

# REVISION RECORD FOR THE STATE OF CALIFORNIA

## SUPPLEMENT

July 1, 2021

### 2019 Title 24, Part 2.5, California Residential Code

#### General Information:

1. The date of this supplement is for identification purposes only. See the History Note Appendix on the backside or accompanying page of the Code.
2. This supplement is issued by the California Building Standards Commission in order to provide new and/or replacement pages containing recently adopted provisions for California Code of Regulations, Title 24, Part 2.5, the 2019 *California Residential Code*. Instructions are provided below.
3. Health and Safety Code Section 18938.5 establishes that only building standards in effect at the time of the application for a building permit may be applied to the project plans and construction. This rule applies to both adoptions of building standards for Title 24 by the California Building Standards Commission and local adoptions and ordinances imposing building standards. The new building standards provided with the enclosed blue supplement pages must not be enforced before the effective date.
4. Not all code text on the enclosed blue supplement pages is a new building standard. New, amended, or repealed building standards are identified by margin symbols. An explanation of margin symbols is provided in the code before the table of contents.
5. You may wish to retain the superseded material with this revision record so that the prior wording of any section can be easily ascertained.

#### Title 24, Part 2.5

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## PREFACE

This document is Part 2.5 of thirteen parts of the official triennial compilation and publication of the adoptions, amendments and repeal of administrative regulations to *California Code of Regulations, Title 24*, also referred to as the *California Building Standards Code*. This part is known as the *California Residential Code*.

The *California Building Standards Code* is published in its entirety every three years by order of the California legislature, with supplements published in intervening years. The California legislature delegated authority to various state agencies, boards, commissions and departments to create building regulations to implement the State's statutes. These building regulations, or standards, have the same force of law, and take effect 180 days after their publication unless otherwise stipulated. The *California Building Standards Code* applies to occupancies in the State of California as annotated.

A city, county, or city and county may establish more restrictive building standards reasonably necessary because of local climatic, geological or topographical conditions. Findings of the local condition(s) and the adopted local building standard(s) must generally be filed with the California Building Standards Commission (or other filing if indicated) to become effective, and may not be effective sooner than the effective date of this edition of the *California Building Standards Code*. Local building standards that were adopted and applicable to previous editions of the *California Building Standards Code* do not apply to this edition without appropriate adoption and the required filing.

Should you find publication (e.g., typographical) errors or inconsistencies in this code or wish to offer comments toward improving its format, please address your comments to:

California Building Standards Commission  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA 95833–2936  
Phone: (916) 263–0916  
Email: [cbse@dgs.ca.gov](mailto:cbse@dgs.ca.gov)  
Web page: [www.dgs.ca.gov/bse](http://www.dgs.ca.gov/bse)

## ACKNOWLEDGEMENTS

The 2019 *California Building Standards Code* (Code) was developed through the outstanding collaborative efforts of the Department of Housing and Community Development, Division of State Architect, Office of the State Fire Marshal, Office of Statewide Health Planning and Development, California Energy Commission, California Department of Public Health, California State Lands Commission, Board of State and Community Corrections, and the California Building Standards Commission (Commission).

This collaborative effort included the assistance of the Commission's Code Advisory Committees and many other volunteers who worked tirelessly to assist the Commission in the production of this Code.

*Governor Edmund G. Brown Jr.*

*Members of the California Building Standards Commission*

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For questions on California state agency amendments, please refer to the contact list on page iv.

# CALIFORNIA CODE OF REGULATIONS, TITLE 24

## California Agency Information Contact List

The following state agencies may propose building standards for publication in Title 24. Request notice of such activity with each agency of interest. See Sections 1.2 through 1.14 of the California Building Code (Part 2 of Title 24) for more detailed information on the regulatory jurisdiction of each state agency.

### **Board of State and Community Corrections**

www.bscc.ca.gov..... (916) 445-5073  
Local Adult and Juvenile  
Detention Facility Standards

### **California Building Standards Commission**

www.dgs.ca.gov/bsc..... (916) 263-0916  
State Buildings including UC and  
CSU Buildings, Parking Lot and Walkway Lighting,  
Green Building Standards for Non-residential Buildings

### **California Energy Commission**

www.energy.ca.gov..... **Energy Hotline** (800) 772-3300  
Building Efficiency Standards  
Appliance Efficiency Standards  
Compliance Manual/Forms

### **California State Lands Commission**

www.slc.ca.gov..... (562) 499-6312  
Marine Oil Terminal Standards

### **California State Library**

www.library.ca.gov..... (916) 323-9843

### **Department of Consumer Affairs:**

#### **Acupuncture Board**

www.acupuncture.ca.gov..... (916) 515-5200  
Office Standards

#### **Board of Pharmacy**

www.pharmacy.ca.gov..... (916) 518-3100  
Pharmacy Standards

#### **Bureau of Barbering and Cosmetology**

www.barbercosmo.ca.gov..... (800) 952-5210  
Barber and Beauty Shop,  
and College Standards

#### **Bureau of Household Goods and Services**

www.bhgs.dca.ca.gov..... (916) 999-2041  
Insulation Testing Standards

#### **Structural Pest Control Board**

www.pestboard.ca.gov..... (800) 737-8188  
Structural Standards

#### **Veterinary Medical Board**

www.vmb.ca.gov..... (916) 515-5220  
Veterinary Hospital Standards

### **Department of Food and Agriculture**

www.cdffa.ca.gov  
Meat & Poultry Packing Plant Standards  
Rendering & Collection Center Standards..... (916) 900-5004  
Dairy Standards..... (916) 900-5008

### **Department of Housing and Community Development**

www.hcd.ca.gov..... (800) 952-8356 |  
Residential—Hotels, Motels, Apartments,  
Single-Family Dwellings; and  
Permanent Structures in Mobilehome &  
Special Occupancy Parks  
(916) 445-3338  
Factory-Built Housing, Manufactured Housing &  
Commercial Modular  
Mobilehome—Permits & Inspections  
Northern Region—(916) 255-2501  
Southern Region—(951) 782-4420  
(800) 952-8356 |  
Employee Housing Standards

### **Department of Public Health**

www.dph.ca.gov..... (916) 449-5661  
Organized Camps Standards  
Public Swimming Pools Standards

### **Division of the State Architect**

www.dgs.ca.gov/dsa..... (916) 445-8100

#### **Access Compliance**

#### **Fire and Life Safety**

#### **Structural Safety**

Public Schools Standards  
Essential Services Building Standards  
Community College Standards

#### **State Historical Building Safety Board**

Historical Rehabilitation, Preservation,  
Restoration or Relocation Standards

### **Office of Statewide Health Planning and Development**

www.oshpd.ca.gov..... (916) 440-8300 |  
Hospital Standards  
Skilled Nursing Facility Standards &  
Clinic Standards

### **Office of the State Fire Marshal**

osfm.fire.ca.gov..... (916) 568-3800  
Code Development and Analysis  
Fire Safety Standards

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**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 9342 Tech Center Drive #500 Sacramento, CA 95826-2581.

**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.

**Exceptions:**

- (1.) (HCD 1 & HCD 2) Retroactive permits issued in accordance with Health and Safety Code Section 17958.12.
- (2.) (HCD 1 & HCD 2) Plans approved by the Department of Housing and Community Development or a Department-approved design approval agency for factory-built housing as defined by Health and Safety Code Section 19971. Approved plans, pursuant to the California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, Article 3, Section 3048 remain valid for a period of 36 months from the date of plan approval.

**1.1.10 Availability of codes.** At least one complete 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(e) (1) and (2).

**1.1.11 Format.** This part fundamentally adopts the International Residential Code by reference on a chapter-by-chapter basis. When a specific chapter of the International Residential Code is not printed in the code and is marked "Reserved," such chapter of the International Residential Code is not adopted as a portion of this code. When a specific

chapter of the International Residential Code is marked "Not adopted by the State of California" but appears in the code, it may be available for adoption by local ordinance.

**Note:** Matrix Adoption Tables at the front of each chapter may aid the code user in determining which chapter or sections within a chapter are applicable to buildings under the authority of a specific state agency, but they are not to be considered regulatory.

**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  
Reserved****SECTION 1.3  
Reserved****SECTION 1.4  
Reserved****SECTION 1.5  
Reserved****SECTION 1.6  
Reserved****SECTION 1.7  
Reserved****SECTION 1.8  
DEPARTMENT OF HOUSING  
AND COMMUNITY DEVELOPMENT (HCD)**

**1.8.1 Purpose.** The purpose of this code is to establish the minimum requirements necessary to protect the health, safety and general welfare of the occupants and the public by governing accessibility, erection, construction, reconstruction, enlargement, conversion, alteration, repair, moving, removal, demolition, occupancy, use, height, court, area, sanitation, ventilation, maintenance and safety to life and property from fire and other hazards attributed to the built environment.

**SECTION 1.8.2  
AUTHORITY AND ABBREVIATIONS**

**1.8.2.1 General.** The Department of Housing and Community Development is authorized by law to promulgate and adopt building standards and regulations for several types of building applications. The applications under the authority of the Department of Housing and Community Development are listed in Sections 1.8.2.1.1 through 1.8.2.1.3.

**1.8.2.1.1 Housing construction.**

**Application**—Hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities and uses thereto. Sections of this code which pertain to applications listed in this section are identified using the abbreviation “HCD 1.”

**Enforcing agency**—Local building department or the Department of Housing and Community Development.

**Authority cited**—Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17926, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

**Reference**—Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 19960 through 19997; Civil Code Sections 1101.4, 1101.5 and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

**1.8.2.1.2 Housing accessibility.**

**Application**—Covered multifamily dwellings as defined in Chapter 2 of the California Building Code including, but not limited to, lodging houses, dormitories, timeshares, condominiums, shelters for homeless persons, congregate residences, apartments, dwellings, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities.

Sections of this code identified by the abbreviation “HCD 1-AC” require specific accommodations for persons with disabilities as defined in Chapter 2 of the California Building Code. The application of such provisions shall be in conjunction with other requirements of the Building Standards Code and apply only to newly constructed covered multifamily dwellings as defined in Chapter 2 of the California Building Code. “HCD 1-AC” applications include, but are not limited to, the following:

1. All newly constructed covered multifamily dwellings as defined in Chapter 2 of the California Building Code.
2. New common use areas as defined in Chapter 2 of the California Building Code serving existing covered multifamily dwellings.
3. Additions to existing buildings, where the addition alone meets the definition of covered multifamily dwellings as defined in Chapter 2 of the California Building Code.
4. New common use areas serving new covered multifamily dwellings.
5. Where any portion of a building’s exterior is preserved, but the interior of the building is removed,

including all structural portions of floors and ceilings, the building is considered a new building for determining the application of California Building Code, Chapter 11A.

“HCD 1-AC” building standards generally do not apply to public use areas or public accommodations such as hotels and motels, and public housing. Public use areas, public accommodations, and public housing, as defined in Chapter 2 of the California Building Code, are subject to the Division of the State Architect (DSA-AC) in Chapter 11B and are referenced in California Building Code Section 1.9.1.

**Enforcing agency**—Local building department or the Department of Housing and Community Development.

**Authority cited**—Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17926, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

**Reference**—Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 19960 through 19997; Civil Code Sections 1101.4, 1101.5 and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.

**1.8.2.1.3 Permanent buildings in mobilehome parks and special occupancy parks.**

**Application**—Permanent buildings, and permanent accessory buildings or structures, constructed within mobilehome parks and special occupancy parks that are under the control and ownership of the park operator. Sections of this code which pertain to applications listed in this section are identified using the abbreviation “HCD 2.”

**Enforcing agency**—The Department of Housing and Community Development, local building department or other local agency that has assumed responsibility for the enforcement of Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 for mobilehome parks and Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 for special occupancy parks.

**Authority cited**—Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.5, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17922.14, 17926, 17927, 17928, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1 through 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

**Reference**—Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, 19960 through 19997; Civil Code Sections 1101.4, 1101.5 and 1954.201; and Government Code Sections 12955.1 and 12955.1.1.



