



Rancho Santa Fe Fire Protection District

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LANDSCAPE PLAN CHECK CORRECTION

List for Single Family Residences, Duplexes, and Multiple Dwellings

Date: _____

RSF Plan Check # _____

Project Name: _____

Address: _____

Corrections circled are to be made on the plans before Fire Approval will be issued. The approval of plans and specifications does not permit the violation of any section of the Rancho Santa Fe Protection District Fire Code, County Ordinances, or State law. The following list does not necessarily include all errors and omissions.

To facilitate rechecking, please identify, next to each circled item, the sheet of the plans upon which the correction has been made.

RETURN THIS CORRECTION LIST WITH THE CORRECTED PLANS

Note: If new plans are provided when resubmitting, return at least one copy of the original stamped and checked set.

A. PLAN REQUIREMENTS

1. **Landscape Plans are required** to meet Fire District Standards and shall be **approved prior to framing inspection**. Please contact the Fire Prevention Bureau should you have any questions about the standards.
2. Due to the number and/or complexity of corrections, all corrections should be made on the originals and new prints must be run before Fire District sign off will be given.
3. See notes/remarks made on one set of plans. **Return marked set with new/revised sets after you have complied with the requirements on the marked set of plans.** Red marks on plans are part of this comments list.
4. Applicants are required to submit at least two sets of plans, preferably prepared by a licensed Landscape Architect. The plans should at a minimum include the following criteria:
 - A. Provide plans with a readable (Engineer or Architect) scale.
 - B. Delineation of fuel modification zones with a general description of the zone's dimensions and character (See Site Requirements, paragraph B.16 for details).
 - C. Describe and show existing vegetation on plan.
 - D. Designate irrigated areas on the plan.
 - E. Include a plant Legend with both botanical and common names for existing and proposed plant material.
 - F. Define all symbols, features, and shaded areas, etc. used on the plans.
 - G. Draw all plant symbols to 2/3 of what the full mature canopy size will be. (RSFFPD has a sheet of tree dimensions).
 - H. Include quantities of trees and large shrubs being proposed.
5. Detailed information regarding Fire District Ordinances and roadway access requirements can be found on the District's web site at: <https://www.rsffire.org/landscaping/>.

B. PLOT PLAN & SITE REQUIREMENTS

1. **SITE INSPECTION (Note on plan):** Site inspection may reveal conditions which have changed since plan review. When such discrepancies arise, field inspection shall take precedence.

- 2. REQUIRED FIRE HYDRANT SYSTEMS (§ CFC 507.5.1) (Note and show fire hydrant location on plot plan):** Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a fire hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exception: For Group R-3 and Group U occupancies, *equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3*, the distance requirement shall be *not more than 600 feet (183 m)*.

- 3. ROAD PHASING REQUIREMENT FOR SINGLE FAMILY DWELLINGS ON EXISTING LEGAL PARCELS (§.503.2.1.1) (Note and show improvement area on plot plan):**

- (a) The fire access roadway requirement for widening an existing, improved and paved fire apparatus roadway shall be as provided in Table 503.2.1.1. The fire access roadway shall be constructed to extend from the property line to the nearest public road.

TABLE 503.2.1.1 - PHASING REQUIREMENT- Fire Apparatus Access Roadway - Single Family Dwellings

Number of Parcels Served	Unobstructed Road width	Roadways Over 600 foot Long
1-2	16-foot, paved	Turnouts every 400-feet
3-8	20-foot, paved	Turn-outs every 400-feet
9 or more	24-foot, paved	Not required

- (b) The access roadway shall not be required to be improved for a non-habitable accessory structure or a residential addition or remodel less than 500 square feet if the access roadway has already been improved and paved to a minimum width of 20 feet. If the roadway is less than 20 feet wide, the roadway shall be widened to 20 feet. The preceding addition or remodel exception is limited to one permit per three-year period from the date of the last permit approval.

- 4. DIMENSIONS (§ 503.2.1) (Note and show proposed width on plot plan):** The dimensions of fire apparatus access roads shall be in accordance with the following:

- (a) Fire apparatus access roads shall have an unobstructed improved width of not less than 24 feet, except for single-family residential driveways serving no more than two residential parcels, which shall have a minimum of 16 feet of unobstructed improved width. Any of the following, which have separated lanes of one-way traffic: gated entrances with card readers, guard stations or center medians, are allowed, provided that each lane is not less than 14 feet wide.
- (b) Fire apparatus access roads that are public or private roads which are provided or improved as a result of a Tentative Map, Tentative Parcel Map or a Major/Minor Use Permit shall have the dimensions as set forth by the County of San Diego Standards for Public and Private Roads.
- (c) All fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.
- (d) Vertical clearances or road widths shall be increased when the fire code official determines that vertical clearances or road widths are not adequate to provide fire apparatus access.
- (e) Vertical clearances or road width may be reduced when the fire code official determines the reduction does not impair access by fire apparatus. In cases where the vertical clearance has been reduced, approved signs shall be installed and maintained indicating the amount of vertical clearance.
- (f) Driveways exceeding 150 feet in length, but less than 600 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 600 feet, turnouts shall be provided no more than 400 feet apart.

