



NAPA COUNTY FIRE DEPARTMENT

COMMERCIAL DEVELOPMENT GUIDELINES

Table of Contents

SCOPE.....	3
SERVICE AREA.....	3
APPLICABLE CODES AND STANDARDS.....	3
TOWN OF YOUNTVILLE	4
PLAN SUBMITTAL.....	5
INSPECTION	5
I- FIRE PROTECTION WATER SYSTEMS	6
II- FIRE SPRINKLER SYSTEMS	7
II- FIRE SPRINKLER SYSTEMS (continued).....	8
III- COMMERCIAL KITCHEN SYSTEMS.....	8
IV- STANDPIPE SYSTEMS.....	8
V- FIRE EXTINGUISHERS.....	9
VI- FIRE ALARM AND DETECTION SYSTEMS	10
VII- EMERGENCY RESPONDER RADIO COVERAGE.....	11
VIII- FIRE DEPARTMENT ACCESS.....	11
IX- WINERY CAVES.....	12
X- TELECOMUNICATION FACILITIES	13
XI- FIRE HYDRANTS:.....	14
XII-DEFENSIBLE SPACE.....	15

SCOPE

This is a guideline intended for owners, builders and contractors. Where a conflict exists between the provisions of this development guide and the Municipal Code or Fire Code, the code shall govern.

SERVICE AREA

With some exceptions, the Napa County Fire Marshal's Office is the Fire Code's "Authority Having Jurisdiction (AHJ)" in our service area. As written in the Napa County Municipal Code:

"This code shall apply to all unincorporated areas of Napa County for the purpose of establishing minimum fire safety requirements for development in unincorporated Napa County. Exception: Property located in unincorporated Napa County within the American Canyon Fire Protection District shall follow the ordinances adopted by that District." (*1)

(For the town of Yountville, please refer to the associated page in the table of contents.)

APPLICABLE CODES AND STANDARDS

Napa County has adopted the 2019 California Fire Code (including Chapter 4, Appendix B and Appendix C), with local modifications (*2). Please note: This includes 2019 California Fire Code Chapter 80, which modifies many of the NFPA standards.

The 2019 California Fire Code, supplements and errata can be found here:

<http://www.bsc.ca.gov/codes.aspx>

Local modification to the fire code can be found here:

https://library.municode.com/ca/napa_county/codes/code_of_ordinances

All NFPA standards can be accessed online, free of charge here:

<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/free-access>

Napa County Fire Marshal Code interpretations and memorandums can be found here:

<https://www.countyofnapa.org/2829/Code-Interpretations-and-Memorandums>

Fire Department required access roads shall comply with the Napa County Road & Streets Standards. (*3) The standard can be found here:

<https://www.countyofnapa.org/1896/Engineering-Documents>

As codes and standards change over time, it is recommended that the references are consulted prior to each submittal.

(*1) Napa County Municipal Code Section 15.32.030

(*2) Napa County Municipal Code Section 15.32.010

(*3) Napa County Municipal Code Section 15.32.070

TOWN OF YOUNTVILLE

- 1) Building Permit Applications are in triplicate form and may be obtained at Town Hall located at 6550 Yount Street, Yountville.

Applications must be complete to be submitted. The Town of Yountville does not accept deferred submittals, including those related to truss calculations, fire sprinklers, or fire alarms. Seven (7) sets of plans will be required upon submission for commercial projects. Two of these sets must include all engineering calculations. Four (4) sets of plans are required for residential remodel projects. Applicants can expect a turnaround time for first plan check comments in approximately 4-6 weeks. Revised submittals may be required depending on the scope of the project and the quality of the application.

- 2) The Town of Yountville Municipal Code amendments can be found here:

<http://www.townofyountville.com/town-council/municipal-code>

From the website above, click on “Title 15 BUILDINGS AND CONSTRUCTION”, “Division 1. — Uniform Codes” then “Chapter 15.32 CALIFORNIA FIRE CODE”.

