



CITY OF NEWPORT BEACH

COMMUNITY DEVELOPMENT DEPARTMENT BUILDING DIVISION

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FIRE SPRINKLER ONE AND TWO-FAMILY DWELLINGS PLAN REVIEW COMMENTS

Project Description:

Project Address:

Plan Check No.:

Permit App. Date:

Plan Check Expires:

Use:

Occupancy:

Const. Type:

No. Stories:

Permit Valuation:

Architect/Engineer:

Phone:

Owner/Tenant:

Phone:

Applicant/Contact:

Phone:

Plan Check Engineer:

Phone:

1st Review: (date)

2nd Review:
Italic comments

3rd Review:
By Appointment

The project plans were reviewed for compliance with the following codes and standards:

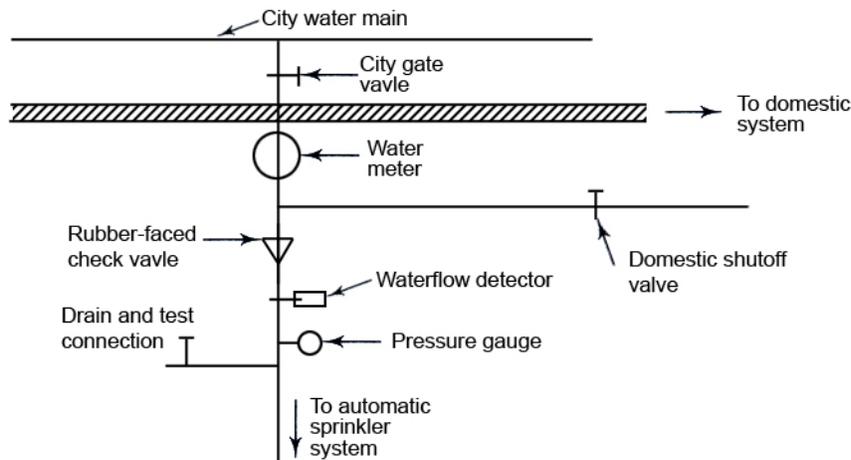
2013 CBC; 2013 CPC; 2013 CRC, 2013 NFPA 13D, 2013 CFC

The code section references are from the 2013 CBC, unless otherwise stated.

- **TO EXPEDITE PROJECT APPROVAL:** Please provide a written response indicating how and where each comment was resolved on the plans.
- Resubmit all previously reviewed plans, updated plans and supporting documents with each subsequent review.
- **AFTER 2nd PLAN REVIEW:** Please call the plan check engineer listed above to schedule a plan review appointment, to expedite project approval.
- For clarification of any plan review comment, please call the plan check engineer listed above.
- Plan review status is available online at www.newportbeachca.gov. Project status is also available using the interactive voice response system at 949-644-3255, or by speaking with a permit technician at 949-718-1888 during business hours.

1. Sprinkler Drawings must be prepared, stamped and signed by a licensed civil, mechanical, or fire protection engineer or by a licensed sprinkler contractor holding a valid C-16 license.
2. Coordinate the background and layout of your plans, with the city approved floor plans, ceiling plans, and sections. Consider the most recent city approved revisions with the architect/building designer.
3. Specify the name, license number, address and phone number of the preparer of the sprinkler drawings on the plans.
4. See riser assembly details below. Riser assembly to include:
 - a. Main control valve, which controls the sprinkler system & domestic water supply.
 - b. Domestic water supply valve, which controls the domestic water supply only.
 - c. Pressure gage
 - d. Check valve
 - e. Water flow switch
 - f. Test/drain valve

SINGLE-FAMILY - SPRINKLER RISER ASSEMBLY



5. Obtain a certificate of available static pressure information from the Utilities Division (949) 718-3410. Print the water certificate onto the plans.
6. Provide water supply test data and pressure/flow curve.
7. Indicate on the plans the size and location of the water meter. Contact Utilities Division for sizes (949) 718-3410. Verify size and location of water meter matches the city approved plans.
8. Show location of exterior fire alarm bell(s) CBC 903.4.2.
9. Specify all system components:
 - a. Pipe, NFPA 13-D tables 5.2.2 and 5.2.3.2,
 - b. Fittings, NFPA 13-D tables 5.2.5 and 5.2.9.2.
 - c. Provide the specifications and listing for sprinkler heads, hangers and braces.
10. Provide a sprinkler layout plan for each floor. Specify:
 - a. Pipe size
 - b. Sprinkler location
 - c. Hanger location

