FIRE SERVICE WATER LINES SUBMITTAL REQUIREMENTS

These guidelines are to be followed when a business, facility or organization proposes to install or modify an underground water supply for a water-based fire suppression system within the Lake Cities Fire Department Jurisdiction. This document shall assist in the preparation of a submittal for permit. These guidelines are not to be interpreted as containing all data required for proper design, installation, or approval.

All fire service underground water lines for the purposes of this guideline and the requirements of the Fire Department shall conform to the current adopted International Fire Code, and amendments by Hickory Creek, Shady Shores, Lake Dallas, and Corinth.

This guide does not replace, nor supersede any codes and/or ordinances adopted by Hickory Creek, Shady Shores, Lake Dallas, Corinth.

INCOMPLETE PERMIT APPLICATIONS WILL NOT BE REVIEWED.

PERFORMANCE AND INSTALLATION REQUIREMENTS

1. All underground lines shall begin at the point of connection to the underground circulating public/private water main. A valve shall be provided at the point of connection such that the fire sprinkler underground service line can be isolated from public/private water distribution system.

2. All underground water lines shall be dedicated to fire protection. Domestic, irrigation or non-fire protection taps on the fire service underground water line are not permitted.

3. All underground lines shall terminate at the top of the spigot piece no more than 5 ft. inside the building.

4. All ductile iron, retaining rods, and other non-plastic components shall be externally coated for corrosion and poly wrapped.

5. All underground piping shall be a minimum of Class 200/DR14 200 PSI rated pipe or equivalent.

6. Installation street address must be provided for each separate underground line being permitted and installed. Subdivision or development street corner will not be accepted.

7. The designer and company of record the permit is issued shall be responsible for the installation and inspection.

8. Civil construction drawings approved by the Hickory Creek, Shady Shores, Lake Dallas, or Corinth shall not constitute approval of the underground line(s).

9. The Fire Department may approve alternate methods and material, as well as review minor scopes of work to determine required submittal and permitting.

STANDARD DETAILS

10. Detail drawings shall be provided on all drawing submittals and shall match field installed condition.

11. With the exception of the Embedment Detail, all details provided are for guidance only. Actual site conditions and NFPA 24 will determine the actual necessary details to be provided to indicate the construction of the underground pipe.

BACKFLOW PREVENTION

12. Backflow prevention devices shall be in accordance with the below when installed on the fire service underground water line in an underground vault.

13. All fire sprinkler systems are required to be provided with an approved method of backflow prevention.

14. The City of Hickory Creek, Shady Shores, Lake Dallas, or Corinth Building or Engineering Department shall determine the final location of the backflow assembly. As a rule, if the fire service lead-in is less than 100 ft. in total pipe length, the assembly may be located within the riser room. If the fire service lead-in is more than 100 ft. in total length, the assembly must be located in a below grade vault adjacent to the tap top the circulating main, preferable in an easement. **Contact the pertaining City Engineering Department for their requirements on backflow protection.**

15. A reduced pressure zone (RPZ) backflow prevention device is required on antifreeze systems.

16. Assemblies shall be listed for fire protection use and, in the orientation, installed.

17. Assemblies must be capable of being electronically or mechanically monitored.

18. Assemblies must be provided with a metered bypass.

19. In accordance with NFPA 13, a method to perform a forward flow test at the system demand shall be provided downstream of the backflow prevention assembly. The following are examples of acceptable methods.

a. Install 2-½ in. standpipe outlets system side of the back-flow device. If the building is provided with standpipe outlets, these would be considered an acceptable method.

b. Provide a test header, similar to those on a fire pump. If the building is provided with a fire pump, the fire pump test header is considered an acceptable method.

c. A single 2-½ in. outlet is considered to flow 250 GPM.

