



# Orangeburg County Fire Sprinkler Plan Review Checklist

## Fire Sprinkler Plan Review Checklist

### Submittal Requirement

1. Two (2) sets of Plans and Calculations.
2. Two (2) sets of Equipment Submittals (cut sheets and product information).
3. Water supply and pressure data from City or County (test data must be less than a year old).
4. Transmittal letter with Name, Address, Phone, Fax, and License Number of Sprinkler Contractor.

### I. General Information – Working Plans

1. Name of Owner and Occupant.
2. Location, including Street Address.
3. Symbol Legend, point of compass, graphic scale, and sheet numbers.
4. Type of Construction and Occupancy of each building.
5. Location of fire rated wall assemblies provide “through penetration” fire stopping details and listings.
6. Full height cross section of building showing location of fire sprinkler heads and piping
7. Use and function of each area or room.
8. Location and Size of concealed spaces, closets, attics and bathrooms.
9. Any small enclosures in which no sprinklers are to be installed (include justification)
10. Make, type, model and nominal K-factor of sprinklers (indicate sprinkler type).
11. Temperature rating and location of high temperature sprinklers.
12. Number of sprinklers on each riser per floor and total area of space being protected.
13. Total number of sprinklers on each dry pipe, preaction or deluge system.
14. Normal pipe size and cutting length of pipe.
15. Location and complete detail of sprinkler and standpipe riser.
16. Types of fittings and joints and location of all welds (welding inspection to be included on TIO)
17. Type and location of hangers, trapezes, and braces (provide calculations for sway bracing).
18. All control valves, check valves, drain pipes, and test connections.
19. Kind and location of alarm bell and standpipe riser Fire Department connections.
20. Size, location, and piping arrangements for Fire Department Connection.
21. Types and location of small hand / hose equipment and fire pumps.
22. Fire Authority signatures for appliance locations and water supply.
23. Reference CBC Amendments to NFPA 13 in CBC Chapter 35, Section 3505.
24. Reference OSHPD policy intent and Code Application Notice.
25. Indicate edition of NFPA 13 current edition is NFPA 13, 2007.
26. See NFPA 13, Chapter 8 Section 8-1.1 & 8-2.1 for additional items not listed on this checklist.

## II. Hydraulic Calculation Worksheets

1. Sheet Number.
2. Sprinkler Discharge, Discharge Constant (K), and Flow in GPM.
3. Hydraulic reference points.
4. Provide hazard classification for all areas to be sprinklered.
5. Indicate if system is hydraulic and pipe schedule mix.
6. Pipe size, pipe lengths, and center to center of fitting.
7. Equivalent pipe lengths for fittings and devices.
8. Friction loss in psi/ft of pipe and appropriate "C" factor of pipe.
9. Total friction loss between reference points
10. Elevation head in psi at each reference point.
11. Requires pressure in psi between reference points.
12. Velocity pressure and normal pressure if included in calculations.
13. Diagram of most remote area showing sprinkler nodes included in calculations.
14. Graph sheet showing supply curve, demand and hose demand.

### **Note:**

The purpose of this list is to reduce oversights and to achieve minimum levels of uniformity and completeness. The use of this reminder list does not constitute a complete plan review. Compliance with all terms on this list does not necessarily assure compliance with all provision of the applicable codes and standards. This reminder list should be used only by persons with a comprehensive knowledge of the applicable codes and standards.