

# PROTECT YOUR HOME FROM WILDFIRE

## EAVES & SOFFITS



### INFO

**The under-eave area of your roof is an often-overlooked way fire can enter your home.**



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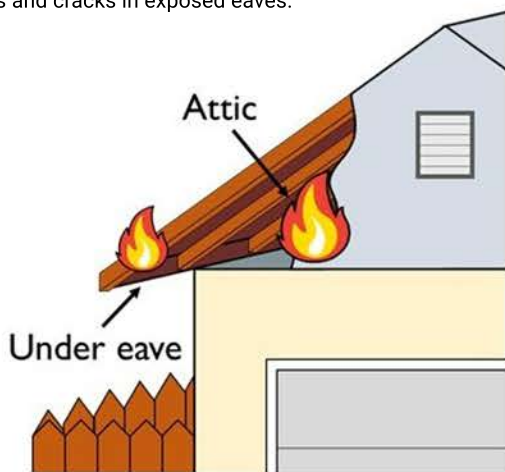
### Why are eaves important?

Eaves are located at the down-slope edge of a sloped roof and serve as the transition between the roof and fascia/wall. The under-eave area of your roof is another way fire can enter your home, but it's often overlooked and can be exposed and vulnerable to embers, direct flames, and radiant heat.

If left unprotected, open eaves are very susceptible to heat from flames, which can become trapped, allowing fire to spread through attic vents and into the attic (igniting things stored there). Embers lodged in gaps between blocking and joists can also result in ignition and fire entry into the attic. There are a few steps that can help reduce the risk of ignition in this area by using noncombustible materials and retrofitting open eaves with enclosures, called soffits, or sealing openings and cracks in exposed eaves.



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### Ignition Vulnerability points for Eaves

Source: ucanr.edu

PROTECT YOUR HOME

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The Santa Barbara County Fire Safe Council's mission is to promote wildfire safety in Santa Barbara County through education and action. This Wildfire Home Hardening Guide was generously funded through the Cal Fire Climate Investment Grant for the Regional Wildfire Mitigation Program.



REGIONAL  
WILDFIRE  
MITIGATION  
PROGRAM



✓ **If your eaves are already enclosed, evaluate the fire-resistance of existing soffits and replace soffits that are not fire-resistant with non-combustible materials.**

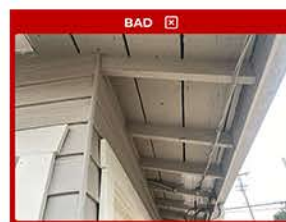
A soffit encloses the underside of sloped or flat-roof overhangs. Soffits are commonly constructed from fiber-cement panels, metal panels, stucco, vinyl panels, or wood sheathing. However, metal panels conduct heat and can distort and allow passage of embers and hot gasses, untreated wood panels can ignite, and vinyl panels can melt and fall away.

Soffits should be constructed with non-combustible materials with a minimum 1-hour fire-resistance rating and contain vents. Make sure to maintain existing vents and upgrade for ember resistance with metal mesh with  $\frac{1}{8}$ " opening to allow for circulation while preventing ember entry.

✓ **If you have open eaves, enclose your eaves with soffits or seal them.**

Soffit-Eave Construction, which encloses the underside of sloped or flat-roof overhangs between the edge of the roof and the exterior wall, is the best treatment for homes in high fire hazard zones. Note that with enclosed soffits, some vents need to be added.

Or, if you choose to keep open eaves, a sealant can be used (such as caulking) to cover gaps, or enclose the underside of the roof overhangs. However, in open eave construction, embers can and do accumulate between blocking and joists and can ignite these members if sufficient accumulation occurs. Also, if your fence leads and connects to an open eave, it can make your home even more vulnerable (see image below), since wooden fences can act as a wick for fire to spread to the home.



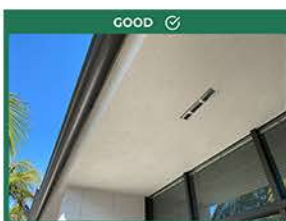
**Exposed eaves with no caulking**



**1/4" mesh (vulnerable) compared with 1/8" (desired)**



**Enclosed eave and soffit**



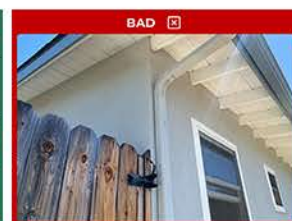
**Enclosed eave and soffit with vent**



**Enclosed soffit example**



**Sealing cracks in open eave**



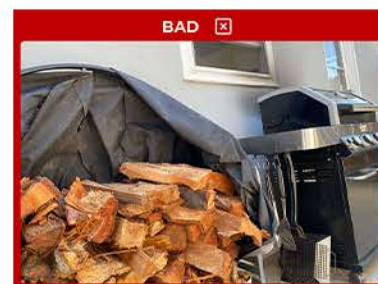
**Open eave with fence**

✓ **Cover the fascia**

If the fascia is combustible, replace cover the fascia with a noncombustible or fire-resistant material (e.g., fire-retardant-treated lumber, fiber-cement board).

✓ **Remove debris and materials**

Remove debris and combustible material (e.g. plants, patio furniture, vegetation debris, firewood) from under eaves, vents and overhangs.



**Combustible materials stored below open eaves**