PLAN SUBMITTAL

Electronic Submittals are available for Tents, Fire Sprinklers and Fire Alarm Systems at:
<https://citizen.countyofnapa.org/citizenaccess/>

Paper plans for review by the Fire Division shall be submitted to the Napa County Planning, Building & Environmental Services Department (PBES) at 1195 Third Street (2nd Floor), Napa, Ca 94559.

PBES will forward all plans that require review by the Fire Division to our office. Plans will be returned to PBES with an approval or a list of comments requiring additional action.

Building Permits shall not be approved by the Fire Division until all required separate fire submittals have been received for review.

Commonly required fire submittals include: Fire Sprinkler Systems, Fire Alarm Systems, Fire Pumps, Kitchen hood Suppression Systems and Emergency Responder Radio Coverage systems.

A minimum of two submittal sets are required. Be advised that a revision on one permit may require a revision on one or more associated permits.

The following information will help expedite the plan review process:

- 1) A clearly worded scope of work, including the reference to Codes and Standards used.
- 2) Record or permit numbers (BYY-XXXXX and FYY-XXXXX) of associated permits.
- 3) APN (Parcel number).
- 4) All specific information that the Code or Standard used indicates should be included for review.
- 5) Valid contact information including a name, a phone number and an email address.

INSPECTION

Please call for an inspection a minimum of 72 hour in advance. All approved plans, forms, and permit cards shall be onsite for inspection. Failure to do so may require a re-inspection. Please note additional inspections, re-inspections or special site visits are not included in the permit fees and shall be charged at a per hour basis.

For inspection requests please contact the Napa County Fire Marshal's office at 707-299-1464.

I- FIRE PROTECTION WATER SYSTEMS

- 1) All amendments found in 2019 California Fire Code Chapter 80 for NFPA 24 shall apply.
- 2) An approved water supply capable of supplying the required fire flow shall be provided to all premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into the jurisdiction. (*12)
- 3) Where water storage tanks for private fire protection are used, they shall be installed in accordance with 2016 NFPA 22 (Many have found the diagrams in the annex to be helpful). (*14) (*13)
- 4) Water storage shall be sized in accordance with 2019 California Fire Code Appendix B, section B105.3. Where the site is more than ½ mile from a municipal hydrant, NFPA 1142 chapter 4 shall be used to determine “fire flow”. For automatic sprinkler system demand and hose stream allowances, NFPA 13,13D or 13R will be used depending on the application.
- 5) Private Fire Service Mains shall be designed and installed in accordance with 2016 NFPA 24 as amended by chapter 80 of the 2019 California Fire Code (*17)
- 6) Installation of private fire service mains may only be performed by contractors licensed by the State of California to install private fire service mains and their appurtenances. (*10)
- 7) For underground pipes, backfill shall be well tamped in layers or puddle under and around pipes to prevent settlement or lateral movement. Backfill shall consist of clean fill sand or pea gravel to a minimum of 6” below and to a minimum of 12” above the pipe and shall contain no ashes, cinders, refuse, organic matter or other corrosive material. (*19)
- 8) Fire Hydrants shall be spaced in accordance with 2019 California Fire Code Appendix C (*18).
- 9) Where fire pumps are required, they shall be installed in accordance with 2016 NFPA 20 and the memorandum dated 10/15/19 at the back of this document. (*20)
- 10) The water levels for tanks shall be electronically monitored. (*24)

(*12) 2019 California Fire Code Section 507.1

(*13) <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/free-access>

(*14) 2019 California Fire Code Section 507.2.2

(*16) Napa County Municipal Code sections 15.32.200

(*17) 2019 California Fire Code Section 507.2.1

(*18) 2019 California Fire Code Section 507.5

(*19) 2019 California Fire Code Chapter 80, amendment to 2016 NFPA 24 Section 10.9.1

(*20) 2019 California Fire Code Section 913.1

(*24) 2019 California Fire Code Section 903.4

II- FIRE SPRINKLER SYSTEMS

All amendments found in 2019 California Fire Code Chapter 80 for NFPA 13 and NFPA 13R shall apply. **NOTE:** At the time of release, the 2019 California Fire Code specifies the 2016 editions of NFPA 13, NFPA 13D and NFPA 13R (not the 2019 edition).

