# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE STATE FIRE MARSHAL REGARDING THE 2025 CALIFORNIA RESIDENTIAL CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2.5 (SFM 05/24)

The state agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

## LEGEND for EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

* Model Code language appears upright
* Existing California amendments appear in *italic*
* Amended model code or new California amendments appear *underlined & italic*
* Repealed model code language appears ~~upright and in strikeout~~
* Repealed California amendments appear in *~~italic and strikeout~~*
* Ellipses ( …) indicate existing text remains unchanged

## FINAL EXPRESS TERMS

### ITEM 1 Chapter 1 SCOPE AND ADMINISTRATION, DIVISION I CALIFORNIA ADMINISTRATION, DIVISION II SCOPE AND ADMINISTRATION

[SFM proposes to adopt Sections R101.2, R104.3, R104.6, R104.7.2, R104.7.3, R104.9, R104.9.1, R105.1, R105.2, R105.2.1, R105.2.2, R105.3, R105.3.1, R105.4, R105.5.1, R105.6, R105.7, R106, R107, R109.1, R109.1.2, R109.1.4, R109.1.5, R109.1.5.1, R109.1.6, R109.2 through R109.4, R110, R111, R113.1, R113.2, and R114 of the 2024 IRC Chapter 1 and bring forward existing amendments from the 2022 CRC for adoption into the 2025 CRC with the following modifications.]

#### ITEM 1-1 Section 1.1.1 Title

[SFM proposes to maintain the adoption of existing California provisions contained in Section 1.1 through 1.1.12 and 1.11 through 1.11.11 with modification as shown below.]

***DIVISION I  
CALIFORNIA ADMINISTRATION***

***SECTION 1.1  
GENERAL***

***1.1.1 Title.*** *These regulations shall be known as the California Residential Code, may be cited as such and will be referred to herein as “this code.” The California Residential Code is Part 2.5 of thirteen parts of the official compilation and publication of the adoption, amendment and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the*[*California Building Standards Code*](https://codes.iccsafe.org/lookup/CARC2022P3_Pt09_Ch44_PromICC_RefStdCBC_22/3390)*. This part incorporates by adoption the ~~2021~~ 2024* [*International Residential Code*](https://codes.iccsafe.org/lookup/IRC%E2%80%9421/3390)*of the International Code Council with necessary California amendments.*

#### ITEM 1-2 Section 1.1.3 Scope

[SFM proposes to maintain the adoption of existing amendments contained in Section 1.1.3 with corrections to section numbers as shown below.]

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

***Exceptions:***

1. *Live/work units complying with the requirements of*[*Section ~~419~~*](https://codes.iccsafe.org/lookup/CABC2022P1_Ch04_Sec419/3390)*508.5 of the California Building Code shall be permitted to be constructed as one- and two-family dwellings or townhouses in accordance with this code, as applicable. Fire suppression required by*[*Section ~~419.5~~*](https://codes.iccsafe.org/lookup/CABC2022P1_Ch04_Sec419.5/3390)*508.5.7 of the California Building Code when constructed under the California Residential Code for one- and two-family dwellings shall conform to*[*Section 903.3.1.3*](https://codes.iccsafe.org/lookup/CABC2022P1_Ch09_Sec903.3.1.3/3390)*of the California Building Code.*
2. *Owner-occupied lodging houses with five or fewer guestrooms shall be permitted to be constructed in accordance with the California Residential Code for one- and two-family dwellings when equipped with a fire sprinkler system in accordance with*[*Section ~~R313~~*](https://codes.iccsafe.org/lookup/CARC2022P3_Pt03_Ch03_SecR313/3390) *R309.*

#### ITEM 1-3 Section 1.1.3.1 Classification.

[SFM is proposing an editorial correction to the pointer California Building Code that was misprinted.]

***1.1.3.1 Classification****. Structures …*

***Note:****Live/work units complying with the requirements of*[*Section ~~419~~*](https://codes.iccsafe.org/lookup/CABC2022P1_Ch04_Sec419/3390) *508.5 of the California Building Code are classified as a Group R-2 occupancy and are permitted to be constructed as one- and two-family dwellings or townhouses in accordance with this code.*

#### ITEM 1-3.1 Section 1.11.2.4 Request for alternative means of protection

[SFM proposes to modify the existing amendment to update the reference pointer to Title 19.]

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

*When a request for alternate means of protection involves hazardous materials, the authority having jurisdiction may consider implementation of the findings and recommendations identified in a Risk Management Plan (RMP) developed in accordance with Title 19, Division ~~2~~5, Chapter ~~4.5~~2, Article 3.*

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

#### ITEM 1-4 Section R102.8 Wildland-Urban Interface

[SFM proposes a new Section R102.8 as a California amendment to provide reference to Part 7, California Wildland Urban Interface Code. There is no intended change in regulatory effect.]

***DIVISION II  
SCOPE AND ADMINISTRATION***

**…**

***R102.8 Wildland-Urban Interface.***

*The provisions of Part 7, the California Wildland-Urban Interface Code shall apply to buildings and structures built in the wildland-urban interface (WUI).*

#### ITEM 1-5 Section R105.2 Work Exempt from Permit.

[SFM proposes a modification in Section R105.2 as a California amendment that points to a section in the California Building Code for construction in the wildland-urban interface has been relocated to Part 7, California Wildland Urban Interface Code. There is no intended change in regulatory effect.]

**R105.2 Work exempt from permit.** Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

**Building:**

1. Other than storm shelters, one-story detached accessory structures, provided that the floor area does not exceed *120 square feet (11.15 m2). It is permissible that these structures still be regulated by ~~Section 710A~~ Part 7 California Wildland Urban-Interface Code, despite exemption from permit.*

…

#### ITEM 1-6 Section R105.5.1 Expiration.

***R105.5.1 Expiration. [BSC, SFM]*** *On or after January 1, 2019, every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 12 months after its issuance or if the work authorized on the site by such permit is suspended or abandoned for a period of 12 months after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated. (See Health and Safety Code Section 18938.5 and 18938.6).*

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 2 Chapter 2 DEFINITIONS

[SFM proposes to adopt the entire chapter and carry forward existing adopted definitions in Chapter 2 with existing amendments and proposed modifications as shown below.]

**Existing amendments** **carried forward:** R201.3 - R201.4, Accessory Dwelling Unit, Aged Home or Institution, Approved, Approved Agency, Approved Listing Agency, Approved Testing Agency, Bedridden Person, Care and Supervision, Catastrophically Injured, Child Care, Child or Children, Child Care Center, Chronically Ill, Congregate Living Health Facility (CLHF), Congregate Residence, Day-Care, Day-Care Home, Family, Day-Care Home, Large Family, Day-Care Home, Small Family, Duct System, Enforcing Agency, Entry Level, Exterior Wall Assembly, Exterior Wall Covering, Fenestration, Full-Time Care, Grade or Guardrail, Infant, Inflatable Amusement Device, Labeled [SFM], Listed [SFM], Live/Work Unit, Mezzanine Loft, Nonambulatory Persons, Passive Solar Energy Collector, Persons With Intellectual Disabilities, Profoundly Or Severely, Protective Social Care Facility, Residential Care Facility For The Chronically Ill (RCF/CI), Residential Care Facility For The Elderly (RCFE), Residential Facility (RF), Restraint, State-Owned/Leased Building, Terminally Ill, Toddler, Wildland-Urban Interface (WUI).

