

ORDINANCE NO. ORD-2020-10324

*AN ORDINANCE AMENDING SECTION 17-4 OF CHAPTER 17 OF THE LAND DEVELOPMENT CODE OF THE CITY OF IRVING, TEXAS, RELATED TO AMENDMENTS TO THE 2015 INTERNATIONAL FIRE CODE ADOPTED BY THE CITY OF IRVING: REGULATING ELECTRIFIED FENCING; REQUIRING INFRARED DETECTOR SYSTEMS ON MOTORIZED GATES OVER FIRE LANES; REGULATING MAINTENANCE OF PRIVATE SERVICE FIRE MAINS, WATER TANKS, AND FIRE HYDRANTS; REQUIRING LIGHTNING STRIKE PROTECTION ON CERTAIN OCCUPANCY CLASSIFICATIONS; PROVIDING A SEVERABILITY AND SAVINGS CLAUSE; AND PROVIDING AN EFFECTIVE DATE.*

WHEREAS, the City of Irving, as a home-rule municipality, has the full power of local self-government pursuant to Section 51.072(a) of the Texas Local Government Code, as amended, and may enact ordinances for the good government, peace, or order of the city and to protect the health, safety and welfare of its citizens; and

WHEREAS, as a home-rule municipality, the City has the authority to enact ordinances that protect health, life and property of the municipality and its residents pursuant to Chapter 54 of the Texas Local Government Code; and

WHEREAS, the City desires to implement measures to ensure the protection of the public from the dangers of fire; and

WHEREAS, the City Council has determined that regulating electrified fencing will help control the inherent fire safety concerns that arise with electricity; and

WHEREAS, the City Council has determined that many existing gates across fire lines in the City of Irving rely on obsolete technology that is outdated and does not have readily available replacement parts for needed repairs of existing gate systems; and

WHEREAS, the City Council has determined that upgrading to the use of infrared detector systems on gates across fire lines will improve mutual aid responses in the event of an emergency and will ensure that firefighters are able to gain access to properties as quickly as possible in the event of an emergency and to further aid in saving lives and property by providing faster response times for the firefighters; and

WHEREAS, the City Council has determined that fires caused by lightning strikes result in significantly more damage to structures, particularly to higher occupancy load buildings, and pose a greater risk to the safety of persons in buildings with higher occupancy loads that are often slower to evacuate and may have persons occupying the buildings who are not ambulatory and require assistance in the event of a fire emergency; and

WHEREAS, the City Council has determined that adding lightning strike protection features to high-occupancy load buildings will reduce damage to property and lessen injuries to persons in the event of fires in those high-occupancy load structures; and

WHEREAS, the City Council finds that it is in the best interest of the public health, safety and welfare of the residents of Irving to adopt these amendments to the 2015 International Fire Code; and

WHEREAS, the City of Irving posted this draft proposed ordinance amending the 2015 International Fire Code conspicuously on the City's website on or before the 21<sup>st</sup> day before the date the City Council takes action on the ordinance in accordance with Section 214.217(c) of the Texas Local Government Code.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF IRVING, TEXAS:

SECTION 1. That the findings set forth above are incorporated into the body of this ordinance as if fully set forth herein.

SECTION 2. That subsection (b) of Section 17-4 of Chapter 17 entitled "Fire Protection" of the Land Development Code of the City of Irving, Texas, is hereby amended by adopting the following amendments to the 2015 International Fire Code to read as follows:

## [ARTICLE II. FIRE PREVENTION CODE

### Sec. 17-4. International Fire Code.

(b) *Amendments, modifications and deletions* ]

*Section 316.7.* Section 316.7 of Section 316 "Hazards to Fire Fighters" of Chapter 3 "General Requirements" of this code is amended by adding Section 316.7 to read as follows:

**316.7 Electrified Security Fences.** Electrified Security Fences shall not be approved without complying with the following restrictions:

1. Prior to the installation of an electrified security fence, the owner or person in control of the property on which an electrified security fence will be located shall submit plans for the proposed system to the Irving Fire Department and all other applicable City Departments for review, and obtain all necessary permits. The plans shall include a site plan of the entire property, a description of the electrified security fence system, and a description of the proposed operating system. The electrified security fence shall not be placed into operation until it has been tested and approved by the Fire Department and Inspections Department for the City of Irving and until all necessary permits have been issued.
2. The electrified security fence shall have a power control switch located at the main gate of the secured property. The purpose of this switch is to shut down all power to the entire electrified security fence to insure that fire fighters can operate safely

around the fencing. The electric power to the electrified security system shall remain deactivated until the Knox key switch is restored to the "on" position.

