CHAPTER 7A [SFM]
MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

SECTION 701A
SCOPE, PURPOSE AND APPLICATION

701A.1 Scope. *This chapter applies to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area as defined in Section 702A.*

701A.2 Purpose. *The purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.*

701A.3 Application. *New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.*

Exceptions:

1. *Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, when located at least 30 feet from an applicable building.*
2. *Buildings of an accessory character classified as Group U occupancy of any size located least 50 feet from an applicable building.*
3. *Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C – Group U Agricultural Buildings), when located at least 50 feet from an applicable building.*
4. *Additions to and remodels of buildings originally constructed prior to the applicable application date.*

For the purposes of this section and Section 710A, applicable building includes all buildings that have residential, commercial, educational, institutional, or similar occupancy type use.

701A.3.1 Application date and where required. *New buildings for which an application for a building permit is submitted on or after July 1, 2008 located in any Fire Hazard Severity Zone or Wildland Interface Fire Area shall comply with all sections of this chapter, including all of the following areas:*

1. *All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Area (SRA) including:*
   - *1.1. Moderate Fire Hazard Severity Zones*
   - *1.2. High Fire Hazard Severity Zones*
   - *1.3. Very-High Fire Hazard Severity Zones*
2. *Land designated as Very-High Fire Hazard Severity Zone by cities and other local agencies.*
3. *Land designated as Wildland Interface Fire Area by cities and other local agencies.*

   Exceptions:

   1. *New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.*
   2. *New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland Interface Fire Area designated by cities and other local agencies for which an application for a building permit is submitted on or after December 1, 2005 but prior to July 1, 2008, shall only comply with the following sections of this chapter:*
      - *2.1. Section 705A – Roofing*
      - *2.2. Section 706A – Attic Ventilation*

701A.3.2 Application to accessory buildings and miscellaneous structures. *New accessory buildings and miscellaneous structures specified in Section 710A shall comply only with the requirements of that section.*

701A.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.*

701A.5 Vegetation management compliance. *Prior to building permit final approval, the property shall be in compliance with the vegetation management requirements prescribed in California Fire Code Section 4906, including California Public Resources Code 4291 or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be determined by the enforcing agency and 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 702A
DEFINITIONS

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

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

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.*

FIRE PROTECTION PLAN *is a document prepared for a specific project or development proposed for a Wildland Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.*

The Fire Protection Plan shall be in accordance with this chapter and the California Fire Code, Chapter 49. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted. Only locally adopted ordinances that have been filed with the California Building Standards Commission or the Department of Housing and Community Development in accordance with Section 1.1.8 shall apply.

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

HEAVY TIMBER. *A type of construction classification specified in Section 602. For use in this chapter, heavy timber shall be sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Heavy timber walls or floors shall be sawn or glue-laminated planks splined, tongue-and-grove, or set close together and well spiked.*

IGNITION-RESISTANT MATERIAL. *A type of building material that resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in Section 703A and SFM Standard 12-7A-5, Ignition-Resistant Material.*

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

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

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

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

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

SECTION 703A
STANDARDS OF QUALITY

703A.1 General. *Building material, systems, assemblies and methods of construction used in this chapter shall be in accordance with Section 703A.*

703A.2 Qualification by testing. *Material and material assemblies tested in accordance with the requirements of Section 703A 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.*

703A.3 Approved agency. *Product evaluation testing shall be performed by an approved agency as defined in Section 1702. The scope of accreditation for the approved agency shall include building product compliance with this code.*

703A.4 Labeling. *Material and material assemblies tested in accordance with the requirements of Section 703A 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 chapter*
5. *Compliance standard as described under Section 703A.7*

703A.5 Weathering and surface treatment protection.

703A.5.1 General. *Material and material assemblies tested in accordance with the requirements of Section 703A shall maintain their fire test performance under conditions of use, when installed in accordance with the manufacturers instructions.*

703A.5.2 Weathering. *Fire-retardant-treated wood and fire-retardant-treated wood shingles and shakes shall meet the fire test performance requirements of this chapter after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.*

703A.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.*

703A.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.*

703A.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 chapter.*

703A.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.*

703A.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 35 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-minute 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 2.2lb (1kg) burning "Class A" size 12" x 12" x 2.25" (300 mm x 300 mm x 57 mm) roof test brand.*

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 704A
IGNITION-RESISTANT CONSTRUCTION

704A.1 General. *The materials prescribed herein for ignition resistance shall conform to the requirements of this chapter.*

704A.2 Ignition-resistant materials. *Ignition-resistant materials shall comply with one of the following:*

1. *The requirements in Section 704A.3 when tested in accordance with the test procedures set forth in ASTM E84 or UL 723.*
2. *The test procedures and requirements set forth in SFM Standard 12-7A-5 "Ignition-Resistant Material", or*
3. *One of the alternative methods in Section 704A.4.*

704A.3 Conditions of acceptance for ignition-resistant material tested in accordance with ASTM E84 or UL 723. *A material shall comply with the conditions of acceptance in Items 1 and 2 below when the test is continued for an additional 20-minute period, meaning for a total test period of an "extended" 30-minute test period.*