#### ITEM 2-1 R202 Definitions

[SFM proposes to repeal and replace existing amendment with model code language.]

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

**[RB] ENERGY STORAGE SYSTEMS (ESS).** One device or multiple devices, assembled together, capable of storing electrical energy to be supplied at a future time.

***~~PHOTOVOLTAIC (PV) PANEL SYSTEM, GROUND–MOUNTED.~~*** *~~An independent photovoltaic (PV) panel system without useable space underneath, installed directly on the ground.~~*

**PHOTOVOLTAIC (PV) PANEL SYSTEM, GROUND–MOUNTED.** An independent photovoltaic (PV) panel system without useable space underneath, installed directly on the ground.

***~~PHOTOVOLTAIC (PV) SUPPORT STRUCTURE, ELEVATED.~~*** *~~An independent photovoltaic (PV) panel support structure designed with useable space underneath with minimum clear height of 7 feet 6 inches (2286 mm), intended for secondary use such as providing shade or parking of motor vehicles.~~*

**PHOTOVOLTAIC (PV) SUPPORT STRUCTURE, ELEVATED.** An independent photovoltaic (PV) panel support structure designed with useable space underneath with a minimum clear height of 7 feet 6 inches (2286 mm), intended for secondary use such as providing shade or parking of motor vehicles.

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 3 Chapter 3 BUILDING PLANNING

[SFM proposes to adopt only sections R301.1, R301.1.3, R301.1.4, R302 (the entire section), R303.1, R303.3, R307, R308, R309, R310, R311, R312, R313, R314, R315 R316, R317, R318, R319, R320, R321, R223, R324, R325, R329, R330, R331, R332, R335, R336, R337, R338, and carry over the existing amendments with modifications shown below.]

#### ITEM 3-1 Section R302.1 Exterior Walls

[SFM proposes to carry forward existing amendment with modifications due to model code language revisions and renumbering as shown below.]

**R302.1 Exterior walls.** Construction, projections, openings and penetrations of exterior walls of dwellings, townhouses and accessory buildings shall comply … in accordance with Section *~~R313~~* *R309* shall comply with Table R302.1(2) based on fire separation distance.

…

#### ITEM 3-2 Table R302.1(2) Exterior Walls – Dwellings and Townhouses and Accessory Buildings with Automatic Residential Fire Sprinkler Protection

[SFM proposes to carry forward existing amendments with modifications to the Title, which included Townhouses, and correct the reference pointer in footnote (a) for sprinklers to the correct section R309.]

**TABLE R302.1(2)   
EXTERIOR WALLS—DWELLINGS AND TOWNHOUSES ~~WITH AN AUTOMATIC SPRINKLER SYSTEM~~ *AND ACCESSORY BUILDINGS WITH AUTOMATIC RESIDENTIAL FIRE SPRINKLER PROTECTION***

[Table requirements to remain unchanged.]

For SI: 1 foot = 304.8 mm.

NA = Not Applicable.

a. For residential … in accordance with Section *~~R313~~* *R309*, the fire separation … of the property line.

…

#### ITEM 3-3 Section R302.2.2 Common Walls

[SFM proposes to update the reference pointer from R313 to R309 as shown below.]

**R302.2.2 Common Walls.** …

1. Where an automatic sprinkler system in accordance with Section *~~R313~~* *R309* is provided, …

2. Where an automatic sprinkler system in accordance with Section *~~R313~~* *R309* is not provided, …

#### ITEM 3-4 Section R302.2.6 Structural Independence

[SFM proposes to update the reference pointer from R313 to R309 as shown below.]

**R302.2.6 Structural independence.** Each townhouse unit shall be structurally independent.

**Exceptions:**

…

6. Townhouse units protected by an automatic sprinkler system complying with Section *~~R313~~* *R309* or NFPA 13D.

#### ITEM 3-5 Section R302.3 Two-family dwelling

[SFM proposes to update the reference pointer from R313 to R309 as shown below.]

**R302.3.2 Fire-resistance rating.** Vertical and horizontal assemblies separating dwelling units shall have a fire-resistance rating of 1 hour, or a fire-resistance rating of one-half hour in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section ~~P2904~~ *~~R313~~* *R309*. Fire-resistance ratings shall be based on testing in accordance with ASTM E119 or UL 263, or an analytical method in accordance with Section 703.2.2 of the ~~International~~ *California* Building Code.

**…**

**R302.3.5 Vertically stacked dwelling units.** Where one dwelling unit in a two-family dwelling is located above the other and an automatic sprinkler system complying with Section ~~P2904~~ *R309* is not provided in both dwelling units, both of the following shall apply: …

**...**

#### ITEM 3-6 Section R302.5.1 Opening Protection

[SFM proposes to carry forward existing amendments with modification to reference pointers in Section R302.5.1 exception due to model code language revisions that relocated the provisions. This will carry forward existing amendments that provide reference pointers to Sections R317.5.1 Fire sprinklers, attached garages and carports with habitable space above, and R309 Automatic Fire Sprinkler Systems which have been relocated.]

**R302.5.1 Opening protection.** …

***Exception:*** *Where the residence and the private garage are protected by an automatic residential fire sprinkler system in accordance with Sections ~~R309.6~~ R317.5.1 and ~~R313~~ R309, other door openings between the private garage and the residence need only be self-closing and self-latching. This exception shall not apply to rooms used for sleeping purposes.*

#### ITEM 3-7 Section R302.9.4.1 Stability

[SFM proposes a renumbering modification to the existing amendment due to model code language revisions.]

***~~R302.9.5~~ R302.9.4.1 Stability.*** *…*

#### ITEM 3-8 Section R302.13 Fire Protection of Floors

[SFM proposes to update the reference pointer from R313 to R309 as shown below.]

**R302.13 Fire protection of floors.** …

**Exceptions:**

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section *~~R313~~**R309*, NFPA 13D, or other approved equivalent sprinkler system.

…

#### ITEM 3-9 Section R303.2.1 Labeling of polystyrene foam insulation without flame retardants

[SFM proposes to carry forward existing amendments and renumber the section due to model code language revisions as shown below.]

***~~R316.2.1~~ R303.2.1* *Labeling of polystyrene foam insulation without flame retardants.*** *...*

#### ITEM 3-10 Section R310.2.2 through R310.4

[SFM proposes to carry forward existing amendments and renumber sections due to model code reorganization shown below.]

**R310.2.2 [formerly R314.2.2] Alterations, repairs and additions.** Where alterations, repairs or additions requiring a permit occur, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

**Exceptions:** *See Section ~~R314.6~~ R310.6.*

**R310.3 Location.** ...

*See Section ~~R314.3.3~~ R310.3.3 for specific location requirements*.

