Chapter 10 - ELECTRICITY

ARTICLE I. - IN GENERAL

Secs. 10-1—10-25. - Reserved.

ARTICLE II. - ELECTRICAL CODE

Sec. 10-26. Adoption of electrical code.

The 2017 Edition of the National Electrical Code as modified by the provisions of this article, and Chapter 0780-02-01 of the Rules of the Tennessee Department of Commerce and Insurance pertaining to electrical installations are adopted as the electrical code of the city, which shall be regarded as the minimum standards for electrical installations within the city and is made a part of this article by reference as though copied herein in full.


Sec. 10-27. Amendments.

The Code adopted by this article is amended as set out in this section:

Add a newly numbered Article 10 entitled "Administration and Enforcement," to precede Article 90, by adding the following as appropriately numbered sections:

10.27 Applicability

10.27.1 General. The provisions of this code apply to all matters affecting or relating to structures and premises, as set forth in Section 10.27.

10.27.2 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.

10.27.3 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 or safeguards that are required by this code shall be maintained in compliance with the code edition under which installed. The owner or the owner's designated agent shall be responsible for the maintenance of the electrical systems and equipment. To determine compliance with this provision, the building official shall have the authority to require that the electrical systems and equipment be re-inspected.

10.27.4 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 that 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.

10.27.5 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 jurisdiction, 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 building official to determine compliance with codes or standards for those activities or installations within the building official’s jurisdiction or responsibility.

10.28. Department of Plans Review and Inspections.

10.28.1 Creation of enforcement agency. The Department of Plans Review and Inspections is hereby created and the official in charge thereof shall be known as the building official.

10.28.2 Appointment. The building official shall be appointed by the chief appointing authority of the jurisdiction.

10.28.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the building official shall have the authority to appoint a deputy building official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the building official. For the maintenance of existing properties, see the International Property Maintenance Code.

10.28.4 Employee Qualifications.

10.28.4.1 Chief Electrical Inspector. The building official may designate a supervisor to administer the provisions of the Electrical Code. Such supervisor shall have a minimum of ten years’ experience as an electrical inspector, journeyman electrician, or equivalent. Supervisors shall possess or obtain ICC certification as an Electrical Code Official or an IAEI certification as Chief Electrical Inspector within the probationary period.

10.28.4.2 Electrical Inspector. The building official shall appoint or hire such number of electrical inspectors as shall be authorized by the jurisdiction. Each electrical inspector shall have a minimum of five years’ experience in the installation, maintenance, and repair of residential, commercial, and/or industrial electrical systems. Inspectors shall possess or have the ability to obtain ICC Electrical Inspector certification during a one-year probationary period.

[Note to Council to be removed and not codified: This section is redundant, as this falls more appropriately within the purview of Civil Service, which keeps records of minimum qualifications and ensures that applicants meet the same.]

10.29. Authority of building official.

10.29.1 Right of entry. Where it is necessary to make an inspection to enforce the provisions of this code, or where the building official has reasonable cause to believe that there exists in a structure or upon a premises a condition which is contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the building 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 be occupied that credentials be presented to the occupant and entry requested. If such structure or premises is unoccupied, the building official shall 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 building official shall have recourse to the remedies provided by law to secure entry.

10.29.2 Department records. The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.

10.29.3 Liability. The inspection or permitting of any work by any jurisdiction, under the requirements of any section of this code, shall not be construed in any court as a warranty of the physical condition of such building or plan or their adequacy. The building official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction 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 civilly or criminally liable personally and is hereby relieved from 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.

10.29.3.1 Legal Defense. No jurisdiction or any employee thereof shall be liable in tort for damages for any defect or hazardous or illegal condition or inadequacy in such building or plan, or for any failure of any component of such, which may occur subsequent to such inspection or permitting. Any suit instituted against an 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 jurisdiction until the final termination of the proceedings. The building official or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

10.29.4 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 building official. This does not preclude the right of the power supplier, such as the Knoxville Utilities Board, Lenoir City Utilities Board, or Alcoa Electric Department, to immediately make its service equipment, service wires, and connections thereto permanent and safe as soon as unlawful connections by others are known by the power supplier. The power supplier shall, however, inform the electrical inspector within seventy-two (72) hours of such findings of unlawful connections.

10.29.5 Temporary connection. The building official shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel or power.

10.29.6 Authority to disconnect service utilities. The building official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the International Building Code in case of emergency where necessary to eliminate an immediate hazard to life or property or when such utility connection has been made without the approval required by Section 10.29.4 or 10.29.5 or 10.29.6. The building official shall notify the serving 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.

10.29.7 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 building official, or the use of which has been ordered to be discontinued by the building official until the building official authorizes the reconnection and use of such systems.

10.29.8 Violations.

10.29.8.1 Unlawful Acts. It shall be unlawful for any person, firm or corporation to perform work, or cause same to be done, in conflict with or in violation of any of the provisions of this code.
10.29.8.2 Notice of Violation. The building official is authorized to serve a notice of violation or order on the person responsible for violation of the provisions of this code, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

10.29.8.3 Prosecution of Violation. If the notice of violation is not complied with promptly, the building official is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

10.29.8.4 Violation Penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who performs work in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law, which may include, but are not limited to, verbal reprimand by chief electrical inspector; verbal reprimand by the Construction Appeals Board; license suspension for a period of time as determined by the Construction Appeals Board; or permanent license revocation.

