

NOTES REGARDING PROPOSED CHAPTER 10, THE ELECTRICAL CODE:

- *This proposed draft of Chapter 10 includes both administrative provisions sections (Article I through Article XIII) and technical provisions sections (Article XIV through Article XV).*
- *A public hearing was conducted before the Infrastructure and Growth Council Committee on the administrative provisions sections on November 19, 2008.*
- *For the technical provisions of Chapter 10, a public hearing was conducted before the Electrical Supervisory Board for the contents found in Section 1403 of Article XIV. A 2nd public hearing was conducted before the Infrastructure and Growth Council Committee on November 19, 2008.*
- *Section 1402 of Article XIV is informational in its content as these codes and code requirements, as outlined in this section, have already been adopted by and are in effect in the City of San Antonio.*
- *Proposed amendments to Draft A are shown in this Draft B as either an underline (text added) or a ~~strikethru~~ (text removed). These proposed amendments are further identified by highlighting them in yellow for quick reference.*

PROPOSED CHAPTER 10 DRAFT “BA**” (Administrative & Technical Provisions)**

Chapter 10

ELECTRICAL CODE

Art. I. Scope, Sections 10-101.1 - 10-102.7

Art. II. Definitions, Sections 10-201.1 – 10-202

Art. III. Organization and Enforcement, Sections 10-301.1 – 10-303.1

Art. IV. Permits and Fees, Sections 10-401.1 – 10-405.4

Art. V. Construction Documents, Sections 10-501.1 – 10-504.4

- Art. VI. Approval, Sections 10-601.1 – 10-603.7**
Art. VII. Inspections and Testing, Sections 10-701.12 – 10-703.3
Art. VIII. Service Utilities, Sections 10-801.1 – 10-801.5
Art. IX. Unsafe Systems and Equipment, Sections 10-901.1 – 10-901.6
Art. X. Violations, Sections 10-1001.1 – 10-1004.3
Art. XI. Means of Appeal, Sections 10-1101.1 – 10-1103.8
Art. XII. Licenses and Registrations, Sections 10-1201.1 -10-1214.1
Art. XIII. Poles and Wires, Section 10-1301.1
Art. XIV. Electrical Provisions, Sections 10-1401.1 – 10.1403.3
Art. XV. Referenced Standards, Section 10-1501.1

ARTICLE I SCOPE

SECTION 10-101 GENERAL

Section 10-101.1 Title. These regulations shall be known as the *Electrical Code of the City of San Antonio* and shall be cited as such and will be referred to herein as “this code.”

Section 10-101.2 Purpose. The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation, and maintenance or use of electrical systems and equipment.

Section 10-101.3 Scope. This code shall regulate the design, construction, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of electrical systems and equipment.

SECTION 10-102 APPLICABILITY

Section 10-102.1 General. The provisions of this code shall apply to all matters affecting or relating to structures and premises, as set forth in Section 101.

Section 10-102.1.1 Existing installations. Except as otherwise provided for in this chapter, a provision in this code shall not require the removal, alteration or abandonment of, nor prevent the continued utilization and maintenance of, existing electrical systems and equipment lawfully in existence at the time of the adoption of this code.

Exception: Annexed property shall comply with a nationally recognized code that existed at the time of the original construction.

Section 10-102.1.2 Maintenance. Electrical systems, equipment, materials and appurtenances, both existing and new, and parts thereof shall be maintained in proper

operating condition in accordance with the original design and in a safe, hazard-free condition. Devices and safeguards that are required by this code shall be maintained in compliance with the edition under which installed. The owner or owner's designated agent shall be responsible for the maintenance of the electrical systems and equipment. To determine compliance with this provision, the director shall have the authority to require that the electrical systems and equipment be reinspected.

Section 10-102.1.3 Additions, alterations and repairs. Additions, alterations, renovations and repairs to electrical systems and equipment shall conform to that required for new electrical systems and equipment without requiring the existing electrical systems or equipment comply with all of the requirements of this code. Additions, alterations and repairs shall not cause existing electrical systems or equipment to become unsafe, hazardous or overloaded.

Minor additions, alterations, renovations and repairs to existing electrical systems and equipment shall meet the provisions for new construction, except where such work is performed in the same manner and arrangement as was in the existing system, is not hazardous and is approved.

Section 10-102.1.4 Change in occupancy. It shall be unlawful to make a change in the occupancy of any structure that will subject the structure to any special provision of this code applicable to the new occupancy without approval. 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 hazard to public health, safety or welfare.

Section 10-102.1.5 Moved buildings. Electrical systems and equipment that are part of buildings or structures moved into or within the City of San Antonio shall comply with the provisions of this code for new installations.

Section 10-102.2 Differences. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

Section 10-102.3 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

Section 10-102.4 Validity. In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions thereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.

Section 10-102.4.1 Segregation of invalid provisions. Any invalid part of this code shall be segregated from the remainder of this code by the court holding such part invalid, and the remainder shall remain effective.

Section 10-102.5 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapters, sections or provisions of this code.

Section 10-102.6 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Article XV and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes or standards, the provisions of this code shall apply.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer's instructions shall apply.

Section 10-102.7 Subjects not regulated by this code. Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the City of San Antonio, compliance with applicable standards of nationally recognized standards as are approved shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the code official to determine compliance with codes or standards for those activities or installations within the code official's jurisdiction or responsibility.

ARTICLE II DEFINITIONS

SECTION 10-201 GENERAL

Section 10-201.1 Scope. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meaning indicated in this chapter.

Section 10-201.2 Interchangeability. Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

Section 10-201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Building Code*, *International Energy Conservation Code*, *International Fire Code*, *International Mechanical Code*, *Uniform Plumbing Code*, *International Residential Code*, *Unified Development Code* , electrical utility *Electric Service Standards*, or NFPA 70, such terms shall have meanings ascribed to them as in those codes.

Section 10-201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meaning such as the context implies.

SECTION 10-202 GENERAL DEFINITIONS

APPROVED. Approved by the code official or other authority having jurisdiction.

APPROVED AGENCY. An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, where the agency has been approved by the code official.

BOARD. The Electrical ~~Appeals and Advisory~~ Board of the City of San Antonio.

CITY. The City of San Antonio, Texas.

CERTIFICATE OF OCCUPANCY or C OF O. A document issued by the code official after he inspects the building or structure and finds no violations of the provisions of the building-related codes or other laws that are enforced by the department. See the *International Building Code*, as adopted by the city, for further details.

CODE. Chapter 10 of the City Code of San Antonio, Texas, also known as the *Electrical Code of the City of San Antonio*, and any subsequent enactments, amendments and/or reenactment of chapter 10, City Code of San Antonio, Texas.

CODE OFFICIAL. The Director of the Planning and Development Services Department or a duly authorized representative to act on his behalf. For the purpose of this code, the Authority Having Jurisdiction (AHJ) shall be the Code Official.

DEPARTMENT. The Planning and Development Services Department of the City.

DISTRIBUTED GENERATION (DG). Shall include, but not be limited to, electrical power derived from wind, water, sunlight, mechanical equipment, batteries, or fuel cells. DG includes all sources of electrical energy that are derived from equipment and/or systems other than the serving utility systems that may include, wholly or in part, generation transmission and distribution of electrical energy.

1. All DG systems that are intertied with the electrical grid of the serving utility shall be approved by the City and the utility prior to the issuance of an electrical permit.
2. Stand-alone DG systems that are not connected to the electrical grid of the serving utility require electrical permits when any portion, segment or component of the DG system operates at or is rated for operation above 50-volts (AC or DC) or above 1,200 watts.
3. Shall be installed per utility regulations.
4. Shall meet the requirements of the US Environmental Protection Agency (EPA).

ELECTRICAL APPRENTICE. An individual, licensed with the State of Texas as an apprentice who works under the on-site supervision of a master electrician, a journeyman electrician, or a residential wireman, on behalf of an electrical contractor, or employing governmental entity performing "Electrical Work" as defined by this code.

ELECTRICAL CONTRACTING. The business of designing, installing, erecting, repairing, or altering electrical wires or conductors to be used for light, heat, power, or signaling purposes. The term includes the installation or repair of ducts, raceways, or conduits for the reception or protection of wires or conductors and the installation or repair of any electrical machinery, apparatus, or system used for electrical light, heat, power, or signaling.

ELECTRICAL CONTRACTOR. A person, entity, licensed in the City or the State of Texas as an electrical contractor, that is in the business of performing "Electrical Contracting" as defined in this code..

ELECTRICAL MAINTENANCE TECHNICIAN. An individual registered with the City as an electrical maintenance technician, on behalf of a building owner or management group and in accordance with section 10-405 of this chapter, and who performs limited "Electrical Maintenance Work" as defined by this code.

ELECTRICAL MAINTENANCE WORK. The replacement or repair of existing electrical appurtenances, apparatus, equipment, machinery, or controls used in connection with the use of electrical energy in, on, outside, or attached to a building, residence, structure, property, or premises. All replacements or repairs must be of the same rating and type as the existing installation. Electrical maintenance work does not include the installation of any new electrical appurtenances, apparatus, equipment, machinery, or controls beyond the scope of any existing electrical installation.

ELECTRICAL SIGN APPRENTICE. An individual, licensed in the State of Texas as an electrical sign apprentice who works under the on site direct supervision of a master electrician, master sign electrician, journeyman electrician, electrical sign journeyman electrician, or electrical sign technician, on behalf of an electrical sign contractor performing "Electrical Sign Work" as defined by this code.

ELECTRICAL SIGN CONTRACTING. The business of designing, manufacturing, installing, connecting, reconnecting, or servicing an electric sign, cold cathode, neon gas tubing, or outline gas tubing, or altering electric sign wiring or conductors either inside or outside of a building.

ELECTRICAL SIGN CONTRACTOR. A person, or entity, licensed in the City or the State of Texas as an electrical sign contractor, that is in the business of performing "Electrical Sign Contracting" as defined by this code.

ELECTRICAL SIGN TECHNICIAN. An individual, registered in the City as a sign technician, who works under the general supervision of a master electrician or master sign

electrician, on behalf of an electrical sign contractor, while performing “Electrical Sign Work” as defined by this code.

ELECTRICAL SIGN WORK. Includes all work and material used in manufacturing, installing or contracting to install, erecting, hanging, connecting, reconnecting, servicing or maintaining any electric or neon sign or electric neon tubing for any purpose, whether inside or outside of any building or structure or on any part of the public right-of-way subject to this code. This work shall not include extensions of or additions to an existing branch circuit.

ELECTRICAL SYSTEM. All material, fixtures, devices and appliances for the purpose of conducting or utilizing electrical energy.

ELECTRICAL TRADE. Installing, contracting to install, maintaining, repairing, connecting, reconnecting, or servicing of any wiring, fixtures or equipment used for conducting of electricity for which a permit is required by this code.

ELECTRICAL WIRING. Any of the methods and materials described in Chapter 3 of the NEC, except as may be amended herein.

