



# Orange County Fire Authority Community Risk Reduction INFORMATIONAL BULLETIN 06-01

## Subject: Single Family Residence Attic Sprinkler Protection Requirements

Full attic fire sprinkler protection is not typically required within one or two family residences. However, OCFA staff may specify or applicants may offer this added level of protection to fully or partially mitigate other project deficiencies such as the lack of adequate fire department access. This design is intended to provide a minimal level of structure protection throughout the attic space by controlling the fire size before it extends to the occupied portions of the structure. When this level of protection is specified, this Bulletin must be specifically referenced or incorporated into the residential site plan or fire master plan approved by OCFA. The portion of the fire sprinkler system that is proposed to protect the attic space shall be designed to meet the following criteria:

1. Intermediate Quick Response Sprinklers shall be provided throughout the attic space.
2. The system shall be hydraulically calculated for a minimum density of 0.10 gpm/ft<sup>2</sup>. The maximum spacing between the sprinklers shall not exceed 130 square feet.
3. The attic sprinkler system piping can be copper, steel (with approval from the local water purveyor), or exposed CPVC (exposed CPVC cannot be used in areas also used for storage).
4. The number of hydraulically calculated fire sprinklers within the attic space shall be determined using the following table.

Area of Attic Space <sup>1</sup> (Square Feet)	Number of Sprinklers Calculated in Remote Area <sup>2</sup>
300 or less	One
301- 600	Two
601- 1000	Three
1000 or more	Four

Note #1: The number of calculated attic fire sprinklers may be reduced by the addition of full height draft stops within the attic to create compartments within attic spaces.

Note #2: When the number of calculated fire sprinklers exceeds 2, the size of the water meter and supply piping will frequently need to be increased due to increased flow requirements resulting in significantly increased costs.