkler (feet)									
8	1	314	418	523	628	732	837	941	1046	1151	1255
9	1	252	336	421	505	589	673	757	841	925	1009
10	1	208	277	346	415	485	554	623	692	761	831
11	1	174	232	290	348	406	464	522	580	638	696
12	1	148	198	247	296	346	395	445	494	543	593
13	1	128	170	213	256	298	341	383	426	469	511
14	1	111	149	186	223	260	297	334	371	409	446
15	1	98	131	163	196	229	262	294	327	360	392
16	1	87	116	145	174	203	232	261	290	319	348
17	1	78	104	130	156	182	208	233	259	285	311
18	1	70	93	117	140	163	187	210	233	257	280
19	1	63	84	106	127	148	169	190	211	232	253
20	1	58	77	96	115	134	154	173	192	211	230
21	1	53	70	88	105	123	140	158	175	193	211
22	1	48	64	80	97	113	129	145	161	177	193
23	1	44	59	74	89	104	119	133	148	163	178
24	1	41	55	69	82	96	110	123	137	151	164
25	1	38	51	64	76	89	102	114	127	140	152
26	1	35	47	59	71	83	95	106	118	130	142
27	1	33	44	55	66	77	88	99	110	121	132
28	1	31	41	52	62	72	82	93	103	113	124
29	1	29	39	48	58	68	77	87	97	106	116
30	1	27	36	45	54	63	73	82	91	100	109
31	1	26	34	43	51	60	68	77	85	94	102
32	1	24	32	40	48	56	64	72	80	89	97
33	1	23	30	38	46	53	61	68	76	84	91
34	1	22	29	36	43	50	58	65	72	79	86
35	1	20	27	34	41	48	55	61	68	75	82
36	1	19	26	32	39	45	52	58	65	71	78
37	1	18	25	31	37	43	49	55	62	68	74
38	1	18	23	29	35	41	47	53	59	64	70
39	1	17	22	28	33	39	45	50	56	61	67

40	1	16	21	27	32	37	43	48	53	59	64
----	---	----	----	----	----	----	----	----	----	----	----

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 gallon per minute = 0.963 L/s.

a. Flow rate from Section ~~P2904.4.2~~ R313.3.4.2.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(907.2.10.1.2 CBC/CFC)**

**R314.3.1 Alterations, repairs and additions.** When alterations, repairs or additions, requiring a permit exceeding one thousand dollars (\$1,000) occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

**Exceptions:**

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, ~~or the addition of a porch or deck,~~ are exempt from the requirements of this section.
2. Installation, alteration or repairs of plumbing or mechanical systems are exempt from the requirements of this section.

**(907.3.2.3 CFC)**

**R314.4 Power source.** ~~Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected.~~

**Exceptions:**

1. ~~Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power.~~
2. ~~Interconnection and hard wiring of smoke alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.~~

Smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

**Exceptions:**

1. Smoke alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.

**(907.3.2.2 CFC)**

**R314.5 Interconnection.** Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

**Exceptions:**

1. Interconnection is not required in buildings that are not undergoing alterations, repairs or construction of any kind.
2. Smoke alarms in existing areas are not required to be interconnected where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13113.5, 13113.7, 13113.8, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(907.2.10.5 CBC)**

**R314.6 Existing Group R-3 occupancies.**

**(907.2.10.5.1 CBC)**

**R314.6.1 Existing buildings housing Group R-3 occupancies established prior to the effective date of these regulations may have their use continued if they conform or are made to conform to provisions of these regulations to the extent that reasonable and adequate life safety against the hazards of fire, panic and explosion is substantially provided. Additional means of egress, the installation of automatic sprinkler systems, automatic fire alarm system or other life safety measures, may be required to provide reasonable and adequate safety.**

**Note: It is the intent of this section that every existing occupancy need not mandatorily conform with the requirements for new construction. Reasonable judgment in the application of requirements must be exercised by the enforcing agency.**

**(907.2.10.5.2 CBC)**

**R314.6.2 For purposes of clarification, Health and Safety Code Section 13113.7 is repeated.**

**(a) Except as otherwise provided in this section, a smoke detector, approved and listed by the State Fire Marshal pursuant to Section 13114, shall be installed, in accordance with the manufacturer's instructions in each dwelling intended for human occupancy within the earliest applicable time period as follows:**

**(1) For all dwelling units intended for human occupancy, upon the owner's application on or after January 1, 1985, for a permit for alterations, repairs, or additions, exceeding one thousand dollars (\$1,000).**

**(2) For all other dwelling units intended for human occupancy on or after January 1, 1987.**

**However, if any local rule, regulation, or ordinance, adopted prior to the compliance dates specified in paragraphs (1) and (2) requires installation in a dwelling unit intended for human occupancy of smoke detector, which receive their power from the electrical system of the building and requires compliance with the local rule, regulation, or ordinance at a date subsequent to the dates specified in this section, the compliance date specified in the rule, regulation, or ordinance shall, but only with respect to the dwelling units specified in this section, take precedence over the dates specified in this section.**

**The State Fire Marshal may adopt regulations exempting dwellings intended for human occupancy with fire sprinkler systems from the provisions of this section, if he or she determines that a smoke detector is not reasonably necessary for fire safety in the occupancy.**

**Unless prohibited by local rules, regulations, or ordinances, a battery-operated smoke detector which otherwise meets the standards adopted pursuant to Section 13114 for smoke detectors, satisfies the requirements of this section.**

**(b) "Dwelling units intended for human occupancy," as used in this section, includes a duplex, lodging house, apartment complex, hotel, motel, condominium, stock cooperative, time-share project, or dwelling unit of a multiple-unit dwelling complex. For the purpose of this part, "dwelling units intended for human occupancy" does**

not include manufactured homes as defined in Section 18007, mobile homes as defined in Section 18008, and commercial coaches as defined in Section 18001.8.

(c) The owner of each dwelling unit subject to this section shall supply and install smoke detectors required by this section in the locations and in the manner set forth in the manufacturer's instructions, as approved by the State Fire Marshal's regulations. In the case of apartment complexes and other multiple-dwelling complexes, a smoke detector shall be installed in the common stairwells. All fire alarm warning systems supplemental to the smoke detector shall also be listed by the State Fire Marshal.

(d) A high-rise structure, as defined in subdivision (b) of Section 13210 and regulated by Chapter 3 (commencing with Section 13210), and which is used for purposes other than as dwelling units intended for human occupancy, is exempt from the requirements of this section.

(e) The owner shall be responsible for testing and maintaining detectors in hotels, motels, lodging houses, and common stairwells of apartment complexes and other multiple-dwelling complexes.

An owner or the owner's agent may enter any dwelling unit, efficiency dwelling unit, guest room, and suite owned by the owner for the purpose of installing, repairing, testing, and maintaining single station smoke detectors required by this section. Except in cases of emergency, the owner or owner's agent shall give the tenants of each such unit, room, or suite reasonable notice in writing of the intention to enter and shall enter only during normal business hours. Twenty-four hours shall be presumed to be reasonable notice in absence of evidence to the contrary.

The smoke detector shall be operable at the time that the tenant takes possession. The apartment complex tenant shall be responsible for notifying the manager or owner if the tenant becomes aware of an inoperable smoke detector within his or her unit. The owner or authorized agent shall correct any reported deficiencies in the smoke detector and shall not be in violation of this section for a deficient smoke detector when he or she has not received notice of the deficiency.

(f) A violation of this section is an infraction punishable by a maximum fine of two hundred dollars (\$200) for each offense.

(g) This section shall not affect any rights which the parties may have under any other provision of law because of the presence or absence of a smoke detector.

(h) This section shall not apply to the installation of smoke detectors in single-family dwellings or factory-built housing which is regulated by Section 13113.8, as added by Assembly Bill No. 2285 of the 1983-84 Regular Session.

**(907.2.10.5.3 CBC)**

**R314.6.3** For purposes of clarification, Health and Safety Code Section 13113.8 is repeated.

(a) On and after January 1, 1986, every single-family dwelling and factory-built housing, as defined in Section 19971, which is sold shall have an operable smoke detector. The detector shall be approved and listed by the State Fire Marshal and installed in accordance with the State Fire Marshal's regulations. Unless prohibited by local rules, regulations, or ordinances, a battery-operated smoke detector shall be deemed to satisfy the requirements of this section.

(b) On and after January 1, 1986, the transferor of any real property containing a single-family dwelling, as described in subdivision (a), whether the transfer is made by sale, exchange, or real property sales contract, as defined in Section 2985 of the Civil Code, shall deliver to the transferee a written statement indicating that the transferor is in compliance with this section. The disclosure statement shall be either included in the receipt for deposit in a real estate transaction, an addendum attached thereto, or a separate document.

(c) The transferor shall deliver the statement referred to in subdivision (b) as soon as practicable before the transfer of title in the case of a sale or exchange, or prior to execution of the contract where the transfer is by a real property sales contract, as defined in Section 2985. For purposes of this subdivision, "delivery" means delivery in person or by mail to the transferee or transferor, or to any person authorized to act for him or her in

the transaction, or to additional transferees who have requested delivery from the transferor in writing. Delivery to the spouse of a transferee or transferor shall be deemed delivery to a transferee or transferor, unless the contract states otherwise.

(d) This section does not apply to any of the following:

(1) Transfers which are required to be preceded by the furnishing to a prospective transferee of a copy of a public report pursuant to Section 11018.1 of the Business and Professions Code.