ELECTRICAL WORK. Any labor or material used in installing, maintaining, or modifying an electrical wiring system and the appurtenances, apparatus, or equipment used in connection with the use of electrical energy in, on, outside, or attached to a building, residence, structure, property, or premises. The term includes service entrance conductors as defined by the National Electrical Code.

FIRM. A business entity including, without limitation, a sole proprietorship, corporation, partnership or any other entity that is legally recognized in Texas.

GENERAL CONTRACTOR. A person who is actively engaged in and is completely responsible for the construction of commercial or industrial structures within the geographical areas to which this code applies.

HOME BUILDER. A person, duly registered with the State and the City, who is actively engaged in and is completely responsible for the construction of one-and two-family dwellings within the geographical areas to which this code applies.

INSPECTOR. A duly qualified person appointed by the code official who conducts field inspections and investigations for the purpose of enforcing the provisions of this code. Inspectors shall have a minimum of a current journeyman electrical license when inspecting commercial and industrial structures or facilities.

JOURNEYMAN ELECTRICIAN. An individual, licensed with the City or the State of Texas as a journeyman electrician, who works under the general supervision of a master electrician, on behalf of an electrical contractor, or employing governmental entity, while performing “Electrical Work” as defined in this code.

JOURNEYMAN SIGN ELECTRICIAN. An individual, licensed with the State of Texas as a journeyman sign electrician, who works under the general supervision of a master electrician, or a master sign electrician, on behalf of an electrical sign contractor, while performing “Electrical Sign Work” as defined in this code.

LABEL. An identification applied on a product by the manufacturer which contains the name of the manufacturer, the function and performance characteristics of the product or material, and the name and identification of an approved agency and that indicates that the representative sample of the product or material has been tested and evaluated by an approved agency. (See also “Manufacturer’s designation” and “Mark.”)

LAYPERSON. A person neither currently nor in the past belonging to nor affiliated by employment, affinity, or within the first degree of consanguinity to the electrical profession.

LICENSE RENEWAL DATE. Midnight of the expiration date as listed on the license.

LISTED AND LISTING. Terms referring to equipment that is shown in a list published by an approved testing agency qualified and equipped for experimental testing and maintaining an adequate periodic inspection of current productions and whose listing states that the equipment complies with nationally recognized standards when installed in accordance with the manufacturer’s installation instructions.

MAINTENANCE ELECTRICIAN. An individual, licensed as a maintenance electrician, who works under the general supervision of a master electrician, on behalf of an electrical contractor or employing government entity, and who performs electrical maintenance work.

MANUFACTURER’S DESIGNATION. An identification applied on a product by the manufacturer indicating that a product or material complies with a specified standard or set of rules. (See also “Mark” and “Label.”)

MARK. An identification applied on a product by the manufacturer indicating the name of the manufacturer and the function of the product or material. (See also “Manufacturer’s designation” and “Label.”)

MASTER ELECTRICIAN. An individual, licensed in the City or the State of Texas as a master electrician, who on behalf of an electrical contractor, electrical sign contractor, or employing governmental entity, performs “Electrical Work” as defined by this code.

MASTER SIGN ELECTRICIAN. An individual licensed in the City or the State of Texas as a master sign electrician, who on behalf of an electrical sign contractor, performs “Electrical Sign Work” as defined in this code.

NEC. *National Electrical Code, NFPA 70.*

NFPA. National Fire Protection Association. The sponsor of the *National Electrical Code*.

OCCUPANCY. The purpose for which a building, or part thereof, is utilized or occupied.

PRACTICING. Activity involved in the electrical trade.

RESIDENTIAL APPLIANCE. A unit of electrical equipment that is designed and installed in a dwelling by direct connection to an existing electrical circuit to perform a specific function such as water heating as an example. The term does not include general use equipment, such as an electric motor, for example, that is not designed for a specific function.

RESIDENTIAL APPLIANCE INSTALLER. An individual, licensed with the State of Texas as a residential appliance installer, who on behalf of a residential appliance installation contractor, performs electrical work that is limited to residential appliance installation defined by Texas Occupations Code.

RESIDENTIAL APPLIANCE INSTALLATION CONTRACTOR. A person or entity licensed in the State of Texas as a residential appliance installation contractor, that is in the business of residential appliance installation as defined by Texas Occupations Code.

RESIDENTIAL WIREMAN. An individual, licensed with the City or State of Texas as a residential wireman, who works under the general supervision of a master electrician, on behalf of an electrical contractor, or employing governmental entity, while performing electrical work that is limited to electrical installations in new single family and multifamily dwellings not exceeding three stories.

UTILITY. The principal purveyor of electrical power to customers within the City by way of an electrical service and meter. This utility is City Public Service (CPS) also known as CPS Energy, which is governed by an appointed board, known as the City Public Service Board.

ARTICLE III ORGANIZATION AND ENFORCEMENT

SECTION 10-301 DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES

Section 10-301.1 Creation of enforcement agency. The Department of Planning and Development Services is hereby created and the Director shall be known as the code official. One of the functions of the Department shall be to assist the code official in the administration and enforcement of the provisions of this code.

Section 10-301.2 Appointment. The code official shall be appointed by the City Manager of the City of San Antonio.

Section 10-301.3 Deputies. In accordance with the prescribed procedures of San Antonio, the code official shall have the authority to appoint a deputy code official, the related technical officers, inspectors, plans examiners and other employees. Such employees shall have powers as delegated by the code official.

SECTION 10-302 DUTIES AND POWERS OF THE CODE OFFICIAL

Section 10-302.1 General. The code official is hereby authorized and directed to enforce the provisions of this code. The code official shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, rules and regulations shall be in accordance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.

Section 10-302.2 Rule-making authority. The code official shall have authority as necessary in the interest of public health, safety and general welfare, to adopt and promulgate rules and regulations and to designate requirements applicable because of local climatic or other conditions. Such rules shall not have the effect of waiving requirements specifically provided for in this code, or of violating accepted engineering methods involving public safety.

Section 10-302.3 Applications and permits. The code official is authorized to receive applications, review construction documents and issue permits for the installation of electrical systems and equipment, inspect the premises for which such permits have been issued, and enforce compliance with the provisions of this code.

Section 10-302.4 Notices and orders. The code official is authorized to issue all necessary notices or orders in accordance with Article X as are required to effect compliance with this code.

Section 10-302.5 Inspections. The code official is authorized to make all of the inspections necessary to determine compliance with the provisions of this code in accordance with Article VII.

Section 10-302.5.1. Electrical Inspections Supervisor. The city shall employ an Electrical Inspections Supervisor to assist in the supervision of subordinate electrical inspectors. The Electrical Inspections Supervisor shall be both a master electrician and certified by the International Code Council in the following areas: Residential Electrical Inspector, Commercial Electrical Inspector and Electrical Plans Examiner.

The Electrical Inspections Supervisor shall also serve as the master of record for electrical work performed by city electricians.

Section 10-302.6 Identification. The code official shall carry proper identification as required by Section 10-702.4.1.

Section 10-302.7 Right of entry. The code official is authorized to enter the structure or premises at reasonable times to inspect or perform the duties imposed by this code in accordance with Section 10-702.4.

Section 10-302.8 Department records. The code official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, notices and orders issued, and as required by this code, such records shall be retained in the official records for the period for retention of public records in accordance with Texas law.

Section 10-302.8.1 Approvals and modifications. A record of approvals and modifications granted shall be maintained by the code official and shall be available for public inspection during business hours in accordance with Texas law.

Section 10-302.8.2 Inspections. The code official shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each.

Section 10-302.8.3 Alternative methods or materials. The application for modification, alternative methods or materials, and the final decision of the code official shall be in writing and shall be officially recorded in the permanent records of the code official.

Section 10-302.9 Liability. The code official, officer or employee charged with the enforcement of this code, while acting for the City of San Antonio 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 liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the City of San Antonio until the final termination of the proceedings.

The code official or any subordinate shall not be liable for costs in any action, suit or proceedings that is instituted in pursuance of the provisions of this code; and any official, officer or employee, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or admission in the performance of official duties in connection therewith.

**SECTION 10-303
CERTIFICATE OF OCCUPANCY**

Section 10-303.1 Use and occupancy. No building or structure shall be used or occupied until a certificate of occupancy has been provided in accordance with the *International Building Code* as adopted by the City.

**ARTICLE IV
PERMITS* AND FEES**

***Cross references:** Discriminatory housing practice, Section 9-36 et seq.

**SECTION 10-401
GENERAL**

Section 10-401.1 Permits required. Permits required by this code shall be obtained from the code official. Permit fees shall be paid prior to issuance of the permits. Issued permits should be kept on the premises designated therein at all times and shall be readily available for inspection by the code official.

Section 10-401.2 Types of permits. An owner, authorized agent or contractor who desires to construct, enlarge, alter, repair, remove, convert or replace electrical systems or equipment, the installation of which is regulated by this code, or to cause such work to be done, shall first make application to the code official and obtain the required permit for the work.

Exceptions:

1. Where repair or replacement of electrical systems or equipment must be performed in an emergency situation, the permit application shall be submitted within the next business day of the Department.
2. Electrical work as defined by the Electrical Limited Service and Repair Permit.

Section 10-401.3 Work exempt from permit. The following work shall be exempt from the requirement for an electrical permit:

1. Minor repairs or maintenance work when performed by a registered electrical contractor, the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles..
2. Replacement of a refrigeration or HVAC system motor, solenoid valves or controls associated with the motor when performed by a registered mechanical contractor.
3. The installation of that portion of wiring and equipment for telephone, voice, data, cable TV, broadband and other types of communication systems that operate at fifty volts nominal or less. Such systems shall be grounded according to the applicable provisions of Article 250 and Chapter 8 of the NEC.
4. The installation of wiring and equipment by or for the City for the purpose of generating, transmitting and delivering service to its customers.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code and other laws and ordinances of the City.

SECTION 10-402 APPLICATION

Section 10-402.1 General. The code official is authorized to receive applications for and issue permits as required by this code.

Section 10-402.2 Application. Application for a permit required by this code shall be made to the code official in such form and detail as prescribed by the code official. Applications for permits shall be accompanied by such plans as prescribed by the code official.

Section 10-402.3 Action on application. The code official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or construction documents do not conform to the requirements of this code and other pertinent laws, the code official shall reject such application in writing, stating the reasons therefore. If the code official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the code official shall issue a permit therefore as soon as practicable.

Section 10-402.4 Inspection required. Before a permit is issued, the code official is authorized to inspect and approve the systems, equipment, buildings, devices, premises, and spaces or areas to be used.

Section 10-402.5 Time limitation of application. An application for a permit for any proposed work or operation shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the code official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

SECTION 10-403 CONDITIONS

Section 10-403.1 Conditions of a permit. A permit shall constitute permission to conduct work as set forth in this code in accordance with the provisions of this code. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code or other applicable regulations, laws or ordinances of the City.

