



GUIDELINE 424

PRELIMINARY FIRE PROTECTION PLAN CONCEPTUAL LANDSCAPE DESIGN CRITERIA

Properties located within State Mapped Fire Hazard Severity Zones (FHSZ), or a local Hazardous Fire Areas (HFA) are required to maintain proper defensible space in accordance with State and Local Laws and Ordinance. Installation of new landscape is the starting point to make sure correct plants are selected and proper spacing is provided and maintained. This requires the review and approval of landscape plans by the Ventura County Fire Department (VCFD).

REQUIREMENT. In accordance with the Ventura County Fire Code (VCFC) Chapter 49, fire protection plans shall be submitted to the Fire Code Official for any proposed project, when located in a Wildland Urban Interface (WUI) area, State Mapped Very High, High, or Moderate, Fire Severity Zone, or local Hazardous Fire Area determined by VCFD. The fire protection plan (landscape plans) shall be prepared by a registered design professional, qualified landscape architect, qualified safety specialist or similar specialist acceptable to the fire code official.

A preliminary fire protection plan shall be submitted for review and approval prior to approval of any proposed project subject to a discretionary review by the Planning Department where the project is located. All new landscape, existing landscape, Ecoscapes and sustainable landscaping require a preliminary review.

All fuels and vegetation within the 0–100-foot Fuel Modification Zone (FMZ) are subject to defensible space laws and regulations. This includes ornamental plants, cultivated landscape plants, native plants, trees, shrubs, grasses, weeds, and wildland vegetation.

PRELIMINARY FIRE PROTECTION PLANS

PRELIMINARY FIRE PROTECTION PLANS. Preliminary fire protection plans shall include, at minimum, the following:

- Total size of the project.
- Information on adjoining properties on all sides, including current land use, and if know any structures, planned construction, native vegetation, environmental restoration plans, and access roads/driveways.
- A plot plan with all property line boundaries, slope contour lines, proposed structure footprints, and proposed roads and driveways. The map shall identify fuel modification zones and methods of identifying fuel modification zone boundaries.
- Preliminary landscape plans may require a fire behavior analysis based on location and topography at the discretion of the Fire Code Official.

CONCEPTUAL LANDSCAPE PLAN DESIGN

CONCEPTUAL LANDSCAPE PLAN CONTENTS. Conceptual landscape plans shall be designed in accordance with the Ventura County Fire Code (VCFC), VCFD Standards and Guidelines.

Plans shall show and demonstrate the following:

- Vicinity site plan of project location, project boundaries and property lines.
- Planting zones (Zone 0, 1, and 2) around each structure.
- Significant features including creeks, topography, percentage of grade, building/structure locations, proposed access roads and driveways.
- Types of plant life-form proposed in each planting zone (Trees, shrubs, groundcover, existing native vegetation, proposed hydroseed).
- The height and width at maturity of proposed planting in each zone.
- Identify existing vegetation to remain.
- Proposed hardscape areas and description (Concrete, pavers, rock, steppingstones etc.)
- Locations of irrigated and non-irrigated zones.

DESIGN CONSIDERATIONS. The location of structures on a piece of property plays an important role when planning the placement of landscaping. Various sites may have specific conditions that may limit the amount of landscaping or fuel modification that can occur on the site such as topography, property lines and endangered plant species. Landscape pre-planning should consider the type of plants, spacing, location and size of plants, shrubs, and trees at full maturity.



DESIREABLE LANDSCAPE PLANTS. Plants that are more desirable in the fuel modification zones and defensible space would include those that have ability to store water in leaves and stems. Produce limited dead and fine material, are not considered invasive, and can withstand severe pruning. They should also contain low levels of volatile oils or resins and have minimal maintenance requirements.

See VCFD Guideline 417 Landscape Plant Reference.

ZONES & DISTANCES FROM STRUCTURES.



ZONE 0 – Immediate 0-5 Feet (Ember-Resistant Zone). Zone 0 extends 5 feet from structures, outbuildings, attached decks and stairs. The ember resistant zone is designed to keep fire or embers from igniting materials that can spread fire to a building or structure. Landscape should be limited to low growing Herbaceous type plants that contain a high moisture content and are not woody in nature. Plant 12 inches from the base of the structure wall. Take into consideration windows, doors, and other structure openings.

ZONE 1 – Intermediate 5-30 Feet (Defendable Area). Zone 1 extends 5-30 feet from buildings and structures and reduces the likelihood of fire burning directly to the structure. Zone 1 is the defendable area for fire personnel to stage and take direct action.

ZONE 2 – Extended 30-100 Feet (Reduce Fire Behavior Zone). Zone 2 extends 1-100 feet from buildings or structures or to the property line. This zone is designed to reduce flame heights, ember generation, reduce radiant heat and drop approaching crown fires in trees to the ground.

Electrical Line Clearance. The vertical clearance from vegetation and trees underneath overhead electrical facilities shall be in accordance with the VCFC. No new vegetation shall be planted under or adjacent to energized power lines that, at maturity, will grow within 10-feet (3 048 mm) of the energized conductors.

Special Requirements. See Ventura County Fire Code for special clearance requirements regarding detached accessory buildings, prefabricated sea cargo/metal storage containers, LPG tanks, hazardous material storage, fire protection equipment and utilities including ground mounted photovoltaic array systems.