10.29.9 Stop work order.

10.29.9.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the building official is authorized to issue a stop work order.

10.29.9.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner’s agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

10.29.9.3 Unlawful continuance. Any person who shall continue any work 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.

10.30 Duties of the chief electrical inspector.

10.30.1 Generally. It shall be the duty of the chief electrical inspector (hereinafter the “chief”), or his/her assistants, to enforce the provisions of this article. The chief shall inspect the installation periodically during and upon completion of work for which a permit was issued. The chief shall make a record of every such inspection and of all violations of this code. Upon notification from the permit holder or the permit holder’s agent, the chief shall make the following required inspections of electrical installations and other such inspections as may be necessary. The chief shall either approve that portion of construction or shall notify the permit holder or the permit holder’s agent of any violation of this code.

10.30.2 Professional Associations. The chief may, with the consent of the mayor, hold membership in the International Association of Electrical Inspectors and the National Fire Protection Association and may serve on any electrical committee of these associations to which he/she may be appointed and may be allowed all necessary expenses in connection with such activities, provided funds were budgeted and approved.

10.30.3 Delegation. The chief may delegate any of his/her powers or duties to any of his/her assistants.
10.30.4 Additional Rules. The chief may recommend such rules and regulations additional to those contained in the National Electrical Code and this article establishing the city electrical code as may in his/her judgment be required by conditions existing in the city.

10.31 Permits required. An owner, authorized agent or contractor who desires to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to erect, install, 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 building official and obtain the required permit for the work.

10.31.1 Exception to Permit Requirement. 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 working business day of to the department of Plans Review and Inspections.

10.31.2 Temporary Tents. All carnivals, circuses, or any other events erecting tents or other temporary structures for meetings, except where sponsored and supervised by the city, must have their electric wiring installed by a class 1 contractor, licensed in the city.

Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately.

10.31.3 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 by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Every permit issued shall become invalid after 365 days. Permits may be renewed annually.

10.31.4 Placement of Permit. The electrical permit or copy shall be kept on the site of the work until the completion of the project.

10.32 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

1. Maintenance and repair work on the premises of a person, firm, or corporation regularly employing one or more electricians for the purpose.

2. A licensed mechanical or gas contractor may install conductors and raceways from the mechanical equipment being installed by the mechanical or gas contractor to the disconnect or over-current device installed by the electrical contractor for and adjacent to the mechanical equipment. All mechanical and/or gas equipment must be installed by a licensed mechanical or gas contractor.

3. Installation, maintenance, or alteration of electric wiring, devices, appliances, or equipment to be installed by or for an electric public service corporation for the use of such a corporation in the generation, transmission, distribution or metering of electrical energy, or for the use of such a corporation in the operation of signals or the transmission of intelligence.

4. Installation, maintenance, or alteration of electric LV-PLe wiring systems for:

A. One- or two-family dwellings;

B. Two-conductor bell wiring;

C. Thermostat wiring; or
D. Wiring installed outdoors or underground.

5. Repairs and maintenance where minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

6. Electrical equipment used for radio and television transmissions. Exception: Equipment and wiring for a power supply and the installations of towers and antennas requires a permit.

7. Installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

8. Listed cord- and plug-connected temporary decorative lighting for periods not to exceed 90 days.

9. Reinstallation of attachment plug receptacles, but not the outlets therefor.

10. No permit shall be required for the replacement of branch circuit overcurrent devices of the required capacity in the same location.

11. Temporary wiring for experimental purposes in suitable experimental laboratories.

10.33 Application for permit. To obtain a permit, the applicant shall first file an application in writing on a form furnished by the Department of Plans Review and Inspection for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.

2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.

3. Indicate the use and occupancy for which the proposed work is intended.

4. Be accompanied by construction documents and other information as required in the International Building Code.

5. Be signed by the applicant, or the applicant’s authorized agent.

6. Give such other data and information as required by the building official.

Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately.

10.34 KUB approval, LCUB approval, AED approval. The locations of all service equipment must be approved by the Knoxville Utilities Board, the Lenoir City Utilities Board, or the Alcoa Electric Department, as applicable.

10.35. Fees for permits and inspection. Before any permit is granted for the installation or alteration of electrical wiring, devices, appliances or equipment, the license holder, his agent or the homeowner making application for such permit shall pay to the city, a fee based upon the following schedule of charges: The fees for electrical work shall be as identified in the Fee Schedule, as adopted by City Council.

Temporary meter center.....$30.00

Electric permit.....$35.00

New construction only, one- and two-family dwellings electrical permit fees:

0 to 150 amps.....$75.00
151 to 200 amps ..... $80.00
201 to 400 amps ..... $100.00

No charge for any outlets, lights, switches, subpanels, etc.

This permit fee includes three (3) inspections. Additional inspections will be $25.00 each.

New construction only, multi-family dwellings electrical permit fees:
0 to 150 amps ..... $75.00
151 to 200 amps ..... $80.00
201 to 400 amps ..... $100.00

No charge for any outlets, lights, switches, subpanels, etc.

This permit fee includes five (5) inspections per building. Additional inspections will be $25.00 each.

