

"Ready, Set, Go!"

A WILDLAND FIRE SAFETY GUIDE FOR THE TENNESSEE HOMEOWNER



Photo courtesy of Curt Habekken, Mountain Press

Photo courtesy of Tom Shelton, The Daily Times

What can homeowners do to reduce the wildfire threat?

Wildfire threat reduction recommendations can be presented according to four zones. Each one will be discussed in detail.

Access Zone

This zone provides suggestions that help emergency responders locate your home in a timely manner.

Defensible Space Zone

This zone pertains to the vegetation surrounding your home, both landscape plants and native plants.

Interior Zone

This zone offers fire safety tips for inside the home.

Built Zone

This zone includes recommendations for home construction.



Contact your local fire department or Tennessee Division of Forestry for free Firewise literature. Information can also be obtained from www.BurnSafeTN.org and www.fireadapted.org.



YOUR PERSONAL WILDFIRE ACTION PLAN



Tennessee is at risk for wildfire



Photo courtesy of Tom Sheelin, The Daily Times

Living in a High Wildfire Hazard Area

The potential for loss of human life and property due to wildfire in Tennessee is great. In response, local, state, federal, private, and nonprofit organizations have banded together to implement the Ready, Set, Go! and Firewise programs. These programs work in concert to prepare homeowners and reduce the wildfire threat.

These programs are not about fire prevention. Their combined purpose is to teach people how to be prepared and live more safely with the threat of wildfire. Fires always have and always will occur—we must learn to live with that fact.



Photo courtesy of Nathan Waters

The charred remnants of this trailer provides evidence of the wildfire potential throughout the area.

Fact: Flammable vegetation combined with hot, dry, windy weather creates an extreme fire hazard. Steep slopes and valleys make the conditions even worse.



Photo courtesy of Nathan Waters

Fact: Many homes and cabins in Tennessee are built and maintained in a manner that makes them easily ignitable during wildfires.



Photo courtesy of Nathan Waters

Fact: With only one way in and out of many areas, there is potential for people to be trapped by wildfires.



Photo courtesy of Nathan Waters

Fact: Many wildfires in Tennessee are due to hot ashes and embers from grills, campfires, fireplaces, and wood heaters, being discarded in woods or yard grass.



Photographer Unknown

CONCERNED ABOUT YOUR HOME?

On Page 17 and 18 is the "TDF Home Assessment Form". It will help you evaluate your landscaping, building materials and housekeeping practices. For more information, go to www.BurnSafeTN.org.



Photo courtesy of Nathan Waters

Who Wins, Who Loses...

Why do some houses survive a wildfire, while others are destroyed? Research findings prove that house survival during wildfire is not random, miraculous, or "dumb luck." Rather, it is how the house is built, the characteristics of the adjacent vegetation and other fuels, and routine maintenance that often determine which homes burn and which survive. These factors are all considered by Firewise. Firewise activities are actions completed before a wildfire occurs which improve the survivability of people and the home. The "winners" will be the people who implement Firewise practices. For more Firewise information, go to www.BurnSafeTN.org and the Fire Adapted Communities program website at www.fireadapted.org.

The homeowner is the most important person in preventing a house from being destroyed by wildfire. It is the actions that a homeowner takes before a wildfire occurs that are critical.

Wildfire will threaten your house in three ways...



Photo courtesy of Nathan Waters

CONTACT BY FLAMES

This type of threat occurs when vegetation and other fuels burning near the house produce flames that come in contact with the home and ignite it. Often, it happens when fire burns through a uniform layer of vegetation right up to the house. Direct contact by flames is probably what most homeowners visualize when they think of a house burning during a wildfire.



Photo courtesy of Nathan Waters

RADIANT HEAT

Radiant heat melted the vinyl siding on this house. Flames never came in contact with it. Radiant heat is produced by invisible thermal energy that travels out in all directions from a flame. When a house receives enough radiant heat for sufficient time, it will ignite. Sometimes radiant heat can break windows and allow burning embers to enter the house.



Photo courtesy of Mike Dannerberg

FLYING EMBERS

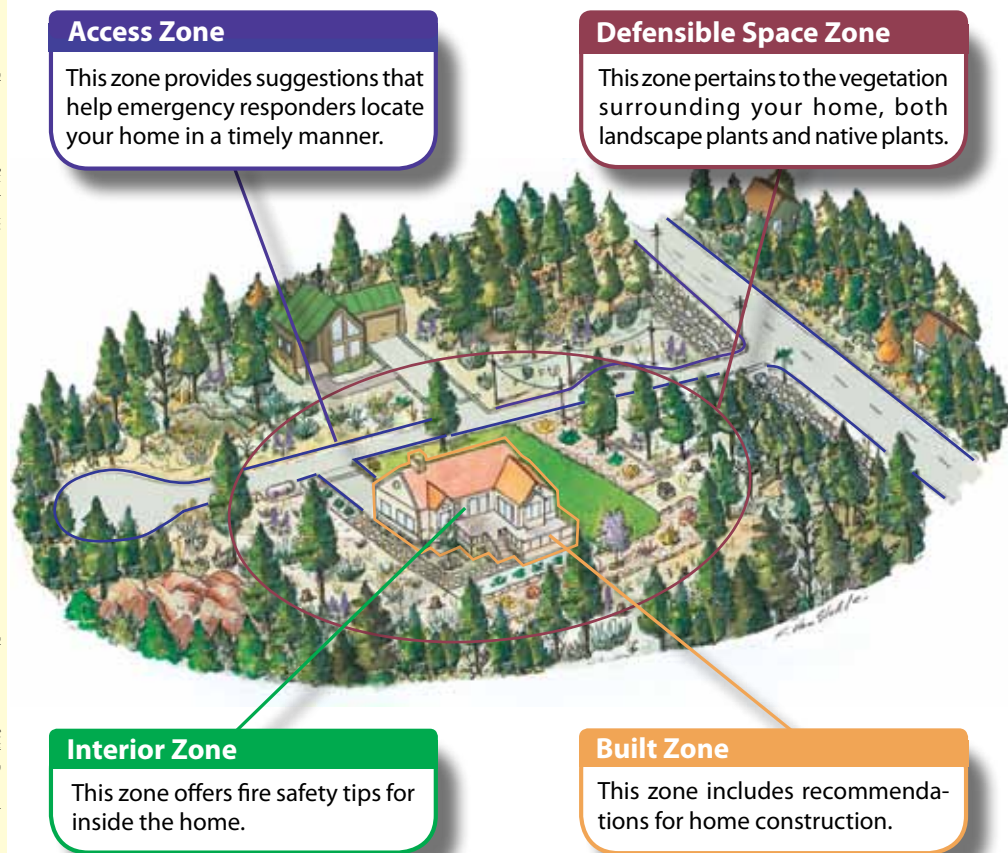
More houses burn due to flying embers than any other reason. If fire conditions are right, embers can be lofted high into the air and transported more than a mile. If these burning embers land on easily ignitable materials, this includes your home, a new fire can start.

HARDWOOD FOREST	PINE FOREST	GRASSLANDS
FLAME LENGTH 7 FEET 75 acres can burn with in one hour	FLAME LENGTH 12 FEET 340 acres can burn with in one hour	FLAME LENGTH 45 FEET 3000 acres can burn with in one hour
TRAVELS AT 1 MPH	TRAVELS AT 2 MPH	TRAVELS AT 5.5 MPH

Above are three types of vegetation common to Tennessee. These are computer generated estimates of how they would burn under certain conditions. These predictions assume a wind speed of 20 mph, flat terrain and typical moisture contents of living and dead vegetation in the spring. Importantly, frequent spotting can greatly increase spread rates shown.

What can homeowners do to reduce the wildfire threat?