3. This required switch shall be a Knox key switch. This switch shall be permanently mounted within 5 feet of the gate and shall be no lower than 4 feet from grade. The switch shall also be sub-mastered to fit the Irving Police Department's Knox keys. Above the Knox key switch there shall be permanent, all-weather, signage stating "ELECTRIFIED FENCE POWER CONTROL SWITCH". The lettering shall be 1 inch tall and have a stroke of one quarter inch (1/4). The lettering shall be white and the background shall be red. This sign shall be permanently mounted and be constructed of all-weather material.
4. There shall be permanent all-weather signage stating "ELECTRIFIED SECURITY FENCE" mounted on the main gate of the property. The lettering shall be two (2) inches tall and have a stroke of one half inch (1/2). The lettering shall be white and the background shall be red. This sign shall be placed in plain view and shall be no lower than four feet from grade.
5. Once the electrified security fence system is installed, the Irving Fire Department will inspect the installation for final approval.
6. All other aspects of the gate shall comply with 503.6 when applicable.

*Section 503.1.1.1* Section 503.1.1.1 of Section 503 "Fire Apparatus Access Roads" of Chapter 5 "Fire Service Features" of this code is added to read as follows:

**503.1.1.1 Fire apparatus access road easements and documentation.** Fire apparatus access roads that cross lot lines shall be contained in an easement and documented by plat or separate instrument. Approved covenants and restrictions shall accompany this easement.

*Section 503.6* Section 503.6 of Section 503 "Fire Apparatus Access Roads" of Chapter 5 "Fire Service Features" of this code is amended to read as follows:

**503.6 Controlled access gates.** It is unlawful for any owner or other person in control of public or private property to have a security gate located on or restricting access to his or her property or property under his or her control unless the gate is in compliance with the following:

1. Gates consisting of a single wooden railing that pivots vertically to allow passage of vehicles shall be so constructed and maintained to break away on minor impact or on application of manual pressure at the end most remote from the pivot point. The wooden railings shall be of soft wood and mounted on the pivot point with a knife edge bracket or otherwise scored to create a weak point that will break away when pressure is applied. The opening motors shall be connected to an approved radio receiver as described in 5 below.
2. Horizontal swinging gates shall open manually using an approved padlock. Each gate shall have a pin that has the capability of being secured with the approved padlock installed on the end of the operating arm closest to the gate. If no operating arms are installed, then a light duty metal chain and approved padlock shall be used to secure the gate. If provided, the opening motors of each gate shall be connected to an approved radio receiver as described in 5 below.

3. Rolling or sliding type gates shall not be installed in residential communities. Rolling or sliding type gates shall have an approved locking box mounted on the gate. The box shall open from both sides of the gate. This box shall be painted red and the word "FIRE" shall be lettered on the exterior of the box. There shall be a T-type handle attached to a cable release inside the box. When pulled, the cable shall disengage all opening mechanisms allowing the gate to be opened manually. This box shall be secured with an approved padlock. The opening motors of each gate shall be connected to an approved radio receiver as described in 5 below.

**Exception:** One- and two-family dwellings.

4. Pedestrian gates required for emergency access shall be equipped with an access door no smaller than 18" x 18" that is secured by an approved padlock. The inside latching mechanism shall not be more than twelve inches from the edge of the access door. If the pedestrian gate is for emergency use only, the door may be secured with an approved padlock accessible from both sides of the gate and no other latching hardware.

When deemed necessary by the Irving Fire Department and the Irving Police Department, for the safety of the citizens of Irving, additional requirements shall be met regarding pedestrian gates as follows:

- 4.1 Multi-family residential structures which have restricted pedestrian access through locked gates that share a common corridor for access to the living units shall provide an approved switch which unlocks all pedestrian gates at once when activated.
  - 4.2 The approved switch shall be located at the main entrance of the business office of the multi-family community. The switch shall be mounted on the exterior wall at a height of five (5) feet from the ground. The switch shall also be within five (5) feet of the main entrance door to the business office.
  - 4.3 Newly constructed properties meeting the requirements of this section shall have an approved switch in place and operational before a certificate of occupancy is approved for the multi-family complex.
  - 4.4 All multi-family complexes already constructed prior to the date this section is adopted shall come into compliance within 12 months of the date this section is adopted.
  - 4.5 In the event of a power outage, the pedestrian gate locks shall fail-safe into the unlocked position allowing unrestricted access to the living units.
  - 4.6 The gate locks shall be tied into the fire alarm system on the property and the locks shall automatically unlock when the fire alarm activates. Once the fire alarm panel is reset the locks on the gates shall reactivate.
5. All motorized gates crossing fire lanes shall be equipped with an approved infrared detector system, which is also GPS compatible, as approved by the Irving Fire Department.