### SECTION 1.8.3 LOCAL ENFORCING AGENCY

**1.8.3.1 Duties and powers.** *The building department of every city, county, or city and county shall enforce all the provisions of law, this code, and the other rules and regulations promulgated by the Department of Housing and Community Development pertaining to the installation, erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartments, condominiums, hotels, motels, lodging houses and dwellings, including accessory buildings, facilities and uses thereto.*

*The provisions regulating the erection and construction of dwellings and appurtenant structures shall not apply to existing structures as to which construction is commenced or approved prior to the effective date of these regulations. Requirements relating to use, maintenance and occupancy shall apply to all dwellings and appurtenant structures approved for construction or constructed before or after the effective date of this code.*

*For additional information regarding the use and occupancy of existing buildings and appurtenant structures, see California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Article 1, Section 1.*

*For additional requirements regarding additions, alterations or repairs to existing buildings and appurtenant structures, see the California Existing Building Code.*

**1.8.3.2 Laws, rules and regulations.** *Other than the building standards contained in this code, and notwithstanding other provisions of law, the statutory authority and location of the laws, rules and regulations to be enforced by local enforcing agencies are listed by statute in Sections 1.8.3.2.1 through 1.8.3.2.5 below:*

**1.8.3.2.1 State Housing Law.** *Refer to the State Housing Law, California Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1, for the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartments, condominiums, hotels, motels, lodging houses and dwellings, including accessory buildings, facilities and uses thereto.*

**1.8.3.2.2 Mobilehome Parks Act.** *Refer to the Mobilehome Parks Act, California Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000 for mobilehome park administrative and enforcement authority, permits, plans, fees, violations, inspections and penalties both within and outside mobilehome parks.*

**Exception:** *Mobilehome parks where the Department of Housing and Community Development is the enforcing agency.*

**1.8.3.2.3 Special Occupancy Parks Act.** *Refer to the Special Occupancy Parks Act, California Health and Safety Code, Division 13, Part 2.3, commencing with Section*

*18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000 for special occupancy park administrative and enforcement authority, permits, fees, violations, inspections and penalties both within and outside of special occupancy parks.*

**Exception:** *Special occupancy parks where the Department of Housing and Community Development is the enforcing agency.*

**1.8.3.2.4 Employee Housing Act.** *Refer to the Employee Housing Act, California Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600 for employee housing administrative and enforcement authority, permits, fees, violations, inspections and penalties.*

**1.8.3.2.5 Factory-Built Housing Law.** *Refer to the Factory-Built Housing Law, California Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000 for factory-built housing administrative and enforcement authority, permits, fees, violations, inspections and penalties.*

### SECTION 1.8.4 PERMITS, FEES, APPLICATIONS AND INSPECTIONS

**1.8.4.1 Permits.** *A written construction permit shall be obtained from the enforcing agency prior to the erection, construction, reconstruction, installation, moving or alteration of any building or structure.*

#### **Exceptions:**

1. *Work exempt from permits as specified in Chapter 1, Scope and Application, Division II, Administration, Section R105.2.*
2. *Changes, alterations or repairs of a minor nature not affecting structural features, egress, sanitation, safety or accessibility as determined by the enforcing agency.*
3. *Retroactive permits issued in accordance with Health and Safety Code Section 17958.12.*

*Exemptions from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of other provisions of law or this code.*

**1.8.4.2 Fees.** *Subject to other provisions of law, the governing body of any city, county, or city and county may prescribe fees to defray the cost of enforcement of rules and regulations promulgated by the Department of Housing and Community Development. The amount of the fees shall not exceed the amount reasonably necessary to administer or process permits, certificates, forms or other documents, or to defray the costs of enforcement. For additional information, see State Housing Law, Health and Safety Code, Division 13, Part 1.5, Section 17951 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, Article 3, commencing with Section 6.*

**1.8.4.3 Plan review and time limitations.** Subject to other provisions of law, provisions related to plan checking, prohibition of excessive delays and contracting with or employment of private parties to perform plan checking are set forth in State Housing Law, Health and Safety Code Section 17960.1, and for employee housing, in Health and Safety Code Section 17021.

**1.8.4.3.1 Retention of plans.** The building department of every city, county, or city and county shall maintain an official copy, microfilm, electronic or other type of photographic copy of the plans of every building, during the life of the building, for which the department issued a building permit.

**Exceptions:**

1. Single or multiple dwellings not more than two stories and basement in height.
2. Garages and other structures appurtenant to buildings listed in Exception 1.
3. Farm or ranch buildings appurtenant to buildings listed in Exception 1.
4. Any one-story building where the span between bearing walls does not exceed 25 feet (7620 mm), except a steel frame or concrete building.

All plans for common interest developments as defined in Section 4100 of the California Civil Code shall be retained. For additional information regarding plan retention and reproduction of plans by an enforcing agency, see Health and Safety Code Sections 19850 through 19852.

**1.8.4.4 Inspections.** Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or other regulations of the Department of Housing and Community Development. Required inspections are listed in Chapter 1, Scope and Application, Division II, Administration, Sections R109.1.1, R109.1.1.1, R109.1.3, R109.1.4, R109.1.4.1, R109.1.4.2, R109.1.5, R109.1.5.1, R109.1.5.2, R109.1.5.3, R109.1.6, R109.1.6.1 and R109.1.6.2.

## **SECTION 1.8.5 RIGHT OF ENTRY FOR ENFORCEMENT**

**1.8.5.1 General.** Subject to other provisions of law, officers and agents of the enforcing agency may enter and inspect public and private properties to secure compliance with the rules and regulations promulgated by the Department of Housing and Community Development. For limitations and additional information regarding enforcement, see the following:

1. For applications subject to the State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of

Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.

2. For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.
3. For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this Code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
4. For applications subject to the Employee Housing Act as referenced in Section 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
5. For applications subject to the Factory-Built Housing Law as referenced in Section 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Sections 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

## **SECTION 1.8.6 LOCAL MODIFICATION BY ORDINANCE OR REGULATION**

**1.8.6.1 General.** Subject to other provisions of law, a city, county, or city and county may make changes to the provisions adopted by the Department of Housing and Community Development. If any city, county, or city and county does not amend, add or repeal by local ordinances or regulations the provisions published in this code or other regulations promulgated by the Department of Housing and Community Development, those provisions shall be applicable and shall become effective 180 days after publication by the California Building Standards Commission. Amendments, additions and deletions to this code adopted by a city, county, or city and county pursuant to California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5, together with all applicable portions of this code, shall also become effective 180 days after publication of the California Building Standards Code by the California Building Standards Commission.

**1.8.6.2 Findings, filings and rejections of local modifications.** Prior to making any modifications or establishing more restrictive building standards, the governing body shall make express findings and filings, as required by California Health and Safety Code Section 17958.7, showing that such modifications are reasonably necessary due to local climatic, geological or topographical conditions. No modification shall become effective or operative unless the following requirements are met:

1. The express findings shall be made available as a public record.

2. A copy of the modification and express finding, each document marked to cross-reference the other, shall be filed with the California Building Standards Commission for a city, county, or city and county and with the Department of Housing and Community Development for fire protection districts.
3. The California Building Standards Commission has not rejected the modification or change.

Nothing in this section shall limit the authority of fire protection districts pursuant to California Health and Safety Code Section 13869.7(a).

### **SECTION 1.8.7 ALTERNATE MATERIALS, DESIGNS, TESTS AND METHODS OF CONSTRUCTION**

**1.8.7.1 General.** The provisions of this code, as adopted by the Department of Housing and Community Development, are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, design or method of construction not specifically prescribed by this code. Consideration and approval of alternates shall comply with Section 1.8.7.2 for local building departments and Section 1.8.7.3 for the Department of Housing and Community Development.

**1.8.7.2 Local building departments.** The building department of any city, county, or city and county may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartments, condominiums, hotels, motels, lodging houses, dwellings, or accessory structures, except for the following:

1. Structures located in mobilehome parks as defined in California Health and Safety Code Section 18214.
2. Structures located in special occupancy parks as defined in California Health and Safety Code Section 18862.43.
3. Factory-built housing as defined in California Health and Safety Code Section 19971.

**1.8.7.2.1 Approval of alternates.** The consideration and approval of alternates by a local building department shall comply with the following procedures and limitations:

1. The approval shall be granted on a case-by-case basis.
2. Evidence shall be submitted to substantiate claims that the proposed alternate, in performance, safety and protection of life and health, conforms to, or is at least equivalent to, the standards contained in this code and other rules and regulations promulgated by the Department of Housing and Community Development.
3. The local building department may require tests performed by an approved testing agency at the

expense of the owner or owner's agent as proof of compliance.

4. If the proposed alternate is related to accessibility in covered multifamily dwellings or in facilities serving covered multifamily dwellings as defined in CBC Chapter 2, the proposed alternate must also meet the threshold set for equivalent facilitation as defined in Chapter 2 of the California Building Code.

For additional information regarding approval of alternates by a building department pursuant to the State Housing Law, see California Health and Safety Code Section 17951(e) and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

**1.8.7.3 Department of Housing and Community Development.** The Department of Housing and Community Development may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal or demolition of apartments, condominiums, hotels, motels, lodging houses, dwellings, or an accessory thereto and permanent buildings in mobilehome parks and special occupancy parks. The consideration and approval of alternates shall comply with the following:

1. The department may require tests at the expense of the owner or owner's agent to substantiate compliance with the California Building Standards Code.
2. The approved alternate shall, for its intended purpose, be at least equivalent in performance and safety to the materials, designs, tests or methods of construction prescribed by this code.

### **SECTION 1.8.8 APPEALS BOARD**

**1.8.8.1 General.** Every city, county, or city and county shall establish a process to hear and decide appeals of orders, decisions and determinations made by the enforcing agency relative to the application and interpretation of this code and other regulations governing construction, use, maintenance and change of occupancy. The governing body of any city, county, or city and county may establish a local appeals board and a housing appeals board to serve this purpose. Members of the appeals board(s) shall not be employees of the enforcing agency and shall be knowledgeable in the applicable building codes, regulations and ordinances as determined by the governing body of the city, county, or city and county.

Where no such appeals boards or agencies have been established, the governing body of the city, county, or city and county shall serve as the local appeals board or housing appeals board as specified in California Health and Safety Code Sections 17920.5 and 17920.6.

**1.8.8.2 Definitions.** The following terms shall for the purposes of this section have the meaning shown.

**HOUSING APPEALS BOARD.** The board or agency of a city, county, or city and county which is authorized by the governing body of the city, county, or city and county to hear appeals regarding the requirements of the city, county or city and county relating to the use, maintenance and change of occupancy of buildings and structures, including requirements governing alteration, additions, repair, demolition and moving. In any area in which there is no such board or agency, "Housing Appeals Board" means the local appeals board having jurisdiction over the area.

**LOCAL APPEALS BOARD.** The board or agency of a city, county, or city and county which is authorized by the governing body of the city, county, or city and county to hear appeals regarding the building requirements of the city, county, or city and county. In any area in which there is no such board or agency, "Local Appeals Board" means the governing body of the city, county, or city and county having jurisdiction over the area.

**1.8.8.3 Appeals.** Except as otherwise provided in law, any person, firm or corporation adversely affected by a decision, order or determination by a city, county, or city and county relating to the application of building standards published in the California Building Standards Code, or any other applicable rule or regulation adopted by the Department of Housing and Community Development, or any lawfully enacted ordinance by a city, county, or city and county, may appeal the issue for resolution to the local appeals board or housing appeals board as appropriate.

The local appeals board shall hear appeals relating to new building construction, and the housing appeals board shall hear appeals relating to existing buildings.

## SECTION 1.8.9 UNSAFE BUILDINGS OR STRUCTURES

**1.8.9.1 Authority to enforce.** Subject to other provisions of law, the administration, enforcement, actions, proceedings, abatement, violations and penalties for unsafe buildings and structures are contained in the following statutes and regulations:

1. For applications subject to the State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1. For enforcement related to accessory dwelling units, see Health and Safety Code Section 17980.12 operative until January 1, 2035.
2. For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of

Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.