Wildfire threat reduction recommendations can be presented according to four zones. Each one will be discussed in detail.



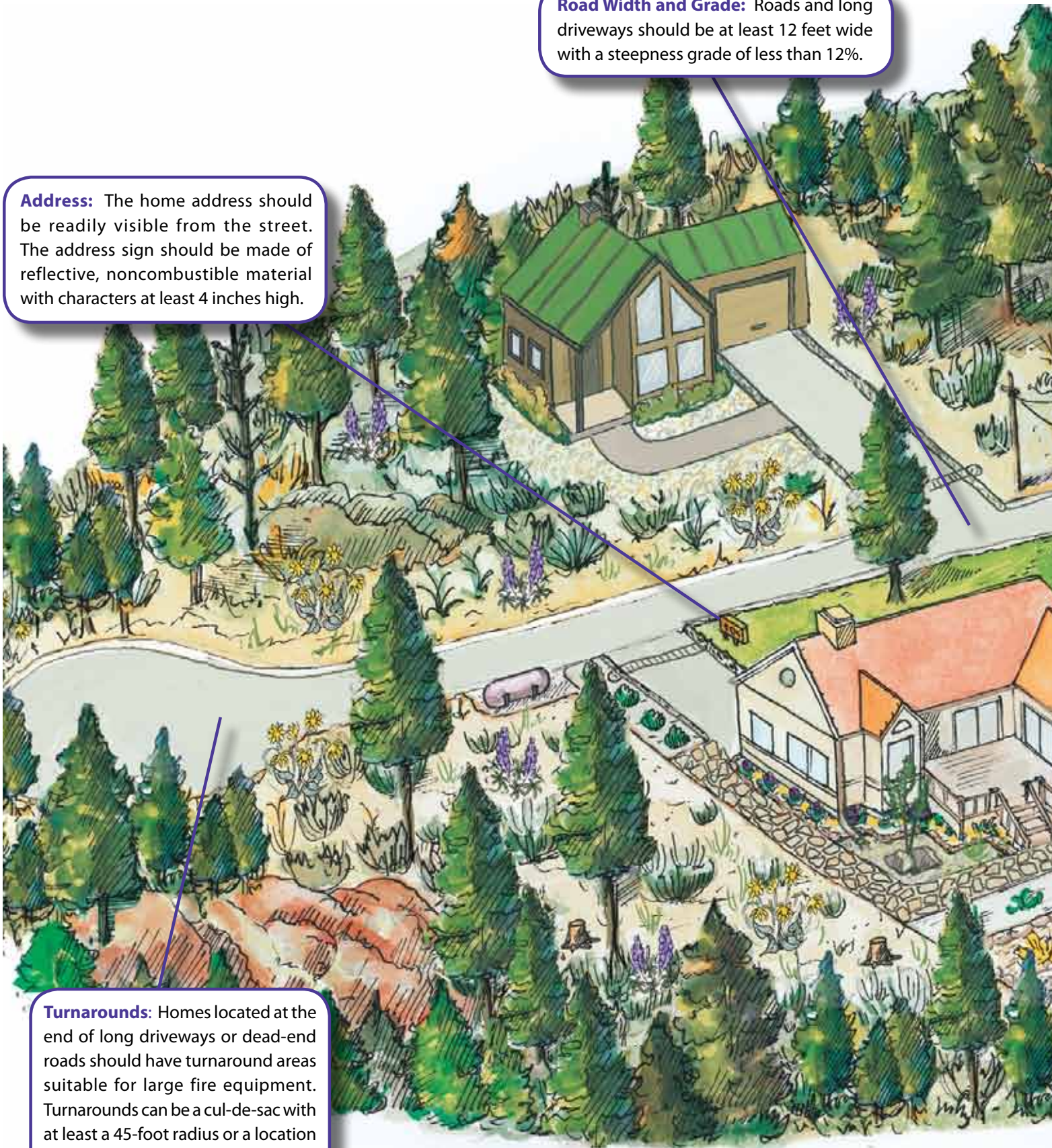
Contact your local fire department or Tennessee Division of Forestry for free Firewise literature. Information can also be obtained from www.BurnSafeTN.org and the Fire Adapted Communities program website at www.fireadapted.org.

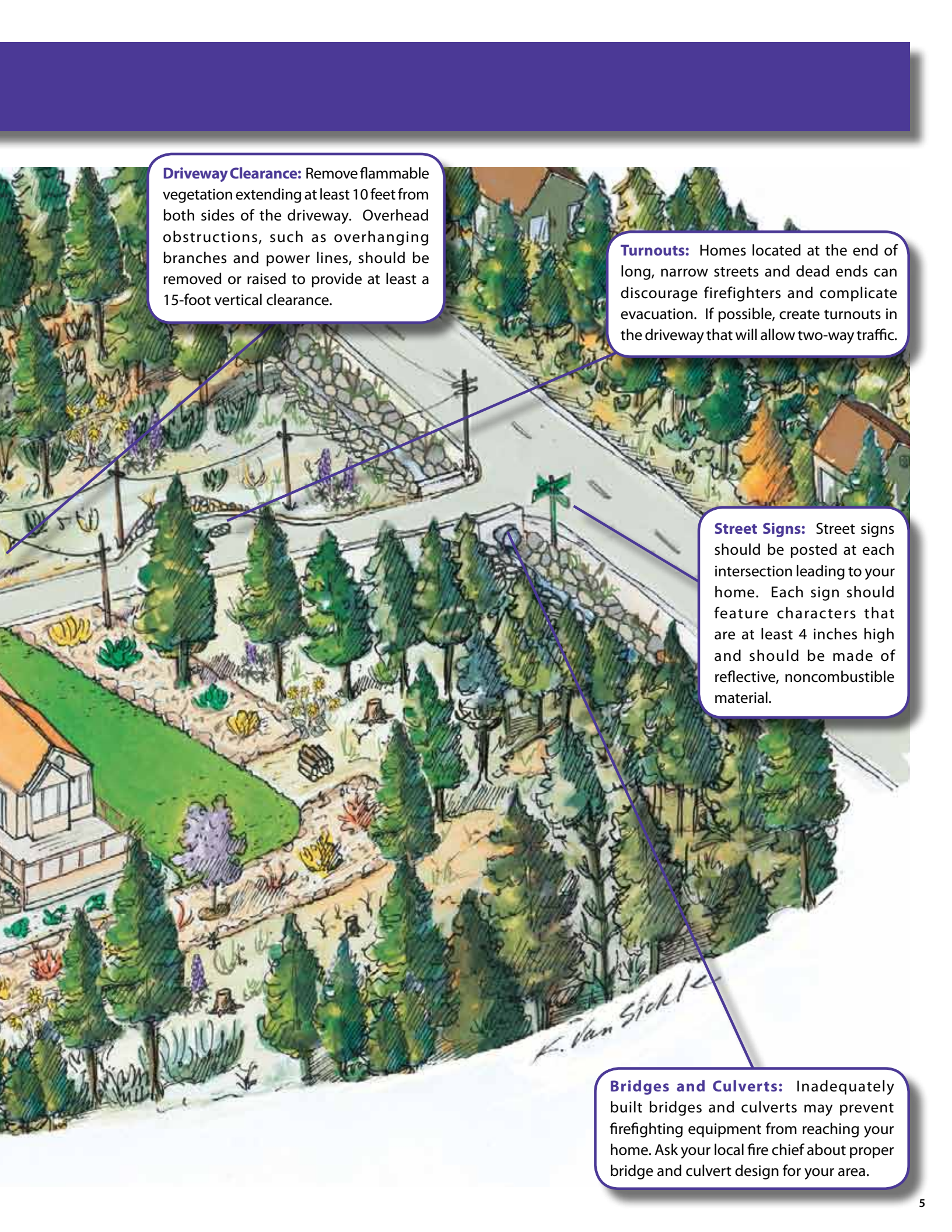
Access Zone

Road Width and Grade: Roads and long driveways should be at least 12 feet wide with a steepness grade of less than 12%.