1. *The material shall exhibit a flame spread index not exceeding 25 and shall show no evidence of progressive combustion following the extended 30-minute test period.*
2. *The material shall exhibit a flame front that does not progress more than $10^1/_2$ feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test period.*

704A.4 Alternative methods for determining ignition-resistant material. *Any one of the following shall be accepted as meeting the definition of ignition-resistant material:*

1. *Noncombustible material. Material that complies with the definition for noncombustible materials in Section 202.*
2. *Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of Section 2303.2.*
3. *Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in Section 1505.6 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 705A
ROOFING

705A.1 General. *Roofs shall comply with the requirements of Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.*

705A.2 Roof coverings. *Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to resist the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909 installed over the combustible decking.*

705A.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.*

705A.4 Roof gutters. *Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.*

SECTION 706A
VENTS

706A.1 General. *Where provided, ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation shall be in accordance with Section 1203 and Sections 706A.1 through 706A.3 to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.*

706A.2 Requirements. *Ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation openings shall be fully covered with metal wire mesh, vents, other materials or other devices that meet one of the following requirements:*

1. *Vents shall be listed to ASTM E2886 and comply with all of the following:*
   - *1.1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.*
   - *1.2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.*
   - *1.3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).*
2. *Vents shall comply with all of the following:*
   - *2.1. The dimensions of the openings therein shall be a minimum of $^1/_{16}$-inch (1.6 mm) and shall not exceed $^1/_8$-inch (3.2 mm).*
   - *2.2. The materials used shall be noncombustible.*

     Exception: *Vents located under the roof covering, along the ridge of roofs, with the exposed surface of the vent covered by noncombustible wire mesh, may be of combustible materials.*
   - *2.3. The materials used shall be corrosion resistant.*

706A.3 Ventilation openings on the underside of eaves and cornices. *Vents shall not be installed on the underside of eaves and cornices.*

Exceptions:

1. *Vents listed to ASTM E2886 and complying with all of the following:*
   - *1.1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.*
   - *1.2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.*
   - *1.3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).*
2. *The enforcing agency shall be permitted to accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.*
3. *Vents complying with the requirements of Section 706A.2 shall be permitted to be installed on the underside of eaves and cornices in accordance with either one of the following conditions:*
   - *3.1. The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or,*
   - *3.2. The exterior wall covering and exposed underside of the eave are of noncombustible materials, or ignition-resistant materials, as determined in accordance with SFM Standard 12-7A-5 Ignition-Resistant Material and the requirements of Section 704A.3, and the vent is located more than 12 feet (3.66 m) from the ground or walking surface of a deck, porch, patio or similar surface.*

SECTION 707A
EXTERIOR COVERING

707A.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.*

707A.2 General. *The following exterior covering materials and/or assemblies shall comply with this section:*

1. *Exterior wall covering material*
2. *Exterior wall assembly*
3. *Exterior exposed underside of 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:

1. *Exterior wall architectural trim, embellishments, fascias, and gutters*
2. *Roof or wall top cornice projections and similar assemblies*
3. *Roof assembly projections over gable end walls*
4. *Solid wood rafter tails and solid wood blocking installed between rafters having minimum dimension 2 inch (50.8 mm) nominal*
5. *Deck walking surfaces shall comply with Section 709A.4 only*

707A.3 Exterior walls. *The exterior wall covering or wall assembly shall comply with one of the following requirements:*

1. *Noncombustible material*
2. *Ignition-resistant material*
3. *Heavy timber exterior wall assembly*
4. *Log wall construction assembly*
5. *Wall assemblies that have 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 707A.3.1.*
6. *Wall assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1.*

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

1. *One layer of $^3/_8$-inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing*
2. *The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual*

707A.3.1 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 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 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-min test.*

707A.3.2 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.*

707A.4 Open roof eaves. *The exposed roof deck on the underside of unenclosed roof eaves shall consist of one of the following:*

1. *Noncombustible material*
2. *Ignition-resistant material*
3. *One layer of $^3/_8$-inch Type X gypsum sheathing applied behind an exterior covering on the underside exterior of the roof deck*
4. *The exterior portion of a 1-hour fire resistive exterior wall assembly 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*
5. *The underside of a floor assembly that meets the performance criteria in Section 707A.10 when tested in accordance with the test procedures set forth in ASTM E2957.*
6. *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: *Heavy timber structural columns and beams do not require protection.*

707A.9 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 consist of one of the following:*

1. *Noncombustible material*
2. *Ignition-resistant material*
3. *One layer of $^3/_8$-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection*
4. *The exterior portion of a 1-hour fire resistive exterior wall assembly 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*
5. *The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in either of the following:*
   - *5.1. SFM Standard 12-7A-3; or*
   - *5.2. ASTM E2957*

Exception: *Heavy timber structural columns and beams do not require protection.*

707A.10 Conditions of acceptance when tested in accordance with ASTM E2957. *The test shall be conducted on a minimum of three test specimens and the conditions of acceptance in 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. *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 708A
EXTERIOR WINDOWS, SKYLIGHTS AND DOORS

708A.1 General.

