

Planning & Development Department

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www.cityofrockhill.com



FIRE SPRINKLER SYSTEM PLAN REVIEW INSTRUCTIONS

WHEN TO USE THIS PROCESS

The fire sprinkler system requires a separate plan review and permit.

Related processes:

- Backflow prevention devices are required to be installed on the water line for a fire sprinkler system for a commercial building. See our main [Commercial Building Permits](#) page for more information.
- Adding a fire line to an existing building may also require you to submit [civil construction plans](#) for review. Contact the Infrastructure Division at 803-329-5515 for more information about that.

APPLICATION PROCESS

If the system is new or will have 12 or more heads installed, start with Step 1.
If fewer than 12 new heads will be added to an existing system, start with step 2.

- 1. Start the State review process:** If the system is new or has 12 or more new heads, [submit plans](#) to the [Office of the State Fire Marshal](#) for review. The State's plan review process can take 30 days or more. After receiving approval from the state, go through the following steps.
- 2. Submit the following in PDF format through our** Online Services website at www.cityofrockhill.com/online-services.

You may submit this to us for review simultaneously with the State Fire Marshal Office's review, but we cannot issue a permit until you also submit any required approval letters from the State.

- A. [Commercial building plans submittal form](#)**
- B. [Trades Permit Application](#)**
- C. **Sprinkler drawings**** – These must be sealed by a South Carolina Professional Engineer unless the building is exempted by Code of Laws [Section 40-22-280](#)
- D. If the system is new or will have more than 12 heads added:**
 - **Fire Protection Sprinkler System Specification Sheet** signed and sealed by professional engineer licensed in South Carolina
 - **Certificate of Compliance** signed and sealed by professional engineer licensed in South Carolina certifying that the fire sprinkler system was designed in accordance with the Fire Sprinkler System Specification Sheet
- E. **Approval letters from the SC State Fire Marshal**** for aboveground piping and underground piping, if applicable

We will verify that the fire sprinkler system design matches the approved civil construction plans and/or building plans for the project, if applicable. Please coordinate with the civil engineer and architect to ensure

that your sprinkler design matches the approved plans.

3. **We will email you an invoice for the required fees**, which also will be paid online.
 - [Fee schedule](#)
4. **City staff will review your plan** and send comments back to the designated contact person on the application within approximately 10 business days. If the plan must be revised, use the [Plan Resubmittal Instructions](#) to guide you in uploading your revised plans.
5. All contractors, subcontractors, and design professionals such as architects and engineers must have a City of Rock Hill [business license](#) before the building permit can be issued.
 - If your business is located outside the City and you would like to request a business license on a “per job” basis, you must submit a copy of your signed contract or other proof of the cost of the project.
6. After the above has been completed, **we will process your permit**, which may take another couple of days.
7. When the system is completed, prior to requesting acceptance testing from the City of Rock Hill Fire Marshal, upload the following into our online permit software:
 - **Contractor’s Material and Test Certificate for Aboveground Piping** completed by the licensed fire sprinkler contractor in accordance with the fire code
 - **Contractor’s Material and Test Certificate for Underground Piping** completed by the licensed fire sprinkler contractor in accordance with the fire code

REQUIRED PLAN COMPONENTS

1. Name, address, phone, fax, e-mail, of professional engineer licensed in this state or fire state sprinkler contractor’s state license number and NICET certification level.
2. Creation date of plan, revision dates, point of compass, scale and graphic representation of scale.
3. Complete address of project. Include building name or suite and tenant name if known.
4. Clear and definitive scope of work for the project and the company permitting the work.
5. Site/plot drawings with paved roads, fire lanes, parking, and building orientation. Include locations of area hydrants, the remote Fire Department Connection (FDC). FDCs must be labeled in accordance with City requirements.
6. Site/plot drawings indicating location, weight/class, size and length of underground piping and materials from water source to riser. Include any valves, meters, valve pit (include pit details), depth to bury pipe, thrust blocks, etc. All valves, including backflow, must be electronically monitored.
7. One set of hydraulic calculations for all remote areas.
8. One set of cut sheets for all components.
9. Provide the type of construction per NFPA 13. Include locations of wall partitions, fire walls, floor openings, concealed spaces, etc. Clearly label each area/room as to its use or title. Any area without sprinklers must be clearly indicated and the appropriate NFPA 13 exception number must be included.
10. Provide system design data at each design area. Hydraulic reference points shown on the plan must correspond with a comparable reference on the hydraulic calculations.

11. Include full height cross section and elevations of the facility, include ceiling construction.
12. If room design method is used, provide information of room rating, including self-closing doors and indicate all unprotected wall openings throughout that floor.
13. Indicate location and type of inspector test. Show all control valves, switches, and alarm/flow devices. Flow switches per level of the building and an exterior water flow alarm will be required per City Code.
14. Indicate all duct work, ceiling layouts, lighting, diffusers, etc. which may affect the system coverage.
15. Show size, type, piping, drainage, location and elevation of: risers, drains, house outlets, hand hose, etc.
16. Show settings for pressure reducing valves at all levels.
17. Legend must clearly indicate the sprinkler type, temperature, manufacturer, etc., of each head.
18. Indicate spacing of sprinklers and number of sprinklers in each story or fire area.
19. Indicate type and location of hangers, sleeves, flexible couplings, and braces. Provide location spacing, direction, and calculations on loads for sizing of sway bracing with materials detail.
20. [City Standard Building Fire Riser Detail](#)
21. [City Fire Line Connection Detail](#)