Reducing Wildfire Risk to Your Home

Always check with the local fire department for recommendations specific to the risks for your area.

Defensible space is an area with limited combustibles surrounding your home that helps to reduce the chance that your home will catch fire during a wildfire event. Defensible space is up to 100 feet from your home and slows or stops the progression of wildfire. Defensible space, coupled with structural hardening, is critical to increasing your home's likelihood of surviving a wildfire. *Note: Where you do not have 100 feet surrounding your house or your neighbor is within 100 feet of your home, it is critical to implement structural hardening measures as detailed on page 2.*

How can you protect your home with defensible space?



Defensible space is divided into three zones based on distance from your home.



Where you have at least 100 feet from your neighbor, Zone 0 is the area surrounding your home from 0 to 5 feet. Zone 1 is the area surrounding your home that is 5 feet from the home to 30 feet. Zone 2 is the area surrounding your home from 30 feet to 100 feet.

Most homes on Maui are spaced closely together and cannot meet the 100 feet defensible space recommendations. Where you are within 100 feet of your neighbor's property or home, consider working together to create defensible space. If zones 1 and 2 (5 to 100 feet) intersect your neighbor's property, work together to meet the defensible space recommendations below.

All Zones

- Maintain grass height to less than 4 inches.
- Choose native, water retaining plants. Remove nonnative, invasive or exotic plants such as, fountain grass, guinea grass, italian cypress and/or ironwood.
- Trim trees to keep branches and canopy 10 feet away from the home and its roof, chimneys, and stovepipes. Remove all tree branches for the first 6 feet above the ground.
- Remove any dead or dying plant material, including leaf litter, other small debris, trash or building materials.

Within 5 Feet of the House (Zone 0)

- Do not plant vegetation within 5 feet of the home.
- Use hardscaping (e.g., gravel, concrete pavers, etc.) where possible. Ensure proper drainage is provided.
- Remove all mulch and vegetative debris around and under the home.
- Do not store any combustible items (e.g., barbeque grills, firewood, toys, furniture) or portable propane tanks around or underneath the home, including lanais, decks, carports and open foundations.
- Store trash and recycling bins at least 5 feet from the home in noncombustible bins.
- Use noncombustible fencing and decking materials (e.g., metal, CMU, masonry, composite). Where fencing is attached to the home, replace at least 5 feet of the fence most closely attached to the home with noncombustible fencing.

5-30 Feet from the House (Zone 1)

For Better Fire Protection, Follow These Landscaping and Household Item Storage Tips by Zone:

- Space small groupings of plants and individual shrubs at least twice their height apart to prevent fire from easily spreading among them.
- Provide an irrigation system for plants and trees where possible. Review local water conservation policies.
- Relocate sheds, 'ohanas and other outbuildings to at least 30 feet from the home, and build them with noncombustible materials (e.g., masonry, concrete, steel). Do not store combustible materials outside of these buildings.
- Move cars, trucks, RVs, boats, and other vehicles to at least 30 feet from the home and your neighbor's home.
- Provide a noncombustible surface such as concrete, asphalt or gravel where vehicles park/idle.

30-100 Feet from the House (Zone 2)

- Provide a noncombustible surface such as concrete, asphalt or gravel where vehicles park/idle.
- Keep at least 10 feet of noncombustible surface (e.g., bare soil, gravel) around fire pits, barbeque grills, wood piles and large propane tanks.





Reducing Wildfire Risk to Your Home

Each part of a building's exterior plays a critical role in limiting potential structure ignition from wildfires. Residential homes are particularly vulnerable because historically, they have not been designed to withstand this hazard. Structural hardening is an important part of wildfire hazard mitigation and is critical to increasing your home's likelihood of surviving a wildfire.

How Can You Reduce Wildfire Risk to Your Home?



General:

- · Choose and use noncombustible materials whenever possible. Noncombustible means not able to burn easily. Concrete, stucco, fiber cement, brick, and many metals are examples.
- · Maintain at least 5 feet, or more, of space surrounding the home that is free of combustible materials. Combustible materials are any materials that may ignite when exposed to heat or flame.
- Do not plant vegetation within 5 feet of the home. Ensure that vegetation is not adjacent to windows, doors, decks and other edges of the home.
- · Regularly remove vegetation and debris from roofs, gutters, joints, vents, and along fences.
- · Do not store combustible materials on or under decks, porches, carports, or in crawlspaces. Store any flammable liquids in a fire rated cabinet (preferred) or in a metal shed.
- · Keep combustible materials (such as trees, shrubs, wood piles, trash bins, or mulch) more than 5 feet away from any combustible fence, accessory building (shed, 'ohana, etc.), the home and the neighbor's home.

