

ITEM # _____

PREPARED BY: Carter Gray

MOVED: _____

REVIEWED BY: Robert B. Rolwing
County Attorney

SECONDED BY: _____

JOINT ORDINANCE NO. _____

A JOINT ORDINANCE AMENDING THE JOINT ELECTRICAL CODE OF MEMPHIS AND SHELBY COUNTY SO AS TO ADOPT THE 2014 EDITION OF THE NATIONAL ELECTRIC CODE AND LOCAL AMENDMENTS AS THE EFFECTIVE MODEL CODE AND TO MAKE CERTAIN CHANGES AS HEREINAFTER SET OUT AND SETTING APPLICABLE FEES FOR PERMITS AND INSPECTIONS. SPONSORED BY COMMISSIONER EDMUND FORD, JR.

WHEREAS, The Board of Commissioners of Shelby County, Tennessee, and the City Council of the City of Memphis have previously adopted the 2008 edition of the *International Code Council Electric Code* with certain local amendments thereto, now collectively known as the 2012 Joint Electrical Code of Memphis and Shelby County; and

WHEREAS, The International Code Council will no longer update its edition of an model electrical code, depending instead on the provisions of the *National Electric Code* (NEC) to provide the appropriate technical standards for this aspect of the regulation of both residential and commercial electrical system design and installation; and

WHEREAS, The Office of Construction Code Enforcement, with the review and advice of the Memphis and Shelby County Electrical Code Advisory Board, has determined that certain additions and modifications to this model code are necessary or advisable to make it more appropriate for the Memphis and Shelby County jurisdiction, including the code administrative provisions previously found in Chapter One of the ICC

Electrical Code which regulates and discusses the local licensing and registration of Electrical Contractors and others involved in providing electrical installation and repair services; and

WHEREAS, Copies of the 2014 Edition of the National Electric Code have been placed in the Office of the Minutes Clerk of the Shelby County Commission for public review of those documents and as required by state statute before their adoption by reference by the Shelby County Board of Commissioners and the Council of the City of Memphis; and

WHEREAS, Every effort has been made to streamline and reduce the local exceptions to allow a greater understanding of the requirements by all those involved in conducting electrical design, installation, repair or replacement in Shelby County while improving the safety that is designed and constructed into these systems.

NOW, THEREFORE BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS FOR SHELBY COUNTY, TENNESSEE, That the 2014 Memphis and Shelby County Electric Code shall on the effective date of this ordinance be repealed in its entirety and in its place the new 2018 Memphis and Shelby County Electrical Code is hereby adopted.

BE IT FURTHER ORDAINED, That the 2014 Edition of the *National Electric Code (NEC)* is hereby adopted by reference as if set out in its entirety herein, a copy of said code being on file in the Shelby County Commission Minutes Office.

BE IT FURTHER ORDAINED, That the local amendments, including certain amendments to the provision of the *NEC* and locally drafted Appendix A - Electrical Permit and Inspection Fees, as herein set forth in Exhibit A are also adopted and

together these provisions and the 2014 *NEC* shall become the 2018 Memphis and Shelby County Electrical Code.

BE IT FURTHER ORDAINED, That Chapter 6, Article III of the Shelby County Code of Ordinances is amended to make such changes as necessary to implement the update of this code, in accordance with the changes shown in Exhibit B, which is attached hereto and incorporated herein by reference.

BE IT FURTHER ORDAINED, That those provisions of Ordinance 243 adopted by the Shelby County Commission on August 27, 2001 which establish the permit and inspection fees for the Electrical Code will be repealed upon passage of this ordinance and the provisions of Appendix A shall establish the fees associated with the provisions of this code and its implementation and operation by the Office of Construction Code Enforcement.

BE IT FURTHER ORDAINED, That should any part of this ordinance or code be found to be unconstitutional or unenforceable by a court of competent jurisdiction that such a determination will have no effect on the other portions of the adopted Code and the amendments thereto.

BE IT FURTHER ORDAINED, That this Joint Ordinance shall take effect in the City of Memphis and the unincorporated areas of Shelby County on December 31, 2018 by virtue of the concurring and separate passage thereof by the Memphis City Council and by the Board of Commissioners of Shelby County or if not adopted by each legislative body by that date, at the date of such adoption by the last adopting body.

Lee Harris

County Mayor

Date _____

ATTEST:

Clerk of County Commission

First Reading: _____

Second Reading: _____

Adopted
Third Reading: _____

Memphis

and

Shelby County

2018 Joint Electrical Code

Local

Amendments

Chapter 1 – General

Section 101 - Scope

101.1 Title - These regulations, together with the 2014 National Electric Code, shall be known as the 2018 Memphis and Shelby County Joint Electrical Code, part of the 2018 Joint Technical Code for Memphis and Shelby County hereinafter referred to as "this code."

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

101.3 Scope The provisions of this code shall apply to and regulate the design, construction, installation, alteration, repairs, relocation, replacement, addition to, use or management of electrical systems and equipment.

101.4 Quality Control - Quality control of materials and workmanship is not within the purview of the Technical Codes except as it relates to the purposes stated herein

101.5 Federal and State Authority – The provisions of the Technical Codes shall not be held to deprive any Federal or State agency, or any applicable governing authority having jurisdiction, of any power or authority which it had on the effective date of the adoption of the Technical Codes or of any remedy then existing for the enforcement of its orders, nor shall it deprive any individual or corporation of its legal rights as provided by law.

Section 102 - Applicability

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.

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 legally installed at the time of the adoption of this code.

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 or safeguards which are required by this code edition shall be maintained in compliance with the code edition under which they were installed. The owner or operator's designated agent shall be responsible for the maintenance of the electrical system and equipment. To determine compliance with this provision, the Building Official shall have the authority to require any electrical systems and equipment to be re-inspected. Maintenance requiring a permit shall be performed by a registered or licensed contractor.

102.1.3 Additions, Alterations or Repairs - Additions, alterations, renovations or repairs to electrical systems shall conform to the provisions of the International Existing Building Code as amended locally, and this code as applicable. Additions, alterations or repairs shall not cause an existing installation to become unsafe, hazardous or overloaded.

Minor additions, alterations, renovations and repairs to existing installations shall meet the provisions for new construction, unless such work is done in the same manner and arrangement as was in the existing system, is not hazardous and is approved

[EB] 102.1.4 Change In Occupancy – The provisions of *the International Existing Building Code*, as locally amended, shall apply to all buildings undergoing a change in occupancy.

102.1.5 Electrical Service Hazards – Where it is found that the electrical system in a structure constitutes a hazard to the occupants or the structure by reason of, inadequate service, improper fusing, insufficient receptacle and lighting outlets, improper wiring or installation, deterioration or damage, or for similar reason, the Building Official shall require the defects to be corrected to eliminate the hazard.

102.1.6 Historic Buildings - The provisions of this code relating to the construction, alteration, repair, enlargement, restoration, relocation or moving of buildings or structures shall not be

mandatory for existing buildings or structures identified and classified by the state or local jurisdiction as historic buildings when such buildings or structures are judged by the Building Official to be safe and in the public interest of health, safety and welfare regarding any proposed construction, alteration, repair, enlargement, restoration, relocation or moving of buildings.

102.1.7 Moved Buildings - Except as determined by Section 102.1.1, installations that are a part of buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code for new installations

102.2 Differences – Where, in a 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 general requirements and a specific requirement, the specific requirement shall be applicable

102.3 Other Laws – The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

102.4 Severability – If any section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, illegal or void, such decision shall not affect the validity of the remaining portions of this code.

102.5 Application Of References – References to chapter or section number, or to provisions not specifically identified by number, shall be construed to refer to such chapters, sections, or provisions of this code.

102.6 Referenced Codes And Standards – The codes and standards referenced in this code 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 condition of the listing and manufacturer’s installation instructions shall apply.

102.7 Appendices Provisions in the appendices shall not apply unless specifically referenced in the adopting ordinance.

Appendix A – **Electrical Permit and Inspection Fees**

102.8 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 the applicable requirements 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 the codes or standards for those activities or installations within the Building Official’s jurisdiction or responsibility.

102.9 Exemptions

102.9.1 Power Facilities On Easement - Electrical transmission primary and secondary lines in underground conduits, power distribution substations, transformer stations, transformer vaults on poles and primary metering and switching facilities owned by public utilities, when such work is performed by employees of MLGW within their easement, shall be exempt from the Technical Codes.

102.9.2 Low Voltage - Communication and alarm circuits and low voltage power sources directly connected to, and necessary for, the operation of the communication circuits owned by the regulated utility companies supplying the County or inhabitants thereof with telephone, telegraph or communication services, when work is performed by employees of the utilities and on facilities owned by the utilities or within the public right of way shall be exempt from the Joint Technical Codes.

102.9.3 Compliance With Code - All licensed or certified State Contractors who contract directly with Memphis Light Gas and Water Division (MLGW) shall comply with the procedures listed below:

1. Such contractors shall comply with the provisions of Technical Codes, in that they shall be licensed and registered in the appropriate area

to install work in the City of Memphis and in Shelby County.

2. The contractor shall obtain permits for the work to be installed under the contract with the MLGW and the contractor shall pay a permit fee as established in Appendix A.

102.10 Code Does Not Affect Liability For Damages.

102.10.1 Responsibilities – The Technical Codes shall not be construed to affect the responsibilities or liabilities of any person owning, operating, controlling or installing material, devices, appliances, or equivalent for damages to persons or property caused by any defects therein, nor shall the City of Memphis and/or Shelby County be held to assume any such liability by reason of the approval of any material, device, appliance, or equipment authorized herein.

102.10.2 Governmental Purpose of Technical Codes – The regulations provided in the Technical Codes and/or Ordinances are hereby declared to be governmental and for the benefit of the public. Any member of the governing bodies of Memphis or Shelby County, or any official or employee, or board member charged with the enforcement of the Technical Codes acting for the City and County in the discharge of his duty, shall not thereby render himself personally liable, and he is hereby relieved from all personal liability for any damage that may accrue to persons or property as the result of an act required or permitted in the discharge of his duties. Any suit brought against such official or employee, because of such act performed by him in the enforcement of any provision of the Technical Codes shall be defended by the County and/or City Attorney until the final adjudication of the proceedings.

Chapter 2 Definitions

Section 201- General

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

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.

201.3 Terms Defined In Other Codes -Where terms are not defined in this code and are defined in the International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Energy Conservation Code, International Residential Code, International Plumbing Code or NFPA 70, such terms shall have meanings ascribed to them as in those codes.

201.4 Term Not Defined - Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

Section 202 - General Definitions

Approved - Approved by the Building Official or other authority having jurisdiction.

Approved Agency - An established and recognized agency regularly engaging in conducting tests or furnishing inspections services, where the agency has been approved by the Building Official.

Building Official - The officer or other designated authority, or their duly authorized representative, charged with the administration and enforcement of the Technical Codes.

Chief Appointing Authority – Wherever the term “Chief Appointing Authority” is used in the Technical Codes herein adopted, it shall mean the Mayors of the City of Memphis and County of Shelby, Tennessee.

City, Municipality, or Governing Body – Whenever the word “City” or “municipality” or

‘governing body’ is used in the Technical Codes herein adopted, it shall mean the City of Memphis and the County of Shelby Tennessee.

Code Official - Whenever the term “Code Official” is used it shall mean the Building Official.

Commercial, Industrial and Institutional Electrical Maintenance Electrician – The term Commercial, Industrial and Institutional Electrical Maintenance Electrician is defined to include any person having in his charge the maintenance of electrical systems, plants, building or places.

Electrical Contractor – Whenever the term Electrical Contractor is used in the Electrical Code herein adopted, it shall mean an Electrical Contractor who holds a current license issued by the Office of Construction Code Enforcement or a properly registered Certified State Contractor.

Electrical Contractor, Certified - Certified Electrical Contractor is defined as an electrical or specialist contractor who has received a license from the Tennessee State Contractor Licensing Board after passing an examination to qualify for certification as an electrical or specialist contractor and complied with the registration procedures established herein and Chapter 4.

Electrical Section – Whenever the term “electrical section” is used in this code, it shall mean the electrical section of the Memphis and Shelby County Office of Construction Code Enforcement.

Electrical or Specialist Contractor - The term Electrical or Specialist contractor as used in this code is defined to include any person, firm or corporation properly licensed or registered to engage in the business of installing, erecting, altering, repairing or contracting to install, erect, alter or repair electric wires, conductors, material, machinery, apparatus or systems used for the transmission of electrical power or electric light, heat, power control or signal purposes.

Employee - Whenever the word “employee’ is used in the Technical Codes herein adopted, it shall mean a person working directly for a licensed and/or registered contractor for wages or salary subject to federal and/or state payroll tax laws.

Employment - Employment shall be defined as set forth in the rules and regulations of the United States Internal Revenue Service.

Industrial Plant Electrician - The term industrial plant electrician is defined to include any person licensed and regularly employed by an industrial manufacturing plant operated in Shelby County for the purposes of maintaining the existing electrical equipment of said plant. Every Industrial Plant Electrician is required to have an Industrial Plant Electricians License.

Journeyman Electrician – The terms Journeyman Electrician and Lineman, as used in this code, are defined to include any individual duly licensed as Journeyman Electricians under this code to perform electrical wiring under the direction and supervision of a Master Electrician or Industrial Plant Electrician who procured the permit for the wiring being performed.

Journeyman Sign Installer – The term Journeyman Sign Installer is defined to include any person duly licensed under the Technical Codes to install, repair, or service electrical signs and fixtures under the direction and supervision of the Supervising sign installer who procured the sign or fixture permit. No Journeyman Sign Installer shall supervise direct or control more than two Apprentice Sign Installers. Each Journeyman shall be required to have a Journeyman Sign Installer License from the Memphis and Shelby County Electrical Code Advisory Board.

Licensed Contractor – A person, firm, or corporation that has properly registered with OCCE a certificate of license issued by the Tennessee Board for Licensing Contractors noted with the classification for Electrical Contracting (CE).

Listed And Listing - Equipment, appliances, or material included in a list published by a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of listed equipment, appliances and materials, and whose listing states either that the equipment appliances or materials meet nationally recognized standards, or has been tested and found suitable for use in a specific manner. Not all testing laboratories, inspection agencies and other

organizations concerned with product evaluation use the same means for identifying listed equipment, appliances or materials. Some do not recognize equipment appliances and materials as listed unless they are also labeled. The authority having jurisdiction shall utilize the system employed by the listing organization to identify a listed product.

Master Electrician - The term Master Electrician as used in this code, is defined to include any duly certified person having the general charge and supervision of the business of an Electrical Contractor, whether on his own account or as the manager or superintendent of a licensed Electrical Contractor. Every Master Electrician shall be required to have a Master Electrician's License issued by the Building Official.