**R310.3.1 Installation near cooking appliances.** *See Section ~~R314.3.3~~ R310.3.3 for specific location requirements.*

***~~R314.3.2~~* *R310.3.2* *Smoke Alarms.*** *…*

***~~R314.3.3~~ R310.3.3* *Specific Location Requirements.*** *…*

*This extract has been provided by NFPA as amended by the Office of the State Fire Marshal and adopted by reference as follows:*

***NFPA 72 29.8.3.4 Specific location requirements.*** *The installation of smoke alarms and smoke detectors shall comply with the following requirements: …*

**R310.4 [formerly R314.4]Interconnection.** *Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected…*

~~Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R310.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.~~

#### ITEM 3-11 Section R310.8 through R310.8.3

[SFM proposes to carry forward existing amendments and renumber sections due to model code reorganization shown below. The section Titles have been revised with modifications to identify that the Health and Safety Code Sections have been reprinted for the Code User ease.]

***~~R314.8~~ R310.8 Existing Group R-3 occupancies.***

***~~R314.8.1~~ R310.8.1 Group R-3 Effective Date.*** …

***~~R314.8.2~~ R310.8.2 Health and Safety Code Section 13113.7.*** …

***~~R314.8.3~~ R310.8.3 ~~For purposes of clarification~~ Health and Safety Code Section 13113.8.*** *…*

#### ITEM 3-12 Section R317.5 Fire Sprinklers Location on Property

[SFM proposes to update the reference pointer from R313 to R309.]

**R317.5 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~~* *R309*. ….

#### ITEM 3-13 Section R317.5.1 Fire Sprinklers, Attached Garages and Carports with Habitable Space Above

[SFM proposes to carry forward existing amendments and renumber the section to an appropriate location due to model code reorganization.]

***~~R309.6~~* *R317.5.1 Fire Sprinklers, Attached Garages and Carports with Habitable Space Above.*** *…*

#### ITEM 3-14 Section R319.1 Emergency Escape and Rescue Opening Required

[SFM proposes to carry forward existing amendments with updates to reference pointer sections as shown below.]

**R319.1 [formerly R310.1] Emergency escape and rescue opening required.** ...

***Exceptions [SFM]:***

*…*

*5. Where the dwelling unit or townhouse unit is equipped with an automatic sprinkler system installed in accordance with Section ~~R313~~ R309, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:*

*5.1. One means of egress complying with Section ~~R311~~ R318 and one emergency escape and rescue opening.*

*5.2. Two means of egress complying with Section ~~R311~~ R318.*

#### ITEM 3-15 Section R330 Energy Storage Systems, Section R330.4 Locations

[SFM proposes to repeal existing California amendments as it conflicts with the allowance of energy storage systems to be in a utility closet that opens to the dwelling unit.]

**R330.4 [formerly R328.4] Locations.** …

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

#### ITEM 3-16 Section R330.5 Energy Ratings, Table R330.5 Maximum Aggregate Ratings of ESS

[SFM proposes to delete model code language and retain the California amendment with modifications to the reference pointer sections that allow maximum aggregate ratings of ESS in certain locations as prescribed in Table R330.5. Table R328.5 is renumbered to correspond with the relocation of Energy Storage Systems requirements in Section R330.]

**R330.5 [formerly R328.5] Energy Ratings.** Individual ESS units shall have a maximum rating of 20 kWh.~~The aggregate rating of the ESS:~~ *The ratings of the ESS in each location* shall not exceed *the ratings in Table ~~R328.5~~ R330.5. The total aggregate ratings of ESS on the property shall not exceed 600 kWh.*

* 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 Section 1207 of the *California Fire Code*.

***TABLE ~~R328.5~~ R330.5   
MAXIMUM AGGREGATE RATINGS OF ESS***

[Table requirements to remain unchanged.]

#### ITEM 3-17 Section R330.7 Fire Detection

[SFM proposes to carry forward existing amendments in section R328.7 and relocate the amendments to R330.7]

**R330.7 [formerly R328.7] Fire Detection.** …

***[SFM]****ESS installed in Group R-3 and townhomes shall comply with the following: …*

#### ITEM 3-18 Section R330.8 Protection from Impact

[SFM proposes to repeal and replace existing California amendments with model code language.]

**R330.8 [formerly R328.8] Protection from impact.** …

**R330.8.1 Garages.** …

***~~R328.8.1 Garages.~~*** *~~Where an ESS is installed in the normal driving path of vehicle travel within a garage, impact protection complying with Section 1207.11.7.3 shall be provided. The normal driving path is a space between the garage vehicle opening and the interior face of the back wall to a height of 48 inches (1219 mm) above the finished floor. The width of the normal driving path shall be equal to the width of the garage door opening. Impact protection shall also be provided for ESS installed at either of the following locations (See Figure R328.8.1):~~*

1. *~~On the interior face of the back wall and located within 36 inches (914 mm) to the left or to the right of the normal driving path.~~*
2. *~~On the interior face of a side wall and located within 24 inches (609 mm) from the back wall and 36 inches (914 mm) of the normal driving path.~~*

***~~Exception:~~*** *~~Where the clear height of the vehicle garage opening is 7 feet 6 inches (2286 mm) or less, ESS installed not less than 36 inches (914 mm) above the finished floor are not subject to vehicle impact protection requirements.~~*

**FIGURE R330.8.1 ESS VEHICLE IMPACT PROTECTION**

***~~FIGURE R328.8.1 ESS VEHICLE IMPACT PROTECTION~~***

***~~R328.8.2 Other locations subject to vehicle impact.~~*** *~~Where an ESS is installed in a location other than as defined in Section R328.8.1, and is subject to vehicle damage, impact protection shall be provided in accordance with Section R328.8.3.~~*

***~~R328.8.3 Impact protection options.~~*** *~~Where ESS is required to be protected from impact in accordance with Section R328.8.1 or R328.8.2, such protection shall comply with one of the following:~~*

1. *~~Bollards constructed in accordance with one of the following:~~*
   1. *~~Minimum 48 inches (1219 mm) in length by 3 inches (76 mm) in diameter Schedule 80 steel pipe embedded in a concrete pier not less than 12 inches (304 mm) deep and 6 inches (152 mm) in diameter, with at least 36 inches (914 mm) of pipe exposed, filled with concrete and spaced at a maximum interval of 5 feet (1524 mm). Each bollard shall be located not less than 6 inches (152 mm) from an ESS.~~*
   2. *~~Minimum 36 inches (914 mm) in height by 3 inches (76 mm) in diameter Schedule 80 steel pipe fully welded to a minimum 8-inch (203 mm) by 1/4-inch (6.4 mm) thick steel plate and bolted to a concrete floor by means of 41/2 inch (13 mm) concrete anchors with 3-inch (76 mm) minimum embedment. Spacing shall be not greater than 60 inches (1524 mm), and each bollard shall be located not less than 6 inches (152 mm) from the ESS.~~*
   3. *~~Pre-manufactured steel pipe bollards shall be filled with concrete and anchored in accordance with the manufacturer’s installation instructions, with spacing not greater than 60 inches (1524 mm), and each bollard shall be located not less than 6 inches (152 mm) from the ESS.~~*
2. *~~Wheel barriers constructed in accordance with one of the following:~~*
   1. *~~Four inches (102 mm) in height by 5 inches (127 mm) in width by 70 inches (1778 mm) in length wheel barrier made of concrete or polymer, anchored to the concrete floor not less than every 36 inches (914 mm) and located not less than 54 inches (1372 mm) from the ESS. Minimum 31/2-inch (89 mm) diameter concrete anchors with a 3-inch (76 mm) embedment per barrier shall be used. Spacing between barriers shall be no greater than 36 inches (914 mm).~~*
   2. *~~Pre-manufactured wheel barriers shall be anchored in accordance with the manufacturer’s installation instructions.~~*
3. *~~Approved method designed to resist a 2000-lb. (8899 Newtons) impact in the direction of travel at 24 inches (608 mm) above grade~~*

#### ITEM 3-19 Section R330.12 Toxic and Highly Toxic Gas

[SFM proposes to renumber an existing California amendment due to model code reorganization.]