- 5. GRADE (§ 503.2.7) (Note and show grade on plot plan):** The gradient for a fire apparatus access roadway shall not exceed 15.0%. The fire code official may allow roadway grades up to 20.0% provided that the roadway surface conforms to section 503.2.3. The fire code official may require additional mitigation measures.

- 6. ANGLES OF APPROACH AND DEPARTURE (§ 503.2.8) (Note and show grade on plot plan):** The angles of approach and departure for fire apparatus access roads shall not exceed 7 degrees (12 percent) for the first 30' or as approved by the fire code official and shall not allow for transitions between grades that exceed 6% elevation change along any 10 foot section.

7. **CROSS-SLOPE (§ 503.2.7.1) (Note and show cross slope on plot plan):** The standard cross-slope shall be 2 percent; minimum cross-slope shall be 1 percent; maximum cross-slope shall be 5 percent.
8. **SURFACE (§503.2.3) (Note and show proposed material on plot plan):** Fire apparatus access road shall be designed and maintained to support the imposed loads of fire apparatus (not less than 75,000 lbs. unless authorized by the FAHJ) and shall be provided with an approved paved surface so as to provide all-weather driving capabilities. The paving and sub-base shall be installed to the standards specified in the County of San Diego Parking Design Manual. A residential driveway constructed of 3½" Portland cement concrete may be installed on any slope up to 20% provided that slopes over 15% have a deep broom finish perpendicular to the direction of travel or other approved surface to enhance traction.
9. **ROADWAY RADIUS (§ 503.2.4) (Show on plot plan):** The horizontal inside radius of a fire apparatus access road shall comply with the County of San Diego Public and Private Road Standards approved by the Board of Supervisors. The horizontal inside radius for a private residential driveway shall be a minimum of 28 feet, as measured on the inside edge of the improvement width or as approved by the fire code official. The length of vertical curves of fire apparatus access roads shall not be less than 100 feet, or as approved by the fire code official.
10. **TRAFFIC CALMING DEVICES (§ 503.4.1) (Note on plot plan):** Traffic calming devices (including, but not limited to, speed bumps, speed humps, speed control dips, etc.) shall be prohibited unless approved by the fire code official.
11. **DEAD ENDS (§ 503.2.5) (Show turnaround on plot plan):** Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around emergency apparatus. A cul-de-sac or other approved turn-around shall be provided in residential areas where the access roadway serves more than 2 structures. The minimum unobstructed radius width for a cul-de-sac in a residential area shall be 36 feet paved, 40 feet graded, or as approved by the fire code official. The fire code official shall establish a policy identifying acceptable turnarounds for various project types. See annex section of this code for illustrations.
12. **BRIDGES AND ELEVATED SURFACES (§ 503.2.6) (Note on plot plan):** Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits and clearance limitations shall be posted at both entrances to bridges where required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire code official.
13. **SECURITY GATES (§ 503.6) (Note and show gate location on plan):** No person shall install a security gate or security device across a fire access roadway without the fire code official's approval. Electric gate openers, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200. If approved a security gate or security device across a fire access roadway shall include:
 - (a) An automatic gate across a fire access roadway or driveway shall be equipped with an approved emergency key-operated switch overriding all command functions and opening the gate.
 - (b) A gate accessing more than four residences or residential lots or a gate accessing hazardous, institutional, and educational or assembly occupancy group structure, shall also be equipped with an approved emergency traffic control-activating strobe light sensor or other device approved by the fire code official, which will activate the gate on the approach of emergency apparatus.
 - (c) An automatic gate shall be provided with a battery back-up or manual mechanical disconnect in case of power failure.
 - (d) An automatic gate shall meet fire department policies deemed necessary by the fire code official for rapid, reliable access.
 - (e) When required by the fire code official, an automatic gate in existence at the time of adoption of this chapter is required to install an approved emergency key-operated switch or other mechanism approved by the fire code official, at an approved location, which overrides all command functions and opens the gate. A property owner shall comply with this requirement within 90 days of receiving written notice to comply.
 - (f) Where this section requires an approved key-operated switch, it may be dual-keyed or equipped with dual switches provided to facilitate access by law enforcement personnel.
 - (g) All gates providing access from a road to a driveway shall be located a minimum of 30 feet from the nearest edge of the roadway and shall be at least two feet wider than the width of the traffic lane(s) serving the gate.