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

Right of Control - When the term right of control is used it shall be understood to mean right of control according with Tennessee Law, statutory and common, relating to partnership and business law.

State of Tennessee Certified Licensed (CE & CEC) Contractors – A person, firm, or corporation that holds an electrical contractor's license issued by the State of Tennessee.

Supervising Sign Installer – The term Supervising Sign Installer is defined to include any person licensed to install, alter, repair and service illuminating signs, including outdoor on-premises signs or secondary wiring required for indoor signs such as neon and outline lighting and the assembling installing, and wiring of electric light fixtures where such fixtures can be attached to existing outlets which have been properly installed by a licensed and bonded Electrical Contractor. All such work shall be performed in strict accordance with this code.

Wiring Defined – Interior and exterior wiring, including power, lighting, control, and signal wiring together with all their associated hardware, fittings, and wiring devices, both permanently and temporarily installed. This includes (a) wiring from the service point or power source or (b) wiring from and including the power source to the outlets where there is no service point. Such wiring does not include

wiring internal to appliances luminaires, motor controllers, motor control centers, and similar equipment where that wiring is installed in listed equipment by the manufacturer.

Chapter 3 - Organization and Enforcement

Section 301 - Creation Of Enforcement

Agency - Joint Resolution/Ordinance #3333 was adopted and approved by the City of Memphis and the Shelby County legislative bodies, to create the Memphis and Shelby County Office of Construction Code Enforcement (MSCCE). This is a joint agency charged with enforcement of the Memphis and Shelby County Building Code, (including the Existing Building Code, Residential and Energy Conservation Code referenced therein), the Memphis and Shelby County Mechanical Code, the Memphis and Shelby County Fuel Gas Code, the Memphis and Shelby County Plumbing Code and this Code, which are to be known as the Memphis and Shelby County 2018 Technical Codes.

301.1 Employee Qualifications

301.1.1 Building Official Qualifications – As established by Ordinance 3333

301.1.2 Chief Inspector Qualification – The Building Official, with the approval of the Administrator, may designate chief inspectors to administer the provisions of the 2018 Memphis and Shelby County 2018 Technical Codes. The qualifications of the Chief Inspectors shall be as established by Ordinance #3333.

301.1.3 Inspector Qualifications – The Building Official, with the approval of the Administrator, may hire such numbers of officers, inspectors, assistants, and other employees as shall be authorized from time to time. For employee minimum qualifications, see the Shelby County Administration Job Class Master.

Section 301.2 Appointment - The Building Official shall be appointed by the Chief appointing authority of the jurisdiction.

Section 301.3 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, plans examiners, and other employees. Such employees shall have powers as delegated by the Building Official. For employee minimum qualifications, see Shelby County Administration Job Class Master.

Section 302 - Duties And Powers Of The Building Official

302.1 General - The Building Official is hereby authorized and directed to enforce the provisions of this code. The Building 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, policy procedures rules and regulations shall be in compliance 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.

302.2 Local Policies And Procedures - The Building Official shall have authority as necessary in the interest of public health, safety, and general public welfare, to adopt and enforce local policies and procedures 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 in violating accepted engineering methods involving public safety.

302.3 Application And Permits - The Building Official shall receive applications, review construction documents and issue permits for the design maintenance and installation of electrical systems, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

302.4 Notices And Orders – The Building Official shall issue all necessary notices or orders in accordance with Chapter 10 as required to effect compliance with this code.

302.5 Inspections – The Building Official shall make all of the inspections necessary to determine compliance with the provisions of this code in accordance with Chapter 7.

302.6 Identification - The Building Official shall carry proper identification as required by Section 702.4.1.

302.7 Right Of Entry - The Building Official shall be authorized to enter the structure or premises at reasonable times to inspect or perform the duties imposed by this code in accordance with Section 702.4.

302.7.1 Inspection With Warrant - When the Building Official shall have first obtained a proper inspection warrant or other remedy provided by law to secure entry, no owner or occupant or any other persons having charge, care or control of any building, structure, or premises shall fail or neglect, after proper request is made as herein provided, to promptly permit entry therein by the Building Official for the purpose of inspection and examination pursuant to the Technical Codes.

302.8 Department Records - The Building 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 required for retention of public records.

302.8.1 Approval And Modifications. - A record of approvals and modifications granted shall be maintained by the Building Official and shall be available for public inspection during business hours in accordance with applicable laws.

302.8.2 Inspections - The Building Official shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each...

302.8.3 Alternative Methods Or Materials - The application for modification, alternative methods or materials, and the final decision of the Building Official shall be in writing and shall be officially recorded in the permanent record of the Building Official.

302.9 Liability - The Building Official, officer or employee or member of the Joint Board of Appeals or Electrical Code Board, charged with the enforcement of this code, while acting for the jurisdiction in the discharge of the duties required by this code or other pertinent law or ordinance, shall hereby be relieved from all personal liability accruing to persons or property as a result of any act or omission in the discharge of his duties. Any suit instituted against any officer or employee or member, performed by him in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representation of the jurisdiction until the final termination of the proceedings. The Building Official or any subordinate or Board

member shall not be liable for costs of any action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any official, officer or employee or board member, 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 omission in the performance of official duties in connection thereto.

302.10 Restriction On Employees - An officer or employee connected with the department, except one whose only connection is as a member of one or more of the Boards established by the Technical Codes, shall not be financially interested in the furnishing of labor, material or appliances for the construction, alteration, or maintenance of a building, structure, service, system or in the making of plans or specifications thereof, unless he is the owner of such. This officer or employee shall not engage in any other work, which is inconsistent with the duties or conflicts, or may appear to conflict, with the interest of the department.

Section 303 - Certificate

303.1 Use And Occupancy/Certificate Of 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 locally amended.

303.1.1 Building Occupancy - A new building shall not be occupied or a change made in the occupancy, nature, or use of a building or part of a building until the Building Official has issued a certificate of occupancy. Said certificate shall not be issued until all required electrical, gas, mechanical, plumbing and fire protection systems have been inspected for compliance with the Technical Codes and other applicable laws and ordinances and released by the Building Official.

303.1.2 Issuing Certificate Of Occupancy – Upon satisfactory completion of construction of a building or structure, the installation of electrical, gas, mechanical, and plumbing systems in accordance with the Technical Codes, reviewed plans and specifications, and after the final inspection, the Building Official shall issue a certificate of occupancy stating the nature of occupancy permitted, the number of persons for each floor when limited by law, and the allowable load per square foot for each floor in

accordance with the provisions of the Technical Codes.

303.1.3 Temporary/Partial Occupancy – A temporary/partial occupancy may be issued for a portion or portions of a building, which may safely be occupied prior to (final installation) completion of the building upon the approval of the Building Official.

303.2 Certificate Of Completion – Upon satisfactory completion of a building, structure, electrical, gas, mechanical or plumbing system, a certificate of completion may be issued. This certificate is proof that a structure or system is complete and for certain types of permits is released for use and may be connected to a utility system. This certificate does not grant authority to occupy a building, such as a shell building, prior to the issuance of a certificate of occupancy.

Chapter 304 Interior Wiring Out Of Service; Meter Put Back.

304.1 Prohibition - No system, or installation of interior electrical wiring, in any residential building that has been out of service for 365 days or more, or any commercial property that has been out of service for 90 days or more, shall be energized without re-inspection by, and a certificate issued from, the Building Official. In emergency situations, the inspector is authorized to issue a temporary certificate, until re-inspection can be made. This section shall apply to new buildings which have never been occupied as well as buildings which are vacant after having been previously occupied.

304.1.1 Owner/Tenant Request For Re-inspection – The owner or tenant of any building needing a re-inspection under this section may apply to the Building Department for such re-inspection and will pay a fifty (\$50.00) dollar fee for one inspection by the Department. Should the Department determine that repairs are needed to return a system to a compliant condition; a licensed and/or registered electrical contractor will be required to conduct the work after having applied for a new permit to conduct the work identified in the Department inspection. The minimum fee for minor repair conducted under this section shall be fifteen (\$15.00) dollars, exclusive of any surcharges, but if this amount is exceeded using the standard fee ordinance provisions, the higher fee shall be charged.

304.1.2 Contractor Request For Re-inspection

– Any contractor hired by an owner/tenant to conduct permitted work at a location which has been out of service for the time periods indicated above, but prior to Department re-inspection, must identify in his application for a permit that a meter put back is required. The contractor shall be charged the appropriate re-inspection fee in addition to any repair work related fee, beyond minor repair, based on the work to be conducted, with a minimum additional fee of fifteen (\$15.00) dollars, exclusive of any surcharges.

304.1.3 Minor Repairs For purposes of this section only, minor repair shall include strapping, replacement of switches, receptacles, light fixtures, reconstruction or replacement of ground rod clamps, labeling and installation of device plates.

Chapter 4 - Permits And Fees

Section 401 - General

401.1 Permits Required – Permits required by this code shall be obtained from the Building Official. Permit fees, if any, shall be paid prior to issuance of the permit.

401.2 Types Of Permits - Any 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 any electrical systems or equipment, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the Building Official and obtain the required permit for the work.

Exception: – 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 the Electrical Section.

401.3 Work Exempt From Permit - The following work shall be exempt from the requirements for a permit:

1. Listed cord and plug connected temporary decorative lighting
2. Reinstallation of attachment plug receptacles, but not the outlets therefore.
3. Temporary wiring for experimental purposes in suitable experimental laboratories

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

401.4 Issuing Permits

401.1.1 Only to Licensed/Registered

Contractors Permits shall be issued to licensed and/or registered contractors only. The work authorized by the permit shall be performed by personnel meeting the requirements of 401.1.1, or 401.1.2.

401.1.1.1 Employees of a Licensed Contractor

- Work shall be performed by employees of the permit holder or employees of another licensed and/or registered contractor.

401.1.1.2 Temporary Labor Work shall be permitted to be performed by personnel from temporary employment agencies where work is performed under the direct supervision of an employee of a licensed and/or registered contractor.

Exception No. 1 to 401.1: A homeowner shall be permitted to apply for a permit to install and maintain the wiring system of a single-family dwelling that is to serve as his/her principal dwelling unit provided the following conditions are met:

- (1) The applicant shall provide documentation confirming that the dwelling unit will serve as his/her principal residence and is not intended for rent, lease, or resale.
- (2) The applicant shall demonstrate competency in the requirements of the Technical Codes relating to residential wiring installations by scoring a minimum of 70 percentile on an examination approved by the Electrical Code Board and administered by the Building Official.
- (3) The work is performed solely by the homeowner or his/her immediate family.

Note: The applicant shall be permitted to take the exam a maximum of three times within a 6 month period. There shall be a minimum of 10 business days between exams. The first exam shall be administered at no charge; subsequent examinations shall be administered for a fee of \$25.00. Not more than one permit shall be issued to any one individual in any two year period.

Exception No. 2 to 404.1: An HVAC/Electrical permit shall be permitted to be issued to a licensed mechanical contractor. The permit shall authorize the permit holder to perform work on load side of the disconnecting means required by Section 440.14 of the NEC. Where the disconnecting means is integral to the equipment the mechanical contractor shall be permitted to terminate the branch circuit conductors to the line side of the disconnecting means.

401.4.2 Refusal To Issue Permit - If the application for a permit, and the accompanying contract document describing the work, do not conform to the requirements of the Technical Codes or pertinent laws or ordinances, the Building Official shall not issue a permit, but shall return the contract documents to the applicant with his refusal to issue such permit. Such refusal shall include a written explanation of the reasons for refusal.

Section 402 – Application

402.1 General - The Building Official is authorized to receive applications for and issue permits as required by this code.

402.2 Application – Application for a permit required by this code shall be made to the Building Official in such form and detail as prescribed by the Building Official. Applications for a permit shall be accompanied by such plans as prescribed by the Building Official. Any 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 any electrical systems or equipment, or cause such work to be done, shall first hire a licensed and/or registered Contractor. Contractor shall first make applications to the Building Official and obtain the required permit for the work.

402.2.1 Permits Required For Appurtenances To Buildings And Other Structures Or Apparatus – A permit shall be required to erect, install, alter, or repair any of the following list of building appurtenances, new structures, and apparatus, and shall include, but not be limited to, the following:

1. Conveyor systems (Permit and Inspection Fees are as set for in the fee ordinance provisions applicable to the most current Memphis and Shelby County Building Code);
2. Racking systems/Shelving (Permit and Inspection Fees are as set for in the fee ordinance provisions applicable to the most current Memphis and Shelby County Building Code);
3. Process Piping System (Permit and Inspection Fees for Process Piping System will be as set forth in the fee ordinance provisions applicable to the most current Memphis and Shelby County Building Code)

402.2.1.1 Permits For Specific Structures – When multiple codes are, or may be applicable, a permit, and the payment of the appropriate fees, shall be required to erect, install, alter, or repair any of the following list of building appurtenances, new structures and apparatus, and shall include, but not be limited to, the following:

Mechanical Code /Electric Code /Plumbing Code

1. Air Conditioning, heating, mechanical ventilating, blower, or exhaust systems
2. Cooling towers
3. Fire Protection, sprinkler systems
4. Mechanical refrigeration systems

Building Code/ Electric Code/ Plumbing Code

1. Special events permit
2. Temporary construction trailers
3. Elevators

Building Code/ Electric Code/ Mechanical Code

1. Generators; except outdoor self-contained units (no MC)
2. Incinerator
3. Spray Booth

Building Code/ Mechanical Code/ Plumbing Code

1. Storage tank or bin

Building Code/Electric Code

1. Fire Alarms

Mechanical Code/Electric Code

1. Fire suppression systems, including commercial kitchen hoods

Fuel Gas Code/Electric Code

1. Liquefied petroleum gas systems

Permit and inspection fee shall be as set forth in the Fee ordinance and the appropriate Appendix abstracting this Ordinance...

402.2.3 Work Authorized – A building, electrical, gas, mechanical or plumbing permit shall carry with it the right to construct or install the work, as shown in the drawings and set forth in the specifications filed with the application for the permit. When additional work is not shown on the drawings and covered by the

specifications submitted with the application, additional permits shall be required.

402.2.4 Information Required - Such application for a permit shall be filed with the Building Official on a form furnished for that purpose and shall contain a general description of the proposed work and its location.

402.2.4.1 Electrical – Electrical permit applications shall be signed by the contractor, or an authorized agent with power of attorney. Power of Attorney shall be limited to two authorized agents only. To register an agent the contractor shall submit a Special Power of Attorney form for each prospective agent. The form shall be notarized and signed by the company owner or qualifying agent. Agents shall remain valid until their authority is revoked by the owner or qualifying agent in writing to the CCE Licensing Department.

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

Section 403 Conditions

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 or laws of the jurisdiction.

403.2 Expirations - Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within six months after its issuance, or if the work is suspended or abandoned for a period of six months after the time the work is commenced. Works shall be considered suspended or abandoned if an approved inspection has not been made within a 6 month period.

