



SAN DIEGO COUNTY FIRE

FIRE CODE PLAN CHECK

CORRECTION LIST FOR RESIDENTIAL PROJECTS

RECORD ID:

OWNER ON APPLICATION:

Plan reviewer:

Email:

Date of Review:

NOTE: Revised plans must be resubmitted to the PDS Building Counter for plan intake. See Section G Summary of Required Revisions for specific plan reviewer comments and revision requirements.

A. GENERAL AND RESUBMITTAL REQUIREMENTS (Highlighted items apply)

- Each of the items on this list that have been highlighted require correction before a permit will be issued. The approval of plans and specifications does not permit the violation of any section of the fire code, county ordinances, or state law. The following list does not necessarily include all errors and omissions. Codes are paraphrased. For full text see the County Consolidated Fire Code and the California Fire Code and the Uniform Building Code.
- Plan revisions shall be made by printing new sheets incorporating the necessary modifications. You may slip revised sheets into the complete sets as needed provided the original sheets are returned.
- If revised sets include new plot plans, County of San Diego Building and Zoning stamps shall be transferred by PDS staff before resubmittal or recheck. Stamps may not be copied.
- Please resubmit the original correction list and a complete response list per the following:
 - ☐ Provided on separate 8-1/2-inch by 11-inch sheet(s); do not mark responses on original correction list.
 - ☐ Clearly and specifically indicating where and how each correction item has been addressed.
- Additional plan check fees may be required if comments are not resolved after the second plan check.

B. PLAN REQUIREMENTS (address those items that have been highlighted)

- Scope of work is not on the plans or an incorrect scope of work is not on the plan.
- Provide fully dimensioned plot plan drawn to scale and indicating the following:
 - ☐ Lot dimensions with property lines and any easements identified.
 - ☐ Size and use of each structure on the lot.
 - ☐ Dimensions from structures to property lines (measured at right angles to structures).
 - ☐ Dimensions between structures (measured at right angles to structures).
- Plans are incomplete.
 - ☐ Plans are not to scale; north arrow is missing or incorrect
 - ☐ Inadequate or missing vicinity map.
 - ☐ Other _____.

C. SITE REQUIREMENTS (address those items that have been highlighted)

- WILDLAND-URBAN INTERFACE SETBACK.** In areas designated as a 'Fire Hazard Severity Zone' in the wildland-urban interface, structures shall be setback a minimum of 30 feet from property lines and biological open space easements unless the fire code official determines that terrain, parcel size or other constraints on the parcel make the required setback infeasible. When parcels are adjacent a national forest, state park or open space preserve, buildings and structures must be located a minimum of 100 feet from the property line adjacent the protected area. (County Fire Code § 4907.4.1)

2. FUEL MODIFICATION. Include entire statement (everything within the box) as a note on the plot plan sheet.

Maintain an effective fuel modification zone by removing, clearing or modifying combustible vegetation and other flammable materials from areas within 100 feet from buildings or structures. Fuel modification zones shall not extend beyond the property line (County Fire Code § 4907.5). The fuel modification zone is divided into three Home Ignition Zones (County Fire Code § 4907.9):

1. **Zone 0 “Immediate Zone” 0-5’** extends 5 feet on a horizontal plane from all exterior wall surfaces (and patios, decks or other attachments to buildings or structures). This zone shall be constructed of continuous hardscape or non-combustible materials (such as pavement, pavers, gravel, river rock, etc.). Combustible materials must be removed from this area (which includes but is not limited to removing combustible materials from roofs, gutters, decks, porches and stairways). Firewood and lumber are prohibited in this area. Dead branches that overhang roofs, are below or adjacent to windows, or which are adjacent to wall surfaces must be removed. All branches within ten (10) feet of any chimney or stovepipe outlet must be removed.

