

**MCKINNEY FIRE DEPARTMENT
FIRE MARSHAL'S OFFICE**

**CIVIL CONSTRUCTION DRAWINGS
RESIDENTIAL SUBDIVISIONS**

This guide is intended as a resource for the civil construction plan submittal requirements for residential subdivisions.

Civil construction plans are reviewed to determine compliance with Fire Department requirements as they relate to site construction and layout, building size, fire lanes, fire department access, fire hydrants, and other issues as designated. These requirements can be found in the 2015 International Fire Code, as adopted and amended by City of McKinney Ordinance No. 2018-01-002. In an effort to expedite the Fire Department's civil plan review process, please ensure the following list of items are incorporated into the proposed civil construction plans.

GENERAL COMMENTS

1. Plat in the civil construction drawing set matches the Plat approved by Planning Department, City Council and/or the Planning and Zoning Commission.

FIRE DEPARTMENT ACCESS

2. Two points of emergency vehicle access shall be provided. The two points of access shall be a minimum of 140 feet apart, as measured curb-to-curb. In lieu of providing a second point of access, if all homes located within the residential subdivision are voluntarily provided with an approved NFPA 13D residential sprinkler system, consideration to only one access point will be given. A separate submittal and letter of intent is required. Contact the Fire Marshal's Office for guidance with this alternate method.
3. If fire lanes are provided, they must meet the criteria stipulated in the Fire Departments Fire Lane Guidelines and the Engineering Departments Street Design Manual.
4. A temporary fire lane, if provided as a second point of emergency vehicle access, shall meet the following criteria:
 - a. Clearly identified and marked as "FIRE DEPARTMENT EMERGENCY VEHICLE ACCESS ONLY".
 - b. Shall be provided with signage and striped IAW IFC Section 503.3.
 - c. Must be certified by a Professional Engineer to support a 85,000 lb. fire apparatus and/or meet the Engineering Departments Street Design Manual for a fire lane.
 - d. Construction and arrangement approved by the Fire Department prior to civil plan approval.
 - e. A separate submittal and letter of intent is required.
 - f. Upon completion of the subdivision, a permanent second point of access must be provided.
 - g. If curbs are to be provided, they shall be mountable curbs and designed per City standards.
5. If fire lanes will constitute a second point of access, construction details must be included. This is to include temporary emergency access easements. See *Fire Lane Guidelines* for additional information.
6. All gated access points are required to be reviewed, approved and permitted by the Fire Department, under separate instrument. See *Access Control Gates Guidelines* for information.
7. The maximum cul-e-sac length shall not exceed 600 feet in length as measured from the centerline of the intersection/street to the center point of the radius.
8. All cul-de-sacs shall have a minimum right-of-way width of 100 feet.
9. Arrangement and location of any traffic calming devices shall be reviewed and approved by the Fire Department under separate instrument.
10. All residential streets shall be a minimum 26 ft. back-to-back.

CIVIL CONSTRUCTION DRAWINGS

RESIDENTIAL SUBDIVISIONS

FIRE HYDRANTS AND WATER LINES

11. See *Fire Hydrant Guidelines* for additional information regarding location and spacing.
12. Existing and proposed fire hydrants shall be indicated on the plans.
13. Location of valves.
14. Fire hydrant type and construction detail. Fire hydrants shall have (2) 2-½" connections and (1) 4" steamer connection.
15. Fire hydrants shall not be located in the bulb of a cul-de-sac.
16. A minimum required fire flow of 1,000/1,500 GPM is required.
17. Spacing between fire hydrants shall not exceed a maximum of 500 feet. Spacing may be required to be reduced to 200 ft. based upon the required fire flow and site conditions.
18. Spacing between fire hydrants shall not exceed 500 feet. The spacing required may be increased or decreased due to the required fire flow requirements of the subdivision.
19. All homes shall be within 250 feet of a fire hydrant.
20. All homes located on a dead-end street or cul-de-sac shall be within 200 feet of a fire hydrant
21. Distances between hydrants shall be measured along the route the fire hose is laid by a fire apparatus vehicle, not as the "crow flies".

ADDITIONAL REQUIREMENTS

22. Mountable curbs shall only be permitted on 31 ft. or greater residential streets.
23. Fire hydrants and fire lane access roadways shall be installed and maintained prior to vertical construction of any building or structure.

All criteria for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2015 International Fire Code, as adopted and amended by City of McKinney.

This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of McKinney, or determinations and positions of the Fire Chief or Fire Marshal.