403.3 Extensions - The Building Official is authorized to grant, in writing, one or more extensions of the time period of the permit for periods of not more than 90 days each. Such extensions shall be requested by the permit holder, in writing, and justifiable cause demonstrated.

403.4 Reserved

403.5 Validity - The issuance of a permit or review of construction documents 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 other ordinances of the jurisdiction. A permit presuming to give authority to violate or cancel the provisions of this code shall be invalid.

The issuance of a permit based upon construction documents and other data shall not prevent the Building Official from thereafter requiring the correction of errors in said construction documents and other data or from preventing building operations from being carried on thereunder when in violation of this code or of other ordinances of this jurisdiction. The inspection or permitting of an building, system, or plans by any jurisdiction, under the requirements of the Technical Codes, shall not be construed in any court as a warranty of the physical condition of such building, system or plans or their adequacy.

403.6 Information On The Permit - The Building Official shall issue all permits required by this code on an approved form furnished for that purpose. The permit shall contain a general description of the operation or occupancy and its location and any other information required by the Building Official.

403.7 Suspension Or Revocation - The Building Official is authorized to suspend or revoke a permit, under the provisions of this code, wherever the permit was 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 one 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 used 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 plans submitted or a condition of the permit.
5. The permit is used for 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.
8. The work is being performed by personnel that are not employees of the firm to which the permit was issued unless otherwise permitted by Section 401.4.1.

403.8 Removal Of Defective Work. –

Construction work installed in violation of the Technical Codes, or in an otherwise unlawful manner, shall be removed in its entirety on order, in writing, from the Building Official or his duly authorized representative and shall be reinstalled in a lawful manner as prescribed by the Technical Codes.

403.9 Code Not Affecting Liability For Damages – The Technical Codes shall not be construed to affect the responsibility or liability of any person, owning, operating, controlling or installing materials, devices, appliances or equivalent for damages to persons or property caused by any defects therein, nor shall the City of Memphis and/or County of Shelby be held to assume any such liability by reason of any material, device, appliance or equipment authorized herein.

403.9.1 For The Benefit Of The Public - The regulations provided in the Technical Codes and/or Ordinances are hereby declared to be governmental and for the benefit of the public. Any member of the governing bodies of Memphis or Shelby County, and any official or employee, or board member charged with the enforcement of the Technical Codes acting for the City or County in the discharge of his duty, shall not thereby render himself personally liable, and he is hereby relieved from all personal liability for any damages that may accrue to persons or property as the result of an act required or permitted in the discharge of his duties. Any suit brought against such official or employee, because of such act performed by him

in the enforcement of any provision of the Technical Codes, shall be defended by the County and/or City Attorney until the final adjudication of the proceedings

403.10 False Representation

403.10.1 General - It shall be a violation for any person engaged in the installation of electrical work to exhibit any sign or advertise in any media representing himself to be other than that for which he has been licensed as required by the Technical Codes.

403.10.1.2 Advertisements In License Name Only - It shall be a violation for any person, firm or corporation or any other business that engages in, seeks to engage in, or follows the business or occupation of contracting, to advertise in any form or media under any name other than the same company name on the application the licensed or certified State contractor has on file with the Office of Construction Code Enforcement..

403.10.1.3 Representation As An Inspector - It shall be a violation for persons not employed by the authority having jurisdiction established by the state statute and local codes or ordinances to represent themselves to the public as an inspector.

403.10.2 Licensed Engineers And Contractors - This does not preclude licensed engineers and contractors from making inspections as required in performing their duties.

403.10.3 Fine For Violation - Any person, firm, or corporation who violates any provision of Section 403.10 shall be punished by a fine of not more than \$50 for each offense. Each day during which a violation continues shall be a separate offense.

403.11 Concealing Improper Or Defective Electrical Systems – Any person intentionally concealing from view improperly connected joints or any defective or substandard construction work shall be guilty of a violation and punishable by a penalty as determined the limits of this code.

403.12 Permits Issued On The Basis Of Affidavit - Whenever a permit is issued in reliance upon an affidavit or whenever the work to be covered by a permit involves installation

under conditions, which in the opinion of the Building Official, are hazardous or complex, the Building Official shall require the architect or engineer who signed the affidavit or prepared the drawings or computations shall supervise the work. In addition, they shall be responsible for conformity with the permit, provide copies of inspection reports as inspections are performed, and upon completion make and file with the Building Official written affidavit that the work has been done in conformity with the reviewed plans and with the structural provisions of the Technical Codes. In the event such engineer or architect is not available, the owner shall employ in their stead a competent person or agency whose qualifications are reviewed by the Building Official.

403.13 Contractor's Responsibilities

403.13.1 Financial Assurance – In order to enhance enforcement of Technical Code provisions, every person doing business in Memphis and Shelby County as a registered and/or licensed electrical contractor shall file with the Building Official at its initial licensing, registration or first renewal of same after the effective date of this section, a bond, on a form acceptable to the Building Official, in the penal sum of \$25,000, and issued by an incorporated insurance company authorized to do business in the State of Tennessee. Upon arrival of said bond, the person desiring to do such work shall secure from the Office of Construction Code Enforcement, a registration to do business, which shall run concurrent with the fiscal policy of such authority. When a single legal entity maintains two or more licenses or registrations with Office of Construction Code Enforcement, the total penal sum of the bond for all such licenses shall not exceed \$50,000. A single bond may be used to meet this requirement.

403.13.1.1 Conditions – The conditions of the bond shall be that the principle and surety shall indemnify the City of Memphis and the County of Shelby for their own use, and/or to any citizen against loss by improper compliance with the Technical Codes and any other law or ordinance governing such work: that the principal will suffer no work to be done without a permit, and will report done for inspection by the Building Official in conformity with the Technical Codes.

403.13.1.2 Duration – Such bond shall be continuous and remain in effect every year

thereafter, unless canceled by providing 60 days, or 30 days in the event cancellation is for non-payment of premium, written notice to the principal and obligee. Immediately upon receiving written notice of cancellation, the Building Official shall require that a new bond be furnished. The proper bond form will be provided by the Building Official.

403.13.1.3 Failure To Furnish – Every contractor who fails to furnish a new bond as required above shall be deemed to have ceased to engage in the business of contracting. No further permits for work under the Technical Codes shall be issued, nor shall work proceed on permitted work until the required bond is furnished.

403.13.2 Contractor Registration And/Or Licensing – It shall be the duty of every contractor who shall make contracts for the installation or repairs of building, structure, electrical, mechanical, gas, or plumbing systems, for which a permit is required, to comply with the state or local rules and regulations concerning the registration and/or licensing which the applicable governing authority may have adopted.

403.13.4 Vehicle Used By Electrical Contractors To Have Signs Identifying Ownership.

403.13.4.1 Owned Vehicles – All trucks and similar vehicles used in the conduct of electrical work by electrical contractors or their employees shall have signage conspicuously displayed on both sides of the vehicle as prescribed by sections 403.13.4.1.1, or 403.13.4.1.2. The signage shall include the full name of the firm utilizing the vehicle in lettering not less than 2-inches in height and the MSC Registration number in lettering not less than 1-1/2 inches in height. Violations of this section are subject to the penalties prescribed by Chapter 10.

403.13.4.1.1 Company Owned Vehicles - The signage shall be painted or shall be permitted to be a decal affixed to the side of the vehicle with adhesive backing.

403.13.4.1.2 Temporary, Leased, or Employee's Vehicles - The signage shall be permitted to be temporary and affixed to the vehicle by any means acceptable to the owner or operator. Where employees of the contractor use

their personal vehicles for the conduct of electrical work, the contractor is responsible for compliance with this section.

Section 404 - Fees

404.1 Payment Of Fees – A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any has been paid.

404.2 Schedule Of Permit Fees – A fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority. The fees for electrical work shall be as indicated in the most current fee ordinance as set out in Appendix A.

404.3 Work Commencing Before Permit Issuance - Any person who commences any work before obtaining the necessary permits shall be subject to a fee established by the Building Official that shall be in addition to the required permit fee. This additional fee shall be 100% of the usual permit fee.

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

404.5 Refunds – The Building Official is authorized to establish a refund policy.

Chapter 5 - Construction Documents

Section 501- General

501.1 Submittal Documents – Construction documents, special instructions and structural observation programs, and other necessary data shall be submitted in four sets with each application for a permit. The Construction Documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Official is authorized to require additional construction documents to be prepared by a registered design professional. **Exception:** The Building Official shall have the authority to waive the submission of construction documents, calculations or other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with this code.

501.1.1 Design Professional - The design professional shall be an architect or engineer legally registered under the laws of Tennessee regulating the practice of architecture or engineering and shall affix his official seal to said plans, specifications and accompanying data for the following:

1. All Group A, E and I occupancies
2. Buildings and structures three stories or more high
3. Building and structures 5,000 square feet or more in area. For all other buildings and structures, the submittal shall bear the certification of the applicant that some specific state law permits its preparation by a person not so registered.

Exceptions:

1. Group R3 buildings, regardless of size, shall require neither a registered architect nor engineer, nor a certificate that an architect or engineer is not required.
2. The Building 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 this code.

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 Building Official. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of 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 Building Official.

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 ratings and fireblocking.

501.2.2 Load Calculations. – Where an addition or alteration 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 502 Examinations of Documents

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

502.2 Review Of Construction Documents - When the Building Official issues the permit where construction documents are required, the construction documents shall be endorsed in writing and stamped "REVIEWED." Such reviewed construction documents shall not be changed, modified or altered without authorization from the Building Official. Work shall be done in accordance with the reviewed construction documents.

502.2.1 Previous Reviews – 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 day of the effective date of this code and has not been abandoned.

502.2.2 Phase Review – The Building Official is authorized to issue a permit for the construction 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 the code. The holder of such permit may proceed at the holder’s risk with the building operation and without assurance a permit for the entire system will be granted.

Section 503 - Design Professional In Responsible Charge

503.1 General – Where it is required that documents be prepared by a registered design professional, the Building 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. If the circumstances require, the owner shall be permitted to designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered professional in responsible charge. The Building Official shall be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to perform the duties. The registered design professional in responsible charge 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 504 - Handling Submittals

504.1 Deferred Submittals For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of application and that are to be submitted to the Building Official within a specified period.

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

Submittal documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall

review then and forward them to the Building Official with a notation indicating the deferred submittal documents have been reviewed and they have been found to be in general compliance with the design of the system. The deferred submittal items shall not be installed until the design and submittal documents have been reviewed by the Building Official.

504.2 Amended Construction Documents – Work shall be installed in accordance with the reviewed construction documents, and any changes made during construction that are not in compliance with the reviewed construction documents shall be resubmitted for review as an amended set of construction documents.

504.3 Retention Of Construction Documents - One set of reviewed construction documents shall be retained by the Building Official for a period of not less than 180 days from the date of completion of the permitted work, or as required by state or local laws.

Chapter 6 -Approval

Section 601- General

601.1 Approved Material and Equipment - All materials, equipment and devices approved by the Building Official shall be constructed and installed in accordance with such approval.

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 Building 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 jurisdiction, a technical opinion or report. The opinion or report shall be prepared by a qualified engineer, specialist, laboratory, or organization acceptable to the Building Official and shall analyze the properties of the design, operation, or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The Building Official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

601.2 Modifications - Whenever there are practical difficulties involved in carrying out the provisions of this code, the Building Official shall have the authority to grant modifications for individual cases, provided that the Building Official shall first find that special individual reasons make the strict letter of this code impractical and 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 Office of Construction Code Enforcement.

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 design or method of construction not specifically prescribed by this code, provided any such alternative has been approved. An alternative material or method of construction shall be approved where the Building 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. Where approved by the Building Official, the use of later editions of the National Electrical Code shall be permitted where it can be determined that an equivalent degree of protection required by this code can be achieved.

601.4 Material, Equipment, And Appliance Reuse Material, 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 602 –Testing

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 the alternative materials or methods, the Building Official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction.

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 Building Official shall approve the testing procedures.

602.3 Test Agency - All tests shall be performed by an approved agency.

602.4 Test Reports - Reports of such tests shall be retained by the Building Official for the period required for retention of public records.

Section 603 - Alternative Engineered Design

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

603.2 Design Criteria - An alternative engineered design shall conform to the intent of the provisions of this code and shall provide 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 installation instructions.

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.

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

603.5 Construction Documents - The registered design professional shall submit to the Building Official two complete sets of signed and sealed construction documents for the alternative engineering design. The construction documents shall include floor plans and a diagram of the work.

603.6 Design Approval - Where the Building Official determines 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 Building Official shall notify the registered design professional in writing stating the reasons therefore.

603.7 Inspections And Testing – The alternative engineered design shall be tested and inspected in accordance with the requirements of this code.

Chapter 7 - Inspections and Testing

Section 701 General

701.1 General - The Building 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 Building Official is authorized to engage such expert opinions as deemed necessary to report upon unusual, detailed, or complex technical issues subject to the approval of the governing body.

Section 702 - Required Inspections

702.1 General. - The Building Official, upon notification, shall make the inspection set forth in this section.

Exception: Building and structures as defined by the State Modular Act are exempt from inspections set forth in this section.

702.1.1 Evaluation And Follow-up Inspection

– Prior to the approval of a prefabricated construction assembly having concealed electrical work, and the issuance of an electrical permit, the Building 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 Building Official to determine conformance to this code.

702.1.1.1 Evaluation Services - The Building 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.

702.1.1.2 Follow-up Inspection – Except where ready access is provided to electric systems, service equipment and accessories for complete inspection at the site without disassembly or dismantling, the Building 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 Building 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.

702.1.1.3 Testing And Inspection Reports

– Required test and inspection records shall be available to the Building Official at all times during the fabrication of the electrical system and the erection of the building; or such records as the Building Official designates shall be filed.

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 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 Building Official shall have the authority to require that such work be exposed for inspection. Neither the Building Official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

702.1.3 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 soils 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 selective materials, approved running board, sleeves or other means.

702.1.4 Rough-in - Rough-in inspection shall be made after the roof, framing, firebricking 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.

702.1.5 Other Inspections - In addition to the inspections specified above, the Building 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 that are enforced by the Office of Construction Code Enforcement.

702.1.6 Final Inspections - The final inspection shall be made after all work required by the permit is completed.

702.1.7 Approval Required - Work shall not be performed beyond the point indicated in each successive inspection and test without first obtaining the approval of the Building 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 the 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.

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 jurisdiction. Inspection presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid.

702.3 Preliminary Inspections. – Before issuing a permit, the Building Official is authorized to examine, or cause to be examined, buildings, structure, and sites for which an application has been filed. The Building Official shall be notified when the installation is ready to be inspected and is authorized to conduct the inspection within a reasonable time period.