Plan Submittal requirements:

See 2016 NFPA 13 Section 23.1.3 or 2016 NFPA 13R Section 8.1.7 for information that should be included with the submittal. At least one copy of all hydraulic calculations and material specifications sheets with the plan set. Submit plans separately from the building set, for a separate permit. See page 5 of this document for general information.

Where required: (*21)

In addition to the requirements of 2019 California Fire Code Sections 903.2.1 through 903.2.18 903.2.12, an approved automatic fire sprinkler system shall be installed and maintained in all occupancies as follows:

1. Throughout all new buildings with a gross floor area of 3,600 square feet or greater; or
2. Throughout all additions to buildings already provided with an automatic fire sprinkler system; or
3. Throughout the entire building when an addition or expansion of 50% or greater of the existing square footage occurs within any three year period and the resulting building exceeds 3,600 square feet total floor area; or
4. Throughout an entire building which exceeds 3,600 square feet when repair of significant structural damage to the existing building (caused by fire, flood or earthquake, for example) requires rebuilding of 50% of the building structure.

Exceptions:

1. Group R-3 along with Group U garages or carports that are attached to and accessory to the R-3 occupancy (See residential development guide for requirements)
2. Buildings that are exclusively Group U - Agricultural Buildings as defined in Appendix C of the building code.

Installation requirements:

1. In occupancies other than group I and R (where required above) fire sprinklers shall be installed in accordance with 2016 NFPA 13 as amended in 2019 California Fire Code, Chapter 80.(*22)
2. In group R occupancies other than R-3, (where required above) Fire Sprinklers shall be installed in accordance with 2016 NFPA 13R as amended in 2019 California Fire Code, Chapter 80.(*23)
3. For Group R-3 occupancies please refer the Napa County Fire Marshal's office Residential development Guideline.
4. Under specific conditions sprinklers may be omitted from elevator hoist ways and machine rooms (*34).

(*21) Napa County Municipal Code Section 15.32.090

(*22) 2019 California Fire Code Section 903.3.1.1

(*23) 2019 California Fire Code Section 903.3.1.2

(*34) 2019 California Fire Code, Chapter 80, amendment to 2016 NFPA 13 Section 8.15.5.3

II- FIRE SPRINKLER SYSTEMS (continued)

Fire Department Connections (FDC):

1. Location, hose threads, access, clear space, physical protection, signs and backflow preventions shall be in accordance with 2019 California Fire Code Section 912.

Sprinkler System Supervision and Alarms:

1. Unless the exceptions of 2019 California Fire Code Section 903.4 are met, Fire Sprinkler systems shall be electrically supervised by a California State Fire Marshal Listed fire alarm control unit, which shall be monitored by an approved central station. (*25)
2. All High Volume Low Speed Fans (HVLS) shall be interlocked to shut down immediately upon receiving a water flow signal from the alarm system in accordance with the requirements of NFPA 72 (*33)

III- COMMERCIAL KITCHEN SYSTEMS

Plan Submittal requirements:

See 2017 NFPA 17A Section 6.3 for information that should be included with the submittal. Submit plans separately from the building set, for a separate permit. See page 5 of this document for general information.

