## **Louisville Metro Ordinance (Chapter 94: Fire Prevention)**

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# **№§ 94.82 FIRE HYDRANTS, WATER MAINS AND WATER SUPPLY.**

- (A) Hydrant and main specifications.
- (1) *Definitions.* For the purpose of this subchapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.
- (a) *FIRE HYDRANTS* or *HYDRANTS*. Pumper-type hydrants which are equipped with not less than 2 four-inch large pumper outlets placed for the purpose of and intended for supplying water to fire department pumpers.
- (b) *YARD HYDRANTS.* Hydrants which are equipped with not less than two, 2 ½ inch outlets and are supplied with water from a siamese connection.
- (c) **DRY HYDRANTS.** A pre-piped water way installed to an approved static water source, equipped with one draft outlet with standard outlet diameter and thread specifications.
- (d) *PUBLIC HYDRANTS*. Hydrants owned and operated by the local water utility; *PRIVATE HYDRANTS* shall mean all other hydrants.
  - (2) Hydrant specifications.
- (a) All fire hydrants shall meet the minimum specifications and be installed in conformity with the standards and requirements of the local water utility for hydrant type and thread specifications and with any applicable standards of the National Fire Protection Association and shall be constructed and maintained so as to have the capability of supplying adequate water flow according to the standards of the local water utility and the applicable standards of the National Fire Protection Association, at the time of acceptance of the local water utility.
  - (b) Delivery.
- 1. Within the Urban Water Supply System area, fire hydrants shall be able to deliver 750 gallons per minute, with a friction loss of not more than five pounds per square inch, between the street main and the outlet.

2. Within the Modified Urban Water Supply System area, fire hydrants shall be able to deliver 500 gallons per minute, with a friction loss of not more than five pounds per square inch, between the street main and the outlet.

This provision is applicable to the design of the hydrants only, and is not to be utilized in the determination of the proper and/or necessary water flow requirements.

- (c) All hydrants that are replaced shall be equipped with two large pumper outlets four inches in diameter.
- (d) Hydrants may be tested periodically for proper functioning in accordance with the policy of the Fire Chief. The local water utility supplying water shall be notified prior to testing.
  - (3) Water main specifications.
- (a) A gate valve must be installed at the hydrant between the hydrant and the street water main.
- (b) Water mains that have hydrants installed on them shall be not less than six inches in diameter, including fire hydrant branch connections installed in conformity with the minimum requirements of the local water utility. Where size and physical characteristics indicate, the developer may be required to install water mains of a larger diameter.

#### (c) Distribution system.

- 1. The distribution system shall be equipped with a sufficient number of valves so located that breakage or other interruption will not cause the shutdown of any substantial portion of a main.
- 2. Where a development exceeds 100 dwellings in a given area, a secondary supply may be required by the local water utility.
- 3. Whenever service is installed in conjunction with fire hydrants, said service shall be of the fire protection type, as specified by the local water utility, and at least six inches in size.
- (d) All piping and materials installed as a fire protection service shall have UL/or FM listing, with a minimum rating of 150 pounds per square inch in order to comply with the provisions herein.

## (B) Location of hydrants.

- (1) Single-family and two-family dwellings.
- (a) 1. Fire hydrants shall be spaced not farther than 800 feet apart, measured over roadways or driveways, and easily accessible to fire protection apparatus.
- 2. The property line must be within 400 feet of a fire hydrant, as measured from its nearest point, over roadways or driveways, to the hydrant. The hydrant must be easily accessible to fire protection apparatus.
- 3. Closer spacing may be required where special circumstances, as determined by the Fire Chief requires such closer spacing, and documents the potential safety hazard that would exist without such closer spacing.
- (b) For new construction on lots with no more than two dwelling units, the closest exterior portion of a dwelling structure must be no further than 800 or 1,000 feet from a hydrant (as determined by the capabilities of local fire protection district with jurisdiction); otherwise, a domestic sprinkler system as set forth in NFPA Pamphlet 13D, 2002, or an alternate source of water supply, such as a dry hydrant or other approved system as set forth in NFPA Pamphlet 1142, 2001, must be provided.
- (c) For new construction on lots with more than two single-family dwellings, or with more than one two-family dwelling, the closest exterior portion of a dwelling structure must be within 500 feet of a hydrant.
- (2) Multi-family dwellings that are sprinklered according to NFPA Pamphlet 13 Standard For the Installation of Sprinkler Systems, or in accordance with NFPA Pamphlet 13-R Standard for the Installation of Sprinkler Systems in Residential Occupancies Up to Four Stories in Height, must comply with the following requirements:
  - (a) Fire hydrants shall be spaced not further than 1,000 feet apart.
- (b) No exterior portion of a building is to be more than 500 feet from a hydrant measured over roadways or driveways, and easily accessible to fire protection apparatus.
- (c) Residential buildings that are required to be sprinklered by the Kentucky Building Code shall comply with NFPA Pamphlet 24 Standard for the Installation of Private Fire Service Mains and their Appurtenances.
  - (3) For all other uses as defined herein.
- (a) Fire hydrants shall be located so that there will be at least one fire hydrant within 500 feet of each building, and one additional fire hydrant within 1,000