3. For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
4. For applications subject to the Employee Housing Act as referenced in Section 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
5. For applications subject to the Factory-Built Housing Law as referenced in Section 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

**1.8.9.2 Actions and proceedings.** Subject to other provisions of law, punishments, penalties and fines for violations of building standards are contained in the following statutes and regulations:

1. For applications subject to the State Housing Law as referenced in Section 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
2. For applications subject to the Mobilehome Parks Act as referenced in Section 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.
3. For applications subject to the Special Occupancy Parks Act as referenced in Section 1.8.3.2.3 of this code, refer to the Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
4. For applications subject to the Employee Housing Act as referenced in Section 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
5. For applications subject to the Factory-Built Housing Law as referenced in Section 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

# CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

## CHAPTER 2 – DEFINITIONS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/ CC	1	1R	2	3	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)				X	X																		
Adopt only those sections that are listed below			X																				
Chapter / Section																							
R201			X																				
R201.1			X																				
R201.2			X																				
R201.3			X	X																			
R201.4			X																				
ACCESSORY DWELLING UNIT				X	X																		
ACCESSORY STRUCTURE			X																				
ADDITION			X	X																			
AGED HOME OR INSTITUTION			X																				
AIR-IMPERMEABLE INSULATION				X																			
ALTERATION			X	X																			
APPROVED			X	X																			
APPROVED AGENCY			X	X																			
APPROVED LISTING AGENCY			X	X																			
APPROVED TESTING AGENCY			X	X																			
ATTIC			X																				
ATTIC, HABITABLE			X																				
BASEMENT			X																				
BEDRIDDEN PERSON			X																				
BUILDING			X	X																			
BUILDING OFFICIAL			X	X																			
BUILT-UP ROOF COVERING			X																				
CARE AND SUPERVISION			X																				
CATASTROPHICALLY INJURED			X																				
CEILING HEIGHT			X																				
CHILD-CARE CENTER			X																				
CHILD OR CHILDREN			X																				
CHRONICALLY ILL			X																				
CLIMATE ZONES				X																			
CLOSET			X																				
COMBUSTIBLE MATERIAL			X																				
CONGREGATE LIVING HEALTH- FACILITY (CLHF)			X																				
CONGREGATE RESIDENCE			X																				
CONSTRUCTION DOCUMENTS			X																				
DAYCARE			X																				
DAY-CARE HOME, FAMILY			X																				
DAY-CARE HOME, LARGE FAMILY			X																				
DAY-CARE HOME, SMALL FAMILY			X																				
DEPARTMENT				X																			
DESIGN PROFESSIONAL			X																				

(continued)

# CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

## CHAPTER 2 – DEFINITIONS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/ CC	1	1R	2	3	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)				X	X																		
Adopt only those sections that are listed below			X																				
Chapter / Section																							
DRAFT STOP			X																				
DUCT SYSTEM				X																			
DWELLING			X																				
DWELLING UNIT			X	X																			
EMERGENCY ESCAPE AND RESCUE OPENING			X																				
ENERGY STORAGE SYSTEMS (ESS)			X																				
ENFORCEMENT				X																			
ENFORCEMENT AGENCY				X																			
ENFORCING AGENCY			X	X																			
EXTERIOR WALL			X																				
FAMILY				X																			
FENESTRATION				X																			
FIREBLOCKING			X																				
FIRE-RETARDANT-TREATED WOOD			X																				
FIRE SEPARATION DISTANCE			X																				
FLAME SPREAD			X																				
FLAME SPREAD INDEX			X																				
FULL-TIME CARE			X																				
GRADE			X																				
GRADE FLOOR OPENING			X																				
GRADE PLANE			X																				
GUARD OR GUARDRAIL				X																			
HABITABLE SPACE			X																				
HANDRAIL			X																				
HAZARDOUS LOCATION			X																				
HEIGHT, BUILDING			X																				
HEIGHT, STORY			X																				
IGNITION SOURCE			X																				
INFANT			X																				
INSULATING SHEATHING				X																			
LABEL			X																				
LABELED			X	X																			
LIMITED-DENSITY OWNER-BUILT RURAL DWELLINGS				X																			
LISTED			X	X																			
LISTING AGENCY				X	X																		
LIVE/WORK UNIT				X																			
LIVING SPACE			X																				
LODGING HOUSE				X																			
LOT			X																				
LOT LINE			X																				
MARK			X																				

(continued)

## Part II—Definitions

### CHAPTER 2 DEFINITIONS

#### User notes:

**About this chapter:** Codes, by their very nature, are technical documents. Every word, term and punctuation mark can add to or change the meaning of a technical requirement. It is necessary to maintain a consensus on the specific meaning of each term contained in the code. Chapter 2 performs this function by stating clearly what specific terms mean for the purpose of the code.

**Code development reminder:** Code change proposals to definitions in this chapter preceded by a bracketed letter are considered by the IRC—Building Code Development Committee [RB], the IRC—Mechanical/Plumbing Code Development Committee [MP] or the IECC—Residential Code Development Committee [RE] during the Group B (2019) Code Development cycle. See page x for explanation.

#### SECTION R201 GENERAL

**R201.1 Scope.** Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings indicated in this chapter.

**R201.2 Interchangeability.** Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

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

**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 DEFINITIONS

**[RB] ACCESS (TO).** That which enables a device, an appliance or equipment to be reached by ready access or by a means that first requires the removal or movement of a panel, door or similar obstruction.

**ACCESSORY DWELLING UNIT. [HCD 1 & HCD 2]** *An attached or detached residential dwelling unit that provides complete independent living facilities for one or more persons and is located on a lot with a proposed or existing primary residence. Accessory dwelling units shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the single-family or*

*multifamily dwelling is or will be situated. (See Government Code Section 65852.2)*

**[RB] ADDITION.** An extension or increase in floor area, number of stories or height of a building or structure.

**[RB] ADHERED STONE OR MASONRY VENEER.** Stone or masonry veneer secured and supported through the adhesion of an approved bonding material applied to an approved backing.

**AGED HOME OR INSTITUTION.** *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.")*

**[RB] AIR-IMPERMEABLE INSULATION.** An insulation having an air permance equal to or less than 0.02 L/s-m<sup>2</sup> at 75 Pa pressure differential as tested in accordance with ASTM E2178 or E283.

**[RB] ALTERATION.** Any construction or renovation to an existing structure other than repair or addition.

**[RB] ALTERNATING TREAD DEVICE.** A device that has a series of steps between 50 and 70 degrees (0.87 and 1.22 rad) from horizontal, usually attached to a center support rail in an alternating manner so that the user does not have both feet on the same level at the same time.

**[RB] ANCHORED STONE OR MASONRY VENEER.** Stone or masonry veneer secured with approved mechanical fasteners to an approved backing.

**[MP] ANCHORS.** See "Supports."

**[RB] APPROVED.** Acceptable to the building official.

**APPROVED. (HCD 1)** *Meeting the approval of the enforcing agency, except as otherwise provided by law, when used in connection with any system, material, type of construction, fixture or appliance as the result of investigations and tests conducted by the agency, or by reason of accepted principles or tests by national authorities or technical, health, or scientific organizations or agencies.*

#### Notes:

1. See Health and Safety Code Section 17920 for "Approved" as applied to residential construction

## DEFINITIONS

and buildings or structures accessory thereto, as referenced in Section 1.8.2.1.1.

2. See Health and Safety Code Section 17921.1 for “Approved” as applied to the use of hotplates in residential construction referenced in Section 1.8.2.1.1.
3. See Health and Safety Code Section 19966 for “Approved” as applied to factory-built housing as referenced in Section 1.8.3.2.5.
4. See Health and Safety Code Section 18201 for “Approved” as applied to mobilehome parks as referenced in Section 1.8.3.2.2.
5. See Health and Safety Code Section 18862.1 for “Approved” as applied to special occupancy parks as referenced in Section 1.8.3.2.3.

**[RB] APPROVED AGENCY.** An established and recognized agency that is regularly engaged in conducting tests, furnishing inspection services or furnishing product certification, and has been approved by the building official. (HCD 1) “Approved agency” shall mean “Listing agency” and “Testing agency.”

**APPROVED LISTING AGENCY.** 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.

**[MP] APPROVED SOURCE.** An independent person, firm or corporation, approved by the building official, who is competent and experienced in the application of engineering principles to materials, methods or systems analyses.

**APPROVED TESTING AGENCY.** 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.

**[RB] ASPECT RATIO.** The ratio of longest to shortest perpendicular dimensions, or for wall sections, the ratio of height to length.

**[RB] ATTIC.** The unfinished space between the ceiling assembly and the roof assembly.

**[RB] ATTIC, HABITABLE.** A finished or unfinished habitable space within an attic.

**[RB] BASEMENT.** A story that is not a story above grade plane. (see “Story above grade plane”).

**[RB] BASIC WIND SPEED.** Three-second gust speed at 33 feet (10 058 mm) above the ground in Exposure C (see Section R301.2.1) as given in Figure R301.2(5)A.

**BEDRIDDEN PERSON.** 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. Persons who are unable to independently transfer to and from bed, but who do not need assistance to turn or reposition in bed, shall be considered nonambulatory.

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.

**[RB] BOND BEAM.** A horizontal grouted element within masonry in which reinforcement is embedded.

**[RB] BRACED WALL LINE.** A straight line through the building plan that represents the location of the lateral resistance provided by the wall bracing.

**[RB] BRACED WALL LINE, CONTINUOUSLY SHEATHED.** A braced wall line with structural sheathing applied to all sheathable surfaces including the areas above and below openings.

**[RB] BRACED WALL PANEL.** A full-height section of wall constructed to resist in-plane shear loads through interaction of framing members, sheathing material and anchors. The panel’s length meets the requirements of its particular bracing method, and contributes toward the total amount of bracing required along its braced wall line in accordance with Section R602.10.1.

**[RB] BUILDING.** Any one- or two-family dwelling or portion thereof, including townhouses, used or intended to be used for human habitation, for living, sleeping, cooking or eating purposes, or any combination thereof, or any accessory structure.

**Exceptions:** For applications listed in Section 1.8.2 regulated by the Department of Housing and Community Development, “Building” shall not include the following:

1. Any mobilehome as defined in Health and Safety Code Section 18008.
2. Any manufactured home as defined in Health and Safety Code Section 18007.
3. Any commercial modular as defined in Health and Safety Code Section 18001.8 or any special purpose commercial modular as defined in Section 18012.5.
4. Any recreational vehicle as defined in Health and Safety Code Section 18010.
5. Any multifamily manufactured home as defined in Health and Safety Code Section 18008.7.

For additional information, see Health and Safety Code Section 18908.

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



*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).]*

**[RB] DEAD LOADS.** The weight of the materials of construction incorporated into the building, including but not limited to walls, floors, roofs, ceilings, stairways, built-in partitions, finishes, cladding, and other similarly incorporated architectural and structural items, and fixed service equipment.

**[RB] DECORATIVE GLASS.** A carved, leaded or Dalle glass or glazing material with a purpose that is decorative or artistic, not functional; with coloring, texture or other design qualities or components that cannot be removed without destroying the glazing material; and with a surface, or assembly into which it is incorporated, that is divided into segments.

**DEPARTMENT.** *The Department of Housing and Community Development.*

**[MP] DESIGN PROFESSIONAL.** See “Registered design professional.”

**[MP] DIAMETER.** Unless specifically stated, the term “diameter” is the nominal diameter as designated by the approved material standard.

**[RB] DIAPHRAGM.** A horizontal or nearly horizontal system acting to transmit lateral forces to the vertical resisting elements. Where the term “diaphragm” is used, it includes horizontal bracing systems.

**[RB] DRAFT STOP.** A material, device or construction installed to restrict the movement of air within open spaces of concealed areas of building components such as crawl spaces, floor-ceiling assemblies, roof-ceiling assemblies and attics.

**[MP] DUCT SYSTEM.** *All ducts, duct fittings, plenums and fans when assembled to form a continuous passageway for the distribution of air.*

**[RB] DWELLING.** Any building that contains one or two dwelling units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.

**[RB] DWELLING UNIT.** A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

**[RB] EMERGENCY ESCAPE AND RESCUE OPENING.** An operable exterior window, door or similar device that provides for a means of escape and access for rescue in the event of an emergency. (See also “Grade floor opening.”)

**[RB] ENERGY STORAGE SYSTEM (ESS).** *One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time.*

**ENFORCEMENT.** *Notwithstanding other provisions of law, the applicable section of the Health and Safety Code, Section 17920, is repeated here for clarity:*

*“Enforcement” means diligent effort to secure compliance, including review of plans and permit applications, response*

*to complaints, citation of violations, and other legal process. Except as otherwise provided in this part, “enforcement” may, but need not, include inspections of existing buildings on which no complaint or permit application has been filed, and effort to secure compliance as to these existing buildings.*

**ENFORCEMENT AGENCY.** See “ENFORCING AGENCY.”

**ENFORCING AGENCY.** *The designated department or agency as specified by statute or regulation.*

**[RB] ENGINEERED WOOD RIM BOARD.** A full-depth structural composite lumber, wood structural panel, structural glued laminated timber or prefabricated wood I-joist member designed to transfer horizontal (shear) and vertical (compression) loads, provide attachment for diaphragm sheathing, siding and exterior deck ledgers and provide lateral support at the ends of floor or roof joists or rafters.

**[RB] ESCARPMENT.** With respect to topographic wind effects, a cliff or steep slope generally separating two levels or gently sloping areas.