- 1) Commercial kitchen exhaust hoods shall comply with the requirements of the California Mechanical Code. A type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors. (*27)
- 2) All systems required to have a Type I hood system in 2019 California Fire Code section 609 shall be provided with and an approved automatic fire extinguishing system. (*28)
- 3) In buildings otherwise required to have a monitored fire system, the automatic extinguishing system shall also be monitored by the system in accordance with 2016 NFPA 72. (*29)
- 4) Fire extinguishers provided for the protection of cooking grease fires shall be of an approved type compatible with the automatic fire-extinguishing system agent and in accordance with 2016 California Fire Code Section 904.12.5. A class K-extinguisher shall be provided within 30' of the hazard. (*26)

IV- STANDPIPE SYSTEMS

- 1) In buildings provided with a fire alarm or sprinkler monitoring system, system water supply valves in the fire mains shall be supervised. (*35)

(*25) 2019 California Fire Code Section 903.4

(*26) 2019 California Fire Code Section 906.4, CCR, title 19, Division 1 section 573(a) through (c)

(*27) 2019 California Fire Code Section 608

(*28) 2016 California Fire Code Section 904.2.2

(*29) 2019 California Fire Code Section 904.3.5

(*33) 2016 NFPA 13 Section 11.1.7 (4)

(*35) 2019 California Fire Code, Chapter 80, amendment to 2016 NFPA 14 Section 6.3.7.1

V- FIRE EXTINGUISHERS

- 1) Portable fire extinguishers shall be located to be readily accessible. Type, location and spacing throughout the facility shall be in accordance with 2019 California Fire Code Section 906.
- 2) Fire extinguishers shall have State Fire Marshal's service tag. Extinguishers under 40 pounds shall be mounted so the top is less than 5' above finished floor, within minimum 75' feet of travel distance between each extinguisher and exits or as required by 2019 California Fire Code Section 906.

VI- FIRE ALARM AND DETECTION SYSTEMS

See 2019 California Fire Code Section 907.1.2 for information that should be included with the submittal. Submit plans separately from the building set, for a separate permit. See page 5 of this document for general information.

- 1) All amendments found in 2019 California Fire Code Chapter 80 for NFPA 72 shall apply.
- 2) An approved manual fire alarm system conforming to the provisions of 2019 California Fire Code Section 907.2.1 shall be provided in Type 1 or 2 winery caves containing restrooms, wine laboratories or wine libraries and all Type 3 wine caves. (*31)
- 3) All High Volume Low Speed Fans (HVLS) shall be interlocked to shut down immediately upon receiving a water flow signal from the alarm system in accordance with the requirements of NFPA 72 (*33)
- 4) Air moving systems supplying air in excess of 2,000CFM to enclosed spaces shall be equipped with an automatic shut off activated by a supervised duct smoke detector, in accordance with 2019 California Mechanical Code Section 608. (*36)
- 5) Where elevator hoist ways, machine rooms, control rooms and control spaces containing elevator equipment are protected with automatic fire sprinklers, a means installed in accordance with NFPA 72 Section 21.4 shall be provided to disconnect automatically the main line power supply to the affected elevator prior to the application of water. (*43)
- 6) Fire Alarm Communicator upgrade Permits are available at reduced fees, see memorandum dated 4/14/2020 at the back of this document.

(*31) Napa County Municipal Code Section 15.12.130

(*33) 2016 NFPA 13 Section 11.1.7 (4)

(*36) 2019 California Mechanical Code Section 608.1

(*43) 2019 California Building Code Section 3005.5

VII- EMERGENCY RESPONDER RADIO COVERAGE

- 1) Emergency responder radio coverage in new buildings shall comply with 2019 California Fire Code Section 510.

The code requires that the signal coverage within the building be equaled to the existing signal coverage measured at the exterior of the building for “emergency responders” (this includes law enforcement as well as the fire department).

Please contact the Communications Department at (707) 299-1326 for details regarding frequencies other technical details.