Remodel and addition to one- and two-family dwellings:
0 to 150 amps ..... $75.00
151 to 200 amps ..... $80.00
201 to 400 amps ..... $100.00

No charge for any outlets, lights, switches, subpanels, etc.

This permit fee includes three (3) inspections per building. Additional inspections will be $25.00 each.

All other electrical permit fees:

Electric permit ..... $35.00

Fixtures and outlets:

Each fixture outlet ..... $0.50
Each fluorescent fixture ..... $0.50
Each switch outlet ..... $0.50
Each plug outlet ..... $0.50

Electric heaters/solar KW:
0 KW to 3.5 KW ..... $2.00
4.0 KW to 10 KW ..... $4.00
10.5 KW to 25 KW ..... $10.00

Plus 10 cents per KW over 25
Electric appliances:
Each electric water heater......$3.00
Each dryer outlet......$3.00
Each electric stove outlet......$3.00
Connecting gasoline dispensing pumps......$10.00
Meter centers:
0 amps to 200 amps......$15.00
201 amps to 800 amps......$50.00
801 amps to 2000 amps......$100.00
3001 amps to 6000 amps......$200.00
Each disconnect......$5.00
Each load center up to 100 amps......$5.00
Each additional 100 amps or fraction thereof......$3.00
Transformers or banks of transformers:
0 KVA to 50 KVA......$10.00
Over 50 KVA to 100 KVA......$10.00
Over 100 KVA......$20.00
Electric motors:
Less than 1 HP......$2.00
1 HP to 10 HP......$4.00
More than 10 HP to 20 HP......$4.50
More than 20 HP to 50 HP......$4.50
More than 50 HP......$4.60
Electric signs:
0 VA to 2000 VA......$5.00
Over 2000 VA......$10.00
Other equipment:
Each welder, power rectifier or x-ray apparatus or other special equipment......$10.00
Reinspection (all other electrical inspections):

Required inspections and first reinspection ..... No charge

Second reinspection ..... $25.00

Third reinspection ..... $50.00

Each subsequent reinspection ..... $50.00

A reinspection is defined as an inspection made by the electrical inspector after the request has been made by the license holder or his agent for deficiencies noted at a prior inspection. The fourth reinspection shall require the electrical contractor being served a citation to appear before the board. Upon the occasion of an inspection or reinspection, a written notification of deficiencies should be filed with the permit holder. Where any electrical work is commenced before a permit is obtained, the permit and inspection fee may be doubled.

Permit renewal fees:

When a permit expires it may be renewed annually until work is complete. Permit renewals are a minimum fee of $50.00 or a maximum fee of 25% of the original permit fee not to exceed $1,000.00.

Special inspection fees:

When a special inspection not associated with an issued electrical permit is made (such as on-site or other special request), the applicant shall first pay a Special Inspection Fee of $50.00 per inspection per site as determined by the Chief. Inspections associated with an issued electrical permit scheduled outside of normal business hours are subject to a special inspection fee of $50.00 per inspection.

Add newly created Section 10.35.1 Work commencing before permit issuance and text as follows:

Any person who commences work on an electrical system before obtaining the necessary permits shall be subject to fees as indicated in the Fee Schedule, as adopted by City Council, in addition to the required permit fees.

10.36. Standards for electrical equipment and installation. All electrical equipment and installations of electrical equipment shall be safe to persons and property and in conformity with the provisions of this article, the applicable statutes of the state, and all orders, rules and regulations issued by authority thereof. Such conformity shall be prima facie evidence that such installations are safe to persons and property. Conformity of electrical equipment with applicable standards of a nationally recognized testing laboratory shall be prima facie evidence that such equipment is safe to persons and property. This section shall not apply to equipment owned and used by an electricity supply or communication agency in the generation, transmission, distribution, or metering of electricity or for the operation of signals or the transmission of intelligence.

10.37. Inspections.

10.37.1 Inspection requests. It shall be the duty of the holder of the electrical permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

10.37.2 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent 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 building official.

10.37.3 Underground. Underground inspection shall be made after trenches or ditches are excavated and bedded, piping and conductors installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunks 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.

10.37.4 Rough-in. Rough-in inspection shall be made after the roof, framing, fireblocking 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 insulation. Before requesting a rough-in inspection, all connections shall be properly made, all raceways must be visible, and all junction boxes shall have covers removed. If the rough-in is for a slab inspection, all conduits must be visible.

10.37.5 Final. Final inspection to be made after the building is complete, all electrical fixtures are in place and properly connected and the structure is ready for occupancy. If the inspection is performed on an existing or remodeled building, all unused wiring and unsafe equipment shall be disconnected and removed before to requesting a final inspection. When a final inspection authorizes the connection and use of temporary work, such approval shall expire at the time to be stated therein and shall be revocable by the electrical inspector for cause. When all work under said permit is found to be fully in compliance with the provisions of this article, he shall issue to such license holder or his agent a final inspection.

10.37.5.1 A partial approval may be issued authorizing the connection and use of certain specified portions of an incomplete installation; such approval shall be revocable at the discretion of the electrical inspector.