(2) Transfers pursuant to court order, including, but not limited to, transfers ordered by a probate court in the administration of an estate, transfers pursuant to a writ of execution, transfers by a trustee in bankruptcy, transfers by eminent domain, or transfers resulting from a decree for specific performance.

(3) Transfers to a mortgagee by a mortgagor in default, transfers to a beneficiary of a deed of trust by a trustor in default, transfers by any foreclosure sale after default, transfers by any foreclosure sale after default in an obligation secured by a mortgage, or transfers by a sale under a power of sale after a default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale.

(4) Transfers by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust.

(5) Transfers from one co-owner to one or more co-owners.

(6) Transfers made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferors.

(7) Transfers between spouses resulting from a decree of dissolution of a marriage, from a decree of legal separation, or from a property settlement agreement incidental to either of those decrees.

(8) Transfers by the Controller in the course of administering the Unclaimed Property Law provided for in Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.

(9) Transfers under the provisions of Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.

(e) No liability shall arise, nor any action be brought or maintained against, any agent of any party to a transfer of title, including any person or entity acting in the capacity of an escrow, for any error, inaccuracy, or omission relating to the disclosure required to be made by a transferor pursuant to this section. However, this subdivision does not apply to a licensee, as defined in Section 10011 of the Business and Professions Code, where the licensee participates in the making of the disclosure required to be made pursuant to this section with actual knowledge of the falsity of the disclosure.

(f) Except as otherwise provided in this section, this section shall not be deemed to create or imply a duty upon a licensee, as defined in Section 10011 of the Business and Professions Code, or upon any agent of any party to a transfer of title, including any person or entity acting in the capacity of an escrow, to monitor or ensure compliance with this section.

(g) No transfer of title shall be invalidated on the basis of a failure to comply with this section, and the exclusive remedy for the failure to comply with this section is an award of actual damages not to exceed one hundred dollars (\$100), exclusive of any court costs and attorney's fees.

(h) Local ordinances requiring smoke detectors in single-family dwellings may be enacted or amended. However, the ordinances shall satisfy the minimum requirements of this section.

(i) For the purposes of this section, "single-family dwelling" does not include a manufactured home as defined in Section 18007, a mobilehome as defined in Section 18008, or a commercial coach as defined in Section 18001.8.

(j) This section shall not apply to the installation of smoke detectors in dwellings intended for human occupancy, as defined in and regulated by Section 13113.7 of the Health and Safety Code, as added by Senate Bill No. 1448 in the 1983-84 Regular Session.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13113.5, 13113.7, 13113.8,

**(425 CBC)**

**SECTION R325**

**SPECIAL PROVISIONS FOR LICENSED 24-HOUR CARE FACILITIES IN A GROUP R-3.1**

**R325.1 Scope.** *The provisions of this section shall apply to 24-hour care facilities in a Group R-3.1 occupancy licensed by a governmental agency.*

**R325.2 General.** *The provisions in this section shall apply in addition to general requirements in this code.*

**R325.2.1** *Restraint shall not be practiced in a Group R-3.1 occupancy.*

**Exception:** *Occupancies which meet all the requirements for a Group I-3 occupancy.*

**R325.2.2** *Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Occupancies classified as Residential Facilities (RF) and Residential-care Facilities for the Elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is inconsistent with these regulations. A city, county, city and county, including a charter city or charter county may pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by the state fire marshal that are reasonably necessary to accommodate local climate, geological, or topographical conditions relating to roof coverings for Residential-care Facilities for the Elderly.*

**Exception:** *Local regulations relating to roof coverings in facilities licensed as a Residential Care Facility for the Elderly (RCFE) per Health and Safety Code Section 13133.*

**R325.3 Building Height and Area Provisions.**

**R325.3.1 Limitations six or less clients.** *Group R-3.1 occupancies where clients are housed above the first story, having more than two stories in height or having more than 3,000 square feet (279 m<sup>2</sup>) of floor area above the first story shall not be of less than one-hour fire-resistance-rated construction throughout.*

*In Group R-3.1 occupancies housing a bedridden client, the client sleeping room shall not be located above or below the first story.*

**Exception:** *Clients who become bedridden as a result of a temporary illness as defined in Health and Safety Code Sections 1566.45, 1568.0832, and 1569.72. A temporary illness is an illness, which persists for 14 days or less. A bedridden client may be retained in excess of the 14 days upon approval by the Department of Social Services and may continue to be housed on any story in a Group R-3.1 occupancy classified as a licensed residential facility.*

*Every licensee admitting or retaining a bedridden resident shall, within 48 hours of the resident's admission or retention in the facility, notify the local fire authority with jurisdiction of the estimated length of time the resident will retain his or her bedridden status in the facility.*

**R325.4 Interior Finish Provisions.**

**R325.4.1 Interior wall and ceiling finish.** *Group R-3.1 occupancies housing a bedridden client shall comply with Interior Wall and Ceiling Finish requirements specified for Group I-2 occupancies in Table 803.5 of the California Building Code.*

**R325.5 Fire Protection System Provisions.**

**R325.5.1 Automatic sprinkler systems in Group R-3.1 occupancies.** An automatic sprinkler system shall be installed where required in Section 313.

**Exceptions:**

1. Existing Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor, and not housing clients above the second floor.
2. Existing Group R-3.1 occupancies housing only one bedridden client and complying with Section R325.6.3.3.
3. Pursuant to Health and Safety Code Section 13113 existing occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 existing occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

**(907.2.10.1.5 CBC/CFC)**

**R325.5.2 Smoke alarms in Groups R-3.1 occupancies.** Smoke alarms shall be installed where required in Section 314. In addition to the provisions set forth in Section R314 the following shall apply:

1. Smoke alarms shall be provided throughout the habitable areas of the dwelling unit except kitchens.
2. Facilities housing a bedridden client:
  - 2.1. Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup.
  - 2.2. Smoke alarms shall be electrically interconnected so as to cause all smoke alarms to sound a distinctive alarm signal upon actuation of any single smoke alarm. Such alarm signal shall be audible throughout the facility at a minimal level of 15 db above ambient noise level. These devices need not be interconnected to any other fire alarm device, have a control panel, or be electrically supervised or provided with emergency power.

**(907.5.2.1.3 CBC/CFC)**

**R325.5.2.1 Audible alarm signal.** The audible signal shall be the standard fire alarm evacuation signal, ANSI S3.41 Audible Emergency Evacuation Signal, "three pulse temporal pattern," as described in NFPA 72.

**R325.5.2.2 Hearing impaired.** See Section 907.9.1 of the California Building Code.

**(907.5.2.3 CBC/CFC)**

**R325.5.2.3 Visible alarms.** Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.5 of the California Building Codes.

**Exceptions:**

1. Visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in enclosed exit stairways, exterior exit stairs, and exterior exit ramps.
3. Visible alarm notification appliances shall not be required in elevator cars.

**(907.5.2.3.5 CBC/CFC)**

**R325.5.2.4 Group R-3.1 Protective social care facilities which house persons who are hearing impaired, shall be provided with notification appliances for the hearing impaired installed in accordance with NFPA 72 and which shall be activated upon initiation of the fire alarm system or the smoke alarms.**

**Exception:** The use of the existing evacuation signaling scheme shall be permitted where approved by the enforcing agency.

**R325.6 Means of Egress Provisions.**

**R325.6.1 General.** *In addition to the general means of egress requirements of Chapter 10 of the California Building Code, this section shall apply to Group R-3.1 occupancies.*

**R325.6.2 Number of exits.**

**R325.6.2.1 Group R-3.1 occupancies shall have a minimum of two exits.**

**R325.6.3 Egress arrangements.**

**R325.6.3.1 Egress through adjoining dwelling units shall not be permitted.**

**R325.6.3.2 Group R-3.1 occupancies housing nonambulatory clients.** *In a Group R-3.1 occupancy, bedrooms used by nonambulatory clients shall have access to at least one of the required exits which shall conform to one of the following:*

- 1. Egress through a hallway or area into a bedroom in the immediate area which has an exit directly to the exterior and the corridor/hallway is constructed consistent with the dwelling unit interior walls. The hallway shall be separated from common areas by a solid wood door not less than 1 $\frac{3}{8}$  inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section 715.4.7 of the California Building Code.*
- 2. Egress through a hallway which has an exit directly to the exterior. The hallway shall be separated from the rest of the house by a wall constructed consistent with the dwelling unit interior walls and opening protected by a solid wood door not less than 1 $\frac{3}{8}$  inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section 715.4.7 of the California Building Code.*
- 3. Direct exit from the bedroom to the exterior, such doors shall be of a size as to permit the installation of a door not less than 3 feet (914 mm) in width and not less than 6 feet 8 inches (2032 mm) in height. When installed, doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exit way is not less than 32 inches (813 mm).*
- 4. Egress through an adjoining bedroom which exits to the exterior.*

**R325.6.3.3 Group R-3.1 occupancies housing only one bedridden clients.** *In Group R-3.1 occupancies housing a bedridden client, all of the following shall apply:*