11. Provide sprinkler legend on the plans. Legend shall include symbol, count, type, finish, temperature, K-factor, manufacturer, model, and sprinkler identification number (S.I.N.)
12. Print sprinkler head technical sheets onto the plans.
13. Sprinklers installed where maximum ambient ceiling temperatures do not exceed 100°F. shall be ordinary (135-170°F) or intermediate (175-225°F) temperature-rated sprinklers.(NFPA 13-D section 7.5.6.1)
14. Sprinklers installed where maximum ambient ceiling temperatures are between 101°F. And 150°F. shall be intermediate-rated sprinklers (175-225°F.) (NFPA13-D Section 7.5.6.2. Examples are skylights and unventilated attics.)
15. Using computer methods (NFPA 13-D Section 10.4.3), provide hydraulic design calculations for water flow and pressure demand. The fire sprinkler system shall be designed to provide a margin for future loss by reducing both the static and residual design pressures by either of the following methods.(“a” or “b” below):
 - a. 10% of the static pressure when the static pressure does not exceed 100 p.s.i.
 - b. The pressure indicated by the Fire Sprinkler Water Availability Reduction Graph if the static pressure exceeds 100 p.s.i. (See Fire Department Guideline – F.02)
 - c. Typical reductions would be 14%@110 p.s.i., 18%@120 p.s.i., 22%@130 p.s.i., 26%@140 p.s.i., and 30%@150 p.s.i. and over.
16. Where a water supply serves both domestic and fire sprinkler systems, 5 gpm shall be added to the sprinkler system demand at the point where the systems are connected unless a device is installed to prevent flow into the domestic water system upon operation of a fire sprinkler. (NFPA 13-D Section 6.5.2.)
17. For sprinklers that are listed with specific discharge criteria, the system shall provide a minimum discharge density of 0.05 gpm/sq.ft. (NFPA 13-D, 10.1.1.1)
18. Minimum pipe size to be (NFPA 13-D Section 10.4.2.1 / 10.4.2.3.):
 - a. 1" Ø for steel
 - b. 3/4" Ø for Copper (Cu), chlorinated polyvinyl chloride (CPVC), and polybutylene (PB)
19. Provide sprinkler in bathrooms where the area exceeds 55 sq. ft. (NFPA 13-D Section 8.3.2)
20. Provide sprinkler in storage closet, linen closets and pantries where the least dimension is larger than 3ft., or the area is larger than 24 sq.ft. (NFPA 13-D section 8.3.3)
21. Add the following notes to the plans:
 - a. The fire sprinkler installer shall provide to the owner/occupant instructions on inspecting, testing and maintaining the system (NFPA 13-D, Section 12.1)
 - b. Sprinklers shall not be installed in the fittings prior to the fittings being cemented in place, provide temporary test plugs at rough inspection (NFPA 13-D 7.5.8)
 - c. Cover plates are not to be installed at final inspection but are to be available on the jobsite
 - d. The exterior bell, and smoke alarms shall be interconnected to the water flow switch.
 - e. A sign shall be affixed adjacent to the main shut-off valve that states in minimum ¼-inch letters, WARNING - The water system for this home supplies fire sprinklers that required detain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtration systems, and automatic shut off valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign.” (NFPA 13-D 6.5.3)
22. Where fuel-fired equipment is below or on the same level as occupied areas of the dwelling unit, at least one quick response intermediate temperature sprinkler shall be installed above the

equipment or at the wall separating the space with the fuel-fired equipment from the occupied space. (NFPA 13-D Section 8.3.5.1.2)

23. Sprinklers installed under glass or plastic skylights exposed to direct rays of the sun shall be of intermediate (175-225°F) temperature classification. (NFPA 13-D Section 7.5.6.3(1))
24. Sprinklers are required in carports with habitable space above. CBC 903.2.18
25. Provide detail on plans to show sprinkler location is in compliance with obstructions. (NFPA 13-D 8.2.5.4 and 8.2.5.5.) Consider the listing of the specific head and the following items but not limited to: beams, soffits, ceiling fans, surface mounted lights, and cabinets.
26. Provide sections through rooms with sloping and or beamed ceilings showing the location of sprinkler heads. Verify sprinkler head is listed and spaced for sloping and or beamed ceiling, and hydraulically calculated per the listing of the specific head.