



Fire Service Mains, Fire Hydrants, and Fire Department Connections - Policy

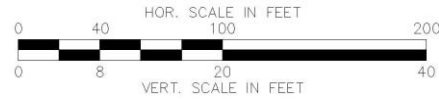
[revised 12/05/2016]

This policy is subject to revision - download the latest version at: www.cor.net/fire/permits

Fire Service Mains, Fire Hydrants, and Fire Department Connections shall comply with this policy. The list may not include all requirements. If you have questions, please contact the Fire Marshal's Office - (972) 744-5750 or email fmo@cor.gov. **New items are in red.**

GENERAL:

1. Submittals shall comply with this document and *Fire Protection System Permit Submittals* available at www.cor.net/fire/permits;
2. Submittals require a *Fire Protection System Permit Application*, available at www.cor.net/fire/permits;
3. Plans must clearly indicate all components affecting the system - unrelated items should not be shown:
 - a. North shall be indicated;
 - b. Plans shall be to scale – a graphic scale shall be indicated, e.g.:
 - c. Identify all applicable fire lane(s) on the plans;
 - d. Indicate building height(s) and outline(s) on the plans;
 - e. Show the following details, as applicable, on the plans [Water Standard and Domestic Vault Details at www.cor.net/fire/permits]:
 - i. Thrust-block(s) and/or other stabilization methods;
 - ii. Embedment detail – **must comply with the attached detail**;
 - iii. Vault, and Backflow Prevention [if applicable];
 - iv. Piping, including risers;
 - v. Fire hydrants – existing and proposed;
 - vi. Fire department connection, related piping, and sign details – **indicate system demand pressure**;
 - vii. Other details affecting the design and operation of the system.
4. A licensed utility contractor must coordinate with City of Richardson, Development & Engineering Department [(972) 744-4240 / fax (972) 744-5804 / information line (972) 744-4241], for a permit to tap into the city's water supply;



FDCs [Fire Department Connections] – SUBMIT APPLICABLE DETAILS:

1. 5" Storz, located 1½ times building height away from building, as practical – preferred off a corner of building and out of collapse zone;
2. FDCs shall be accessible from a fire lane, not from a public street, unless specifically approved;
3. FDC distance to the fire lane should be minimum 3' and maximum 35', along an approved path;
 - a. A 3-foot (914 mm) clear space shall be maintained around the circumference of FDCs;
 - b. An unobstructed path to the FDC of at least 5' width must be provided and maintained.
4. FDC distance to the fire hydrant should be minimum 35' and maximum 135', along an approved path [measure along hose lay];
5. FDC shall be located relative to fire hydrant such that hose lay will not cross roadway or fire lane;
6. **FDC shall be min. 18 in. to bottom, max. 48 in. to top, above the adjoining ground, sidewalk, or grade surface;**
7. **FDC shall have a 30° elbow, turned down;**
8. FDCs shall be provided with locking Knox StorzGuard Caps – order from www.knoxbox.com;
9. FDC Signs – SUBMIT DETAILS of design and installation:
 - a. **Approved address/building number(s) sign shall be attached to ALL FDCs;**
 - b. *A metal sign with raised letters at least 1 inch in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: AUTOMATIC SPRINKLERS or STANDPIPES or TEST CONNECTION or a combination thereof as applicable;*
 - c. *Where the system demand pressure exceeds 150 psi, the sign [above] shall indicate the required design pressure – **indicate the system demand pressure in submittals**;*
 - d. *Where the [FDC] does not serve the entire building, a sign shall be provided indicating the portions of the building served.*



