



***CAL FIRE***  
**NAPA COUNTY**  
**FIRE MARSHAL OFFICE**  
**Development Guidelines**

**Revision: August 2016**

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## **I. SERVICE AREA**

CAL FIRE/Napa County Fire Department (CAL FIRE/NCFD) provides fire protection, emergency medical, rescue, and Fire Marshal services to the unincorporated areas of Napa County and the Town of Yountville.

## **II. APPLICABLE CODES AND STANDARDS**

Code Reference:

2013 California Fire Code with local amendments (CFC)

Public Resources Code (PRC 4290 & 4291)

2013 California Building Code with local amendments

Adopted Standards:

NFPA 13D, 13R-2013 Edition, Fire Sprinkler Systems for One & Multi-Family Dwellings

NFPA 1142-2012 Edition, Water Supplies, Suburban and Rural Fire Fighting.

NFPA-22, 2013 Edition, Water Tanks for Private Fire Protection

## **III. AUTOMATIC FIRE SPRINKLER SYSTEM**

Automatic fire sprinkler systems are required in all new residential occupancies in Napa County as of January 2008. Automatic fire sprinkler systems shall be designed and installed in compliance with the NFPA 13-D, 2013 edition. Plans for the residential sprinkler systems are a separate submittal and can be deferred until after the residential building permit has been issued provided the building plans identify that the structure will be protected by an automatic fire sprinkler system designed and installed in compliance with NFPA 13 D, 2013 edition under a separate permit. Water storage to operate the sprinkler system design area in compliance with NFPA 13-D is also required. Typically water storage for a residential sprinkler system is a two sprinkler head calculation for a minimum of ten minutes although building construction features may increase the water storage required for the sprinkler system.

## **IV. WATER STORAGE**

Water storage for fire flow is required for all residential occupancies in addition to water storage to operate the sprinkler system. For single family residences under 6000 square feet the amount of water storage required is 2500 gallons of water storage plus the water storage to operate the sprinkler system (which is calculated by the fire sprinkler contractor). Please contact the Napa County Fire Marshal's Office for multi-family residential projects or structures over 6,000 square feet. The water storage shall be delivered by either a wet draft hydrant or a pressurized hydrant. Piping for the water storage shall be a minimum of 4" and shall be either C-900 or ductile iron pipe.

Swimming pools are allowed as alternative water storage for fire protection. The water storage shall be configured in compliance with Detail #3 OR #5 of the Napa County Standards.

**EXCEPTION: If the proposed project is served by a community water system, no tank is required. The nearest hydrant shall be within 1,000 feet of the residence and shall be shown on the building plans.**

## **V. WILDLAND URBAN INTERFACE BUILDING STANDARDS**

As of January 2008 structures built in fire hazard severity zones are required to comply with the ignition resistant construction requirements of the 2013 California Building Code, Part 2 Volume 1, Chapter 7A. Chapter 7A of the building code is enforced by the Napa County Building Department.

### **VI. DEFENSIBLE SPACE**

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Defensible space is a perimeter that provides a buffer to stop or slow the spread of an encroaching wildland fire or prevent a structure fire from escaping into the adjacent wildland. Defensible space is an area of reduced and/or modified fuel that will not readily transmit or carry fire and will provide firefighters with a safe working environment that allows them to protect buildings and structures from encroaching wildfires and minimizes the chance that a structure fire will escape to the surrounding wildland.

Public Resource Code 4291, the California Fire Code and the Napa County Fire Hazard Abatement Ordinance require 100 feet of defensible around all structures and also require 10 feet of defensible space on each side of roads and driveways. The Napa County Defensible Space Guidelines were developed to provide a guideline of fuel modification to ensure compliance with the state and local requirements for defensible space. The guidelines can be found online at <http://www.napafirewise.org/>.

For new construction in the SRA, California Fire Code Section 4907 and the SRA Fire Safe Regulations (Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270) Article 5 requires:

- (a) All parcels 1 acre and larger shall provide a minimum 30 foot setback for buildings and accessory buildings from all property lines and/or the center of the road.
- (b) For parcels less than 1 acre, the local jurisdiction shall provide for the same practical effect.

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Whenever the setback, as defined above, is less than 30 feet, the design professional is responsible for detailing how the building design will provide the same overall practical effect. The Fire Marshal and the Fire Marshal's designees will review the proposed design. Examples of methods that may be considered as providing the same overall practical effect are: increasing fire wall rating, designing fire exterior sprinklers and setback easements on adjacent parcels.

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(b)

## **VII. SITE ACCESS - DRIVEWAYS - BRIDGES**

Fire department access is required for all new structures. The Napa County Planning and Engineering department is responsible for enforcing the road/driveway requirements found in both the California Fire Code and the Napa County Road and Street Standards. The Napa County Fire Marshal's Office will review all building permit applications for adequate access to and around structures. This will typically include access to within 150 feet of all exterior portions of a structure and a turnaround adequate for responding fire apparatus within 50 feet of the structure. Bridges roadways that access new residential structures shall be certified to carry 75,000 pounds by an engineer and load limits shall be posted.

