



## STANDARD 515

# DEFENSIBLE SPACE AND FUEL MODIFICATION ZONES

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For questions regarding this standard, please contact the VCFD Fire Hazard Reduction Program Unit at 805-389-9759 or [FHRP@ventura.org](mailto:FHRP@ventura.org)

### CHAPTER 1 – ADMINISTRATION

**1.1 Purpose.** Defensible space and fuel modification zone provisions are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures, fire exposures from adjacent structures and to mitigate fires from spreading to wildland fuels that may threaten to destroy life, overwhelm fire suppression capabilities, or result in large property loss. Proper installation, spacing and maintenance of plants and landscape is one of the key elements in the survivability of a structure during a wildfire. For information regarding Prohibited Plants, VCFD Plant Reference Guide and the Fire Hazard Reduction Program (FHRP), please visit [VCFHRP.org](http://VCFHRP.org)

**1.2 Scope.** This standard provides the general requirements for the installation, maintenance and spacing for plants, trees and other vegetation within a defensible space and fuel modification zone (FMZ) required by VCFPD Ordinance and State Law.

**1.3 Applicability.** Defensible Space and Fuel Modification Zones located within a State Responsibility Area (SRA), Local Responsibility Area Very High Fire Severity Zone LRA VHFSZ), Hazardous Fire Area (HFA), or any property, as determined by the fire department. Maps of SRA and LRA VHFSZ can be viewed at: [http://www.fire.ca.gov/fire\\_prevention/fhsz\\_maps\\_ventura](http://www.fire.ca.gov/fire_prevention/fhsz_maps_ventura)

**1.4 Responsibility.** Any Person owning, leasing, controlling, operating or maintaining any building in, upon, or adjoining any Hazardous Fire Area, and any Person owning, leasing or controlling any land adjacent to such buildings, shall provide around and adjacent to such building an effective defensible space on their property for a distance not less than 100 feet from all portions of the building. Distances may be increased by the Fire Department because of a site-specific analysis

based on local conditions and when required based on a Fire Protection Plan. Reference: Public Resource Code (PRC) 4291, Government Code (GC) 51182, and current VCFPD Ordinance.

**1.4.1 Clearance Area.** Property owners are required to maintain only the portion of the defensible space that falls upon their property.

**1.4.2 Required Clearance.** Clear cutting of brush, plants and trees is not required. All plants, trees, landscape and vegetation located within the Defensible Space or Fuel Modification Zone (FMZ) shall comply with this standard. Ornamental landscape is not exempt from these requirements.

## CHAPTER 2 – DEFINITIONS

**Combustible Material.** Includes seasonal and recurrent weeds, stubble, brush, dry leaves, mulch, tumbleweeds, rubbish, recyclable material, litter or flammable materials of any kind.

**Defensible Space.** An area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

**Fire Hazard Severity Zones (FHSZ).** Are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas (SRA) or as Local Responsibility Agency Very High Fire Hazard Severity Zones (LRA VHFHSZ) designated pursuant to California Government Code, Sections 51175 through 51189.

**Fuel Modification.** A method of modifying fuel load by reducing the amount of flammable vegetation or altering the type of vegetation to reduce the fuel load.

**Fuel Mosaic.** A Fuel Modification system that provides for the creation of islands and irregular boundaries to reduce the visual and ecological impact of Fuel Modification.

**Hazardous Fire Area (HFA).** Is land which is covered with grass, grain, brush, or forest, whether privately or publicly owned, which is so situated or is of such inaccessible location that a fire originating upon such land would present an abnormally difficult job of suppression or would result in great and unusual damage through fire or resulting erosion and includes any location within 500 feet of a forest or brush, grass, or grain covered land, exclusive of small individual lots or Parcels of land located outside of a brush, forest grass, or grain covered area. Such areas are designated by the Fire Code Official. The Fire Code Official is authorized to utilize, as references, the definition of Wildland-Urban Interface Area, State SRA maps, LRA Fire Hazard Severity Zone Maps designated pursuant to California Government Code, Sections 51175 through 51189 and the International Wildland-Urban Interface Code.

**Ornamental Landscape.** All grasses, plants, trees and other vegetation installed by a property owner. This is usually for aesthetic purposes or privacy screening.

**Wildland-Urban Interface (WUI) Area.** That geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels

**VCFD Defensible Space/ FMZ zones defined:**

**Zone A:** This is a limited planting area within 30 feet of structures and slopes not greater than 20%, 50 feet when slopes are greater than 20%.

**Zone B:** This is the area from outer edge of Zone A to 100 feet from structures.

**Zone C:** This is considered a thinning zone and is any FMZ greater than 100 feet from structures.

**CHAPTER 3 – REQUIREMENTS BY ZONE**

**3.1 Zone A.**

**3.1.1 0-5 Feet from structure.** Very low growing (3” high), high water content ground cover and few small shrubs (2 foot high). No landscape mulch or wood chips. Use clear soil, rocks, gravel or concrete. No Trees. This is a recommended no planting zone.