Section 10-403.2 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or

if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

Section 10-403.3 Extensions. The code official is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 180 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated.

Section 10-403.4 Posting the permit. Issued permits should be kept on the premises designated therein at all times and shall be readily available for inspection by the code official.

Section 10-403.5 Validity. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the city. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the City shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the code official from requiring the correction of errors in the construction documents and other data. The code official is also authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinances of the City.

Section 10-403.6 Information on the permit. The code official shall issue all permits required by this code. The permit shall contain a general description of the operation or occupancy and its location and any other information required by the code official.

Section 10-403.7 Suspension or revocation. The code official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error, on the basis of incorrect, inaccurate or incomplete information; in violation of any ordinance, regulation or any of the provisions of this code; or if any of the following conditions exist:

1. The permit is used for a location or establishment other than that for which it was issued.
2. The permit is issued for a condition or activity other than that listed in the permit.
3. Conditions and limitations set forth in the permit have been violated.
4. There have been any false statements or misrepresentations as to the material fact in the application for permit or construction documents submitted or a condition of the permit.
5. The permit is used by a different person or firm than the name for which it was issued.
6. The permittee failed, refused or neglected to comply with orders or notices duly served in accordance with the provisions of this code within the time provided therein.
7. The permit was issued in error or in violation of an ordinance, regulation or this code.

SECTION 10-404

FEES

Section 10-404.1 Payment of fees. A permit, registration or license shall not be valid until fees prescribed by City ordinance have been paid. Nor shall an amendment to a permit or license be released until the additional fee, if any, has been paid.

Section 10-404.2 Schedule of permit, registration and license fees. A fee for each permit, registration and license shall be paid as required, in accordance with the fee schedule as established by City ordinance.

Section 10-404.3 Work commencing before permit issuance. Any person who commences any work before obtaining the necessary permits shall be subject to an additional fee established by the fee schedule as established by City ordinance.

Section 10-404.4 Related fees. The payment of the fee for a registration, a license or the construction, alteration, removal or demolition work done in connection with, or concurrently with, the work authorized by a permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law or City ordinance.

Section 10-404.5 Refunds. The code official is authorized to establish a refund policy.

SECTION 10-405 ELECTRICAL MAINTENANCE PERMIT

Section 10-405.1. Electrical maintenance permit. The annual electrical maintenance permit issued by the City to allow a property owner, property lessee or management company to employ persons qualified by this code to maintain and make minor repairs to existing electrical systems on a property that is registered with the Department. An electrical maintenance permit is not required when the property owner, property lessee or management company is registered with the City as an electrical contractor or employs a master electrician of record, registered with the City as an electrical contractor, who oversees and is responsible for the electrical maintenance.

Section 10-405.2. Registration of persons qualified to perform work. All persons performing electrical work under this section shall be licensed or registered as required by the City or State. All electrical work performed under this permit must be performed by master electricians, journeyman electricians, maintenance electricians, or electrical maintenance technicians. Initial applicants for maintenance technicians will have to complete 8 hours of training approved by the code official.

Section 10-405.3. Limitations of work. Work that may be performed under this permit by an electrical maintenance technician shall be limited to the maintenance of, repair or replacement of devices or lighting fixtures in or on existing outlets and shall include, but not be limited to, the following:

1. 120-volt receptacles of all types.

2. 240-volt 3-wire and 4-wire dryer and range receptacles. Replacement of these receptacles shall be limited to like configuration and amperage receptacles
3. Replacement of overcurrent devices and safety switches of only the same voltage, current, ampere interrupting capacity (AIC) and GFCI or AFCI rating including:
 - a. 1 or 2 pole circuit breakers not exceeding 60-amps at 240-volts.
 - b. 1 or 2 pole safety switches (fused or non-fused) not to exceed 60-amps at 240-volts.
 - c. Fuses not to exceed 60-amps at 240-volts.
4. Photo cells and time clocks not to exceed 277-volts nominal.
5. Range hoods, disposals and dishwasher motors.
6. Interior, exterior lighting and switches not to exceed 277-volts nominal.
7. Ceiling fans on approved boxes with proper bracing.
8. Pool lights and outlets provided they are protected with GFCI and are replaced with same.
9. Doorbell transformers and wiring to other low voltage devices with 120-volt connections.
10. Bathroom-type exhaust vents.
11. Electric gate repair.

Section 10-405.4. Record keeping. The applicant for a maintenance permit must:

1. Maintain a copy of the permit at either the site where the work is being conducted or applicant's place of business if within the City.
2. Maintain a copy of the registration card for the certified personnel either at the location where the work is being performed or the applicant's place of business if within the City.
3. Maintain a record of all work performed by registered personnel for a minimum of 12 months.

ARTICLE V CONSTRUCTION DOCUMENTS

SECTION 10-501 GENERAL

Section 10-501.1 Submittal documents. Construction documents, special inspection and structural observation programs, and other data shall be submitted in two or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional. Where special conditions exist, the code official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The code official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with the code.

Section 10-501.2 Information on construction documents. Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted where approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the code official.

Section 10-501.2.1 Penetrations. Construction documents shall indicate where penetrations will be made for electrical systems and shall indicate the materials and methods for maintaining required structural safety, fire-resistance rating and fire blocking.

Section 10-501.2.2 Load calculations. Where an addition or alterations is made to an existing electrical system, an electrical load calculation shall be prepared to determine if the existing electrical service has the capacity to serve the added load.

Section 10-501.3 Site plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plans shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The code official is permitted to waive or modify the requirement for a site plan where the application for permits is for alteration or repair or where otherwise warranted.

SECTION 10-502 EXAMINATION OF DOCUMENTS

Section 10-502.1 General. The code official shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examination whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or City ordinances.

Section 10-502.2 Approval of construction documents. When the code official issues a permit, the construction documents shall be approved, in writing or by stamp, as "Reviewed for Code Compliance." One set of the construction documents so reviewed shall be retained by the code official. The other set shall be returned to the applicant, shall be kept at the site or work and shall be open to inspection by the code official or the authorized representative.

Section 10-502.2.1 Previous approvals. This code shall not require changes in the construction documents, construction or installation of electrical systems or equipment for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

Section 10-502.2.2 Phased approval. The code official is authorized to issue a permit for the installation of part of an electrical system before the construction documents for the electrical system have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire system will be granted.

SECTION 10-503 REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE

Section 10-503.1 General. Where it is required that documents be prepared by a registered design professional, the code official shall require the owner to engage and designate on the permit application a registered design professional who shall act as the registered design professional in responsible charge (RDPiRC). If the circumstances require, the owner shall be permitted to designate a substitute RDPiRC who shall perform the duties required of the original RDPiRC. The code official shall be notified in writing by the owner if the RDPiRC is changed or is unable to perform the duties.

The RDPiRC shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the system.

Section 10-503.2 Plans and specifications prepared by engineer. Installation or alteration of any equipment on the customer side of the utility point of delivery (service point) rated over 400 amps at 250 volts or less and rated at over 200 amps at greater than 250 volts, any system above six hundred (600) volts or when required by the Texas Engineering Practice Act shall have the electrical plans sealed by a professional engineer, licensed and registered with the State of Texas.

SECTION 10-504 HANDLING OF SUBMITTALS

Section 10-504.1 Deferred submittals. For the purpose of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the code official within a specified period of time.

Deferral of any submittal items shall have the prior approval of the code official. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the code official.

Submittal documents for deferred submittal items shall be submitted to the registered design professional in responsible charge, who shall review them and forward them to the code official with a notation indicating that the deferred submittal documents have been

reviewed and that they have been found to be in general compliance with the design of the system. The deferred submittal items shall not be installed until their design and submittal documents have been approved by the code official.

Section 10-504.2 Amended construction documents. Work shall be installed in accordance with the reviewed construction documents, and any changes made during construction which are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

Section 10-504.3 Retention of construction documents. One set of approved construction documents shall be retained by the code official for a period of not less than the life of the building from the date of completion of the permitted work. All other construction documents will be in accordance with the appropriate retention schedule as outlined in the “Retention Schedule for Records of Public Works and Services” Part 3: “Building Permit and Inspection Records”.

Section 10-504.4 Changes to standard tower release agreement. Changes to the individual control such as tenant and premise description found in the standard tower release agreement, attached to Ordinance Number 83931 as Exhibit II, do not require City Council approval, provided there are no substantial changes to the standard tower lease agreement. All other substantial changes to such agreement shall require council approval subject to approval of the city attorney’s office.

ARTICLE VI APPROVAL

SECTION 10-601 GENERAL

Section 10-601.1 Approved materials and equipment. All materials, equipment and devices approved by the code official shall be constructed and installed in accordance with such approval.

Section 10-601.1.1 Technical assistance. To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to the inspection of the Department, the code official is authorized to require the owner or the person in possession or control of the building or premises to provide, without charge to the City, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or organization acceptable to the code official and shall analyze the properties of the design, operation or use of the building or premises and facilities and appurtenances situated thereon, to recommend necessary changes. The code official is authorized to require the design submittals to be prepared by and bear the stamp of, a registered design professional.

Section 10-601.2 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of this code, the code official shall have the authority to grant modifications for individual cases, provided the code official shall first find that special individual reason makes the strict letter of this code impractical and that the modification is in compliance with the intent and purpose of this code, and that such modification does not lessen health, life and fire-safety requirements. The details of action granting modifications shall be recorded and entered in the files of the Department. The code official shall make periodic reports to the Electrical Board of such code modification rulings.

Section 10-601.3 Alternative materials, methods, equipment and appliances. The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material or method of construction shall be approved where the code official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

Section 10-601.4 Material, equipment and appliance reuse. Materials, equipment, appliances and devices shall not be reused unless such elements have been reconditioned, tested and placed in good and proper working condition and approved.

SECTION 10-602 TESTING

Section 10-602.1 Required testing. Wherever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the code official shall have the authority to require tests as evidence of compliance to be made at no expense to the City.

Section 10-602.2 Test methods. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the code official shall approve the testing procedures.

Section 10-602.3 Testing agency. All tests shall be performed by an approved agency.

Section 10-602.4 Test reports. Reports of tests shall be retained by the code official for the period required for retention of public records.

SECTION 10-603 ALTERNATIVE ENGINEERED DESIGN

Section 10-603.1 General. The design, documentation, inspection, testing and approval of an alternative engineered design electrical system shall comply with this section.

Section 10-603.2 Design criteria. An alternative engineered design shall conform to the intent of the provisions of this code and shall provide an equivalent level of quality, strength, effectiveness, fire resistance, durability and safety. Materials, equipment or components shall be designed and installed in accordance with the manufacturer's instructions.

Section 10-603.3 Submittal. The registered design professional shall indicate on the permit application that the electrical system is an alternative engineered design. The permit and permanent permit records shall indicate that an alternative engineered design was part of the approved installation.