**[RB] EXPANSIVE SOILS.** Soils that exhibit volumetric increase or decrease (swelling or shrinking) in response to partial or full wetting or drying under load.

**[RB] EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS).** EIFS are nonstructural, nonload-bearing exterior wall cladding systems that consist of an insulation board attached either adhesively or mechanically, or both, to the substrate; an integrally reinforced base coat; and a textured protective finish coat.

**[RB] EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) WITH DRAINAGE.** An EIFS that incorporates a means of drainage applied over a water-resistive barrier.

**[RB] EXTERIOR WALL COVERING.** A material or assembly of materials applied on the exterior side of exterior walls for the purpose of providing a weather-resistive barrier, insulation or for aesthetics, including but not limited to, veneers, siding, exterior insulation and finish systems, architectural trim and embellishments such as cornices, soffits, and fascias.

**[RB] FACING.** The wood structural panel facings that form the two outmost rigid layers of the structural insulated panel.

**[MP] FACTORY-BUILT CHIMNEY.** A listed and labeled chimney composed of factory-made components assembled in the field in accordance with the manufacturer’s instructions and the conditions of the listing.

**FAMILY. (HCD 1)** *An individual or two or more persons who are related by blood or marriage; or otherwise live together in a dwelling unit.*

**[RE] FENESTRATION.** See “Fenestration Product” as defined in the California Energy Code.

**[RB] FIBER-CEMENT (BACKERBOARD, SIDING, SOFFIT, TRIM AND UNDERLAYMENT) PRODUCTS.** Manufactured thin section composites of hydraulic cementitious matrices and discrete nonasbestos fibers.

## DEFINITIONS

**[RB] FIRE SEPARATION DISTANCE.** The distance measured from the building face to one of the following:

1. To the closest interior lot line.
2. To the centerline of a street, an alley or public way.
3. To an imaginary line between two buildings on the lot.

The distance shall be measured at a right angle from the face of the wall.

**[RB] FIREBLOCKING.** Building materials or materials approved for use as fireblocking, installed to resist the free passage of flame to other areas of the building through concealed spaces.

**[RB] FIREPLACE.** An assembly consisting of a hearth and fire chamber of noncombustible material and provided with a chimney, for use with solid fuels.

**Factory-built fireplace.** A listed and labeled fireplace and chimney system composed of factory-made components, and assembled in the field in accordance with manufacturer's instructions and the conditions of the listing.

**Masonry fireplace.** A field-constructed fireplace composed of solid masonry units, bricks, stones or concrete.

**[MP] FIREPLACE STOVE.** A free-standing, chimney-connected solid-fuel-burning heater designed to be operated with the fire chamber doors in either the open or closed position.

**[RB] FIREPLACE THROAT.** The opening between the top of the firebox and the smoke chamber.

**[RB] FIRE-RETARDANT-TREATED WOOD.** Pressure-treated lumber and plywood that exhibit reduced surface burning characteristics and resist propagation of fire.

**Other means during manufacture.** A process where the wood raw material is treated with a fire-retardant formulation while undergoing creation as a finished product.

**Pressure process.** A process for treating wood using an initial vacuum followed by the introduction of pressure above atmospheric.

**[RB] FLAME SPREAD.** The propagation of flame over a surface.

**[RB] FLAME SPREAD INDEX.** A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84 or UL 723.

**[RB] FLIGHT.** A continuous run of rectangular treads or winders or combination thereof from one landing to another.

**[RB] FOAM BACKER BOARD.** Foam plastic used in siding applications where the foam plastic is a component of the siding.

**[RB] FOAM PLASTIC INSULATION.** A plastic that is intentionally expanded by the use of a foaming agent to produce a reduced-density plastic containing voids consisting of open or closed cells distributed throughout the plastic for thermal insulating or acoustic purposes and that has a density less than 20 pounds per cubic foot (320 kg/m<sup>3</sup>) unless it is used as interior trim.

**[RB] FOAM PLASTIC INTERIOR TRIM.** Exposed foam plastic used as picture molds, chair rails, crown moldings, baseboards, handrails, ceiling beams, door trim and window trim and similar decorative or protective materials used in fixed applications.

***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.*

**[RB] GLAZING AREA.** The interior surface area of all glazed fenestration, including the area of sash, curbing or other framing elements, that enclose conditioned space. Includes the area of glazed fenestration assemblies in walls bounding conditioned basements.

**[RB] GRADE.** The finished ground level adjoining the building at all exterior walls.

**[RB] GRADE FLOOR OPENING.** A window or other opening located such that the sill height of the opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent to the opening. (See also "Emergency escape and rescue opening.")

**[RB] GRADE PLANE.** A reference plane representing the average of the finished ground level adjoining the building at all exterior walls. Where the finished ground level slopes away from the exterior walls, the reference plane shall be established by the lowest points within the area between the building and the lot line or, where the lot line is more than 6 feet (1829 mm) from the building between the structure and a point 6 feet (1829 mm) from the building.

**[RB] GROSS AREA OF EXTERIOR WALLS.** The normal projection of all exterior walls, including the area of all windows and doors installed therein.

**[RB] GUARD OR GUARDRAIL.** A building component or a system of building components located near the open sides of elevated walking surfaces that minimizes the possibility of a fall from the walking surface to the lower level.

**[RB] GUESTROOM.** Any room or rooms used or intended to be used by one or more guests for living or sleeping purposes.

**[RB] GYPSUM BOARD.** The generic name for a family of sheet products consisting of a noncombustible core primarily of gypsum with paper surfacing. Gypsum wallboard, gypsum sheathing, gypsum base for gypsum veneer plaster, exterior gypsum soffit board, predecorated gypsum board and water-resistant gypsum backing board complying with the standards listed in Section R702.3 and Part IX of this code are types of gypsum board.

**[RB] GYPSUM PANEL PRODUCT.** The general name for a family of sheet products consisting essentially of gypsum.

**[RB] HABITABLE SPACE.** A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

# CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

## CHAPTER 3 – BUILDING PLANNING

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDP					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/ CC	1	1R	2	3	4	5							
Adopt entire chapter																						
Adopt entire chapter as amended (amended sections listed below)				X																		
Adopt only those sections that are listed below			X																			
Chapter / Section																						
R300				X																		
R300.1				X																		
R300.2				X																		
R301.1			X																			
R301.1.1.1				X																		
R301.1.3.1				X																		
R301.1.3.2				X																		
R301.1.3.3				X																		
Table R301.2(1)				X																		
R301.2.2.1.1																						
R301.2.2.1.2																						
R301.2.2.10				X																		
Table 301.5				X																		
R302.1 - R302.14			X																			
R302.1			X	X																		
R302.2.2				X																		
R302.5.1				X																		
R302.6				X																		
R302.14				X																		
R303.1				X																		
R303.3				X																		
R303.3.1				X																		
R303.4				X																		
R303.7 - R308.1			X																			
R303.9.1.1				X																		
R303.10				X																		
R304.2				X																		
R307.1				X																		
Figure R307.1				†																		
R308.3 - R308.4			X																			
R309.4				X																		
R309.5			X																			
R309.6			X																			
R309.7				X																		
R309.8				X																		
R310 - R310.4			X																			
R310.2.2				X																		
R311 - R311.8.3.3			X																			
R312 - R312.2.2			X																			
R312.1.2				X																		
R313.1 - R313.3.8.2			X	◆																		
R314 - R314.8.3			X																			

(continued)

# CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

## CHAPTER 3 – BUILDING PLANNING—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/ CC	1	1R	2	3	4	5							
Adopt Entire Chapter																						
Adopt Entire Chapter as amended (amended sections listed below)				X																		
Adopt only those sections that are listed below			X																			
Chapter / Section																						
R315.1.1				X																		
R315.2				X																		
R315.2.1				X																		
R315.2.2				X																		
R315.3				X																		
R315.4				X																		
R315.5				X																		
R315.6				X																		
R315.7.2				X																		
R315.7.4				X																		
R316			X																			
R316.2.1			X																			
R316.3 <i>Exception 2</i>			X																			
R317.1				X																		
R317.1.6				X																		
R319			X																			
R320.1				X																		
R320.1.1				†																		
R321			X																			
R321.3				X																		
R322.1.6				X																		
R322.1.7				X																		
R322.1.9				†																		
R322.2				X																		
R324			X																			
R324.2				X																		
R324.3				X																		
R324.6				X																		
R324.7.1				X																		
R326				†																		
R327 - R327.10			X																			
R327.2				X																		
R327.6				X																		
R327.9				X																		
R334				X																		
R334.1				X																		
R335 - R335.9			X																			
R336 - R336.8			X																			
R337.1.1			X																			
R337 - R337.10.3			X																			
R337.5.1 - R337.5.2			X																			
R337.6.2 - R337.6.3			X																			
R337.9.1.1			X																			
R337.9.3			X																			
R338 - R338.4			X																			
R340				X																		
R340.1				X																		

The state agency does not adopt sections identified with the following symbol: †

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures subject to HCD 1.

**R308.5 Site-built windows.** Site-built windows shall comply with Section 2404 of the *California Building Code*.

**R308.6 Skylights and sloped glazing.** Skylights and sloped glazing shall comply with the following sections.

**R308.6.1 Definitions.** The following terms are defined in Chapter 2:

**SKYLIGHT, UNIT.**

**SKYLIGHTS AND SLOPED GLAZING.**

**TUBULAR DAYLIGHTING DEVICE (TDD).**

**R308.6.2 Materials.** Glazing materials shall be limited to the following:

1. Laminated glass with not less than a 0.015-inch (0.38 mm) polyvinyl butyral interlayer for glass panes 16 square feet (1.5 m<sup>2</sup>) or less in area located such that the highest point of the glass is not more than 12 feet (3658 mm) above a walking surface; for higher or larger sizes, the interlayer thickness shall be not less than 0.030 inch (0.76 mm).
2. Fully tempered glass.
3. Heat-strengthened glass.
4. Wired glass.
5. Approved rigid plastics.

**R308.6.3 Screens, general.** For fully tempered or heat-strengthened glass, a retaining screen meeting the requirements of Section R308.6.7 shall be installed below the glass, except for fully tempered glass that meets either condition listed in Section R308.6.5.

**R308.6.4 Screens with multiple glazing.** Where the inboard pane is fully tempered, heat-strengthened or wired glass, a retaining screen meeting the requirements of Section R308.6.7 shall be installed below the glass, except for either condition listed in Section R308.6.5. Other panes in the multiple glazing shall be of any type listed in Section R308.6.2.

**R308.6.5 Screens not required.** Screens shall not be required where fully tempered glass is used as single glazing or the inboard pane in multiple glazing and either of the following conditions are met:

1. The glass area is 16 square feet (1.49 m<sup>2</sup>) or less; the highest point of glass is not more than 12 feet (3658 mm) above a walking surface; the nominal glass thickness is not more than  $\frac{3}{16}$  inch (4.8 mm); and (for multiple glazing only) the other pane or panes are fully tempered, laminated or wired glass.
2. The glass area is greater than 16 square feet (1.49 m<sup>2</sup>); the glass is sloped 30 degrees (0.52 rad) or less from vertical; and the highest point of glass is not more than 10 feet (3048 mm) above a walking surface.

**R308.6.6 Glass in greenhouses.** Any glazing material is permitted to be installed without screening in the sloped areas of greenhouses, provided that the greenhouse height at the ridge does not exceed 20 feet (6096 mm) above grade.

**R308.6.7 Screen characteristics.** The screen and its fastenings shall be capable of supporting twice the weight of the glazing, be firmly and substantially fastened to the framing members, and have a mesh opening of not more than 1 inch by 1 inch (25 mm by 25 mm).

**R308.6.8 Curbs for skylights.** Unit skylights installed in a roof with a pitch of less than three units vertical in 12 units horizontal (25-percent slope) shall be mounted on a curb extending not less than 4 inches (102 mm) above the plane of the roof, unless otherwise specified in the manufacturer's installation instructions.

**R308.6.9 Testing and labeling.** Unit skylights and tubular daylighting devices shall be tested by an approved independent laboratory, and bear a label identifying manufacturer, performance grade rating and approved inspection agency to indicate compliance with the requirements of AAMA/WDMA/CSA 101/I.S.2/A440.