***~~R328.12~~ R330.12 Toxic and highly toxic gas.*** *…*

#### ITEM 3-20 Section R337 Materials and Construction Methods for Exterior Wildfire Exposure

[SFM proposes to relocate the provisions of Section R337 to the new Part 7 California Wildland Urban Interface Code. A “Note” has been added for code users to easily identify where the regulations have been relocated to. An administrative section has been added to direct the code user to the additional regulations to the California Residential Code shall be applied to residential structures built in the wildland-urban interface (WUI) or designated Fire Hazard severity zones as applicable.]

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

***User Note****: Provisions for Materials and Construction Methods for Exterior Wildfire Exposure are now located in Part 7, California Wildland-Urban Interface Code. See Section R102.8* *Wildland-Urban Interface.*

*The provisions of Part 7, the California Wildland-Urban Interface Code shall apply to buildings and structures built in the wildland-urban interface (WUI).*

***~~SECTION R337~~***

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

***~~SECTION R337.1  
SCOPE, PURPOSE AND APPLICATION~~***

***~~R337.1.1 Scope.~~*** *~~Section R337 and all subsections apply to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface (WUI) area as defined in Section R337.2.~~*

***~~R337.1.2 Purpose.~~*** *~~The purpose of Section R337 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 Area (SRA) or Local Responsibility Area (LRA) or any Wildland-Urban Interface (WUI) area as specified in Section R337.1.3.1 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 (WUI) Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this section. This shall include all new buildings with residential, commercial, educational, institutional or similar occupancy type use, which shall be referred to in this section as “applicable building” (see definition in Section R337.2), as well as new buildings and structures accessory to those applicable buildings (see Exceptions 1 and 4).~~*

***~~Exceptions:~~***

*~~1.Group U occupancy accessory buildings of any size located at least 50 feet (15 m) from an applicable building on the same lot.~~*

*~~2.Group U occupancy agricultural buildings, as defined in Section 202 of the California Building code, of any size located at least 50 feet (15 m) from an applicable building.~~*

*~~3.Group C occupancy special buildings conforming to the limitations specified in Section 450.4.1 of the California Building Code.~~*

*~~4.New accessory buildings and miscellaneous structures specified in Section R337.10 shall comply only with the requirements of that section.~~*

*~~5.Additions to and remodels of buildings originally constructed prior to July 1, 2008.~~*

***~~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-Urban Interface area shall comply with all sections of this chapter, including all 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 a Wildland-Urban Interface area by cities and other local agencies.~~*

***~~Exceptions:~~***

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

*~~2.1.Section R337.5 – Roofing.~~*

*~~2.2.Section R337.6 – Vents.~~*

***~~R337.1.4 Inspection and certification.~~*** *~~Building permit applications and final completion approvals for buildings within the scope and application of this chapter shall comply with the following:~~*

*~~1. Building permit issuance. The local building official shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this chapter. Issuance of a building permit by the local building official for the proposed building shall be considered as complying with this section.~~*

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

***~~R337.1.5 Vegetation management compliance.~~*** *~~Prior to building permit final approval, the property shall be in compliance with the vegetation management requirements prescribed in California Fire Code Section 4906 and 4907, including California Public Resources Code 4291 or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be determined by the enforcing agency and shall be permitted to include any of the following:~~*

*~~1. Local, state or federal fire authority or designee authorized to enforce vegetation management requirements.~~*

*~~2. Enforcing agency.~~*

*~~3. Third party inspection and certification authorized to enforce vegetation management requirements.~~*

*~~4. Property owner certification authorized by the enforcing agency.~~*

***~~SECTION R337.2  
DEFINITIONS~~***

*~~For the purposes of Section R337, certain terms are defined below:~~*

***~~APPLICABLE BUILDING~~****~~. A building that has residential, commercial, educational, institutional or similar occupancy type use.~~*

***~~DIRECTOR~~*** *~~means the Director of the California Department of Forestry and Fire Protection (CAL FIRE).~~*

***~~EXTERIOR COVERING.~~*** *~~The exposed siding or cladding material applied to the exterior side of an exterior wall, roof eave soffit, floor projection or exposed underfloor framing.~~*

***~~EXTERIOR WALL ASSEMBLY~~****~~. A system or assembly of exterior wall components, including exterior wall covering materials, that provides protection of the building structural members, including framing and sheathing materials, and conditioned interior space, from the detrimental effects of the exterior environment.~~*

***~~EXTERIOR WALL COVERING~~****~~. A material or assembly of materials applied on the exterior side of exterior walls for the purpose of providing a weather-resisting 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, facias, gutters and leaders.~~*

***~~FIRE PROTECTION PLAN.~~****~~A document prepared for a specific project or development proposed for a Wildland-Urban Interface (WUI) area. It describes ways to minimize and mitigate potential for loss from wildfire exposure. See the California Fire Code, Chapter 49, for required elements of a Fire Protection Plan.~~*

***~~FIRE HAZARD SEVERITY ZONES~~****~~. Geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very-High, High or Moderate in a State Responsibility Area or as Local Responsibility Areas in Very-High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189. See California Fire Code Chapter 49.~~*

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

***~~FIRE-RESISTANT VEGETATION~~****~~. Plants, shrubs, trees and other vegetation which exhibit properties, such as high moisture content, little accumulation of dead vegetation, and low sap or resin content, that make them less likely to ignite or contribute heat or spread flame in a fire than native vegetation typically found in the region.~~*

*~~[Note: The following sources contain examples of types of vegetation that can be considered as fire-resistant vegetation. (Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book)]~~*

***~~IGNITION-RESISTANT MATERIAL.~~*** *~~A type of building material that complies with the requirements in Section R337.4.~~*

***~~LOCAL RESPONSIBILITY AREA (LRA).~~*** *~~Areas of the state in which the financial responsibility of preventing and suppressing fires is the primary responsibility of a city, county, city and county, or district.~~*

***~~LOG WALL CONSTRUCTION.~~*** *~~A type of construction in which exterior walls are constructed of solid wood members and where the smallest horizontal dimension of each solid wood member is at least 6 inches (152 mm).~~*

