

**ORDINANCE NO. 3405**

**AN ORDINANCE OF THE CITY OF NORTH RICHLAND HILLS, TEXAS AMENDING ARTICLE VI ‘ELECTRICAL STANDARDS’ OF CHAPTER 98, “BUILDINGS AND BUILDING REGULATIONS” TO ADOPT THE 2014 NATIONAL ELECTRICAL CODE AS THE OFFICIAL ELECTRICAL CODE OF THE CITY; PROVIDING FOR RECORDING OF THE CODE AS A PUBLIC RECORD; PROVIDING FOR THE ISSUANCE OF PERMITS AND COLLECTION OF FEES THEREFOR; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE OF ALL ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY FOR VIOLATIONS HEREOF; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR PUBLICATION IN THE OFFICIAL NEWSPAPER; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of North Richland Hills is a home rule city acting under its charter adopted by the electorate pursuant to Article XI, Section 5 of the State of Texas Constitution and Chapter 9 of the Local Government Code; and

**WHEREAS**, the City of North Richland Hills has previously adopted versions of the National Electrical Code, codified in Article VI “Electrical Standards” of Chapter 98 “ Buildings and Building Regulations” of the North Richland Hills Code of Ordinances; and

**WHEREAS**, the City having reviewed the available codes, desires to adopt a more recent electrical code to meet the needs of the City; and

**WHEREAS**, the City of North Richland Hills desires to amend Article VI “Electrical Standards” of Chapter 98, “Buildings and Building Regulations” of the City of North Richland Hills Code of Ordinances to adopt the 2014 National Electrical Code with local amendments, as the official electrical code of the City..

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NORTH RICHLAND HILLS, TEXAS:**

Section 1: THAT Section 98-232 of Article VI “Electrical Standards” of Chapter 98 “Buildings and Building Regulations” of the North Richland Hills Code of Ordinances is hereby amended to read as follows:

**Sec. 98-232. -2014 edition of the National Electric Code adopted.**

All electrical equipment installed or used in the city and all installations of electrical equipment shall be reasonably safe to persons and property and in conformity with the standards provided by the National Fire Protection Association, and with the provisions

of this chapter, applicable state statutes, and any rules or regulations issued under authority thereof. The National Electrical Code, 2014 edition, including Annex H (Article 80), as published by the National Fire Protection Association, a copy of which is on file in the office of the city secretary, and the regional amendments and interpretations thereto recommended by the North Central Texas Council of Governments, as further amended by the City of North Richland Hills set out in section 98-233 hereof is hereby adopted by reference to the same extent as though set out here in full as the Electrical Code of the City of North Richland Hills.

Section 2. Section 98-233 of Article VI “Electrical Standards” of Chapter 98 “Buildings and Building Regulations” of the North Richland Hills Code of Ordinances is hereby amended to read as follows:

**Sec. 98-233.-Amendments to the 2014 National Electric Code**

The 2014 National Electrical Code is hereby modified by the following amendments:

**\* Article 80.11(C) and (D) - add new paragraphs.**

*80.11(C) Change in occupancy.* It shall be unlawful to make a change in the occupancy type or use of any structure which will subject the structure to any special provision of this code applicable to the new occupancy without approval of the code official. The code official shall certify that such structure meets the intent of the provisions of law governing building construction for the proposed new occupancy and that such change of occupancy does not result in any hazard to the public health, safety or welfare.

No change shall be made in the use or occupancy of any building that would place the building in a different division of the same group of occupancy or in a different group of occupancies as defined by the building code, unless such building is made to comply with the requirements of this code for such division or group of occupancy. Subject to the approval of the code official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all the requirements of this code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use.

*80.11(D) Moved buildings.* Electrical systems and equipment that are a part of buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code for new installations.

EXCEPTIONS: The factory installed and inspected systems of:

1. HUD or Texas State approved mobile and manufactured homes

2. Texas State approved modular homes.
3. Texas State approved industrialized buildings

**\* Article 80.15 Electrical Board - Delete entire section.**

**\* Article 80.19(D) - Delete paragraph D.**

**\* Amend Article 80.19(E) as follows:**

Fees for electrical permits shall be paid by the applicant before the permit is issued in accordance with Appendix A – Fee Schedule in the North Richland Hills Code of Ordinances.