- 14. ADDRESS IDENTIFICATION (§ 505.1) (Note on plot plan):** New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm) for residential buildings, 8" high with a 1" stroke for commercial and multi-family residential buildings and 12" high with a 1" stroke for industrial buildings. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.
- 15. HOSE PULL- FIRE APPARATUS ACCESS ROADS (§ 503.1.1) (Show hose pull path of travel on plot plan):** Fire apparatus access roads, including private residential driveways, shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from the closest point of fire department vehicle access. Fire apparatus access roads, except private residential driveways, shall be provided and maintained for purposes of rapid and reliable fire apparatus access and for unobstructed traffic circulation for evacuation or relocation of civilians during a wildfire or other emergency. Fire apparatus access roads shall be provided and maintained in compliance with this section and the most recent edition and any amendments thereto, of public and private road standards as adopted by the County of San Diego (San Diego County Standards for Private Roads and Public Roads, San Diego County Department of Public Works). The fire code official may modify the requirements of this section if the modification provides equivalent access.
- 16. STRUCTURE SET BACK FROM SLOPE (§ 4907.1.3) (Note and show top of slope setback on plot plan):** Single-story buildings and structures shall be setback a minimum 15 feet horizontally from top of slope to the farthest projection from a roof. A single-story building and structure shall be less than 12 feet above grade. A two-story building and structure shall be setback a minimum of 30 feet horizontally from top of slope to the farthest projection from a roof. Buildings and structures greater than two stories may require a greater setback when the slope is greater than 2 to 1.
- 17. FUEL MODIFICATION (§ 4907.2) (Note and show zones on plot plan):** A fuel modification zone shall be required around every building that is designed primarily for human habitation or use or a building designed specifically to house farm animals. Decks, sheds, gazebos, freestanding open-sided shade covers and similar accessory structures less than 250 square feet and 30 feet or more from a dwelling, and fences more than 5 feet from a dwelling, are not considered structures for the establishment of a fuel modification zone. A fuel modification zone shall comply with the following:
- (a) When a building or structure in a hazardous fire area is located 100 feet or more from the property line, the person owning or occupying the building or structure shall maintain a fuel modification zone within 100 feet of the building or structure. The area within 50 feet of a building or structure shall be cleared of vegetation that is not fire resistant and re-planted with fire-resistant plants. In the area between 50 to 100 feet from a building, all dead and dying vegetation shall be removed. Native vegetation may remain in this area provided that the vegetation is modified so that combustible vegetation does not occupy more than 50% of the square footage of this area. Weeds and annual grasses shall be maintained at a height not to exceed 6 inches. The chips from chipping of vegetation that is done on-site may remain if the chips are dispersed so they do not exceed 6 inches in depth. Trees may remain in both areas provided that the horizontal distance between crowns of adjacent trees and crowns of trees and structures is not less than 10 feet. See Figure 4907.2.
 - (b) The fire code official may increase the fuel modification zone more than the 100-foot minimum if fuel and/or topography are determined to increase the fire hazard severity.
 - (c) When a building or structure in a hazardous fire area is setback less than 100 feet from the property line, the person owning or occupying the building or structure shall meet the requirements in subsection (a) above, to the extent possible, in the area between the building or structure and the property line.
 - (d) The building official and the FAHJ may provide lists of prohibited and recommended plants.
 - (e) The fuel modification zone shall be located entirely on the subject property unless approved by the FAHJ. This required fuel modification zone may be reduced as allowed in subsection (c) above or increased as required by a fire protection plan.
 - (f) When the subject property contains an area designated to protect biological or other sensitive habitat or resource, no building or other structure requiring a fuel modification zone shall be located so as to extend the fuel modification zone into a protected area.
 - (g) Improved Property: Property owners shall be permitted to clear all flammable vegetation within a one hundred (100) foot radius of all buildings using methods, such as mowing and trimming that leave plant root structure intact to stabilize soil. Clearing is not limited to these methods and discing, which exposes bare mineral soil, may be used if deemed necessary by the FAHJ.

- (h) Where the distance from the structure to the property line of the parcel on which the building is located is less than the distance required to be cleared, (100'), the adjacent parcel owner may be required to establish the required fuel break to achieve the required distance of defensible space if such requirement is approved by the Fire Code Official.