Address: The home address should be readily visible from the street. The address sign should be made of reflective, noncombustible material with characters at least 4 inches high.

Turnarounds: Homes located at the end of long driveways or dead-end roads should have turnaround areas suitable for large fire equipment. Turnarounds can be a cul-de-sac with at least a 45-foot radius or a location suitable for a three-point turn.





Driveway Clearance: Remove flammable vegetation extending at least 10 feet from both sides of the driveway. Overhead obstructions, such as overhanging branches and power lines, should be removed or raised to provide at least a 15-foot vertical clearance.

Turnouts: Homes located at the end of long, narrow streets and dead ends can discourage firefighters and complicate evacuation. If possible, create turnouts in the driveway that will allow two-way traffic.

Street Signs: Street signs should be posted at each intersection leading to your home. Each sign should feature characters that are at least 4 inches high and should be made of reflective, noncombustible material.

Bridges and Culverts: Inadequately built bridges and culverts may prevent firefighting equipment from reaching your home. Ask your local fire chief about proper bridge and culvert design for your area.

Built Zone

Eaves: The eaves of a home act as a heat trap for hot air and gases, greatly increasing the chance of ignition. Covering the underside of the eave with a soffit, or "boxing in" the eave, allows the heat to escape.

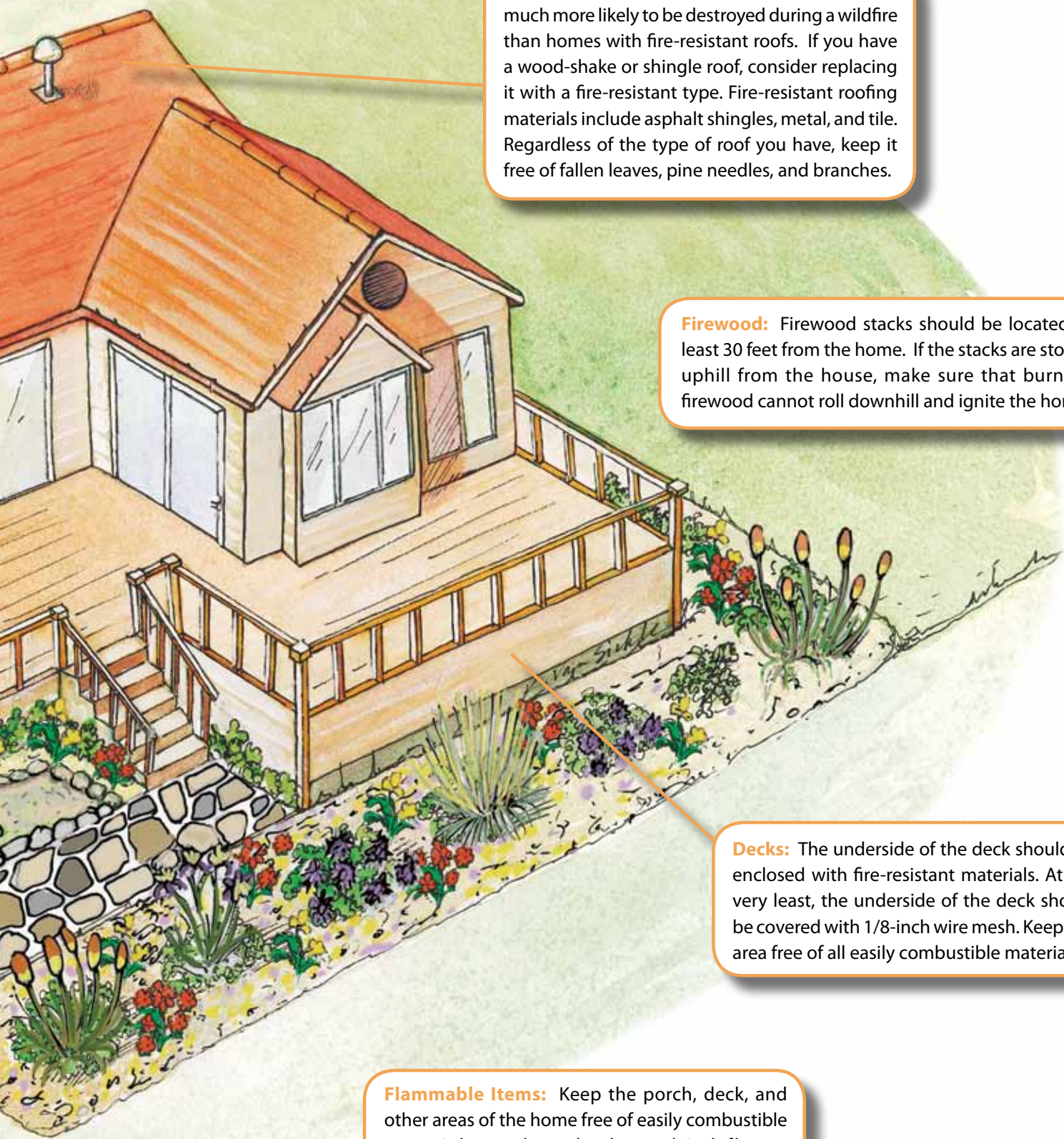
Exterior Siding: Vinyl is a common siding material. Wood products, such as boards, panels, and shingles, are also common. However, they are combustible and not good choices for fire-prone areas. Noncombustible siding materials, such as stucco, brick, and cement board, are better choices.

Windows: Windows are one of the weakest parts of a home and usually break before the structure ignites. This allows burning embers and heat to enter the home, which may lead to internal ignition. Single-paned and large windows are particularly vulnerable. In high fire hazard areas, install windows that are at least double-glazed or tempered glass. Windows with aluminum frames and sashes are better choices than those with wood or vinyl frames.

Vents: Vents on homes are potential entry points for flying embers. All vent openings need to be covered with 1/8-inch or smaller wire mesh. Do not use fiberglass or plastic mesh because they can melt or burn.

Chimneys: Chimney and stovepipe openings should be screened with 1/2-inch or smaller wire mesh or an approved spark arrestor cap.

Rain Gutters: Rain gutters trap flying embers. Always keep your rain gutters free of leaves, pine needles, and debris. Check and clean them several times during the spring and fall fire seasons.



Roof: Homes with wood-shake or shingle roofs are much more likely to be destroyed during a wildfire than homes with fire-resistant roofs. If you have a wood-shake or shingle roof, consider replacing it with a fire-resistant type. Fire-resistant roofing materials include asphalt shingles, metal, and tile. Regardless of the type of roof you have, keep it free of fallen leaves, pine needles, and branches.

Firewood: Firewood stacks should be located at least 30 feet from the home. If the stacks are stored uphill from the house, make sure that burning firewood cannot roll downhill and ignite the home.

Decks: The underside of the deck should be enclosed with fire-resistant materials. At the very least, the underside of the deck should be covered with 1/8-inch wire mesh. Keep this area free of all easily combustible materials.

Flammable Items: Keep the porch, deck, and other areas of the home free of easily combustible materials, such as baskets, dried flower arrangements, newspapers, pine needles, and debris.

Interior Zone

Smoke Detectors: Smoke detectors are inexpensive devices that save many lives. Current fire codes require a smoke detector in every bedroom and in common areas. Many older or retrofitted smoke detectors are not wired to the home's electrical circuits and operate by self-contained batteries. Replace the batteries at least once a year or when the unit is "chirping" to indicate low battery power.