***~~RAFTER TAIL.~~*** *~~The portion of roof rafter framing in a sloping roof assembly that projects beyond and overhangs an exterior wall.~~*

***~~ROOF EAVE~~****~~. The lower portion of a sloping roof assembly that projects beyond and overhangs an exterior wall at the lower end of the rafter tails. Roof eaves may be either “open” or “enclosed.” Open roof eaves have exposed rafter tails and an unenclosed space on the underside of the roof deck. Enclosed roof eaves have a boxed-in roof eave soffit with a horizontal underside or sloping rafter tails with an exterior covering applied to the underside of the rafter tails.~~*

***~~ROOF EAVE SOFFIT~~****~~. An enclosed boxed-in soffit under a roof eave with exterior covering material applied to the soffit framing creating a horizontal surface on the exposed underside.~~*

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

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

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

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

***~~SECTION R337.3  
STANDARDS OF QUALITY~~***

***~~R337.3.1 General.~~*** *~~Building material, systems, assemblies and methods of construction used in Section R337 shall be in accordance with Section R337.3.~~*

***~~R337.3.2 Qualification by testing.~~*** *~~Material and material assemblies tested in accordance with the requirements of Section R337.3 shall be accepted for use when the results and conditions of those tests are met. Product evaluation testing of material and material assemblies shall be approved or listed by the State Fire Marshal, or identified in a current report issued by an approved agency.~~*

***~~R337.3.3 Approved agency.~~*** *~~Product evaluation testing shall be performed by an approved agency as defined in Section 1702 of the California Building Code. The scope of accreditation for the approved agency shall include building product compliance with the California Building Code.~~*

***~~R337.3.4 Labeling.~~*** *~~Material and material assemblies tested in accordance with the requirements of Section R337.3 shall bear an identification label showing the fire test results. That identification label shall be issued by a testing and/or inspecting agency approved by the State Fire Marshal.~~*

*~~1. Identification mark of the approved testing and/or inspecting agency.~~*

*~~2. Contact and identification information of the manufacturer.~~*

*~~3. Model number or identification of the product or material.~~*

*~~4. Pre-test weathering specified in this section.~~*

*~~5. Compliance standard as described under Section R337.3.7.~~*

***~~R337.3.5 Weathering and surface treatment protection.~~***

***~~R337.3.5.1 General.~~*** *~~Material and material assemblies tested in accordance with the requirements of Section R337.3 shall maintain their fire test performance under conditions of use when installed in accordance with the manufacturers instructions.~~*

***~~R337.3.5.2 Weathering.~~*** *~~Fire-retardant-treated wood and fire-retardant-treated wood shingles and shakes shall meet the fire test performance requirements of this section after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.~~*

***~~R337.3.5.2.1 Fire-retardant-treated wood.~~*** *~~Fire-retardant-treated wood shall be tested in accordance with ASTM D2898 (Method A), and the requirements of Section 2303.2 of the California Building Code.~~*

***~~R337.3.5.2.2 Fire-retardant-treated wood shingles and shakes.~~*** *~~Fire-retardant-treated wood shingles and shakes shall be approved and listed by the State Fire Marshal in accordance with Section 208(c), Title 19 California Code of Regulations.~~*

***~~R337.3.5.3 Surface treatment protection.~~*** *~~The use of paints, coatings, stains or other surface treatments are not an approved method of protection as required in this section.~~*

***~~R337.3.6 Alternates for materials, design, tests and methods of construction.~~*** *~~The enforcing agency is permitted to modify the provisions of this chapter for site-specific conditions in accordance with Section 1.11.2.4. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 49.~~*

***~~R337.3.7 Standards of quality.~~*** *~~The State Fire Marshal standards for exterior wildfire exposure protection listed below and as referenced in this chapter are located in the California Referenced Standards Code, Part 12 and Chapter 44 of this code.~~*

*~~SFM Standard 12-7A-1, Exterior Wall Siding and Sheathing. A fire resistance test standard consisting of 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 Underside 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.~~*

*~~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 E119, Standard Test Methods for Fire Tests of Building Construction and 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 E2768 Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30-minute Tunnel Test)~~*

*~~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 263, Standard for Fire Tests of Building Construction and Materials~~*

*~~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 Section R337.~~*

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

*~~1.The requirements in Section R337.4.3 or~~*

*~~2.One of the alternative methods in Section R337.4.4.~~*

***~~R337.4.3 Conditions of acceptance for ignition-resistant materials.~~*** *~~The material shall comply with the conditions of acceptance in Items 1 and 2 below or with the conditions of acceptance of ASTM E2768.~~*

*~~1.The material shall exhibit a listed flame spread index not exceeding 25 when tested in accordance with ASTM E84 or UL 723.~~*

*~~2.Additionally, the ASTM E84 or UL 723 test shall be continued for an additional 20-minute period, and the material shall exhibit a flame front that does not progress more than 101/2 feet (3200 mm) beyond the centerline of the burner at any time during the test period.~~*

***~~R337.4.3.1 Fire testing of wood structural panels.~~*** *~~Wood structural panels shall be tested with a ripped or cut longitudinal gap of 1/8 inch (3.2 mm).~~*

***~~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 R202.~~*

*~~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. Roof assemblies in Fire Hazard Severity Zones shall be tested in accordance with ASTM E108 or UL790 and meet a Class A fire classification. For additional compliance see Section R902 for Class A roof assemblies. The roof assembly shall be installed in accordance with its listing and the manufacturer’s installation instructions.~~*

*~~The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any 1-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure shall be a fire-retardant roof covering that is at least Class A rating fire classification.~~*

***~~R337.5.2 Roof covering voids.~~*** *~~Where there is a void under the roof covering, it shall comply with R337.5.2.1 or R337.5.2.2.~~*

***~~R337.5.2.1 Airspace under roof covering.~~*** *~~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.~~*

***~~R337.5.2.2 Roof underlayment.~~*** *~~A Class A fire classification roof underlayment, tested in accordance with ASTM E108 or UL 790, 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, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations and crawl spaces, or any other opening intended to permit ventilation, either in a horizontal or vertical plane, shall be in accordance with Section 1202 of the California Building Code and Sections R337.6.1 through R337.6.2 to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.~~*

***~~R337.6.2 Requirements.~~*** *~~Ventilation openings shall be fully covered with Wildfire Flame and Ember Resistant vents approved and listed by the California State Fire Marshal, or WUI vents tested to ASTM E2886 and listed, 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 Off ridge and ridge vents.~~*** *~~Vents that are installed on a sloped roof, such as dormer vents, shall comply with all the following:~~*

*~~1. Vents shall be covered with a mesh where the dimensions of the mesh therein shall be a minimum of 1/16 inch (1.6 mm) and shall not exceed 1/8 inch (3.2 mm) in diameter.~~*