702.4 Entry - The Building Official is authorized to enter and examine any building, structure, marine vessel, vehicle, or premises in accordance with Section 702.4.3 for the purpose of enforcing this code.

702.4.1 Identification – The Building Official shall carry proper identification issued by the governing authority where inspecting structures, premises or facilities in the performance of duties under this code and shall be identified by proper credentials issued by the governing authority.

702.4.2 Impersonation Prohibited – A person shall not impersonate the Building Official or any inspector employed by the Office of Construction Code Enforcement through the use

of a uniform, identification card, badge or any other means.

702.4.3 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 time to inspect or to perform the duties imposed by this code, provided that if such structure or premises is occupied, that credentials be presented to the occupant and entry requested. If such structure or premises is unoccupied, the Building 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 Building Official shall have recourse to the remedies provided by law to secure entry.

702.5 Inspection Agencies – The Building Official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

702.6 Inspection Requests. - It shall be the duty of the person doing the work authorized by a permit to notify the Building Official that such work is ready for inspection. It shall be the duty of the person requesting the inspection required by this code to provide access to and means of inspection of such work.

702.6.1 Maximum Number of Inspections Per Permit – The fees for a permit shall include the number of inspections specified for each applicable item in the Fee Schedule. Where more than one fee item applies to a permit, the number of inspections shall be the aggregate of the items selected. The fee for additional inspections not included in the initial permit fee shall be \$50.00 per inspection. Section 702.6.2 notwithstanding, a fee item that does not specify the number of inspections, includes all inspections necessary to complete the work.

702.6.2 Re-inspection Fee For Excessive Or Repeat Inspection Calls - When an inspector rejects an inspection of part or all of an electrical system or equipment due to the work being

incomplete, or no plainly visible street address is posted on the job site, an additional fee shall be as set forth in the Fee Ordinance and Appendix A.

702.6.2 Review Of Fee – Any person, firm or corporation aggrieved by the assessment of any re-inspection fee may appeal to the Chief Inspector for a review of the facts involved and a possible reduction or dismissal of said re-inspection fee.

702.6.3 When Paid – Re-inspection fees shall be paid before the next inspection

702.7 Assistance From Other Agencies – The assistance and cooperation of police, building, fire and health department officials and all other officials shall be available as required in the performance of duties.

702.8 Contractor's 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 the adopted state and local rules and regulations concerning licensing.

702.9 Requirements Not Covered By The Code – Any requirements necessary for the strength, stability or proper operation of an existing or proposed electrical, system, or for the public safety, health and general welfare, not specifically covered by this Code, shall be determined by the Building Official.

Section 703 Testing

703.1 General – Electrical work shall be tested as required in this code. Test shall be performed by the permit holder and observed by the Building Official...

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.

703.3 Re-Inspection 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 Building Official for inspection and testing.

Section 704 Joint Technical Boards

704.1 Scope - The public safety requires that persons engaged in the following:

1. The construction, alteration, repair, equipment, use and occupancy, location, maintenance, removal and demolition, of every building or structure or any appurtenances connected or attached to such building or structures.

2. The installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto, and related accessories as covered by the Technical Codes.

3. The installation of mechanical systems, including alterations, repairs, replacement, equipment, appliances fixtures, fitting and/or appurtenances, including ventilation, heating cooling, air conditioning and refrigeration systems, incinerators, and other energy related systems.

4. Plumbing installation, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances, and connections to a water or sewage system,

5. And any related activity:

be qualified to perform such duties competently and in compliance with the Technical Codes.

The introduction of new materials and assemblies, recommendations of contractors and other circumstances, may require changes in the Technical Codes: and since the Administrator, Building Official and the Chief Inspectors may require professional, qualified and experience consultants to advise them in matters pertaining to construction work, the Boards are herewith established.

704.2 Duties of the Technical Boards – The duties of the Boards shall consist of, but are not limited to, the following:

1. Approve or reject the use of new materials or assemblies of materials

2. Review and recommend changes in the Technical Codes suggested by changes in the International Codes and National Electric Code.

3. Consider and recommend changes in the Technical Codes.

4. Act as advisors to the Administrator, Building Official or the Chief Inspectors and any other way in which their service may be requested;

5. Develop orderly procedures for reviewing complaints and violations and when necessary suspending or revoking licenses issued by

Shelby County, or by suspending or revoking the permitting privileges of contractors licensed by the State of Tennessee, or otherwise disciplining person(s), firms, or corporations by charging a penalty as provided in Chapter 10 of this Code. The penalty shall be submitted to the Building Official before work is resumed.

6. Recommend license, registration and examination fee changes to the Administrator when appropriate

704.3 Membership Of Electrical Code Board

– The Electrical Code Board shall consist of 8 appointed members, who shall serve for a period of three years with their term staggered so that no more than 4 terms expire in any 1 year. All appointed members of the Board shall be appointed by either the Mayor of Memphis or the Mayor of Shelby County and approved respectively by the City Council or the County Commission. Each Mayor will make half of the appointments. The Building Official and Chief Electrical Inspector shall serve as ex-officio members without a vote. Additionally, representatives of the Fire Marshall’s Office for the City of Memphis and for the County of Shelby, shall serve as ex-officio members without the right to vote.

704.3.1 Composition Of The Electrical Code Advisory Board

– Membership of the Electrical Code Board shall include the following:

1. Professional or Business Person
2. Electrical Contractor
3. State of Tennessee Engineer (electrical)
4. Electrical Contractor primarily doing residential work
5. Electrical Contractor primarily doing non-residential work
6. Electrician who holds master electrician or certified state licenses
7. Citizen Member
8. Memphis Light Gas and Water - Electrical Engineer Representative.

704.3.2 Ex-Officio Members - After the above categories have been appointed, the Mayors may appoint such other persons as each may deem qualified to serve as ex-officio members.

704.4 Absence of Members – During the absence of members by reason of disability or disqualification, the Administrator or Building Official shall designate a qualified substitute. However, 3 successive unexcused absences from any regular or special meetings shall be grounds

for termination at the will and pleasure of the appointing Mayor without the necessity of a hearing and such action shall be final.

704.5 Chairperson, Vice-Chairperson, and Secretary to the Electrical Code Advisory Board – At the first meeting of each year, the Board shall select one of its members to serve as Chairperson for that year and one of its members to serve as Vice-Chairperson. The Building Official shall serve as Secretary for the Board. The chairperson of the meeting shall be excluded from any vote at that meeting except to break a tie. The Chairperson or Vice-Chairperson, or selected board member of the Electrical Code Advisory Board shall serve on the Joint Board of Appeals with one vote representing their disciplines.

704.6 Meetings Of The Board – The Board shall be subject to meetings at the call of the Chairperson, the Administrator or the Building Official. Each member shall be given 3 days notice before the date of any called meeting.

704.7 Decisions And Findings Of The Board

704.7.1 Administrative Issues – The Board shall report its decisions, findings and recommendations in writing to the Administrator, who, if he approves, shall cause recommendations concerning the administration of the Office of Construction Code Enforcement to be proposed for enactment.

704.7.2 Technical Issues - The Board shall report its decisions, findings and recommendations in writing to the Building Official, who, if he approves, shall cause recommendations concerning the technical codes of the Office of Construction Code Enforcement to be enacted.

704.8 Quorum – A simple majority of the Board shall constitute a quorum. In the event that the regular members are unable to attend and a quorum is not present, the Administrator or the Building Official shall be empowered to appoint alternate members to obtain a quorum.

704.8.1 Minutes – The Administrator or Building Official shall designate one of the employees of the Office of Construction Code Enforcement to transcribe the minutes of each meeting.

Chapter 8 - Service Utilities

Codes, until the notice is complied with and approved.

Section 801 General

801.1 Connection of Service Utilities - No person shall make connection 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 the building or system is released by the Building Official.

801.2 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.

801.3 Authority To Disconnect Service Utilities – The Building Official shall have the authority to authorize disconnection of utility service or energy sources to the building, structure or system regulated by the Technical Codes, in case of an emergency where it is necessary to eliminate an immediate hazard to life or property. 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 practicable thereafter.

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 Building Official, or the use of which has been ordered to be disconnected by the Building Official, until the Building Official authorizes the reconnection and use of such system.

801.4 Notification To Owner – The Building Official, or his duly authorized representative, shall notify the owner or user and the person performing electrical services in violation of the Technical Codes to correct such violations immediately or within the time designated. Failure to comply with said notice shall require the Building Official to order the serving utility to terminate part of or all utilities service supplying service to the building's wiring systems, and/or devices which are deemed by him to be in an unsafe condition, or installed in violation of the requirements of the Technical

Chapter 9 - Unsafe Systems and Equipment

Section 901 Conditions

901.1 Unsafe Electrical Systems - An electrical system which is unsafe, constitutes a fire hazard, 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.

901.2 Authority To Condemn Electrical Systems - Whenever the Building Official determines any electrical system, or portion thereof, regulated by this code has become hazardous to life, health or property, the Building Official shall order, in writing, such electrical system 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 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.

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

901.4 Record - The Building Official shall cause a report to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.

901.5 Notice - If an unsafe condition is found, the Building 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 Building Official acceptance or rejection of the terms of the order.

901.6 Method Of Service - Such notice shall be deemed properly served if a copy thereof is (a) delivered to the property owner personally; or (b) sent by registered or certified mail addressed to the owner at the last known address with the return receipt requested. If the certified or registered letter is returned showing the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by the 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.

Chapter 10 - Violations

Section 1001 Unlawful Acts

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 1002 Notice Of Violation

1002.1 Issuance – Where the Building Official finds any building, premises, vehicle, system, or equipment that is in violation of this code, the Building Official is authorized to issue corrective orders.

1002.2 Notice - Wherever the Building Official determines violations of this code, the Building Official shall serve a notice of violation or order to the person responsible for the erection, installation, alteration, extension, repair, removal or demolition of mechanical work in violation of the provisions of this code, or in violation of a detail statement or the reviewed construction documents thereunder, 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.

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, and 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.

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

1002.5 Failure To Correct Violation – If the notice of violation or orders are not complied with, the Building Official is authorized to request the legal counsel of the jurisdiction to institute the appropriate legal proceeding 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.

1002.6 Failure To Comply – Failure to comply with an abatement notice or other corrective notice or order issued by the Building Official shall result in each day that such violation continues being regarded as a new and separate offense and penalties shall be applied as per this Code

1002.7 Prohibition Of Interference And Unauthorized Tampering – Any person interfering with the Building Official, or his assistants, in the performance of their duties, shall be guilty of a violation of this Code. Signs, tags or seals posted or affixed by the Building Official shall not be mutilated, destroyed, or tampered with or removed without authorization from the Building Official.

Section 1003 - Penalties

1003.1 Violation A Civil Offense; Civil Penalties – Any person, firm, corporation or agent who shall violate a provision of the Technical Codes, or fail to comply therewith, or with any of the requirements thereof, or who shall erect, construct, alter, install, demolish or move any electrical system, or has erected, constructed, altered, repaired, moved or demolished a building, structure, electrical, gas, mechanical or plumbing system in violation of a detailed statement or drawing submitted and permitted thereunder, shall be guilty of a civil offense. Each such person shall be considered guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of the Technical Codes is committed or continued, and upon conviction of any such violation such person shall be punished within the limits and as provided by state law. In addition, any person who fails to comply with the provisions of this code, or who fails to carry out an order made pursuant of this code, or violates any condition attached to a permit, approval, or certificate shall

also be subject to civil penalties as established by the Electrical Board, but not to exceed \$50 per violation with each day or part thereof on which the offense is committed or continues to be considered a separate violation.

1003.2 Withholding Permits – The failure to respond to official correspondence from the Building Official, his designee or the Board, after registered mailing to the contractor’s address of record (record with the Office of Construction Code Enforcement) shall be deemed a sufficient reason to withhold permits, and every contractor shall be held responsible for the violation of the Technical Codes by his employees. Permits shall be issued only to a licensed and/or registered contractor. No permit shall be issued to any licensed and/or registered contractor during the time that he shall fail to remedy defective work or fail to call for inspections after being informed by the Building Official or his designee that he has been held responsible therefore under the Technical Codes. Any other violation of the Technical Codes shall also be grounds for withholding permits.

1003.3 Abatement of Violation – The imposition of the penalties herein described shall not prevent the legal officer of the jurisdiction from instituting appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises.

1003.4 Authority To Institute Suit – When, in the decision of the Building Official or his assistants, there has been a violation of the Technical Codes, the Building Official or any other officer, board, or properly authorized person, in addition to any other remedies provided by law and the Technical Codes, is hereby authorized to institute suit in any appropriate manner to enforce the code by issuing court summons and prevent, enjoin, or abate any violation.

Section 1004 Stop Work Order

1004.1 Issuance – Upon notice from the Building 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 be immediately ceased. Such notice shall be in writing and shall be given to the

owner of the property, or the owner’s agent, or to the person doing the work. The notice shall state the condition under which the work is authorized to resume.

1004.2 Emergencies – Where an emergency exists, the Building Official shall not be required to give a written notice prior to stopping the work and all construction work at that location shall cease.

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 the person is directed to perform to remove the violation or unsafe condition, shall be subject to penalties as prescribed by law.

Chapter 11 - Means Of Appeal.

Section 1101 General

1101.1 Board Of Appeals Established - 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 is hereby created a board of appeals. The Board of Appeals shall be appointed by the governing body and shall hold office at its pleasure. 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 Building Official.

1101.2 Limitation On Authority – An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder has been incorrectly interpreted, the provisions of the 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 and/or local amendment.

Section 1102 – Membership

1102.1 Membership Of Joint Board Of Appeals – The Memphis and Shelby County Joint Board of Appeals shall consist of a total of 17 members, 13 appointed 4 by their position as Chairperson or as appointed representative of other Code Advisory Boards Board and 2 ex-officio members. All appointed members of the Board shall be appointed by both the Mayors and approved by the Memphis City Council and the Shelby County Board of Commissioners. Those appointed members and representative members from other Boards, not employees of any government unit, are as per Section 1102.1.1.

1102.1.1 Composition Of Board

Membership shall include representatives from the following classes:

1. Tennessee Licensed Architect
2. Tennessee Licensed Structural Engineer
3. Tennessee Licensed Building Contractor
4. Licensed Electrical Engineer
5. Licensed Electrical Contractor
6. Licensed Elevator Contractor or Manufacturer
7. Licensed Heating and Air Condition Contractor

8. Licensed Mechanical Engineer
9. Licensed Plumbing Contractor
10. Tennessee Licensed Mechanical Engineer
11. Fire Prevention Representative
12. Licensed Fire Protection Contractor
13. Citizen-at-large
14. Member of the Building Code Advisory Board (Chairperson or Board Member appointed by the Chairperson)
15. Member of the Electrical Code Advisory Board (Chairperson or Board Member appointed by the Chairperson)
16. Member of the Mechanical Code Advisory Board (Chairperson or Board Member appointed by the Chairperson)
17. Member of the Plumbing Code Advisory Board (Chairperson or Board Member appointed by the Chairperson)

1102.1.2 Appointed Ex-Officio Members -

After the above categories of members have been appointed, the Mayors shall appoint such other person as each may deem qualified to serve as ex-officio members.