- 5.1 An infrared detector shall be of a type that receives the infrared frequency utilized by the Irving Fire Department. There shall be two detectors, facing in opposite directions allowing gate control from opposite directions.
  - 5.2 The infrared detector shall be of a type designed to work in all weather conditions, and the installation shall protect the detector from physical damage.
  - 5.3 The infrared detector shall be located so that it will receive a clear signal from the approved data-encoded emitter at a distance of 30 feet from the gate, or another approved distance if circumstances warrant a modification. The detector's position shall also be adjusted in an effort to avoid any unwanted opening of the gate potentially caused by other emergency vehicle traffic.
  - 5.4 The signal from the infrared detector to the operating motor of the gate shall override or bypass the opening system or any other system that needs to be overridden or bypassed in order to open the gate.
6. When activated by the infrared detector, the motorized gate crossing fire lanes shall operate at a minimum speed of one foot per second and the gate shall be held open for 10 minutes before closing.
  7. No property shall receive a new Certificate of Occupancy unless it meets all the requirements of this section.
  8. Existing gate operating systems not in compliance with the approved infrared system shall be updated to the current requirements at the time of application for a new Certificate of Occupancy or no later than November 1, 2021, whichever occurs first.

*Section 507.2.1* of Section 507 "Fire Protection Water Supplies" of Chapter 5 "Fire Service Features" of this code is amended to read as follows:

**507.2.1 Private fire service mains.** Fire service mains and appurtenances shall be installed in accordance with NFPA 24. Fire service mains that cross lot lines shall be contained in an easement and documented by plat or separate instrument. Approved covenants and restrictions shall accompany this easement. Fire service mains and other utilities shall not be placed within the dimensions of a required fire apparatus access road.

*Section 507.5.3.* Section 507.5.3 of Section 507 "Fire Protection Water Supplies" of Chapter 5 "Fire Service Features" of this code is amended to read as follows:

**507.5.3 Private fire service mains, hydrants, and water tanks.** Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25. It shall be the duty of the property owner to insure that all required maintenance is performed and provide record of such maintenance to the fire department. The testing shall be conducted by a third party, state-certified contractor. Records of inspections, testing and maintenance shall be maintained by the

property owner for a period of 7 years. Inspections, testing and maintenance of private fire service mains and water tanks shall be performed according to the following guidelines:

1. Private fire hydrants of all types shall be inspected and maintained annually and after each operation; flow tests shall also be conducted annually.
2. Exposed fire service main piping shall be inspected annually. Additionally, a flow test shall be conducted every 5 years.
3. Fire service main piping strainers shall be inspected and maintained after each use.
4. The owner and contractor shall coordinate to minimize potential water damage caused by any discharge of water during the maintenance procedures.
5. All components of the fire hydrant shall be tested to verify that they function as intended.

*Section 610.* Section 610 "Lightning Strike Protection" of Chapter 6 "Building Services and Systems" is amended by adding Section 610.1:

**610.1 Lightning Strike Protection.** Lightning strike protection shall be designed and installed in compliance with NFPA 780, UL 96A and LPI-175 for the following occupancy types: R1, R2, I1 housing 16 or more persons, I2 including condition 1 and 2, and I3 including all conditions.

1. Inspections for final approval of the installation shall be conducted by a third party inspector who maintains a Lightning Protection Institute Master Certification (LPI-IP). The final report shall be provided directly to the Irving Fire Department.

## APPENDIX D

### FIRE APPARATUS ACCESS ROADS

*Section D105.* Sections D105.1 through D105.3 of Appendix D "Fire Apparatus Access Roads" of this code are amended to read as follows:

**D105.3 Proximity to building.** At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to, and run the full length of, the longest length of the structure. If a structure is architecturally designed in such a way that there are multiple short sections of wall that do not adequately provide Fire Department access to affect suppression and rescue operations then the Fire Department shall have the authority to determine the necessary number of wall sections necessary to properly conduct fire and rescue operations.

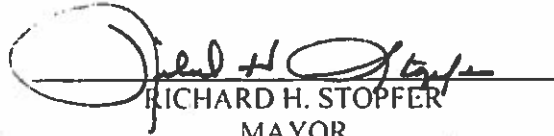
SECTION 3. That the terms and provisions of this ordinance shall be deemed to be severable and that if the validity of any section, subsection, sentence, clause or phrase of this ordinance should be declared to be invalid, the same shall not affect the validity of any other section, subsection, sentence, clause or phrase of this ordinance.

SECTION 4. That it is the intent of the Irving City Council that pending prosecutions, brought under the previous code which this ordinance replaces, should continue under the terms and penalties of said code and be saved from dismissal as if said prior ordinance had not been amended or repealed.

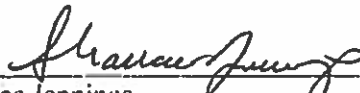
SECTION 5. Any person violating or failing to comply with any provision of this ordinance shall be fined upon conviction not less than one dollar (\$1.00) nor more than two thousand dollars (\$2,000.00). Each day any violation of any provision of this ordinance continues constitutes a separate offense.

SECTION 6. That this ordinance shall become effective on May 16, 2020.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF IRVING, TEXAS, on  
April 16, 2020.


  
RICHARD H. STOPFER  
MAYOR

ATTEST:

  
Shanae Jennings  
City Secretary



APPROVED AS TO FORM:

  
Kuruvilla Oommen  
City Attorney

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