



Wildland-Urban Interface (WUI) Checklist

The Wildland-Urban Interface (WUI) Fire Area is defined per Section R327.2 in the 2016 California Residential Code (CRC) as 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.*

To view the San Carlos WUI Map, please visit: http://www.fire.ca.gov/fire_prevention/fhsz_maps/FHSZ/san_mateo/San_Carlos.pdf.

Projects that shall comply with the Wildland-Urban Interface (WUI) are:

- New buildings designated by the Building Division.
- Accessory structures greater than 120 square feet and located closer than 30-feet to primary structure.
- Other projects may be applicable. Contact the Building Official, at 650-802-4262, with questions.

Listed below is a checklist for building construction requirements per the 2016 California Residential Code, Section 327:

Roofing – Section R327.5

R327.5.1 General: Roofs shall comply with the requirements of Section R327.5 and R902. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.

- R327.5.2 Roof coverings:** Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be fire-stopped with approved materials or have one layer of minimum 72 pound mineral-surfaced non-perforated cap sheet complying with ASTM D 3909 installed over the combustible decking.
- R327.5.3 Roof valleys:** Where valley flashing is installed, the flashing shall be not less than 0.019-inch No.26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72-pound mineral-surfaced non-perforated cap sheet complying with ASTM D 3909, at least 36-inch-wide running with full length of the valley.
- R327.5.4 Roof gutters:** Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

Vents – Section R327.6

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

- The dimensions of the openings therein shall be a minimum of 1/16th inch and shall not exceed 1/8th inch.
- 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 with mesh, may be of combustible materials.
- The materials used shall be corrosion resistant.

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

Exceptions:

- The enforcing agency may accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.
Vents complying with the requirements of Section R327.6.2 may be installed on the underside of eaves and cornices in accordance with either one of the following conditions:
 - The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the California Building Code, or;
 - The exterior wall covering and exposed underside of the eave are of noncombustible material, or ignition-resistant materials as determined in accordance with SFM Standard 12-7A-5 Ignition-Resistant Material and the vent is located more than 12 feet from the ground or walking surface of a deck, porch, patio, or similar surface.

Exterior Coverings – Section R327.7

R327.7.3 Exterior Walls: The exterior wall covering or wall assembly shall comply with one of the following requirements:

- Noncombustible material.
- Ignition-resistant material.
- Heavy-timber exterior wall assembly.
- Log wall construction assembly.
- 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.

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

- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- The exterior portion of a 1-hour fire resistive exterior wall assembly designed for exterior fire exposure including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
- R327.7.3.1 Extent of exterior wall covering:** Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate a 2 inch nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

R327.7.4 Open roof eaves: The exposed roof deck on the underside of unenclosed roof eaves shall consist of one of the following:

- Noncombustible material.
- Ignition-resistant material.
- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- 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.

Exceptions: The following materials do not require protection:

- Solid wood rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2 inch.
- Solid wood blocking installed between rafter tails on the exposed underside of open roof eaves having a minimum nominal dimension of 2 inch.
- Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails.
- Fascia and other architectural trim boards.

R327.7.5 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 tail, shall be protected by one of the following:

- Noncombustible material.
- Ignition-resistant material.

- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- 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.
- 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.

Exceptions: The following materials do not require protection:

- Gable end overhangs and roof assembly projections beyond an exterior wall other than at the lower end of the rafter tails.
- Fascia and other architectural trim boards.

R327.7.6 Exterior porch ceilings: The exposed underside of exterior porch ceilings shall be protected by one of the following:

- Noncombustible material.
- Ignition-resistant material.
- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- 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.
- 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

Exception: Architectural trim boards.

R327.7.7 Floor projections: The exposed underside of a cantilevered floor projection where a floor assembly extends over an exterior wall shall be protected by one of the following:

- Noncombustible material.
- Ignition-resistant material.
- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- 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.
- The underside of a floor projection assembly that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3

Exceptions: Architectural trim boards.

R327.7.8 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:

- Noncombustible material.
- Ignition-resistant material.
- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- 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.
- 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.

R327.7.9 Underside of appendages: When required by the enforcement 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:

- Noncombustible material.
- Ignition-resistant material.

- One layer of 5/8 – inch Type X gypsum sheathing applied behind the exterior covering or cladding on the exterior side of the framing.
- 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.
- The underside of a floor projection 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.

Exterior Windows and Doors – Section R327.8

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

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

R327.8.2.2 Structural glass veneer: The wall assembly behind structural glass veneer shall comply with exterior walls. Section R327.7.3

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

- The exterior surface or cladding shall be of noncombustible or ignition-resistant material, or;
- Shall be constructed of solid core wood that comply with the following requirements:
 - Stiles and rails shall not be less than 1-3/8 inches thick.
 - Raised panels shall not be less than 1-1/4 inches thick, except for the exterior perimeter of the raised panel that may taper to a tongue not less than 3/8 inch thick.
- Shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252.
- Shall be tested to meet the performance requirements of SFM Standard 12-7A-1.

Decking – Section R327.9

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

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

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

Exception: Wall material may be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E 84 with a Class B flame spread rating.

If you have further questions, please contact the Building Official, at 650-802-4262. Or, you may email the Building Official, at cvalley@cityofsancarlos.org.