1102.1.3 Other Ex-Officio Members – In addition, the building official of the City of Memphis and Shelby County and the fire Marshall of the City of Memphis shall serve as ex-officio members without a vote.

1102.3 Chairperson And Vice Chairperson Of The Joint Board Of Appeals – At the first meeting of each year, the Board shall select one of its members to serve as Chairperson for the year, and one of its members to serve as Vice Chairperson.

1102.4 Disqualification Of Members – A member shall not hear an appeal in which that member has a personal, professional, or financial interest.

1102.5 Secretary Of The Board – The Building Official 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 decisions, the vote of each member, and the absence of a member and any failure by a member to vote.

1102.6 Rules And Regulations - The Board shall establish rules and regulations for its own procedure not inconsistent with the provisions of this code. The board shall meet on call of the Chairperson. The Board shall meet within 30

calendar days after notice of appeal has been received.

1102.7 Term Of Office.

1102.7.1 Generally – The term of office of the board members shall be staggered so no more than 1/3 of the Board is appointed or replaced in any 12 month period. The two alternates, if appointed, shall serve one year terms.

1102.7.2 Filling Unexpired Terms And Service Without Pay - Vacancies shall be filled for the unexpired term in the manner in which the original appointments are required to be made. All appointed Board members shall be residents of Shelby County and shall serve without pay.

1102.7.3 Oath - All members shall qualify and take an oath to uphold the Constitution of the United States and the State of Tennessee and faithfully discharge the duties of their office.

1102.7.4 Absence Shall Be Cause For Removal – Continued absence of any member from required meeting of the Board shall, at the discretion of the applicable governing body, render any such member subject to immediate removal from office.

1102.8 Quorum And Voting – A simple majority of the Board shall constitute a quorum. In varying any provision of this code, the affirmative votes of $\frac{3}{4}$ members present, but not less than five affirmative votes, shall be required. In modifying a decision of the building official, not less than five affirmative votes of the members present. In approving an equal to or better method, the majority affirmative votes shall be required. In the event that regular members are unable to attend and a quorum is not present, the Building Official shall be empowered to appoint alternative members to obtain a quorum.

Section 1103 - Procedures

1103.1 Decisions Of The Building Official – The owner of a building, structure or service system, or his duly authorized agent, may appeal a decision of the Building Official to the Joint Board of Appeals whenever any one of the following conditions are claimed to exist:

1. The Building Official rejected or refused to approve the mode or manner of construction proposed to be followed or materials to be used

in installation or alteration of a building, structure or service system.

2. The provisions of this code do not apply to this specific case
3. That an equally good or more desirable form of construction can be employed in any specific case.
4. The true intent and meaning of the code or any of the regulations thereunder have been misconstrued or incorrectly interpreted.

1103.1.1 Variances – The Joint Board of Appeals, when so appealed to and after hearing, may vary the application of any provision of this code to any particular case when, in its opinion, the enforcement thereof would do manifest injustice and would be contrary to the spirit and purpose of this or the technical codes or public interest, and also finds all of the following:

1. That special conditions and circumstances exist which are peculiar to the building, structure or service system involved and which are not applicable to others.
2. That the special conditions and circumstances do not result from the action or inaction of the applicant;
3. That granting the variance requested will not confer on the applicant any special privilege that is denied by the code to other buildings, structures, or service systems.
4. That the variance granted is the minimum variance that will make possible the reasonable use of the building, structure or service system.
5. That the grant of the variance will be in harmony with the general intent and purpose of this code and will not be detrimental to the public health, safety and general welfare.

1103.1.2 Conditions On The Variance – In granting the variance, the Board may prescribe a reasonable time limit within which the action for which the variance is required shall be commenced or completed or both. In addition, the board may prescribe appropriate conditions and safeguards in conformity with this code. Violations of the conditions of a variance shall be deemed a violation of this code.

1103.1.3 Notice Of Appeal - Notice of appeal shall be in writing and filed within 30 calendar days after the decision is rendered by the building official. Appeals shall be in a form acceptable to the Building Official, and shall be accompanied by a fee of \$125.

1103.1.4 Notice Of Meeting – The Board shall meet as required and called by the Chairperson or the Building Official. Written notice shall be provided to all members of the time, date and location of these meeting.

1103.2 Unsafe Or Dangerous Building Or Service System – In the case of a building, structure or service system which, in the opinion of the building official, is unsafe, unsanitary or dangerous, the building official may, in his order, limit the time for such appeals to a shorter period.

1103.3 Open Hearing – All hearings before the Board shall be open to the public. The appellant, the appellant’s representative, the Building Official, and any person whose interest are affected shall be given an opportunity to be heard.

1103.4 Rules Of Procedure – The board shall adopt and make available to the public through the secretary, rules of procedure 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.

1103.5 Postponed Hearings – Where five members are not present to hear an appeal, either the appellant or the appellant’s representative shall have the right to request a postponement of the hearing.

1103.6 Decisions - The Joint Board of Appeals shall, in every case, reach a decision without unreasonable or unnecessary delay. Each decision of the Board shall also include the reasons for the decision. If a decision of the Board reverses or modifies a refusal, order or disallowance of the Building Official or varies the application of any provision of this code, the building official shall immediately take action in accordance with such decision. Every decision shall be promptly filed in writing in the office of the building official and shall be open to public inspection.

The board shall modify or reverse the decision of the Building Official by an equal to or better than method of construction with a concurring vote of half the members present and for a variance to this code by a two-thirds vote of the members present.

1103.7 Resolution – A certified copy of the decision shall be sent by mail, or otherwise, to the appellant and a copy shall be kept publicly posted in the office of the building official for two weeks after filing. Every decision of the board shall be final; subject, however, to such remedy as any aggrieved party might have at law or equity.

1103.7.1 Administration – The Building Official shall take immediate action in accordance with the decision of the board.

1103.8 Court Review - Any aggrieved person, whether or not a previous party of the appeal, shall have the right to apply to the appropriate court for a writ of certiorari to correct errors of law. Application for review shall be made in the manner and time required by law, following the filing of the decision in the office of the chief appointing authority.

Required Insurance

1201.1 Insurance Requirements – Contractors shall have insurance equal to or exceeding the insurance required by the Tennessee Department of Commerce and Insurance. The contractor shall submit to the Building Official a certificate of insurance or a worker's compensation policy as evidence of the existence of worker's compensation insurance.

Exception: This section does not apply to those persons who are not required by title 50, chapter 6, of the Tennessee Code to obtain workers' compensation coverage. To qualify for this exception the Qualifying Agent shall present or sign a Contractor's Affidavit for Renewal or Registration as provided by Construction Code Enforcement that attest to their exemption from this requirement. The affidavit shall identify the specific exemption that applies.

Chapter 13 - Required Electrical Licenses

Section 1301 General

1301.1 License Required - Except as hereinafter provided, it shall be a violation for any person to do electrical work within the City or County unless such person is licensed or registered under the provisions of this Code.

Section 1302 Classifications - For purposes of this code, the classification of the various licenses of the electrical industry shall be as follows:

1. Electrical or Specialist Licensed Electrical Contractor – Sec. 1303
2. Certified Electrical Contractor – Sec. 1304
3. Master Electrician – Sec. 1305
4. Specialist:
 - 4.1 Industrial Plant Electrician –Sec 1307
 - 4.2 Supervising Sign Installer – Sec. 1309
 - 4.3 Low Voltage and/or Alarm Contractor – Sec. 1310
5. Memphis and Shelby County Low Voltage Licensed Contractor –Section 1311
6. Commercial, Industrial, and Institutional Electrical Maintenance Electrician – Sec. 1312.1

1302.1 Specialist Not A Substitute For A Masters. – Nothing in the Technical Code is intended to indicate that a licensed Specialist may substitute as a Licensed Master Electrician.

1302.2 Master Electrician And/Or Specialist Conditions For Changing Employment – A Registered Licensee or a Master Electrician or Specialist Licensee, serving as a Master for an electrical or specialist contractor, who desires to change his license and employment to another electrical or specialist contractor must correct all defects and pay, or caused to be paid, all permit fees due on record in the Electrical Inspection Section that occurred while he had supervision over the electrical work of the electrical or specialist contractor, whose employment he intends leaving, before receiving an approval to change from the Electrical Board.

Section 1303 Electrical Or Specialist Contractor

1303.1 General – Each electrical or specialist Contractor shall be required to have a contractor's license from the Memphis and Shelby County Office of Construction Code Enforcement.

1303.2 Qualifications Of Applicant – Applications submitted for a person, firm or corporation shall be submitted through the name of an individual person. The name of that individual shall be specified on the application form. Each person through, or in whose name an application is submitted, shall be no less than 21 years of age. All applicants shall have a Shelby County Business License and a business telephone listed in the business name.

1303.2.1 Permits Only To Assigned Entity - No Master or Specialist Electrician or Registered Licensee, whether self-employed or employed by a contractor, shall secure an electrical permit for any person, firm or corporation, except that entity to which his license has been assigned and approved by the Electrical Code Board.

1303.2.2 Conspiracy To Evade -Any subterfuge, such as the creation of a holding or parent company with subsidiary electrical contracting companies, partnerships or individuals designated as private contractors, but not actually employed by such contractor and/or master or specialist, shall be considered a violation of this section.

1302.2.3 Working Under Another's Name Prohibited - Contacting for work, accepting payment or submitting invoices in the name of any other person, firm or corporation other than the electrical contractor described above who is properly licensed or registered under the Technical Codes, shall be deemed a conclusive presumption of violation of this section by either a registered licensee, a master or specialist electrician, an electrical or specialist contractor or an individual working as an independent contractor.

1303.3 Examination – As recommended by the Electrical Code Board.

1303.3.1 Requirements Of License - Each Electrical or Specialist Contractor shall be licensed or registered, to install, alter, or repair electrical wiring in the City of Memphis and Shelby County.

1303.4 Affidavit

1303.4.1 Requirements - Each applicant for an Electrical or Specialist Contractor's license shall submit the proper affidavit to the Building Official properly signed and notarized. The affidavit shall specify the name of the contractor, the master or specialist Electrician responsible for the work of the applicant's company, and shall provide that the Master or Specialist Contractor Licensee shall have access to all company records relating to permits, defects, and personnel records.

1303.4.2 Information To Be Provided To Board. - The Affidavit shall further provide that the contractor and/or Master Licensee or Specialist Electrical Licensee, shall furnish the Electrical Code Advisory Board conclusive proof of the employment status of an individual being investigated.

1303.5 Fees. - Fees for applications shall be as follows:

Initial License	\$150
Registration	\$150
Annual Renewal	\$150

1303.6 Duties

1303.6.1 Conformance To The Code - Every person holding a license or registration issued by the Building Official or State Contractor's Licensing Board, pursuant to the terms and provisions of this code, shall conform strictly with the NEC and Electrical Code governing installation, repair, construction, and inspection of electrical work. No electrical work requiring a permit shall begin until a permit is applied for by a properly licensed person.

1303.6.2 Compliance With Other Codes Required - Before any person, firm or corporation shall engage in the business of electrical or specialty contracting as herein defined, he shall comply with all other applicable codes.

1303.6.3 Licensee List Maintained. - The Building Official shall maintain a list of all licensees.

1303.6.4 List Information - The list of licensees shall include the following information.

1. Name, address, social security number, telephone number, and license or registration number of individual licensee.
2. Company name, business address, business phone, Shelby County Business License, State Contractor License Number, State Contractor Registration Number, name of Master Electrician or Specialist Electrician and the date such license or registration was issued.
3. Each Licensed or Registered Electrical or Specialist Contractor shall immediately report to the Building Official any change in address, phone number of the business and the death, resignation or discharge of the Master or Specialist Electrician. If another Master or Specialist Electrician is not secured within 30 days, the license or registration of the Electrical or Specialist Contractor shall be suspended until such individual is employed and approved by the Electrical Code Board.
4. It shall be considered a violation of this code for the Licensee to directly, or indirectly furnish permits to another contractor under their license or registration.

Section 1304 State Certified Electrical Contractor- Certified Electrical Contractor (CEC) shall have a contractor's license issued by the State of Tennessee Board of Licensing Contractor's in conformance with TCA Section 62-6-111 of the State Code.

1304.1 Qualification Of Applicants - Applicants shall complete a registration form and submit evidence of a current State of Tennessee certificate of license to the Building Official. The registration form is available from the Building Official.

1304.2 Reserved.

1304.3 Affidavit - Each Certified Electric Contractor shall submit evidence of a current State of Tennessee certificate of license to the Building Official with a personal appearance by qualifying agent in possession of affidavit verifying his full-time employment.

1304 Fees.

Registration	\$150
Annual/Renewal	\$150

1304.5 Duties

1304.5.1 Conformance To The Code - Every person holding a registration issued by the

Building Official, pursuant to the terms and provisions of this code, shall conform strictly with the NEC and Electrical Code governing installation, repair, construction, and inspection of electrical work. No electrical work requiring a permit shall begin until a permit is applied for by a licensed Certified Electric Contractor.

1304.5.2 Conformance With Other Codes - Before any person, firm or corporation shall engage in the business of electrical or specialist contracting as herein defined, he shall comply with all other applicable codes.

1304.5.3 Licensee List Maintained -The Building Official shall maintain a list of all licensees.

1304.5.3.1 List Information - The list shall include the following information:
1. Firm name address, and telephone number
2. Contractor Licensee, State Contractor Registration Number with expiration date and Shelby County Business License Number
3. Each Certified Electric Contractor shall immediately report to the Building Official any change in address or telephone number of the business or the death, resignation or discharge of the Licensee.

1304.5.5 Permits Only For Assignee - No Certified Electric Contractor shall secure an electrical permit for any person, firm, or corporation, except that entity to which his registration has been assigned.

1304.5.6 Conspiracy To Evade - Any subterfuge, such as the creation of a holding or parent companies, partnership or individuals designated as private contractors, but not actually employed by such contractor shall be considered a violation of this section.

1304.6 Certified Electrical Contractor – Each Certified Electric Contractor who is licensed by the Tennessee Board for Licensing Contractors, in conformance with the TCA Section 62-6-111 of the State Code, shall complete the registration form required by the Building Official.

1304.7 Renewal – A registration issued under this Chapter may be renewed on or before the expiration date by payment of the prescribed renewal fee. If renewal occurs after this date, an additional fee of \$12 (late fee) will be charged.