*~~2. The mesh material shall be noncombustible.~~*

*~~3. The mesh material shall be corrosion resistant.~~*

***~~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 coverings.~~*

*~~2.Exterior wall assemblies.~~*

*~~3.Exterior exposed underside of roof eave overhangs.~~*

*~~4.Exterior exposed underside of roof eave soffits.~~*

*~~5.Exposed underside of exterior porch ceilings.~~*

*~~6.Exterior exposed underside of floor projections.~~*

*~~7.Exterior underfloor areas.~~*

*~~Exceptions to Section R337.7.2:~~*

*~~1.Exterior wall architectural trim, embellishments, fascias and gutters.~~*

*~~2.Roof or wall top cornice projections and similar assemblies.3.Deck walking surfaces shall comply with Section R337.9 only.~~*

***~~R337.7.3 Exterior wall coverings.~~*** *~~The exterior wall covering shall comply with one or more of the following requirements, except as permitted for exterior wall assemblies complying with Section R337.7.4:~~*

*~~1. Noncombustible material.~~*

*~~2. Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section R337.4.2.~~*

*~~3. Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

***~~R337.7.3.1 Extent of exterior wall covering.~~*** *~~Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.~~*

***~~R337.7.4 Exterior wall assemblies.~~*** *~~Exterior wall assemblies of buildings or structures shall be constructed using one or more of the following methods, unless they are covered by an exterior wall covering complying with Section R337.7.3:~~*

*~~1. Assembly of 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.~~*

*~~2. Log wall construction assembly.~~*

*~~3. Assembly that has been tested in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2707 with the conditions of acceptance shown in Section R337.7.4.1.~~*

*~~4. Assembly that meets the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1.~~*

*~~5. Assembly suitable for exterior fire exposure with a 1-hour fire-resistance rating, rated from the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~6. Assembly suitable for exterior fire exposure containing one layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind the exterior wall covering or cladding on the exterior side of the framing.~~*

*~~7. Assembly suitable for exterior fire exposure containing any of the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual as complying with a 1-hour fire-resistance rating, as tested in accordance with ASTM E119 or UL 263.~~*

***~~R337.7.4.1 Conditions of acceptance when tested in accordance with ASTM E2707.~~*** *~~The ASTM E2707 test shall be conducted 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 tests do not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the conditions of acceptance.~~*

*~~1.Absence of flame penetration through the wall assembly at any time.~~*

*~~2.Absence of evidence of glowing combustion on the interior surface of the assembly at the end of the 70-minute test.~~*

***~~R337.7.5 Open roof eaves.~~*** *~~The exposed roof deck on the underside of unenclosed roof eaves shall consist of one or more of the following:~~*

*~~1.Noncombustible material.~~*

*~~2.Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.~~*

*~~3.Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

*~~4.Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~5.One layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the roof deck.~~*

*~~6.The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the roof deck designed for exterior fire exposure, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.~~*

***~~R337.7.6 Enclosed roof eaves and roof eave soffits.~~*** *~~The exposed underside of enclosed roof eaves having either a boxed-in roof eave soffit with a horizontal underside, or sloping rafter tails with an exterior covering applied to the underside of the rafter tails, shall be protected by one or more of the following:~~*

*~~1.Noncombustible material.~~*

*~~2.Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section R337.4.2.~~*

*~~3.Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

*~~4.Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~5.One layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind the exterior covering or cladding on the underside of the rafter tails or soffit.~~*

*~~6.The exterior portion of a 1-hour fire resistive exterior assembly applied to the underside of the rafter tails or soffit, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.~~*

*~~7.Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in Section R337.7.11 when tested in accordance with the test procedures set forth in ASTM E2957.~~*

*~~8.Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.~~*

***~~R337.7.7 Exterior porch ceilings.~~*** *~~The exposed underside of exterior porch ceilings shall be protected by one or more of the following:~~*

*~~1.Noncombustible material.~~*

*~~2.Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section R337.4.2.~~*

*~~3.Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

*~~4.Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~5.One layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind the exterior covering on the underside of the ceiling.~~*

*~~6.The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119, applied to the underside of the ceiling assembly, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual~~*

*~~7.Porch ceiling assemblies with a horizontal underside that meet the performance criteria in Section R337.7.11 when tested in accordance with the test procedures set forth in ASTM E2957.~~*

*~~8.Porch ceiling assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.~~*

***~~R337.7.8 Floor projections.~~*** *~~The exposed underside of a cantilevered floor projection where a floor assembly extends over an exterior wall shall be protected by one or more of the following:~~*

*~~1.Noncombustible material.~~*

*~~2.Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section R337.4.2.~~*

*~~3.Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

*~~4.Materials approved for not less than 1-hour fire resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~5.One layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection.~~*

*~~6.The exterior portion of a 1-hour fire-resistance rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the floor projection, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.~~*

*~~7.The underside of a floor assembly that meets the performance criteria in Section R337.7.11 when tested in accordance with the test procedures set forth in ASTM E2957.~~*

*~~8.The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.~~*

***~~R337.7.9 Underfloor protection.~~*** *~~The underfloor area of elevated or overhanging buildings shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed underfloor shall be protected by one or more of the following:~~*

*~~1.Noncombustible material.~~*

*~~2.Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section R337.4.2.~~*

*~~3.Fire-retardant-treated wood. The fire-retardant treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

*~~4.Materials approved for not less than 1-hour fire resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~5.One layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection.~~*

*~~6.The exterior portion of a 1-hour fire-resistance rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the floor, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.~~*

*~~7.The underside of a floor assembly that meets the performance criteria in Section R337.7.11 when tested in accordance with the test procedures set forth in ASTM E2957.~~*

*~~8.The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.~~*

*~~Exception to Section R337.7.9: 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 shall be splined, tongue-and-grove, or set close together and well spiked.~~*

***~~R337.7.10 Underside of appendages.~~*** *~~When required by the enforcing agency the underside of overhanging appendages shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed underfloor shall be protected by one or more of the following:~~*

*~~1.Noncombustible material.~~*

*~~2.Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section R337.7.2.~~*

*~~3.Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2 of the California Building Code.~~*

*~~4.Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.~~*

*~~5.One layer of 5/8-inch (16 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the appendage projection.~~*

*~~6.The exterior portion of a 1-hour fire-resistance rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the appendage, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.~~*

*~~7.The underside of an appendage assembly that meets the performance criteria in Section R337.7.11 when tested in accordance with the test procedures set forth in ASTM E2957.~~*

*~~8.The underside of an appendage assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.~~*

*~~Exception to Section R337.7.10: 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 shall be splined, tongue-and-grove, or set close together and well spiked.~~*

***~~R337.7.11 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 13/8 inches thick~~*

*~~3.2.Panels shall not be less than 11/4 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 R337.9.4.~~*

*~~3.Material that complies with the performance requirements of both SFM Standard 12-7A-4 and Section R337.4.3.~~*

*~~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 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/ft2 (269 kW/m2).~~*

*~~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/ft2 (269 kW/m2). 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 BUILDINGS AND MISCELLANEOUS STRUCTURES~~***

***~~R337.10.1 General.~~*** *~~Group U occupancy accessory buildings and miscellaneous structures that have the potential to pose a significant exterior fire exposure hazard during wildfires shall be constructed to conform to the ignition resistance requirements of this section.~~*