- 1. In Group R-3.1 Occupancies housing a bedridden client, a direct exit to the exterior of the residence shall be provided from the client sleeping room.*
- 2. Doors to a bedridden client's sleeping room shall be of a self-closing, positive latching 1- $\frac{3}{8}$  inch solid wood door. Such doors shall be provided with a gasket so installed as to provide a seal where the door meets the jam on both sides and across the top. Doors shall be maintained self-closing or shall be automatic closing by actuation of a smoke alarm in accordance with Section 715.4.7 of the California Building Code.*
- 3. Group R-3.1 Occupancies housing a bedridden client, shall not have a night latch, dead bolt, security chain or any similar locking device installed on any interior door leading from a bedridden client's sleeping room to any interior area such as a corridor, hallway and or general use areas of the residence in accordance with Chapter 10 of the California Building Code.*
- 4. The exterior exit door to a bedridden client's sleeping room shall be operable from both the interior and exterior of the residence.*
- 5. Every required exit doorway from a bedridden client sleeping room shall be of a size as to permit the installation of a door not less than 3 feet (914 mm) in width and not less than 6 feet 8 inches (2032 mm) in height. When installed in exit doorways, exit doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exit way is not less than 32 inches (813 mm).*

**Note:** *A sliding glass door can be used as an exterior exit doorway as long as it is operable from the inside and outside and the clear width of the exit way is not less than 32 inches (813mm).*

**R325.6.3.4 Intervening rooms.** *A means of exit shall not pass through more than one intervening room. A means of egress shall not pass through kitchens, storerooms, closets, garages or spaces used for similar purposes.*

**Exception:** Kitchens which do not form separate rooms by construction.

**R325.6.4 Changes in level.** In Group R-3.1 occupancies housing nonambulatory clients interior changes in level up to 0.25 inch (6 mm) may be vertical and without edge treatment. Changes in level between 0.25 inch (6 mm) and 0.5 inch (12.7 mm) shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50% slope). Changes in level greater than 0.5 inch (12.7 mm) shall be accomplished by means of a ramp.

**R325.6.5 Stairways.** Group R-3.1 occupancies may continue to use existing stairways (except for winding and spiral stairways which are not permitted as a required means of egress) provided the stairs have a maximum rise of 8 inches (203 mm) with a minimum run of 9 inches (229 mm). The minimum stairway width may be 30 inches (762 mm).

**R325.6.6 Floor separation.** Group R-3.1 occupancies shall be provided with a non-fire resistance constructed floor separation at stairs which will prevent smoke migration between floors. Such floor separation shall have equivalent construction of 0.5 inch (12.7 mm) gypsum wallboard on one side of wall framing.

**Exceptions:**

1. Occupancies with at least one exterior exit from floors occupied by clients.
2. Occupancies provided with automatic fire sprinkler systems complying with chapter 9.

**R325.6.6.1 Doors within floor separations.** Doors within such floor separations shall be tight fitting solid wood at least 1 3/8 inches (35 mm) in thickness. Door glazing shall not exceed 1296 square inches (32 918 mm<sup>2</sup>) with no dimension greater than 54 inches (1372 mm). Such doors shall be positive latching, smoke gasketed and shall be automatic-closing by smoke detection.

**R325.6.7 Fences and gates.** Grounds of a Residential Care for the Elderly facility serving Alzheimer clients may be fenced and gates therein equipped with locks, provided safe dispersal areas are located not less than 50 feet (15 240 mm) from the buildings. Dispersal areas shall be sized to provide an area of not less than 3 square feet (0.28 m<sup>2</sup>) per occupant. Gates shall not be installed across corridors or passageways leading to such dispersal areas unless they comply with egress requirements.

**R325.6.8 Basement exits.** One exit is required to grade level when the basement is accessible to clients.

**R325.6.9 Delayed egress locks.** See Section 1008.1.8.6 of the California Building Code.

**R325.7 Request for alternate means of protection for facilities housing bedridden clients.** Request for alternate means of protection shall apply to Sections R325 through R325.7. Request for approval to use an alternative material, assembly or materials, equipment, method of construction, method of installation of equipment, or means of protection shall be made in writing to the local fire authority having jurisdiction by the facility, client or the client's authorized representative. Sufficient evidence shall be submitted to substantiate the need for an alternate means of protection.

The facility, client or the client's representative or the local fire authority having jurisdiction may request a written opinion from the State Fire Marshal concerning the interpretation of the regulations promulgated by the State Fire Marshal for a particular factual dispute. The State Fire Marshal shall issue the written opinion within 45 days following the request.

Approval of a request for use of an alternative material, assembly or materials, equipment, method of construction, method of installation of equipment, or means of protection made pursuant to this section shall be limited to Group R-3.1 occupancies housing a bedridden client.

Approvals made by the local fire authority having jurisdiction and the written opinion by the State Fire Marshal shall be applicable only to the requesting facility and shall not be construed as establishing any precedent for any future request by that facility or any other facility.

**R325.8 Temporarily bedridden clients.** Clients who become temporarily bedridden as defined in Health and Safety Code Section 1569.72, as enforced by the Department of Social Services, may continue to be housed on any story in

Group R-3.1 occupancies classified as Residential Care Facilities for the Elderly (RCFE). Every Residential Care Facility for the Elderly (RCFE) admitting or retaining a bedridden resident shall, within 48 hours of the resident's admission or retention in the facility, notify the local fire authority with jurisdiction of the estimated length of time the resident will retain his or her bedridden status in the facility.

**(509.10 CBC)**

**R325.9 Group R. Buildings housing protective social-care homes or in occupancies housing inmates who are not restrained need not be of one-hour fire-resistive construction when not more than two stories in height. In no case shall individual floor areas exceed 3,000 square feet (279m<sup>2</sup>). The fire-resistive protection of the exterior walls shall not be less than one hour where such walls are located within 5 feet (1524 mm) of the property line. Openings within such walls are not permitted. Openings in exterior non-rated walls need not be protected.**

**Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113.5, 13113.7, 13113.8, 13114, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

**(445 CBC)**

**SECTION R326**

**LARGE FAMILY DAY CARE HOMES**

**R326.1 Large Family Day-Care Homes.**

**R326.2 For purposes of clarification, Health and Safety Code Section 1597.46 is repeated.**

(a) A city, county, or city and county shall not prohibit large family day care homes on lots zoned for single-family dwellings, but shall do one of the following:

(1) Classify these homes as a permitted use of residential property for zoning purposes.

(2) Grant a nondiscretionary permit to use a lot zoned for a single-family dwelling to any large family day care home that complies with local ordinances prescribing reasonable standards, restrictions, and requirements concerning spacing and concentration, traffic control, parking, and noise control relating to such homes, and complies with subdivision (d) and any regulations adopted by the State Fire Marshal pursuant to that subdivision. Any noise standards shall be consistent with local noise ordinances implementing the noise element of the general plan and shall take into consideration the noise level generated by children. The permit issued pursuant to this paragraph shall be granted by the zoning administrator, if any, or if there is no zoning administrator by the person or persons designated by the planning agency to grant such permits, upon the certification without a hearing.

(3) Require any large family day care home to apply for a permit to use a lot zoned for single-family dwellings. The zoning administrator, if any, or if there is no zoning administrator, the person or persons designated by the planning agency to handle the use permits shall review and decide the applications. The use permit shall be granted if the large family day care home complies with local ordinances, if any, prescribing reasonable standards, restrictions, and requirements concerning spacing and concentration, traffic control, parking, and noise control relating to such homes, and complies with subdivision (d) and any regulations adopted by the State Fire Marshal pursuant to that subdivision.

Any noise standards shall be consistent with local noise ordinances implementing the noise element of the general plan and shall take into consideration the noise levels generated by children.

The local government shall process any required permit as economically as possible, and fees charged for review shall not exceed the costs of the review and permit process. Not less than 10 days prior to the date on which the decision will be made on the application, the zoning administrator or person designated to handle such use permits shall give notice of the proposed use by mail or delivery to all owners shown on the last equalized assessment roll as owning real property within a 100 foot radius of the exterior boundaries of the proposed large family day care home. No hearing on the application for a permit issued pursuant to this paragraph shall be held before a decision is made unless a hearing is requested by the applicant or other affected person. The applicant or other affected person may appeal the decision. The appellant shall pay the cost, if any of the appeal.

(b) A large family day care home shall not be subject to the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

(c) Use of a single-family dwelling for the purposes of a large family day care home shall not constitute a change of occupancy for purposes of Part 1.5 (commencing with Section 17910) of Division 13 (State Housing Law), or for purposes of local building and fire codes.

(d) Large family day care homes shall be considered as single-family residences for the purposes of the State Uniform Building Standards Code and local building and fire codes, except with respect to any additional standards specifically designed to promote the fire and life safety of the children in these homes adopted by the State Fire Marshal pursuant to this subdivision.

**R326.3 Smoke Alarms.** Large family day-care homes shall be equipped with State Fire Marshal approved and listed single station residential type smoke alarms. The number and placement of smoke alarms shall be determined by the enforcement authority.

**R326.4 Fire Extinguishers.** Large and small family day-care homes shall be equipped with a portable fire extinguisher having a minimum 2A10BC rating.

**R326.5 Fire Alarm Devices.** Every large family day-care home shall be provided with at least one manual device at a location approved by the authority having jurisdiction. Such device shall actuate a fire alarm signal, which shall be audible throughout the facility at a minimum level of 15 db above ambient noise level. These devices need not be interconnected to any other fire alarm device, have a control panel or be electrically supervised or provided with emergency power. Such device or devices shall be attached to the structure and may be of any type acceptable to the enforcing agent, provided that such devices are distinctive in tone and are audible throughout the structure.

**R326.6 Compliance.** Every large-family day care home shall comply with the provisions for Group R-3 occupancies and, if appropriate, Section 326.1. For the purposes of Section 326.1, the first story shall be designated as the floor used for residential occupancy nearest to the street level which provides primary access to the building.

