Residential Fire Sprinkler System-13R or 13D
Plan Review Submittal Checklist

The fire sprinkler submittal checklist procedure describes the information needed to perform a complete plan review without delaying the project or creating a large correction letter.

I. GENERAL INFORMATION

- Project Description
- Owners’ name, address, telephone, fax and e-mail numbers
- Project location, including street address
- Name, address, telephone number and contractor’s license number
- Type Construction (Substitution using OSSC Section)
- Occupancy classification (Is this a required system?)

II. DOCUMENTATION

- Information noted on the hydraulic data nameplate
- A summary for the hydraulic calculations, including:
  - Date
  - Location
  - Name of owner and occupant
  - Building address and Suite Number if applicable
  - Description of hazard
  - System design requirements
    - Design density
    - Area of discharge
  - Total water requirements including hose streams
- Water supply information, source and date
- Detailed worksheets or computer printouts containing the following:
  - Each sheet to have a page number
  - Sprinkler description and discharge constant (k factor)
  - Hydraulic reference points to the point of connection
  - Flow in gallons per minute
  - Pipe size for each segment
  - Pipe lengths for each segment from center to center of fittings
  - Equivalent pipe lengths for fittings and devices
  - Friction loss indicated in psi per foot of pipe
  - Total friction loss between reference points
III. TWO SETS OF FLOOR PLANS

- Compass direction with North arrow and clearly marked scale
- Exterior connection(s) location, size and type
- Full height cross section
- The rating of walls/ceiling/floor/partitions and stairway enclosures
- Location and size of concealed spaces, closets, porches, canopies and over hangs greater than 4’.
- Any questionable small enclosures in which no sprinklers are to be installed
- Number of heads in this design

IV. PIPE, VALVES AND FITTINGS

- Size of municipal or private water main and whether dead-end or looped. If dead-end then indicate the direction and distance to nearest circulating main
- Nominal pipe size and indicating each segment length of pipe from center to center dimension
- Location and size of riser nipples
- Type of fittings and joints
- Type and location of hangers and bracing
- All control valves, check valves, drain and test pipe sizes and locations
- Total area protected by each system on each floor
- Make, type, model and size of alarm, dry-pipe, pre-action or deluge valve
- Type and location of alarm bells
- Approximate capacity in gallons of each dry-pipe system
- Pipe and schedule type with wall thickness
- Backflow device and location
- Approved backflow prevention assemblies shall be assemblies approved by the University of Southern California, Foundation for Cross Connection Control and Hydraulic Research.

V. SPRINKLERS

- Make, type and nominal orifice size of sprinklers
- Temperature rating and location of high temperature sprinklers

VI. MISCELLANEOUS INFORMATION

- Size and location of all hand-held hose, hose outlets and related equipment
- Indicate the most hydraulically remote area(s) by clouding this area
- Indicate hydraulic reference points (nodes)
- When a fire pump is employed, the location, make, model and rating of the pump
- Location and type of fire department hose connection for supply
Location and type of backflow prevention device with size.

Fire Department
  - Hydrant locations
  - Post indicator valve(s)
  - Vaults
  - Exterior connection(s) location, size and type

Water Source used to supply the sprinkler system

Sub-Contractor name and contractor license

Under Ground Design;
  - Pipe size, type with the wall thickness
  - Tap location
  - Routing of the pipe to the riser
  - Depth of burial of the pipe
  - Thrush block locations
  - Rodding locations
  - Bedding material type
  - Backflow device(s) and location(s)

Location of riser room

Location of Waterflow alarm

Riser detail

Inspector’s test detail

Signage for riser room door