

CHARLESTON FIRE DEPARTMENT

Fire Marshal Division

Information Bulletin

Fire Department Connections and Locations



The location of a fire department connection (FDC) is critical to the fire departments operation. The following information has been assembled as a guideline for determining the location of the connection(s).

International Fire Code (IFC), 2015 Edition, sections 903.3.7 and 912 do not specify a maximum distance between the connection and the hydrant. These sections simply state that the location shall be approved by the code official. This document is intended to provide designers and developers with the minimum acceptable criteria.

- 1) The fire department connection (FDC) shall be sized as follows unless alternate information has been provided as part of the system design:
 - a. Residential 13R Sprinkler Systems shall utilize a single 2-1/2" NST connection per NFPA 13R 2002 6.7.4.2.
 - b. NFPA 13 Sprinklers Systems shall utilize the following:
 - i. Downtown Charleston in the BAR (Board of Architectural Review) area, all newly installed connections shall be a flush/low profile type per BAR ruling.
 - ii. Dual (2) 2-1/2" individual clapper.
- 2) Connections must be installed so the bottom edge is no closer than 18", or higher than 48", above surrounding grade.
- 3) The surrounding grade must be level with an all-weather walking surface provided between the road and connection(s).
- 4) When possible, connections should be positioned at a remote location at least 40' from the structure. Building mounted connections must be positioned at or near the corner of the structure.
- 5) Connections must be positioned on the approach (address) side of the building. Exceptions may be granted based on physical/geographical limitations and will require additional signage.
- 6) Located no closer than 20 feet and no further than 100 feet from a hydrant - distances up to 200' will be considered for existing structures and conditions due to the use of large diameter hose. All measurements are taken "as the truck travels" along an approved driving surface.
- 7) Positioned adjacent to and facing a drivable surface or "Fire Lane".
- 8) No further than 10 feet behind the curb or edge of the drivable surface.
- 9) Protected with bollards, in accordance with IFC 312, when subject to impact or required by the Code Official.
- 10) Clearly labeled with signs in accordance with the Fire Marshal Division.
- 11) Adjacent curbing labeled as a fire lane in accordance with the requirements of the Fire Marshal Division.
- 12) All new fire department connections shall be provided with locking caps in accordance with IFC 912.4.1. Existing facilities with missing caps shall install locking caps. The only acceptable locking cap is the Fail-Safe FDC cap. Caps may be ordered by visiting www.failSAFEkeybox.com.

Please contact the City of Charleston Fire Department – Fire Marshal Division at (843)724-3429 with any questions or for additional information.