2. **Zone 1 “Intermediate Zone” from Zone 0 to 50’** extends from the immediate edge of Zone 0 for 45 feet on 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 0 and extending in a linear fashion up to a maximum of 18” at intersection with Zone 2. Dead or dying grass, plants, shrubs, trees, branches, leaves, weeds, and pine needles must be removed from the area. Other combustible materials must not be adjacent to or under combustible decks, balconies, and stairs. Vegetation in this zone shall be irrigated and not exceed 6’ in height and shall be moderate in nature as per Sec. 4907.6.4.1. Dead branches that overhang roofs, are below or adjacent to windows, or which are adjacent to wall surfaces must be removed. All branches within ten (10) feet of any chimney or stovepipe outlet must be removed.

3. **Zone 2 “Extended Zone” from Zone 1 to 100’** extends from the immediate edge of Zone 1 for 50 feet on a horizontal plane. This zone consists of planting of drought tolerant and fire resistive plant species of moderate height. 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. Horizontal and vertical spacing among shrubs and trees must be created using fuel separation, as follows: Dead and dying woody surface fuel and trees shall be removed. Loose surface litter (consisting of fallen leaves or needles, twigs, bark, cones, and small branches) shall be permitted to a maximum depth of three (3) inches. Annual grasses and forbs must be cut down to a maximum height of four (4) inches.

Fuel modification is also required along fire access roadways and driveways at distances prescribed in the County Fire Code. (County Fire Code § 4907.6)

This Fire Code Section does NOT authorize clearing beyond property lines.

Fuel modification must be complete prior to bringing combustible construction materials on-site.

3. **LOCATION OF ABOVE-GROUND LPG TANK.** Revise the Plot Plan to show the location of the LPG tank. The minimum separation between LPG containers and buildings, public ways, or lines of adjoining property that can be built upon is as follows: 10 feet for containers 125 gallons to 500 gallons, 25 feet for containers 501 gallons to 2,000 gallons. (2022 California Fire Code § 6104.3)

☐ Note the gallon capacity for the propane tank.

☐ Note the separation distance from the tank to the nearest building(s), public way(s), and/or property line(s).

D. WATER SUPPLY (address those items that have been highlighted)

1. **FIRE HYDRANT.** Revise the Plot Plan to show the location of the nearest existing fire hydrant. For single-family dwellings fire hydrants shall be installed in accordance with Table C102.1 as found in Appendix C of the 2022 California Fire Code.

☐ Every 500 feet

☐ Every 625 feet if structure is equipped with an automatic fire sprinkler system designed to NFPA 13R or 13D Standard.

☐ Every 750 feet if structure is equipped with an automatic fire sprinkler system designed to NFPA 13 Standard.

☐ The parcel is served by a private water district/small water system, please contact them to verify nearest existing hydrant and note on the Plot Plan; hydrant location, name of district, district contact name, title and phone number.

☐ There is no fire hydrant located within the required distance; please contact the water provider for information and costs associated with the installation of a new fire hydrant and revise the Plot Plan to show the new hydrant location.

2. **WATER STORAGE TANK.** If a hydrant water line is not near the property and the water line can't be extended, then a water storage tank may be allowed as an alternative. At minimum, water storage tank(s) and fire department connection(s) (FDC's) are required and used for fire protection and suppression purposes only. The tank(s) and FDC(s) shall be installed per County of San Diego requirements and be filled and fully operational prior to the storage of combustible materials on site. **Tank materials shall be in accordance with NFPA 22 Standard; plans must specify galvanized steel or fiberglass-reinforced plastic** (County Fire Code § 507.2.2)

☐ 5,000 gallon capacity for building area of less than 1500 sq. ft.

☐ 10,000 gallon capacity for building area of 1500 sq. ft. and greater (A greater capacity may be required for substantially larger structures or multiple structures. **If using multiple tanks, they must be interconnected**)

☐ Revise the Plot Plan to show tank size (in gallon capacity), material, location **and** elevation.

☐ Revise the Plot Plan to show the fire department connection (FDC), location **and** elevation.

