OFFICE OF THE FIRE MARSHAL
KAUFMAN COUNTY, TEXAS

101 N. Houston Street, Kaufman, Texas 75142
469-376-4122 | firemarshal@kaufmancounty.net

GUIDELINES: SITE/CIVIL PLANS

This guide is intended as a resource for civil engineers who are preparing plans for commercial establishments, public buildings, and multi-family residential buildings with four or more units in the unincorporated areas of Kaufman County. Please refer to the 2024 International Fire Code (IFC) as adopted by Kaufman County for all requirements. In an effort to expedite the plan review process, please ensure the following items are addressed or incorporated into the proposed plans.

General Requirements

- Specify the location of any vehicle impact protection around fire hydrants and remote FDCs. Provide details of the impact protection.

Fire Apparatus Access Roads (Fire Lanes)

- Unobstructed fire department access (fire lanes) shall be provided such that all portions of the exterior of any building are within 150-feet (as the hose lays) of a fire apparatus access road. This may be increased to 250-feet if the structure is protected in accordance with NFPA 13.
- Fire apparatus access roads must be marked "NO PARKING – FIRE LANE" with road paint or with signage as described in Appendix D of the 2024 IFC.
- Must be minimum of 24-feet wide and 26-feet wide at the location of any fire hydrant.
- Dead end fire apparatus access roads in excess of 150-feet shall be provided with a turnaround approved in Appendix D of the 2024 IFC.
- The minimum inside turn radius of all curves on a fire apparatus access road must be a minimum of 26-feet. Contractors may elect to use AutoTURN CAD Software or other similar software to show that the fire apparatus of the applicable jurisdiction will be capable of making a turn that is less than a 26-foot radius. Contractors should contact the responding fire department to determine the wheelbase of their apparatus.
- The grade of a fire apparatus access road may not exceed 10 percent.
- Fire apparatus access roads must consist of an all-weather surface capable of supporting the imposed load of fire apparatus weighing up to 85,000 pounds.
- Two means of fire apparatus access shall be provided for developments consisting of one or two-family dwellings where the number of dwelling units exceeds 30, and in multiple-family residential developments where the number of dwelling units exceeds 100. Two means of fire apparatus access is also required where any structure is greater than 30 feet in height or exceeds 62,000 square feet.
- Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.
- Gated access that crosses a fire apparatus access road shall be reviewed & approved by the Fire Marshal (See Guidelines for *Access Control - Gates*).

Fire Apparatus Access Road (Fire Lanes)

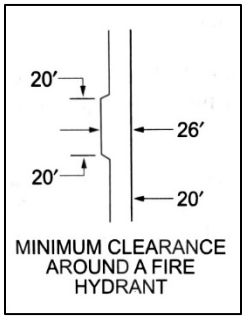

Figure 1: Minimum Clearance Around a Fire Hydrant

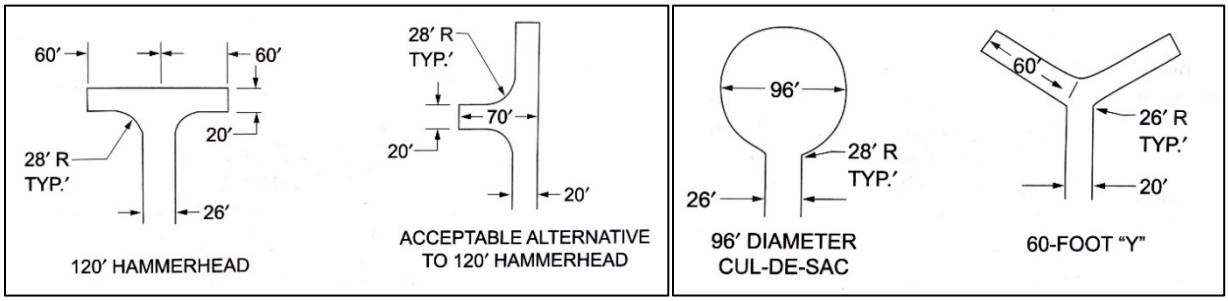

Figure 2: Approved Turn Arounds for Dead End Fire Lanes

Water Flow Requirements

- Provide details on water supply available to the site for fire suppression purposes (location of fire hydrants, size of mains, flow rate in GPM at 20 psi, tank locations and sizes, etc.).
- The fire code official will utilize Appendix B of the 2024 International Fire Code to determine fire flow requirements. If an adequate and reliable water supply system does not exist in the vicinity of the site, the fire code official may choose to use the current edition of NFPA 1142 or ISO Fire Flow calculations.
- Plans should indicate a maximum square footage or volume that can be constructed without exceeding the water supply / fire flow that is available to the site.

Fire Hydrants and Water Tanks

- Fire Hydrants shall be located within 250-feet of any point on the fire apparatus access road, with an average spacing of 500-feet between hydrants. This is applicable to:
  - Type IA & IB (Fire Resistive) structures up to 30,200 ft^2;
  - Type IIA & IIIA (Protected Non-Combustible & Ordinary) structures up to 17,000 ft^2;
  - Type IV & VA (Heavy Timber & Protected Wood Frame) structures up to 10,900 ft^2;
  - Type IIB & IIIB (Unprotected Non-Combustible & Ordinary) structures up to 7,900 ft^2;
  - Type VB (Unprotected Wood Frame) structures up to 4,800 ft^2;
- Consult Appendix B and C of the 2024 IFC or the Fire Marshal's Office for larger structures.
- Where fire hydrants cannot be installed due to the limitations of the water supply system, water storage tanks may be installed in accordance with NFPA 22.