



Modified Limited-Area Life Safety Sprinkler System Regulations The City of Oklahoma City Fire Department

In Oklahoma City the modified sprinkler system is to only be used under specific criteria. It is a system which uses the principals and the exceptional performance of water based sprinkler systems over the past 100 years to allow for some flexibility in the sprinkler system design as well as the building interior design, while greatly improving the life safety features of the structure.

When can it be used?

The modified sprinkler system is allowed to be used in situations that meet **ALL** of the following criteria:

1. Light hazard business occupancies that are not otherwise required to be equipped with an automatic sprinkler system by the Building or Fire Code.
2. The maximum size of the building for use of this type of system shall be determined by the Fire Code Official based upon the proposed construction including but not limited to construction type, number of stories, use of spaces, overall size and any other factor deemed applicable by the Fire Code Official.
3. Maximum number of stories shall be 2, including basements and usable "attics".

Typically this type of system will be for a 4,000 to 8,000 square foot one story office building with a small second floor area finished out for storage or office use.

How is the system to be designed?

The automatic sprinkler system used in this situation must comply with the requirements of NFPA 13 currently adopted by Oklahoma City with the following modifications:

1. The water supply shall be calculated using the light hazard densities shown in the code assuming a 4 head flow.
2. Sprinkler heads may be omitted from unused attic, concealed spaces between floors and other concealed spaces. (including areas of combustible construction)
3. The size of the water main feeding the sprinkler system shall be determined by the hydraulic calculations.
4. Quick response sprinkler heads shall be used in the system. If conditions exist that are outside the head listings, the Fire Code Official must approve substitutions.
5. The sprinkler system shall be monitored for notification to the Fire Department as required by the codes. The system shall also monitor fire sprinkler valve tamper switches.
6. Signage must be posted and maintained on the installation tag indicating that the system is a "**Limited-area, Life safety sprinkler system as allowed by the AHJ**".
7. The FDC location will not be required to meet the 100 from hydrant and 10 from paving rule but must be located where it will be usable and accessible by the Fire Department as determined by the AHJ.

When properly installed, this system will be allowed to be used for the corridor fire rating reductions allowed for fully sprinkled buildings by the Building and Fire Codes adopted by The City of Oklahoma City.

This system is designed for life safety only, not for structure protection. All insurance carriers should be made aware that the **system is designed for the safety of the occupants only**.