708A.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*

708A.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 2406 Safety Glazing, or*
2. *Be constructed of glass block units, or*
3. *Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or*
4. *Be tested to meet the performance requirements of SFM Standard 12-7A-2*

708A.2.2 Structural glass veneer. *The wall assembly behind structural glass veneer shall comply with Section 707A.3.*

708A.3 Exterior doors. *Exterior doors shall comply with one of the following:*

1. *The exterior surface or cladding shall be of noncombustible material.*
2. *The exterior surface or cladding shall be of ignition-resistant material.*
3. *The exterior door shall be constructed of solid core wood that complies with the following requirements:*
   - *3.1. Stiles and rails shall not be less than $1^3/_8$ inches thick.*
   - *3.2. Panels shall not be less than $1^1/_4$ inches thick, except for the exterior perimeter of the panel that shall be permitted to taper to a tongue not less than $^3/_8$ inch thick.*
4. *The exterior door assembly shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252.*
5. *The exterior surface or cladding shall be tested to meet the performance requirements of Section 707A.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.*

708A.3.1 Exterior door glazing. *Glazing in exterior doors shall comply with Section 708A.2.1.*

708A.4 Weather stripping. *Exterior garage doors shall be provided with weather stripping to resist the intrusion of embers from entering through gaps between doors and door openings when visible gaps exceed $^1/_8$ inch (3.2 mm). Weather stripping or seals shall be installed on the bottom, sides, and tops of doors to reduce gaps between doors and door openings to $^1/_8$ inch (3.2 mm) or less.*

SECTION 709A
DECKING

709A.1 General. *The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section.*

709A.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.*

709A.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 709A.4 when tested in accordance with both ASTM E2632 and ASTM E2726.*
2. *Ignition-resistant material that complies with the performance requirements of 704A.3 when tested in accordance with ASTM E84 or UL 723.*
3. *Material that complies with the performance requirements of both SFM Standard 12-7A-4 and SFM Standard 12-7A-5.*
4. *Exterior fire retardant treated wood*
5. *Noncombustible material*
6. *Any material that complies with the performance requirements of SFM Standard 12-7A-4A when attached exterior wall covering is also composed of noncombustible or ignition-resistant material.*

Exception: *Wall material may 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 rating.*

7. *Any material that complies with the performance requirements of Section 709A.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 rating.*

709A.4 Requirements for type of ignition-resistant material in Section 709A.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 709A.4.1 and 709A4.2. The material shall also be tested in accordance with ASTM E84 or UL 723 and comply with the performance requirements of Section 704A.3.*

709A.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-min observation period.*
3. *Absence of falling particles that are still burning when reaching the burner or floor.*

709A.4.2 Conditions of acceptance for ASTM E2726. *The ASTM E2726 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 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-min observation period.*
2. *Absence of falling particles that are still burning when reaching the burner or floor.*

709A.5 Requirements for type of ignition-resistant material in Section 709A.3, Item 6. *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 of the additional tests shall meet the condition of acceptance.*

SECTION 710A
ACCESSORY STRUCTURES

710A.1 General. *Accessory buildings and miscellaneous structures defined in this section that have the potential to pose a significant exterior fire exposure hazard to applicable buildings during wildfires shall be constructed to conform to the requirements of this section.*

710A.2 Applicability. *The provisions of this section shall apply to the buildings covered by Section 701A.3, Exception 1. This section shall also apply to specified attached and detached miscellaneous structures that require a building permit, including but not limited to trellises, arbors, patio covers, carports, gazebos, and similar structures.*

Exceptions:

1. *Decks shall comply with the requirements of Section 709A.*
2. *Awnings and canopies shall comply with the requirements of Section 3105.*
3. *Exterior wall architectural trim, embellishments, and fascias.*
4. *Roof or wall top cornice projections and similar assemblies.*

710A.3 Where required. *No requirements shall apply to accessory buildings or miscellaneous structures when located at least 50 feet from an applicable building. Applicable accessory buildings and attached miscellaneous structures, or detached miscellaneous structures that are installed at a distance of less than 3 feet from an applicable building, shall comply with this section. When required by the enforcing agency, detached miscellaneous structures that are installed at a distance of more than 3 feet but less than 50 feet from an applicable building shall comply with the requirements of this section.*

710A.3.1 Accessory building requirements. *Applicable accessory buildings that are less than 120 square feet in floor area and are located more than 30 feet but less than 50 feet from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.*

710A.3.2 Attached miscellaneous structure requirements. *Applicable miscellaneous structures that are attached to, or installed at a distance of less than 3 feet from, an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.*

710A.3.3 Detached miscellaneous structure requirements. *When required by the enforcing agency, applicable detached miscellaneous structures that are installed at a distance of more than 3 feet but less than 50 feet from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.*

Symbols in the margins indicate where changes have been made or language has been deleted:

|| *This symbol indicates that a change has been made.*

> *This symbol indicates deletion of language.*

PLAN CHECK #: _____
PERMIT #: _____
ADDRESS: _____

BS 642 7/1/18

MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE
(CBC CHAPTER 7A)

CITY OF VENTURA
BUILDING & SAFETY
www.cityofventura.ca.gov