10.37.5.2 When any part of a wiring installation is to be hidden from view by the permanent placement of part of the building, the license holder installing the wiring shall notify the electrical inspector and such parts of the wiring installation shall not be concealed until they have been inspected and approved by the electrical inspector, providing that on a large installation where the concealment of parts of the wiring proceeds continuously, the license holder installing the wiring shall give the electrical inspector due notice and inspections shall be made periodically during the process of the work.

10.37.5.3 The electrical inspector may make a thorough inspection of the installation of all electric wiring, devices, appliances, and equipment now installed or that may hereafter be installed within the scope of this code, and when the installation of any such wiring, devices, appliances or equipment is found to be in a dangerous or unsafe condition, the person, firm, or corporation owning, using, or operating the same shall be notified in writing and shall make the necessary repairs or changes required to place such wiring, devices and equipment in safe condition, and have such work completed within a specific period of time as specified by the chief electrical inspector or his designee in said notice.

10.38 License Requirements and Responsibilities. Each license issued in accordance with the provisions of this ordinance shall specify the name of the person who has passed the appropriate examination as provided herein, and such person shall be designated as the license holder. A license holder shall not hold an electrical license for more than one company, firm, or corporation at the same time. In the event a license holder becomes disabled due to illness or accident, dies, or is no longer employed by the company for which the person is the license holder, the company may petition the building official for approval to employ another license holder to supervise all work under existing permits for a period not to exceed ninety (90) days. No additional permits may be issued during this ninety (90) day period.
When electrical work is being performed, the appropriately licensed electrical contractor or electrical installer shall be responsible for and in charge of the work. It shall be the responsibility of the licensed electrical contractor or electrical installer to ensure Code compliant work and installation.

[Note for Council, to be removed and not codified: The language above matches the state requirements for licensing, protects the public by ensuring that all contractors are qualified to do the work hired for, removes confusion between the state and City requirements, removes unnecessary hurdles and barriers, and streamlines the process.].

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 state and local rules and regulations concerning licensing which the applicable governing authority may have adopted. No license shall be required to execute the following classes of work:

1. Minor repair work such as replacing fuses, switches, sockets, or the replacement of lamps and the connection of portable devices to suitable receptacles which have been permanently installed.

2. The installation, alteration or repair of wiring, devices, appliances or equipment for the operation of signals or the transmission of intelligence where such wiring, devices, appliances or equipment operate at a voltage not exceeding fifty (50) volts between conductors and do not include generating or transforming equipment capable of supplying more than fifty (50) watts of energy, provided, however that installers are currently registered as low-voltage, power limited ("LV-PL") contractors with the city.

3. The installation, alteration or repair of electric wiring, devices, appliances or equipment installed by or for an electric public service corporation for the use of such a corporation in the generation, transmission, distribution or metering of electrical energy or for the use of such a corporation in the operation of signals or the transmission of intelligence.

4. A licensed mechanical or gas contractor may install conductors and raceways from the mechanical equipment being installed by the mechanical or gas contractor to the disconnect or over-current device installed by the electrical contractor for and adjacent to the mechanical equipment. All mechanical and/or gas equipment must be installed by a licensed mechanical or gas contractor.

5. Any work involved in the manufacture, test, or repair of electrical materials, devices, appliances, or apparatus, but not including any permanent wiring other than that required for testing purposes.

6. The assembly, erection, and interconnection of electric apparatus and equipment by the manufacturer of such apparatus and equipment, but not including any electric wiring other than that involved in making electrical connections on the apparatus or equipment itself or between two or more parts of such apparatus or equipment.

10.39 Enforcement of State Requirements. All contractors whose contract exceeds $25,000 must provide a company name, current state license number, the state assigned license limit, and the state assigned classification to the department prior to a permit being issued. All contractors performing work on residential structures, as defined by the State, whose contract is more than $3,000 and less than $25,000, must be licensed by the State as a Home Improvement Contractor and provide to the department the company name and the current state license number prior to a permit being issued or be licensed by the City of Knoxville in the craft for which a permit is requested. All owners and contractors must provide evidence of workman's compensation coverage, when required by Tennessee Code Annotated, prior to the permit being issued. Nothing in this section shall prohibit an owner from securing a permit, without a licensed contractor, provided they fall within the definition of owner as defined by Tennessee Code Annotated.
10.40 Classes of license. The Construction Appeals Board (the "Board") may issue six (6) classes of licenses and certificates, which shall be designated as follows. Upon approval by the Board, authority for issuance of licenses may be delegated to the building official or designee. Any person who performs any electrical work in the Knoxville city limits shall be the holder of, or employed by the holder of, one of the following listed electrical licenses:

An Electrical Contractor License shall entitle the holder thereof to engage in the business of and secure permits for the installation, alteration and repair of electrical wiring, devices, appliances or equipment as authorized by TCA §62-6-111.

To qualify for an Electrical Contractor license a person shall possess a valid state electrical license with a classification of CE.

An Electrical Installer License shall entitle the holder thereof to engage in the business of and secure permits for the installation, alteration and repair of electrical wiring, devices, and appliances or equipment as authorized by TCA §62-6-111 for projects less than $25,000.

To qualify for an Electrical Installer license a person shall demonstrate 4 years relevant experience with relevant references and either (1) a passing score for the state CE examination without the business and law management exam, or (2) a passing score for the state LLE examination.