VIII- FIRE DEPARTMENT ACCESS

- 1) Fire apparatus access roads shall be provided and maintained in accordance with 2019 California Fire Code Sections 503.1.1 through 503.1.3 and the Napa County Road and Street Standards. (*44)
- 2) A secure key entry system shall be required for all commercial facilities and security gates in the Napa County.
- 3) The gate access Knox key switch is #3501 or #3502. Knox padlock for a manual gate is #3770. Key switches for gates shall be located on keypad.
- 4) Contact the Fire Marshal’s office for site specific information.
- 5) Ordering from Knox Co can be done via the KNOX website @ www.knoxbox.com or calling, 800-552-5669, use the department code #PS-01-0176-03-82 or specify CAL FIRE/NAPA CO FIRE.

(*44) Napa County Municipal Code Section 15.32.070

IX- WINERY CAVES

- 1) In accordance with 2019 California Building Code Section 401.1 and the definition found in chapter 2, a cave is a building. Additional requirements can be found in section 446.
- 2) As a cave is a building, **caves of all types in excess of 3,600 square feet** shall be provided with an **automatic sprinkler** system.(*21)
- 3) Napa County Municipal Code amendments for Winery Caves shall apply to all new Winery Caves and all additions to existing Winery Caves.(*37)
- 4) **Type 3 Winery Caves** are defined as “Natural or manmade caves used for the storage and/or processing of wine at a winery facility. Type 3 winery caves are accessible to the public on guided tours or by hosted events. Any cave or portion of a cave that exhibits any of the following is also considered to be a Type 3 cave: 1. **Contains an area classified as a Group A** occupancy. 2. Contains an area classified as other than Group F or S occupancy. 3. Is constructed or furnished with any amount of combustible materials not otherwise permitted in this section. (*38)
- 5) An approved **manual fire alarm system** conforming to the provisions of 2019 California Fire Code Section 907.2.1 shall be provided in: 1. **Type 1 or Type 2 winery caves containing restrooms, wine laboratories or wine libraries.** 2. **All Type 3 winery caves.** (*39)
- 6) Caves or portions of caves classified as **Type 3** shall be provided with an **automatic sprinkler** system.(*41)
- 7) Emergency Responder Radio Coverage in accordance with 2019 California Fire Code Section 510 shall be provided in all caves.

(*37) Napa County Municipal Code Section 15.12.050

(*38) Napa County Municipal Code Section 15.12.060

(*39) Napa County Municipal Code Section 15.12.130

(*40) Napa County Municipal Code Section 15.12.150, 2016 California Fire Code Section 510

(*41) Napa County Municipal Code Section 15.12.120

(*42) 2016 California Building Code Section 303.1

X- TELECOMUNICATION FACILITIES

Show on all submittal drawings how the requirements of Napa County Municipal Code Sections 18.119.080 and 18.119.150 (below) are being met.

Napa County Municipal Code Section 18.119.080:

All radio, television and voice communication facilities providing service to government or the general public shall be designed to survive a natural disaster without interruption in operation. To this end all the following measures shall be implemented:

1. Non-flammable exterior wall and roof covering shall be used in the construction of all buildings;
2. Openings in all buildings shall be protected against penetration by fire and wind-blown embers;
3. The telecommunication tower when fully loaded with antennas, transmitters, other equipment, and camouflaging shall be designed to withstand the forces expected during the "maximum credible earthquake." All equipment mounting racks and equipment used shall be anchored in such a manner that such a quake will not tip them over, throw the equipment off its shelves, or otherwise act to damage it;
4. All connections between various components of the facility and with necessary power and telephone lines shall be protected against damage by wildfire, flooding, and earthquake; and
5. A self-contained emergency power supply capable of operating the facility for at least twenty-four hours and protected against damage from wildfires and earthquakes shall be installed.