**R308.6.9.1 Comparative analysis for glass-glazed unit skylights.** Structural wind load design pressures for glass-glazed unit skylights different than the size tested in accordance with Section R308.6.9 shall be permitted to be different than the design value of the tested unit where determined in accordance with one of the following comparative analysis methods:

1. Structural wind load design pressures for glass-glazed unit skylights smaller than the size tested in accordance with Section R308.6.9 shall be permitted to be higher than the design value of the tested unit provided that such higher pressures are determined by accepted engineering analysis. Components of the smaller unit shall be the same as those of the tested unit. Such calculated design pressures shall be validated by an additional test of the glass-glazed unit skylight having the highest allowable design pressure.
2. In accordance with WDMA I.S. 11.

## SECTION R309 GARAGES AND CARPORTS

**R309.1 Floor surface.** Garage floor surfaces shall be of approved noncombustible material.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.

**R309.2 Carports.** Carports shall be open on not less than two sides. Carport floor surfaces shall be of approved noncombustible material. Carports not open on two or more sides shall be considered to be a garage and shall comply with the provisions of this section for garages.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.

**Exception:** Asphalt surfaces shall be permitted at ground level in carports.

**R309.3 Flood hazard areas.** For buildings located in flood hazard areas as established by Table R301.2(1), garage floors shall be one of the following:

1. Elevated to or above the design flood elevation as determined in accordance with Section R322.
2. Located below the design flood elevation provided that the floors are at or above grade on not less than one side, are used solely for parking, building access or storage, meet the requirements of Section R322 and are otherwise constructed in accordance with this code.

**R309.4 Automatic garage door openers.** Automatic garage door openers, if provided, shall be listed and labeled in accordance with UL 325. *See Health and Safety Code Sections 19890, 19891 and 19892 for additional provisions for residential garage door openers.*

**R309.5 Fire sprinklers location on property.** Private garages shall be protected by fire sprinklers where the garage wall has been designed based on Table R302.1(2), Note a. Sprinklers in garages shall be connected to an automatic sprinkler system that complies with Section R313. 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.

**R309.6 Fire sprinklers, attached garages, and carports with habitable space above.** Attached garages and carports with habitable space above shall be protected by fire sprinklers in accordance with this section and Section R313. Protection shall be provided in accordance with one of the following:

1. Residential sprinklers installed in accordance with their listing.
2. Extended coverage sprinklers discharging water not less than their listed flow rate for Light Hazard in accordance with NFPA 13.
3. Quick-response spray sprinklers at light hazard spacing in accordance with NFPA 13 designed to discharge at 0.05 gpm/ft<sup>2</sup> density (minimum).

*The system demand shall be permitted to be limited to the number of sprinklers in the compartment but shall not exceed two sprinklers for hydraulic calculation purposes. Garage doors shall not be considered obstructions and shall be permitted to be ignored for placement and calculation of sprinklers.*

**Exception:** An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing carports and/or garages that do not have an automatic residential fire sprinkler system installed in accordance with this section.

**R309.7 Extension garage door springs.** Every extension garage door spring sold or offered for sale, whether new or sold as a replacement, or installed in any garage or carport which is accessory to a dwelling covered by this code, shall conform to the requirements for garage door springs located in Section 1210 of the California Building Code.

**R309.8 Electric vehicle (EV) charging infrastructure.** Newly constructed one- and two-family dwellings and town-

*houses with attached private garages shall comply with EV infrastructure requirements in accordance with the California Green Building Standards Code, Chapter 4, Division 4.1.*

## SECTION R310 EMERGENCY ESCAPE AND RESCUE OPENINGS

**R310.1 Emergency escape and rescue opening required.** Basements, habitable attics and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

### Exceptions:

1. Storm shelters and basements used only to house mechanical equipment not exceeding a total floor area of 200 square feet (18.58 m<sup>2</sup>).
2. Where the dwelling or townhouse is equipped with an automatic sprinkler system installed in accordance with Section P2904, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:
  - 2.1. One means of egress complying with Section R311 and one emergency escape and rescue opening.
  - 2.2. Two means of egress complying with Section R311.

**R310.1.1 Operational constraints and opening control devices.** 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. Window opening control devices on windows serving as a required emergency escape and rescue opening shall comply with ASTM F2090.

**R310.2 Emergency escape and rescue openings.** Emergency escape and rescue openings shall have minimum dimensions as specified in this section.

**R310.2.1 Minimum opening area.** Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m<sup>2</sup>). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height of the opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm).

**Exception:** Grade floor openings or below-grade openings shall have a net clear opening area of not less than 5 square feet (0.465 m<sup>2</sup>).

**R310.2.2 Window sill height.** Where a window is provided as the emergency escape and rescue opening, it shall

2. The opening to the room is unobstructed except for walls not more than 42 inches (1067 mm) in height, columns and posts.

3. The exceptions to Section R325.5 are not applied.

**R325.4 Means of egress.** The means of egress for mezzanines shall comply with the applicable provisions of Section R311.

**R325.5 Openness.** Mezzanines shall be open and unobstructed to the room in which they are located except for walls not more than 36 inches (914 mm) in height, columns and posts.

**Exceptions:**

1. Mezzanines or portions thereof are not required to be open to the room in which they are located, provided that the aggregate floor area of the enclosed space is not greater than 10 percent of the mezzanine area.
2. In buildings that are not more than two stories above grade plane and equipped throughout with an automatic sprinkler system in accordance with Section R313, a mezzanine shall not be required to be open to the room in which the mezzanine is located.

**R325.6 Habitable attic.** A habitable attic shall not be considered a story where complying with all of the following requirements:

1. The occupiable floor area is not less than 70 square feet (17 m<sup>2</sup>), in accordance with Section R304.
2. The occupiable floor area has a ceiling height in accordance with Section R305.
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below.
4. The floor of the occupiable space shall not extend beyond the exterior walls of the floor below.

## SECTION R326 RESERVED

## SECTION R327 ENERGY STORAGE SYSTEMS

**R327.1 General.** Energy Storage Systems (ESS) shall comply with the provisions of this section.

**Exceptions:**

1. ESS listed and labeled in accordance with UL 9540 and marked "For use in residential dwelling units," where installed in accordance with the manufacturer's instructions and California Electrical Code.
2. ESS less than 1 kWh (3.6 megajoules).

**R327.2 Equipment listings.** ESS shall be listed and labeled in accordance with UL 9540.

**Exception:** Where approved, repurposed unlisted battery systems from electric vehicles are allowed to be installed outdoors or in detached sheds located not less than 5 feet (1524 mm) from exterior walls, property lines and public ways.

**R327.3 Installation.** ESS shall be installed in accordance with the manufacturer's instructions and their listing.

**R327.3.1 Spacing** Individual units shall be separated from each other by not less than 3 feet (914 mm) except where smaller separation distances are documented to be adequate based on large-scale fire testing complying with Section 1206.1.5 of the California Fire Code.

**R327.4 Locations.** ESS shall be installed only in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space in accordance with Section R302.6.
3. Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and windows directly entering the dwelling unit.
4. Enclosed utility closets, basements, storage or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than <sup>5</sup>/<sub>8</sub> inch Type X gypsum wallboard.

ESS shall not be installed in sleeping rooms, closets, spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.

**R327.5 Energy ratings.** Individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating of the ESS shall not exceed:

1. 40 kWh within utility closets, basements, and storage or utility spaces.
2. 80 kWh in attached or detached garages and detached accessory structures.
3. 80 kWh on exterior walls.
4. 80 kWh outdoors on the ground.

ESS installations exceeding the permitted individual or aggregate ratings shall be installed in accordance with Sections 1206.1 through 1206.9 of the California Fire Code.

**R327.6 Electrical installation.** ESS shall be installed in accordance with the California Electrical Code. Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction.

**R327.7 Fire detection.** Rooms and areas within dwelling units, basements, and attached garages in which ESS are installed shall be protected by smoke alarms in accordance with Section R314. A listed heat detector shall be installed in locations within dwelling units and attached garages where smoke alarms cannot be installed based on their listing.

**R327.8 Protection from impact.** ESS installed in a location subject to vehicle damage shall be protected by approved barriers. Appliances in garages shall also be installed in accordance with Section 304.3 of the California Mechanical Code.

**R327.9 Ventilation.** Indoor installations of ESS that include batteries that produce hydrogen or other flammable gases during charging shall be provided with mechanical ventilation in accordance with the California Mechanical Code.

**R327.10 Toxic and highly toxic gas.** ESS that have the potential to release toxic or highly toxic gas during charging, discharging and normal use conditions shall not be installed within Group R-3 or R-4 occupancies.

**R327.11 Electric vehicle use.** The temporary use of an owner or occupant's electric powered vehicle to power a dwelling unit while parked in an attached or detached garage or outdoors shall comply with the vehicle manufacturer's instructions and the California Electrical Code.

### SECTION R334 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

**R334.1 Construction waste management.** Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with the California Green Building Standards Code, Chapter 4, Division 4.4.

### SECTION R335 SPECIAL PROVISIONS FOR LICENSED 24-HOUR CARE FACILITIES IN A GROUP R-3.1

**R335.1 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.

**R335.2 General.** The provisions in this section shall apply in addition to general requirements in this code.

**R335.2.1 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.

**R335.2.2** 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.

#### R335.3 Building height and area provisions.

**R335.3.1 Limitations six or less clients.** Group R-3.1 occupancies where nonambulatory 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.

**R335.3.2.** 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 (279 m<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 nonrated walls need not be protected.

#### R335.4 Interior finish provisions.

**R335.4.1 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 803.11 of the California Building Code.

#### R335.5 Fire protection system provisions.

**R335.5.1 Automatic sprinkler systems in Group R-3.1 occupancies.** An automatic sprinkler system shall be installed where required in Section R313.

##### Exceptions:

1. Existing Group R-3 occupancies converted to 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 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section R335.6.3.3.
3. Pursuant to Health and Safety Code Section 13113 existing occupancies housing ambulatory children only, none of whom are mentally ill children or children with intellectual disabilities, 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 protec-



tive 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).

**R335.5.2 Smoke alarms in Groups R-3.1 occupancies.** Smoke alarms shall be installed where required in Section R314. 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.

**R335.5.2.1 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.

**R335.5.2.2 Hearing impaired.** See Section 907.5.2.3 of the California Building Code.

**R335.5.2.3 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.

**R335.5.2.4 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.

**R335.6 Means of egress provisions.**

**R335.6.1 General.** In addition to the general means of egress requirements of Chapter 10 of the California Build-

ing Code, this section shall apply to Group R-3.1 occupancies.

**R335.6.2 Number of exits.**

**R335.6.2.1.** Group R-3.1 occupancies shall have a minimum of two exits.

**R335.6.3 Egress arrangements.**

**R335.6.3.1.** Egress through adjoining dwelling units shall not be permitted.

**R335.6.3.2 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<sup>3</sup>/<sub>8</sub> inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section 716.5.9 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<sup>3</sup>/<sub>8</sub> inch (35 mm) in thickness, maintained self-closing or shall be automatic closing by actuation of a smoke detector installed in accordance with Section 716.5.9 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.

**R335.6.3.3 Group R-3.1 occupancies housing only one bedridden client.** In Group R-3.1 occupancies housing a bedridden client and not provided with an approved automatic fire sprinkler system, 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<sup>3</sup>/<sub>8</sub> 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 detector in accordance with Section 716.5.9 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 (813 mm).

**R335.6.3.4 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.

**R335.6.4 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.

**R335.6.5 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).

**R335.6.6 Floor separation.** Group R-3.1 occupancies with non-ambulatory clients housed above the first floor 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.

**R335.6.6.1 Doors within floor separations.** Doors within such floor separations shall be tight fitting solid wood at least 1<sup>3</sup>/<sub>8</sub> 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.

**R335.6.7 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.

**R335.6.8 Basement exits.** One exit is required to grade level when the basement is accessible to clients.

**R335.6.9 Delayed egress locks.** See Section 1010.1.9.7 of the California Building Code.

**R335.7 Request for alternate means of protection for facilities housing bedridden clients.** Request for alternate means of protection shall apply to Sections R335 through R335.7. 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.

**R335.8 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.

**R335.9 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 (279 m<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 nonrated walls need not be protected.

## **SECTION R336 LARGE FAMILY DAY-CARE HOMES**

### **R336.1 Large family day-care homes.**

**R336.2.** 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.

**R336.3 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.

**R336.4 Fire extinguishers.** Large and small family day-care homes shall be equipped with a portable fire extinguisher having a minimum 2A10BC rating.

**R336.5 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.

**R336.6 Compliance.** Every large family day-care home shall comply with the provisions for Group R-3 occupancies and, if appropriate, Section R336.1. For the purposes of Section R336.1, 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.