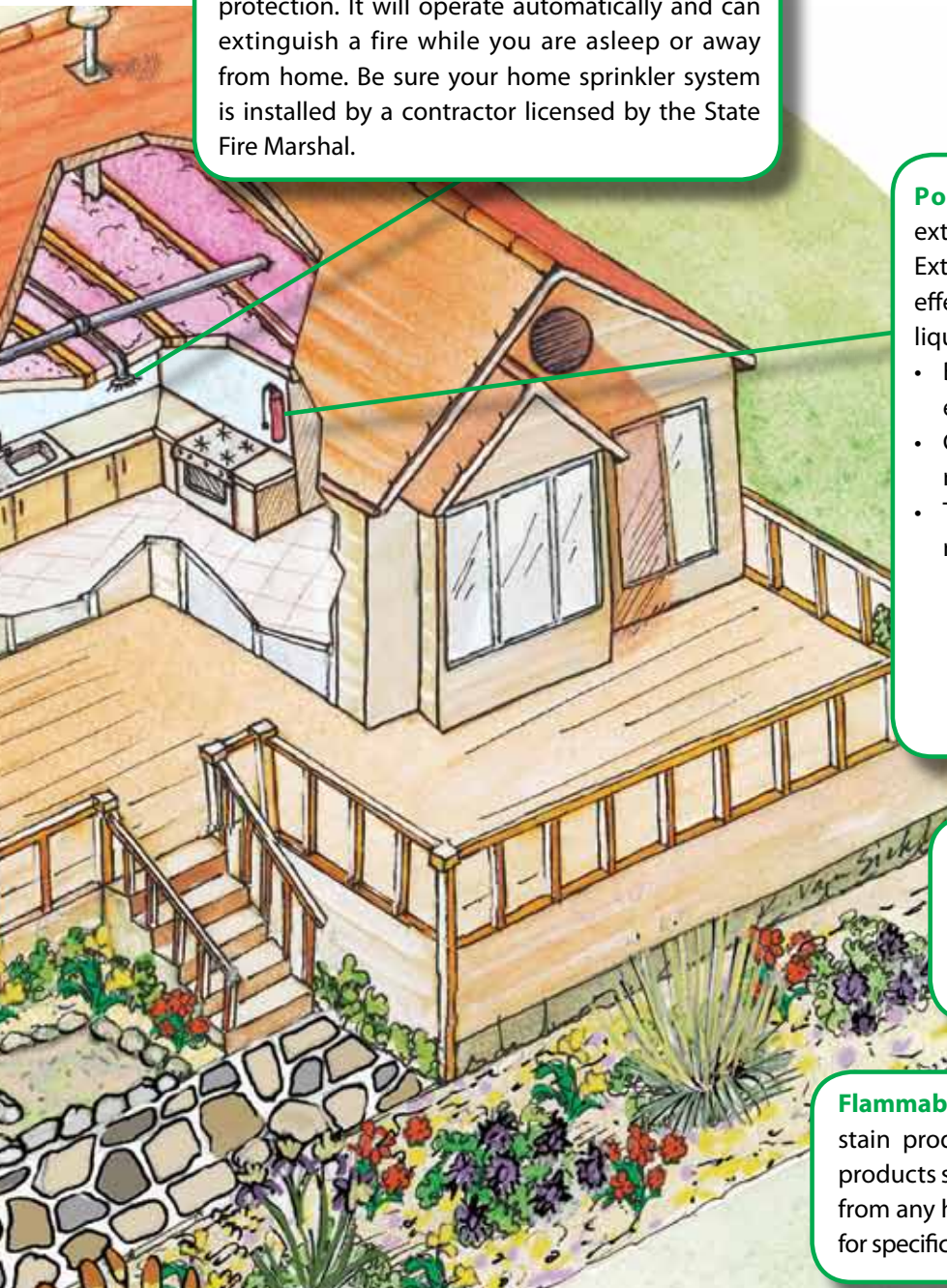
Carbon Monoxide Detectors: Carbon monoxide (CO) detectors are the only way to alert people to dangerous levels of carbon monoxide before tragedy strikes. Carbon monoxide is a byproduct of combustion from gas appliances or automobiles. Only use detectors that are officially approved and are clearly marked with the American Standard – UL2034 symbol.

Wood Stove and Fireplaces: Heat your home safely by following these tips concerning wood stoves and fireplaces.

- Install according to the manufacturers' directions.
- Never use a flammable liquid such as gasoline to start a fire.
- Carefully follow directions when using synthetic logs.
- Keep a glass or metal screen in front of the fireplace opening to prevent embers or sparks from escaping.
- Keep flammable materials off the mantle and at least 3 feet away.
- Do not use excessive amounts of paper to start your fire.
- Dispose of ashes in a metal container designated for ash disposal. Never dispose of ashes by tossing them in the woods or off of a deck.
- Avoid burning wood slowly for long periods of time, which contributes to soot and creosote buildup. Instead, allow the wood to burn rapidly for 10 to 15 minutes several times a week to help reduce creosote buildup. Use dry wood for more efficient burning.
- Screen chimney and stovepipe openings with 1/2-inch or smaller noncombustible mesh or an approved spark arrestor cap.
- Inspect and clean chimney at least once a year.

Candle Safety: Candles are a safe product, but can become hazardous when used improperly or in an unsafe manner.

- Always keep a burning candle within sight.
- Keep candles out of the reach of children and pets.
- Before burning, trim wicks to 1/4-inch.
- Always use a heat-resistant, sturdy candleholder that is large enough to contain any melted wax.
- Keep burning candles away from drafts, vents, air currents, and easily combustible materials.
- Always burn candles in a well-ventilated room.
- Extinguish the flame when 2 inches of wax remains, or when 1/2 inch remains if in a container.
- Use a candle snuffer to extinguish candles.



Sprinkler Systems: A sprinkler system installed inside the home can provide effective fire protection. It will operate automatically and can extinguish a fire while you are asleep or away from home. Be sure your home sprinkler system is installed by a contractor licensed by the State Fire Marshal.

Portable Fire Extinguishers: Portable fire extinguishers enable you to quickly respond to a fire. Extinguishers are rated by the type of fire they can effectively extinguish: "A" - wood or cloth fires, "B" - liquid fires, "C" - electrical fires, and "D" - metal fires.

- Be sure all family members know the extinguisher's location and its operation.
- Get the extinguisher serviced annually and recharged after each use.
- The term P-A-S-S will help you remember the right way to use the extinguisher:

Pull the safety pin

Aim the extinguisher

Squeeze the trigger

Sweep the extinguisher at the base of the fire

Plan Your Escape: Even with early warning from a smoke detector, escaping a house fire can be difficult. By planning and practicing exit drills, you can better prepare your family for a fire emergency. Contact your local fire department for advice.

Flammable Paint and Stain Products: Paint and stain products are hazardous materials. All such products should be stored in a cool, dry place, away from any heat source. Contact the local fire marshal for specific disposal requirements in your area.

Other Heating Systems: Kerosene and other fuel-fired heaters should be used properly. Follow manufacturers' instructions when using these devices.

- Be sure they are approved by an independent testing laboratory. Heaters should turn off if accidentally tipped over.
- Use only the fuels specified by the manufacturer for each particular heating appliance.
- Refuel heaters outdoors.
- Keep children away from heaters.
- Never burn charcoal indoors.