Section 10-603.4 Technical data. The registered design professional shall submit sufficient technical data to substantiate the proposed alternative engineered design and to prove that the performance meets the intent of this code.

Section 10-603.5 Construction documents. The registered design professional shall submit to the code official two complete sets of signed and sealed construction documents for the alternative engineered design. The construction documents shall include floor plans and a diagram of the work.

Section 10-603.6 Design approval. Where the code official determines that the alternative engineered design conforms to the intent of this code, the electrical system shall be approved. If the alternative engineered design is not approved, the code official shall notify the registered design professional in writing, stating the reasons therefore.

Section 10-603.7 Inspection and testing. The alternative engineered design shall be tested and inspected in accordance with the requirements of this code.

ARTICLE VII INSPECTIONS AND TESTING

SECTION 10-701 GENERAL

Section 10-701.1 General. The code official is authorized to conduct inspections that are deemed necessary to determine the extent of compliance with the provisions of this code and to approve reports of inspections by approved agencies or individuals. All reports of such inspections shall be prepared and submitted in writing for review and approval. Inspection reports shall be certified by a responsible officer of such approved agency or by the responsible individual. The code official is authorized to report upon unusual, detailed or complex technical issues subject to the approval of the governing body.

SECTION 10-702 REQUIRED INSPECTIONS

Section 10-702.1 General. The code official, upon notification, shall make the inspections set forth in this section.

Section 10-702.1.1 Evaluation and follow-up inspection services. Prior to the approval of a prefabricated construction assembly having concealed electrical work and the issuance of an electrical permit, the code official shall require the submittal of an evaluation report on each prefabricated construction assembly, indicating the complete details of the electrical system, including a description of the system and its components, the basis upon which the system is being evaluated, test results and similar information, and other data as necessary for the code official to determine conformance to this code.

Section 10-702.1.1.1 Evaluation service. The code official shall designate the evaluation service of an approved agency as the evaluation agency, and review such agency's evaluation report for adequacy and conformance to this code.

Section 10-702.1.1.2 Follow-up inspection. Except where ready access is provided to the electrical systems, service equipment and accessories for complete inspection at the site without disassembly or dismantling, the code official shall conduct the in-plant inspections as frequently as necessary to ensure conformance to the approved evaluation report or shall designate an independent, approved inspection agency to conduct such inspections. The inspection agency shall furnish the code official with the follow-up inspection manual and a report of inspections upon request, and the electrical system shall have an identifying label permanently affixed to the system indicating that factory inspections have been performed.

Section 10-702.1.1.3 Test and inspection records. Required test and inspection records shall be available to the code official at all times during the fabrication of the electrical system and the erection of the building; or such records as the code official designates shall be filed.

Section 10-702.1.2 Concealed work. Work shall remain accessible and exposed for inspection purposes until approved. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Wherever any installation subject to inspection prior to use is covered or concealed without having first been inspected, the code official shall have the authority to require that such work be exposed for inspection. Neither the code official nor the City shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

Section 10-702.1.3 Underground. Underground inspection shall be made after trenches or ditches are excavated and bedded, raceways and cable or conductors installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunk and other rubble that would damage or break the raceway, cable or conductors, or where corrosive action will occur, protection shall be

provided in the form of granular or selected material, approved running boards, sleeves or other means.

Section 10-702.1.4 Rough-in. Rough-in inspections shall be made after the roof, framing, fire blocking and bracing are in place and all wiring and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes.

Section 10-702.1.5 Other inspections. In addition to the inspections specified above, the code official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code and other laws, which are enforced by the Department.

Section 10-702.1.6 Final inspection. The final inspections shall be made after all work required by the permit is completed. Failure to request a final inspection within thirty (30) days after the completion of a permit's electrical work or electrical sign work is a violation of this code.

Section 10-702.1.7 Approval required. Work shall not be performed beyond the point indicated in each successive inspections and test without first obtaining the approval of the code official. The code official, upon notification, shall make the requested inspections and tests and shall either indicate the portion of the construction that is satisfactory as completed, or shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the code official.

Section 10-702.2 Validity. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the City. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the City shall not be valid.

Section 10-702.3 Preliminary inspections. Before issuing a permit, the code official is authorized to examine or cause to be examined buildings, structures and sites for which an application has been filed. The code official shall be notified when the installation is ready for inspection and is authorized to conduct the inspection within a reasonable period of time.

Section 10-702.4 Entry. The code official is authorized to enter and examine any building, structure or premises in accordance with Section 10-702.4.3 for the purposes of enforcing this code.

Section 10-702.4.1 Identification. The code official shall carry proper identification issued by the city where inspecting structures, premises or facilities in the performance of duties under this code.

Section 10-702.4.2 Impersonation prohibited. A person shall not impersonate the code official through the use of a uniform, identification card, badge or any other means.

Section 10-702.4.3 Right of entry. Where it is necessary to make an inspection to enforce the provisions of this code, or where the code official has reasonable cause to believe that there exists in a structure or upon any premises a condition that is contrary to or in violation to this code, which makes the structure or premises unsafe, dangerous or hazardous, the code official is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises is unoccupied, the code official is authorized to first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the code official shall have recourse to the remedies provided by law to secure entry.

Section 10-702.5 Inspection agencies. The code official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

Section 10-702.6 Inspection reports. It shall be the duty of the person doing the work authorized by a permit to notify the code official that such work is ready for inspection. It shall be the duty of the person requesting any inspections required by this code to provide access to and means for inspection of such work.

Section 10-702.7 Contractors' responsibilities. It shall be the responsibility of every contractor who enters into contracts for the installation or repair of electrical systems for which a permit is required to comply with adopted State, City and this code's rules and regulations concerning licensing and registration.

SECTION 10-703 TESTING

Section 10-703.1 General. Electrical work shall be tested as required in this code. Tests shall be performed by the permit holder and observed by the code official.

Section 10-703.2 Apparatus, material and labor for tests. Apparatus, material and labor required for testing an electrical system or part thereof shall be furnished by the permit holder.

Section 10-703.3 Reinspection and testing. Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with this code. The work or installation shall then be resubmitted to the code official for inspection and testing.

ARTICLE VIII SERVICE UTILITIES

SECTION 10-801 GENERAL

Section 10-801.1 Connection of service utilities. No person shall make connections from a utility, source of energy, fuel or power to any building or system that is regulated by this code for which a permit is required, until released by the code official.

Section 10-801.2 Temporary connections. The code official shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel or power.

Section 10-801.3 Authority to disconnect service utilities. The code official shall have the authority to authorize disconnection of utility services or energy sources to the building, structure or system regulated by this code in case of an emergency where it is necessary to eliminate an immediate hazard to life or property. The code official shall notify the service utility and, wherever possible, the owner and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure or service system shall be notified in writing as soon as practical thereafter.

Section 10-801.3.1 Connection after order to disconnect. A person shall not make utility service or energy source connections to systems regulated by this code, which have 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 systems.

Section 10-801.4 Changing location of meters. If alterations of the building, dwelling, structure or wiring require changes in the location or size of the meter/service equipment, a licensed electrical contractor with the City shall acquire a permit for the work to be performed and coordinate the disconnecting and reconnecting of service with the utility.

Section 10-801.4.1 Emergencies. Where life or property may be in danger, a licensed electrical contractor with the City may disconnect the service to the building dwelling or structure and shall immediately notify the utility.

Section 10-801.5 Utility company rules. The latest edition of the City Public Service publication “Electrical Service Standards”, as approved by the code official and adopted by City Council, is hereby incorporated and made a part of this chapter for all electric services and meter installations. All other wiring, either public or private, shall conform to this chapter.

ARTICLE IX UNSAFE SYTEMS AND EQUIPMENT

SECTION 10-901 CONDITIONS

Section 10-901.1 Unsafe electrical systems. An electrical system that is unsafe, constitutes a fire or health hazard, or is otherwise dangerous to human life, as regulated by this code, is hereby declared as an unsafe electrical system. Use of an electrical system regulated by this code constituting a hazard to health, safety or welfare by reason of inadequate maintenance, dilapidation, fire hazard, disaster, damage or abandonment is hereby declared an unsafe use. Such unsafe equipment and appliances are hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition or removal.

Section 10-901.2 Authority to condemn electrical systems. Wherever the code official determines that any electrical system, or portion thereof, regulated by this code has become hazardous to life, health or property, the code official shall order in writing that such electrical systems either be removed or restored to a safe condition. A time limit for compliance with such order shall be specified in the written notice. A person shall not use or maintain a defective electrical system or equipment after receiving such notice.

Where such electrical system is to be disconnected, written notice as prescribed in this code shall be given. In cases of immediate danger to life or property, such disconnection shall be made immediately without such notice.

Section 10-901.3 Dangerous conditions. Wherever the code official shall find in any structure or upon any premises dangerous or hazardous conditions or materials, the code official is authorized to order such dangerous conditions or materials to be removed or remedied in accordance with the provisions of this code.

Section 10-901.4 Record. The code official shall cause a record to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.

Section 10-901.5 Notice. If an unsafe condition is found, the code official shall serve on the owner, agent or person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe condition to be removed within a stipulated time. Such notice shall require the person thus notified to declare immediately to the code official acceptance or rejection of the terms of the order.

Section 10-901.6 Method of service. Such notice shall be deemed properly served if a copy thereof is: (a) delivered to the owner personally; or (b) sent by certified or registered mail addressed to the owner at the last known address with the return receipt requested. If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner upon the owner's agent or

upon the person responsible for the structure shall constitute service of notice upon the owner.

ARTICLE X VIOLATIONS

SECTION 10-1001 UNLAWFUL ACTS

Section 10-1001.1 General. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any system or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

SECTION 10-1002 NOTICE OF VIOLATION

Section 10-1002.1 Issuance. Wherever the code official determines violations of this code, the code official is authorized to issue corrective orders.

Section 10-1002.2 Notice. Wherever the code official determines violations of this code or observes an apparent or actual violation of a provision of this code or other codes or ordinances under the code official's jurisdiction, the code official is authorized to prepare a written notice of violation describing the conditions deemed unsafe and, where compliance is not immediate, specifying a time for reinspection. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

Section 10-1002.3 Service. Any order or notice issued pursuant to this code shall be served upon the owner, operator, occupant or other person responsible for the condition or violation, either by personal service, mail or by delivering the same to, leaving it with, some person of responsibility upon the premises. For unattended or abandoned locations, a copy of such order or notice shall be posted on the premises in a conspicuous place at or near the entrance to such premises, and the order or notice shall be mailed by certified mail with return receipt requested or a certificate of mailing, to the last known address of the owner, occupant or both.

Section 10-1002.4 Compliance with orders and notices. Orders and notices issued or served as provided by this code shall be complied with by the owner, operator, occupant or other person responsible for the condition or violation to which the order or notice pertains.

