

## **FIRE PROTECTION REQUIREMENTS**

### **User notes:**

**About this chapter:** Chapter 6 establishes minimum fire protection requirements to mitigate the hazards to life and property from fire in the wildland-urban interface. The chapter includes both design-oriented and prescriptive mitigation strategies to reduce the hazards of fire originating within a structure spreading to wildland and fire originating in wildland spreading to structures.

*Especially targeted for a systems-approach to fire protection are those new buildings that are deemed to be particularly hazardous under Chapter 5; these buildings are required to be sprinklered. Other hazard mitigation strategies include establishing around structures defensible space zones wherein combustible vegetation and trees are regulated and kept away from buildings and trees are located 10 feet crown-to-crown away from each other. Additional hazards that are dealt with in*

*Chapter 6 include spark arrestors on chimneys and regulated storage of combustible materials, firewood and LP-gas.*

### **SECTION 601—GENERAL**

**601.1 Scope.** The provisions of this chapter establish general requirements for new and existing buildings, structures and premises located within *wildland-urban interface areas*.

**601.2 Objective.** The objective of this chapter is to establish minimum requirements to mitigate the risk to life and property from wildland fire exposures, exposures from adjacent structures and to prevent structure fires spreading to wildland fuels.

### **SECTION 602—AUTOMATIC SPRINKLER SYSTEMS**

**602.1 General.** Refer to ARS 9-807 for Flagstaff sprinkler requirements.

### **SECTION 603—DEFENSIBLE SPACE**

**603.1 Objective.** Provisions of this section are intended to modify the fuel load in areas adjacent to structures to create a *defensible space*.

**603.2 Fuel modification.** Buildings or structures, shall comply with the 0-5 foot non-combustible info below, and with the City of Flagstaff Forest Management Plan, Landscaping Code, and Resource Protection Standards.

The first five feet surrounding the home and its attachments (e.g., decks, patios, overhead structures, stairs) is the **most critical area of defensible space**. This zone shall be established and maintained as noncombustible. The 0-5 Foot Noncombustible Zone is measured horizontally from the edge of the home's exterior walls and, if present, the outermost posts of a deck or overhead structure, extending outward to 5 feet. This noncombustible area also extends vertically to the sky. The 0-5 Foot Noncombustible Zone shall meet all the following requirements:

**The 0-5 Foot Noncombustible Zone shall meet all the following requirements:**

• **Vegetation –**

o Shall remove all vegetation (e.g., grass, artificial turf, weeds, flowers, succulents, cacti, plants, shrubs, bushes, and vegetative debris) within 5 feet to bare mineral soil.

o Shall remove all trees, limbs, branches, and vines that are within and that overhang the 0-5 Foot Noncombustible Zone.

• **Groundcover –**

o Shall remove all combustible groundcover materials (e.g., wood and rubber mulch and exposed weed cloth) within 5 feet to bare mineral soil.

• **Note:** Noncombustible hardscape materials (e.g., gravel, pavers, river rocks, decomposed granite, steppingstones, and concrete) are permitted.

• **Fencing and Retaining Walls –**

o Shall remove combustible fencing materials (e.g., wood and vinyl), posts, gates, and retaining walls within 5 feet or replace with noncombustible material.

**Refer to City of Flagstaff Forest Management Plan and Zoning Code for Tree and Shrub Spacing outside of the 0-5 foot zone.**

**603.2.1 Responsible party.** Persons owning, leasing, controlling, operating or maintaining buildings or structures requiring *defensible spaces* are responsible for modifying or removing nonfire-resistive vegetation on the property owned, leased or controlled by said person.

**603.2.2 Trees.** Tree stems and canopies are allowed outside of the 0-5 foot zone, provided that they meet City of Flagstaff Forest Management Plan and Zoning Code.

**Other Considerations**

o Tree limbs may not extend into the vertical plane of a chimney outlet

- Tree limbs shall not touch roof coverings at any time
- Hazard trees, as determined by the Code Official, shall be removed. When determining hazard trees, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property. Trees that are in such a position fall and endangering life or property are determined to be hazard trees.

**603.2.3 Ground cover.** Deadwood and litter shall be regularly removed from trees. Needles and/or duff layer shall not exceed 3 inches in depth.

## **SECTION 605—SPARK ARRESTORS**

**605.1 General.** Chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances in which solid or liquid fuel is used shall be provided with a spark arrestor. Spark arrestors shall be constructed of woven or welded wire screening of 12 USA standard gage wire (0.1046 inch) (2.66 mm) having openings not exceeding 1/2 inch (12.7 mm).

**605.2 Net free area.** The net free area of the spark arrestor shall be not less than four times the net free area of the outlet of the chimney.

## **SECTION 606—LIQUEFIED PETROLEUM GAS INSTALLATIONS**

**606.1 General.** The storage of liquefied petroleum gas (LP-gas) and the installation and maintenance of pertinent equipment shall be in accordance with the *International Fire Code* or, in the absence thereof, recognized standards.

**606.2 Location of containers or tanks.** LP-gas containers or tanks shall be located within the *defensible space* in accordance with the *International Fire Code*.

## **SECTION 607—STORAGE OF FIREWOOD AND COMBUSTIBLE MATERIALS**

**607.1 General.** Firewood and combustible material shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. Where required by the *code official*, storage of firewood and combustible material stored in the *defensible space* shall be located not less than 20 feet (6096 mm) from structures and separated from the crown of trees by a horizontal distance of not less than 15 feet (4572 mm).

**607.2 Storage for off-site use.** Firewood and combustible materials not for consumption on the premises shall be stored so as to not pose a hazard. See Appendix A.