Enforcement of the provisions shall be in accordance with the Health and Safety Code Sections 13145 and 13146. No city, county, city and county, or district shall adopt or enforce any building ordinance or local rule or regulation relating to the subject of fire and life safety in large-family day-care homes which is inconsistent with those standards adopted by the State Fire Marshal, except to the extent the building ordinance or local rule or regulation applies to single-family residences in which day care is not provided.

**R326.7 Special Hazards.** Every unenclosed gas-fired water heater or furnace which is within the area used for child care in a large family day-care home shall be protected in such a way as to prevent children from making contact with those appliances.

**Exception:** This does not apply to kitchen stoves or ovens.

**R326.8 Exiting.** Every story or basement of a large family day-care home shall be provided with two exits which are remotely located from each other. Every required exit shall be of a size to permit the installation of a door not less than 32 inches (813mm) in clear width and not less than 6 feet 8 inches (2032 mm) in height. A manually operated horizontal sliding door may be used as one of the two required exits.

Where basements are used for day-care purposes, one of the two required exits shall provide access directly to the

exterior without entering the first story. The second exit from the basement may either pass through the story above or exit directly to the exterior.

Rooms used for day-care purposes shall not be located above the first story.

**Exception:** Buildings equipped with an automatic sprinkler system throughout and which have at least one of the required exits providing access directly to the exterior. NFPA 13R may be used in large family day-care homes. The sprinkler omissions of NFPA 13R shall not apply unless approved by the enforcing agency.

Exit doors, including manually operated horizontal sliding doors, shall be openable from the inside without use of a key or any special knowledge or effort.

**Notation:**

Authority: Health and Safety Code Sections 1597.40, 1597.44, 1597.45, 1597.46, 1597.54, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**(Chapter 7A CBC)**

**SECTION R327**

**MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE**

**SECTION R327.1**

**SCOPE, PURPOSE, AND APPLICATION**

**R327.1.1 Scope.** This chapter applies to building materials, systems and or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area as defined in Section R327.2A.

**R327.1.2 Purpose.** The purpose of this Chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flame or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.

**R327.1.3. Application.** New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.

**Exceptions:**

1. Detached trellises, patios, carports, gazebos, and similar buildings open on all sides when located at least 10 feet from an applicable building.
2. Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, when located at least 30 feet from an applicable building.
3. Buildings of an accessory character classified as Group U occupancy of any size located least 50 feet from an applicable building.
4. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code, when located at least 50 feet from an applicable building.
5. Additions to and remodels of buildings originally constructed prior to the applicable application date.

**R327.1.3.1 Application date and where required.** New buildings for which an application for a building permit is submitted on or after July 1, 2008 located in any Fire Hazard Severity Zone or Wildland Interface Fire Area shall comply with all sections of this chapter, including all of the following areas:

1. All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Area (SRA) including:

1.1. Moderate Fire Hazard Severity Zones

- 1.2. High Fire Hazard Severity Zones
- 1.3. Very-High Fire Hazard Severity Zones

- 2. Land designated as Very-High Fire Hazard Severity Zone by cities and other local agencies.
- 3. Land designated as Wildland Interface Fire Area by cities and other local agencies.

**Exceptions:**

- 1. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.
- 2. New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland Interface Fire Area designated by cities and other local agencies for which an application for a building permit is submitted on or after December 1, 2005 but prior to July 1, 2008, shall only comply with the following sections of this chapter:

- 2.1. Section R327.5 – Roofing
- 2.2. Section R327.6 – Vents

**R327.1.4 Inspection and certification.** Building permit applications and final completion approvals for buildings within the scope and application of this chapter shall comply with the following:

- 1. Building permit issuance. The local building official shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a building permit by the local building official for the proposed building shall be considered as complying with this section.
- 2. Building permit final. The local building official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this Chapter. Issuance of a certificate of occupancy by the local building official for the proposed building shall be considered as complying with this section.

**R327.1.5 Vegetation management compliance.** Prior to building permit final approval, the property shall be in compliance with the vegetation management requirements prescribed in California Fire Code section 4906, including California Public Resources Code 4291 or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be determined by the enforcing agency and may include any of the following:

- 1. Local, state, or federal fire authority or designee authorized to enforce vegetation management requirements.
- 2. Enforcing agency building official.
- 3. Third party inspection and certification authorized to enforce vegetation management requirements.
- 4. Property owner certification authorized by the enforcing agency.

**SECTION R327.2**  
**DEFINITIONS**

For the purposes of this chapter, certain terms are defined below:

**CDF DIRECTOR** means the Director of the California Department of Forestry and Fire Protection.

**FIRE PROTECTION PLAN** is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure. The Fire Protection Plan shall be in accordance with this chapter and the California Fire Code, Chapter 49. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted. Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section 1.1.8 shall apply.

**FIRE HAZARD SEVERITY ZONES** are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189. See California Fire Code Article 86.

The California Code of Regulations, Title 14, Section 1280 entitles the maps of these geographical areas as “Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California.”

**IGNITION-RESISTANT MATERIAL** A type of building material that resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in Section R327.3 and SFM 12-7A-5, Ignition-resistant Material.

**LOCAL AGENCY VERY HIGH FIRE HAZARD SEVERITY ZONE** means an area designated by a local agency upon the recommendation of the CDF Director pursuant to Government Code Sections 51177(c), 51178 and 5118 that is not a state responsibility area and where a local agency, city, county, city and county, or district is responsible for fire protection.

**STATE RESPONSIBILITY AREA** means lands that are classified by the Board of Forestry pursuant to Public Resources Code Section 4125 where the financial responsibility of preventing and suppressing forest fires is primarily the responsibility of the state.

**WILDFIRE** is any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources as defined in Public Resources Code Sections 4103 and 4104.

**WILDFIRE EXPOSURE** is one or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.

**WILDLAND-URBAN INTERFACE FIRE AREA** is a geographical area identified by the state as a “Fire Hazard Severity Zone” in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires.

### **SECTION R327.3** **STANDARDS OF QUALITY**

**R327.3.1 General.** Building material, systems, assemblies and methods of construction used in this Chapter shall be in accordance with Section R327.3.

**R327.3.2 Qualification by testing.** Material and material assemblies tested in accordance with the requirements of Section R327.3 shall be accepted for use when the results and conditions of those tests are met. Material and material assemblies approved and listed by the State Fire Marshal or identified in a current ICC-ES/ICBO-ES report as compliant with this chapter shall be acceptable.

**R327.3.3 Approved agency.** Testing shall be performed by a testing agency approved by the State Fire Marshal.

**R327.3.4 Labeling.** Material and material assemblies tested in accordance with the requirements of section R327.3 shall bear an identification label showing the fire test results. That identification label shall be issued by a testing and/or inspecting agency approved by the State Fire Marshal.

1. Identification mark of the approved testing and/or inspecting agency.
2. Contact and identification information of the manufacturer.
3. Model number or identification of the product or material.
4. Pre-test weathering (if any).
5. Compliance standard as described under Section R327.3.7.

**R327.3.5 Weathering and surface treatment protection.**

**R327.3.5.1 General.** Material and material assemblies tested in accordance with the requirements of section R327.3 shall maintain their fire test performance under conditions of use.

**R327.3.5.2 Weathering.** Fire-retardant-treated wood and Fire-retardant-treated wood shingles and shakes shall meet the fire test performance requirements of this Chapter after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.

**R327.3.5.2.1 Fire-retardant-treated wood.** Fire-retardant-treated wood shall be tested in accordance with ASTM D 2898, "Standard Practice for Accelerated Weathering of Fire-Retardant Treated Wood for Fire Testing (Method A)" and the requirements of section 2303.2.

**R327.3.5.2.2 Fire-retardant-treated wood shingles and shakes.** Fire-retardant-treated wood shingles and shakes shall be approved and listed by the State Fire Marshal in accordance with Section 208(c), Title 19 California Code of Regulations.

**R327.3.5.3 Surface treatment protection.** The use of paints, coatings, stains, or other surface treatments are not an approved method of protection as required in this section.

**R327.3.6 Alternates for materials, design, tests, and methods of construction.** The enforcing agency is permitted to modify the provisions of this chapter for site-specific conditions in accordance with Section 1.11.2.4. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 49.

**R327.3.7 Standards of quality.** The State Fire Marshal standards listed below and as referenced in this chapter are located in the California Referenced Standards Code, Part 12 and Chapter 35 of this code.

SFM 12-7A-1, Exterior Wall Siding and Sheathing.

SFM 12-7A-2, Exterior Windows.

SFM 12-7A-3, Under Eave.

SFM 12-7A- 4, Decking

SFM 12-7A-4A, Decking Alternate Method A.

SFM 12-7A-5, Ignition-resistant building material.

#### **SECTION R327.4** **IGNITION RESISTANT CONSTRUCTION**

**R327.4.1 General.** The materials prescribed herein for ignition resistance shall conform to the requirements of this chapter.

**R327.4.2 Ignition-resistant Material.** Ignition-resistant material shall be determined in accordance with the test procedures set forth in SFM 12-7A-5 "Ignition-resistant material" or in accordance with this section.

**R327.4.3 Alternative methods for determining Ignition-resistant material.** Any one of the following shall be accepted as meeting the definition of ignition-resistant material:

1. Noncombustible material. Material that complies with the definition for noncombustible materials in section R202.
2. Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of section 2303.2.
3. Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in section 902.2 and listed by State Fire Marshal for use as "Class B" roof covering, shall be accepted as an Ignition-resistant wall covering material when installed over solid sheathing.