Section 10-1002.5 Failure to correct violations. If the notice of violation is not complied with, the code official is authorized to request the legal counsel of the City to institute the appropriate legal proceedings to restrain, correct or abate such violation or to require removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of any order or direction made pursuant thereto.

Section 10-1002.6 Failure to comply. Failure to comply with an abatement notice or other corrective notice issued by the code official shall result in each day that such violation continues being regarded as a new and separate offense.

Section 10-1002.7 Unauthorized tampering. Signs, tags or seals posted or affixed by the code official shall not be mutilated, destroyed or tampered with or removed without authorization from the code official.

SECTION 10-1003 PENALTIES

Section 10-1003.1 Penalties. Any person who fails to comply with this code or who fails to carry out an order made pursuant to this code or violates any condition attached to the permit, approval or certificate shall be subject to the penalties established by the City.

Section 10-1003.2 Abatement of violation. The imposition of the penalties herein described shall not prevent the legal officer of the City from instituting appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent an illegal act, conduct of business or occupancy of a structure on or about any premises.

SECTION 10-1004 STOP WORK ORDER

Section 10-1004.1 Issuance. Upon notice from the code official that any electrical work is being done contrary to the provisions of this code or in a dangerous or unsafe manner, such work shall immediately cease. Such notices 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. The notice shall state the conditions under which work is authorized to resume.

Section 10-1004.2 Emergencies. Where an emergency exists, the code official shall not be required to give written notice prior to stopping work.

Section 10-1004.3 Unlawful continuance. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

CHAPTER XI MEANS OF APPEAL

SECTION 10-1101 GENERAL

Section 10-1101.1 Electrical ~~Appeals and Advisory~~ Board established. In order to hear and decide appeals of orders, decisions or determinations made by the code official

relative to the application and interpretation of this code, and in order to make recommendations to the code official regarding the provisions of this code. there shall be and is hereby created an Electrical ~~Appeals and Advisory~~ Board. The board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the code official. The board shall also review amendments and later editions of this code and shall make recommendations to the code official for adoption thereof.

Section 10-1101.2 Limitations of authority. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an at least equivalent method of protection or safety is proposed. The board shall have no authority to waive the requirements of this code. The board may review electrical issues when requested to do so by the code official and shall provide a recommendation to the code official on same. The board may also review, and make recommendations to the code official, any electrical issue requested by a citizen or board member when the request for board review is approved by both the code official and board chairman.

SECTION 10-1102 MEMBERSHIP

Section 10-1102.1 Membership of board. The Electrical ~~Appeals and Advisory~~ Board shall consist of eleven (11) members, the code official or his designated representative and a representative of ~~the~~ City Public Service ~~Board~~. The code official or his designated representative and the representative of ~~the~~ City Public Service ~~Board~~ shall be ex officio members of said board, but shall have no vote on any matter before the board. The appointive members shall be appointed by the City Council upon the recommendation of the city manager for two (2) year terms and shall hold offices at the city council's pleasure.

Section 10-1102.2 Qualifications. The appointed members of the board shall consist of eleven individuals who shall reside in Bexar County, Texas as follows:

1. One (1) general contractor or practicing master electrician.
2. One (1) practicing professional engineer licensed in the state.
3. One (1) practicing master electricians recommended by a nationally recognized trade association representing the non-union segment of the industry.
4. One (1) practicing master electrician recommended by a nationally recognized trade association representing the union segment of the industry.
5. One (1) journeyman electrician representing the open shop segment of the industry.
6. One (1) journeyman electrician representing the union segment of the industry.
7. One (1) homebuilder.
8. One (1) master sign electrician.
9. Three (3) layperson consumers.

Section 10-1102.3 Chairman. The board shall annually select one of its members to serve as chairman and one of its members to serve as vice-chairman.

Section 10-1102.4 Disqualification of members. A member shall not hear an appeal in which that member has a personal, professional or financial interest. Where charges are preferred against a member of the board, such member shall not sit as a member of the board during the hearing of the case.

Section 10-1102.5 Secretary. The code official shall designate a qualified clerk from the Department to serve as secretary to the board. The secretary shall file a detailed record of all proceedings in the office of the city clerk.

Section 10-1102.6 Removal of board members. Any board member found guilty of a violation of this code or who fails to perform his duty as a board member shall be recommended for removal from the board. Any member who fails to attend two (2) consecutive meetings may be recommended for removal from the board unless formally excused by action of the remaining board members. Recommendation for removal from the board requires a two-thirds vote of the board members present. The city manager shall be advised of these actions and recommendations of the board for necessary action.

SECTION 10-1103 PROCEDURES

Section 10-1103.1 Application for appeal. A person shall have the right to appeal a decision of the code official to the board. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder, have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The application shall be filed on a form obtained from the code official within 20 days after the notice was served.

Section 10-1103.2 Notice of meeting. The board shall meet upon notice from the chairman, within 10 days of the filing of an appeal, or at stated periodic meetings.

Section 10-1103.3 Open hearing. All hearings before the board shall be open to the public. The appellant, the appellant's representative, the code official and any person whose interests are affected shall be given an opportunity to be heard.

Section 10-1103.4 Rules of procedure. The meetings of the board shall be conducted in conformity with Robert's Rules of Order. Any other rules of procedures adopted by the board shall be made available to the public through the secretary under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

Section 10-1103.5 Voting. Each board member shall have one (1) vote, including the chairman. A board member who is absent or fails or refuses to vote shall not be recorded as voting, either affirmatively or negatively. Proxy votes will not be allowed.

Section 10-1103.6 Quorum and decisions. A quorum for a hearing shall consist of six (6) appointed board members. The board shall modify or reverse the decision of the code official by a concurring vote of six (6) appointed board members.

Section 10-1103.6.1 Resolution. The decision of the board shall be by resolution. Certified copies shall be furnished to the appellant and to the code official.

Section 10-1103.6.2 Administration. The code official shall take immediate action in accordance with the decision of the board.

Section 10-1103.8 Appeals from board's actions. Any action of the board may be appealed by a person directly interested, affected, or aggrieved in the action by written petition filed with the board and the city clerk within twenty-one (21) days of such action for a hearing before the City Council. A fee in the amount set by ordinance shall accompany such appeal.

ARTICLE XII LICENSES AND REGISTRATIONS

SECTION 10-1201 EFFECT OF STATE LICENSING

Section 10-1201.1 Effect of State licensing. Upon the State's enforcement of House Bill 1487, passed by the 78th session of the Texas Legislature that established the State licensing of electricians, the City no longer licenses electricians through testing administered by the City.

Exception: The City will continue to renew those electrical licenses issued prior to the state's electrical license program.

All provisions and regulations of this code referencing a license issued by the City shall also cover a license issued by the State.

Section 1201.2 State licensed electrical contractors and electrical sign contractors, registration. State licensed electrical contractors and electrical sign contractors shall register with the City before performing any electrical work or electrical sign work regulated by this code or Chapter 28, Signs and Billboards. The annual fee for such registration shall be established by City ordinance.

SECTION 10-1202 LICENSE AND INSURANCE REQUIRED

Section 10-1202.1 Qualifications and registration of electricians. It shall be a violation of this code for a person who does not hold a certificate of license to engage in the

electrical trade or electrical sign trade, for which a permit is required, or to undertake to execute such trade or to cause the undertaking of such trade.

Section 10-1202.2 Misrepresentation. It shall be a violation of this code for any person to falsely represent themselves as a licensed electrician of any class set forth in this code or to use the words “electrical contractor”, “master electrician”, “master sign electrician”, “electrician”, or words of similar import or meaning on signs, business cards, stationery, or by any other manner whatsoever, unless such person is properly registered within the meaning of the word used as provided in this code.

Section 10-1202.3 General liability and completed operation insurance.

1. In addition to all other insurance requirements, an electrical contractor, electrical sign contractor, appliance installation contractor or the holder of the annual electrical maintenance permit must continuously maintain on file with the Department in a form of a certificate addressed to the City showing the holder of the master’s license carries the following types and amounts of insurance: bodily injury liability insurance of at least three hundred thousand dollars (\$300,000) and property damage liability insurance of at least three hundred thousand dollars (\$300,000) for both general liability and completed operations insurance. This amount shall equal the same amount as the State, should requirements be changed by the State.
2. The holder of any contractor’s license is responsible for providing evidence of a new or renewal policy of any required insurance coverage upon termination or renewal of any policy.
3. Any insurance certificate required by this code must be written through a company licensed to issue the insurance in the State and the insurance must be approved by the city attorney.

Section 10-1202.4 Terms concurrent with license. Insurance policy terms may be concurrent with the two-year license terms and may be prorated when the term is approved by the code official as other than the two-year term.

SECTION 10-1203

COMMUNICATION, READY ACCESS, AND VEHICLE IDENTIFICATION

Section 10-1203.1 Means of communication. Every electrical or electrical sign contractor shall maintain an established place of business, as defined in Section 10-1203.2 and shall establish a means to receive messages during the regular business hours from the code official. Acceptable means for receiving communications include, but are not limited to a person available at the place of business, an answering machine, voice mail, a pager and a cellular telephone.

Section 10-1203.2 Master present for business. Master electricians or master sign electricians, on behalf of an electrical or electrical sign contractor, licensed by the City or the State, shall normally be present while electrical construction or electrical sign work covered by this code is being performed under that license’s purview. For the purpose of

this requirement, the master is “present” if the master is either on the job site or in his firm’s business office located in the State.

Section 10-1203.3 Identification of vehicles. Each person engaged in electrical construction work shall identify all vehicles used for the transportation of materials, supplies, equipment or tools for hand in the performance of such work with signs showing the name and type of business, the contractor’s master electrician’s license number and the state contractor’s license number, if applicable, under which such electrical construction or electrical sign work is being conducted. For contractors operating with local license numbers the number should be prefixed with EM or SM and those operating with State licenses shall have the TECL or TSCL. The signs shall be kept current at all times and shall be painted or comprised of permanently affixed decals displayed on each side of the vehicle. All letters and numbers shall be a minimum of two inches in height and shall be in full view and legible at all times. It shall be a violation of this code to use vehicles that do not comply with this section of the code.

SECTION 10-1204 LICENSES AND REGISTRATIONS

Section 10-1204.1 Classifications of licenses and registrations. The following are the classifications of licenses and registrations regulated by this code:

1. Licenses that are registered:

- a. Electrical apprentice
- b. Electrical sign apprentice
- c. Journeyman electrician.
- d. Journeyman sign electrician
- e. Maintenance electrician.
- f. Master electrician.
- g. Master sign electrician.
- h. Residential appliance installation contractor
- j. Residential appliance installer
- j. Residential wireman.
- k. State electrical contractor.
- l. State electrical sign contractor.

2. Registrations only:

- b. Electrical maintenance technician.
- a. Electrical sign technician. Note: No new sign technician registrations are offered.

Section 10-1204.2 Documentation. The code official shall adopt rules regarding the form of documentation that will be accepted as proof of compliance with any experience, verification of registration or license status, or other pertinent information.