**R336.7 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.

**R336.8 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.

## SECTION R337 MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

### SECTION R337.1 SCOPE, PURPOSE AND APPLICATION

**R337.1.1 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 R337.2.

**R337.1.2 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.

**R337.1.3 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. 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.
2. Buildings of an accessory character classified as Group U occupancy of any size located least 50 feet from an applicable building.
3. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C – Group U Agricultural Buildings), when located at least 50 feet from an applicable building.
4. Additions to and remodels of buildings originally constructed prior to the applicable application date.
5. Group C, special buildings conforming to the limitations specified in Section 450.4.1 of the California Building Code.

For the purposes of this section and Section R337.10, applicable building includes all buildings that have residential, commercial, educational, institutional, or similar occupancy type use.

**R337.1.3.1 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

a 150 kW intensity direct flame exposure for a 10 minutes duration.

**SFM Standard 12-7A-2, Exterior Windows.** A fire resistance test standard consisting of a 150 kW intensity direct flame exposure for an 8-minute duration.

**SFM Standard 12-7A-3, Horizontal Projection Under-side A** fire resistance test standard consisting of a 300 kW intensity direct flame exposure for a 10 minute duration.

**SFM Standard 12-7A-4, Decking.** A two-part test consisting of a heat release rate (Part A) deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3 minute duration, and a (Part B) sustained deck assembly combustion test consisting of a deck upper surface burning ember exposure with a 12 mph wind for 40 minutes using a 2.2 lb (1 kg) burning "Class A" size 12" × 12" × 2.25" (300 mm x 300 mm x 57 mm) roof test brand.

**SFM Standard 12-7A-4A, Decking Alternate Method A.** A heat release rate deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3 minute duration.

**SFM Standard 12-7A-5, Ignition-Resistant Material.** A generic building material surface burning flame spread test standard consisting of an extended 30 minute ASTM E84 or UL 723 test method as is used for Fire-Retardant-Treated wood.

ASTM D2898, Standard Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing

ASTM D3909/D3909M, Standard Specification for Asphalt Roll Roofing (Glass Felt) Surfaced with Mineral Granules

ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials

ASTM E2632/E2632M, Standard Test Method for Evaluating the Under-Deck Fire Test Response of Deck Materials

ASTM E2707, Standard Test Method for Determining Fire Penetration of Exterior Wall Assemblies Using a Direct Flame Impingement Exposure

ASTM E2726/E2726M, Standard Test Method for Evaluating the Fire-Test-Response of Deck Structures to Burning Brands

ASTM E2886/E2886M, Standard Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement

ASTM E2957, Standard Test Method for Resistance to Wildfire Penetration of Eaves, Soffits and Other Projections

NFPA 257, Standard on Fire Test for Window and Glass Block Assemblies

UL 723, Standard for Test for Surface Burning Characteristics of Building Materials

## SECTION R337.4 IGNITION-RESISTANT CONSTRUCTION

**R337.4.1 General.** The materials prescribed herein for ignition resistance shall conform to the requirements of this chapter.

**R337.4.2 Ignition-resistant materials.** Ignition-resistant materials shall comply with one of the following:

1. The requirements in Section R337.4.3 when tested in accordance with the test procedures set forth in ASTM E84 or UL 723,
2. The test procedures and requirements set forth in SFM Standard 12-7A-5 "Ignition-Resistant Material", or
3. One of the alternative methods in Section R337.4.4.

**R337.4.3 Conditions of acceptance for ignition-resistant material tested in accordance with ASTM E84 or UL 723.** A material shall comply with the conditions of acceptance in 1 and 2 below when the test is continued for an additional 20-minute period, meaning for a total test period of an "extended" 30-minute test period.

1. The material shall exhibit a flame spread index not exceeding 25 and shall show no evidence of progressive combustion following the extended 30-minute test period.
2. The material shall exhibit a flame front that does not progress more than 10<sup>1</sup>/<sub>2</sub> feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test period.

**R337.4.4 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 202.
2. Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of Section 2303.2 of the California Building Code.
3. Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in Section 1505.6 of the California Building Code 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 R337.5 ROOFING

**R337.5.1 General.** Roofs shall comply with the requirements of Sections R337 and R902. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions. Roof assemblies in the Fire Hazard Severity Zones shall be Class A rating when tested in accordance with ASTM E108 or UL790.

**R337.5.2 Roof coverings.** Where the roofing profile has an airspace under the roof covering, installed over a combustible deck, a 72 lb. (32.7kg) cap sheet complying with ASTM D3909 Standard Specification for "Asphalt Rolled Roofing (Glass Felt) Surfaced with Mineral Granules," shall be installed over the roof deck. Bird stops shall be used at the eaves when the profile fits, to prevent debris at the eave. Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.

**Exception:** Cap sheet is not required when no less than 1 inch of mineral wool board or other noncombustible material is located between the roofing material and wood framing or deck.

Alternately, a Class A fire rated roof underlayment, tested in accordance with ASTM E108, shall be permitted to be used. If the sheathing consists of exterior fire-retardant-treated wood, the underlayment shall not be required to comply with a Class A classification. Bird stops shall be used at the eaves when the profile fits, to prevent debris at the eave. Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.

**R337.5.3 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 D3909, at least 36-inch-wide (914 mm) running the full length of the valley.

**R337.5.4 Roof gutters.** Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

## SECTION R337.6 VENTS

**R337.6.1 General.** Where provided, ventilation openings for enclosed attics, enclosed eave soffit spaces, 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 of the California Building Code and Sections R337.6.1 through R337.6.3 of this section to resist building ignition from the intrusion of burning embers and flame through the ventilation opening.

**R337.6.2 Requirements.** Ventilation openings for enclosed attics, enclosed eave soffit 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 Wildland Flame and Ember Resistant (WUI) vents approved and listed by the California State Fire Marshal, or WUI vents listed to ASTM E2886, by complying with all of the following requirements:

1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.

3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

**R337.6.2.1** The requirements of 706.A.2 shall apply to gable ends, ridge ends, crawl spaces, foundations and all other ventilation vents that mount on a vertical wall.

**R337.6.3 Ventilation openings on the underside of eaves and cornices.** Vents shall not be installed on the underside of eaves and cornices unless the vents are Wildland Flame and Ember Resistant (WUI) vents approved and listed by the California State Fire Marshal, or WUI vents listed to ASTM E2886, by complying with all the following requirements:

1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

### Exceptions:

1. The enforcing agency shall be permitted to accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.
2. Vents shall be permitted to be installed on the underside of eaves and cornices in accordance with all of the following conditions:
  - 2.1. The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the California Building Code, and
  - 2.2. The exterior wall covering and exposed underside of the eave are of noncombustible material, or ignition-resistant materials, as determined in accordance with SFM Standard 12-7A-5 Ignition-Resistant Material the requirements of Section R337.4.3, and the vent is located more than 12 feet (3.66 m) from the ground or walking surface of a deck, porch, patio, or similar surface.

## SECTION R337.7 EXTERIOR COVERING

**R337.7.1 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.

**R337.7.2 General.** The following exterior covering materials and/or assemblies shall comply with this section:

1. Exterior wall covering material.

and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.

5. The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in either of the following:

- 5.1. SFM Standard 12-7A-3; or
- 5.2. ASTM E2957;

**Exception:** Structural columns and beams do not require protection when they are constructed with sawn lumber or glue-laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks splined, tongue-and-grove, or set close together and well spiked.

**R337.7.10 Conditions of acceptance when tested in accordance with ASTM E2957.** The test shall be conducted on a minimum of three test specimens and the conditions of acceptance in 1 through 3 below shall be met. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All of the additional tests shall meet the conditions of acceptance.

1. Absence of flame penetration of the eaves or horizontal projection assembly at any time.
2. Absence of structural failure of the eaves or horizontal projection subassembly at any time.
3. Absence of sustained combustion of any kind at the conclusion of the 40-minute test.

## SECTION R337.8

### EXTERIOR WINDOWS, SKYLIGHTS AND DOORS

#### R337.8.1 General.

**R337.8.2 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.
6. Skylights.
7. Vents.

**R337.8.2.1 Exterior windows, skylights and exterior glazed door assembly requirements.** Exterior windows, skylights and exterior glazed door assemblies shall comply with one of the following requirements:

1. Be constructed of multipane glazing with a minimum of one tempered pane meeting the requirements of Section R308 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
4. Be tested to meet the performance requirements of SFM Standard 12-7A-2.

**R337.8.2.2 Operable skylights.** Operable skylights shall be protected by a noncombustible mesh screen where the dimensions of the openings in the screen shall not exceed  $1/8$  inch (3.2 mm).

**R337.8.2.3 Structural glass veneer.** The wall assembly behind structural glass veneer shall comply with Section R337.7.3 Exterior walls.

**R337.8.3 Exterior doors.** Exterior doors shall comply with one of the following:

1. The exterior surface or cladding shall be of noncombustible material, or
2. The exterior surface or cladding shall be of ignition-resistant material, or
3. The exterior door shall be constructed of solid core wood that complies with the following requirements:
  - 3.1. Stiles and rails shall not be less than  $1\frac{3}{8}$  inches thick
  - 3.2. Panels shall not be less than  $1\frac{1}{4}$  inches thick, except for the exterior perimeter of the panel that shall be permitted to taper to a tongue not less than  $3/8$  inch thick.
4. The exterior door assembly shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252.
5. The exterior surface or cladding shall be tested to meet the performance requirements of Section R337.7.3.1 when tested in accordance with ASTM E2707.
6. The exterior surface or cladding shall be tested to meet the performance requirements of SFM Standard 12-7A-1.

**R337.8.3.1 Exterior door glazing.** Glazing in exterior doors shall comply with Section R337.8.2.1.

**R337.8.4 Garage door perimeter gap.** Exterior garage doors shall resist the intrusion of embers from entering by preventing gaps between doors and door openings, at the bottom, sides and tops of doors, from exceeding  $1/8$  inch (3.2 mm). Gaps between doors and door openings shall be controlled by one of the following methods:

1. Weather stripping products made of materials that:
  - (a) have been tested for tensile strength in accordance with ASTM D638 (Standard Test Method for Tensile Properties of Plastics) after exposure to ASTM G155 (Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials) for a period of 2,000 hours, where the maximum allowable difference in tensile strength values between exposed and nonexposed samples does not exceed 10 percent and (b) exhibit a V-2 or better flammability rating when tested to UL 94, Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.
2. Door overlaps onto jambs and headers.
3. Garage door jambs and headers covered with metal flashing.

## SECTION R337.9 DECKING

**R337.9.1 General.** The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section.

**R337.9.1.1 Flashing.** A minimum of a 6-inch (150 mm) metal flashing, applied vertically on the exterior of the wall, shall be installed at all deck-to-wall intersections.

**R337.9.2 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.

**R337.9.3 Decking surfaces.** The walking surface material of decks, porches, balconies and stairs shall be constructed with one of the following materials:

1. Material that complies with the performance requirements of Section R337.9.4 when tested in accordance with both ASTM E2632 and ASTM E2726.
2. Ignition-resistant material that complies with the performance requirements of Section R337.4.3 when tested in accordance with ASTM E84 or UL 723.
3. Material that complies with the performance requirements of both SFM Standard 12-7A-4 and SFM Standard 12-7A-5.
4. Exterior fire-retardant-treated wood.
5. Noncombustible material.
6. Any material that complies with the performance requirements of SFM Standard 12-7A-4A when attached exterior wall covering is also composed of noncombustible or ignition-resistant material.

**Exception:** Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread index.

7. Any material that complies with the performance requirements of Section R337.9.5 when tested in accordance with ASTM E2632 and when attached exterior wall covering is also composed of only noncombustible or ignition-resistant materials.

**Exception:** Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread index.

**R337.9.4 Requirements for type of ignition-resistant material in Section R337.9.3, Item 1.** The material shall be tested in accordance with both ASTM E2632 and ASTM E2726 and shall comply with the conditions of acceptance in Sections R337.9.4.1 and R337.9.4.2. The material shall also be tested in accordance with ASTM E84 or UL 723 and comply with the performance requirements of Section R337.4.3.

**R337.9.4.1 Conditions of acceptance for ASTM E2632.** The ASTM E2632 test shall be conducted on a minimum of three test specimens and the conditions of acceptance in Items 1 through 3 below shall be met. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All of the additional tests shall meet the conditions of acceptance.

1. Peak heat release rate of less than or equal to 25 kW/ft<sup>2</sup> (269 kW/m<sup>2</sup>).
2. Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-minute observation period.
3. Absence of falling particles that are still burning when reaching the burner or floor.