feet of each building. The distances shall be measured over roadways or driveways, and easily accessible to fire-protection apparatus.

- (b) No exterior portion of a building shall be farther than 500 feet, from a fire hydrant, as measured over roadways or driveways, and easily accessible to fire-protection apparatus.
- (c) Closer spacing may be required where special circumstances, as determined by the Fire Chief require such closer spacing, and documents the potential safety hazard that would exist without such closer spacing.
- (d) All hydrants must be located at least 25 feet from any exterior wall of a masonry building and at least 50 feet from any exterior wall of a frame building or a building of equivalent construction, including brick or stone veneer.
- (e) Notwithstanding the provisions of this subsection, no exterior portion of any non-sprinklered building (excluding single- and two-family dwellings), and/or non-residential occupancy of more than 1,000 square feet in total area located within the urban water supply system is to be more than 500 feet from a single fire hydrant, with one additional fire hydrant within 1,000 feet, as measured over roadways or driveways, and easily accessible to fire-protection apparatus.
- (4) All hydrants shall be located not more than 15 feet from the edge of a roadway or driveway, and easily accessible to fire-protection apparatus. The center of the hydrant nozzle shall be not less than 18 inches, nor more than 30 inches, above ground level (final grade).
- (5) Where fire hydrants are installed along a roadway, parking within ten feet from a fire hydrant is prohibited. Where fire hydrants are installed in parking areas, parking shall be designed and maintained to allow ten feet of clear access to the hose-connection side of the hydrant, and a four-foot minimum clear radius around the hydrant itself.
- (6) All hydrants shall be kept clear of weeds, rubbish and all other obstructions, by the abutting property owner. Landscaping or decorations shall not be used to obstruct or hide the fire hydrant from clear view, nor prohibit access to the hydrant for use or maintenance. Hydrants shall not be permitted to supply irrigation systems. Damage caused to landscaping within a 15-foot radius of the hydrant due to periodic maintenance, use, or testing of a fire hydrant, shall be the responsibility of the owner of the landscaping. Any use of a fire hydrant for a purpose other than fire protection or authorized periodic inspection must utilize a temporary water meter with appropriate backflow protection. The temporary meter must be requested from the local water utility.

# (C) Water supply.

- (1) Required delivery. Delivery standards shall include all provisions set forth within this ordinance, including those set forth below. The standards set forth in National Fire Protection Association ("NFPA") Pamphlet 1142 Standard on Water Supplies for Suburban and Rural Fire Fighting, is hereby adopted by reference, as modified by the provisions of this subsection, as set forth herein:
- (a) The total water supply, shall be achieved within 20 minutes, by flowing all fire hydrants within 1,000 feet of the building. Fire hydrants in non-residential areas shall deliver a minimum of 1,000 gallons per minute, regardless of the total water supply.
- (b) Where there are no water mains within the required distances set forth herein, provisions for other water supply sources may be permitted by the enforcing authorities, using NFPA Pamphlet 1142, as a reference.
- 1. In determining minimum requirements for water supplies for structural firefighting purposes, in accordance with the NFPA standards, the Fire Chief shall consider all pertinent conditions, including the following:
  - a. Limited fire department/ district resources;
  - b. Extended fire department/ district response time;
  - c. Delayed alarms;
  - d. Limited access:
  - e. Hazardous vegetation;
  - f. Structural attachments, such as decks and porches;
  - g. Unusual terrain; and
  - h. Special uses
- (c) Private hydrant systems for buildings not sprinklered shall be designed to provide the minimum required fire flow, in accordance with recognized standards, from the point of connection to the public water system.
- (d) Private hydrant systems shall not be permitted for areas containing new single- or two-family subdivisions, nor for single-family, two-family, or multi-family condominium developments located on a single parcel of land, other than those that are sprinklered in accordance with the Kentucky Building Code.
  - (D) Applicable standards for water delivery and hydrant spacing.