There is no guarantee or assurance that compliance with these standards will prevent damage or destruction of structures by wildland fire in all cases.

- 18. HOME IGNITION ZONE 1 - IMMEDIATE ZONE 0-5' (§ 4907.4.1) (Note on plot plan):** Meaning from exterior wall surface of the building extending 5 feet on a horizontal plane. This zone shall be constructed of continuous hardscape or limited fire resistant plantings acceptable to the FAHJ. Vegetation in this zone shall not exceed 6" to 18" in height and irrigation is required. Removal of combustible materials surrounding the exterior wall area and maintaining area free and clear of combustible materials. The use of mulch and other combustible materials shall be prohibited.
- 19. HOME IGNITION ZONE 2 - INTERMEDIATE ZONE 5' to 50' (§ 4907.4.2) (Note on plot plan):** Means from the immediate edge of zone 1 extending out in a horizontal plane. This zone shall consist of planting of low growth, drought tolerant and fire resistive plant species. The height of the plants in this zone starts at 6" adjacent to Zone 1 and extending in a linear fashion up to a maximum of 18" at intersection with Zone 3. Vegetation in this zone shall be irrigated and not exceed 10' in height and shall be moderate in nature. Trees shall not exceed 30' in height and be limited or as approved by the FAHJ. Firewood inside this zone shall be piled minimum of 30' away from all buildings and structures. Cords of firewood shall also be maintained at least 10' from property lines and not stacked under tree canopies drip lines.
- 20. HOME IGNITION ZONE 3 - EXTENDED ZONE 50'-100' (§ 4907.4.3) (Note on plot plan):** Means from the immediate edge of Zone 2 extending out in a horizontal plane for 50'. This zone consists of planting of drought tolerant and fire resistive plant species of moderate height. Brush and plants shall be limbed up off the ground so the lowest branches are 1/3 height of bush/tree/plant or up to 6' off the ground on mature trees. This area would be considered selective clearing of natural vegetation and dense chaparral by removing a minimum 50% of the square footage of this area.

C. LANDSCAPING REQUIREMENTS (§ 4907.5.1) (Note on plan): All plant materials used shall be from the Wildland/Urban Interface Development Standards plant palette. The addition of plant material to the approved list will be at the discretion of the (insert fire district name). Landscape plans shall be in accordance with the following:

1. All non-fire resistive trees, including conifers, pepper trees, eucalyptus and acacia species, shall be planted and maintained so that the tree's drip line at maturity is a minimum of 30 feet from any combustible structure. All fire resistive tree species shall be planted and maintained at a minimum of 10 feet from the tree's drip line to any combustible structure. **RSFFPD has a list of non-fire resistive trees and shrubs that shall be planted a minimum 30 feet from the drip line to any combustible structure.**
2. For streetscape plantings, all non-fire resistive trees shall be planted so that the center of the tree trunk is 20 feet from edge of curb. Fire resistive trees may be planted 10 feet from edge of curb to center of tree trunk. Care should be given to the type of tree selected so that it will not encroach into the right-of-way or produce a closed canopy effect.
3. Trees and large shrubs shall be limited to groups of two to three trees with mature foliage of any group separated horizontally by at least 10 feet if planted on less than a 20 percent slope and 20 feet if planted on greater than a 20 percent slope.
4. If shrubs are located underneath a tree's drip line, the lowest branch should be at least three times as high as the understory shrubs or 10 feet, whichever is greater.
5. Existing trees may be pruned 10 feet away from roof, eave or exterior siding, depending on the tree's physical or flammable characteristics and a building's construction features.
6. All tree branches and palm fronds shall be removed within 10 feet of a fireplace chimney or outdoor barbecue.

D. ORCHARDS, GROVES OR VINEYARDS (§ 4907.3.2) (Note and show on plans): All orchards, groves and vineyards shall be kept in a healthy state and free of combustible debris and vegetation, including dead or downed trees. A 10-foot firebreak shall be cleared around the perimeter of any orchard, grove or vineyard. Dead grasses between rows of trees or vines shall be mowed.

