



# PLUMAS COUNTY BUILDING DEPARTMENT

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## **RESIDENTIAL FIRE SPRINKLERS**

As of January 1, 2011 all **new** one-and two-family dwellings and townhouses shall have an automatic residential fire sprinkler system installed. **2013 California Residential Code R313**

System designs **shall** be submitted with the house plans. A C-16 Licensed Contractor or a properly licensed California Professional may design the system. The Design Professional in Responsible Charge shall specify on the plans the type of system to be installed. (i.e. Combination, Stand alone, Anti-Freeze, or other approved type). See #3 Design Requirements below:

*Note: Deferral of fire sprinkler items shall have the **prior approval** of the building official. **IMPORTANT NOTE: Fire sprinkler plan shall be approved BEFORE house permit can be issued.** The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the building official.<sup>1</sup> **Deferred submittals will be charged at an hourly plan check fee (Generally 1 or 2 hours plan review).***

*[Owner/Builders may install their own systems after completing the supplemental Owner-Builder Fire Sprinkler application and be knowledgeable and trained in accordance with NFPA 13D Section 4.6. Note: The County does not provide training, design, or installation assistance.]*

### **1. Submittal Requirements:**

- a. **Two (2) sets of plans** – Drawn to scale; 18" x 24" minimum size
- b. **Two (2) sets of hydraulic calculations.**
- c. **Two (2) sets of manufacturer's materials information sheets for: sprinkler heads, piping, hangers, valves, gauges, and flow switch.**
- d. **Submittals will only be accepted with a "Will Serve" letter from the Community Services District (CSD) listing the following: water pressure, water meter size, and supply pipe size to the dwelling.** For dwellings served by a well, provide the well log with tested GPM output and tested pump pressure.

### **2. Approval of Plans and Inspections:**

- a. The approved permit application entitles the applicant to **one (1)** hydrostatic/overhead piping inspection prior to installing insulation and **one (1)** final fire sprinkler inspection.
- b. It is the installer's responsibility to perform sufficient pre-inspection testing to ensure operational integrity and reliability of the system in order to avoid delays at the time of inspection.
- c. Additional fees will be charged for additional inspections at the current department hourly rate.

### **3. Design Requirements:**

- a. **Freeze Protection** must be adequately shown on the plans (including heat sources) which will require coordination between the Design Professional in Responsible Charge and the Fire Sprinkler Contractor / Designer. Statements such as - "Freeze Protection by Others"- are not acceptable and will result in the plans being returned as incomplete.
- b. **See our Freeze Protection and Plan Check Back-Check policies here.**  
<http://www.countyofplumas.com/index.aspx?NID=118>

- c. Design Systems shall be designed per **NFPA 13D or 2013 C.R.C. R313.3**. (Note: R313.3 shall apply to stand-alone and multi-purpose wet pipe sprinkler systems that DO NOT use anti-freeze).
- d. Freeze proofing shall be designed per **NFPA 13 D 9.1**
  - e. **Per NFPA TIA 13-1 Anti-Freeze systems may use only LISTED anti-freeze solutions. At this time, there are NO listed anti-freeze solutions.**

4. **Plan Submittal Requirement Checklist:** A typical residential fire sprinkler plans submittal shall include the following: (Circle completed items. Failure to provide the required information will result in the delay of your plan review).

- 1. Note any Exceptions for covered areas (e.g. < 55 sq.ft. bathrooms, clothes closets - <24 sq.ft. , with smallest dimension >3'-0").
- 2. Provide a site plan, drawn to scale, showing the underground pipe size, location, water meter size, and connection point to the **CSD** main. Also, for well, tank storage, and pump systems show equipment location, access, 120/220 volt receptacles, and freeze protection.
- 3. Note any sloped or special ceilings. Indicate pitch for each sloped roof plane.
- 4. Indicate on the plans all heat sources. (Wood heaters, stoves, etc. **C.R.C. 313.3.2.1 – 313.3.2.2**).
- 5. Indicate the type of piping being used in all areas (system piping, riser piping, and underground piping).
- 6. Provide all pipe sizes and lengths (system piping, riser piping, and underground piping).
- 7. Note any exposed beams, lighting fixtures, or other ceiling obstructions to the sprinkler heads. Dimension beam sizes and dropped or coffered ceiling areas.
- 8. Provide scaled cross sections for each uniquely framed area of the structure showing sprinkler system components and building construction (I-joists, floor trusses, trusses, etc.). Dimension all dropped or coffered ceilings.
- 9. Show any attic space areas with heat producing appliances and provide sprinkler coverage for those areas.
- 10. Specify the manufacturer of the sprinkler head, orifice size, and temperature rating. Use residential sprinkler heads in habitable spaces.
- 11. Provide hanger details showing all components and attachment devices.
- 12. Provide a system riser detail showing all valves and devices (no shut-off devices shall be installed on the system side).
- 13. Show the location of the exterior all-weather horn device when provided.
- 14. The 2013 C.R.C. **R313.3.2.3** states "piping shall be protected from freezing as required per **NFPA 9.1** and the California Plumbing Code. Show in **detail** how freeze protection is provided."
- 15. See also "**Plumas County Freeze Protection Policy**" at  
<http://www.countyofplumas.com/DocumentView.aspx?DID=3824>

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**CALIFORNIA LICENSED CONTRACTOR'S DECLARATION:**

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (Commencing with Section 7000) of Division 3 of the Business and Professions Code, and my License is in full force and effect.

Contractor Name: \_\_\_\_\_ License Class and #: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: (required) \_\_\_\_\_

Contractor Signature: \_\_\_\_\_

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**OWNER-BUILDER FIRE SPRINKLER EXEMPTION**

This fire sprinkler system is designed and will be installed in accordance with the owner-builder provisions of the California Business and Professions Code, Section 7026.12 and the Contractors License Board, which states:

"7026.12. The installation of a fire protection system, excluding an electrical alarm system, shall be performed only by a contractor holding a fire protection contractor classification as defined in the regulations of the board or by an owner-builder of an owner-occupied, single-family dwelling, if not more than two single-family dwellings on the same parcel are constructed within one year, plans are submitted to and approved by the city, county, or city and county authority, and the city, county, or city and county authority inspects and approves the installation."

Permit Number: \_\_\_\_\_

Project Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

I hereby affirm under penalty of perjury that I am the owner of the property and I comply with the Business and Professions Code, Section 7026.12.

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

*<sup>1</sup>Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official. C.B.C. 107.3.4.2 Deferred submittals.*