Doors, Windows and Skylights:

- · Replace single-pane windows or glass doors with double-paned glass, preferably, where at least one pane is tempered.
- Use metal window framing and fiberglass or metal screening with a maximum mesh size of 1/8-inch on windows.

Exterior Vents and Openings: All vent openings (inlets and



resistant wire mesh or an approved ember and flame-resistant vent.

- · Except for flood openings, replace louvered vent openings with a system that meets wildfire, hurricane, storm and day-to-day ventilation and energy efficiency needs. Consult a licensed design professional to address all needs.
- · Where flood openings are required, use openings that stay closed when not in use but open automatically when exposed to floodwaters, and remove debris regularly.

Siding:

- Replace combustible siding with noncombustible materials (e.g., fiber cement, stucco).
- · If you cannot replace all the combustible siding on a home, replace the bottom 12 inches of siding above the ground, to help protect from nearby surface fires.
- · If an exterior wall is within 15 feet of another structure, upgrade the wall assembly to be at least 2-hour fire-rated (where feasible). Consult a licensed design professional for support in the wall assembly design.

Gaps and Joints:

· Throughout the exterior of the home, seal gaps and joints with fire-resistant caulk, sealant, noncombustible expandable foam.

or firestopping materials such as mineral wool.

- Verify that weather stripping around doors, garage doors, and operable windows is in good condition and provides a weather-tight seal.
- Consider upgrading to fire-rated weather stripping.

Gutters:

- · Use metal gutters and downspouts.
- Install corrosion-resistant noncombustible drip edge flashing from the roof edge to the gutter, tightly fitting the flashing against the gutter.
- Use noncombustible corrosion-resistant gutter covers to help prevent the accumulation of debris.

Flashing:

- · Check the flashing at roof edges and around skylights, chimneys, vents, and other roof penetrations for proper installation.
- Replace missing, loose, or corroded flashing with noncombustible corrosion-resistant materials.
- Seal flashing using a fire-resistant caulk/ sealant, noncombustible mortar, or fire-rated expanding foam.

Roof:

- Regularly check for any loose or missing shingles or roof tiles, and repair or replace them to help prevent trapped embers.
- · Where possible, replace roof with Class A covering materials (e.g., metal roofs, concrete tiles, composite asphalt shingles), and associated underlayment. Alternatively, install 1-hour fire-rated roof assemblies for enhanced performance.
- Ensure that all roof joints are protected with noncombustible, non-corrosive lapped metal flashing.
- · For roofs with tiles that are not flat, install bird stops or mortar at the open ends of tiles.



Roof Eaves:

- Enclose open or "unboxed" roof eaves, where possible.
- Check that soffit vent openings are sufficiently protected (see "Exterior Vents and Openings" section).

Carports:

- · Build carports with noncombustible materials, especially if attached to or within 30 feet of the home or neighbor's home.
- · Verify roof systems meet the design wind speeds provided in the Maui Building Code.

Decks and Fences:

 Use noncombustible materials for deck framing, decking, railings, stairs and fences. While a fully noncombustible fence is best,

where this is not feasible, provide a minimum of five feet from the house of noncombustible fencing materials.

- Where combustible decks and siding are attached above the decking, replace 12 inches of the siding with noncombustible materials for a protective buffer. Alternatively, install an 18inch corrosion resistant metal flashing strip from the top of the deck over the existing siding. Tuck the top of the flashing behind the siding to help prevent water from seeping into the walls.
- For decks within 4 feet of the ground, enclose the space under the deck with noncombustible materials, or shield it with corrosion-resistant metal mesh with openings 1/8-inch or less.

Other:

- Verify whether any work undertaken needs to be permitted and approved by the Maui County **Development Services Administration.**
- Consider all hazards (wind, flood, earthquake, and wildfire) when choosing any building material or mitigation option.
- · Close windows, doors, skylights and garage doors before leaving your home on Red Flag Warning Days or during evacuation orders.