1. Class 1 electrical contractors' license: shall entitle the holder thereof to engage in the business of, and to secure permits for the installation, alteration, and repair of any electric wiring, devices, appliance or equipment.

2. Class 2 residential electrical contractors' license: shall entitle the holder thereof, to engage only in the business of and to secure permits for the installation, alteration, and repair of residential wiring, devices, appliances or equipment up to a maximum of two dwelling units per building.

3. Class 3 electrical maintenance license: shall entitle the owner of property, or owner of a business, to undertake the work of installing, maintaining, altering and repairing electrical wiring, devices, appliances, or equipment provided that such work is on the load side of the service equipment and further provided that such owner shall regularly employ an electrician, or is himself an electrician. Such work shall be confined to the premises owned or occupied by the holder of said license and the location of the premises upon which the work is to be done shall be described in the license.

4. Class 4 electrical appliance dealers' limited license: shall entitle the holder thereof to obtain permits to install any electrical appliances, signs, switches or controls and install circuits, provided, however, that said license shall be limited to the materials and appliances which are sold by said dealer. It is further provided that said limited license shall not permit the holder thereof to correct circuits and add main service in the event the source of supply is insufficient to carry the load of any appliance.

5. Class 5 special state electrical contractor's license: shall entitle the holder thereof to engage in the business of and to secure permits for the installation, alteration and repair of electric wiring, devices, appliances or equipment as authorized by TCA §62-6-111.

6. Inactive license: This license shall apply to all classifications within this code. A person who is 62 years of age or older and who has held an active license with the City of Knoxville for at least twenty (20) years may
apply for an Inactive Electrical License prior to the license expiration date and grace period upon payment of a fee of fifty dollars ($50.00). No person holding an inactive license shall engage in the business of contracting to perform any electrical work previously authorized by an active license. To change an inactive license to an active license, a person shall pay the appropriate license fee and comply with all the requirements of the Board; provided, however, a licensee may return to active status on only one (1) occasion.

10.41 Homeowner requirements and restrictions. Necessity of License. No person, firm, or corporation shall engage in or work at a business of electrical installation or electrical contracting in the Knoxville city limits, unless duly licensed by the City or excepted as provided herein.

1. Nothing in this article shall prohibit a homeowner from securing a electrical permit to install, alter or replace the homeowner’s electrical system at the homeowner’s principal single-family residence provided:

   1a. The residence is not a newly constructed home, a home in the process of being constructed, a manufactured home, a condemned house, a townhouse, a condominium or a fire-damaged residence.

   2b. Such work is done by the homeowner and/or immediate family, such as parents, grandparents, brothers, sisters, and children.

   2c. The residence is owned and presently occupied by the homeowner. The work is not associated with a residence that is for sale, lease, rent, or other similar purpose.

   4d. The same homeowner(s) may not be issued more than one (1) electrical permit in any five-year period at different locations.

   5e. Temporary pole permits may only be issued to licensed-bonded electrical contractors.

   6f. In the event the homeowner’s work is found to be unacceptable, the homeowner’s electrical permit shall be voided by the building official.

2. Any person who holds a license issued by a governmental organization having a test standard and grade requirement equal to or superior to that of this code may be issued a similar license without another examination subject to meeting all conditions established by the building official.

3. Companies licensed by the State as CE Electrical Contractors will be permitted to perform electrical work within their state classifications without local testing.

10.42 Application for licenses. To qualify for a class 1 electrical license a person shall have at least five (5) years’ experience as an electrician. To qualify for a class 2 or a class 3 electrical license a person shall have at least four (4) years’ experience as an electrician. To qualify for a class 4 electrical license a person shall have at least two (2) years’ experience as an electrician. To qualify for a class 5 electrical license a person shall possess a valid state electrical license with a classification of CE.

Each applicant must submit a completed application on a form provided by the city. Except for a class 5 license application, the application shall be submitted to the plans review and inspections department no later than the first day of the month preceding the test date month. A class 5 license application may be submitted at any time.

Except for class 5 license applications, each application, when submitted, shall be accompanied by a nonrefundable application fee, in the form of cash, check or money order payable to the city.

Except for class 5 license applications the applications shall then be forwarded to the secretary of the board.
Except for class 5 license applications, applicants shall provide, with the application for license, completed reference forms that, in the board’s judgment, will attest to their practical ability to perform the work allowed with the license of the class applied for. The signatures on all reference forms must be notarized.

Any person who holds a license issued by a governmental organization having a test standard and grade equivalent equal or superior to that of this code may be issued a similar license without another examination subject to meeting all conditions established by the board.

10.43 Examination for License.

1. The applicant must submit a completed application and all necessary materials to the department of Plans Review and Inspections and any other necessary entity in order to be approved to take the exam. The exam will be given by the testing center chosen by the Board.

2. Applicants who successfully pass their examination shall have up to one (1) year to secure their license before being required to be reexamined.

3. Applicants who fail the examination may apply for reexamination in accordance with testing center rules.

4. Applicants who possess a valid state electrical classification/license in accordance with Tennessee Code Annotated Section 62-6-111 and who apply for a license will be exempt from the city exam requirements and will be approved for a class 5 city electrical license.