E. SITE IDENTIFICATION AND FIRE APPARATUS ACCESS (address those items that have been highlighted)

1. **PREMISES IDENTIFICATION.** Approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof. (County Fire Code § 503.3) Where the fire code official determines that it is necessary to ensure adequate fire access, the fire code official may designate existing roadways as fire apparatus access roads as provided by Vehicle Code section 22500. (County Fire Code § 503.3.1) All new public roads, all private roads within major subdivisions, and all private road easements serving four or more parcels shall be named. Road name signs shall comply with County of San Diego Department of Public Works Design Standard #DS-13. (County Fire Code § 505.2)
2. **EASEMENT ADDRESS SIGN.** All easements which are not named differently from the roadway from which they originate shall have an address sign installed and maintained, listing all address numbers occurring on that easement, located where the easement intersects the named roadway. Address numbers shall be a minimum of 4 inches in height with a ½" stroke; and shall contrast with the background. (County Fire Code § 505.3)
 - ☐ Revise the Plot Plan to indicate installation of Easement Address Sign where the easement intersects the named road.
 - ☐ Revise the Plot Plan to add a notation which states "Address Numbers shall be a minimum of 4 inches in height with a ½" stroke; and shall contrast with the background."
3. **ADDRESS NUMBERS.** Approved numbers and/or addresses shall be placed on all new and existing buildings and at appropriate additional locations as to be plainly visible and legible from the street or roadway fronting the property from either direction of approach. Address numbers shall be a minimum of 4 inches in height with a ½" stroke; and shall contrast with the background. (County Fire Code § 505.1)
 - ☐ Revise the Plot Plan to indicate installation of Address Numbers at both the driveway entrance and the front elevation of the structure (Show a separate "Address Numbers" note for each location).
 - ☐ Revise the Plot Plan to add a notation which states "Address Numbers shall be a minimum of 4 inches in height with a ½" stroke; and shall contrast with the background."
4. **FIRE APPARATUS ACCESS ROADS.** Fire apparatus access roads, including private residential driveways, shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall extend to within 150 feet of all portions of the facility and all portions of the *exterior walls* of the first story of the building as measured by an *approved* route around the exterior of the building or facility. (County Fire Code § 503.1.1)
 - ☐ Revise the Plot Plan to show the road/access easement as it appears on the legal division of land.
 - ☐ Revise the Plot Plan to show driveway access to all proposed structures.
5. **DEAD ENDS.** All dead-end fire access roads, including private residential driveways, in excess of 150 feet in length shall be provided with an approved means for turning around emergency apparatus. In addition, for private residential driveways that are determined to be over length by the fire code official, turnouts are required (County Fire Code § 503.2.5, 503.2.9 & 503.2.1)
 - ☐ Revise the Plot Plan to show the location of an emergency vehicle turnaround within 50 feet of the primary residence. (off-street parking as required by the Zoning Ordinance shall not encroach into the turnaround area – see #11 below)
 - ☐ Revise the Plot Plan to show the location of (a) driveway turnout(s). Turnouts shall be a minimum of 12 feet wide and 30 feet long with a minimum 25-foot taper on each end. See Plot Plan for required turnout locations indicated in red.
6. **DIMENSIONS.** Fire apparatus access roads shall have an unobstructed improved width of not less than 24 feet. Exception: single family residential driveways serving no more than two single-family dwellings shall have a minimum of 16 feet of unobstructed improved width. All fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. (County Fire Code § 503.2.1)
 - ☐ Revise the Plot Plan to show dimensions for the improved width of the road/access easement.
 - ☐ Revise the Plot Plan to show dimensions for the improved width of the driveway as stated above.
 - ☐ Note the requirement for unobstructed vertical clearance as stated above.
7. **TURNING RADIUS.** The inside turning radius of a fire apparatus access road shall be a minimum of 28 feet, or as approved by the fire code official. (County Fire Code § 503.2.4)
 - ☐ Revise the Plot Plan to indicate the inside turning radius as it relates to driveway turns.
 - ☐ Revise the Plot Plan to indicate the inside turning radius as it relates to emergency vehicle turnaround.
8. **BRIDGES.** When a bridge is required to be used as part of a fire apparatus access road, it shall be constructed and maintained in accordance with standard AASHTO HB-17. (County Fire Code § 503.2.6)
 - ☐ Submit plans and calculations for the bridge design to the PDS Building Division for review and approval.
9. **GRADE.** The grade of a fire apparatus access roadway shall not exceed 20.0%. Standard cross-slope shall be 2%, minimum cross slope shall be 1%, maximum cross slope shall be 5%. The angle of departure and angle of approach shall not exceed 7 degrees (12%) (County Fire Code § 503.2.7, 503.2.7.1 & 503.2.8)
 - ☐ Revise the Plot Plan to show the grade of the road/access easement at the property frontage.
 - ☐ Revise the Plot Plan to show the grade of the driveway at representative locations along the complete path of travel.