**R337.9.4.2 Conditions of acceptance for ASTM E2726.** The ASTM E2726 test shall be conducted, using a "Class A" size roof test brand, on a minimum of three test specimens and the conditions of acceptance in Items 1 and 2 below shall be met. If any one of the three test specimens does not meet the conditions of acceptance, three additional tests shall be run. All of the additional tests shall meet the conditions of acceptance.

1. Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-minute observation period.
2. Absence of falling particles that are still burning when reaching the burner or floor.

**R337.9.5 Requirements for type of material in Section R337.9.3, Item 7.** The material shall be tested in accordance with ASTM E2632 and shall comply with the following condition of acceptance. The ASTM E2632 test shall be conducted on a minimum of three test specimens and the peak heat release rate shall be less than or equal to 25 kW/ft<sup>2</sup> (269 kW/m<sup>2</sup>). If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the condition of acceptance.

## SECTION R337.10 ACCESSORY STRUCTURES

**R337.10.1 General.** Accessory buildings and miscellaneous structures defined in this section that have the potential to pose a significant exterior fire exposure hazard to applicable buildings during wildfires shall be constructed to conform to the requirements of this section.

**R337.10.2 Applicability.** The provisions of this section shall apply to the buildings covered by Section R337.1.3 Exception 1. This section shall also apply to specified attached and detached miscellaneous structures that require a building permit, including but not limited to; trellises, arbors, patio covers, gazebos and similar structures.

**Exceptions:**

1. Decks shall comply with the requirements of Section R337.9.



## CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

### CHAPTER 44 – REFERENCED STANDARDS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/ CC	1	1R	2	3	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)			X	X																			
Adopt only those sections that are listed below																							
Chapter / Section																							
ANSI			X																				
ASTM			X	X																			
ICC			X																				
IFC-18				X																			
NFPA			X																				
NFPA 68-13			X																				
SFM			X																				
UBC			X																				
UL 1974-17			X																				
UL 9540-16			X																				
UL 9540A-17			X																				



ICC—continued

IEBC—18: International Existing Building Code®  
R110.2

IFC—18: International Fire Code®  
R102.7, R324.2

ISO

International Organization for Standardization  
Chemin de Blandonnet 8  
CP 401  
1214 Vernier  
Geneva, Switzerland

8336—2009: Fibre-cement Flat Sheets-product Specification and Test Methods  
Table R503.2.1.1(1), Table R503.2.1.1(2), Table R602.3(2), Table R702.4.2, R703.10.1, R703.10.2

NFPA

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

13—16: Standard for Installation of Sprinkler Systems as amended\*  
R302.3

See CCR, Title 24 Part 2 California Building Code, Chapter 35 or CCR, Title 24, Part 9 California Fire Code, Chapter 80 for amendments to NFPA 13.

13D—16: Standard for the Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes as amended\*  
R313.1.1, R313.2.1, R324.6.2.1

*\*NFPA 13D, Amended Sections as follows:*

*Revise Section 6.2.2 to read as follows:*

**6.2.2** Where a well, pump, tank or combination thereof is the source of supply for a fire sprinkler system, the configuration for the system shall be one of the following:

- (1) The water supply shall serve both domestic and fire sprinkler systems,
  - (a) 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.
  - (b) Any disconnecting means for the pump shall be approved.
  - (c) A method for refilling the tank shall be piped to the tank.
  - (d) A method of seeing the water level in the tank shall be provided without having to open the tank.
  - (e) The pump shall not be permitted to sit directly on the floor.
- (2) A stand-alone tank is permitted if the following conditions are met:
  - (a) The pump shall be connected to a 220-volt circuit breaker shared with a common household appliance (e.g., range, oven, dryer),
  - (b) The pump shall be a stainless steel 240-volt pump,
  - (c) A valve shall be provided to exercise the pump. The discharge of the exercise valve shall drain to the tank, and
  - (d) A sign shall be provided stating "Valve must be opened monthly for 5 minutes."
  - (e) A means for automatically refilling the tank level, so that the tank capacity will meet the required water supply duration in minutes, shall be provided.
  - (f) 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 may return water to the tank.
  - (g) Any disconnecting means for the pump shall be approved.
  - (h) A method for refilling the tank shall be piped to the tank.
  - (i) A method of seeing the water level in the tank shall be provided without having to open the tank.
  - (j) The pump shall not be permitted to sit directly on the floor.

*Add new Section 6.2.2.1 to read as follows:*

**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.

*Add new Section 6.2.4 to read as follows:*

**6.2.4** 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. For multipurpose piping systems, the 5 gpm (19 L/min) demand shall be added at the domestic connection nearest the design area. This demand may be split between two domestic connections at 2.5 gpm (10 L/min) each.

*Revise Section 8.3.4 to read as follows:*

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

NFPA—continued

*Add new Section 8.3.10 and 8.3.10.1 as follows:*

**8.3.10 Solar photovoltaic panel structures**

**8.3.10.1 Sprinklers shall be permitted to be omitted from the following structures:**

- (1) Solar photovoltaic panel structures with no use underneath. Signs may be provided, as determined by the enforcing agency prohibiting any use underneath including storage.
- (2) Solar photovoltaic (PV) panels supported by framing that have sufficient uniformly distributed and unobstructed openings throughout the top of the array (horizontal plane) to allow heat and gases to escape, as determined by the enforcing agency.

**13R—16: Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies**

R325.5

**68—13: Standard on Explosion Protection by Deflagration Venting**

R202, R327, R327.1, R327.2, R327.3, R327.3.1, 327.4, R327.5, R327.6, R327.7, R327.8, R327.9, R327.10

**70—17: National Electrical Code**

R107.3, R324.3, R327.2, R327.4

**72—16: National Fire Alarm and Signaling Code as amended\***

R314.1, R314.7.1

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

**Revise Section 10.3.1 to read as follows:**

**10.3.1** Equipment constructed and installed in conformity with this code shall be listed for the purpose for which it is used. Fire alarm systems and components shall be California State Fire Marshal approved and listed in accordance with California Code of Regulations, Title 19, Division 1.

**Revise Section 10.3.3 to read as follows:**

**10.3.3** All devices and appliances that receive their power from the initiating device circuit or signaling line circuit of a control unit shall be California State Fire Marshal listed for use with the control unit.

**Revise Section 10.7.1 to read as follows:**

**10.7.1** Where approved by the authority having jurisdiction, ECS priority signals when evaluated by stakeholders through risk analysis in accordance with 24.3.11 shall be permitted to take precedence over all other signals.

**Revise Section 12.3.8.1 to read as follows:**

**12.3.8.1** The outgoing and return (redundant) circuit conductors shall be permitted in the same cable assembly (i.e., multiconductor cable), enclosure, or raceway only under the following conditions:

- (1) For a distance not to exceed 10 ft (3.0 m) where the outgoing and return conductors enter or exit the initiating device, notification appliance, or control unit enclosures
- (2) Single drops installed in the raceway to individual devices or appliances
- (3) \*In a single room not exceeding 1000 ft<sup>2</sup> (93 m<sup>2</sup>) in area, a drop installed in the raceway to multiple devices or appliances that does not include any emergency control function devices
- (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.

**Revise Section 14.4.6.1 to read as follows:**

**14.4.6.1 Testing.** Household fire alarm systems shall be tested in accordance with the manufacturer's published instructions according to the methods of Table 14.4.3.2.

**Revise Section 17.15 to read as follows:**

**17.15 Fire Extinguisher Electronic Monitoring Device.** A fire extinguisher electronic monitoring device shall indicate those conditions for a specific fire extinguisher required by California Code of Regulations, Title 19, Division 1, Chapter 1, Section 574.2 (c) and California Fire Code to a fire alarm control unit.

**Revise Section 21.3.6 to read as follows:**

**21.3.6** Smoke detectors shall not be installed in unsprinklered elevator hoistways unless they are installed to activate the elevator hoistway smoke relief equipment or where required by Chapter 30 of the California Building Code.

**Revise Section 23.8.5.1.2 to read as follows:**

**23.8.5.1.2** Where connected to a supervising station, fire alarm systems employing automatic fire detectors or waterflow detection devices shall include a manual fire alarm box to initiate a signal to the supervising station.

**Exception:** Fire alarm systems dedicated to elevator recall control, and supervisory service and fire sprinkler monitoring as permitted in Section 21.3 of NFPA 72.

**Revise Section 23.8.5.4.1 to read as follows:**

**23.8.5.4.1 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.

**TMS—continued**

**404—2016: Standard for the Design of Architectural Cast Stone**  
R606.1

**602—2016: Specification for Masonry Structures**  
606.2.10, R606.2.13, R703.12

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**TPI**

Truss Plate Institute  
218 N. Lee Street, Suite 312  
Alexandria, VA 22314

**TPI 1—2014: National Design Standard for Metal-plate-connected Wood Truss Construction**  
R502.11.1, R802.10.2

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**UBC**

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

*UBC Standard 15-2: Test Standard for Determining the Fire Retardancy of Roof-covering Materials*  
R902

*UBC Standard 15-3: Wood Shakes*  
R902

*UBC Standard 15-4: Wood Shingles*  
R902

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**UL**

UL LLC  
333 Pfingsten Road  
Northbrook, IL 60062

**55A—04: Materials for Built-up Roof Coverings**  
R905.9.2

**103—2010: Factory-built Chimneys for Residential Type and Building Heating Appliances—with revisions through July 2012**  
R202, R1005.3

**127—2011: Factory-built Fireplaces—with revisions through May 2015**  
R1001.11, R1004.1, R1004.4, R1004.5, R1005.4

**217—06: Single- and Multiple-station Smoke Alarms—with revisions through October 2015**  
R314.1.1, R315.1.1

**263—2011: Standards for Fire Test of Building Construction and Materials—with revisions through June 2015**  
Table 302.1(1), Table R302.1(2), R302.2, R302.2.1, R302.2.2, R302.4.1, R302.11.1, Table R312.1(1), R606.2.2

**268—2009: Smoke Detectors for Fire Alarm Systems**  
R314.7.1, R314.7.4, R315.7.4

**325—02: Door, Drapery, Gate, Louver and Window Operations and Systems—with revisions through May 2015**  
R309.4

**641—2010: Type L, Low-temperature Venting Systems—with revisions through June 2013**  
R202, R1003.11.5

**723—08: Standard for Test for Surface Burning Characteristics of Building Materials—with revisions through August 2013**  
R202, R302.9.3, R302.9.4, R302.10.1, R302.10.2, R316.3, R316.5.9, R316.5.11, R507.2.2.2, R703.14.3, R802.1.5

**790—04: Standard Test Methods for Fire Tests of Roof Coverings—with revisions through July 2014**  
R302.2.4, R902.1

**959—2010: Medium Heat Appliance Factory-built Chimneys—with revisions through June 2014**  
R1005.6

**1040—96: Fire Test of Insulated Wall Construction—with revisions through October 2012**  
R316.6

**1256—02: Fire Test of Roof Deck Construction—with revisions through July 2013**  
R906.1

**1479—03: Fire Tests of Through-Penetration Firestops—with revisions through June 2015**  
R302.4.1.2

## REFERENCED STANDARDS

### UL—continued

**1482—2011: Solid-fuel-type Room Heaters—with revisions through August 2015**

R1002.2, R1002.5

**1618—09: Wall Protectors, Floor Protectors, and Hearth Extensions—with revisions through October 2015**

R1004.2

**1703—02: Flat-plate Photovoltaic Modules and Panels—with revisions through October 2015**

R324.3.1, R902.4, R905.16.4, R907.17.5

**1715—97: Fire Test of Interior Finish Material—with revisions through January 2013**

R316.6

**1741—2010: Inverters, Converters, Controllers and Interconnection System Equipment with Distributed Energy Resources—with revisions through January 2015**

R324.3.1, R327.4

**1777—07: Chimney Liners—with revisions through October 2015**

R1003.11.1, R1003.18

**1897—12: Uplift Tests for Roof Covering Systems—with revisions through September 2015**

R905.17.7

**1974—17: Evaluation for Re-purposing Batteries**

*R202, R327, R327.1, R327.2, R327.3, R327.3.1, R327.4, R327.5, R327.6, R327.7, R327.8, R327.9, R327.10*

**2034—08: Standard for Single- and Multiple-station Carbon Monoxide Alarms—with revisions through March 2015**

R314.1.1, R315.1.1

**2075—2013: Standard for Gas and Vapor Detectors and Sensors**

R314.7.4, R315.7.1, R315.7.4

**2703—14: Mounting Systems, Mounting Devices, Clamping/Retention Devices and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels**

R902.4

**9540—16: Outline of Investigation for Energy Storage Systems and Equipment**

R327.2, R327.4

**9540A—17: Standard for Safety Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems**

*R202, R327, R327.1, R327.2, R327.3, R327.3.1, R327.4, R327.5, R327.6, R327.7, R327.8, R327.9, R327.10*

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## ULC

ULC

13775 Commerce Parkway  
Richmond, BC V6V 2V4

**CAN/ULC S 102.2—2010: Standard Methods for Test for Surface Burning Characteristics of Building Materials and Assemblies**

R302.10.1, R302.10.2

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## WDMA

Window and Door Manufacturers Association

2025 M Street NW, Suite 800

Washington, DC 20036-3309

**AAMA/WDMA/CSA 101/LS2/A440—17: North American Fenestration Standard/Specifications for Windows, Doors and Skylights**

R308.6.9, R609.3

**I.S. 11—13: Industry Standard Analytical Method for Design Pressure (DP) Ratings of Fenestration Products**

R308.6.9.1, R609.3.1

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## WMA

World Millwork Alliance (formerly Association of Millwork Distributors Standards AMD)

10047 Robert Trent Parkway

New Port Richey, FL 34655-4649

**ANSI WMA 100—2016: Standard Method of Determining Structural Performance Ratings of Side Hinged Exterior Door Systems and Procedures for Component Substitution**

R609.3

## CALIFORNIA RESIDENTIAL CODE – MATRIX ADOPTION TABLE

### APPENDIX X – EMERGENCY HOUSING

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.  
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter				X																			
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below																							
Chapter / Section																							

## APPENDIX X

### EMERGENCY HOUSING

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

#### SECTION AX101 GENERAL

**AX101.1 Scope.** This appendix shall be applicable to emergency housing and emergency housing facilities, as defined in Section AX102.