10.44 Reciprocity. Any person, who exhibits a license issued by a lawfully organized board of electrical examiners of the state or of another state having a standard of requirements of grade equal or superior to that of the city, may be issued a license at the discretion of the Board without an examination. The license application and nonrefundable application fee shall be submitted as indicated in Section 10.47.

Except for a class 5 license, a license may be granted providing city electrical contractors holding a city license will be granted the same privilege from the governmental agency from which the applicant is applying. Documented evidence of the agreement between the governmental agencies shall be the responsibility of the applicant.

[Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately].

10.45 Joint venture. Where a joint venture agreement exists for the purpose of making electrical installations, all parties to the agreement shall comply with sections 10.39 and 10.40 and all other requirements of the city electrical code.

10.46 Holder of License. Each license issued in accordance with the provisions of this article shall specify the name of the person who has passed the examination, and such person shall be designated on the license as the responsible party for all work done under the license. The license holder may be either a person, a member of the firm, or an officer of the corporation. The license holder shall not be designated as the responsible party to more than one person, firm, or corporation at the same time. A license holder employed by the city may be designated as the responsible party to one person, firm, or corporation in addition to being designated as the responsible party to the city provided the holder is not employed by the city as an electrical inspector.

In the event a license holder becomes disabled due to illness or accident, dies, or is no longer employed by the company for which the person is the responsible party, the company may petition the Board for approval to employ another license holder to supervise all work under existing permits for a period not to exceed ninety (90) days. No additional permits may be issued during this ninety (90) day period.
When any electrical work is being performed, the appropriately licensed electrical contractor shall be responsible for and in charge of the work. It shall be the responsibility of the licensed electrical contractor to properly qualify all persons working under this license.

10.47 Fees for examination, licenses, and renewals. Before a license examination, license, reciprocal license, or license renewal is granted to any applicant, the applicant shall pay to the city a fee in the amount herein specified for the examination-application, class of license granted, or class of license renewal as follows:

Each nonrefundable exam application fee not to exceed .....$75.00

Class 1, electrical contractors' license, reciprocal or renewal ......$300.00

Class 2, residential electrical contractors' license, reciprocal or renewal ......$150.00

Class 3, electrical maintenance license, reciprocal or renewal ......$150.00

Class 4, electrical appliance dealers' limited license, reciprocal or renewal ......$150.00

Class 5, special state electrical contractors' license:

CE ......$300.00

Inactive license ......$50.00

LV-PL registration ......$150.00

Licenses and LV-PL registrations will be issued on a calendar year basis and may be renewed upon application and payment of the applicable renewal fee. For all licenses other than class 5 licenses and LV-PL registrations, the renewal periods and fees will be as follows:

A standard renewal fee will be charged for renewal applications submitted between January 1 to January 31. A double fee will be charged for renewal applications submitted between February 1 to June 30. After July 1, the licensee will be required to successfully pass the appropriate examination prior to being issued a new license.

Exceptions will be made for holders of city electrical licenses who are prevented from engaging in electrical construction in the city by reason of contractual arrangement with the state or employment with the city as electrical inspectors and whose licenses are classified as inactive. On the occasion of the termination of their contract with the state or employment with the city, as the case may be, such inactive licenses will be reactivated upon written request within ninety (90) days of aforesaid termination and payment of the appropriate annual fee.

Contractor's surety bond: Each LV-PL registrant and class 1, class 2, and class 5 electrical contractor, before receiving a license, shall execute and deliver to the board, a bond payable to the city, in the penal sum of ten thousand dollars ($10,000.00). Every class 4 electrical contractor, before receiving a license, shall execute and deliver to the board a bond payable to the city, in the penal sum of five thousand dollars ($5,000.00). The bond shall be executed by a solvent corporate surety, approved by the director of law of the city, conditioned to comply with all the laws, ordinances, rules, and regulations of the city concerning electrical work and providing that the city may recover the reasonable cost of correcting such noncomplying work done by the license holder or LV-PL registrant, who shall fail to remedy such noncomplying work when notified to do so by the building official or designee. No action shall be brought on the bond unless such action commences within one (1) year from and after the completion of the installation of the electrical work that does not conform to the city's laws, ordinances, rules, and regulations. This section shall in no way affect the LV-PL registrant's or
license holder’s civil responsibility to the person for whom such electrical work is done, and shall not limit the city’s right to prosecute the license holder for violating the laws, ordinances, rules, and regulations concerning electrical work.

Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately.

10.48 LV-PL registration. of businesses. Any person, firm, or corporation that engages in the work of installing, maintaining, altering, or repairing electrical wiring, devices, appliances, or equipment on premises owned or occupied by the business in the City of Knoxville, unless excepted as provided herein, where:

1. Such work is on the load side of the service equipment; and

2. The electrical wiring, devices, appliances, or equipment operate at a voltage not exceeding fifty (50) volts between conductors and do not include generating or transforming equipment capable of supplying more than fifty (50) watts of energy, the owner or a representative designated by the owner must obtain an LV-PL registration with the City under section 10.42 of this chapter. All work governed by this section must be performed by employees of the registrant’s business and only on premises owned or occupied by the business.

Exceptions:

1. Installation, maintenance, or alteration of electric LV-PL wiring systems for:
   A. One- or two-family dwellings;
   B. Two-conductor bell wiring;
   C. Thermostat wiring; or
   D. Wiring installed outdoors or underground

Notwithstanding section 10.29.5 of this chapter, inspections of the premises owned or occupied by a business LV-PL registrant will occur annually. LV-PL registrations issued under this section are exempt from the contractor’s surety bond in section 10.48.