1304.8 Joint Venture – All persons who wish to enter in a Joint Venture to install electrical wiring shall be registered with the Building Official and shall be properly licensed.

1304.9 Final Certificate Of Inspection Not Relief For Defective Wiring – The issuance or receipt of a final certificate of inspection or approval for any wiring shall not relieve the Certified Electric Contractor of responsibility for any defective wiring or work.

1304.10 Limited License Electrician Not Contractors – Section 62-2-130 of the Tennessee Contractors License Law states: Nothing in this chapter shall be construed to provide that a limited licensed electrician is a contractor. It is the intent of this Chapter to provide that a limited licensed electrician is subject to the jurisdiction of the Board solely for the purposes of licensure and disciplinary proceedings. No limited license electrician shall be authorized to use the appellation “Contractor” or any other designation that gives or is designated to give the impression that a limited license electrician is a contractor (act 1999, Chapter 236, section 3, 2000 chapter 876, section 12).

Section 1305 Master Electrician

1305.1 Qualifications of Applicant - Applicants for the Master’s Electrician License shall meet all of the requirements of sections 1305.1.1 and 1305.1.2. The required documentation shall be submitted with the application for approval by the electrical Section. Approved applicants will be issued the license for a fee of \$150.00.

1305.1.1 Minimum Experience - The applicant shall be a person not less than 24 years of age, and either:

1. A graduate Electrical Engineer from a recognized university or college, with at least two years of actual experience in the electrical construction industry covering the physical installation of wires, conductors, and electrical power for light, heat, or power purposes, or;
2. Documentation certifying 4 years of actual experience as a journeyman electrician or equivalent in the electrical construction industry.

1305.1.2 Examination - The applicant shall provide a letter from the International Code

Council confirming a passing score on the National Standard Master Electrician's Examination. The passing score shall have been achieved within no more than six months preceding the date on the application.

1305.3 Fees. –

Initial License	\$100
Annual Renewal of Active License	\$150
Annual Renewal of Inactive License	\$ 30

1305.3.1 Time For Initial Fee Payment -

Applicants who pass the Master Examination and are eligible for the license shall pay the initial license fee within 60 days, after being notified. Failure to pay the fee as prescribed may require the applicant to pay an additional Registration Fee and be re-examined to obtain his license, if so directed by the Electrical Code Advisory Board.

1305.4 License – A licensed Master or Specialist Electrician shall not be required to be the holder of a Journeyman's license in order to perform as a Specialist or Journeyman.

1305.5 Duties – It shall be the duty of each licensed Master or Specialist Electrician to assure all the requirements of this code and any applicable ordinances are complied with on all wiring installed under his direction, supervision, and control for which a permit was obtained through his license.

1305.6 Employment And Registration Of Licensed Master Or Specialist Electrician –

No person holding a license as a Master or Specialist Electrician Licensee shall:

1. Pursue employment, work for, or serve any more than one person, firm, or corporation at the same time as a Master or Specialist Electrician or Licensee.
2. Pursue employment, work for, or serve any person, firm, or corporation as a Licensed or Specialist Master Electrician Licensee without prior registration and approval by the Building Official of such employment or connection with said person, firm, or corporation.

1305.6.1 Licensee To Be Employed By Only One Contractor - The Master Electrician or Specialist Electrician licensee shall be a full-time employee of only one contractor. He shall directly supervise and control the licensed or

registered employees and shall have no other employment while his license is assigned to a contractor.

1305.7 Duties Of An Inactive Master

Electrical – A Master Electrician who is no longer employed in the electrical industry, who has retired, or is unable to work due to a physical disability, may request registration as an Inactive Master Electrician and maintain this status by payment of the prescribed annual fee. An Inactive Master Electrician may resume active status by paying the fee for annual renewal of an active Master and satisfying the Building Official the applicant has maintained his knowledge of current electrical installations.

Section 1306 - Reserved

Section 1307 - Industrial Plant Electrician

1307.1 Qualification Of Applicants –

Applicants shall be not less than 21 years of age and must be a graduate Electrical Engineer with no less than one year experience in the physical installation of such type of wiring as utilized in the plant where employed, or shall be a licensed Journeyman Electrician with no less than 5 years of experience in the physical installation of such type of wiring as utilized in the plant where employed. Each of the above time elements shall directly proceed the date of application.

1307.1.2 Employer's Request -The applicant's employer shall request in writing that an examination be given such employee.

1307.2 Examination - The applicant's technical knowledge of the power, lighting, control, rectifiers, motors, transformers and other devices and equipment usually installed in the type of manufacturing plant where employed or other industrial locations, and the applicant's knowledge of the requirements of the NEC and Memphis and Shelby County Joint Electrical Code shall be tested.

1307.3 Duties - An Industrial Plant Electrician's license shall authorize the holder to perform his duties as electrician at all industrial locations occupied by his employer. No Industrial Plant Electrician shall replace any existing wiring or move motors, or other electrical equipment, or do any kind of electrical work for which a permit is required without first applying for a permit to do such work. Said application shall outline in

detail the location and character of work for which such permit is required.

1307.3.1 No New Installation Work Allowed -

An Industrial Plant Electrician may install new and additional electrical wiring, equipment, or apparatus within the existing physical plant. Applicants shall not be permitted to install wiring, equipment or apparatus in new structures, which are an addition to, adjacent to or separate from the existing plant.

1307.4 License. – An Industrial Plant Electrician’s license shall expire automatically if the licensee changes the place or nature of his employment.

1307.5 Fees

Initial Registration	\$100
Annual Renewal	\$100

Section 1308 - Reserved

Section 1309 Supervising Sign Installer

1309.1 Qualifications Of Applicant – Applicant must be a graduate Electrical or Mechanical Engineer licensed to practice in the State of Tennessee or have 3 years actual experience as a Journeyman in the installation, alteration, and servicing of signs and fixtures.

1309.2 Examination – The examination shall be designed to test the applicant’s knowledge of the standards, materials, methods, and Codes governing the installation, alteration, repair, and servicing of electrical signs and fixtures. Upon passing the required examination and meeting all other requirements, the applicant shall be issued a Supervising Sign Installer’s License.

1309.3 Duties – In order to obtain a permit to perform the work covered by this license, the Supervising Sign Installer Licensee, whether self-employed or employed by a company, firm, or corporation, shall be required to have a business address with a business telephone, open to the public during normal business hours. Applicants shall also be required to post the required security bond required by Section 403.13.1. Applicant shall employ only licensed Journeyman or registered Apprentice Sign Installers to install, alter or service the signs outline lighting, and fixtures described herein. The said Journeymen and Apprentices shall be under the direct supervision and control of the

Supervising Sign Installer to assure that all work conforms to the requirements of this Code. An applicant will not permit the installation of conduit or wire to extend from the sign more than 6 feet and shall install fixture on outlets, which have been installed by a properly licensed Electrical Contractor.

1309.3.1 Wiring Regulated - Wiring on the secondary side of sign transformers for neon and outline lighting is regulated by this license. The current supply (primary wiring) for each such unit shall be installed by a licensed Electrical Contractor. The Supervising Sign Installer shall be allowed to reconnect signs to the primary source of supply.

1309.4 Fees

Initial License	\$100
Annual Renewal	\$ 50

Section 1310 Low Voltage And/Or Alarm Systems Contractor

1310.1.1 Scope Of Certification - The scope of certification of this license shall apply to Class 1, Class 2, and Class 3 remote control signaling and power limited circuits as defined in Article 725, and communication circuits as set out in Article 800 of the NEC which do not exceed 50 volts, except as provided under 1311 Low Voltage Alarm System Contractor.

1310.1.2 Work Not Included -The scope of certification shall not include work performed by public utilities that are controlled and regulated by the Tennessee Regulatory Authority if the work is actually performed by the employees of such utilities.

1310.1.3 Electrical Contractor Allowed To Perform Work - The requirements set forth above are not intended to prevent the work defined herein from being performed by a properly licensed and bonded electrical contractor as provided by Section 403.13.1 of the Technical Code.

1310.2 Registration – Registration forms submitted for a sole proprietorship, firm or corporation shall be submitted through the name of an individual whose name shall be specified on the application form as the responsible manager who has complete control over the contracting activities of the business entity as

identified by T.C.A 62-32-308 as the Qualifying agent.

1310.3 Duties – Every person holding a license issued by the State Board pursuant to the terms and provisions of the State Alarm System Contractors Act of 1991 shall conform strictly to this code governing the installation, alteration, and repair of the wiring systems covered by the license. No electrical work shall commence until an electrical permit is obtained and the plans reviewed by the appropriate fire department and Building Official, a copy of which shall be furnished to the Building Official.

1310.3.1 Employment Limitation - Each Low Voltage Alarm Systems Contractor shall employ only State Registered Technicians and Registered Apprentices to perform the work covered by this license. The said Technicians and Apprentices shall be licensed by the Board and work under the qualifying agent supervision of the Licensed Low Voltage Alarm System Contractor.

1310.3.2 No Subcontracting Of License - No person, firm or corporation engaged in the business of low voltage alarm system contracting shall allow their name to be used by any other person, firm or corporation directly or indirectly to obtain a permit, or for the installation of any work under their names, license, or bond, nor shall they make any misrepresentation or omissions in their actions.

1310.3.4 Grounds For Revocation - Any Licensee contracting in Memphis or Shelby County for alarm work without a state license Low Voltage Alarm Contractor License and a permit shall be summoned before the Electrical Board to answer charges and show cause why his Technician’s or Apprentice’s registration should not be suspended or revoked.

Section 1311 Memphis And Shelby County Low Voltage Licensed Contractor

1311.1 Scope - Low Voltage Contractors performing low voltage work over \$ 25,000 shall have a state of Tennessee General Contractors License. Low Voltage Contractors performing only work \$25,000 or less shall have a Shelby County License issued by the Office of Construction Code Enforcement. [Note: Alarm work only requires state Alarm System license, not a General Contractor License.]

All Low Voltage Contractors must register with the Office of Construction Code Enforcement. Registration forms can be obtained from the Building Official. Low Voltage Contractors shall obtain permits, and shall comply with all articles of the Technical and Joint Electrical Code and are subject to all penalties and fines listed therein.

1311.2 Qualifications Of Applicant - Applicants for Low Voltage License shall be at least 21 years of age and be certified by BICSI or equivalent; and have a Local Privilege License.

1311.3 Fees –

Registration	\$150
Annual Renewal	\$150

Section 1312 Commercial, Industrial And Institutional Electrical Maintenance Electrician –

1312.1 Required - Every person employed to maintain or supervise the maintaining of electrical systems or electrical machinery shall be licensed as an electrical maintenance man.

1312.2 Qualification Of Applicants - Applicants shall be at least 21 years of age, with two years of mechanical and electrical experience maintaining the type of equipment utilized in the company employing such applicant.

1312.3 Examination – The Electrical Code Board shall review the applicant’s qualifications submitted by the Company employing said applicant, and upon approval, issue the required restricted license.

1312.4 Duties Of Commercial, Industrial, And Institutional Electrical Maintenance Electrician -The electrical maintenance electrician’s license shall authorize the holder to perform the limited duties set forth below:

1. All mechanical duties associated with electrical maintenance.
2. Replace limit switches that are mounted in enclosures, such as start and stop push buttons, toggle switches, receptacles, ballasts, etc.
3. Replace limit switches, P.L.C. boards, DC power supplies, and blown fuses associated with

control function where the voltage does not exceed 120 volts.

4. Replace fuses in dead front type switches reset tripped motors overload heaters and relays.

5. Disconnect and re-connect existing motors and damaged or faulty conductors when they are installed in not more than 6 feet of flexible metallic conduit.

1312.5 License – The Maintenance Electrical Electrician licenses are not transferable. A Licensee found guilty of violating any of the restrictive duties set forth above shall have their license suspended or revoked.

1312.6 Inspection – No individual inspections are required, but the Chief Electrical Inspector shall order random inspections to be made. The Maintenance Electrician shall not be permitted to make extensions or additions to any class of electrical work. A minimum of one inspection shall occur annually by Office of Construction Code Enforcement. See Appendix A.

1312. 7 Fees

Registration	\$150
Annual Renewal	\$ 50

(Annual includes one inspection per year.)

Section 1313 Application - Anyone desiring a license required by this chapter shall apply in person and submit written application to the Building Official. The applicant shall be recommended on the application by no less than 3 persons associated with the electrical industry for which the application is made.

Section 1314 Waiting Period For Investigation Of Applicants - After an application for license under this chapter has been filed, a waiting period of not less than 30 days shall be required to investigate the applicant’s claim as to his qualifications in the branch of the electrical industry for which the license is desired.

Section 1315 Examination of Applicant.

1315.1 Board Review Of License Applications

- At a time and place fixed by the Electrical Board, each applicant for a license under the Technical Codes shall be reviewed to determine the qualifications to perform the work of the various branches of the electrical industry described by this chapter.

1315.1.2 When License Granted - The applicant may be granted a license if the applicant has proven to the Electrical Board’s satisfaction the applicant is qualified to receive the type of license for which the applicant has applied.

1315.1.3 Re-taking Examination - Applicants failing to pass an examination shall be required to file a new application with the Electrical Code Board at least 30 days prior to the next regularly scheduled examination if an applicant is authorized, and desires to retake the examination.

Section 1316 Issuance Or Replacement Of License Or Registration Card

1316.1.1 License Granted When Requirements Met

- If it is determined that the applicant for a license or registration under this chapter is qualified to perform the work and service covered by the type of license or registration applied for, and that the applicant meets the qualifications specified and has complied with all applicable provisions of this code, the license and registration shall be issued.

1316.1.2 Reporting Of Lost Or Destroyed Card

- The loss or mutilation of license or registration card shall be reported immediately to the Building Official.

1316.1.3 Fee - A fee of \$12 will be charged for the replacement of license or registration cards.

1316.1.4 Surrendering License

- Should the Electrical Code Board suspend or revoke a license or registration card, the licensee shall surrender the license or registration card immediately. The Electrical Code Board must approve the reinstatement of the suspended license or registration card and set any penalties required for the reinstatement.

Section 1317 Deposit Of Required Bond

- A licensed Electrical or Specialist Contractor shall deposit with the Building Official a bond as specified in Section 403.13.1 of this code, and said bond must be renewed each year the license or registration is in force.

Section 1318 Not Assignable Or Transferable

- No license or registration card issued under this chapter shall be assignable or transferable.

Section 1319 Expiration

1319.1.1 Expiration Date - All licenses and registrations shall expire on the last day of June of each year. Registration of State Licenses shall expire on the date shown on the State License Certificates.

1319.1.2 No Work After License Expiration - It shall be a violation for any person licensed or registered under this chapter to do any electrical work covered by the Technical Codes, or any other ordinance of the City or County, after the expiration of the license or registration.