#### SECTION AX102 DEFINITIONS

**AX102.1 General.** The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

**DECLARATION OF SHELTER CRISIS.** The duly proclaimed existence of a situation in which a significant number of persons are without the ability to obtain shelter, resulting in a threat to their health and safety. (See Government Code Section 8698.)

**DEPENDENT UNIT.** Emergency housing not equipped with a kitchen area, toilet, and sewage disposal system. Recreational vehicles that are not self-contained and without utility service connections shall be considered dependent units.

**EMERGENCY HOUSING.** Housing in a permanent or temporary structure(s), occupied during a declaration of state of emergency, local emergency, or shelter crisis. Emergency housing may include, but is not limited to, buildings and structures constructed in accordance with the California Building Standards Code; and emergency sleeping cabins, emergency transportable housing units, and tents constructed in accordance with this appendix.

**EMERGENCY HOUSING FACILITIES.** On-site common use facilities supporting emergency housing. Emergency housing facilities include, but are not limited to, kitchen areas, toilets, showers and bathrooms with running water. The use of

emergency housing facilities is limited exclusively to the occupants of the emergency housing, personnel involved in operating the housing, and other emergency personnel.

**EMERGENCY HOUSING SITE.** A site containing emergency housing and emergency housing facilities supporting the emergency housing.

**EMERGENCY SLEEPING CABIN.** Relocatable hard-sided structure constructed in accordance with this appendix, which may be occupied only for emergency housing if allowed by the enforcing agency.

**EMERGENCY TRANSPORTABLE HOUSING UNIT.** A single- or multiple-section prefabricated structure that is transportable by a vehicle and that can be installed on a permanent or temporary site in response to a need for emergency housing. Emergency transportable housing units include, but are not limited to, manufactured homes, mobile-homes, multifamily manufactured homes, recreational vehicles, and park trailers. For the purposes of this appendix, emergency transportable housing units may also include commercial modulars as defined in the Health and Safety Code Section 18001.8, if approved by the enforcing agency.

Emergency transportable housing units do not include factory-built housing as defined in the Health and Safety Code Section 19971.

**LANDING PLATFORM.** A landing provided as the top step of a stairway accessing a loft.

**LOCAL EMERGENCY.** Local Emergency as defined in the Government Code, Section 8558.

**LOFT.** A floor level located more than 30 inches (762 mm) above the main floor and open to it on at least one side with a ceiling height of less than 6 feet 8 inches (2032 mm), used as a living or sleeping space.

**MANUFACTURED HOME.** A structure designed to be used as a single-family dwelling, as defined in the Health and Safety Code, Section 18007.

**MEMBRANE STRUCTURE.** An air-inflated, air-supported, cable or frame-covered structure, not otherwise defined as a tent. (See Chapter 31 of the California Building Code.)

**MOBILEHOME.** A structure designed to be used as a single-family dwelling, as defined in the Health and Safety Code, Section 18008.

**MULTIFAMILY MANUFACTURED HOME.** A structure designed to contain not less than two dwelling units, as defined in the Health and Safety Code, Section 18008.7.

**PARK TRAILER.** A trailer designed for human habitation that meets all requirements in the Health and Safety Code, Section 18009.3.

**RECREATIONAL VEHICLE.** A motor home, travel trailer, truck camper, or camping trailer, with or without motive power, designed for human habitation, that meets all requirements in the Health and Safety Code, Section 18010.

**STATE OF EMERGENCY.** State of Emergency as defined in the Government Code, Section 8558.

**TENT.** A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

## SECTION AX103 EMERGENCY HOUSING

**AX103.1 General.** Emergency sleeping cabins, emergency transportable housing units, membrane structures and tents constructed and/or assembled in accordance with this appendix, shall be occupied only during declaration of state of emergency, local emergency, or shelter crisis.

Buildings and structures constructed in accordance with the California Building Standards Code, used as emergency housing, shall be permitted to be permanently occupied.

**AX103.2 Existing buildings.** Existing residential and nonresidential buildings or structures shall be permitted to be used as emergency housing and emergency housing facilities provided such buildings or structures comply with the building code provisions and/or other regulations in effect at the time of original construction and/or alteration. Existing buildings or structures used as emergency housing shall not become or continue to be substandard buildings, as determined by the enforcing agency.

**AX103.2.1 New additions, alterations, and change of occupancy.** New additions, alterations, and change of occupancy to existing buildings shall comply with the requirements of the California Building Standards Code effective at the time of addition, alteration, or change of occupancy. The requirements shall apply only to and/or within the specific area of the addition, alteration, or change of occupancy.

**Exception:** Existing buildings and structures used for emergency housing and emergency housing facilities may not be required to comply with the California Energy Code, as determined by the enforcing agency.

**AX103.3 Occupant load.** Except as otherwise stated in this appendix, the maximum occupant load allowed in buildings and structures used as emergency housing shall be determined by the enforcing agency, but the interior floor area shall not be less than 70 square feet (6.5 m<sup>2</sup>) for one occupant. Where more than one person occupies the building/structure, the required floor area shall be increased at the rate of 50 square feet (4.65 m<sup>2</sup>) for each occupant in excess of one.

### Exceptions:

1. Tents.
2. Recreational vehicles and park trailers designed for human habitation that meet the requirements in the Health and Safety Code, Sections 18009.3 and 18010, as applicable.
3. For emergency housing, including emergency sleeping cabins, the minimum interior floor area may be reduced to 53 square feet (4.9 m<sup>2</sup>) if the enforcing agency determines that 53 square feet (4.9 m<sup>2</sup>) is adequate space for a single-occupancy sleeping unit.

**AX103.4 Fire and life safety requirements not addressed in this appendix.** If not otherwise addressed in this appendix, fire and life safety measures, including, but not limited to, means of egress, fire separation, fire sprinklers, smoke alarms, and carbon monoxide alarms, shall be determined and enforced by the enforcing agency.

**AX103.5 Privacy.** Emergency housing shall be provided with a privacy lock on each entrance door and all windows for use by the occupants.

**AX103.6 Heating.** All sleeping areas shall be provided with adequate heating as determined by the enforcing agency.

## SECTION AX104 EMERGENCY SLEEPING CABINS

**AX104.1 General.** Emergency sleeping cabins shall have an interior floor area of not less than 70 square feet (6.5 m<sup>2</sup>) for one occupant. Where more than one person occupies the cabin, the required floor area shall be increased at the rate of 50 square feet (4.65 m<sup>2</sup>) for each occupant in excess of one. The interior floor area shall not exceed 400 square feet (37 m<sup>2</sup>), excluding lofts.

**AX104.2 Live loads.** Emergency sleeping cabins shall be designed to resist intrusion of wind, rain, and to support the following live loads:

1. Floor live loads not less than 40 pounds per square foot (1.92 kPa) of floor area.
2. Horizontal live loads not less than 15 pounds per square foot (718 Pa) of vertical wall and roof area.
3. Roof live loads not less than 20 pounds per square foot (958 Pa) of horizontal roof area.
4. In areas where snow loads are greater than 20 pounds per square foot (958 Pa), the roof shall be designed and constructed to resist these additional loads.

**AX104.3 Minimum ceiling height.** Habitable space and hallways in emergency sleeping cabins shall have a ceiling height of not less than 80 inches (2032 mm). Bathrooms, toilet rooms, and kitchens, if provided, shall have a ceiling height of not less than 76 inches (1930 mm). Obstructions



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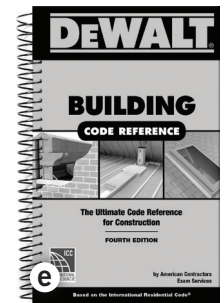
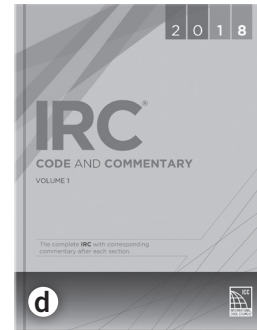
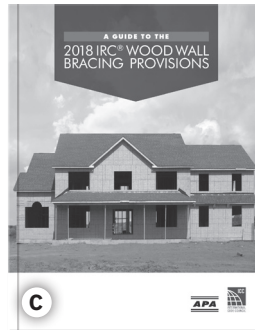
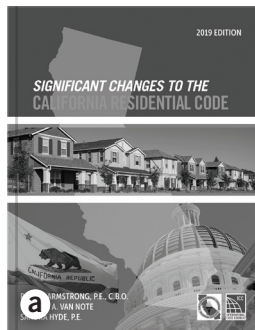
### HISTORY:

For prior code history, see the History Note Appendix to the *California Residential Code, 2016 Triennial Edition*, effective January 1, 2017.

1. (HCD 04/18, SFM 02/18) -- Adopt the 2018 edition of the *International Residential Code*, published by the International Code Council, for incorporation into the 2019 *California Residential Code*, CCR Title 24, Part 2.5 with amendments for state-regulated occupancies, effective on January 1, 2020.
2. Erratum to correct editorial errors in Matrix Adoption Tables in various chapters, and corrections in Chapters 1, 3, 4, 6 and 44, and Appendices R, S and V, effective January 1, 2020.
3. 2019 Intervening Cycle Update (SFM 02/19, HCD 03/19) Adoption of amendments to the *2019 California Residential Code*. Approved by the California Building Standards Commission on August 13, 2020, published on January 1, 2021, effective July 1, 2021.







# Helpful tools for Your California Residential Code

## a. Significant Changes to the California Residential Code, 2019 Edition

This must-have guide provides comprehensive, yet practical, analysis of the critical changes made between the 2016 and 2019 editions of the CRC. Key changes are identified then followed by in-depth discussion of how the change affects real-world application.

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Flip right to the most commonly used sections of the code! Full-page inserts feature key sections of the code printed on the tabs in an easy-to-read format.

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## c. A Guide to the 2018 IRC Wood Wall Bracing Provisions

Although it is of critical importance when designing, performing plan review, building or inspecting a structure, wall bracing is a common source of confusion and misapplication. This illustrative guide was developed to help building designers, builders, building officials and others using the code in the application of the lateral bracing requirements of the 2018 IRC.

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## d. 2018 IRC® Code and Commentary, Volume 1 (Chapters 1–11)

This helpful tool contains the full text of 2018 IRC, including tables and figures, followed by corresponding commentary at the end of each section to help code users understand the intent of the code provisions and learn how to apply them effectively.

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## e. DeWALT Building Code Reference, Fourth Edition

A simple, easy-to-understand approach to the 2018 IRC that provides illustrations and clear, concise text. Coverage ranges from wall, floor, and roof framing to foundations and footings, containing all the information you need to be successful in the industry in a compact, easy-to-use reference guide. Packaged in a conveniently-sized, durable format, it will withstand a variety of on-the-job trainings and ultimately the wear and tear of jobsites.

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