**3.1.2 5-30/50 feet from structure.** Minimal plantings including ground cover and shrubs. Limited trees of a very fire resistive type and additional spacing. Trees should be spaced to allow min 10’ clearance to structure at full maturity. Also see **VCFD FMZ Spacing Table 3.**

**3.1.3 Limitations.** Plants and trees identified as “Target” (undesirable plants) by VCFD shall not be planted within Zone A. See VCFD Plant Reference Guide.

**3.2 Zone B.** Follow **VCFD FMZ Spacing Table 3.**

**3.3 Zone C.** When provided, either by conditions of development, voluntary by the property owner, or required by the Fire Department, this zone is more of a progressive thinning zone to lessen spread of fire as it approaches the primary FMZ adjacent to structures. The amount of fuel reduction and removal should take into consideration the type and density of fuels, aspect, topography, weather patterns and fire history.

Table 3 on next page

**VCFD FMZ Spacing Table 3**

| <b>Type of Vegetation</b>            | <b>Max Height (H)</b> | <b>Max Area /diameter (W)</b>   | <b>Slope % / Min Spacing (S)*</b>   |
|--------------------------------------|-----------------------|---|---|
| Ground Cover                         | 6 inches              | NA  | NA  |
| Mosaic Grouping of Ground Cover (GC) | 18 inches             | Groupings shall not exceed 500 sq ft without spacing (S) to next grouping | <20: 2 x GC height (H)<br>20-40: 4 x GC height (H)<br>>40: 6 x GC height (H)          |
| Single Shrub                         | 6 feet                | 4 feet diameter   | <20: 2 x shrub height (H)<br>20-40: 4 x shrub height (H)<br>>40: 6 x shrub height (H) |
| Grouping of shrubs                   | 4 feet                | Groupings shall not exceed 50 sq ft without spacing (S) to next grouping  | <20: 20 feet<br>20-40 40 feet<br>>40 Not Allowed                                      |
| Single Tree                          | NA                    | NA  | <20: 10 feet<br>20-40: 20 feet<br>>40: 30 feet  |

**\* Spacing (S) Notes:**

- a. Spacing is measured canopy to canopy at maturity.
- b. Ground cover up to 3” high, when approved, may be installed within the required clear space (S) between groups. If natural or annual grasses are used, they shall be mowed to a maximum height of 3” stubble with clippings removed.
- c. Ground cover under tree canopies, when approved, shall have a clear distance above the ground cover a minimum 3 times the height of the ground cover (3H) to the lowest branch of the tree canopy and shall not be within 3 feet of the trunk of the tree.

**3.4 Additional Requirements.**

**3.4.1 Highly Flammable Trees.** Highly flammable trees are not allowed unless approved by the Fire Code Official

**3.4.2 Tree Spacing.** The horizontal distance between crowns of trees and crowns of adjacent trees, overhead electrical facilities or unmodified fuel is not less than 15 feet.

**3.4.3 Roof Clearance.** The vertical clearance distance above any roof is not less than 3 feet.

**3.4.4 Chimney Clearance.** The horizontal and vertical clearance to any chimney or heat producing device is not less than 10 feet.

**3.4.5 Limbing of Trees.** Trees exceeding 6 feet in height shall be limbed up from the ground 5 feet or 1/3 the height of the tree, whichever is less.

**3.4.6 Maintenance.** All plants and trees shall be maintained free of deadwood, leaves and limbs that can increase ability to ignite and/or carry fire. This includes dried palm fronds.

**3.4.7 Tree Litter.** Tree litter shall not exceed 2" depth underneath tree canopies.

**3.4.8 Tree Canopy Clearance.** Where tree canopies touch or extend past the 100-foot defensible space zone, there shall be a clear area from the edge of the tree canopy to the brush of not less than 15-feet, which may require clearance outside the 100-foot zone.

**3.4.9 Roofs and Gutters.** Roofs and gutters on buildings shall be maintained free of any leaves, needles or other vegetative materials.

**3.4.10 Mulch and Wood Chips.** Mulch and wood chips shall comply with VCFPD Standard 517 and are not allowed within 5-feet of structures.

**3.4.11 Irrigation.** Irrigation is not required for any defensible space or FMZ.

**3.5 Modifications.** Modifications to this standard may be allowed on a case by case basis after review and approval of a planting and maintenance plan. Requests shall be submitted to the Fire Prevention Bureau – FHRP Unit.

## **CHAPTER 4 – EXISTING INSTALLATIONS**

**4.1 Compliance.** When required by the VCFD, existing defensible space / FMZs installed prior to the date of this standard shall require retro-fit, including thinning and or removal of plants, trees and vegetation, to meet this standard.

**4.1.1 Timing.** Work to bring an existing defensible space and FMZ may be done over a 4-year period once notified by the VCFD. Start from structure(s) outward. 30 feet the first year, then 25 feet each additional year.