**\* Article 80.19(F)2 & 4 - Delete paragraphs**

**\* Article 80.23 - Amend to read as follows:**

*80.23(A) Unlawful acts.* It shall be unlawful for any person, firm or corporation to erect, construct, alter, repair, remove, demolish or utilize any electrical system or equipment, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

*80.23(B) Violation penalties.* Any person, firm or corporation violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine not to exceed \$2,000.00 for all violations involving fire safety, or public health and sanitation and shall be fined not more than \$500.00 for all other violations of this ordinance. Each day or any portion thereof during which any violation of this ordinance occurs or continues shall be deemed a separate offense and upon conviction thereof shall be punishable as herein provided.

*80.23(C) Stop work orders.* Upon notice from the code official, work on any electrical system that is being done contrary to the provisions of this code or in a dangerous or unsafe manner shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work or causing such work to be done. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Such work shall not resume until authorized by the code official to proceed.

*80.23(D) Abatement of violation.* The imposition of the penalties herein prescribed shall not preclude the legal officer of the jurisdiction from instituting appropriate action to prevent unlawful construction or to restrain, correct or abate a violation, or to prevent illegal occupancy of a building, structure or premises, or to stop an illegal act, conduct, business or utilization of the electrical on or about any premises.

*80.23(E) Unsafe electrical systems or equipment.* Any electrical system or equipment regulated by this code that is unsafe or that constitutes a fire or health hazard, unsanitary condition, or is otherwise dangerous to human life is hereby declared unsafe. Any use of an electrical system or equipment regulated by this code constituting a hazard to safety, health or public welfare by reason of improper installation, inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared an unsafe use. Any such unsafe equipment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition or removal.

When any electrical system or equipment is maintained in violation of this code, and in violation of any notice issued pursuant to the provisions of this section, the code official may institute any appropriate action to prevent, restrain, correct or abate the violation.

All buildings or structures subjected to damage by deterioration or by fire shall be inspected by the code official, and all unsafe wiring or electrical equipment shall be repaired or replaced.

*80.23(F) Authority to condemn.* Whenever the code official determines that any electrical system or equipment, or portion thereof, regulated by this code has become hazardous to life, health or property or has become unsanitary, or is otherwise dangerous to human life, the code official shall order in writing that such electrical system or equipment either be removed or restored to a safe or sanitary condition. A time limit for compliance with such order shall be specified in the written notice. No person shall use or maintain defective electrical after receiving such notice.

**\* Article 80.25 - Delete and replace as follows:**

*80.25(A) Authority to order disconnection of utilities.* The code official shall have the authority to order disconnection of any energy source or utility service supplied to a building, structure or equipment regulated by this code when it is determined that the equipment or any portion thereof has become hazardous, unsanitary, or being used in violation of this code. The code official shall also

have the authority to order disconnection of any energy source or utility service supplied to a building, structure or equipment regulated by this code when it is determined that a building or property is being used without a valid certificate of occupancy or in violation of a valid certificate of occupancy. Written notice of such order to disconnect service and the causes thereof may be given within 24 hours to the owner and occupant of such building, structure or premises, provided, however, that in cases of immediate danger to life or property, such disconnection shall be made immediately without such notice. If not notified prior to disconnecting, the owner or occupant of the building, structure or service systems may be notified in writing, as soon as practical thereafter.

*80.25(B) Connection after order to disconnect.* No person shall make connections from any energy, fuel, power supply or water distribution system or supply energy, fuel or water to any equipment regulated by this code that has been disconnected or ordered to be disconnected by the code official or the use of which has been ordered to be discontinued by the code official until the code official authorizes the reconnection and use of such equipment.

**\* Article 80.27 - Delete and replace as follows:**

*80.27 Organization*

*80.27(A) Code official.* Whenever the term "code official" or "electrical inspector" is used in this code, it shall be construed to mean the building official or his authorized representative(s).

*80.27(B) Deputies.* In accordance with the prescribed procedures of this jurisdiction, the code official shall have the authority to appoint an assistant code official, other related technical officers, inspectors, and other employees.

*80.27(C) Restriction of employees.* An official or employee connected with the department of inspection shall not be engaged in directly or indirectly with the furnishing of labor, materials or appliances for the construction, alteration or maintenance of a building within the City of North Richland Hills; and such officer or employee shall not engage in any work that conflicts with official duties or with the interests of the department.

Further no official or employee shall be permitted to work for, or be connected with, any electrical contractor, electrical manufacturer or wholesale

supply company, or do any electrical work within the City of North Richland Hills while employed as an inspector by the city.

