



Construction design & materials

Build or Remodel To *Firewise* Your House

Your house may be vulnerable to a wildfire because of its design, construction and/or location. When preparing to build, buy or remodel, know what to look for in a **FireWise** home. A few modifications to your construction plans can reduce the chance of your house catching fire, or resist further damage if it does catch fire. Don't let your house become more fuel for a wildfire.

- ❑ If you are building a new house, evaluate your building site.

- ❑ Choose a site away from heavily vegetated areas.



Probably not a wise location for a home.

- ❑ Build on the most level portion of the property.
- ❑ Avoid ridge tops, canyons and areas between high points on a ridge. These are extremely hazardous locations for houses and fire-fighters because they become natural chimneys, increasing the intensity of the fire.



This location would become a natural chimney during a wildfire.

- ❑ Set your structure a minimum of 30 feet back from the ridges or cliffs; increase the distance if the home will be higher than one story.

Building Materials

Use fire-resistive or non-combustible construction materials, combined with design techniques to prevent or slow the penetration of fire beyond your home's exterior. Whenever possible, use brick, rock or stucco – they resist fire much better than wood. If you decide on a wood exterior, it is **especially** important that you follow the **FireWise** practices in this notebook.

Your Roof

Your roof has the largest surface area of your structure and is the most vulnerable part of your house. It can easily catch fire from a wildfire's wind-blown sparks.

- ❑ Use class A or B roofing materials, such as asphalt shingles, slate or clay tile, or metal.

Siding/walls

- ❑ Use fire-resistive or non-combustible construction materials whenever possible. Use a minimum of a Class III flame-spread rated siding material – stone, brick and stucco are best. Walls should be constructed of materials fire-resistive from the ground to the roof overhang.



- ❑ Roof eaves extending beyond exterior walls are also susceptible to flame exposure; limit them in length and box or enclose them with fire-resistant materials.

Foundation

A building's foundation comes in contact with a spreading wildfire before other areas of the structure.

- ❑ Close foundations with concrete block, cement walls, or other fire-resistant building materials.

Windows

Windows are often overlooked as fire hazards, but can be serious risks. The heat from a wildfire may be enough to ignite the furnishings inside your house.

- ❑ Instal dual-paned windows and sliding glass doors to reduce the breakage potential from wind-blown debris and reduce the amount of heat transmitted from the fire to the interior of your home.
- ❑ Minimize the size and number of windows on the downhill side of the house or the side that would most likely be exposed to a wildfire.
- ❑ Consider both size and materials for windows. Multi-pane glass provide insulation from trapped air and give more protection from radiant heat than single pane glass.

Other Areas/Ideas

- ❑ Cover exterior attic, soffit and underfloor vents with metal wire mesh (no larger than 1/8 of an inch) to prevent sparks from entering your home through vents.

- ❑ Instal undereave and soffit vents closer to the roof line than the walls.
- ❑ Design decks so that they are not located at the top of a hill directly in the line of a fire moving up slope.

- ❑ Enclose the undersides of balconies and decks on slopes with fire-resistant materials. If not enclosed, these areas can trap flames and burning embers that can ignite your home.



- ❑ Use weed-barrier fabric under deck and balcony areas to keep them free of vegetation.



- ❑ Cover chimneys and stovepipes with a non-flammable screen (mesh no larger than 1/2 inch).