***~~R337.10.2 Applicability.~~*** *~~Unless otherwise addressed by the exceptions of Section R337.1.3, the provisions of this section shall apply to buildings accessory to an applicable building on the same lot. This section shall also apply to 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.~~*

*~~2.Awnings and canopies shall comply with the requirements of Section 3105 of the California Building Code.~~*

***~~R337.10.3 Where required.~~*** *~~Miscellaneous structures that require a permit, and accessory buildings of any size, when separated from an applicable building on the same lot by a distance of less than 3 feet (914 mm), shall comply with Section R337.10.3.1. Accessory buildings that are greater than 120 square feet (11 m2), when separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 m) shall comply with Section R337.10.3.2.~~*

*~~When required by the enforcing agency, miscellaneous structures that require a permit, and accessory buildings that are 120 square feet (11 m2) or less, when separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 m), shall comply with either Section R337.10.3.4 or Section R337.10.3.3, respectively.~~*

*~~No requirements shall apply to accessory buildings or miscellaneous structures when located 50 feet (15 m) or more from an applicable building on the same lot.~~*

***~~R337.10.3.1 Structures and accessory buildings within 3 feet (914 mm).~~*** *~~Miscellaneous structures that require a permit, and accessory buildings attached to or separated from an applicable building on the same lot by a distance of less than 3 feet (914 mm) shall be constructed of noncombustible materials or of ignition resistant materials as described in Section R337.4.2.~~*

*~~R337.10.3.2 Accessory buildings greater than 120 square feet (11 m2), located 3 feet (914 mm) or more but less than 50 feet (15 m).~~*

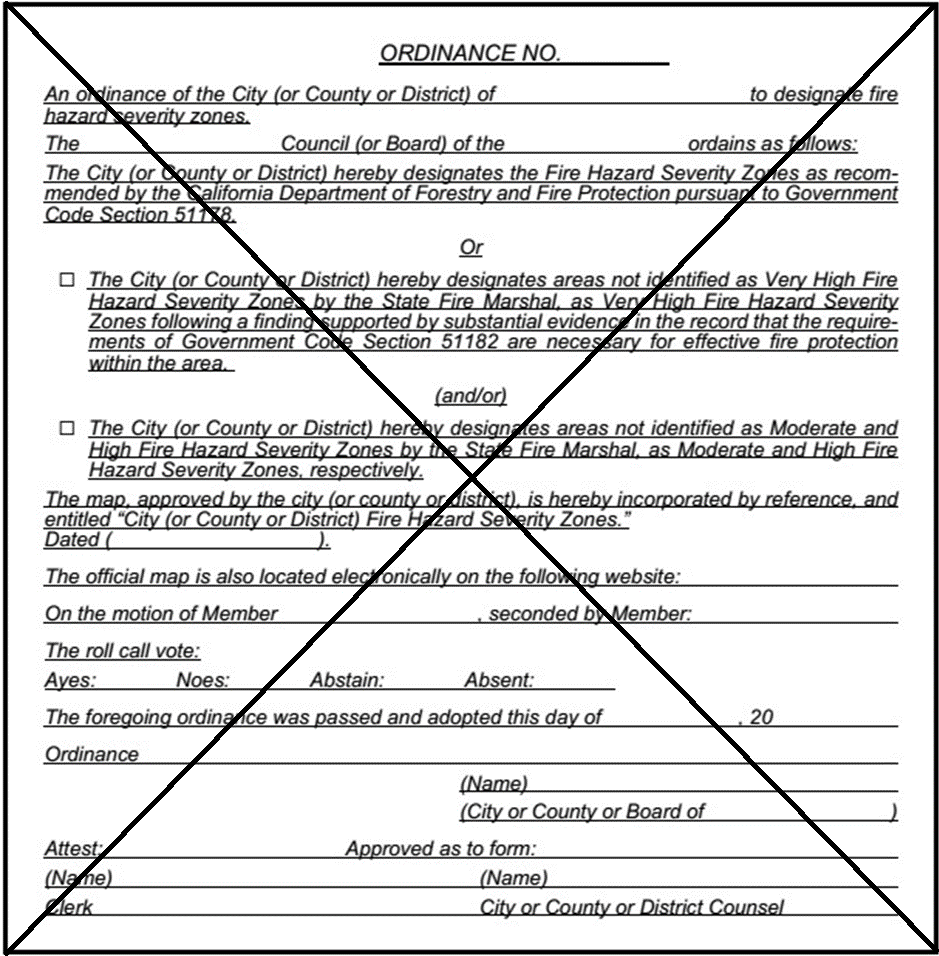
*~~Accessory buildings that are greater than 120 square feet (11 m2) in size and separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 m) shall be constructed of noncombustible materials or of ignition resistant materials as described in Section R337.4.2.~~*

***~~R337.10.3.3 Accessory buildings 120 square feet (11 m2) or less, located 3 feet (914 mm) or more but less than 50 feet (15 m).~~*** *~~When required by the enforcing agency, accessory buildings 120 square feet (11 m2) or less and separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 m) shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section R337.4.2.~~*

***~~R337.10.3.4 Miscellaneous structures located 3 feet (914 mm) or more but less than 50 feet (15 m).~~*** *~~When required by the enforcing agency, miscellaneous structures that require a permit and are separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 m) shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section R337.4.3.~~*

***~~R337.10.4 Roof construction.~~*** *~~Roofs of accessory buildings required to be constructed entirely of noncombustible materials or of ignition-resistant materials shall comply with the requirements of Section 337 and Chapter 9. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer’s installation instructions. Roof assemblies in Fire Hazard Severity Zones shall comply with a Class A rating when tested in accordance with ASTM E108 or UL 790.~~*

***~~SECTION R337.11  
MODEL ORDINANCE FOR FIRE HAZARD SEVERITY ZONE ADOPTION~~***



#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 4 Chapter 4 FOUNDATIONS Chapter 5 FLOORS Chapter 6 WALL CONSTRUCTION Chapter 7 WALL COVERING

[SFM proposes to NOT adopt IRC 2024 Chapters 4 through 7.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 5 Chapter 8 ROOF-CEILING CONSTRUCTION

[SFM proposes to only adopt section R803.2.1.2 and R806.1.1 in Chapter 8 and provide a pointer to Part 7, the California Wildland-Urban Interface Code as shown below.]

#### ITEM 5-1 Section R806.1.1 Vents in the Wildland Urban Interface (WUI)

[SFM proposes to update the pointer to Part 7, the California Wildland-Urban Interface Code.]

***R806.1.1 Vents in the Wildland-Urban Interface (WUI).*** *Where provided, ventilation openings for enclosed attics, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations and crawl spaces, or any other opening intended to permit ventilation, either in a horizontal or vertical plane, shall be in accordance with ~~Sections R337.6.1 through R337.6.2~~ Part 7, The California Wildland-Urban Interface Code to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.*

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 6 Chapter 9 ROOF ASSEMBLIES

[SFM proposes to adopt only Sections R901, R902, R904, R905.15, R905.16, R907, and R909 in Chapter 9 and carry over existing amendments with modification as shown below.]