### VIII. PLAN SUBMITTAL

A minimum of **Three SETS** of plans shall be submitted for fire review to the Napa County Building Department at 1195 Third Street in Napa. The Building Department will forward all plans that require fire department approval to our office for review. When approved, plans will be sent back to the building department for permit issuance. If changes are necessary a correction letter will be sent to the applicant with a list of the required corrections. Three sets of corrected plans shall be submitted directly to Napa County Fire Marshal at 1125 3<sup>rd</sup> street Napa, CA 94559.

In order to expedite your plan review, please have **ALL** of the following information on your plans:

1. Identify on the plans the total square footage of proposed residence or building and specify as new or remodeled construction.
2. The site plan shall be to scale with north reference.
3. A note shall be on all residential building plans indicating that the structure will be protected by an automatic fire sprinkler system designed and installed in compliance with NFPA 13 D, 2013 edition under a separate permit.
4. Show the numerical address on the plans. The numerical address shall be posted at the public roadway and any other intersections or residential driveway. Height and numbers shall be a minimum of 4 inches with reflective numbers or numbers on a contrasting back ground and/or illuminated See detail #14 Napa County Fire Standards.
5. Defensible space for wildfire shall be a minimum of 100 feet from all structures. Greater clearance may be required upon inspection as determined due to slope and fuel load.
6. Horizontal defensible space shall be provided a minimum of 10 feet on each side of the driveway.
7. Overhead clearance of the entire length of the driveway shall be a minimum of 15 foot vertical clearance. See detail #8 of the Napa County Fire Standards.
8. Location, size and radius of turnarounds. Turnarounds at the building site shall be constructed so as to allow large fire equipment to turn around with a minimum of maneuvering. Turnarounds shall be within 50 feet of the structure. More than one turnaround may be required depending on building size and access.

Note: Fire hydrants shall not be located in the turnaround area. See detail #11, #12 and #13 of the Napa County Fire Standards.

9. Driveway – include any easements from the county road to the residence and include distance of driveway in notes.
10. Gates – Where gates are provided a means of fire department entry shall also be provided. Manual gates shall have a KNOX padlock provided. Electronic gates shall be provided with a

KNOX key switch to override the system. All gates shall open inward. Gate entrances shall be 2 feet wider than the lane serving the gate, or a maximum required width of 20 feet, and shall be located a minimum of 30 feet from the roadway to allow a vehicle to stop without obstructing traffic. See

Napa County Fire Standards detail # 7. Knox products should be ordered on line at [www.knoxbox.com](http://www.knoxbox.com) or call 1-800-552-5569. **NOTE:** When ordering any Knox locking devices, be sure to specify the locks to be keyed for "CAL FIRE/Napa County".

11. Water Storage - Plans shall show all components of the water storage including water storage tank, piping, hydrants, and capacity dedicated to fire protection. The water storage required for domestic use shall be in addition to the required storage for fire protection.

Swimming pools are an acceptable use for fire protection. See detail #3 and #5 of the Napa County Standards.

12. The fire hydrant shall be located no closer than 30 feet and no further than 150 feet from the residence or building. The fire hydrant shall be located centered in a turnout area and shall be within 5 feet to the edge of curb or driveway. The hydrant outlet must be within 24 inches to 36 inches above finished grade of turnout area. See detail #2 of the Napa County Fire Standards.

**NOTE:** The fire hydrant turnout location shall be established in an area separate from the fire apparatus turn around area. The fire hydrant turnout area is for fire apparatus to be parked during drafting operations and shall not interfere with the fire department access to and from the structure.

13. Show on plans the size, location and routing of pipe from fire hydrant to water source. Pipe shall be a minimum of 4 inches in diameter C-900 or ductile iron with a gate valve and 4½ inch national hose male outlet. See detail #2 of the Napa County Standards.

a. **Wet draft** hydrant systems will require a 4 ½ inch male National hose thread adapter with metal cap.

b. A pressurized hydrant system will require a 4 ½ inch and two 2 ½ inch male National hose thread adapter with metal cap.

c. A pressurized system must have a minimum capability of delivering 200 GPM at 20 PSI and must be calculated and certified by a registered engineer.

14. Wet draft hydrants shall be painted red and have 1 inch white letters posted on it to read: "**Wet draft**". See detail #2 of the Napa County Fire Standards.

15. A blue dot reflector shall be adjacent to all hydrants. Bollard protection around hydrants will be required. See detail #2 of the Napa County Fire Standards.

16. Locate on plans new or existing bridges on the property that will be utilized for any fire apparatus to access any structures. All bridges shall have weight limits posted on an all-weather sign. See detail #15 of the Napa County Fire Standards.

**For additional information, please call the Napa County Fire Marshal's Residential Inspector @ (707) 299-1462.**