 CRFD	Castle Rock Fire and Rescue Department
	<i>LIFE SAFETY DIVISION GUIDELINE</i>
	Subject: Fire Department Connections (FDC) Date initiated: 01-01-2015 Date revised: 12-18-2021
	Approved: Brian Dimock, Division Chief/Fire Marshal Life Safety Division

APPLICABLE CODES AND STANDARDS:

- International Fire Code (IFC), Edition 2018
- National Fire Protection Association (NFPA 13)
- National Fire Protection Association (NFPA 24)

INTENT:

The intent of this document is to establish accurate guidelines for the installation of Fire Department Connections, commonly referred to as FDC's for fire sprinkler systems.

SCOPE:

The scope of this document is to provide the necessary steps in the FDC's at locations where fire sprinkler systems are installed.

DEFINITIONS:

- FDC: Fire Department Connection
 CRFD: Castle Rock Fire and Rescue Department
 IFC: International Fire Code
 NFPA: National Fire Protection Association

ATTACHMENTS:

- 1) NONE

RESPONSIBILITY:

It is the responsibility of the Life Safety Division to complete a plan review and inspections during the installation of the FDC in accordance with the fire code requirements and this guideline.

CODE BACKGROUND:

CRFD has administratively amended the fire code to require that all FDC's be located remote of the building in a free-standing configuration, outside the collapse zone of the building.

INSTALLATION REQUIREMENTS:

A completed CRFD permit application must be submitted by the installer of the FDC, who must be registered as a contractor with the Colorado Department of Public Safety – Division of Fire Prevention and Control. All installations shall be as follows:

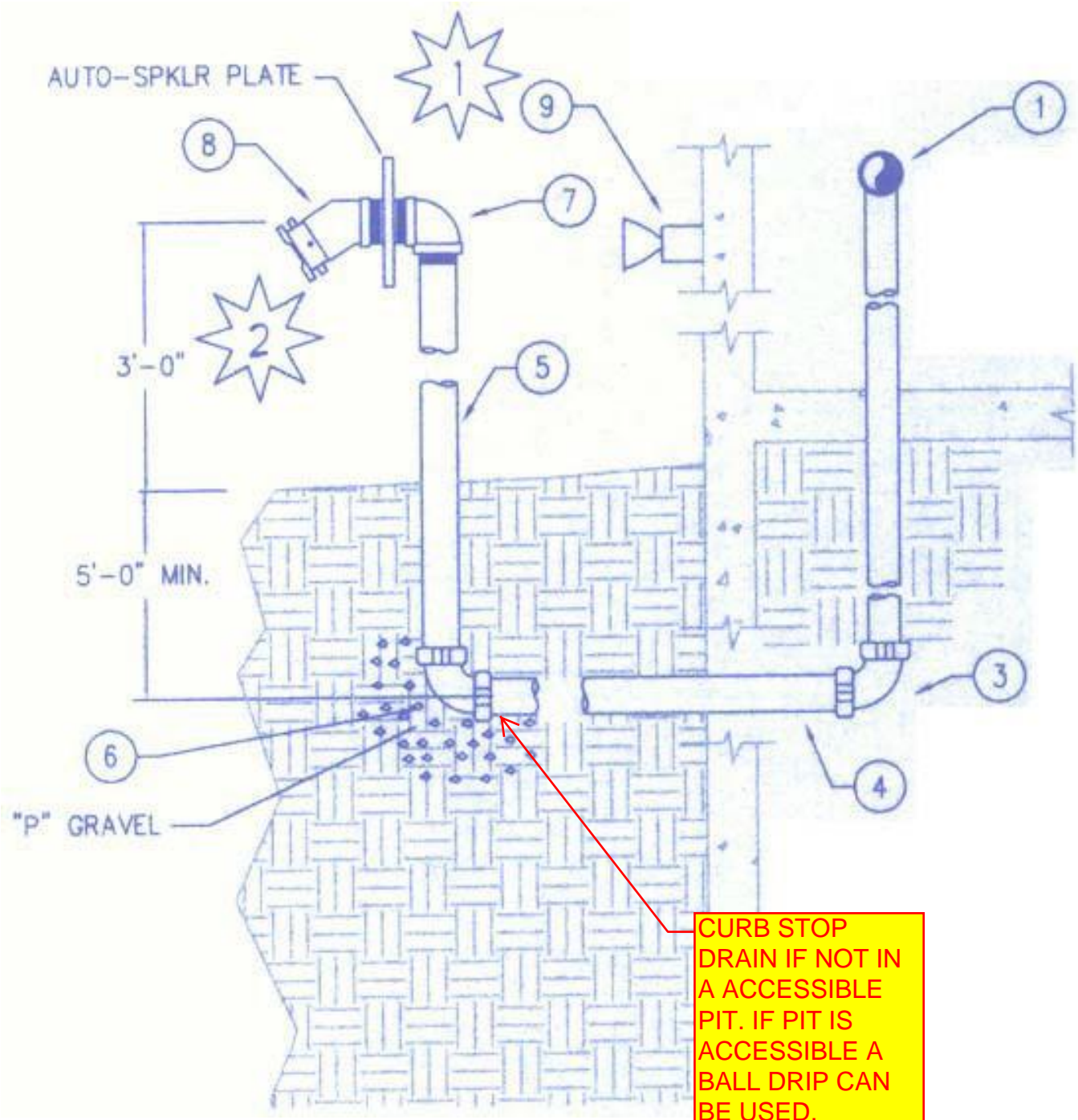
- All installations of the underground FDC line to the building shall be installed in accordance with NFPA 24, which is the Standard for the Installation of Private Fire Service Mains and their Appurtenances.
 - All underground visual inspections, 2-hour hydrostatic testing, and flush shall be witnessed by the fire department.
- An exterior horn / strobe shall be installed at a location approved by CRFD, and connected to the fire alarm control panel and shall activate upon water flow.
- A 5 inch Storz FDC shall be required.
 - The connection shall be located between 24 inches and 40 inches above the finished grade.
 - The connection shall be no closer than 36 inches from any curb line.
 - The location of the FDC shall be approved by CRFD during plan review and typically would be located not less than ½ the height of the building on the address side.
 - The connection shall be provided with a brass AUTO-SPKR plate, and a permanently attached cap with a 30 degree galvanized elbow.
- See the attached diagram and the legend below illustrating the components of the FDC installation.

FDC INSTALLATION LEGEND	
ITEM	DESCRIPTION
1	Back to riser
2	Not used
3	90 degree elbow
4	Galvanized pipe
5	Galvanized pipe
6	Drain 90 degree elbow with ball drip
7	90 degree elbow
8	5-inch storz connection with 30 degree elbow with auto-sprk plate
9	Exterior horn and strobe

or CURB STOP

BALL DRIP MUST BE IN AN ACCESSIBLE PIT OR A CURB STOP MUST BE USED

Figure “A” – Installation Diagram of the FDC:



**CURB STOP
DRAIN IF NOT IN
A ACCESSIBLE
PIT. IF PIT IS
ACCESSIBLE A
BALL DRIP CAN
BE USED.**

Figure “B” – Completed Installation of an FDC:



Completed FDC located near a hydrant, away from the building accessible to the fire department