



CITY COUNCIL MEMORANDUM

FROM: The Office of the City Manager **DATE:** October 14, 2019
SUBJECT: Consider Ordinance No. 3611, amending Chapter 98, Article VI, of the North Richland Hills Code of Ordinances adopting the 2017 National Electrical Code with amendments.
PRESENTER: David Pendley, Chief Building Official

SUMMARY:

In a continuing effort to update the city's construction codes and keep the North Richland Hills Code of Ordinances in line with current state minimums, staff brings forth for consideration the adoption of the 2017 National Electrical Code (NEC). The proposed ordinance contains the North Central Texas Council of Governments Recommended Amendments, as well as a number of local amendments. The ordinance maintains previous provisions requiring swimming pool door alarms in all new pool, spa, and hot tub installations, as well as in single-family rental properties.

GENERAL DESCRIPTION:

The 2017 edition of the National Electrical Code (NEC) as published by the National Fire Protection Association, officially became the electrical code of Texas on September 1, 2017 through the Texas Electrical Safety and Licensing Act passed by the Texas legislature. Since that time, the 2017 NEC has been enforced by the North Richland Hills Building Inspection Department.

The adoption of the 2017 NEC is a housekeeping measure that will reflect the state statute and keep the city's regulations in line with the city's published code of ordinances. In addition to the adoption of the NEC text, the ordinance contains a number of regional amendments recommended by the North Central Texas Council of Governments (NCTCOG) Regional Codes Coordinating Committee (RCCC). The purpose of the amendments is two-fold: To promote uniformity among municipalities in the DFW area; and to address specific trade practices associated with our region of the country.

It is important to note that although the 2017 NEC is the official electrical code of the State of Texas, Chapter 1305.201 of the Electrical Safety and Licensing Act affords municipalities the authority to make amendments to the code where it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety.

Significant code changes include:

- Panel boards that are re-used must be labeled "Reconditioned" by approved agencies
- New working clearance are required for panels over 600 volts

- Properly calibrated torque wrenches must be used for connecting electrical feeders and service conductors
- GFCI protection required on non-residential outlets in breakrooms, kitchens bathrooms, crawl spaces and roof locations
- Lighting in crawl spaces must be GFCI protected
- Arc-Fault protection now required on 15 and 20 amp branch circuits in hotel/motels
- Floor receptacles required in meeting rooms
- Mandatory clearances for conductors passing over railroad tracks
- New prohibition has been added preventing swimming pool belly steel from being used as a grounding electrode
- Electrical Metallic Tubing (EMT) may now be used underground
- Ceiling grid support wires are no longer allowed to support cabling and conduit.
- Conduit installed on top of a roof must be raised 7/8" or be subject to an amperage penalty
- Flat Conductor Cable (FCC cable) has been expanded for use in administrative areas of hospitals and schools
- Power and Control Tray Cable allowed in one- and two-family dwellings
- 15- and 20-amp outlets controlled by energy management or building automation systems must be permanently identified
- Tamper resistant outlets are required in hotel guest rooms, child care facilities, preschools/elementary schools, waiting rooms in medical/dental facilities, places of waiting-transportation, gymnasiums, and dormitories
- Receptacles for cord-and-plug connected dishwashers must be located in adjacent cabinet and not directly behind it
- Mandatory signs displaying maximum fault current required at industrial control panels, motor centers, air conditioning equipment, elevator panels, and industrial machinery
- Listed/labeled GFCI protection required on branch circuits fed by flexible cords at carnivals and fairs
- Arc-fault circuit interrupters required on solar systems; includes labeling and rapid shutdown devices
- Emergency power required at all ambulatory care and emergency centers

Pool Safety Amendments Retained

In addition to the prescriptive electrical details, the ordinance maintains the amendments approved by the City Council in April of 2016 regarding swimming pool/spa alarms and the Water Safety 365 initiative. The purpose of the Water Safety 365 initiative is to prevent accidental drowning through education, awareness, and increased safety regulations. The pool safety amendments to the NEC include the following:

- Door alarms required on all exterior doors leading to new swimming pool and/or hot tub area.



- Requires all single-family rental units with a pool, hot tub or spa to be retro-fitted with battery-powered door alarms.
- Mandates a pre-plaster/safety inspection during the construction of a swimming pool prior to being filled with water.

It's important to note that hardwired A/C door alarms are no longer available. As a result, language formerly requiring hardwired alarms and building power has been removed from this ordinance.

This action follows suit with surrounding communities that have adopted or will soon be adopting the 2017 National Electrical Code. The Council-appointed Construction Code Appeals Board (acting in their role of as the Technical Code Review Committee) voted on September 12, 2019, to recommend the approval of the 2017 National Electrical Code.

RECOMMENDATION:

Approve Ordinance No. 3611