Section 1320 - Renewal

1320.1.1 General - A license or registration issued under this chapter may be renewed on or before the 16th day of July, following its expiration date, without examination, upon payment of the prescribed renewal fee. If renewed after this date, a \$12 late fee will be charged. If not renewed by the first day of October, the applicant shall be subject to all provisions of this chapter relative to the issuance of an original license or registration.

1320.1.2 Inactive License For Master Electrician - Any Master Electrician who does not intend to work as a Master Electrician, as defined by this code, during the course of a year, but desires to be able to resume active Master Electrician status in subsequent years, shall be required to pay \$30 per year to be designated an inactive Master Electrician or the license shall expire. Before resuming the duties of an active Master Electrician, the required active license fee shall be paid. If a Master Electrician remains on inactive status for more than 3 consecutive years and fails to work at the trade during said period, the applicant will not be allowed to resume active status until certified as competent as a Master Electrician by the Electrical Code Board.

1320.1.3 Inactive License For Specialist Electrician - Any Specialist who does not intend to work as a Specialist, as defined by this code, during the course of a year, but desires to be able to resume active Specialist status in subsequent years, shall be required to pay \$30 per year to be designated an inactive license holder or the license shall expire. Before resuming the duties of an active Specialist, the required active license fee shall be paid. If a Specialist remains on

inactive status for more than 3 consecutive years and fails to work at the trade during said period, the applicant will not be allowed to resume active status until certified as competent as a Specialist by the Electrical Code Board.

Section 1321 Falsification Of Information - Falsification of information on the application form for any license or registration, authorized or required by the Technical Codes, shall be justification for refusal to give or grade an examination, or to revoke a license or registration.

Section 1322 Suspension Or Revocation Generally - A license or registration issued under this chapter may be suspended or revoked for any violation of the terms of this code or other Ordinance governing the installation or inspection of electrical work; provided, however, that charges shall be preferred in writing and served upon the licensee, who shall be given the right to be heard by the Electrical Code Board as to why such license or registration should not be revoked or suspended.

Section 1323 Special Grounds For Revoking Or Suspending Master, Electrical, Contractor, Or Specialist License.

1323.1 Direct Supervision Required - If a licensed Master or Specialist Electrician acts as his own Master or Specialist, or permits an Electrical or Specialist Contractor to subsidize him/her for use of the license, but does not actually supervise, direct or control all electrical work performed by such licensed or registered Electrical or Specialist Contractor, the Electrical Code Board may revoke the Master's or Specialist's license.

1323.1.1 Employment Limited To Principle Employer - Licensed Master or Specialist Electrician who acts as his Master or Specialist, or who is a full time employee of a Licensed Electrical or Specialist Contractor, who has other principle employment shall have his license or registration suspended so long as this condition exists and until it is rectified. During the period of suspension, Stop Work Orders may be issued and no electrical permits will be issued to such Electrical or Specialist Contractor.

1323.1.2 Conspiring To Evade Code Prohibited - Any person or persons licensed or registered under the Technical Codes who

conspire with a Master or Specialist Electrician to evade any of the provisions of this Code, or other ordinances of the City of Memphis and Shelby County governing the installation of electrical devices, apparatuses and instruments, shall have his license or registration suspended or revoke, either temporarily or permanently, by the Electrical Code Board upon submission of proof that such a conspiracy exists, or did exist.

1323.1.3 Requirements For Joint Ventures - Electrical and Specialist Contractors that wish to enter into a joint venture to install electrical wiring, as defined in the Technical Codes, shall meet the requirements listed below:

1. Both shall be licensed by the Building Official or have a certified Electrical Contractor's License issued by the Tennessee State Board for Licensing Contractors.
2. Submit application for each job, including proof of a legal contract between the parties, to the Electrical Code Board requesting approval. The Electrical Code Board may approve such request upon proof of proper control and supervision of the work to be performed.

1323.1.4 No Subcontracting Of License - A Licensed Electrical or Specialist Contractor shall not furnish permits for electrical installation to any person, firm, or corporation other than his own. All work done under any permit shall be performed under the supervision of the Master or Specialist Contractor Licensee who obtained the permit. Work cannot be subcontracted, under any condition, to other than a licensed Electrical or Specialist Contractor who shall obtain his own permits.

1323.1.5 Responding To Official Correspondence Required - Any Master, Specialist, or Licensed Electrician who fails to answer or respond to official correspondence from the Building Official shall have their license or registration suspended until the condition is corrected.

1323.1.6 Work While Master Or Specialist Under Other Employment - Any Master or Specialist Licensee who allows electrical work to be performed on jobs permitted under their license or registration during the hours the Master or Specialist Licensee is in the employment of another person, firm, or

corporation shall be cause for charges being brought for failure to supervise.

1323.1.7 Incompetence - Licensee has become incompetent under the provisions of this chapter to perform a service to the public as an Electrical or Specialist Contractor, or Master Electrician.

1323.1.8 Unprofessional Or Dishonorable Conduct - Licensee is guilty of unprofessional or dishonorable conduct when their actions are of such a nature so as to deceive or defraud materials, suppliers, or the public.

Section 1324 Re-examination Of Master Or Specialist Electricians - The holder of a Master, Journeyman, or Specialist Electrician's license, heretofore issued under the Technical Codes and prior to the amendment thereto, shall be deemed to be a Master, Journeyman, or Specialist Electrician, and shall not be required to be re-examined except for revocation of that license, or not be employed as a Master or Specialist Electrician for an Electrical Contractor or employed in the electrical construction industry in the City of Memphis and Shelby County for a period of at least 12 consecutive months during any consecutive 3 year period. The Master or Specialist Electrician shall appear before the Electrical Code Board, when requested, and may be re-examined as to his knowledge of the last Joint Electrical Code. The fee charged shall be the same as for new applicants.

Section 1325 Altering Or Lending A License; Use Of Another's License; Falsely Representing One's Self To Be License - It shall be a violation for any person licensed or registered under this chapter to alter, transfer, lend or rent his license or registration, or use a license or registration that is not his own. It shall be a violation for any person to falsely represent himself/herself to be licensed or registered under this chapter or wrongfully use a license or registration.

Section 1326 Final Certificate of Inspection Not Relief for Defective Wiring - The issuance or receipt of a final certificate of inspection or approval for any wiring shall not relieve the Contractor, Specialist, Master, Registered Licensee, or Journeyman Electrician of responsibility for any defective wiring or work.

Section 1327 Penalties - It shall be a violation for any person to install or repair any electrical

wiring for which a permit is required by this code or any Ordinance of the City of Memphis or Shelby County without being under the supervision and control of a licensed Master or Specialist Electrician.

Chapter 14 - Optional Local Electrical Licenses

Sections 1401 General - The following licenses have historically been used as a proof of qualification in the Electrical Industry. Although they will no longer be required, they are still available for that purpose.

Section 1402 Classifications - For purposes of this code, the classification of the various licenses of the electrical industry shall be as follows:

1. Journeyman, electrician (Optional License)
2. Journeyman, Lineman (Optional License)
3. Apprentice Electrician (Optional License)
4. Specialists:
 - 4.1 Journeyman Sign Installer (Optional License) Sec. 1405
 - 4.2 Apprentice Sign Installer (Optional License) Sec. 1406

Section 1403 Journeyman Electrician

1403.1 Qualifications of Applicant - Applicants for the Journeyman's Electrician License shall meet all of the requirements of sections 1403.1.1 and 1403.1.2. The required documentation shall be submitted with the application for approval by the Department. Approved applicants will be issued the license for a fee of \$50.00.

1403.1.1 Minimum Experience - The applicant shall be a person not less than 20 years of age and shall furnish to the Department proof, in writing, of at least three years actual experience installing electrical work, and to the satisfaction of the Department, give dates, locations, and employer's names. The required experience shall have been acquired within the four year period immediately preceding the application.

1403.2 Examination - The applicant shall provide a letter from the International Code Council confirming a passing score on the National Standard Journeyman Electrician's Examination. The passing score shall have been achieved within no more than six months preceding the date on the application.

1403.3 Fees

Annual Renewal \$50

1403.4. License Suspension or Revocation

Each Licensed Journeyman found guilty of contracting in Shelby County where this ordinance requires a permit and properly

licensed contractor shall be summoned before the Electrical Code Board after written charges are preferred and shall be subject to having his license or registration suspended or revoked.

1403.5 Duties:

1403.5.1 Duty To Inform Master Or Specialist

- It is the duty of the Journeyman to keep the Licensed Master or Specialist Electrician informed as to the progress of the wiring, when inspection requests are required, of all code deficiencies, and any other problems encountered.

Section 1404 Apprentice Electrician

1404.1 Qualification Of Applicants -The Apprentice Electrician shall be at least 18 years of age, (an apprentice may be employed at 16 years of age if all applicable local, state, and federal regulations are observed).

1404.2 Application - Any person desiring to be registered as an Apprentice Electrician may make a written application to the Electrical Code Board on a form provided by the Building Official. The application shall be accompanied by a letter from one of the following;

1. The Licensed Electrical or Specialist Contractor recommending the applicant as an Apprentice Electrician and agreeing to employ the applicant as an apprentice, or:
2. The director of a US Department of Labor Bureau of Apprenticeship and Training Approved program indicating active enrollment.

Each applicant seeking such a certificate shall furnish the Building Official a bust size photograph (one inch square)

1404.3 Registration Certificate - Each registration certificate issued an Apprentice Electrician shall specify the name and address of the person to whom the certificate is issued, the date of the issuance thereof, and the expiration date.

1404.4 Duties

1404.4.1 Carry Certificate At Work. - Each Registered Apprentice shall carry the Registration Certificate on or about his person while performing the work, which such Certificate entitles him/her to perform. The

Certificate shall be produced immediately upon the request of any Electrical Inspector or member of the Board.

1404.4.2 Maintain Work Record - A Registered Apprentice shall be required to maintain a record of his employment and training, which shall include the following information:

1. Name of Electrical Contractor
2. Date Employed
3. Type of work performed (residential, commercial, industrial, institutional)
4. Total hours of related classroom instruction, Proof of satisfactory completion of an electrical apprenticeship-training program recognized and approved by the US Department of Labor, Bureau of Apprenticeship and Training, or successful completion of an electrical course from an approved technical school.
5. Each holder of an Apprentice Electrician's Registration certificate shall carry such certificate upon or about his person while performing the acts, which such certificate entitles him/her to perform. The certificate shall be produced immediately upon request of any Electrical Inspector or member of the Electrical Code Board.

1404.5 Penalties:

1404.5.1 Prohibited Work - It shall be a violation for any person to perform acts which require a registered apprentice certificate, or for such apprentice to install any electrical wiring for which a permit is required by this code or any Ordinance of the City or County without being under the direct control of a licensed Master or Specialist Electrician or a licensed Journeyman Electrician.

1404.5.2 Suspension Or Revocation - Any apprentice found guilty of contracting in Memphis and/or Shelby County for electrical work where the ordinance requires a (1) Master Electrician (2) license contractor, and (3) permit and inspection shall be summoned before the Electrical Code Board after written charges are preferred, and shall be subject to having his Apprentice Registration suspended or permanently revoked.

1404.6 Fees:

Initial Registration	\$12
Annual renewal Registration	\$12

Section 1405 Journeyman Sign Installer

1405.1 Qualification of Applicant - Applicant shall be a person of not less than 20 years of age and shall furnish the Building Official proof, in writing, of at least 3 years of experience in the sign industry working under the supervision of a Supervising Sign Installer and or a Journeyman Sign Installer, giving the dates, locations, and names of employers.

1405.2 Examination – Upon approval of the application, the applicant shall appear on the date and time designated for the examination.

1405.2.1 Scope of Examination - The examination shall be designed to test the applicant's knowledge of the electrical sign industry, including manufacturing or building, internal wiring, erection, servicing, and repair of sign and outline lighting, both luminous and gas or electric discharge type.

1405.3 Fees

Initial License	\$40
Annual Renewal	\$30

1405.4 License -Each Journeyman Sign Installer License shall specify the name and address of the person to whom it is issued, the date of the issuance thereof, the expiration date, and a photograph of the licensee. All applicants shall furnish a small bust-size photo to be placed on the license issued to the individual applicant.

1405.5 Carry License At Work - The holder of a Journeyman Sign Installer's License shall carry the license upon or about his person while performing the work; the license entitles such holder to perform.

1405.6 Duty To Inform Supervising Installer -

It is further the duty of the Journeyman Sign Installer to keep the Supervising Sign Installer informed of the progress on the job when inspections are required, and any code deficiencies and other problems related to the Technical Codes.

1405.6.1 Supervision Of Apprentices - The Journeyman shall not allow an Apprentice Sign Installer to perform any work when the Apprentice is not under his direct supervision.

1405.6.2 Suspension Or Revocation - A Journeyman Sign Installer found guilty of

contracting or performing work in Memphis and/or Shelby County, which normally requires a permit and a Supervising Sign Installer License, shall be summoned before the Electrical Code Board to answer a charge of violation of this code and show cause why his license should not be revoked or suspended.

1405.6.3 Prohibited Work. - Further, it shall be considered a violation for any person to perform any sign work for which a permit is required by the Technical Codes unless the person has the proper Journeyman License and is working under the supervision of a Supervising Sign Installer.

Section 1406 Apprentice Sign Installer

1406.1 Qualification Of Applicant - The Apprentice Sign Installer shall be at least 18 years of age.

1406.2 Application - Any person desiring to be registered as an Apprentice Sign Installer shall make written application, to the Building Official. The application, which is furnished by the Building Official, shall be accompanied by a letter from the Supervising Sign Installer employed by the firm recommending the applicant for registration and agreeing to employ said applicant as an apprentice. Each person applying for a Registration Card shall furnish a small bust-size photo of himself/herself.

1406.3 Registration Card - Each Registration Card shall specify the name and address of the Apprentice Sign Installer, the date issued, the expiration date, and a photo of the licensee together with other information the Electrical Code Board may deem necessary.

1406.4 Duties - No person shall perform any work as an Apprentice Sign Installer prior to registering with the Electrical Code Board and receiving his Registration Card.

1406.4.1 Carry Card At Work - Every holder of an Apprentice Sign Installer Registration Card shall carry the Card on or about his person while performing the work such Registration Card entitles him/her to perform.

1406.4.2 Maintain Work Record - The Apprentice shall maintain a record of his employment showing the date, employer, and type of work performed. This information shall

be submitted on the Application for the Journeyman Sign Installer's examination.

1406.5 Penalties - It shall be a violation for any person to perform the work of an Apprentice Sign Installer without having the proper registration on or about his person and under the direct, personal supervision of the Supervising Sign Installer who procures the permit and/or the Licensed Journeyman Sign Installer employed by the Supervising Sign Installer.

1406.6 Fees

Initial Registration	\$12
Annual Renewal	\$12

Section 1407 Application - Anyone desiring a license under this chapter shall apply in person and submit written application to the Building Official. The applicant shall be recommended on the application by no less than 3 persons associated with the electrical industry for which the application is made.