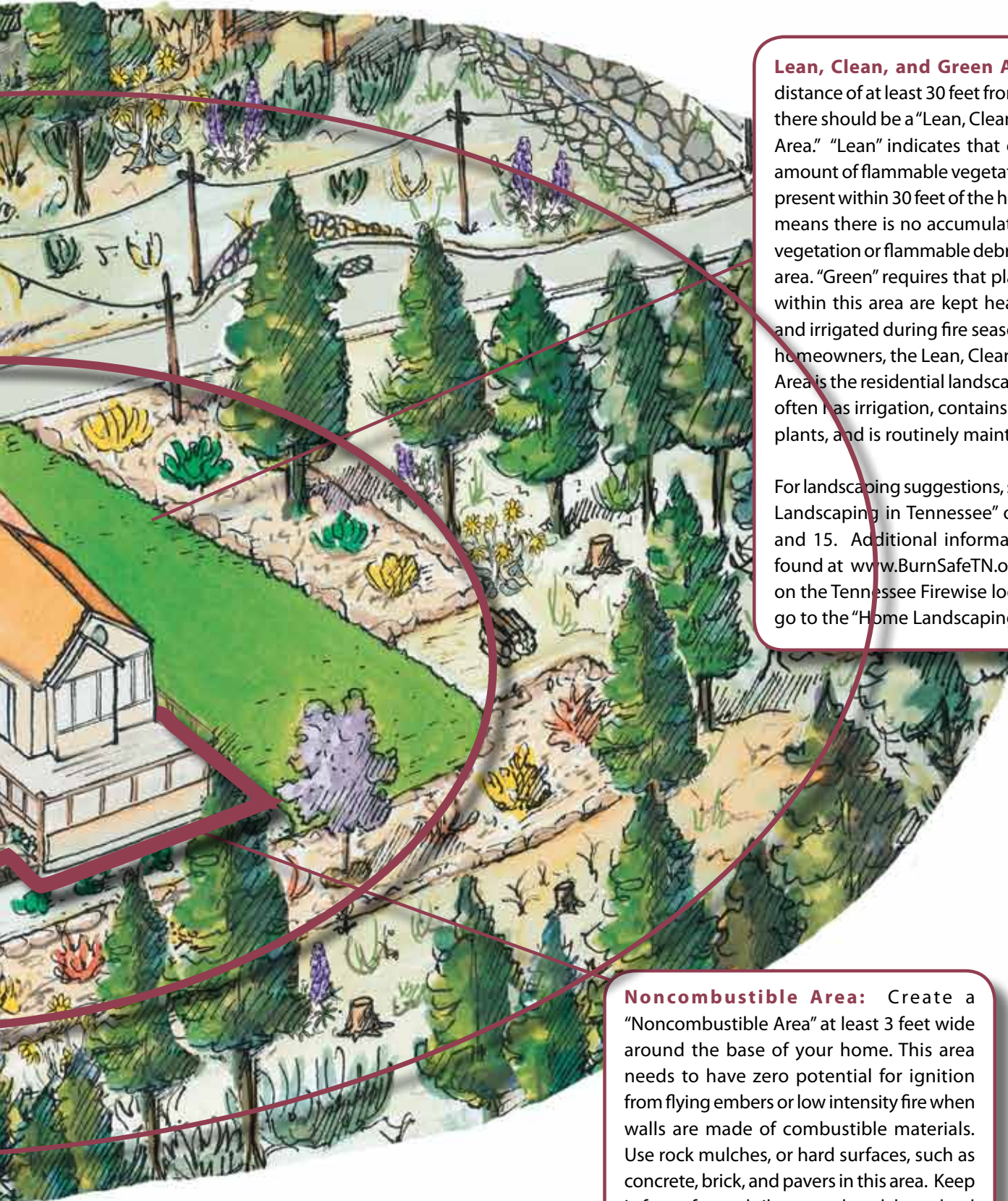
Defensible Space Zone

Wildland Fuel Reduction

Area: The Wildland Fuel Reduction Area usually lies beyond the residential landscape area and is where mountain laurel, rhododendron, and other wild plants grow. Within this area:

- Remove all dead vegetation (dead shrubs and trees, dried grass, fallen branches, pine needles, etc.).
- Thin out thick shrubs and trees to create a separation between them.
- Remove "ladder fuels" by removing low tree branches, and removing or pruning the shrubs under the trees.





Lean, Clean, and Green Area: For a distance of at least 30 feet from the home, there should be a "Lean, Clean, and Green Area." "Lean" indicates that only a small amount of flammable vegetation, if any, is present within 30 feet of the house. "Clean" means there is no accumulation of dead vegetation or flammable debris within the area. "Green" requires that plants located within this area are kept healthy, green, and irrigated during fire season. For most homeowners, the Lean, Clean, and Green Area is the residential landscape. This area often has irrigation, contains ornamental plants, and is routinely maintained.

For landscaping suggestions, see "Firewise Landscaping in Tennessee" on pages 14 and 15. Additional information can be found at www.BurnSafeTN.org, just click on the Tennessee Firewise logo and then go to the "Home Landscaping" section.

Noncombustible Area: Create a "Noncombustible Area" at least 3 feet wide around the base of your home. This area needs to have zero potential for ignition from flying embers or low intensity fire when walls are made of combustible materials. Use rock mulches, or hard surfaces, such as concrete, brick, and pavers in this area. Keep it free of woodpiles, wood mulches, dead plants, dried leaves and needles, flammable shrubs (such as juniper), and debris.

Six Steps to Creating an Effective Defensible Space

The term “defensible space” refers to the area between a house and an oncoming wildfire where the vegetation has been managed to reduce the wildfire threat and allow firefighters to safely defend the house. In the event that firefighters are not available, defensible space also improves the likelihood of a home surviving without assistance.

Unfortunately, when some homeowners hear the term “defensible space,” they envision a large expanse of bare ground surrounding their home. While this is certainly effective at increasing home survivability, it is unacceptable for esthetic reasons and can contribute to soil erosion. Removing all vegetation is also unnecessary to achieve a safe, Firewise condition..

Step One

Determine the size of an effective defensible space:

The size of the defensible space is usually expressed as a distance extending outward from the house in all directions. The recommended distance is not the same for every home. It varies depending on the dominant vegetation surrounding the home and steepness of slope. Use the Recommended Defensible Space Distance table to determine the right space for your home.

Once the recommended distance for defensible space is known, mark it by tying strips of cloth or flagging to shrubs. This becomes the “Defensible Space Zone.” Consult the Tennessee Division of Forestry “Hazard Brush Removal Guidelines” for more information.

If the Defensible Space Zone exceeds your property boundaries, seek permission from adjacent landowners before doing work on their property. It is important to note that the effectiveness of the Defensible Space Zone improves when entire neighborhoods implement defensible space practices.

DEFENSIBLE SPACE RECOMMENDED DISTANCES				
		STEEPNESS OF SLOPE		
VEGETATION TYPE	GRASSES <small>Wildland grasses, weeds, and widely scattered shrubs with grass understorey.</small>	30 feet	100 feet	100 feet
	FLAMMABLE SHRUBS <small>Shrubs: includes mostly small or tall shrubs and scattered trees, with grass or weed understorey.</small>	100 feet	150 feet	200 feet
	EVERGREEN TREES <small>Trees: includes forested areas consisting of mostly trees, with shrub or grass understorey.</small>	100 feet	150 feet	200 feet
<p>Determine the percent slope which best describes your property.</p> <p>Find the type of vegetation which best describes the wildland plants growing on or near your property. Locate the number in feet corresponding to your slope and vegetation. This is your recommended defensible space distance.</p> <p>PLEASE NOTE: The recommendations presented in this article are suggestions made by local firefighters experienced in protecting homes from wildfire. They are not requirements nor do they take precedence over local ordinances.</p>				

Step Two

Remove dead vegetation:

Within the recommended Defensible Space Zone, remove:

- dead and dying trees
- dead native and ornamental shrubs
- dead branches
- dead leaves, needles, and twigs that are still attached to plants, draped on live plants, or lying on the ground within 30 feet of the house
- dried grass, weeds, and flowers



Remove all dead trees, dead branches, and dried grass from within the Defensible Space Zone.