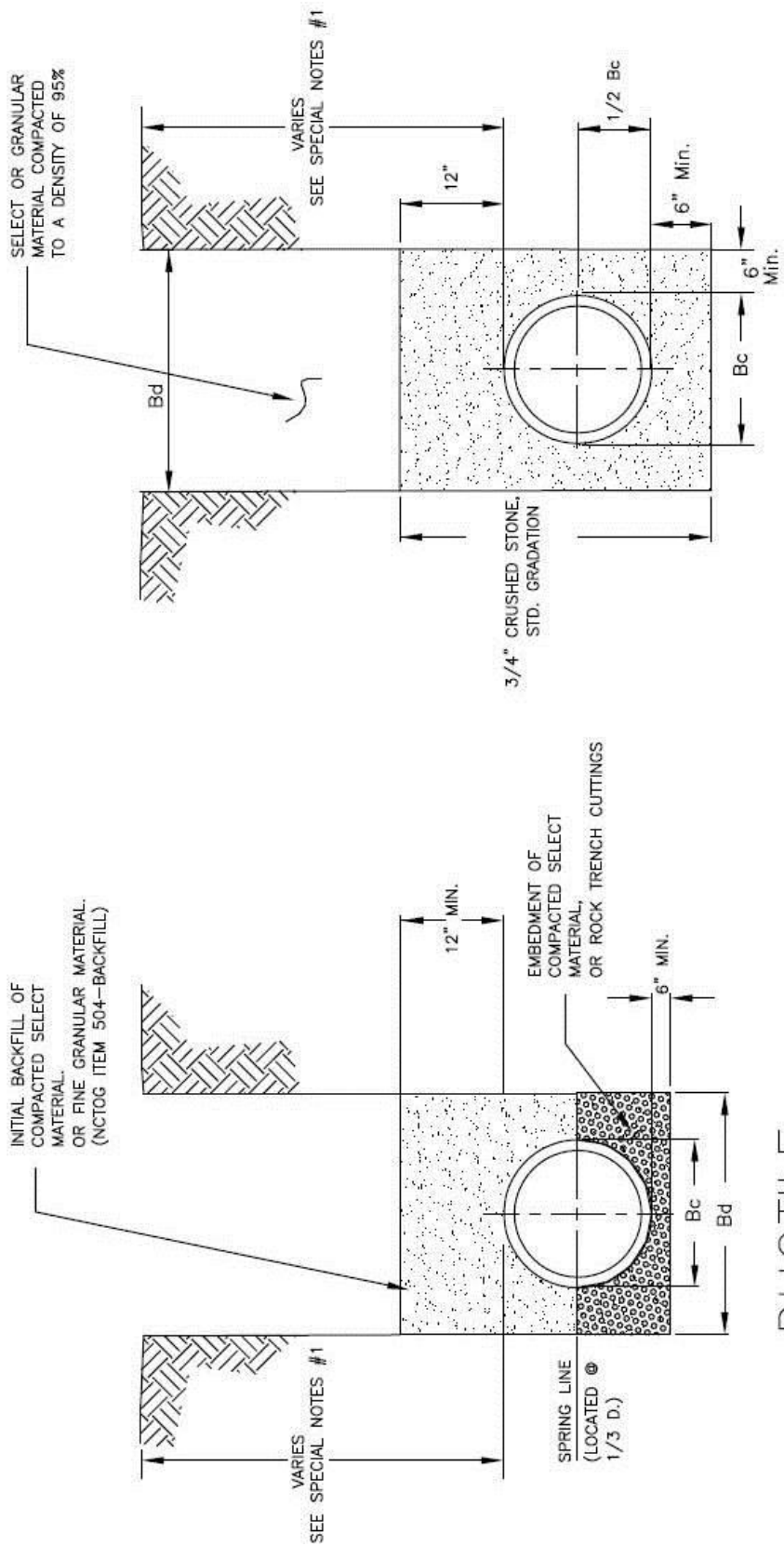
Example

FIRE HYDRANTS – SUBMIT APPLICABLE DETAILS:

1. Fire Hydrants shall be spaced no more than 300' in commercial areas;
2. Fire Hydrants should be located 2'-5' behind the curb of a fire lane or street;
3. A 5-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants.

INSPECTIONS AND TESTING:

1. Work must be completed, inspected & pre-tested BEFORE requesting an inspection, unless otherwise approved;
2. **Close-Out Documents - PRIOR to requesting "final" inspection [email .PDFs to firepermits@cor.gov, with permit # in subject line]:**
 - a. City of Richardson *Backflow Prevention Assembly Test and Maintenance Report* [www.cor.net/fire/permits], if applicable:
A copy must also be attached to the assembly in a watertight container.
 - b. *Contractor's Material and Test Certification for Underground Piping* [www.tdi.texas.gov/forms/form18sprinkler.html];
 - c. As-built record drawings marked "AS-BUILTS" **when changed from approved plans, or when otherwise requested.**
3. Applicant shall request all inspections by email [firepermits@cor.gov] or phone [(972) 744-5750] at least 1 full business day in advance. The Fire Marshal's Office will try to accommodate the inspection request, but cannot guarantee availability for the requested time;
4. **Visual inspections should coincide with the hydrostatic test, when possible. Proper embedment [type and depth] should center-load pipe lengths, but connections, stabilization, wrapping, and pipe identification must be accessible and visible;**
All piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at 200 psi or 50 psi in excess of the system working pressure, whichever is greater, and shall maintain that pressure at ±5 psi for 2 hours;
5. **Make a written note of the date, time and psi when the pump was last disconnected, and remove the pump from the area.**



DUCTILE

FOR RCCP SEE MANUFACTURER'S LAYING SCHEDULE FOR EMBEDMENT DETAIL.

P.V.C. C-900 (CLASS 200)

EMBEDMENT FOR WATER CONDUITS