Section 10-1204.3 Record of issuance. The code official shall maintain a record that is available to the general public of all licenses and registrations issued pursuant to this chapter.

Section 10-1204.4 License and registration card. Issuance, expiration and display of card.

1. A registration card, bearing the code official's signature, shall be issued to each person receiving a City registration or license.
2. Each such registration card shall expire at midnight of the renewal date. A new card shall be issued provided that the registration or license holder has complied with the regulations of this code pertaining to renewals.
3. Each registration certificate or card, when issued to an electrical contractor, electrical sign contractor, or appliance installation contractor shall be issued to a person and registered in the name of the firm by which the person is employed. The firm shall be known as the holder of such registration certificate or card and shall notify the code official if the licensee is no longer in its employment. No further permits will be issued to the firm based upon the previous holder's name who is no longer employed by the firm.
4. It shall be a violation of this code for any person to alter or amend in any manner, lend, rent, or transfer a registration certificate or card; and for any person to make use of any such rights for which the person is not registered or licensed.
5. Each electrical contractor, electrical sign contractor, or appliance installation contractor shall display the registration certificate in a conspicuous place in the firm's place of business. Each holder of a registration card shall carry the registration card on his person at all times while performing electrical or electrical sign work covered by this code and shall present it to the code official upon demand.

Section 10-1204.5 License expiration, renewal, and continuing education. A license may be renewed at any time within thirty days before the expiration date, unless such license has been revoked or canceled by the code official. Applicants shall show proof of having satisfactorily completed an accredited four-hour code study course, approved by the code official, for each year of renewal within the twenty-four month immediately preceding such renewal.

Section 10-1204.6 Two-year license terms. All electrical and sign licenses shall expire at midnight on the anniversary date of their issuance and shall be subject to renewal for a two year period of time.

Section 10-1204.7 Licenses not transferable. No license shall be transferred and no holder of any electrical license shall allow his name or license to be used by any other person, either for the purpose of doing electrical construction or obtaining a permit under the penalty of forfeiture of license and payment of fines.

Section 10-1204.8 Revocation of licenses. Any license or registration granted under this code may be canceled, revoked or suspended by the code official if the holder of such

license or registration violates provisions of this code or any ordinance of the City relating to electrical construction. When a license or registration is suspended, a new license or registration shall not be granted to the same person in violation of the terms of the suspension. Prior to taking any action identified in this section, the code official shall give at least fifteen days of written notice to the license or registration holder to afford the individual or firm an opportunity to present evidence that such action is not warranted. Notice may be personally delivered or deposited, postage-paid, certified or registered mail with the United State Postal Service, addressed to the last address shown on the records of the department.

Section 10-1204.9 License prerequisite to issuance of permit.

1. A permit for electrical work or electrical sign work shall not be issued to any person unless such person is the holder of a license to perform the class of work described in such permit as provided in this code.
2. An annual electrical maintenance permit required by this code shall not be issued unless the owner of the property provides evidence that the maintenance work will be performed by individuals qualified in accordance with section 10-145 of this code.
3. An application will not be accepted for consideration from any person or business until after such person or business shall have registered with the City and obtained authority to do business in the City.

Section 10-1204.10 Change of name. Upon payment of the fee set by ordinance, posting of any necessary bonds and compliance with any other requirements of this code, the holder of a valid license may apply to the code official for a change on the name of a license.

Section 10-1204.11 Continuation of the business upon death, disability or termination of the business's master. Upon the death, disability or termination of electrical contractor or electrical sign contractor business, such business will be allowed to complete existing work for which permits had been obtained prior to the severance of such master provided insurance is posted, if applicable, and sufficient evidence is submitted to and approved by the code official as to the ability of the business to complete the work in accordance with the requirements of this code. Monthly approval may be granted by the code official for a period not to exceed six months. On or before the expiration of such period the business shall associate a new master of the appropriate classification or cease operations.

**SECTION 10-1205
MASTER ELECTRICIAN LICENSE**

Section 10-1205.1 License required. Every electrical or electrical sign contractor, before engaging in electrical or electrical sign work, must procure a master electrician or master electrician sign license for the conduct of such work.

Section 10-1205.2 Limitation on multiple business affiliations. Any master electrician affiliated with a business as herein provided shall not engage in the operation of a second electrical business, under the provisions of this code, unless it is under the same name and insurance certificate of the first company. Any permit issued to a firm must be for work done by that firm. Any firm obtaining permits for any person, business or company other than the business with which he is affiliated will be notified to appear before the code official for consideration of a complaint.

Section 10-1205.3 Responsibilities. The master electrician of record shall be responsible for the layout and technical supervision of any work that requires the securing of a permit under the electrical or electrical sign contractor's license. Failure of the master to properly provide for the supervision and control of work being performed on behalf of the firm may cause the work being performed under permit to be discontinued by the code official.

SECTION 10-1206 MASTER SIGN ELECTRICIAN LICENSE

Section 10-1206.1 License required. Every electrical sign contractor, before engaging in electrical sign work, must procure a master electrician license or a master sign electrician license for the conduct of such work. Electrical contractors shall not be permitted to manufacture any sign regulated by this code or chapter 28. Work performed in the manufacture of electric signs shall be under the supervision of the master electrician or master sign electrician of record for that business and may be performed by master electricians, master sign electricians, journeyman electricians, journeyman sign electricians, electrical sign technicians, electrical apprentices, or electrical sign apprentices.

Section 10-1206.2 Limitation on multiple business affiliations. Any master sign electrician affiliated with a business as herein provided shall not engage in the operation of a second electrical sign business, under the provisions of this code, unless it is under the same name and insurance of the first company. Any permit issued to an electrical sign contractor business must be for work being done by that firm. Any firm obtaining permits for any person, business or company will be notified to appear before the code official for consideration of a complaint.

Section 10-1206.3 Responsibility. The master sign electrician of record shall be liable and responsible for the layout and technical supervision of any work that requires the securing of a permit under the master's license. Failure of the master to properly provide for the supervision and control of work being performed by the registered sign technicians may cause the work being performed under permit to be discontinued by the code official.

SECTION 10-1207 ELECTRICAL CONTRACTOR

Section 10-1207.1 Responsibilities.

1. A licensed electrical contractor shall display its name and license number on both sides of each vehicle owned or operated by the business and used in the conduct of electrical work. Lettering shall be of a contrasting color and at least two inches in height. The license number shall be preceded by the letters “EM” or “TECL” depending on whether the business is operating under a local license or state license.
2. All of a contractor’s non-exempt electrical work shall be performed by licensed individuals. A contractor is responsible for compliance with applicable codes for all such electrical work performed on its behalf.
3. The licensed electrical contractor’s name, address, phone number, and license number shall appear on all proposals, invoices, and written contracts proposed by the contractor. The following information: “Regulated by The Texas Department of Licensing and Regulation, P. O. Box 12157, Austin, Texas 78711, 1-800-803-9202, 512-463-6599; website: www.license.state.tx.us/complaints” shall be listed on invoices and written contracts.
4. A licensed electrical contractor shall maintain employee records and records of all work performed on its behalf for a period of four years after completion of the work, and shall make those records available to the code official at the contractor’s place of business during normal business hours for inspection and copying.
5. A licensed electrical contractor and its designated master electrician are responsible for supervision of all licensees or registered persons performing work on behalf of the contractor to assure compliance with applicable statutes and rules and in particular, standards of conduct set out in these rules.

SECTION 10-1208 ELECTRICAL SIGN CONTRACTOR

Section 10-1208.1 Responsibilities.

1. A licensed electrical sign contractor shall display its name and license number on both sides of each vehicle owned or operated by the business and used in the conduct of electrical sign work. Lettering shall be of a contrasting color and at least two inches in height. The license number shall be preceded by the letters “SM” “TSCL” for City licenses or State of Texas licenses respectfully.
2. All of a contractor’s non-exempt electrical sign work shall be performed by licensed or registered individuals. A contractor is responsible for compliance with applicable codes for all such electrical sign work performed on its behalf.
3. The electrical sign contractor’s name, address, phone number, and license number shall appear on all proposals, invoices, and written contracts proposed by the contractor. The following information: “Regulated by The Texas Department of Licensing and Regulation, P. O. Box 12157, Austin, Texas 78711, 1-800-803-9202, 512-463-6599; website: www.license.state.tx.us/complaints” shall be listed on invoices and written contracts.
4. A licensed electrical sign contractor shall maintain employee records and records of all work performed on its behalf for a period of four years after completion of the work, and shall make those records available to the building official at the

contractor's place of business during normal business hours for inspection and copying.

5. A licensed electrical sign contractor and its designated master electrician or master sign electrician are responsible for supervision of all licensees performing work on behalf of the contractor to assure compliance with applicable statutes and rules and in particular, standards of conduct set out in these rules.

SECTION 10-1209 RESIDENTIAL APPLIANCE INSTALLATION CONTRACTOR

Section 10-1209.1 Responsibilities.

1. A licensed residential appliance installation contractor shall display its name and license number on both sides of each vehicle owned or operated by the business and used in the conduct of residential appliance installation work. Lettering shall be of a contrasting color and at least two inches in height. The license number shall be preceded by the letters "TICL".
2. All of a contractor's non-exempt residential appliance installation work shall be performed by licensed individuals. A contractor is responsible for compliance with applicable codes for all such residential appliance installation work performed on its behalf.
3. The residential appliance installation contractor's name, address, phone number, and license number shall appear on all proposals, invoices, and written contracts proposed by the contractor. The following information: "Regulated by The Texas Department of Licensing and Regulation, P. O. Box 12157, Austin, Texas 78711, 1-800-803-9202, 512-463-6599; website: www.license.state.tx.us/complaints" shall be listed on invoices and written contracts.
4. A licensed residential appliance installation contractor shall maintain employee records and records of all work performed on its behalf for a period of four years after completion of the work, and shall make those records available to the Department at the contractor's place of business during normal business hours for inspection and copying.
5. A licensed residential appliance installation contractor and its designated appliance installer are responsible for supervision of all licensees performing work on behalf of the contractor to assure compliance with applicable statutes and rules and in particular, standards of conduct set out in these rules.

SECTION 10-1210 JOURNEYMAN ELECTRICIAN LICENSE

Section 10-1210.1 Term of license. A journeyman electrician license shall continue in full force from the date of issuance to the next regular license renewal date and may be renewed thereafter by the code official unless revoked or canceled by the code official. Such license shall not be transferable.

Section 10-1210.2 Performance of work. A licensed journeyman electrician may perform all of the electrical or electrical sign work under the general supervision of a

master electrician or master sign electrician on behalf of an electrical or electrical sign contractor.

Section 10-1210.3 Supervision and ratio. A journeyman electrician may direct and supervise the work of an electrical apprentice provided that a ratio of twelve (12) electrical apprentices to one (1) journeyman electricians shall not be exceeded.