#### **SECTION R327.5** **ROOFING**

**R327.5.1 General.** Roofs shall comply with the requirements of Section R327 and Section R902. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.

**R327.5.2 Roof coverings.** Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D 3909 installed over the combustible decking.

**R327.5.3 Roof valleys.** Where valley flashing is installed, the flashing shall be not less than 0.019-inch (0.48 mm) No. 26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72-pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D 3909, at least 36-inch-wide (914 mm) running the full length of the valley.

**R327.5.4 Roof Gutters.** Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

## **SECTION R327.6** **VENTS**

**R327.6.1 General.** When provided, vents for enclosed attics, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation shall be in accordance with section 1203 and this section to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.

**R327.6.2 Requirements.** Ventilation openings for enclosed attic spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation openings shall be fully covered with metal wire mesh, vents, or other materials that meet the following requirements:

1. The size of openings therein shall be a minimum of 1/16th inch (1.6 mm) and shall not exceed 1/8th inch (3.2mm).
2. The material or vent shall be of noncombustible material.

**R327.6.3 Ventilation openings on the Underside of Eaves and Cornices:** Vents shall not be installed on the underside of eaves and cornices.

### **Exceptions:**

1. The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with section 903.3.1.1.
2. Vents which comply with requirements of this section may be installed on the underside of eaves when the exterior wall covering and exposed underside of the eave are of noncombustible material or Ignition-resistant material in accordance with Section R327.3 and SFM 12-7A-5 "Ignition-resistant building material."
3. The enforcing agency may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.

## **SECTION R327.7** **EXTERIOR WALLS, PROJECTIONS, AND UNDERFLOOR PROTECTION**

**R327.7.1 Scope.** The provisions of this section shall govern the materials and construction methods used to resist building ignition and/or safeguard against the intrusion of flames resulting from small ember and short-term direct flame contact exposure.

**R327.7.2 General.** The following exterior covering materials and/or assemblies shall comply with this section:

1. Exterior wall covering material.
2. Exterior wall assembly.
3. Exterior exposed underside of eave overhangs.
4. Exterior exposed underside of soffits, exterior balconies, and similar cantilevered projections extending beyond

- the floor area.
5. Exterior exposed underside of floor projections.
  6. Exterior exposed underside of unenclosed underfloor areas.

**Exceptions:**

1. Exterior wall architectural trim, embellishments, cornices, facias, and gutters.
2. Solid wood rafter tails and solid wood blocking installed between rafters having minimum dimension 2 inch (50.8 mm) nominal.
3. Decks shall comply with Section R327.9 only.

**R327.7.3. Exterior Walls, Projections, and Underfloor Protection Requirements.** The exterior covering materials and/or assemblies specified in this section shall comply with one of the following requirements:

1. Non-combustible material.
2. Ignition-resistant material.
3. Heavy timber exterior wall assembly.
4. Log wall construction assembly.
5. Wall assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1.

**Exception:** Any of the following shall be deemed to meet the assembly performance criteria and intent of this section:

1. One layer of 5/8-inch type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
2. The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.

**R327.7.3.1 Extent of exterior wall covering.** Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

**R327.7.4 Exposed underside of open eave overhangs.** The underside of exposed roof deck between rafter tails or covering material applied directly to the rafter tails shall comply with protection requirements of this section.

**Exception:** Solid wood rafter tails and solid wood blocking installed between rafters exposed on the underside of open eave overhangs having minimum dimension 2 inch (50.8 mm) nominal are not required to have any protection.

**R327.7.5 Exterior exposed underside of soffits.** The underside of exposed roof eave soffits shall be protected by one of the following:

1. Non-combustible material.
2. Ignition-resistant material.
3. Soffit assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-3.

**Exception:** Any of the following shall be deemed to meet the assembly performance criteria and intent of this section:

1. One layer of 5/8-inch type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the soffit framing.
2. The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the gypsum Association Fire Resistance Design Manual.

## **SECTION R327.8** **EXTERIOR WINDOWS AND DOORS**

### **R327.8.1 General**

**R327.8.2 Exterior glazing.** *The following exterior glazing materials and/or assemblies shall comply with this section:*

1. Exterior windows.
2. Exterior glazed doors.
3. Glazed openings within exterior doors.
4. Glazed openings within exterior garage doors.
5. Exterior structural glass veneer.

**R327.8.2.1 Exterior windows and exterior glazed door assembly requirements.** *Exterior windows and exterior glazed door assemblies shall comply with one of the following requirements:*

1. Be constructed of multi-pane glazing with a minimum of one tempered pane meeting the requirements of Section 2406 Safety Glazing, or
2. Be constructed of glass block units, or
3. Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or
5. Be tested to meet the performance requirements of SFM 12-7A-2.

**R327.8.2.2 Structural glass veneer.** *The wall assembly behind structural glass veneer shall comply with section R327.7.3.*

**R327.8.3 Exterior doors.** *Exterior doors shall comply with one of the following:*

1. The exterior surface or cladding shall be of noncombustible or ignition-resistant material, or
2. Shall be constructed of solid core wood having stiles and rails not less than 1 3/8 inches thick with interior field panel thickness no less than 1 1/4 inches thick, or
3. Shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252.

**Exception:** *Solid doors having a fire-resistance rating of not less than 20 minutes may have untested glazing that complies with section R327.8.2.*

4. Shall be tested to meet the performance requirements of standard SFM 12-7A-1.

**R327.8.3.1 Exterior door glazing.** *Glazing in exterior doors shall comply with Section 708A.2.1.*

## **SECTION R327.9** **DECKING**

**R327.9.1 General** *The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section.*

**R327.9.2 Where required.** *The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section when any portion of such surface is within 10 feet (3048 mm) of the building.*

**R327.9.3 Decking Surfaces.** *The walking surface material of decks, porches, balconies and stairs shall be constructed with one of the following materials:*

1. Ignition-resistant material that complies with the performance requirements of both SFM 12-7A-4 and SFM 12-7A-5.
2. Exterior fire retardant treated wood
3. Noncombustible material.
4. Any material that complies with the performance requirements of SFM 12-7A-4A when attached exterior wall covering is also either noncombustible or ignition-resistant material.

**Exception:** *Wall material may be of any material that otherwise complies with this chapter when the decking*

surface material complies with the performance requirements ASTM E-84 with a Class B flame spread rating.

**SECTION R327.10**  
**ACCESSORY STRUCTURES**

**R327.10.1 General.** When required by the enforcing agency trellises, patios, carports, gazebos, and similar structures of an accessory character located within 10 feet of an applicable building shall conform to provisions of this section.

**R327.10.2 Requirements.** When required by the enforcing agency accessory structures shall be constructed of noncombustible or ignition-resistant materials.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

**(406.7 CBC)**  
**SECTION 328**  
**ELECTRIC VEHICLE**

**(406.7.1 CBC)**

**R328.1 Electric vehicle.** An automotive-type vehicle for highway use, such as passenger automobiles, buses, trucks, vans and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. For the purpose of this chapter, electric motorcycles and similar type vehicles and off-road self-propelled electric vehicles such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not included

**(406.7.2 CBC)**

**R328.2 Charging.** In any building or interior area used for charging electric vehicles, electrical equipment shall be installed in accordance with the California Electrical Code.

**(406.7. CBC)**

**R328.3 Ventilation.** Mechanical exhaust ventilation, when required by the California Electrical Code shall be provided at a rate as required by Article 625 or as required by Section 1203 of the California Building Code whichever is greater. The ventilation system shall include both the supply and exhaust equipment and shall be permanently installed and located to intake supply air from the outdoors, and vent the exhaust directly to, the outdoors without conducting the exhaust air through other spaces within the building.

**Exception:** Positive pressure ventilation systems shall only be allowed in buildings or areas that have been designed and approved for that application.

**(406.7.4 CBC)**

**R328.4 Electrical interface.** The electrical supply circuit to electrically powered mechanical ventilation equipment shall be interlocked with the recharging equipment used to supply the vehicle(s) being charged, and shall remain energized during the entire charging cycle. Electric vehicle recharging equipment shall be marked or labeled in accordance with the California Electrical Code.

**Exceptions:**

- 1. Exhaust ventilation shall not be required in areas with an approved engineered ventilation system, which maintains a hydrogen gas concentration at less than 25 percent of the lower flammability limit.**
- 2. Mechanical exhaust ventilation for hydrogen shall not be required where the charging equipment utilized is installed and listed for indoor charging of electric vehicles without ventilation.**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

---

**[4. The SFM proposes to not adopt Chapters 4 through 8.]**

**CHAPTER 4  
FOUNDATIONS**

**CHAPTER 5  
FLOORS**

**CHAPTER 6  
WALL CONSTRUCTION**

**CHAPTER 7  
WALL COVERING**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

---

**[5. The SFM proposes to adopt specific Sections of Chapter 8 without amendment, adopt only those Sections listed the corresponding Matrix Adoption Table.]**

**CHAPTER 8  
ROOF-CEILINGCONSTRUCTION**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

---

**[6. The SFM proposes to adopt specific Sections of Chapter 9 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]**

**CHAPTER 9  
ROOF ASSEMBLIES**

**R902.1 Roofing covering materials.** Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class A, B or C roofing shall be installed in areas designated by ~~law as requiring their use or when the~~

edge of the roof is less than 3 feet (914 mm) from a property line this section. Classes A, B and C roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

**Exceptions:**

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

**(1505.1.1 CBC)**

**R902.1.1 Roof coverings within Very High Fire Hazard Severity Zones.** 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.

