



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), 2021 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.

The minimum acceptable criteria has been broken into four categories, FDC Size and Type, Locations, Signage, and Protection

1. Fire Department Connections Size and Type
 - a. Residential 13R Sprinkler Systems connections shall be sized with at least one 2-1/2" NST connection per NFPA 13R 2016 6.11.2.
 - b. FDC's supplying NFPA 14 standpipe connections shall include a 2-1/2" connection for each 250 GPM of standpipe demand.
 - c. Newly installed fire department connections located in downtown Charleston in the BAR (Board of Architectural Review) area, connections shall be a flush/low profile type per BAR ruling.
 - d. FDC's shall be designed as building mounted in accordance with this informational bulletin. If the requirements listed in this bulletin cannot be achieved an alternate means and methods request shall be submitted for a remote free-standing FDC.
2. Fire Department Connections locations
 - a. Site Considerations
 - i. 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.
 - ii. 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.
 - iii. Positioned adjacent to and facing a Fire Apparatus Access Road or dedicated Fire Lane.
 - iv. The surrounding grade must be level with an all-weather walking surface provided between the road and connection(s).

- b. Building Considerations
 - i. Connections must be installed so the bottom edge is no closer than 18", or higher than 48", above surrounding grade.
 - ii. Connections shall not be obstructed and provided with clear working space of not less than 36 inches in width, 36 inches in depth and 78" in height shall be provided and maintained in front of and to the sides of wall-mounted connections.
 - iii. Building mounted connections must be positioned at or near the corner of the structure.
 - iv. Building mounted connections must be positioned with due regard for glass windows on the stories above the connection.
- 3. Signage
 - a. Clearly labeled with signs in accordance with the Fire Marshal Division. Please refer to our [Fire Department Connection Signs Informational Bulletin](#) for additional information.
- 4. Protection
 - a. Protected with bollards, in accordance with IFC 312, when subject to impact or required by the Fire Code Official. Please refer to our [Impact Protection Informational Bulletin](#) for additional information.
 - b. 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.