*80.27(D) Liability.* The code official charged with the enforcement of this code, acting in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance shall not thereby be rendered personally liable for damages that may accrue to persons or property as a result of an act or by reason of an act or omission in the discharge of such duties. A suit brought against the code official or employee because of such act or omission performed by the code official or employee in the enforcement of any provision of such codes or other pertinent laws or ordinances implemented through the enforcement of this code or enforced by the code enforcement agency shall be defended by this jurisdiction until final termination of such proceedings and any judgment resulting there from shall be assumed by this jurisdiction.

**\* Add new Article 80.28:**

*80.28 Who May do the Work.*

*80.28(A) General.* It shall be unlawful for any person to do or cause to be done any electrical work within the City of North Richland Hills except as provided in this section. Doing work other than what is authorized by this section is considered a violation by the worker as well as the master and/or contractor.

Master electrician. A master electrician may contract for and engage in the business of installing, repairing, or replacing electrical wiring or equipment of any nature on or in buildings or structures. The master electrician may employ, direct and supervise journeyman electricians, residential wireman electricians, maintenance electricians, residential maintenance electricians, helpers, and apprentice electricians as allowed by state statute.

*80.28(B) Home owner permits/projects.* Permits may be issued to a property owner who wishes to do electrical work in their owner-occupied homestead. This provision authorizes the homeowner to work on that part of the electrical system that occurs after, but does not include, the first main breaker behind the electrical meter or the meter base. Work under this provision is authorized to be done solely by the homeowner and shall not be subcontracted or delegated to other persons.

- **Add additional paragraph to Article 90.4**

**Supervision of Work.** In the actual work of installing, maintaining, altering or repairing any electric conductors or equipment which requires a permit, apprentice electricians shall be directly supervised by an on-site journeyman electrician when electrical work is being performed. At no time shall an unlicensed or licensed apprentice electrician be allowed to install, maintain, alter or repair any electrical conductors or equipment which requires a permit without direct on-site supervision by a journeyman electrician licensed by the State of Texas.

*Informational Note: As defined by the State of Texas in Title 8, Occupational Code Chapter 1305 administered by the Texas Department of Licensing and Regulation for proper grade classifications of electrical license.*

**\*Article 100, add the following definition:**

**Engineering Supervision.** Supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations.

**\*Article 100; amend the following definition:**

**Intersystem Bonding Termination.** A device that provides a means for connecting intersystem bonding conductors for communication systems and other systems such as metallic gas piping systems to the grounding electrode system. Bonding conductors for other systems shall not be larger than 6 AWG.

**\*Article 110.2; change the following to read as follows:**

110.2 Approval. The conductors and equipment required or permitted by this Code shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third party inspection agency approved by the AHJ.

**Exception:** Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. This approval may be by a field evaluation by a NRTL or qualified third party inspection agency approved by the AHJ.

*Informational Note No. 1: See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of Approved, Identified, Labeled, and Listed.*

*Informational Note No. 2: Manufacturer's self-certification of equipment may not necessarily comply with US product safety standards as certified by a Nationally Recognized Testing Lab.*

*Informational Note No. 3: NFPA 790 and 791 provide an example of an approved method for qualifying a third party inspection agency.*

**\*Article 210.52(G) (1) Garages: replace as follows:**

**(1) Garages.** In each attached garage and in each detached garage with electric power. At least one receptacle outlet shall be installed for each car space.

**\* Article 230.2(A) add a seventh special condition.**

**230.2 Number of services.** A building or other structure served shall be supplied by only one service unless permitted in 230.2(A) through (D). For the purpose...{text unchanged}...shall be considered to be supplying one service.

(A) Special conditions. Additional services shall be permitted to supply the following:

(1) Fire pumps

"

"

"

(7) In supplying electrical service to multifamily dwellings, two or more laterals or overhead service drops shall be permitted to a building when the following conditions are met:

a. The building has six or more individual gang meters and all meters are grouped at the same location.

b. Each lateral or overhead service drop originates from the same point of service.

c. The building contains an automatic fire sprinkler system throughout.

- d. The area served by each electrical service is separated from other area(s) served by a separate electrical service by approved fire walls constructed in accordance with the International Building Code.

**\*Article 230.71(A); add the following exception:**

**Exception:** Multi-occupant buildings. Individual service disconnecting means is limited to six for each occupant. The number of individual disconnects at one location may exceed six.

**\* Article 240.91; delete entire Article 240.91.**

**\*Article 250.52(1) add a paragraph.**

Where the code official has determined that a metal underground water pipe is not present or is unsuitable, a method of grounding as specified in (2) through (4) below shall be used.