**Exception:** The requirements shall not apply in any jurisdiction that adopts the model ordinance approved by the State Fire Marshal pursuant to Section 51189 of the Government Code or an ordinance that substantially conforms to the model ordinance and transmits a copy to the State Fire Marshal.

**(1505.1.2 CBC)**

**R902.1.2 Roof coverings within State Responsibility Areas.** 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 B.

**Exception:** Areas designated as moderate fire hazard severity zones.

**(1505.1.3 CBC)**

**R902.1.3 Roof coverings in all other areas.** 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 C.

**(1505.1.4 CBC)**

**R902.1.4 Roofing requirements a Wildland-Urban Interface Fire Area.** Roofing requirements for structures located in a Wildland-Urban Interface Fire Area shall also comply with Section R327.5.

**(1505.6 CBC)**

**R902.2 Fire-retardant-treated shingles and shakes.** Fire-retardant-treated wood shakes and shingles shall be treated by impregnation with chemicals by the full-cell vacuum-pressure process, in accordance with AWPA C1. Each bundle shall be marked to identify the manufactured unit and the manufacturer, and shall also be labeled to identify the classification of the material in accordance with the testing required in Section R902.1, the treating company and the quality control agency are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A, B or C roofs.

Fire-retardant-treated wood shakes and shingles shall comply with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code Section 13132.7 (j). Each bundle shall bear labels from an ICBO accredited quality control agency identifying their roof-covering classification and indicating their compliance with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code Section 13132.7 (j).

Health and Safety Code Section 13132.7 (j) No wood roof covering materials shall be sold or applied in this state unless both of the following conditions are met:

- (1) The materials have been approved and listed by the State Fire Marshal as complying with the requirements of this section.
- (2) The materials have passed at least five years of the 10-year natural weathering test. The 10-year natural

weathering test required by this subdivision shall be conducted in accordance with standard 15-2 of the 1994 edition of the Uniform Building Code at a testing facility recognized by the State Fire Marshal.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13108.5, 13132.7, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

---

**[7. The SFM proposes to adopt specific Sections of Chapter 10 with the following amendments and California regulations, adopt only those Sections listed the corresponding Matrix Adoption Table.]**

**CHAPTER 10  
CHIMNEYS AND FIREPLACES**

**(2113.9.1 CBC)**

**R1003.9.1 Spark arrestors.** ~~Where a spark arrestor is installed on a masonry chimney,~~ All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester. the spark arrester shall meet all of the following requirements:

1. The net free area of the arrester shall not be less than four times the net free area of the outlet of the chimney flue it serves.
2. The arrester screen shall have heat and corrosion resistance equivalent to 12 gage wire, 19-gage galvanized steel or 24-gage stainless steel.
3. Openings shall not permit the passage of spheres having a diameter greater than 1/2 inch (13 mm) nor block the passage of spheres having a diameter less than 3/8 inch (10 mm).
4. The spark arrester shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.

**Notation:**

Authority: Health and Safety Code Sections 13108, 13108.5, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

---

**[8. The SFM proposes to not adopt Chapters 11 through 43.]**

**Part IV—Energy Conservation**

**CHAPTER 11  
ENERGY EFFICIENCY**

**Part V—Mechanical**

**CHAPTER 12  
MECHANICALADMINISTRATION**

**CHAPTER 13  
GENERAL MECHANICAL SYSTEM REQUIREMENTS**

**CHAPTER 14  
HEATING AND COOLING EQUIPMENT**

**CHAPTER 15  
EXHAUST SYSTEMS**

**CHAPTER 16  
DUCT SYSTEMS**

**CHAPTER 17  
COMBUSTION AIR**

**CHAPTER 18  
CHIMNEYS AND VENTS**

**CHAPTER 19  
SPECIAL FUEL-BURNING EQUIPMENT**

**CHAPTER 20  
BOILERS AND WATER HEATERS**

**CHAPTER 21  
HYDRONIC PIPING**

**CHAPTER 22  
SPECIAL PIPING AND STORAGE SYSTEMS**

**CHAPTER 23  
SOLAR SYSTEMS**

***Part VI—Fuel Gas***

**CHAPTER 24 FUEL GAS**

***Part VII—Plumbing***

**CHAPTER 25  
PLUMBING ADMINISTRATION**

**CHAPTER 26  
GENERAL PLUMBING REQUIREMENTS**

**CHAPTER 27  
PLUMBING FIXTURES**

**CHAPTER 28  
WATER HEATERS**

**CHAPTER 29  
WATER SUPPLY AND DISTRIBUTION**

**The provisions of Section P2904 relocated to Section R313.3.**

**CHAPTER 30  
SANITARY DRAINAGE**

**CHAPTER 31  
VENTS**

**CHAPTER 32  
TRAPS**

**CHAPTER 33  
STORM DRAINAGE**

***Part VIII—Electrical***

**CHAPTER 34  
GENERAL REQUIREMENTS**

**CHAPTER 35  
ELECTRICAL DEFINITIONS**

**CHAPTER 36  
SERVICES**

**CHAPTER 37  
BRANCH CIRCUIT AND FEEDER REQUIREMENTS**

**CHAPTER 38  
WIRING METHODS**

**CHAPTER 39  
POWER AND LIGHTING DISTRIBUTION**

**CHAPTER 40  
DEVICES AND LUMINAIRES**

**CHAPTER 41  
APPLIANCE INSTALLATION**

**CHAPTER 42  
SWIMMING POOLS**

**CHAPTER 43  
CLASS 2 REMOTE-CONTROL, SIGNALING AND POWER-LIMITED CIRCUITS**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

---

**[9. The SFM proposes to adopt specific Standards specified in Chapter 44 with the following amendments and California regulations, adopt only those Standards listed the corresponding Matrix Adoption Table.]**

***Part IX—Referenced Standards***

**CHAPTER 44  
REFERENCED STANDARDS**

**ANSI** American National Standards Institute  
25 West 43rd Street, Fourth Floor  
New York, NY 10036

Standard reference number	Title	Referenced in code section number
<u>S3.41</u>	<u>American National Standard Audible Evacuation Signal.....</u>	<u>R325.5.2.1</u>

**ASTM** ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428

Standard reference number	Title	Referenced in code section number
D 2898—04	Test Methods for Accelerated Weathering of Fire-retardant-treated Wood for Fire Testing.....	R802.1.3.4, R802.1.3.6, <u>R327.4</u>
D 3201—07	Test Method for Hygroscopic Properties of Fire-retardant Wood and Wood-base Products .....	R802.1.3.7, <u>R327.4</u>
D 3909— 97b(2004)e01	Specification for Asphalt Roll Roofing (Glass Felt) Surfaced with Mineral Granules.....	R905.2.8.2, R905.5.4, Table R905.9.2, <u>R327.6.1.2</u> , <u>R327.6.1.3</u>
E 84—07	Test Method for Surface Burning Characteristics of Building Materials .....	R202, R302.9.3, R302.9.4, R302.10.1, R302.10.2, R316.3, R316.5.9, R316.5.11, <u>R327.9.3.4</u> , R802.1.3

**ICC** International Code Council, Inc.  
500 New Jersey Avenue, NW 6th Floor  
Washington, DC 20001

Standard reference number	Title	Referenced in code section number
<u>ICC-ES EG107</u>	<u>Evaluation guideline for determination of Volatile Organic Compound (voc) content.....</u>	<u>R902</u>
<u>UBC Standard 15-2</u>	<u>Test Standard for determining the Fire Retardancy of Roof-covering Materials.....</u>	<u>R902</u>
<u>UBC Standard 15-3</u>	<u>Wood Shakes.....</u>	<u>R902</u>
<u>UBC Standard 15-4</u>	<u>Wood Shingles.....</u>	<u>R902</u>

Standard reference number	Title	Referenced in code section number
---------------------------	-------	-----------------------------------

Standard for the Installation of Sprinkler Systems in One-and Two-Family Dwellings and Manufactured Homes *as amended*\*..... R313.1.1, R313.2.1, R313.3.1, R313.3.2, R313.3.2.3.1, R313.3.2.4.2, R313.3.6.1

*NFPA 13D, Amended Sections as follows:*

**6.2\* Water Supply Sources.** When the requirements of 6.2.2 are met, ~~the~~ the following water supply sources shall be considered to be acceptable by this standard:

- (1) A connection to a reliable waterworks system with or without an automatically operated pump
- (2) An elevated tank
- (3) A pressure tank designed to American Society of Mechanical Engineers (ASME) standards for a pressure vessel with a reliable pressure source
- (4) A stored water source with an automatically operated pump
- (5) A well with a pump of sufficient capacity and pressure to meet the sprinkler system demand. The stored water requirement of 6.1.2 or 6.1.3 shall be permitted to be a combination of the water in the well (including the refill rate) plus the water in the holding tank if such tank can supply the sprinkler system.

**6.2.2** Where a well, pump, and tank or combination thereof is the source of supply for a fire sprinkler system, ~~but is not a portion of the domestic water system~~ the water supply shall serve both domestic and fire sprinkler systems, and the following shall be met:

- (1) A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.
- ~~(2) Pump motors using ac power shall be connected to a 240 V normal circuit.~~
- (3) Any disconnecting means for the pump shall be approved.
- (4) A method for refilling the tank shall be piped to the tank.
- (5) A method of seeing the water level in the tank shall be provided without having to open the tank.
- (6) The pump shall not be permitted to sit directly on the floor.