20. All installations shall be inspected and tested.

21. The City of Corinth and or LCMUA Water Department shall be notified of all new installations.

FREESTANDING FDC SIGNAGE REQUIREMENTS

22. A fire protection signage shall be provided as outlined in IFC for all freestanding Fire Department Connections (FDC). Reference the signage guidelines for additional information regarding sign materials, size, and locations.

23. Remote freestanding FDC's shall comply with the requirements noted in the FDC General Guidelines.

PERMITTING REQUIREMENTS

24. A "Wet" RME signature and stamp, is required on all plan drawings.

25. Provide a minimum of three sets of plans.

26. Project name.

27. Project address.

28. Provide a written description of the work to be performed.

29. Fax submittals will not be accepted.

30. A scaled copy of the approved Site Plan that indicates the location of all fire hydrants and fire lanes servicing the building or site. The size and type of building shall be clearly indicated on the plan. Plans must include the location (street address) and point of compass. **The plans must be drawn to 1/8 inch = 1-foot scale (1/16" = 1' Acceptable for Large Buildings)**, a graphic representation of scale used.

31. Size and location of all water supplies and/or water lines servicing the building or site.

32. Plans shall be clear and legible, and all sheets shall be in a common and appropriate scale.

33. Flow test data, provided by the Lake Cities Fire Department, shown on the plans.

34. Size and type of all installed piping identified on the plans.

35. Occupancy classification.

36. Construction type.

37. Location of all valves.

38. Location and size of all thrust blocks.

39. Thrust block details.

40. Detail of the spigot piece and/or and in-building riser turn.

41. Embedment detail.

42. Embedment material shall be No. 4 crushed stone (1in to 2 1/2in in size).

43. Depth of bury. Minimum is 48 inches/4 feet, from top of pipe to grade.

44. Pit/ vault/ valve arrangement (if provided with a pit/vault).

45. Type of fittings/joints, methods of connection and rod size.

46. Location and the Remote Fire Department Connection (FDC). Remote FDC must be within 100ft of a fire hydrant and must be within 50ft of a fire lane.

47. Location and type of backflow prevention.

48. Provide information on the transition stability of different types of piping (e.g., transition from PVC to ductile iron, retainer glands).

49. Provide notes to indicate the following design standards.

50. The title block shall contain the following:

    a. Location of the installation.

    b. Name and complete address of the business.

    c. Name and complete address of the installing company.

    d. Licensing information.

    e. Date.

    f. Drawn by.

    g. Authority Having Jurisdiction.

    h. Scale.

51. See the current NFPA 24, for additional information.

52. A full equipment listing.

53. Manufacturer documentation for all parts and materials used in the project.

54. Drawings shall be submitted for review and approval, **PRIOR** to installation.

55. Drawings shall be generated by the installing company specific to the installation. Drawings shall show plan view and other pertinent information.

56. The submittal package must include and identify all above requirements.

57. Installation of a fire service underground water lines shall not be performed until a Permit has been issued. Any work performed prior to the issuance of a permit may result in a citation being issued for violation under the International Fire Code.

GENERAL SUBMITTAL REQUIREMENTS

58. Each submittal shall have a completed Lake Cities Fire Department Plan Review Permit Application. (Located on Lake Cities Fire Department website)

59. Plans approved by the Fire Code Official gives authorization for installation. Final approvals are subject to field verification. Any approval issued by the fire code official does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances.

60. All fire department inspection forms and permits shall be kept on the job site until final inspection.

61. All installations shall comply with the approved plans. Any deviation from the approved plans requires a resubmittal to the fire code official.

NOTE:

62. Re-inspection fee – If it is does not meet the requirements or fails to operate, there may be a re-inspection fee.

The issuance of a Fire Department Construction Permit from the Lake Cities Fire Department does not relieve the applicant of any permits required by the Cities of Hickory Creek, Shady Shores, Lake Dallas, or Corinth Building Department.

Submit Plans To

Lake Cities Fire Department

3501 FM 2181 Suite B Corinth, TX 76210
Phone: 940-279-4590 Fax: 940-497-3455