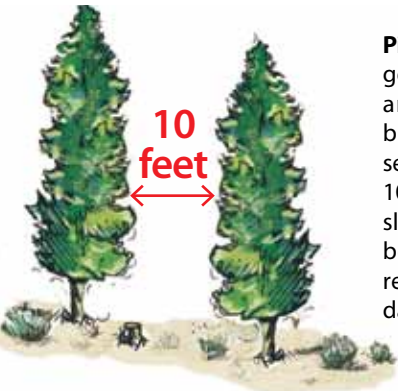
Step Three

Create a separation between trees and shrubs:

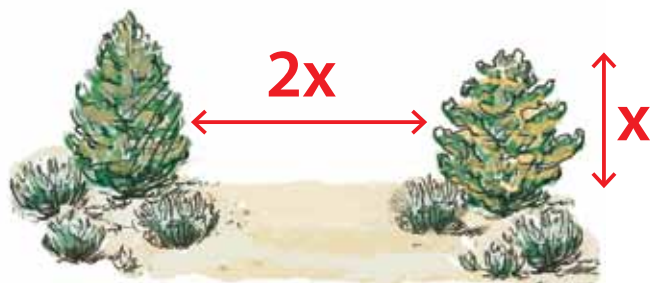
Within the Defensible Space Zone, native trees and shrubs, such as holly, mountain laurel, rhododendron, cedar and juniper should not occur in a dense stand. Dense stands of trees and shrubs pose a significant wildfire threat. Thin dense tree and shrub stands to create more space between them.



Dense trees and shrubs pose a high fire threat.



Pines and other Evergreens: On flat to gently sloping terrain, pines, hemlocks and other evergreen trees should be thinned to provide an average separation between canopies of at least 10 feet. For homes located on steeper slopes, the separation distance should be greater. When selecting trees for removal, consider cutting unhealthy, damaged, or weak trees.



Mountain Laurel, Rhododendron, Holly, Cedar and Juniper: On flat to gently sloping terrain, individual shrubs or small clumps of shrubs within the Defensible Space Zone should be separated from one another by at least twice the height of the average shrub. For homes located on steeper slopes, the separation distance should be greater. For example, if the typical shrub height is 2 feet, then there should be a separation between shrub branches of at least 4 feet. In most instances, removing mountain laurel, pines and rhododendron is the preferred approach. They are very flammable plants.

Step Four

Create a separation between tree branches and lower growing plants:

If trees are present within the Defensible Space Zone, there should be a separation between the lower growing vegetation and the lowest tree branches. Vegetation that can carry a fire burning in low growing plants to taller plants is called "ladder fuel."

The recommended separation for ladder fuels is three times the height of the lower vegetation layer. Prune the lower tree branches, shorten the height of shrubs, or remove lower plants. Do not, however, remove more than one-third of the total tree branches. When there is no understory vegetation present, remove lower tree branches to a height of at least 2 feet above ground.

During a fire, this will help prevent burning needles and twigs that are lying on the ground from igniting the tree.

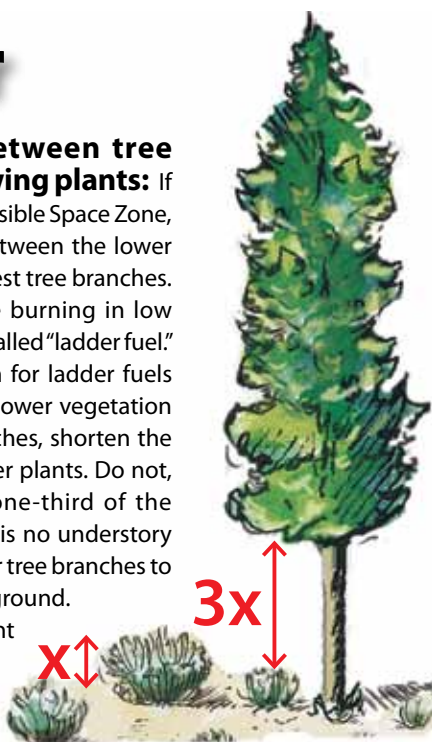


Photo courtesy of Leon Konz

Photo courtesy of Leon Konz

Area before and after fuel treatment. Removing this entire tree prevents a ground-level fire from reaching the deck or stairwells.

Step Five

Create a Lean, Clean, and Green Area extending at least 30 feet from the house:

There are two goals for the Lean, Clean, and Green Area. The first goal is to eliminate easily ignitable fuels, or "kindling," near the house. This will help prevent embers from starting a fire in your yard. The second goal is to keep fire intensity low if it does ignite near the house. By proper management of the fuels near the house, a fire would not be able to generate enough heat to ignite the home.

For most homeowners, the Lean, Clean, and Green Area is also the residential landscape. This area often has irrigation, is planted with ornamental vegetation, and is regularly maintained.

Lean, Clean, and Green Area Tips

- Remove most or all flammable wildland plants, including pine trees, holly trees, mountain laurel, kudzu, rhododendron, cedar (junipers) and hemlocks. If you wish to retain a few of these as specimen plants, make sure they are free of dead wood and leaves, pruned to reduce the amount of fuel, and separated from adjacent brush fields.
- Select less flammable plants for the home landscape. Refer to "Firewise Landscaping in Tennessee" on the following page for helpful suggestions. Some rules of thumb in selecting landscape plants for the Lean, Clean, and Green Area are...
 - Shorter plants, less than 2 feet tall, are better choices than taller plants.
 - When green, herbaceous plants, such as grass and non-woody flowers, are better choices than shrubs and trees.
 - Deciduous shrubs and trees are better choices than evergreen types. Avoid planting juniper, pine, arborvitae, rhododendron, and mountain laurel.
 - Visit www.BurnSafeTN.org for more information.
- Emphasize the use of hard surfaces and mulches such as concrete, asphalt, and brick. Mulches include rock and wood types. Wood mulches should not be used within 3 feet of the house.
- Clear all flammable vegetation from within 10 feet of the propane tank.
- Remove tree limbs that are within 10 feet of the chimney, touching the house or deck, within 6 feet of the roof, or encroaching on power lines.
- Create a noncombustible area at least 3 feet wide around the base of the house. Emphasize the use of rock mulches and hard surfaces.

Step Six

Maintain the Defensible Space Zone: Maintaining a defensible space is an ongoing activity. Plants grow back and flammable vegetation needs to be routinely removed and disposed of properly. Before each fire season, reevaluate your property using the previous five steps and implement the necessary defensible space recommendations. Go to www.BurnSafeTN.org for more information on plant flammability.



Firewise Landscaping IN TENNESSEE

Incorporate Firewise plants into your landscape:

- Select the “right plant for the right place” by choosing plants that are adapted to the specific conditions where they are to be planted. It is recommended planting native plants to Tennessee whenever possible. If you need more information, consult nursery personnel for guidance.
- Consider plant flammability. The plants shown below are provided to give a general overview of what kinds of plants are flammable. Plants are listed in alphabetical order within each category (trees, shrubs, ground cover) - not by their intensity of flammability.
- Remember, there are no “fireproof” plants. All plants and organic mulches burn under dry conditions. It is best to have a 3-5 foot distance around structures without anything that will burn- use decorative rocks, gravel, pavers, etc. Periodically remove dead or diseased material from plants. Pruning can increase a plant’s fire resistance.
- Planting the right plants and clearing away naturally growing vegetation is important. However, there are additional simple things that can be done to make your home more Firewise. For a wealth of information for homes and entire communities go to the Firewise section of the www.BurnSafeTN.org website.