**6.2.2.1** Where a fire sprinkler system is supplied by a stored water source with an automatically operated means of pressurizing the system other than an electric pump, the water supply may serve the sprinkler system only.

**6.2.3** Where a water supply serves both domestic and fire sprinkler systems, 5 gpm (19 L/min) shall be added to the sprinkler system demand at the point where the systems are connected, to determine the size of common piping and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of a sprinkler.

**8.6.4\*** Sprinklers shall not be required in detached garages, open attached porches, carports with no habitable space above, and similar structures.

13D—07

13R—07

Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height as amended\*.....R326.8

*NFPA 13R, Amended Sections as follows:*

Revise Section 2.2 and add publications as follows:

2.2 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 13, Standard for the Installation of Sprinkler Systems, 2007 edition.

NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection, 2007 edition.  
NFPA 22, Standard for Water Tanks for Private Fire Protection, 2003 edition.  
NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2006 California edition.  
NFPA 101, Life Safety Code®, 2006 edition.  
NFPA 220, Standard on Types of Building Construction, 2006 edition.  
NFPA 251, Standard Methods of Tests of Fire Resistance of Building Construction and Materials, 2006 edition.

**Add Section 6.3.5 as follows:**

**6.3.5 Instructions.**

The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

(1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed

(2) NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems 2006 California Edition and Title 19, California Code of Regulations, Chapter 5.

(3) Once the system is accepted by the authority having jurisdiction a label as prescribed by Title 19, California Code of Regulations, Chapter 5, shall be affixed to each system riser.

72—07

National Fire Alarm Code as amended\*.....R313.1, R325.5.2.1, R235.5.2.4

**\*NFPA 72, Amended Sections as follows:**

**4.4.4.3. Transient Protection.** To reduce the possibility of damage by induced transients, circuits and equipment shall be property protected in accordance with the requirements of California Electrical Code, Article 800.

**4.4.4.4. Wiring.** The installation of all wiring, cable and equipment shall be in accordance with California Electrical Code, and specifically with Article 760, 770 and 800, where applicable. Optical fiber cables shall be protected against mechanical injury in accordance with Article 760.

**4.4.5 Protection of Fire Alarm Systems**

Delete Exception No. 2:

Exception No. 2: Fully sprinklered buildings shall not require protection in accordance with 4.4.5.

**5.13.4** The operable part of each manual fire alarm box shall be not less than 1.1 m (3 1/2 ft) and not more than 1.22 m (4 ft) above floor level.

**5.13.8** Additional fire alarm boxes shall be provided so that the travel distance to the nearest fire alarm box shall not be in excess of 61m (200 ft) measured horizontally on the same floor.

Exception: Where not required to be installed by Section 907 of the California Fire Code or California Building Code.

**5.14 Fire Extinguisher Monitoring Device.**

A fire extinguisher monitoring device shall indicate those conditions for a specific fire extinguisher required by California Code of Regulations, Title 19, Division 1, Chapter 1, --- Section FE and California Fire Coder, to a fire alarm control unit or other control unit.

**6.4.2.2.2**

Exception: (4) Where the vertically run conductors are contained in a 2-hour rated cable assembly, or enclosed (installed) in a 2-hour rated enclosure or a listed circuit integrity (C.I.) cable, which meets or exceeds a 2-hour fire resistive rating.

**6.8.5.1.2 (Manual Fire Alarm Boxes)**

Exception: Fire alarm systems dedicated to elevator recall control, supervisory service and fire sprinkler monitoring only

**6.8.5.4.**

(5) Operation of a patient room smoke detector in Group I, Division 1.1, 1.2 and 2 Occupancies shall not include alarm verification feature.

**6.8.5.4.1\*** Systems equipped with alarm verification features shall be permitted under the following conditions:

- (1) The alarm verification feature is not initially enabled unless conditions or occupant activities that are expected to cause nuisance alarms are anticipated in the area that is protected by the smoke detectors. Enabling of the alarm verification feature shall be protected by password or limited access.
- (2) A smoke detector that is continuously subjected to a smoke concentration above alarm threshold does not delay the system within functions of 4.4.3, 6.8.1.1, or 6.16.2.1 by more than **30 seconds**.
- (3) Actuation of an alarm-initiating device other than a smoke detector causes the system functions of 4.4.3, 6.8.1.1, or 6.16.2.1 without additional delay.
- (4) The current status of the alarm verification feature is shown on the record of completion (see Figure 4.5.2.1, item 10).
- (5) Operation of a patient room smoke detector in ~~I-1 and I-2~~ and R-2.1 Occupancies shall not include an alarm verification feature.

**7.4.1.2.** The total sound pressure level produced by combining the ambient sound pressure level with all audible notification appliances operation shall not exceed ~~120~~ **110** dBA anywhere in the occupied area.

**7.4.3.1** Audible notification appliances intended for operation in the private mode shall have a sound level of not less than 45 dBA at 10 feet (3m) or more than ~~120~~ **110** dBA at the minimum hearing distance from the audible appliance.

**7.4.3.2.1.** Audible notification appliances intended for operation in the public mode shall have a sound level of not less than 75 dBA at 3 m (10 ft) or more than ~~120~~ **110** dBA at the minimum hearing distance from the audible appliance.

**11.7.2.1** The alarm verification feature shall not be used for household fire warning equipment.

**11.7.5.7.1** The alarm verification feature shall not be used for household fire warning equipment.

252—03  
257—07

Standard Methods of Fire Tests of Door Assemblies.....R327.6.3.2.3  
Standard for Fire Test for Window and Glass Block Assemblies.....R327.6.3.2.2



State of California  
Department of Forestry and Fire Protection  
Office of the State Fire Marshal  
P.O. Box 944246  
Sacramento, CA 944246-2460

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>SFM 12-3</u>	<u>Releasing Systems for Security Bars in Dwellings.....</u>	<u>R310</u>
<u>SFM 12-7A-1</u>	<u>Exterior Wall Siding and Sheathing.....</u>	<u>R327.5.3, R327.6.3.1, R327.6.3.2.3</u>
<u>SFM 12-7A-2</u>	<u>Exterior Window.....</u>	<u>R327.5.3, R327.6.3.2.2</u>
<u>SFM 12-7A-3</u>	<u>Under Eave.....</u>	<u>R327.5.3, R327.6.2.3</u>
<u>SFM 12-7A-4</u>	<u>Decking.....</u>	<u>R327.5.3, R327.6.4.1.1</u>
<u>SFM 12-7A-4A</u>	<u>Decking Alternate Method A</u>	<u>R327.3.7, R327.9.3.4</u>
<u>SFM 12-7A-5</u>	<u>Ignition Resistant Building Material</u>	<u>R327.2, R327.3.7, R327.4.2, R327.6.3.2, R327.9.3.1</u>

(The Office of the State Fire Marshal standards referred to above are found in the California Code of Regulations, Title 24, Part 12.)

**Notation:**

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13113.5, 13113.7, 13113.8, 13114, 13143, 13143.2, 13143.6, 13146, 17921, 18949.2, Government Code Section 51189

References: Health and Safety Code Sections 13143, 18949.2, Government Code Sections 51176, 51177, 51178, 51179, Public Resources Code Sections 4201 through 4204

---

[10. The SFM proposes to not adopt Appendices A through L.]

**APPENDIX A  
SIZING AND CAPACITIES OF GASPIPING**

**APPENDIX B  
SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I  
APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS**

**APPENDIX C  
EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT VENT VENTING SYSTEMS**

**APPENDIX D  
RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE INSTALLATION**

**APPENDIX E  
MANUFACTURED HOUSING USED AS DWELLINGS**

**APPENDIX F  
RADON CONTROL METHODS**

**APPENDIX G  
SWIMMING POOLS, SPAS AND HOT TUBS**

**APPENDIX H  
PATIO COVERS**

**APPENDIX I  
PRIVATE SEWAGE DISPOSAL**

**APPENDIX J  
EXISTING BUILDINGS AND STRUCTURES**

**APPENDIX K  
SOUND TRANSMISSION**

**APPENDIX L  
PERMIT FEES**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2  
References: Health and Safety Code Sections 13143, 18949.2

---

[11. The SFM proposes to not adopt Appendix M and remove the following text.]

**APPENDIX M**

## **HOME DAY CARE—R-3 OCCUPANCY**

***Not Used***

***This Appendix is not applicable in California See Health and Safety Code Sections 1597.45, 1597.46, 1597.54 and 13143 regarding small family day care homes and large family day care homes. Provisions for day care facilities shall be in accordance with Section 1.1.3.1 for classification, R326 for large family day care, R325 for Group R-3.1 or the California Building Code.***

## **HOME DAY CARE—R-3 OCCUPANCY**

*(The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.)*

### **SECTION AM101**

#### **GENERAL**

**M101.1 General.** This appendix shall apply to a home day care operated within a dwelling. It is to include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians or relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for.

### **SECTION AM102**

#### **DEFINITIONS**

**EXIT ACCESS.** That portion of a means of egress system that leads from any occupied point in a building or structure to an exit.

### **SECTION AM103**

#### **MEANS OF EGRESS**

**AM103.1 Exits required.** If the occupant load of the residence is more than nine, including those who are residents, during the time of operation of the day care, two exits are required from the ground-level story. Two exits are required from a home day care operated in a manufactured home regardless of the occupant load. Exits shall comply with Section R311.