SECTION 10-1211 RESIDENTIAL WIREMAN

Section 10-1211.1 Term of license. A residential wireman license shall continue in full force from the date of issuance to the next regular license renewal date and may be renewed thereafter by the code official unless revoked or canceled by the code official. Such license shall not be transferable.

Section 10-1211.2 Supervision and ratio. A residential wireman may direct and supervise the work of an electrical apprentice provided that a ratio of two electrical apprentices to one residential wireman shall not be exceeded.

SECTION 10-1212 MAINTENANCE ELECTRICIAN LICENSE AND ELECTRICAL MAINTENANCE TECHNICIAN REGISTRATION

Section 10-1212.1 License or registration issued by city or state. The holder of a current maintenance electrician license or electrical maintenance technician registration issued by the City or State shall be deemed to have met the licensing requirements when registered as provided for in this code.

Section 10-1212.2 Term of license or registration. A maintenance electrician license or electrical maintenance technician registration shall continue in full force from the date of issuance to the next regular license or registration renewal date and may be renewed thereafter by the code official unless revoked or canceled by the code official. Such licenses or registrations shall not be transferable.

Section 10-1212.3 Performance of work. A licensed maintenance electrician may perform all of the work under the annual electrical maintenance permit permitted by Section 10-405.1. A registered electrical maintenance technician may perform all of the work permitted by Section 10-405.1 but may not perform work involving voltages or amperages that exceed the limits described in Sections 10-404.1, 1 through 6.

SECTION 10-1213 REGISTERED SIGN TECHNICIAN

Section 10-1213.1 Term of license. An electrical sign technician license shall continue in full force from the date of issuance to the next regular license renewal date and may be

renewed thereafter by the code official unless revoked or canceled by the code official. Such license shall not be transferable.

Section 10-1213.2 Period of time for registration card. No new electrical sign technician registrations are issued by the City.

SECTION 10-1214 ELECTRICAL APPRENTICE, ELECTRICAL SIGN APPRENTICE

Section 10-1214.1 Supervision, registration required. Apprentices may work on behalf of an electrical or electrical sign contractor, under the direct supervision of a master electrician, master sign electrician, journeyman electrician, journeyman sign electrician, residential wireman, or electrical sign technician, on behalf of an electrical contractor or electrical sign contractor. Such apprentices shall not be required to take an examination, but shall be required to register with the Texas Department of Licensing and Regulation and shall carry on their person a registration card.

ARTICLE XIII POLES AND WIRES

Section 10-1301.1 Poles and wires. Refer to the latest adopted utility “Electric Service Standards”.

ARTICLE XIV ELECTRICAL PROVISIONS

SECTION 10-1401 GENERAL

Section 10-1401.1 Scope. This code governs the design and construction of electrical systems and equipment.

Section 10-1401.1.1 Adoption. Electrical systems and equipment shall be designed and constructed in accordance with the NFPA 70: *National Electrical Code*, 2008 edition as amended by this code.

Section 10-1401.2 Abatement of electrical hazards. All identified electrical hazards shall be abated. All identified hazardous electrical conditions in permanent wiring shall be brought to the attention of the code official responsible for enforcement of this code. Electrical wiring, devices, appliances and other equipment which is modified or damaged and constitutes an electrical shock or fire hazard shall not be used.

Section 10-1401.3 Appliance and fixture listing. Electrical appliances and fixtures shall be tested and listed in published reports of inspected electrical equipment by an approved agency and installed in accordance with all instructions included as part of such listing.

SECTION 10-1402 PROVISIONS

Section 10-1402.1 General. The provisions of this section shall apply to the design, construction, installation, use and maintenance of electrical systems and equipment. Where differences occur between provisions of this code and referenced codes or standards, the provisions of this code shall apply.

Section 10-1402.2 Cutting, notching and boring. The cutting, notching and boring of wood and steel framing members, structural members and engineered wood products shall be in accordance with the *International Building Code*.

Section 10-1402.3 Penetrations. Penetrations of walls, floors, ceilings and assemblies required to have a fire-resistance rating, shall be protected in accordance with the *International Building Code*. Where cables, conductors and raceways penetrate fire blocking or draft stopping, such penetrations shall be protected by filling the annular space with an approved fire blocking material.

Section 10-1402.4 Smoke detector circuits. Smoke detectors required by the *International Building Code* and installed within dwelling units shall not be connected as the only load on a branch circuit. Such detectors shall be supplied by branch circuits having lighting loads consisting of lighting outlets in habitable spaces.

Section 10-1402.5 Appliance access. Where appliances requiring access are installed in attics or under floor spaces, a luminaire controlled by a switch located at the required passageway opening to such space and a receptacle outlet shall be provided at or near the appliance location.

Section 10-1402.6 Prohibited grounding electrode. Fuel gas piping shall not be used as a grounding electrode.

Section 10-1402.7 Emergency and standby power. Emergency and standby power systems required by the *International Building Code* or *International Fire Code* shall be installed in accordance with the *International Building Code*, *International Fire Code*, NFPA 110, NFPA 111 and this code.

Section 10-1402.8 Smoke control systems. Smoke control systems required by the *International Building Code* or *International Fire Code* shall be supplied with two sources of power. Primary power shall be the normal building power systems. Secondary power shall be from an approved standby source complying with this code. The standby power source and its transfer switches shall be in a separate room from the normal power transformers and switch gear, and shall be enclosed in a room constructed of not less than 1-hour fire-resistance-rated fire barriers, ventilated directly to and from the outside. Power distribution from the two sources shall be by independent routes. Transfer to full standby power shall be automatic and within 60 seconds of failure of the primary power.

Section 10-1402.8.1 Power sources and power surges. Elements of the smoke management system relying on volatile memories or the like shall be supplied with uninterruptible power sources of sufficient duration to span 15-minute primary power interruption. Elements of the smoke management system susceptible to power surges shall be suitably protected by conditions, suppressors or other approved means.

Section 10-1402.8.2 Wiring. In addition to meeting the requirements of this code, all signal and control wiring for smoke control systems, regardless of voltage, shall be fully enclosed within continuous raceways.

Section 10-1402.9 Wiring in plenums. Combustible electrical or electronic wiring methods and materials, optical fiber cable, and optical fiber raceway exposed within plenums regulated by Section 602 of the *International Mechanical Code* shall have a peak optical density not greater than 0.50, an average optical density greater than 5 feet (1524 mm) when tested in accordance with NFPA 262. Only type OFNP (plenum-rated optical fiber cable) shall be installed in plenum-rated optical fiber raceways. Wiring, cable and raceways addressed in this section shall be listed and labeled as plenum rated and shall be installed in accordance with this code.

Section 10-1402.9.1 Combustible electrical equipment. Combustible electrical equipment exposed within plenums regulated by Section 602 of the *International Mechanical Code* shall have a peak rate of heat release not greater than 100 kilowatts (kW), a peak optical density not greater than 0.50, and an average optical density not greater than 0.15 when tested in accordance with UL 2043. Combustible electrical equipment shall be listed and labeled.

Section 10-1402.10 Engine and gas turbine-powered equipment and appliances. Permanently installed equipment and appliances powered by internal combustion engines and turbines shall be installed in accordance with the manufacturer's installation instructions, the *International Mechanical Code*, *International Fuel Gas Code* and NFPA 37.

Section 10-1402.11 Stationary fuel cell power systems. Stationary fuel cell power systems having a power output not exceeding 10 MW shall be tested in accordance with ANSI CSA America FC1 and shall be installed in accordance with the manufacturer's installation instructions and NFPA 853.

Section 10-1402.12 Boiler control requirements. The power supply to the electrical control system for boilers shall be from a two-wire branch circuit that has a grounded conductor or from an isolation transformer with a two-wire secondary. Where an isolation transformer is provided, one conductor of the secondary winding shall be grounded. Control voltage shall not exceed 150 volts nominal, line to line. Control and limit devices shall interrupt the ungrounded side of the circuit and shall be provided, and controls shall be arranged so that when deenergized, the burner shall be inoperative. Such disconnect

means shall be capable of being locked in the off position and shall be provided with ready access.

Section 10-1402.13 Equipment and door labeling. Doors into electrical panel rooms shall be marked with a plainly visible and legible sign stating ELECTRICAL ROOM or similar approved wording. The disconnecting means for each service, feeder or branch circuit originating on a switchboard or panelboard shall be legibly and durably marked to indicate its purpose unless such purpose is clearly evident.

Section 10-1402.14 Smoke alarm power source. In new construction, required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Smoke alarms are not required to be equipped with a battery backup in Group R-1 where they are connected to an emergency electrical system.

Section 10-1402.15 Smoke alarm interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit or sleeping unit in Group R-2, R-3 or R-4, or within an individual sleeping unit in Group R-1, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

SECTION 10-1403 AMENDMENTS

Section 10-1403.1 General exceptions (all types of use and occupancy classifications).

1. No conductor smaller than ~~No.~~12 AWG copper ~~shall be used for branch circuit and feeder wiring or~~ No. 8 AWG aluminum, ~~or larger when properly installed,~~ may shall be used for individual branch circuits and feeders wiring.
2. Ground rods, when used, shall be a minimum of 5/8-inch by eight-foot copper weld construction.
3. No knob and tube or armored cable (type AC) wiring shall be permitted.
4. Manufactured wiring systems, as outlined in Article 604 of the 2008 edition of the NEC/NFPA 70, shall be limited in the following manner:
 - a. Listed by approved testing laboratory as and approved for the purpose for which it is being used tested.
 - b. May be installed above accessible ceilings and below access flooring systems, however, cable and fixtures may be installed on exposed ceilings only where cable and fixtures are not subject to physical damage and by an installation height of no less than twelve (12) feet above finish floor.
 - c. Outer covering to be metal-clad.
 - d. To be used for branch circuit lighting and raised flooring system power outlets only.

