This Checklist outlines general requirements. Information contained herein applies to typical instances and may not address all circumstances.

**FILE REVIEW**

- **FEES** – Permit fees entered in Permits Plus. 3rd or greater checks require an hourly fee for the review.

**PLAN REVIEW**

1. **Y** ☐ **N** ☐ Working plans shall include indicated scale, on sheets of uniform size, with a plan of each floor and shall show the following data:

2. ☐ ☐ Name of owner and occupant

3. ☐ ☐ Location, including street address

4. ☐ ☐ North arrow

5. ☐ ☐ Ceiling construction

6. ☐ ☐ Full height cross section (s) for clarity as needed including ceiling and roof construction

7. ☐ ☐ Location of fire walls

8. ☐ ☐ Location of partitions

9. ☐ ☐ Occupancy of each area or room

10. ☐ ☐ Location and size of concealed spaces, attics, closets and bathrooms

11. ☐ ☐ Any small enclosures in which no sprinklers are to be installed

12. ☐ ☐ Size of city water main in street, pressure, and whether dead-end or circulating and, if dead-end, direction and distance to nearest circulating main, and city main test results, including elevation of test hydrant

13. ☐ ☐ Make, manufacturer, type, temperature rating and nominal orifice size of sprinklers
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Sprinkler System Plan Review Tenant Improvement Per NFPA 13-2002

- vertical openings, 8.14.4.
- elevator hoistways and machine rooms, 8.14.5.
- spaces under ground floors, exterior docks, and platforms, 8.14.6.
- exterior roof and canopy, 8.14.7.
- library stack room, 8.14.9.
- electrical equipment, 8.14.10.
- stages, 8.14.15.

30. ☐ ☐ Sprinkler is provided at top of shaft, refer to exceptions, shafts with combustible surfaces require coverage at alternate levels, accessible noncombustible shaft has sprinkler at bottom, 8.14.2.

31. ☐ ☐ Vertical shaft has sprinklers at top opening, above bottom opening and alternate levels when it has combustible surfaces, 8.14.2.1, 8.14.2.2.

32. ☐ ☐ Sprinklers are provided beneath combustible stairs, 8.14.3.1.

33. ☐ ☐ Sprinklers are provided at the top of the stairway, under the first landing above the stairway shaft bottom when the shaft and stairs are noncombustible, 8.14.3.2.

34. ☐ ☐ Closely spaced sprinklers with draft stops are provided around unenclosed floor openings except large openings like found in malls or atriums, and openings between floors of a common dwelling unit, 8.14.4.1 and 8.14.4.2.

35. ☐ ☐ Elevator shaft has a sprinkler within 2 ft. of the shaft floor unless the shaft is noncombustible and there are no combustible hydraulic fluids, 8.14.5.

36. ☐ ☐ Ordinary or intermediate temperature sprinklers are in the elevator machine room or at the top of the elevator shaft, 8.14.5.1-8.14.5.1.5.

37. ☐ ☐ Sprinklers are provided under combustible ground floor, exterior dock, and platforms, 8.14.6.

38. ☐ ☐ Sprinklers are provided under roofs and canopies unless constructed of noncombustible or limited combustible materials, less than 4 ft. wide, and no storage, refer to exceptions 8.14.7.1-8.14.7.4.

39. ☐ ☐ Sprinklers are not required in noncombustible dwelling unit bathrooms, less than 55 sq. ft. or limited combustible with a 15 minute thermal barrier, except in nursing homes (I-1 and I-2) and in bathrooms that have direct access into corridors and exitways used by the public, 8.14.8.1.

40. ☐ ☐ Sprinklers are not required in hotel or motel dwelling unit clothes closet, pantries, or linen closets less than 24 sq. ft. and the least dimension is not greater than 3 ft., 8.14.8.2.

41. ☐ ☐ Sprinklers are provided in every aisle and at every tier stack, distance is not more than 12 ft. in library stack rooms, 8.14.9.
Sprinklers are provided in electrical equipment rooms, exception: the room is dedicated use, has dry type equipment, 2 hour equipment enclosures, and no combustible storage, 8.14.10. Also consult the exceptions pertaining to spaces containing telecommunication equipment and associated power supplies as specified in CFC section 903.2.

Open grid ceilings shall not be installed under sprinklers, unless the grid opening and sprinkler placement criteria of section 8.14.12 are met.

Drop-out ceilings are installed under sprinklers in accordance with their listing, and sprinklers are not located below the ceilings, 8.14.13.

Sprinklers for stages shall be provided in accordance with section 8.14.15.

Proscenium openings for stages shall be protected in accordance with section 8.14.15.2.

HYDRAULIC CALCULATIONS:

Indicate the calculation method used: density area method or room design method, 11.2.3.2. and .3.

Reference points in the calculation worksheet match with points on the plans, the occupancy hazard classifications are correct for the occupancy or use, 14.1.3.

If design area adjustments are made, the selected shall be indicated, 11.2.3.2.7.

Designs using QR sprinklers shall be in accordance with section 11.2.3.2.3.

Pipe size and length references in the calculation worksheet match the plans, 14.1.3(19).

Sloped ceiling may require a 30 percent increase of design area, 11.2.3.2.4.

Sprinkler data sheet information matches information on the plans.

Water flow information is provided with static PSI, residual PSI, and available GPM at 20 PSI residual with graphed results.

Density and design areas information are provided and comply with 12 conditions listed in section 11.2.3.1.8, Figure 11.2.3.1.5.

Calculations are correct: static PSI, pipe length, GPM, calculated K-factor values for drops or branch lines, elevation data, hose allowance, friction loss, and equivalent pipe and fitting lengths, 11.2.3.

For the room design method the design area includes the most demanding room and if any, adjacent connecting compartments, 14.4.4.1.2.

A minimum of two summary calculations are provided for a grid system, refer to the one exception, 14.4.4.2.

Additional calculations may be required if the building design and room uses do not make the most demanding area obvious.

Legend for calculation abbreviations is provided.

Calculations are provided for extra hazard occupancies, deluge automatic sprinkler systems, and exposure protection systems.
Dry pipe and double interlock pre-action design areas are increased 30 percent but the density remains the same (11.2.3.2.5), use of high-temp sprinklers in extra hazard occupancies may reduce design area by 25 percent but not less than the area specified in 11.2.3.2.6.

REQUIRED INSPECTIONS:

63. □ □ Wire and Piping Inspection – Pipe must be on the ground and set for inspection (not bundled):
   ○ Inspection of welds and welders stamps that are next to all welds.
   ○ Ensure all of the coupons are removed from the holes in the weld-o-lets

64. □ □ Overhead Hydrostatic & Rough-In Inspection – The system shall be pressurized at 200 psi for two hours with no drop in pressure while piping and bracking is inspected.

65. □ □ Fire Sprinkler Final - A main Drain, Inspector Test and final walk-through of sprinkler coverage shall be performed.
   ○ The main drain valve shall be opened and remain open until the pressure stabilizes.

Inspections shall be scheduled a minimum of 48 hours in advance. Directions for scheduling are found at: http://ci.santa-rosa.ca.us/news/Pages/AutomatedFireInspectionRequestSystem.aspx