10.49 Display of license. Every holder of a license shall keep his license displayed in a conspicuous place in his principal place of business.

10.50 Assignment or transfer of license or LV-PL registration; allowing use by another; suspension or revocation.

1. It shall be unlawful for any person holding a license or LV-PL registration issued hereunder to allow the use of the same directly or indirectly by any other person for the purpose of obtaining a permit to do any electrical work in the city. For good cause shown, the board shall have the right to require the license-holder or LV-PL registrant to submit any and all relative business and payroll documents. In addition, suspected violations involving class 5 license holders shall be reported in writing to the state board for licensing contractors.

2. The Board may reprimand, suspend or revoke any license or LV-PL registration, or require an examination of the holder thereof, if the person holding such license or LV-PL registration willfully, or by reason of incompetency, repeatedly violates any state statute or ordinances, rule, or regulation in the maintenance, alteration or repair of electrical wiring, devices, appliances, and equipment.
3. The Board shall provide the license holder or LV-PL registrant with a written statement of the charges and notice of the hearing at least five (5) days prior to the board hearing.

Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately.

10.51 Board of Appeals

10.51.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a Construction Appeals Board (hereinafter referred to as the “board”). The board shall be appointed by the Mayor and shall hold office at his or her pleasure. The board may adopt rules of procedure for conducting business.

10.51.2 Limitations on authority. A person shall have the right to appeal a decision of the building 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 board shall have no authority to waive requirements of this code.

10.51.3 Application. The application for appeal shall be filed on a form obtained from the building official within thirty (30) days from the calendar date the decision is rendered by the building official. Application for appeal must be filed within ten (10) days prior to the monthly meeting date. In the case of a building or structure that, in the opinion of the building official, is unsafe or dangerous, the building official may, in the order, limit the time for such appeals to a shorter period.

10.51.4 Qualifications. The board shall consist of members appointed by the Mayor and who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction. This board shall consist of the following:

1. (1) State Registered Architect
2. (1) Contractor with a Building Contractor's License
3. (1) Person with experience, training and full knowledge of fire service and/or knowledge of the applicable fire prevention codes as adopted by the City pursuant to the provisions of Chapter 11, Article II of the Knoxville City Code, who shall have had at least 10 years’ experience within the field represented
4. Consumer Representative
5. State Licensed Mechanical Engineer
6. Licensed Class 1 Gas/Mechanical Contractor
7. Licensed Plumbing Contractor Class 1 Master Plumber
8. State Licensed Electrical Engineer
9. Licensed Electrical Contractor

10.51.5 Terms. Board members shall be appointed to staggered terms of five (5) years each, provided that members may be appointed to terms shorter than five (5) years when necessary to provide for staggered terms. Vacancies shall be filled for an unexpired term in the manner in which original appointments are required to be made. Board members may continue to serve until reappointed or replaced. Official misconduct, neglect of
duty, or continued absence of any member from required meetings of the Board shall, at the discretion of the Mayor, render any such member subject to immediate removal from office.

10.51.6 Quorum and Voting. A simple majority of the board shall constitute a quorum. In varying any provision of this code, the affirmative votes of the majority present, but not less than three affirmative votes, shall be required. **If the board’s vote results in a tie, the motion shall fail. In the event of a tied vote, the board shall not be required to continue the item for consideration at a future meeting.** A board member shall not act in a case in which said member has a personal, financial, or other interest and shall recuse himself or herself from all participation when the matter is formally presented to the Board for consideration. Any board member who has been recused shall immediately leave the room or shall be seated with the other members of the public who are present. The recused board member shall not give testimony in favor or in opposition of any application being considered by the board. Once the matter has been concluded, the member shall be reseated with the board.

10.51.7 Secretary of the Board. The building official or designee shall act as secretary of the Board and shall make a detailed record of all of its proceedings, which shall set forth the reasons for its decision, the vote of each member, the absence of a member, and any failure of a member to vote.

10.52 Additional rules.

1. Conductors. When a new service is required for an existing structure due to renovation, remodeling, service upgrade, etc., all new equipment and new conductors shall be installed in accordance with the 2017 National Electrical Code, State of Tennessee, Chapter 0780-02-01, Rules Relating to Electrical Installations in the State of Tennessee, and the city electrical code. Existing conductors known to be inadequate for the loads served shall be replaced with conductors and over-current protection of adequate size.

2. Report of Damage. Any structure damaged by fire must be reported to the Department of Plans Review and Inspections within twenty-four (24) hours and must be inspected within seventy-two (72) hours by the Department of Plans Review and Inspections to determine whether electrical service should be disconnected to part or all of the damaged structure.

**Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately.**

3. Sealed Plans. Plans submitted shall be prepared by a design professional, who shall be an architect or engineer actively and legally registered in the state under the laws regulating the practice of architecture or engineering, and shall affix his/her official seal to said drawings, specifications and accompanying data for the following:

A. All group A, E, and I occupancies (as defined by the International Building Code).

B. Buildings or structures three (3) stories or more in height (as defined by the International Building Code).

C. Buildings and structures five thousand (5,000) square feet (465 m²) or more in total gross area per floor.

D. All installations of eight hundred (800) amperes or one thousand (1000) volts and greater.

For all other buildings and structures, the submittal shall bear the certification of the applicant that some specific state law exception permits its preparation by a person not so registered; provided, however, that these requirements shall not apply to one- and two-family dwellings. Nothing in this rule shall obviate the duty of the
design professional to meet the requirements of state licensing regulations prohibiting practice outside his field of proven expertise.

4. Service Centers for Temporary Construction. All service centers erected for temporary construction purposes shall be a weatherproof type switch and panel board, properly grounded, mounted on a four-inch by four-inch timber, or equal with three (3) braces. The minimum size of temporary service center shall be fifty (50) amperes, three-wire 120/240 volts. Ground-fault protection for personnel shall comply with Article 590.6 of the 2017 National Electrical Code. The receptacles may be built-in or wired adjacent to the panel where weatherproof construction is used. Drawings pertaining to the temporary service center are available at the city electrical inspector's office. All temporary wiring installation shall comply with Article 590. All power and lighting during construction shall comply with Article 590. All temporary wiring must be removed before receiving the final approval.

5. Maximum Outlets. The number of outlets per branch circuit for residential or apartment dwellings shall not be more than twelve (12) duplex convenience outlets on twenty-ampere circuits, and not more than ten (10) duplex convenience outlets on fifteen-ampere circuits. Where lighting and general purpose receptacles are on the same circuit, each lighting outlet shall be counted as a duplex outlet.

Note to be removed and not codified. Subsequent sections will need to be renumbered appropriately.

6. Baseboard Heaters. Receptacle outlets shall not be permitted to be installed above baseboard heaters. In existing residences, when baseboard heaters are installed, any receptacles above the heater shall be removed, and, if required, relocated. (Modifies Article 210.52. See the information note of the National Electrical Code.)

7. Conduit Lines. Conduit lines shall not have more than three hundred sixty (360) degrees of bends without a pull box. No run shall be permitted to exceed four hundred (400) feet without a pull box.

8. Three Phase Service. Three phase services shall have a minimum capacity as follows:
   A. 250-volts and less: one hundred (100) amperes;
   B. 251-volts to 600-volts: sixty (60) amperes.

9. Power Disconnect. The power service disconnect switch when located indoors shall be within ten (10) feet of a readily accessible exterior door when either or both of the following exists:
   A. The service is underground.
   B. The building has more than three thousand five hundred (3,500) total square feet of floor space.

An approved remote shunt trip device to open the disconnect may be used in place of the switch. One- and two-family dwellings are exempted from this rule.

10. Latched Safety Switches. All safety switches, circuit breakers, and panel boards installed within six (6) feet of grade or floor level shall have a locking means or means whereby a tool would be required to open the dead front panel.

11. Electrical Equipment in Commercial Kitchens. In all commercial kitchens, the electrical equipment under the hood, including the makeup air, shall be wired to shut down when there is a fire, or otherwise function in coordination with fire/smoke handling equipment associated with the hood.

12. NM and NMC Type Cables. NM and NMC (Article 334) shall not be used in the following buildings or occupancies:
A. In any unsprinklered occupancy:

1. When the building exceeds three (3) floors above grade, or when the building is occupied by one hundred (100) or more persons above or below the level of exit or discharge.

2. Other than residential-use buildings where the total building floor area exceeds three thousand five hundred (3,500) square feet.

3. Buildings which are located in the DK zoning district downtown area as defined by the chief electrical inspector and illustrated by map on file in the plans review and inspections department.

B. In the following residential uses:

1. Dwellings which are located within the same building with a designated commercial use where NM cable is prohibited by the National Electric Code.

2. Residential-use buildings in the DK zoning district downtown area.

3. Hotels, motels or assisted living facility for the elderly.

13. GFPE Service Performance Testing. GFPE service performance testing shall be conducted in accordance with Article 230.95(C). A report of this test from an independent testing company shall be submitted to the chief electrical inspector. No final inspection will be approved until this test report is received by the chief electrical inspector.

14. Underground Laterals. All underground service laterals and underground feeders shall be installed in a continuous raceway. Burial depth shall meet National Electrical Code requirements of Table 300.5 NEC 2017.

15. Common Trenches. Service lateral or underground feeders shall not occupy a common trench with water lines, sewer lines, or gas lines. Communication lines such as telephone, cable TV, and computer lines may share a common trench with service lateral or feeders provided there is twelve (12) inches of separation between systems and each are installed in a conduit system for protection. All service laterals and underground feeders shall require caution tape to be installed a minimum of twelve (12) inches above the raceway. Water, sewer and gas lines may cross electrical ditches provided a twelve-inch vertical separation is maintained.

Amend Article 90, Section 90.2., Scope, by adding Mobile Food Units in the series listed in subsections (A)(1) and (B)(1), such that the subsections read as follows:

(A) (1) Public and private premises, including buildings, structures, mobile homes, recreational vehicles, Mobile Food Units, and floating buildings […]

(B) (1) Installations in ships, watercraft other than floating buildings, railway rolling stock, aircraft, or automotive vehicles other than mobile homes, recreational vehicles, and Mobile Food Units [...].
