



DEKALB COUNTY FIRE RESCUE DEPARTMENT

Darnell D. Fullum, Director/Fire Chief

Fire Marshal Division-Chief Antonio Burden, Fire Marshal
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Phone: 404-371-2776 Fax: 404-687-2430



**2013 NFPA 13 AUTOMATIC SPRINKLER REVIEW
REQUIREMENTS**

<input type="checkbox"/> Approved/Comply with Comments	J. C. Ellison Fire Protection Engineer Phone: (404) 371-4963
<input type="checkbox"/> Disapproved/Resubmit	
Project Name: Physical Address: Project No.: Date Received: Date Reviewed:	Sprinkler Contractor Contact Information:

Please provide information that is checked in the box as indicated below:

- 14.1.3** Working plans shall be drawn to an indicated scale, on sheets of uniform size, with a plan of each floor
- (1) Name of owner and occupant
- (2) Location, including street address
- (3) Point of compass
- (4) Full height cross section, or schematic diagram, if required for clarity, including ceiling construction and method of protection for nonmetallic piping
- (5) Location of partitions
- (6) Location of fire walls
- (7) Occupancy class 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

- (10) Size of city main in street and whether dead-end or circulating; if dead end, direction and distance to nearest circulating main; and city main test results and system elevation relative to test hydrant. (See A-15.1.8.)
- (11) Other sources of water supply, with pressure or elevation
- (12) Make, type, and nominal orifice size of sprinklers
- (13) Temperature rating and location of high temperature sprinklers
- (14) Total area protected by each system on each floor
- (15) Number of sprinklers on each riser per floor
- (16) Location and size of riser nipples
- (17) Type of fitting and joints and location of all welds and bends. The contractor shall specify on drawing any sections to be shop welded and the type of fittings or formations to be used
- (18) Type and locations of hangers, sleeves, braces, and methods of securing sprinklers when applicable
- (19) All control valves, check valves, drain pipes, and test connections
- (20) Kind and location of alarm bells
- (21) Size and location of standpipe risers, hose outlets, hand hose, monitor nozzles, and related equipment
- (22) Private fire service main sizes, lengths, locations, weights, materials, point of connection to city main; the sizes, types and locations of valves, valve indicators, regulators, meters, and valve pits; and the depth that the top of the pipe is laid below grade
- (23) Piping provisions for flushing
- (24) Where the equipment is to be installed as an addition to an existing system, enough of the existing system indicated on the plans to make all conditions clear
- (25) For hydraulically designed systems, the information on the hydraulic data nameplate
- (26) A graphic representation of the scale used on all plans
- (27) Name and address of contractor
- (28) Hydraulic reference points shown on the plan that correspond with comparable reference points on the hydraulic calculation sheets

(29) The minimum rate of water application (density), the design area of water application, in-rack sprinkler demand, and the water required for hose streams both inside and outside

(30) The total quantity of water and the pressure required noted at a common reference point for each system

(31) Relative elevations of sprinklers, junction points, and supply or reference points

(32) If room design method is used, all unprotected wall openings throughout the floor protected

(33) The setting for pressure-reducing valves

(34) Information about backflow preventers (manufacturer, size, type)

(35) Information about antifreeze solution used (type and amount)

(36) Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in flow tests shall be shown

(37) Size, location and piping arrangement of fire department connections

14.1.4 The working plan submittal shall include manufacturer's installation instructions for any specially listed equipment, including descriptions, applications, and limitations for any sprinklers, devices, piping, or fittings.

14.2 Water Supply Information. Please provide the following (14.2.1):

(1) Location and elevation of static and residual test gauge with relation to the riser reference point

(2) Flow location

(3) Static pressure, psi

(4) Residual pressure, psi

(5) Flow, gpm

(6) Date

(7) Time

(8) Test conducted by or information supplied by

(9) Other sources of water supply, with pressure or elevation

14.3 Hydraulic Calculation Forms.

14.3.1 General. Hydraulic calculations shall be prepared on form sheets that include a summary sheet, detailed work sheets, and a graph sheet. [See *copies of typical forms*, Figures A.14.3.2 (a), A.14.3.3, and A.14.3.4.]

8.1 Basic Requirements.

8.1.1 The requirements for spacing, location and position of sprinklers are based on the following principles:

(1) Sprinklers shall be installed throughout the premises

(2) Sprinklers shall be located so as not to exceed maximum protection area per sprinkler

(3) Sprinklers shall be positioned and located so as to provide satisfactory performance with respect to activation time and distribution

(4) Sprinklers shall be permitted to be omitted from areas specifically allowed by this standard

(5) When sprinklers are specifically tested and test results demonstrate that deviations from clearance requirements to structural members do not impair the ability of the sprinkler to control or suppress a fire, their positioning and locating in accordance with the test results shall be permitted

(6) Clearance between sprinklers and ceilings exceeding the maximums specified in this standard shall be permitted provided that tests or calculations demonstrate comparable sensitivity and performance of the sprinklers to those installed in conformance with these sections

8.4.5 Residential sprinklers, where installed shall be the only sprinklers installed in a compartment, and used only in wet systems. Residential sprinklers shall be permitted in dwelling units and their adjoining corridors provided they are installed in conformance with their listing.

8.4.6 ESFR sprinklers shall be used only in wet pipe systems.

8.5 Position, Location, Spacing and Use of Sprinklers

8.5.2.2 Maximum Protection Area of Coverage. The maximum allowable protection area of coverage for a sprinkler (A_s) shall be in accordance with the value indicated in the Table in the applicable section for each type or style of sprinkler. In any case, the maximum area of coverage of a sprinkler shall not exceed 400 ft².

8.5.3.1 Maximum Distance between Sprinklers. The maximum distance permitted between sprinklers shall be based on the centerline distance between sprinklers on the branch line or on adjacent branch lines. The maximum distance shall be measured along the slope of the ceiling. The maximum distance permitted between sprinklers shall comply with the value indicated in the applicable section for each type or style of sprinkler.

8.5.3.2 Maximum Distance from Walls. The distance from sprinklers to walls shall not exceed one-half of the allowable maximum distance between sprinklers. The distance from the wall to the sprinkler shall be measured perpendicular to the wall.

8.5.3.3 Minimum Distance from Walls. The minimum distance permitted between a sprinkler and the wall measured perpendicular to the wall shall comply with the value indicated in the applicable section for each type or style of sprinkler. The distance from the wall to the sprinkler shall be no less than 4”.

8.5.3.4 Minimum Distance between Sprinklers. The minimum distance permitted between sprinklers shall comply with the value indicated in the applicable section for each type or style of sprinkler, and shall be maintained between sprinklers to prevent operating sprinklers from wetting adjacent sprinklers and to prevent skipping of sprinklers. Sprinklers shall be spaced not less than 6ft on center.

ADDITIONAL COMMENTS:

Revised: wbs: 03/12/2014