#### ITEM 6-1 Sections R902.1.1 and R902.3

[SFM proposes to carry forward existing amendments with modifications as shown below updating Section R902.1.1 reference pointer to the new Part 7, California Wildland-Urban Interface code and correct a reference pointer that does not exist.]

***R902.1.1 Roofing requirements within Fire Hazard Severity Zones or in Wildland-Urban Interface (WUI) area.*** *Roofing requirements for structures located within Fire Hazard Severity Zones or in a Wildland-Urban Interface (WUI) area shall also comply with ~~Section R337.5~~ Part 7, California Wildland-Urban Interface Code.*

***…***

**R902.3 Building–integrated photovoltaic (BIPV) systems.** Building-integrated photovoltaic (BIPV) systems installed as the roof covering shall be tested, listed and labeled for fire classification in accordance with [UL 7103](https://codes.iccsafe.org/lookup/CARC2022P3_Pt09_Ch44_PromUL_RefStd7103_19/3390) *[SFM]* [*Section R902.1*](https://codes.iccsafe.org/lookup/CARC2022P3_Pt03_Ch09_SecR902.1/3390)  *through  ~~R902.1.3~~ R902.1.2.*  Class A, B or C BIPV products shall be installed where the edge of the roof is less than 3 feet (914 mm) from a lot line.

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 7 Chapter 10 CHIMNEYS AND FIREPLACES

[SFM proposes to adopt only sections R1001.11 Figure R1001.11, R1001.12, R1003.9.1, R1003.9.2, R1003.18, Figure R1003.18, and R1003.19 from the IRC 2024 Chapter 10 and carry forward existing amendments.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 8 PART IV ENERGY CONSERVATION, Chapter 11 [RE] ENERGY EFFICIENCY

[SFM proposes to NOT adopt and NOT print. See California Energy Code, Title 24, Part 6.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 9 PART V MECHANICAL, Chapters 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23

[SFM proposes to NOT adopt and NOT print. See California Mechanical Code, Title 24, Part 4.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 10 Part VI FUEL GAS, Chapter 24 FUEL GAS

[SFM proposes to NOT adopt and NOT print. See California Mechanical Code, Title 24, Part 4 and California Plumbing Code Part 5.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 11 Part VII PLUMBING, Chapters 25, 26, 27, 28, 29, 30, 31, 32 and 33

[SFM proposes to NOT adopt and NOT print. See California Plumbing Code Part 5.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 12 Part VIII ELECTRICAL, Chapters 34, 35, 36, 37, 38, 39, 40, 41, 42 and 43

[SFM proposes to NOT adopt and NOT print. See California Electrical Code, Title 24, Part 3.]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 13 Chapter 44 REFERENCE STANDARDS

[SFM proposes to adopt IRC 2024 Chapter 44 and carry forward the existing amendments with modifications as shown below.]

#### ITEM 13-1 NFPA

[SFM proposes to adopt Chapter 44 and carry forward existing amendments with modifications that update the referenced standard to correlate with the most recent edition of the standard. The rulemaking process between the different model codes can cause conflict in the adoption of the latest standards. The proposal is to establish consistency within the parts of the California Residential Code. SFM amendments will simplify the understanding of requirements and eliminate confusion related to the required protection of these uses.]

**13D—~~22~~ *25*:** Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

**13R—~~22~~ *25*:** Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies

**31—~~20~~ *24*:** Standard for the Installation of Oil-Burning Equipment

**58—~~23~~ *24*:** Liquefied Petroleum Gas Code

**211—~~22~~ *24*:** Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances

**286—~~23~~ *24*:** Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.

### ITEM 14 APPENDICES

[SFM proposes the following.]

#### ITEM 14-1 Appendices AA, AB, AC and BA

AA Board of Appeals [SFM proposes to **NOT** adopt]

AB Permit Fees [SFM proposes to **NOT** adopt]

AC Reserved

BA Manufactured Housing [SFM proposes to **NOT** adopt]

#### ITEM 14-2 Appendix BB

BB Tiny Houses [SFM proposes to adopt]

#### ITEM 14-3 Appendices BC and BD

BC Accessory Dwelling Units [SFM proposes to **NOT** adopt, do not print.]

BD Home Day Care [SFM proposes to **NOT** adopt, do not print.]

#### ITEM 14-4 Appendix BE

BE Radon Control Methods [SFM proposes to **NOT** adopt]

#### ITEM 14-5 Appendix BF

BF Patio Covers [SFM proposes to **only adopt BF103.2**]

#### ITEM 14-6 Appendices BG, BH and BI

BG Sound Transmission [SFM proposes to **NOT** adopt]

BH Automatic Vehicular Gates [SFM proposes to **NOT** adopt]

BI Light Straw-Clay Construction [SFM proposes to **NOT** adopt]

#### ITEM 14-7 Appendix BJ

BJ Strawbale Construction [SFM proposes to **only adopt BJ107**]

#### ITEM 14-8 Appendix BK

BK Cob Construction [SFM proposes to **only adopt BK108**]

#### ITEM 14-9 Appendix BL

BL Hemp-Lime (Hempcrete) Construction [SFM proposes to **only adopt BL105**]

#### ITEM 14-10 Appendices BM and BN

BM 3D-Printed Building Construction [SFM proposes to **NOT** adopt]

BN Extended Plate Wall Construction [SFM proposes to **NOT** adopt]

#### ITEM 14-11 Appendix BO

BO Existing Building and Structures [SFM proposes to **only adopt BO102.4 and BO102.5**]

#### ITEM 14-12 Appendices CA, CB, CC, CD, CE, CF, CG, CH and Energy Appendices

CA Sizing and Capacities … [SFM proposes to **NOT** adopt]

CB Sizing of Venting Systems … [SFM proposes to **NOT** adopt]

CC Recommended Procedure … [SFM proposes to **NOT** adopt]

CD Piping Standards … [SFM proposes to **NOT** adopt]

CE Venting Methods [SFM proposes to **NOT** adopt]

CF Sizing of Water Piping Systems [SFM proposes to **NOT** adopt]

CG Nonsewered Sanitation … [SFM proposes to **NOT** adopt]

CH Private Sewage Disposal … [SFM proposes to **NOT** adopt]

Energy Appendices [SFM proposes to **NOT** adopt]

#### Notation:

Authority: Health and Safety Code Sections 1250, 1502, 1568.02, 1569.72 - 1569.78, 1597.44 - 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13145, 13146, 13211, 16022.5, 17921, 18897.3, 18928, 18949.2, 25500 through 25545; Government Code Sections 11346.2(a)(2), 11346.5, 51176, 51177, 51178, 51179 and 51189; Public Education Code 17074.50; Public Resources Code Sections 4201 through 4204.

Reference(s): Health and Safety Code Sections 13108, 13108.5, 13113, 13113.5, 13114, 13132, 13132.7, 13133, 13135, 13143, 13143.1, 13143.2, 13143.6, 13143.9, 13145, 13146, 13210, 13211, 16022.5, 17921.