MORE FLAMMABLE

GENERAL RULES FOR MORE FLAMMABLE PLANTS. Trees in this category should be at least 30 feet from the structure and widely spaced so there is more than 15 feet between the crowns. Shrubs should be no closer than 15 feet and widely spaced. Ground covers should be no closer than 5 feet-farther if siding is relatively flammable or ground cover is over 1 foot high.



Arborvitae

Leon Konz



Bald Cypress

Ted Lane Design Build



Eastern Redcedar

Leon Konz



Hemlock

Ted Lane Design Build



Hollies

Phillip Merritt



Leyland Cypress

Kurt Stüber



Pines

Will Cook



Pine Regeneration

Leon Konz



Azaleas

Leon Konz



Boxwood

Leon Konz



Mountain Laurel

Wikipedia



Rhododendron

Wikipedia



Yew

Ted Lane Design Build



Vines (Vertical)

Wikipedia



Dead Grass

Leon Konz

The plants shown in this publication were categorized using various publications related to plant flammability, coupled with the personal experience of Tennessee wildfire professionals. To estimate the flammability of plant species not shown here, see “Preparing a Firewise Plant List for WUI Residents” at www.interfacesouth.org/products/fact_sheets/Preparing_Firewise_Plant_List.pdf or <http://www.interfacesouth.org/products/decision-support-systems/flammability-key.html>

LESS FLAMMABLE

GENERAL RULES FOR LESS FLAMMABLE PLANTS. Keep mature, less-flammable trees for shade. Crowns can be touching. Shrubs should be no closer than 6 feet. Ground covers should be no closer than 5 feet-farther if siding is relatively flammable or ground cover is over 1 foot high.



Wikipedia

Crape Myrtle



Phillip Merritt

Flowering Dogwood



Phillip Merritt

Fringetree



Ted Lare Design Build

Ginkgo



Phillip Merritt

Hickory



Wikipedia

Magnolia



Wikipedia

Maples



Wikipedia

Oaks



Phillip Merritt

Red Bud



Wikipedia

Tulip Poplar



Ted Lare Design Build

Serviceberry



Wikipedia

Smoketree



Phillip Merritt

Beautyberry



Ted Lare Design Build

Butterfly Bush



Wikipedia

Firethorn



Leon Konz

Forsythia



Phillip Merritt

Native Honeysuckle



Ted Lare Design Build

Hydrangea



Jan Newton

Strawberry Bush



Ted Bochner

Sumac



Phillip Merritt

Summersweet



Phillip Merritt

Sweetspire



Phillip Merritt

Viburnum



Opola Jerzy

Weigela



Phillip Merritt

Winterberry



Wikipedia

Witchhazel



Wikipedia

Liriope



Wikipedia

Monkeygrass



Ted Lare Design Build

Pachysandra



Wikipedia

Periwinkle

ACKNOWLEDGEMENTS

The photographs in this publication were gathered from various sources. All copyrighted photographs in the publication were used with the permission of the photographers.

The Tennessee Division of Forestry appreciates the significant contributions of Professor Wayne Clatterbuck and Urban Horticulture Specialist Beth Babbit of the University of Tennessee with identifying plants to include in this guide. In addition, Annie Hermansen-Baez of the USDA Forest Service's InterfaceSouth provided assistance in locating photographs and provided the basic template of the Guide.

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TDF HOME ASSESSMENT FORM

Date of Assessment: _____ Property Address: _____

Resident Name: _____ Property Owner: _____

ASSESSMENT ITEMS	COMMENTS / MITIGATION RECOMMENDATIONS
1. OVERVIEW OF SURROUNDINGS:	
<p>How is the structure positioned in relationship to severe fire behavior? Consider fuel type: grass, shrub, forest. Type of site: flat, mid-slope, ridge, saddle, etc. Is the building set back 30' from property line and at least 30' from steep slope, if on ridge top? If slope is more than 15% may need special precautions. Are there any special local weather conditions? Are other structures at least 30' away? Do neighboring properties pose problems?</p>	
2. CHIMNEY TO EAVES:	
<p>Chimney: Spark arrestors should be present and made of welded or woven wire and have less than 1/2 inch opening. Is vegetation within 10'?</p>	
<p>Inspect the roof: Noncombustible? Shingles missing? Are shingles flat with no gaps? What is roof made of - asphalt or wooden shingles, tin, clay tiles, etc? Is roof free of litter such as leaves and pine needles?</p>	
<p>Gutters: Present? Noncombustible? Covered? Are gutters free of leaves, needles, etc.?</p>	
3. EAVES TO FOUNDATION:	
<p>Eaves: No vegetation should be in contact with them. They should be boxed or enclosed to reduce surface area. No accumulation of leaves, pine needles, etc?</p>	
<p>Inspect windows and screens: Metal screens? Multi-paned windows? Picture windows facing vegetation? Glass should be tempered. Potential for collection of firebrands? Window trim material should be nonflammable.</p>	
<p>Walls and attachments: Noncombustible? Will they collect litter? Concrete, brick, block, stucco are good. Vinyl melts. Logs are pretty good unless heat source (shrubs, flammable chairs, etc.) nearby or embers can accumulate.</p>	

Decks: (combustible materials?) All open and lattice areas should have 1/8 inch metal screening. Should be free of leaves and other flammables.	
Fences: Flammable fences should not be directly attached to garage or house.	
Flammable materials: Are leaves, pine needles, chairs, cushions, etc. next to or under the structure?	
Combustible materials: Are there some near or on the structure where walls meet roof or decking surfaces.	
Crawl space, attic vents, soffits: Vents for attic, subfloor, soffits should be screened with corrosion-resistant wire mesh not exceeding 1/8 inch.	
Nooks and crannies and other small spaces: Do all appear to be in excellent condition and protected with screens, vents, etc.?	
4. FOUNDATION TO IMMEDIATE LANDSCAPED AREA (usually about 30' from house)	
Landscaped (managed) vegetation: Consider separation distances, maintenance, plant selection. Consider Firewise landscaping zones. Minimum of 5' area next to house should be gravel, rock, dirt, etc. (NO MULCH). Are flammable plants spaced satisfactorily?	
Propane Tanks: Are they 30' from house and 10'-15' clearance around them?	
Vehicles, RVs, lawn mowers, wood piles: Consider how vehicles, RVs, and lawn mowers are stored. Wood piles should be at least 30' from house.	
5. IMMEDIATE LANDSCAPED AREA EXTENT OF THE HOME IGNITION ZONE (from about 30' - 200' from house)	
Inspect vegetation clearance and crown separation: Are there grasses, forests, brush, that could lead fire to house? Are the plants thick and flammable? Are ladder fuels present? Pine trees, laurel, rhododendron are particularly flammable. If in a dense pine or hemlock forest, should have at least 20' between tree tops.	



Create Your Own Wildfire Action Plan

As you implement the Firewise standards outside your home, it is also important to prepare your family. Your **Wildfire Action Plan** must be prepared with all members of your household well in advance of a fire.

Use these checklists to help you prepare your Wildfire Action Plan. Each family's plan will be different, depending on their situation.

Once you finish your plan, rehearse it regularly with your family and keep it in a safe and accessible place for quick implementation.

For more information go to www.WildlandFireRSG.org.