E. EUCALYPTUS FORESTS AND OAK WOODLANDS (§ 4907.3.3) (Note on plans): All forests and woodlands shall be kept in a healthy state and maintained as described below. The forest or woodlands shall be free of all dead, dying, or diseased trees (excluding tree stumps no higher than six inches above the ground). Dead, dying, or diseased trees shall include insect infested trees, no longer living, in the last stages of growth or infected by a pathogen of any type. If combustible vegetation is located underneath a tree's drip line, the lowest branch shall be at least three times as high as the understory

brush or grasses, or ten feet, whichever is greater. This will reduce the build-up of "ladder" fuels. Firewood shall be neatly stacked and shall have a minimum of 30 feet of clearance (no vegetation) around the entire firewood storage area. Debris and trimmings produced by the removal process shall be removed from the site, or if left, shall be converted into mulch by a chipping machine and evenly dispersed to maximum depth of six inches.

F. ADDITIONAL REQUIREMENTS.

- 1. LOCATION OF LPG TANK, ABOVE GROUND STORAGE (CA Fire Code, Table 6104.3) (Note and show location on plan):** The minimum separation between containers and buildings, public ways or lines of adjoining property that can be built upon is: 10 feet for containers 125 gallons to 500 gallons; 25 feet for containers 501 to 2,000 gallons.
- 2. SECURING LPG TANKS (§ 6107.5) (Note on plot plan):** When required by the FAHJ, LPG tanks shall be secured to prevent the tank from rolling or moving.
- 3. CLEARANCE TO COMBUSTIBLES (§ 6107.3) (Note and show on plan):** Weeds, grass, brush, trash and other combustible materials shall be kept not less than 10 feet (3048 mm) from LP-gas tanks or containers.
- 4. SPARK ARRESTERS (§ 603.6.6) (Note on roof plan):** All buildings and structures having a chimney, flue or stovepipe attached to a fireplace, stove, barbecue or other solid or liquid fuel burning equipment or device shall have the chimney, flue or stovepipe equipped with an approved spark arrester. An approved spark arrester is a device intended to prevent sparks from escaping into the atmosphere, constructed of welded or woven wire mesh, 12-gauge thickness or larger, with openings no greater than ½" inch, or other alternative material the FAHJ determines provides equal or better protection.
- 5. FIREWOOD STORAGE (§ 321.1) (Note on plan):** Firewood shall not be stored in unenclosed space beneath a building or structure, on a deck or under eaves, a canopy or other projection or overhang. When required by the fire code official, firewood or other combustible material stored in the defensible space surrounding a structure shall be located at least 30 feet from any structure and separated by a minimum of 15 feet from the drip line of any trees, measured horizontally. Firewood and combustible materials not for use on the premises shall be stored so as to not pose a fire hazard. Wood storage shall be located on bare soil or a non-combustible material. Minimum clearance around wood storage pile shall be 10' bare soil, free of vegetation or other combustible material measured on a horizontal plane. The maximum size of wood storage shall be 2 cords of woods with the pile dimensions no greater than 4 feet in height, 4 feet in width, and 16 feet in length.
Exception: Permit may be issued by the FAHJ for wood storage amounts in excess of this section.
- 6. FIRE PITS (§ 307.4.2) (Note on plan):** Natural gas-fired pits shall not be located within 10 feet of combustible walls or roofs or other combustible materials or vegetation. Wood burning fire pits shall not be located within 25 feet of combustible walls or roofs or other combustible materials or vegetation.
- 7. Fences and Other Attachments to Structures (§ CBC 7A) (Note on plan):** The first five feet of fences and other items attached to a structure shall be constructed of non-combustible material or pressure-treated exterior fire-retardant wood.
- 8. Attached or Portable Awnings (Local Policy) (Note on plan):** All awnings attached to any structure shall meet the 15-foot structure setback requirement and be identified as fire rated. Additionally, the awning shall be contained in a metal, self-enclosing or box-protected cover. Portable awnings shall have UL Approved Fire Retardant Rating and be no closer than 20 feet from any combustible structure. The canvas awnings for playground equipment shall be identified and maintained, annually, as fire retardant.
- 9. Solar Panels (§ 605.11) (Note on plan):** Solar panels located less than 20 feet to a combustible structure shall have a metal frame, otherwise the size and type of materials of the panels placed on a roof top shall comply with class "A" roof assembly and materials requirements. A clear, brush-free area of 10 feet shall be required for ground-mounted photovoltaic arrays.
- 10. Trash Enclosures (Local Policy) (Note on plan):** Trash enclosures or trash can storage shall be located at least 10 feet or more from any structure. A trellis or roof over the trash enclosure shall be non-combustible or made of heavy timber construction (minimum 4 inches X 4 inches).
- 11. Construction Material (§ CBC 7A) (Note on plan):** Any exposed wood members used for outdoor construction must be a minimum size of 4" x 4" or an approved fire resistive material. See the County of San Diego's website for approved material.