- (1) Classification of land parcels. Notwithstanding other provisions of this section, if a parcel of land meets the definition of "agricultural use," or "horticultural use," as defined in KRS 132.010, it shall be exempt from the requirements set forth herein.
- (2) No fire hydrants which utilize metered service for their source of water shall be considered in fulfilling the provisions of the subchapter. Fire hydrants installed on a fire service tap from the local water utility may use a fire service meter or leak detector meter of the size and type specified by the local water utility. Fire service meters shall be capable of delivering the full capacity of the water main installed.
- (3) The owner of any private water system or fire protection system shall notify the fire department when the system is out of service, and when service has been restored. The Fire Chief may order additional precautions be taken to ensure the safety of the building occupants. The owner of the system is responsible for prompt repair of the water supply system.

### (E) Fire lanes (where required by law).

(1) No person, firm or corporation in charge of, occupying, or the owner of any site for commercial, industrial, mercantile, educational, institutional, assembly, hotel, motel, multifamily or mobile-home park occupancy shall occupy, operate, utilize, or otherwise enjoy the site, until a properly-marked fire lane, not less than 20 feet in width, with at least 13 feet six inches vertical clearance, shall be provided and maintained as approved by the Building Official, in cooperation with the recommendations of the Fire Chief, and in accordance with the specifications set out below, and in accordance with the fire lane requirements set forth in NFPA 1 "Fire Prevention Code."

## (2) Markings and other designation.

- (a) The markings of fire lanes on private property devoted to public use shall be approved by the Building Official in cooperation with the recommendations of the Fire Chief.
- (b) NO PARKING FIRE LANE signs shall be placed at heights not less than 36 inches, nor greater 96 inches, as measured from the bottom of the sign, and positioned at intervals not greater than 60 feet.
- (c) Where the placement of signs is not possible due to safety or considerations, and upon the prior approval of the Building Official, in cooperation with the recommendation of the Fire Chief, the Fire Lane may be marked as follows: "NO PARKING FIRE LANE" painted on the street, with "traffic yellow" paint, at intervals of not greater than 50 feet. The letters shall be a minimum of 18 inches in height and have a two- inch or greater body stripe.

#### (3) Location restrictions.

- (a) Parking of motor vehicles within ten feet of entrances to parking lots or driveway entrances or exits or otherwise obstructing fire lanes is prohibited at all times.
- (b) Fire lanes and driveways shall be located so that all buildings served by them are accessible to fire equipment.
- (c) Dumpsters or other obstructions, mobile or fixed shall not be located within ten feet of either side of a fire hydrant or fire department connection to a building.
- (4) Fire lanes required by this subchapter shall not be required for sites whose structures total less than 5,000 square feet, unless the Building Official, in cooperation with the recommendations of the Fire Chief, determines that a fire hazard exists.
- (5) Alleys shall only be considered as fire lanes within the meaning of this subchapter if they comply with all requirements listed herein.

(Lou. Metro Ord. No. 187-2003, approved 10-10-2003; Lou. Metro Am. Ord. No. 48-2006, approved 3-28-2006

- (A) *Criminal penalties.* Any person, firm or corporation violating any of the provisions of this subchapter, or neglecting to comply with any order issued pursuant to any section hereof, shall be guilty of a misdemeanor, and shall be fined not less than \$25 nor more than \$1,000, or shall be imprisoned for not more than 60 days, or both. Each day's violation shall constitute a separate offense.
- (B) Civil penalties. Any person, firm or corporation violating any of the provisions of this subchapter, shall be subject to a civil penalty of not less than \$100, nor more than \$1,000. Each day's violation shall constitute a separate offense.

(Lou. Metro Ord. No. 187-2003, approved 10-10-2003)