- ☐ Revise the Plot Plan to show the cross slope at the driveway and emergency vehicle turnaround (if applies).
- ☐ Revise the Plot Plan to show the angle of departure and angle of approach.

10. **SURFACE.** Revise the Plot Plan to show the fire access road surface material. Fire apparatus access roadways shall be designed and maintained to support the imposed loads of fire apparatus (not less than 75,000 lbs., unless authorized by the fire code official) and shall be provided with an approved paved surface so as to provide all-weather driving capabilities. Paving and sub-base shall be installed to the standards specified in the County of San Diego Parking Design Manual. (County Fire Code § 503.2.3)
- ☐ 0 – 14% Grade – Minimum Surface: 2" Asphaltic Concrete.
 - ☐ 15 – 20% Grade – Minimum Surface: 3" Asphaltic Concrete OR 3-1/2" Portland Cement Concrete with a deep broom finish perpendicular to the path of travel.
 - ☐ An exception allows for 6" of compacted Decomposed Granite on grades up to 10%. This exception is based upon parcel specific criteria, and is at the discretion of the fire code official.
 - ☐ All pervious and semi-pervious paving materials must be designed to support the imposed loads of fire apparatus (not less than 75,000 lbs). **Provide specification for product to be installed, as well as proof of compliance with this requirement and installation detail(s).** **NOTE: County Building Division approval is required for these materials.**
11. **OBSTRUCTIONS.** Parking or other obstruction of the full required width of a fire apparatus access roadway is prohibited. (County Fire Code § 503.4 and California Vehicle Code § 22500.1)
12. **GATES.** Revise the Plot Plan to show the location of all gated access points, including clear opening width and gate operation; i.e. rolling, swinging, etc. All gates or other structures or devices that could obstruct fire access roadways or otherwise hinder emergency operations are prohibited unless they meet standards and receive specific plan approval from the fire code official. (County Fire Code § 503.6)
- ☐ Gates shall be located a minimum of 30 feet from the nearest edge of the roadway.
 - ☐ Gates shall be at least two (2) feet wider than the width of the traffic lane serving the gate.
 - ☐ Note whether the operation of the gate is manual or electrically powered.
 - ☐ Note whether manual gate will lock. If gate locks or if electronically powered #13 is applicable below.
13. **KEY BOXES.** Revise the Plot Plan to show the location of an emergency access key box. Approved key boxes are required when access to or within a structure or an area is unduly difficult because of secured openings, or where immediate access is necessary for life-saving or firefighting purposes. (County Fire Code § 506.1.3)
- ☐ For information regarding approved key boxes, go to www.knoxbox.com, and at the bottom of the home page select 'Buy Now' - then enter the name of the Fire Agency as noted: _____

F. LIFE SAFETY REQUIREMENTS (address those items that have been highlighted)

1. **FIRE SPRINKLERS REQUIRED/SITE-BUILT STRUCTURES** (County Fire Code § 903.2)
- Structures shall have an automatic fire sprinkler system installed per NFPA 13-D standard and the County Fire Code. Fire sprinkler system plans shall be submitted and approved by San Diego County Fire and the system shall be ready for hydrostatic testing prior to framing inspection.
2. **FIRE SPRINKLERS REQUIRED/MANUFACTURED HOMES** (County Fire Code § 903.2)
- Structures shall have an automatic fire sprinkler system installed per NFPA 13-D standard and the County Fire Code. If not factory installed, fire sprinkler system plans shall be submitted to, and approved by, the State of California Department of Housing and Community Development. Factory installed systems shall be hydrostatically tested at building final inspection. On-site installed systems shall be hydrostatically tested before piping is concealed.

G. SUMMARY OF REQUIRED REVISIONS (address all items listed below and on the following page if applicable)