Napa County Municipal Code Section 18.119.150:

All telecommunication facilities shall be designed and operated in such a manner so as to minimize the risk of igniting a wildfire or intensifying one that otherwise occurs. To this end all of the following measures shall be implemented:

1. At least one-hour fire resistant interior surfaces shall be used in the construction of all buildings;
2. Monitored automatic fire extinguishing systems approved by the Napa County fire chief shall be installed in all equipment buildings and enclosures;
3. Sheriff/fire department rapid entry (KNOX) systems shall be installed as required by the fire chief;
4. Graveled areas at least ten feet wide shall be installed completely around all new structures including telecommunication towers. Fuel modification zones of the minimum width specified in Public Resources Code Section 4291 shall be established and thereafter maintained around these graveled areas; and
5. All tree trimmings and trash generated by construction of the facility shall be removed from the property and properly disposed of prior to building permit finalization or commencement of operation, whichever occurs first.

XI- FIRE HYDRANTS:

- 1) Fire hydrants shall be provided in accordance with the CFC Appendix C. Fire hydrant locations shall be shown on scaled civil drawings.
- 2) All commercial fire hydrants shall have two 2 ½ -inch outlets with one 4 ½- outlet and shall have male National Hose thread connections.
- 3) Hydrants shall be located within 250 feet from the exterior of the building as measured along approved vehicular access roads.
- 4) Hydrants shall be located a minimum of 40 feet from buildings it serves. An accessible shutoff control valve within 20' of the hydrant is required.
- 5) Blue reflective markers shall be installed to identify locations of all fire hydrants. Locate 12" from centerline of hydrant side of road and perpendicular to the hydrant.
- 6) Hydrant body shall be painted Chrome Yellow. Tops and caps should indicate the available GPM. Below 500 GPM shall be red, 500-999 GPM shall be orange, 1000-1499 GPM shall be green, and 1500 GPM or more shall be light blue.
- 7) Fire hydrants clearance shall be a minimum of 18 inches from the center of the 4 ½ -inch discharge to finished grade level and 36 inches horizontal in all directions.
- 8) The minimum main size of all fire hydrants shall be 6 inches in diameter. Piping shall be installed with materials approved per current Standard NFPA 24 for the installation of Underground Fire Protection Mains.
- 9) Parking prohibited within 15' in either direction of hydrant and shall have approved red striping and/or signage per CA Vehicle Code §22514.

XII- DEFENSIBLE SPACE

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 space 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 the Napa County Fire Marshal's Office webpage.

<http://www.countyofnapa.org/firedepartment/>

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

Here are some helpful tips per Napa County Defensible Space Guidelines:

8.36.060 Duty to maintain defensible space and abate public nuisances.

Property owners shall maintain a defensible space as defined by this chapter and in the Defensible Space Guidelines. The following conditions within the unincorporated area of Napa County are declared to be nuisances and shall be abated by the owner of each parcel or property where such conditions exist, at the sole expense:

- A. The presence of prohibited materials within the defensible space surrounding any structure.
- B. The presence of prohibited materials on undeveloped parcels that are one acre or less in size.
- C. The presence of prohibited materials that contribute to the fuel load or hinder the clearing of properties or delay firefighting operations on any parcel.
- D. A portion of any tree that extends within ten feet of the outlet of any chimney or stovepipe.
- E. The accumulation of dead or dying wood in any tree adjacent to or overhanging a structure.
- F. The presence of prohibited materials on the roof or in the rain gutter of any structure.
- G. The absence of a screen, constructed of nonflammable material with openings of not

more than one-half inch in size, on any outlet of a chimney or stovepipe. The screen shall be constructed and installed in accordance with the California Building Standards Code.

H. The failure to comply with the Napa County Defensible Space Guidelines, which are incorporated herein by this reference.

8.36.080 Adjacent property owner's responsibilities.

When a structure is less than one hundred feet from a property line and prohibited materials on an adjacent parcel present a fire hazard for the structure, the property owner of the adjacent parcel where the fire hazard exists shall be responsible for clearing the area on that owner's parcel that is within one hundred feet of the structure, so as to provide the necessary fire protection in the manner and to the extent required by the Napa County Defensible Space Guidelines.

END OF DOCUMENT