**AM103.1.1 Exit access prohibited.** An exit access from the area of day care operation shall not pass through bathrooms, bedrooms, closets, garages, fenced rear yards or similar areas.

**Exception:** An exit may discharge into a fenced yard if the gate or gates remain unlocked during day care hours. The gates may be locked if there is an area of refuge located within the fenced yard and more than 50 feet (15 240 mm) from the dwelling. The area of refuge shall be large enough to allow 5 square feet (0.5 m<sup>2</sup>) per occupant.

**AM103.1.2 Basements.** If the basement of a dwelling is to be used in the day care operation, two exits are required from the basement regardless of the occupant load. One of the exits may pass through the dwelling and the other must lead directly to the exterior of the dwelling.

**Exception:** An emergency and escape window complying with Section R310 and which does not conflict with Section AM103.1.1 may be used as the second means of egress from a basement.

**AM103.1.3 Yards.** If the yard is to be used as part of the day care operation it shall be fenced.

**AM103.1.3.1 Type of fence and hardware.** The fence shall be of durable materials and be at least 6 feet (1529 mm) tall completely enclosing the area used for the day care operations. Each opening shall be a gate or door equipped with a self-closing and self-latching device to be installed at a minimum of 5 feet (1528 mm) above the ground.

**Exception:** The door of any dwelling which forms part of the enclosure need not be equipped with self-closing and self-latching devices.

**AM103.1.3.2 Construction of fence.** Openings in the fence, wall or enclosure required by this section shall have intermediate rails or an ornamental pattern that do not allow a sphere 4 inches (102 mm) in diameter to pass through. In addition, the following criteria must be met:

1. The maximum vertical clearance between grade and the bottom of the fence, wall or enclosure shall be 2 inches (51 mm).
2. Solid walls or enclosures that do not have openings, such as masonry or stone walls, shall not contain indentations or protrusions except for tooled masonry joints.
3. Maximum mesh size for chain link fences shall be 1 1/4 inches (32 mm) square unless the fence has slats at the top or bottom which reduce the opening to no more than 1 3/4 inches (44 mm). The wire shall not be less than 9 gage [(0.148 in.) (3.8 mm)].

**AM103.1.3.3 Decks.** Decks that are more than 12 inches (305 mm) above grade shall have a guard in compliance with Section R312.

**AM103.2 Width and height of an exit.** The minimum width of a required exit is 36 inches (914 mm) with a net clear width of 32 inches (813 mm). The minimum height of a required exit is 6 feet 8 inches (2032 mm).

**AM103.3 Type of lock and latches for exits.** Regardless of the occupant load served, exit doors shall be openable from the inside without the use of a key or any special knowledge or effort. When the occupant load is 10 or less, a night latch, dead bolt or security chain may be used, provided such devices are openable from the inside without the use of a key or tool and mounted at a height not to exceed 48 inches (1219 mm) above the finished floor.

**AM103.4 Landings.** Landings for stairways and doors shall comply with Section R317.4 except that landings shall be required for the exterior side of a sliding door when a home day care is being operated in a Group R-3 Occupancy.

## **SECTION**

### **AM104 SMOKE DETECTION**

**AM104.1 General.** Smoke detectors shall be installed in dwelling units used for home day care operations. Detectors shall be installed in accordance with the approved manufacturer's instructions. If the current smoke detection system in the dwelling is not in compliance with the currently adopted code for smoke detection, it shall be upgraded to meet the currently adopted code requirements and Section AM103 before daycare operations commence.

**AM104.2 Power source.** Required smoke detectors shall receive their primary power from the building wiring when that wiring is served from a commercial source and shall be equipped with a battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for over-current protection. Required smoke detectors shall be interconnected so if one detector is activated, all detectors are activated.

**AM104.3 Location.** A detector shall be located in each bedroom and any room that is to be used as a sleeping room and centrally located in the corridor, hallway or area giving access to each separate sleeping area. When the dwelling unit has more than one story, and in dwellings with basements, a detector shall be installed on each story and in the basement. In dwelling units where a story or basement is split into two or more levels, the smoke detector shall be installed on the upper level, except that when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on the upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway. In dwelling units where the ceiling height of a room open to the hallway serving the bedrooms or sleeping areas exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room. Detectors shall sound an alarm audible in all sleeping areas of the dwelling unit in which they are located.

#### **Notation:**

Authority: Health and Safety Code Sections 1597.40, 1597.44, 1597.45, 1597.46, 1597.54, 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

---

[12. The SFM proposes to not adopt Appendices N through Q.]

**APPENDIX N  
VENTING METHODS**

**APPENDIX O  
GRAY WATER RECYCLING SYSTEMS**

**APPENDIX P  
SIZING OF WATER PIPING SYSTEM**

**APPENDIX Q  
ICC INTERNATIONAL RESIDENTIAL CODE ELECTRICAL PROVISIONS/NATIONAL ELECTRICAL CODE  
CROSSREFERENCE INDEX**

**Notation:**

Authority: Health and Safety Code Sections 13108, 13143, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

**CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE**

**[1, 1.1 and 1.2. The SFM proposes to adopt only those Sections listed the following Matrix Adoption Table.]**  
 (IRC Chapter 1 Administrative provisions - Sections 101 through 114 relocated to Division II of Chapter 1.)

**CHAPTER 1  
SCOPE AND ADMINISTRATION**

Adopting Agency	BSC	SFM	HCD			DSA		OSHDPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		<u>X</u>																	
Chapter / Section																			
Division I																			
1.1 – 1.12		<u>X</u>																	
1.11 – 1.11.10		<u>X</u>																	
Division II																			
104.2 – 104.4		<u>X</u>																	
104.9 – 109.1		<u>X</u>																	
105.1		<u>X</u>																	
105.2.1 - 105.2.2		<u>X</u>																	
105.3 - 105.3.1		<u>X</u>																	
105.4		<u>X</u>																	
105.6		<u>X</u>																	
105.7		<u>X</u>																	
106 – 106.5		<u>X</u>																	
107 – 107.4																			
109.1		<u>X</u>																	
109.1.4 - 109.1.6		<u>X</u>																	
109.3.8 – 109.3.10		<u>X</u>																	
109.2 - 109.4		<u>X</u>																	
110 – 110.5		<u>X</u>																	
111 – 111.3		<u>X</u>																	
113 – 113.2		<u>X</u>																	
114 – 114.3		<u>X</u>																	

**[2. The SFM proposes to adopt only those Sections or definitions listed the following Matrix Adoption Table.]**

**CHAPTER 2  
DEFINITIONS**

Adopting Agency	BSC	SFM	HCD			DSA		OSHDPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		<u>X</u>																	
Chapter / Section																			
R201 – R201.4		<u>X</u>																	
ACCESSORY		<u>X</u>																	





STATE-OWNED/LEASED BUILDING		X																
STORY		X																
STORY ABOVE GRADE PLANE		X																
STRUCTURE		X																
TERMINALLY ILL		X																
TOWNHOUSE		X																

**[3. The SFM proposes to adopt only those Sections listed the following Matrix Adoption Table.]**

**CHAPTER 3  
BUILDING PLANNING**

Adopting Agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		X																	
Chapter / Section																			
R302.1 through R302.13		X																	
R303.6 through R306.1		X																	
R308.3 through R308.4		X																	
R309.5		X																	
R310 through R310.4		X																	
R311 through R311.8.3.3		X																	
R312 through R312.4		X																	
R313 through R313.3.8.2		X																	
R314 through R314.6.3		X																	
R316.3 through R316.4		X																	
R316.5.8 through R3165.11		X																	
R319		X																	
R325 through R325.9		X																	
R326 through R326.8		X																	
R327 through R327.10.2		X																	
R328 through R328.4		X																	

**[5. The SFM proposes to adopt only those Sections listed the following Matrix Adoption Table.]**

**CHAPTER 8  
ROOF-CEILINGCONSTRUCTION**

Adopting Agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		X																	
Chapter / Section																			
R802.1.3 through R802.1.3.8		X																	

**[6. The SFM proposes to adopt only those Sections listed the following Matrix Adoption Table.]**

**CHAPTER 9  
ROOF ASSEMBLIES**

Adopting Agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		<u>X</u>																	
Chapter / Section																			
R901.1		<u>X</u>																	
R902 through R902.2		<u>X</u>																	
R904 through R904.4		<u>X</u>																	

**[7. The SFM proposes to adopt only those Sections listed the following Matrix Adoption Table.]**

**CHAPTER 10  
CHIMNEYS AND FIREPLACES**

Adopting Agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below		<u>X</u>																	
Chapter / Section																			
R1003.9.1		<u>X</u>																	

**[9. The SFM proposes to adopt specific Standards specified in Chapter 44 with the following amendments and California regulations, adopt only those Standards listed the corresponding Matrix Adoption Table.]**

**CHAPTER 44  
REFERENCED STANDARDS**

Adopting Agency	BSC	SFM	HCD			DSA		OSHPD				CSA	DHS	AGR	DWR	CEC	CA	SL	SL C
			1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																			
Adopt Entire Chapter as amended (amended sections listed below)		<u>X</u>																	
Adopt only those sections that are listed below																			
Chapter / Section																			
<u>ANSI</u>		<u>X</u>																	
<u>ASTM</u>		<u>X</u>																	
<u>ICC</u>		<u>X</u>																	
<u>NFPA</u>		<u>X</u>																	
<u>SFM</u>		<u>X</u>																	

