

Building a Wildfire Resistive Home

It is a certainly challenging time for anyone who owns a home in a wildfire zone, not only because of the increased incidence of such disasters, but also because of the insurance-market correction (from nonrenewals to opting out of coverage in certain regions) caused by the greater risk. However, homeowners can do quite a bit to minimize losses, whether they are building a new residence, rebuilding after a loss or planning a significant renovation.

Below are fire-resistive best practices that we wholeheartedly support, including the latest guidance from our own loss specialist, whose expertise centers on such practices. We recommend passing this list to your contractor, caretaker, or other relevant professional.

Create a fire-resistive building envelope for every structure.

"Building envelope" refers to that which separates your home's interior from the outside: exterior walls, foundations, roof, windows, and doors. Making this envelope as fire resistive as possible entails the following steps:

For exterior:

- In new constructions, incorporate a minimum one-hour fire rating (meaning the building materials that can resist the exposure of a standardized fire exposure for one hour) with no unconditioned spaces (i.e, attic, crawl space, and mechanical areas). This eliminates the need for exterior vents, which can act as entryways for wind-blown embers.
- When renovating areas with existing unconditioned spaces, take the opportunity to retrofit ventilation openings with ember-resistant venting.
- Cover all exterior walls with fire-resistive siding, such as fiber-cement, stucco, or plaster. Similarly, use nonflammable sheathing, concrete block or reinforced concrete to line the exterior surface.
- Roofing should be made with Class A-rated fire-resistive material (slate, concrete tiles, clay tile, or metal) and include nonflammable underlayment and bird stops or ember stops on "S"-shaped tiles where the roof meets the decking.
- Enclose eaves, fascia, and soffits in nonflammable material.
- Mix fire-retardant additives into water-based latex paints, stains, polyurethane, and acrylic coatings.

- Fire-caulk all access points of mechanical penetrations (plumbing, HVAC or electrical).

For doors and windows:

- Use dual-paned or tempered glass in windows and skylights. Also consider installing missile-impact-rated glass or a fire shutter system at every exterior glass opening.
- All doors to the outside, including garage doors, should have a one-hour U.L. fire rating.

For decks, porches, and other attachments:

- Install noncombustible gutters and gutter guards.
- Construct decks, balconies, and porches with fire-resistive materials or heavy timber. Box the undersides with fire-resistive materials as well, so flammable debris cannot drift underneath, and replace any vegetation growing there with gravel or rock.
- Embers can also slip through open-slatted decks, so fire-rated protection is necessary on their undersides, too. For example, cover the underside of decks made of Trex or Ipe with something like concrete board. Similarly, cap heavy timber structures—whether attached to main structures or not—with metal.
- Avoid locating elevated decks or similar attachments at the top of a hill. Stilts that prop up decks or other structures should be made of fire-resistive materials or encased in stucco or plaster.
- Refrain from attaching wood fences directly to any structures. Instead, use fire-resistive materials to make the connection or separate the fence from the structure. Alternatively, install a masonry barrier or metal decorative pedestrian gate.

For infrastructure systems:

- Install sprinklers, inside and out.
- Install an automatic back-up electrical generator, to keep electric gates and water pumps working in the event of an outage.

Create a defensible space around your home.

Landscaping, hardscaping, and other exterior elements play a significant role in shielding your dwelling from wildfire. Following these guidelines will help maximize that protection:

For landscaping and hardscaping:

- Avoid highly flammable tree species such as juniper, Italian cypress, and palms.
- Plant only low-growing, irrigated, fire-resistive shrubbery within five feet of any structure and beneath eaves, fascia, and soffits.
- Plant fire-resistive greenery a bit further from structures. Typically, moderately flammable species require 30 feet of setback, highly flammable species 50 feet, and extremely flammable species 100 feet.
- Reduce fuels in the “home ignition zone” (100–200 feet from any structure) by using the principles at [firewise.org](https://www.firewise.org).
- Replace bark mulch with rocks, stone, or hardscaping.

- Do not use treated railroad ties as decorative features, retaining walls, or stairs.

For exterior storage elements:

- If your home has a gated entry, install a Knox Box system to expedite fire department access. Also, tweak the gate mechanism to allow it to be opened manually should the power go out.
- Install propane tanks no closer than 30 feet from any structure.
- Use water tanks made of fire-resistive materials, not plastic.
- Store firewood at least 30 feet from all structures, and construct stockpiling enclosures from noncombustible materials.

Our expert team at Alliant Client Private is waiting to field any questions you may have about fire-protection practices, at whatever construction stage you might be in. As always, our goal is to help you mitigate risk so you can avoid loss in every facet of your life.

In the event of a wildfire, it is important to always obey evacuation orders and keep us informed of your plans. Should a loss occur, we will respond rapidly and remain personally involved throughout the claims process. Please call us at (800) 221-5830 and our 24/7 Claims team will guide you through next steps in the event of a loss.