**\*Article 300.11; add additional exception:**

Exception: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum nominal metric designation 16 (trade size 1/2").

**\*\*Article 310.15(B)(7); change to read as follows:**

(7) This Article shall not be used in conjunction with 220.82.

**\* Section 310.104(B); change to read as follows:**

**310.104(B) Conductor material.** Conductors in this article shall be of copper unless otherwise specified. Aluminum conductor materials shall not be installed; however, aluminum conductors or copper-clad aluminum conductors may be utilized for service entrance and feeder conductors of 1/0 in size or larger. Aluminum conductors or copper-clad aluminum conductors shall not be utilized for branch circuits or other wiring methods.

**\*Article 500.8(A)(3); change to read as follows:**

**500.8 Equipment.** Articles 500 through 504 require equipment construction and installation standards that ensure safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance.

Informational Note No. 2: Since there is no consistent relationship between explosion properties and ignition temperature, the two are independent requirements.

Informational Note No. 3: Low ambient conditions require special consideration. Explosion proof or dust-ignition proof equipment may not be suitable for use at temperatures lower than -25°C (-13°F) unless they are identified for low-temperature service. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified as Class I, Division 1 at normal ambient temperature.

**(A) Suitability.** Suitability of identified equipment shall be determined by one of the following:

- (1) Equipment listing or labeling
- (2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation
- (3) Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or engineering judgment signed and sealed by a qualified Licensed Professional Engineer in the State of Texas.

*Informational Note: Additional documentation for equipment may include certificates demonstrating compliance with applicable equipment standards, indicating special conditions of use, and other pertinent information.*

**\*Article 505.7(A) changed to read as follows:**

**505.7 Special Precaution.** Article 505 requires equipment construction and installation that ensures safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to the installation and maintenance of electrical equipment in hazardous (classified) locations.

Informational Note No. 2: Low ambient conditions require special consideration. Electrical equipment depending on the protection techniques described by 505.8(A) may not be suitable for use at temperatures lower than -20°C (-4°F) unless they are identified for use at lower temperatures. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified Class I, Zones 0, 1, or 2 at normal ambient temperature.

**(A) Implementation of Zone Classification System.** Classification of areas, engineering and design, selection of equipment and wiring methods, installation, and inspection shall be performed by a qualified Licensed Professional Engineer in the State of Texas.

**\*Article 517.30 Essential Electrical Systems for Hospitals; create a new (H) and add the following language:**

**(G) Coordination.** Overcurrent protective devices serving the equipment branch of the essential electrical system shall be coordinated for the period of time that a fault's duration extends beyond 0.1 second.

**Exception No. 1:** Between transformer primary and secondary overcurrent protective devices, where only one overcurrent protective device or set of overcurrent protective devices exists on the transformer secondary.

**Exception No. 2:** Between overcurrent protective devices of the same size (ampere rating) in series.

Informational Note: The terms coordination and coordinated as used in this section do not cover the full range of overcurrent conditions.

**(H) Selective Coordination.** Overcurrent protective devices serving the life safety and critical branches of the essential electrical system shall be selectively coordinated with all supply-side overcurrent protective devices.

**Exception No. 1:** Between transformer primary and secondary overcurrent protective devices, where only one overcurrent protective device or set of overcurrent protective devices exists on the transformer secondary.

**Exception No. 2:** Between overcurrent protective devices of the same size (ampere rating) in series.

Informational Note: The terms coordination and coordinated as used in this section do not cover the full range of overcurrent conditions.

**\*\* Article 680.22(E)1-3; add new section.**

**680.22(E)1. Door Alarms Serving Swimming Pools, Hot Tubs and Spa Areas.** Door alarms must be installed on all building doors providing direct access to a swimming pool, hot tub and/or spa. Alarms shall be provided on all new residential and commercial installations, existing single-family rental installations; as well as existing residential and commercial installations that are

substantially modified. Door alarms required by this section must be capable of meeting the following specifications:

1. The alarm must sound continuously for a minimum of 30 seconds within 7 seconds after the door is opened.
2. The alarm must have a sound pressure rating of at least 85 dBA at 10 ft. and be able to be heard throughout a residence. Alarms installed in commercial buildings must have a sound pressure rating of at least 85 dBA at 10 ft. and be able to be heard throughout the immediate area as determined by the code official
3. The alarm must have an automatic reset.
4. When equipped with a deactivation switch, the switch or touch pad must be placed at a height of 54 inches above the threshold of the door.
5. In new construction, all exit doors which may be capable of providing access to a future swimming pool, hot-tub or spa must be pre-wired to the electrical system to accommodate the installation of a hardwired door alarm.
6. In existing construction that have are not pre-wired for a door alarm, the alarm may be battery operated or connected to the electrical wiring of the building.
7. Door alarms shall be installed in such a way that it is unable to be removed without the use of tools, keys, or other approved measures.
8. The alarm must have a manual means, such as a touch pad or switch, to temporarily deactivate the alarm for a single opening for a maximum 15 seconds.
9. Door alarms shall be installed, used, and maintained in accordance with the manufacturer's instructions.

**680.22(E)2. *Swimming Pool, Hot Tub and Spa Inspection.*** It shall be the responsibility of the installer to insure that security and safety is provided at all times a swimming pool, hot tub or spa is under construction. Prior to filling or partially filling the swimming pool, hot tub or spa, the installer shall obtain a Pre-Plaster/Pre-Fill Safety Inspection from the code official. All safety devices required by the Authority Having Jurisdiction (AHJ) must be installed and in operable condition prior to this inspection. Safety devices shall include, but may not be limited to, a six foot tall perimeter fence, self-closing/self-latching gate(s), door alarms required by 680.22(E)1; as well as rescue equipment required in commercial applications by other ordinances.

**680.22(E)3. *Safety Video.*** The Code Official is hereby authorized to develop a written policy requiring all new swimming pool, hot tub and/or spa owners to view an approved water safety video prior to issuing the construction permit. This

policy shall also apply to the tenants of single-family rental properties prior to granting a Certificate of Occupancy.

**\*\*Article 680.25(A) replace section to read as follows:**

**680.25 Feeders.** These provisions shall apply to any feeder on the supply side of panelboards supplying branch circuits for pool equipment covered in Part II of this article and on the load side of the service equipment or the source of a separately derived system.

**(A) Wiring Methods.**

**(1) Feeders.** Feeders shall be installed in rigid metal conduit or intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage:

- (1) Liquidtight flexible nonmetallic conduit
- (2) Rigid polyvinyl chloride conduit
- (3) Reinforced thermosetting resin conduit
- (4) Electrical metallic tubing where installed on or within a building
- (5) Electrical nonmetallic tubing where installed within a building
- (6) Type MC cable where installed within a building and if not subject to corrosive environment
- (7) Nonmetallic-sheathed cable
- (8) Type SE cable

Section 3. This ordinance shall be cumulative of all provisions of ordinances and on the Code of the City of North Richland Hills, Texas as amended, except where the provisions are in direct conflict with the provisions of other ordinances, in which event the conflicting provisions of the other ordinances are hereby repealed.

Section 4. It is hereby declared to be the intention of the City Council that the phrases, clauses, sentences, paragraphs and sections of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgment or degree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without incorporation in this ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

Section 5. Any person, firm or corporation who violates, disobeys, omits, neglects, refuses or fails to comply with, or who resists the enforcement of any provision of this ordinance shall be fined as provided in Code of Ordinances Section 1-13 for each offence. Each day that a violation is permitted to exist shall constitute a separate offense.

Section 6. All rights and remedies of the City of North Richland Hills are expressly saved as to any and all violations of the provisions of the North Richland Hills Municipal Code, or any other ordinances affecting construction which have accrued at the time of the effective date of this ordinance; and as such accrued violations and all pending litigation, both civil and criminal, whether pending in court or not, under such ordinances, same shall not be affected by this ordinance but may be prosecuted until final disposition by the court.

Section 7. The City Secretary of the City of North Richland Hills is hereby directed to publish caption, penalty clause, and effective date clause in the official newspaper at least once within ten (10) days after the passage of this ordinance.

Section 8. This ordinance shall be in full force and effect from and after its passage and publication as provided by law, and it is so ordained.

**AND IT IS SO ORDAINED.**

**PASSED AND APPROVED** on this 25th day of April, 2016.

**CITY OF NORTH RICHLAND HILLS**

By: \_\_\_\_\_  
Oscar Trevino, Mayor

**ATTEST:**

\_\_\_\_\_  
Alicia Richardson, City Secretary

**APPROVED AS TO FORM AND LEGALITY:**

\_\_\_\_\_  
Cara Leahy White, City Attorney

**APPROVED AS TO CONTENT:**

\_\_\_\_\_  
Dave Pendley, Building Official