GET READY PREPARE YOUR FAMILY

- ☐ Ensure that Firewise practices are in place
- ☐ Create a **Family Disaster Plan** that includes meeting locations and communication plans and rehearse it regularly. Include in your plan the evacuation of large animals such as horses.
- ☐ Have fire extinguishers on hand and train your family how to use them.
- ☐ Ensure that your family knows where your gas, electric and water main shut-off controls are and how to use them.
- ☐ Plan several different evacuation routes.
- ☐ Designate an emergency meeting location outside the fire hazard area.
- ☐ Assemble an emergency supply kit as recommended by the American Red Cross.
- ☐ Appoint an out-of-area friend or relative as a point of contact so you can communicate with family members who have relocated.
- ☐ Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.
- ☐ Keep an extra emergency supply kit in your car in case you can't get to your home because of fire.
- ☐ Have a portable radio or scanner so you can stay updated on the fire.
- ☐ Evacuate as soon as you are set!
- ☐ Alert family and neighbors.
- ☐ Dress in appropriate clothing (i.e., clothing made from natural fibers, such as cotton, and work boots). Have goggles and a dry bandana or particle mask handy.
- ☐ Ensure that you have your emergency supply kit on hand that includes all necessary items, such as a battery powered radio, spare batteries, emergency contact numbers, and ample drinking water.
- ☐ Stay tuned to your TV or local radio stations for updates, or check the fire department Web site.
- ☐ Remain close to your house, drink plenty of water and keep an eye on your family and pets until you are ready to leave.

INSIDE CHECKLIST

- ☐ Shut all windows and doors, leaving them unlocked.
- ☐ Remove flammable window shades and curtains and close metal shutters.
- ☐ Remove lightweight curtains.
- ☐ Move flammable furniture to the center of the room, away from windows and doors.
- ☐ Shut off gas at the meter. Turn off pilot lights.
- ☐ Leave your lights on so firefighters can see your house under smoky conditions.
- ☐ Shut off the air conditioning.

GET SET AS THE FIRE APPROACHES



Photographer Unknown

OUTSIDE CHECKLIST

- ☐ Gather up flammable items from the exterior of the house and bring them inside (e.g., patio furniture, children's toys, door mats, etc.) or place them in your pool.
- ☐ Turn off propane tanks.
- ☐ Don't leave sprinklers on or water running - they can waste critical water pressure.
- ☐ Leave exterior lights on.
- ☐ Back your car into the driveway. Shut doors and roll up windows.
- ☐ Have a ladder available.
- ☐ Patrol your property and extinguish all small fires until you leave.
- ☐ Seal attic and ground vents with pre-cut plywood or commercial seals if time permits.

IF YOU ARE TRAPPED: SURVIVAL TIPS

- ☐ Shelter away from outside walls.
- ☐ Bring garden hoses inside house so embers don't destroy them.
- ☐ Patrol inside your home for spot fires and extinguish them.
- ☐ Wear long sleeves and long pants made of natural fibers such as cotton.
- ☐ Stay hydrated.
- ☐ Ensure you can exit the home if it catches fire (remember if it's hot inside the house, it is four to five times hotter outside).
- ☐ Fill sinks and tubs for an emergency water supply.
- ☐ Place wet towels under doors to keep smoke and embers out.
- ☐ After the fire has passed, check your roof and extinguish any fires, sparks or embers.
- ☐ Check inside the attic for hidden embers.
- ☐ Patrol your property and extinguish small fires.
- ☐ If there are fires that you can not extinguish with a small amount of water or in a short period of time, call 911.

GO EARLY!

By leaving early, you give your family the best chance of surviving a wildfire. You also help firefighters by keeping roads clear of congestion, enabling them to move more freely and do their job.

WHEN TO LEAVE Leave early enough to avoid being caught in fire, smoke or road congestion. Don't wait to be told by authorities to leave. In an intense wildfire, they may not have time to knock on every door. If you are advised to leave, don't hesitate!

WHERE TO GO Leave to a predetermined location (it should be a low-risk area, such as a well-prepared neighbor or relative's house, a Red Cross shelter or evacuation center, motel, etc.)

HOW TO GET THERE Have several travel routes in case one route is blocked by the fire or by emergency vehicles and equipment. Choose an escape route away from the fire.

WHAT TO TAKE Take your emergency supply kit containing your family and pet's necessary items.

EMERGENCY SUPPLIES CHECKLIST

- ☐ Three-day supply of water (one gallon per person per day).
 - ☐ Non-perishable food for all family members and pets (three-day supply).
 - ☐ First aid kit.
 - ☐ Flashlight, battery-powered radio, and extra batteries.
 - ☐ Extra set of car keys, credit cards, cash/traveler's checks.
 - ☐ Sanitation supplies.
 - ☐ Extra eyeglasses or contact lenses.
 - ☐ Important family documents and contact numbers.
 - ☐ Map marked with evacuation routes.
 - ☐ Prescriptions or special medications.
 - ☐ Family photos and other irreplaceable items.
 - ☐ Easily carried valuables.
 - ☐ Personal computers (info on hard drives and disks).
 - ☐ Chargers for cell phones, laptops, etc.
- Note: Keep a pair of old shoes and a flashlight handy in case of a sudden evacuation at night.



Photo courtesy of Nathan Waters

Write up your Wildfire Action Plan and post it in a location where every member of your family can see it. Rehearse it with your family.

My Personal Wildfire Action Plan

During High Fire Danger days in your area, monitor your local media for information on brush fires and be ready to implement your plan. Hot, dry and windy conditions create the perfect environment for a wildfire.

Important Phone Numbers:

Out-of-State Contact: _____ Phone: _____

Work: _____

School: _____

Other: _____

Evacuation Routes: _____

Where to go: _____

Location of Emergency Supply Kit: _____

Notes: _____



Photo courtesy of Curt Habalack, The Mountain Press



Photo courtesy of National Park Service



Photo courtesy of National Park Service

Make your house safe for firefighters to defend.

For information about Ready, Set, Go! or the Firewise program, contact Kevin Nunn, Wildland Fire Coordinator for the City of Pigeon Forge Fire Department, (865) 963-2488 or knunn@cityofpigeonforge.com or Leon Konz, Tennessee Division of Forestry's Prevention and Firewise Coordinator, (865) 414-5667 or leonkonz@gmail.com.

Acknowledgements

This publication was adapted from "Living With Fire: A Guide for the Homeowner", written by Ed Smith, University of Nevada Cooperative Extension, with assistance from Sonya Sistare, Living With Fire program assistant. The editing and redesign work to include the Ready, Set, Go! and Firewise programs were completed by Kevin Nunn, Wildland Fire Coordinator for the City of Pigeon Forge Fire Department and Leon Konz, Tennessee Division of Forestry's Prevention and Firewise Coordinator. The printing was made possible by funding from the USDA Forest Service, Tennessee Division of Forestry, and the Appalachian RC&D Council.

IAFC's Community Wildfire Readiness initiatives and associated programs are funded in cooperation with the USDA Forest Service.

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This guide, Ready, Set, Go!, and Firewise are supported by...



The City of Pigeon Forge Fire Department is a municipal fire department responsible for 22 square miles of wildland-urban interface within Sevier County in East Tennessee. Visit www.cityofpigeonforge.com for more information about Ready, Set, Go! and other firefighting resources.



Ready, Set, Go! is a program sponsored by the International Association of Fire Chiefs (IAFC). This program's goal is to prepare homeowners for the event of wildfire through education and the development of a personal wildfire action plan. For more information visit www.WildlandFireRSG.org.



Tennessee Division of Forestry protects the state's forest resource through fire readiness, wildfire suppression, training volunteer firefighters, and combating arson. During a crisis, Division employees work closely with volunteer firefighters and rescue squads.



Firewise is a project of the National Fire Protection Association (NFPA) that encourages local solutions to wildfire safety problems by involving homeowners, community leaders, developers and firefighters. In Tennessee, Firewise is coordinated by the Tennessee Division of Forestry. Visit www.BurnSafeTN.org for more information.



International Association of Fire Chiefs (IAFC) represents the leadership of over 1.2 million firefighters and emergency responders. IAFC members are the world's leading experts in firefighting, emergency medical services, terrorism response, hazardous materials spills, natural disasters, search and rescue, and public safety legislation. Visit www.iafc.org for more information.



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