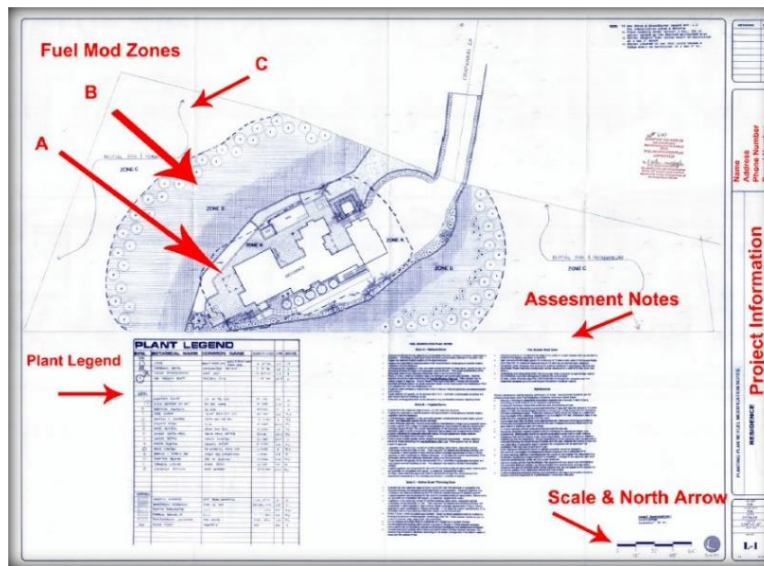
Erosion Control. Erosion control must be considered when conducting fuel modification / clearance work and when designing / installing new landscape. Contact the local jurisdiction, typically the public works agency, to determine if any specific erosion control is required. Plants and trees selected for erosion control are still required to comply with the VCFC and Standard 515.

Plant and Tree Spacing:

The spacing between grass, shrubs, and trees is crucial to reduce the spread of wildfires. Spacing is required by State Law. The spacing needed is determined by the type and size of shrubs and trees, as well as the slope of the land. For example, a property on a steep slope with larger vegetation requires greater spacing between trees and shrubs than a level property that has small, sparse vegetation. Spacing is measure from canopy to canopy and not on-center of the trunk.

PLAN SUBMITTAL

- A = Zone 0
- B = Zone 1
- C = Zone 2









Plan Example: Courtesy of the Los Angeles County Fire Department

REQUIRED ON PLANS:

- Project Information: Assessor Parcel Number(s) Site Address, Owner, and Applicant information.
- Landscape Designer and contact information.
- Site Plan with vicinity map.
- A scale of 1" = 20, 30 or 40 feet shall be used. Provide actual scale and North Arrow.
- Location of all structures on the property and any structures on adjacent properties within 100 feet. Indicate structure square footage, construction type and use.
- Show grade breaks between zones: 0-20%, 20-40%, and over 40%.
- Show 5-foot, 30-foot and 100-foot zone lines from all buildings, including off-site buildings less than 100 feet from the property lines.
- Indicate existing landscape to remain by type, size, and area.
- Provide a sample plant list of the type including both botanical and common names. Group by trees, shrubs, and ground cover. List in alphabetical order and use symbols for each plant being used for each zone.
- Indicate the width and height of plants and trees at full maturity.
- Shrubs shall not exceed 6-feet in height.
- Areas of seed mix application and the type of seed mix species.
- Areas in each zone that contain trees, shrubs, and ground cover.
- Show areas of planting and the location of trees.

- Show all proposed hardscape areas.
- Areas of mulch application (Mulch and wood chips are prohibited within zone 0 within 5 feet of any building).

EXAMPLE OF PLANT LEGEND

PLANT SCHEDULE						
TREES	BOTANICAL / COMMON NAME	SIZE	QTY	REMARKS	MATURE HEIGHT	MATURE WIDTH
	Aloe x 'Hercules' Hercules Aloe	24" Box	4	Evergreen Multi Head	6 - 10ft. ht.	6 - 10ft. w.
	Arbutus x 'Marina' Marina Strawberry Tree	36" Box	5	Evergreen Multi	15 - ' ht.	15 - ' w.
	Cercidium x 'Desert Museum' Desert Museum Palo Verde	36" Box	3	Evergreen Multi	15 - ' ht.	15 - ' w.
	Magnolia grandiflora 'D.D. Blanchard' D.D Blanchard Southern Magnolia	36" Box	3		25 - ' ht.	25 - 40ft. w.
	Olea europaea 'Swan Hill' TM Swan Hill Olive	36" Box	4	Evergreen Multi	15 - 25ft. ht.	15 - 25ft. w.
	Quercus agrifolia Coast Live Oak	---	1		40 - f ht.	25 - ' w.

EXAMPLE OF PLANT LOCATIONS

Planting plan is required to show planting Zones and locations of trees, types of plants and ground cover for each zone.

Trees

Shrubs

Groundcover

Hardscape/Decorative Rock



ADDITIONAL INFORMATION REQUIRED ON PLANS:

The following verbatim notes shall be placed on the preliminary landscape plans submitted to the Fire Department:

- All landscaping shall comply with Ventura County Fire Department Standard 515 based upon type and height of plants, spacing and slopes.
- Existing vegetation shall be modified or removed to comply with VCFD Standard 515.
- All vegetation within the 100-foot defensible space/fuel modification zone shall be maintained year-round in accordance with VCFD Standard 515 and State Laws.
- In accordance with VCFD Standard 515, list all Zone 0, 1 and 2 requirements along with Table 3 Fire Department FMZ Spacing and Table 3 notes.

APPLICATION SUBMITTAL: Complete VCFD Form 610 Fire Permit Application and indicate Other Plan Review: Preliminary Fire Protection Plans. Submit Form 610 and required fee to the Fire Prevention Bureau.

Questions regarding this document can be sent to FHRP@ventura.org or call the FHRP Unit at (805) 389-9759.