- e. Where cable and associated electrical boxes are used beneath a metal access floor system, the access flooring system shall be grounded in accordance with the manufacturer instructions. Each access floor penetration by an electrical cable, electrical box or where in contact with a box shall be bonded to the nearest electrical cable or box as per NEC ~~a~~Article 250.
 - f. No more than one hundred and twenty five (125) feet total to be installed in one sequence of connections from permanent wiring.
 - g. Conductors to be copper, insulation to be rated at ninety (90) degrees centigrade minimum, and color coding as adopted by city code to be strictly adhered to.
 - h. Conductors to be sized in accordance to the city code.
 - i. An equipment-grounding conductor shall be used throughout each cable assembly and shall be the same size as the current carrying conductor.
 - j. Only one (1) opening on each fixture or tap box to be permitted to be shipped from factory without cover plate. Cover plates to be of same quality and grade as receptacles, or equal blank covers shall be used on all unused openings.
 - k. Manufactured wiring systems shall not be directly connected to panelboards.
5. Electrified fences, regardless of voltage, shall not be permitted to be installed or utilized.
 6. Support for disconnecting devices for equipment covered under ~~a~~Articles 424 or 440 of ~~this code~~the NEC that requires periodic replacement, shall be independent and in sight of such equipment and not have the power circuit pass through the unit or equipment ahead of the disconnect.
 7. A 125-volt, 15 or 20 ampere rated receptacle outlet shall be installed at a readily accessible location for the servicing of heating, air-conditioning, or refrigeration equipment. The receptacle shall be a GFCI outlet and be located on the same level and within 25ft of such equipment. It shall be independently mounted from the unit and not on the same circuit as the equipment.
 8. Where conductors are connected, all connections must be made according to manufacturer and industry written procedures.
 9. One hundred eighty (180) volt-amperes per outlet shall be used to calculate the electrical load of one hundred twenty (120) volt receptacle circuits, that is, ten (10) outlets on a twenty ampere branch circuit and eight (8) outlets on a 15 ampere branch circuit. Branch circuits may supply a combination of receptacle and lighting outlets. When combined, receptacle and lighting outlets shall be rated at not less than one hundred eighty (180) volt-amperes each. Branch circuits serving only lighting outlets shall be allowed to serve any number of outlets provided that the total load does not exceed the rating of the branch circuit.
 10. Fasteners shall be permitted to pass through the interior of a device box only when located within one-fourth (1/4) inch of the back of the box.
 11. Branch circuit, feeder and service conductors other than the grounded (neutral) conductor and equipment grounding conductors shall be marked by one distinct color per phase, throughout the system, as listed in this section. The grounded-(neutral) conductor and insulated equipment grounding conductors shall be marked with a color as required by the ~~National Electrical Code~~NEC. This rule

additionally modifies Article 310.12 of the 2008 edition of the National Electrical Code NEC.

- a. The phase color coding of this section shall be applied to new wiring and modifications in existing occupancies. Other phase colors may continue to be applied in occupancies that already have an established color code system that is not in conflict with the current adopted edition of the NEC code.
 - b. There shall be no obligation to make corrections to the phase color coding arrangement in an existing occupancy when such existing wiring is not in the immediate scope of work being performed.
 - c. Conductors with three continuous white stripes shall not be used for grounded or ungrounded conductors.
 - d. Article 200.7 of the NEC 2008 National Electrical Code shall only apply to NM cables in residential occupancies.
 - e. Conductors used for switch legs must be the same color as the branch circuit conductors. Conductors used as travelers must be of a color not associated with any of the color coding systems found in this code or of those colors designated in the NEC for grounding and grounded conductors.
12. Conductor sizes No. 10 AWG and smaller shall be continuously colored throughout the length of the conductor, except that the cable assemblies used in one and two family dwellings or in multifamily dwellings not containing mixed uses of three stories or less shall be permitted to be distinguishable as required or allowed by the code.
13. Conductor sizes No. 8 AWG and larger shall be permitted to be distinguishable as required or permitted by the NEC code. Such conductors, where not continuously colored throughout their length, shall be permanently marked at all switchboards, cutout boxes, junction boxes and all any termination points. Where phasing tape is used, such marking shall be a minimum of two (2) inches in length.

PHASE COLORS FOR ELECTRICAL SYSTEMS

| 120/208 Volts | 120/240 Volts | 277/480 Volts |
|---|---|---|
| Three phase | Three phase | Three phase |
| A - Black B - Red C - Blue N - White | A - Black B - Orange (high leg) C - Blue N - White | A - Purple B - Brown C - Yellow N - Gray |
| | Single Phase | |
| | A - Black B - Red or C - Blue N - White | |

14. In a Article 312.8 of the NEC 2008 edition of NFPA 70, the phrase “unless adequate space for this purpose is provided” shall be omitted. Cabinets and cutout boxes associated with panel-boards, load-centers and switchgear shall contain only conductors that terminate in the enclosure. Pass-through conductors are allowed

only in panel-boards, load-centers or switchgear manufactured and listed for feed-through power supplies.

15. Device boxes with less than fourteen (14) cubic inches volume or less than two and three-fourths ($2\frac{3}{4}$) inches deep shall not be used for the installation of branch circuit wiring devices. Conductor fill for allowable device boxes shall be calculated in accordance with Section 314.16 of ~~the NEC/NFPA 70, 2008 edition.~~
16. Shallow octagon boxes, generally known as “pancake” boxes, shall contain no more than three ~~No.~~ 12 AWG conductors (one “hot”, one neutral, one grounding conductor when used with a canopy that provides the necessary cubic inch volume required). Additional ~~No.~~ 12 AWG conductors shall require octagon boxes one and one-half ($1\frac{1}{2}$) inches deep as a minimum.
17. The ground-fault circuit-interrupter required for hydromassage bathtubs ~~in Article by Section~~ 680.71 of the ~~NEC 2008 edition of NFPA 70~~ shall be located a minimum of six (6) feet from the inside walls of the bathtub. These devices shall not be located under such bathtubs.
18. The maximum size of the tubing in ~~Section Article~~ 362.20(B) of the ~~NEC 2008 edition of NFPA 70~~ shall be one (1) inch.
19. All feeder and branch circuit wiring methods shall include an equipment-grounding conductor sized in accordance with Table 250-122 of the ~~NEC 2008 code.~~
20. Type MC cable as listed in ~~a~~ Article 330 of the ~~NEC 2008 edition of the National Electrical Code NFPA 70~~ shall be permitted for feeder conductors and branch circuit conductors only when installed in accordance with ~~a~~ Article 330 and other applicable code articles and provisions in this code. When used as branch circuit conductors, MC cable shall be installed under the following provisions:
 - a. MC cable of interlocking type as listed in ~~a~~ Article 330 of the ~~NEC 2008 National Electrical Code NFPA 70~~ is permitted. Other styles are not permitted.
 - b. Individuals installing MC cable, under the provisions set forth in this code, shall have attended an approved training course on the proper installation of the cable. Acknowledgment of such training shall include a pocket card to be carried by the individual when installing MC cable.
 - c. The exterior armor of MC cable shall be color-coded blue on its entire length by the manufacturer to distinguish it from other flexible metallic conduit systems.
 - d. The finish cutting of the metal outer jacket shall be performed only with an approved rotary-type-cutting tool.
 - e. Connectors used with MC cable shall be approved for the purpose and shall have an anti-short bushing installed on the cable.
 - f. MC cable shall have the proper phase color of conductors throughout the entire length of the cable, including switch legs.
21. Non-metallic sheathed cables, as listed in ~~a~~ Article 334 of the ~~2008 edition of the~~ NEC, shall not be used in any multifamily dwellings or other structures exceeding three (3) floors above grade. Multifamily dwellings located within buildings with mixed uses are not permitted to be wired with non-metallic sheathed cables.

Section 10-1403.2 Dwelling occupancy exceptions (residential-type use and occupancy classifications).

1. One hundred twenty (120) volt branch circuits serving the interior of a residence shall be fed from a panelboard or loadcenter located at a readily accessible location within the interior of the residence.
2. The main disconnect switch(es) for all residential meter loops shall be installed on the exterior of the building at the meter location unless approved by the city and the ~~utility~~ utility.
3. Cables, where exposed when run, shall be protected from mechanical injury. Where outside when run, approved cable is considered to be protected when run at the junction of the eave and wall, when above eight (8) feet.
4. Adequate illuminations shall be provided in all areas where electric connected equipment that requires maintenance or service is located. A switch shall be located at the entrance or access point to control the lighting in this area. Light outlets shall be arranged to prevent accidental contact by persons working on the equipment. All open lamps shall be guarded where installed less than seven (7) feet above the walkway.
5. The two (2) or more twenty (20) ampere small appliance branch circuits covered by ~~a~~ Article 210.52(B) and ~~a~~ Article 210.11(C)(1) of the ~~NEC2008 National Electrical Code~~ shall serve all receptacle outlets covered by ~~Articles~~ section 210.52(A) and (C).

Exception: Refrigeration equipment shall not be connected to these branch circuits.

Section 10-1403.3 Commercial exceptions (all nonresidential use and occupancy classifications):

1. All wiring on commercial installations shall be installed in approved raceways or metal sheathed cables not specifically restricted in this code.
2. Service conductors, when run to service equipment located inside a building and ahead of the service overcurrent device, shall be installed in rigid metal conduit, intermediate metal conduit or bus duct. Service conduits that penetrate the roof shall be so arranged that any water leaking around the conduit will not enter the service equipment.
3. All underground service lateral conductors not protected by overcurrent protection at their source shall be installed in either rigid conduit, IMC, or Schedule 40 PVC encased in an envelope of three (3) inches of concrete all around. Exposed PVC will not be allowed.
4. Article 600.23(B) of the ~~2008~~ NEC shall be enforced.

ARTICLE XV REFERENCED STANDARDS

Section 10-1501.1 This article lists the standards that are referenced in various sections of this code. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this code

that reference the standard. The application of the referenced standards shall be as specified in Section 10-102.6.

ICC International Code Council
Suite 600
5203 Leesburg Pike
Falls Church, VA 22041

| Standard reference number | Title | Referenced in code section number |
|---------------------------|--|--|
| IBC-06 | International Building Code | 10-201.3, 10-302.1, 10-1202.3, 10-1202.4, 10-1202.5, 10-1202.8, 10-202.9 |
| IECC-00/01 | International Energy Conservation Code | 10-201.3 |
| IFC-06 | International Fire Code | 10-201.3, 10-1202.8, 10-1202.9 |
| IMC-06 | International Mechanical Code | 10-201.3, 10-1202.10, 10-1202.10.1, 10-1202.11 |
| IRC-06 | International Residential Code | 10-201.3 |

IAPMO International Association of Plumbing and Mechanical Officials
5001 E. Philadelphia Street
Ontario, CA 91761

| Standard reference number | Title | Referenced in code section number |
|---------------------------|-----------------------|-----------------------------------|
| UPC-06 | Uniform Plumbing Code | 10-201.3 |

NFPA National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269

| Standard reference number | Title | Referenced in code section number |
|---------------------------|---|-----------------------------------|
| 37-02 | Installation and Use of Stationary Combustion Engines and gas turbines | 10-1202.11 |
| 70-08 | National Electric Code | 10-201.3, 10-1201.1.1 |
| 110-99 | Emergency and Standby Power Systems | 10-1202.8 |
| 111-01 | Stored Electrical Energy Emergency and Standby Power Systems | 10-1202.8 |
| 262-99 | Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces | 10-1202.10 |
| 853-03 | Installation of Stationary Fuel Cell Power Systems | 10-1202.12 |

UL Underwriters Laboratories
333 Pfingsten Road

Northbrook, IL 60062-2096

| Standard reference number | Title | Referenced in code section number |
|---------------------------------|--|---|
| | Fire Test for Heat and Visible Smoke Release for Discrete Products and their Accessories Installed in Air-Handling Spaces – with Revisions through February 1998 | <u>10-1202.10.1</u> |
