



WILDLAND URBAN INTERFACE (WUI) IGNITION RESISTANT CONST. REQUIREMENTS

PLANNING & BUILDING DEPARTMENT • COUNTY OF SAN LUIS OBISPO
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FIRE RESISTIVE CONSTRUCTION REQUIREMENTS (WUI) FOR RESIDENTIAL AND COMMERCIAL PROJECTS BASED ON THE 2013 CRC AND THE 2013 CBC

These requirements apply only to new buildings. These requirements DO NOT APPLY to:

1. Additions to existing buildings unless:
The existing building was required to be built to WUI standards (application date on or after January 1, 2008).
2. A 120 SF max U occupancy $\geq 30'$ from a building required to be WUI compliant.
3. Any other U occupancies of any size $\geq 50'$ from a building required to be WUI compliant.
4. Remodels of buildings originally constructed prior to the application date of January 1, 2008.

DEFINITIONS

HEAVY TIMBER. - Heavy timber shall be sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches. 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 CONSTRUCTION - "Ignition resistant construction" includes use of noncombustible materials, fire retardant treated wood identified for exterior use, and fire retardant treated wood shakes and shingles listed for use as a class B roof covering and used as a wall covering when installed over solid sheathing, OR Any material listed on OSFM website as being ignition resistant. (http://osfm.fire.ca.gov/licensinglistings/licenseslisting_bml_searchcotest.php)

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.

ROOF EAVE. - 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.

WUI - Wildland-Urban Interface fire area

WUI COMPLIANT. - A structure that meets the fire resistive construction requirements as outlined below or as required in prior editions of the CBC.

NOTE: in all of the following categories, the use of paints, coatings, stains or other surface treatments are not an approved method of protection.

ROOFING

Roof coverings in Very High Fire Hazard Severity zones shall be fire retardant Class A minimum. This includes fire retardant wood shakes and shingles unless not allowed by the fire authority having jurisdiction.

Roof coverings in High Fire Hazard Severity zones in State Responsibility Areas shall be Class B minimum. This includes fire retardant wood shakes & shingles unless not allowed by the fire authority having jurisdiction.

Roof coverings in Moderate Fire Hazard Severity zones and all other areas shall be fire retardant Class C minimum unless prohibited by the local fire agency.

Where there is an opening between the roof covering and the roof decking, the opening must be fire stopped, constructed to prevent the intrusion of flames & embers OR have one layer 72# mineral cap sheet under the openings to protect the roof deck.

Exposed roof valleys are to be 26 ga min metal installed over a minimum 36" wide 72lb mineral surfaced non-perforated cap sheet.

Asphalt shingles overlapping the valley are an acceptable alternative.
Gutters are to be designed to prevent the accumulation of debris.

VENTS

ANY underfloor or attic vent (except for vents located on the underside of eaves) need only be noncombustible, corrosion resistant and have 1/16"-1/8" max openings.

Vents located under the roof covering or along the ridge need not be noncombustible (for example Smart Vents).

Eave & Cornice Vents

Noncombustible, corrosion resistant vents having 1/16"-1/8" max openings CAN be used in the underside of eaves if:

1. The attic is fully sprinklered with a full 13 system OR,
2. The vent is more than 12' above grade or walking surface and the wall covering and exposed underside of the eave are of ignition resistant construction.

Otherwise, eave and cornice vents must be designed to prevent the intrusion of flames & burning embers.

Approved Eave Vents

- Vulcan Technologies Brandguard
- O'Hagin's (Fire resistant roof deck vents. May not work in under eave application. Check with manufacturer).
- Vivico "FireGuardVent"
- "Smart Vents" by DCI Products

EXTERIOR COVERINGS

Exterior walls need only comply with one of the following:

Covered with noncombustible materials, ignition resistant materials (see above), constructed of heavy timber or log walls OR,

1. Installed with one layer of 5/8X on the exposed side of the framing under ANY type of wall covering OR,
2. Have the exposed side covered by the exterior portion of a 1 hr fire resistive exterior wall assembly as found in the Gypsum Association Fire Resistance Design Manual.

Open roof eaves, enclosed roof eaves and roof eave soffits, the exposed side of exterior porch ceilings and floor projections need only comply with one of the following:

1. Covered with noncombustible or ignition resistant materials (see above) or,
2. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside exterior of the roof deck or,
3. Have the exposed side covered by the exterior portion of a 1 hr. fire resistive exterior wall assembly as found in the Gypsum Association Fire Resistance Design Manual.

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 consist of one of the following:

1. Covered with noncombustible or ignition resistant materials (see above) or,
2. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection
3. Have the exposed side covered by the exterior portion of a 1 hr fire resistive exterior wall assembly as found in the Gypsum Association Fire Resistance Design Manual.

NOTE THAT THE FOLLOWING ARE EXEMPTED AND NEED NOT COMPLY

1. 2x nominal wood rafter tails or the blocking between them.
2. Fascia, architectural trim, gutters.
3. Roof projections from gable ends or cornices.
4. Heavy-timber structural columns and beams.

EXTERIOR WINDOWS AND DOORS

All exterior glazing including skylights is to comply with the following:

1. One pane of a multipane window to be tempered OR,
2. Glass block OR,
3. 20 minute rated OR,
4. Any approved window listed on OSFM website.

Note that structural glass veneer need not comply as long as there is an approved wall assembly behind the glass meeting the requirements for exterior wall coverings.

Note that window sash, stile, and frames may be of wood, aluminum, vinyl, or fiberglass material.
OSFM interpretation 10-013

Exterior doors are to comply with the following:

1. The exterior surface or cladding shall be of ignition resistant or non-combustible material OR,

2. 20 min rated OR,
3. 1 3/8" solid core wood or panel doors. Raised panels are to be 1 1/4" thick min tapering to not less than 3/8" thick.
4. Any approved door listed on OSFM website. This site includes fiberglass doors.

DECKING

The walking surface (ONLY) of decks, balconies, porches and stairs within 10' of a building that is required to be WUI compliant shall be of the following materials:

Noncombustible, ignition resistant (see above), exterior fire retardant treated wood OR,

1. Solid wood decking (redwood or cedar 5/4" thick nominal 6" wide) over 2x6 min DF joists 24" or less on center OR,
2. Any other decking materials listed on OSFM website. (<http://www.osfm.fire.ca.gov/strucfireengineer/pdf/bml/wuiproducts.pdf>)

Dex-O-Tex water proof membrane for impermeable decks is class A rated and an approved covering.

The following are examples of compliant "TREX" decking.

"Trex Accents: Fire Defense" wood and polyethylene composite deck board, nominal 5/4" thick x 5-1/2" width

"Trex Escapes" cellular PVC composite deck board, nominal 1" thick x 5-1/2" width.

Guards and deck structural members need not be WUI compliant.

ACCESSORY STRUCTURES

Attached accessory structures such as trellises, arbors, patio covers, carports and gazebos or similar structures attached to applicable buildings are required to be of ignition resistant construction.

Applicable buildings are buildings that were applied for on or after January 1, 2008 and which were required to be WUI compliant.

Detached accessory structures such as carports, patio covers or trellises shall be constructed of non-combustible or ignition resistant construction when they are less than 50' from an applicable building.