Section 1408 Waiting Period For Investigation Of Applicant - After an application for a license under this chapter has been filed, a waiting period of not less than 30 days shall be required to investigate the applicants claim as to his qualifications in the branch of the electrical industry for which the license is desired.

Section 1409 Examination Of Applicant

1409.1.1 Review Of Applicant - At a time and place fixed by the Electrical Code Board, each applicant for a license under the Technical Codes shall be reviewed to determine the qualifications to perform the work of the various branches of the electrical industry described by this chapter.

1409.1.2 Forfeiture Of Fee - Applicants who fail to take the examination on the designated date shall forfeit the paid examination fee.

1409.1.3 Granting License - The applicant may be granted a license if the application has proven to the Electrical Code Board's satisfaction that the applicant is qualified to receive the type license for which applicant has applied.

1409.1.4 Re-Examination - Applicants failing to pass an examination shall be required to file a new application with the Electrical Code Board at least 30 days prior to the next regularly scheduled examination if the applicant is

authorized, and desires to take another examination. An addition required fee will be paid by the applicant for each examination.

Section 1410 - Issuance Or Replacement Of License Or Registration Card

1410.1.1 Issuing License - If it is determined the applicant for a license or registration under this chapter is qualified to perform the work and service covered by the type of license or registration applied for, and that the applicant meets the qualifications specified and has complied with all applicable provisions of this code, the license or registration shall be issued.

1410.1.2 Lost Licenses - The loss or mutilation of license or registration card shall be reported immediately to the Building Official.

1410.1.3 Fee - A fee of \$12 will be charged for the replacement of license or registration card.

1410.1.4 Surrender Of License - Should the Electrical Code Board suspend or revoke a license or registration card, the licensee shall surrender the license or registration card immediately.

Section 1411 Not Assignable Or Transferable - No License or registration card issued under this chapter shall be assignable or transferable.

Section 1412 Expiration - All licenses and registration issued under this chapter shall expire on the last day of June of each year.

Section 1413 Renewal - A license or registration issued under this chapter may be renewed on or before the 16th day of July, following its expiration date, without examination, upon payment of the prescribed renewal fee. If renewed after that date, a \$12 late fee will be charged. If not renewed by the first day of October, the applicant shall be subject to all provisions of this chapter relative to the issuance of an original license or registration.

Section 1414 Falsification Of Information - Falsification of information on the application form for any license or registration, authorized or required by the Technical Codes, shall be justification for refusal to give or grade an examination, or to revoke a license or registration.

Section 1415 Suspension Or Revocation

Generally - A license or registration issued under this chapter may be suspended or revoked for any violation of the terms of this code or other Ordinance governing the installation or inspection of electrical work; provided, however, that charges shall be preferred in writing and served upon the licensee, who shall be given the right to be heard by the Electrical Code Board as to why such license or registration should not be revoked or suspended.

Chapter 15 - Technical Rules

The requirements listed herein are in excess of National Electrical Code (NEC) provisions and are recognized and approved as the acceptable wiring methods for Memphis and Shelby County, except as modified by Chapters 16 and 17.

Section 1501 Service Disconnect Requirements; Number Of Disconnects

1501.1 Maximum Allowed - The maximum number of service disconnect devices shall conform to requirements of NEC 230-71 (a) and (b) except when the house meter main is necessary it shall be allowed as the seventh disconnect.

1501.2 Minimum Separation - A minimum separation of 10 feet between adjacent ends of the groups of services shall be required to qualify as a separate location.

1501.3 Location Of Disconnects In Multiple Occupancy Buildings - Service disconnects for multiple occupancy buildings shall be located either outside or in a common meter room directly accessible to an outside entrance or an accessible one-hour fire resistant rated corridor room. The common meter room shall be separated by a minimum of one-hour fire resistant rated walls from the rest of the building. The outside entrance to corridor and/or to the common meter room shall be properly identified and provided with a Knox box or equal for access.

1501.4 No Splicing Of Service Entrance Conductors - Service entrance conductors shall not be spliced.

Exceptions: 1 – Clamped or bolted connections in metering equipment enclosures shall be permitted.

Exception 2 – Where service-entrance conductors are tapped to supply two to six disconnecting means grouped at a common location.

Exception 3 - At a properly enclosed junction point where underground wiring method is changed to another type of wiring method.

Exception 4 – A connection shall be permitted where service conductors are extended from a

service drop to an outside meter location and returned to connect to the service-entrance conductors of an existing installation.

Exception 5 - Where the service-entrance conductors consist of busway, connections shall be permitted as required to assemble the various sections and fittings.

Exception 6 – For existing service entrance conductors, it shall be permissible to install listed underground splice kits for:

- a. Repair of existing conductors
- b. Extensions of conductors, by special permission of the authority having jurisdiction.

Section 1502 Service Entrance Conductors Without Over Current Protectors - Service entrance conductors without over current protection shall not extend more than 15 feet inside a building, as measured from their point of entrance.

Section 1503 Ampacity Calculations; Service And Feeder Sizes – Minimum service and feeder conductors shall be sized in accordance with the NEC except lighting demand factors of NEC Table 220-42 shall not apply to warehouse storage occupancies, which shall be based on 100% of the connected load.

Section 1504 Calculation Of Additional Load To Existing Buildings {NEC 220.87}; Calculation Procedures - The existing service requirements shall be permitted to be 125 percent of the peak demand of the proposed user as recorded by MLGW over the previous 12 months. The minimum service size shall be this value converted to amperes and plus the load computed as set forth above. This section will not apply to vacant buildings or changes of use (occupancy).

Section 1505 Responsibilities For Service And Feeders; Designing, Installing, Or Adding Electrical Load - Any person, firm, or corporation designing, installing or adding load to an existing electrical system shall be responsible that the main service conductors, main service equipment, and feeders on which the additional load is added shall be of the proper size for the total connected load as required by this code.

Section 1506 Location Of Meters And Metering Equipment.

1506.1 Requirement - Location of service drops, transformers, and metering equipment shall conform to the requirements of the MLGW.

1506.2 Location Of Service Overcurrent And Disconnects - Service overcurrent device and disconnecting means shall always be located on the load side of metering equipment except where a single master disconnect is required and approved by Memphis Light Gas and Water to comply with the 6 subdivision provision.

1506.2.1 Prohibited Line Or Load Tap Location - No line or load tap shall be made in a self-contained metering enclosure.

Exception –The tap location for alternative energy sources shall be approved by MLGW.

1506.3 House Meters. - A house meter shall be provided for all multiple occupancy buildings where common area lighting is required for egress from the building. Over current protection for a house meter shall be located outside or in a common area.

Exception: A house meter will not be required for multiple occupancy buildings supplied through a single meter, unless required elsewhere in this code.

1506.3.2 Fire Pumps

1506.3.2.1 Required Metering - All electrical services to a fire pump shall have CT Metering, regardless of voltage.

Exception: A self-contained meter socket shall be permitted where equipped with a bypass handle and approved by the authority having jurisdiction.

1506.3.2.2 Meter Required – All fire pumps in multi-occupancies buildings shall be supplied by a house meter.

Exception: House meter will not be required for a fire pump in a multi-occupancies building supplied through a single meter.

1506.4 Self Contained Metering Equipment Enclosures.

1506.4.1 Location Of Bonding - Bonding within the utility’s metering equipment shall be at the equipment manufacturer’s designated location.

1506.4.2 Extension Of Conductor To First Service Disconnect - Services provided by the utility with a grounded phase or neutral shall have that conductor(s) extended to the first service disconnect beyond the utility meter socket or meter device.

1506.4.3 Overhead Service Mast - A 2” rigid metal conduit or 2” IMC conduit will be the minimum size allowed for the overhead service mast when used as the service attachment device. The conduit shall be securely mounted to withstand a minimum pull of not less than the mechanical load expected to occur.

1506.5 Paralleling Conductors Within A Common Connector Inside The Utility’s Self-Contained Metering Socket.

1506.5.1 Limitation - Paralleling conductors within a common connector will be permitted so long as there are no more than two conductors per phase. The terminals shall be identified for more than one conductor.

1506.5.2 Total Circular Mil Area Allowed - The total circular mil area of the paralleled conductors shall not exceed the circular mil area of the connector. Stands shall not be trimmed.

1506.5.3 Utility Approval - The combination of wire sizes to be paralleled within a common connector shall be approved by Memphis Light Gas and Water.

Section 1507 Wiring Method For Living Quarters in Commercial Occupancies - Living quarters located in connection with commercial buildings shall be wired in accordance with requirements for the commercial portion and may have separate meters.

1507.1 Smoke Detection 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 1508 Marking And Labeling Of Service Equipment; Devices To Be Identified.

1508.1 Marking Required - The service disconnecting means and meters for multiple occupancy buildings shall be legibly, and permanently marked with a metal tag showing the occupancy or apartment designation.

1508.1.1 Indexing Of Branch Circuit Panel Boards - All branch circuit panel boards shall be indexed correctly and legibly.

1508.2 Tagging Multiple Meter Installations - Each meter of all multiple meter installation shall be permanently and legibly identified with a tag showing the occupancy designation and located so as to be visible after installation in a manner acceptable to MLGW.

Section 1509 Parallel Overhead Services - Where more than two conductors per phase are paralleled to connect to an overhead service, the service conductors shall terminate in an approved busway service head.

Section 1510 Service And Feeder Requirements In Excess Of 600 Volts; Design Requirements. –

1510.1 Professional Engineer Required - System installed by contractors for private owners above 600 volts shall be designed by a Registered Professional Engineer licensed in Tennessee in accordance with the requirements of MLGW.

1510.2 Plans Approval - The plans of such systems shall be approved by the Building Official and MLGW prior to installation.

Section 1511 Wiring Methods Inside Buildings Where The Voltage Is Less Than 600 Volts.

1511.1 Requirements - In order to provide a greater degree of protection from electrical fires, all electrical wiring for lighting, receptacles, appliances, power and controls in construction, alteration or repair of buildings shall be installed in rigid or intermediate metallic conduit, electrical metallic tubing, surface metal raceway, underfloor raceway, wireway, busway, MC Cable, Rigid PVC, ENT, TC Tray Cable or other approved wiring methods. Approved shall mean the approval of the Memphis and Shelby County

Electrical Code Advisory Board, and not necessarily inclusion in the NEC.

1511.2 Low Voltage Exception - This does not include low voltage fire alarm system wiring as defined in Article 760 of the NEC.

1511.2.1 Other Low Voltage Requirements - Low Voltage System defined in NEC Article 725, 760, 770, 800, 810, 820 and 830 shall be installed as required by the NEC. When such wiring is subject to mechanical injury, it shall be installed in approved raceway.

Section 1512 Methods Not Approved

1512.1 Armored Cable - Armored Cable (NEC 320) shall not be used.

1512.2 Flat Conductor Cable. - Flat conductor cable (NEC 324) shall not be used.

1512.3 Others - Non-metallic sheathed cable, (NEC 334), and Service Entrance Cable (NEC 338), shall not be used.

Section 1513 Underground Feeder And Branch Circuit Cable; Type UF; Direct Buried Cable (NEC 340); Restrictions For Use.

1513.1 Installation Under Concrete - Where direct buried cable passes under concrete, asphalt, or other paving systems it shall be installed in an approved raceway.

1513.2 Limitation On Use Of Electrical Metallic Tubing - Electrical metallic tubing (EMT) shall not be installed underground or in direct contact with the earth.

Section 1514 Wiring Methods On Rooftops; Type And Method Of Installation – Where wiring is installed on rooftops, only rigid metal conduit or intermediate conduit shall be used. The conduit shall be properly supported by treated wood blocks, or approved supports that raise the conduit at least 1 ½” above the roof surface.

Section 1515 Aluminum Conductors: Aluminum conductors shall be permitted under any of the following conditions:
1. Indoor Installations.
(a) Sizes No, 1/0 AWG and larger in any wiring methods permitted in Section 1511.

(b) Compact conductor sizes No. 8 AWG through No. 1 AWG where installed in any metal raceways or metal-clad cable assemblies permitted in Section 1511. In addition to these requirements, all junction boxes, pullboxes, outlet boxes, auxiliary gutters, and wireways containing such conductors shall be metal.

2. Outdoors installations.

(a) Sizes No. 8 AWG or larger aluminum conductors shall be installed in accordance with Section 1511 or Section 1513.

(b) Smaller sizes of aluminum conductors used in triplex or other forms of messenger supported wiring may be installed outside of buildings.

Section 1516 General Wiring Requirements; Ampacity Of Circuits And Number Of Outlets Per Circuit.

1516.1 Minimum Capacity - Circuits supplying convenience outlets, lighting or appliances shall have a minimum capacity of 20 amperes.

1516.2 Limits In Installation - Not more than eight (8) convenience outlets or floor box receptacles, single or duplex, shall be connected to one 120-volt circuit. Convenience outlets shall not be installed on lighting circuits. Office furniture outlets listed in Article 605 of the NEC are not included in this limitation.

Section 1517 227-Volt Lighting Circuit – Conductors shall not be less than #12 AWG. The load on final branch circuits shall not exceed 4,200 watts per 20-ampere circuit.

Section 1518 Service Laterals from MLGW Pad-mounted Transformer Secondary, 600 Volts or Less - Service lateral conductors shall have their minimum size and rating determined in accordance with the Minimum Cable Amperes column of Table 1518 based on the KVA rating of the transformer supplying the conductors, or they shall have sufficient ampacity to carry the current for the load calculated in accordance with Article 220 of the NEC. The minimum cross sectional area of the service lateral raceways from the transformer, when combined, shall permit the installation of conductors having an ampacity not less than that listed in the Service Size Conduit Capacity Amperes column of Table 1518 based on the KVA rating of the transformer.

TABLE 1518

The following Table is provided as a guide to MLGW requirements.

Minimum Service Size and Number of Service Connections In Three-Phase Grounded-Front Pad-Mounted Transformers					
Service Voltage	Transformer Size KVA	Minimum Cable Amperes	Service Size Conduit Capacity Amperes	Maximum Number of Cables per Phase	
				Compression or Mechanical Lugs	Compression Lugs with NEMA Stacking Spacers
208/120	75	255	510	4	6
208/120	150	510	1040	6	9
208/120	300	1040	1735	8	12
208/120	500	1735	2600	8	12
208/120	750	2600	3400	12	12
208/120	1000	3400	5205	12	12
480/277	75	115	230	4	6
480/277	150	230	450	4	6
480/277	300	450	750	8	12
480/277	500	750	1130	8	12
480/277	750	1130	1500	8	12
480/277	1000	1500	2255	12	12
480/277	1500	2255	3000	12	12
480/277	2000	3000	4511	12	12
480/277	3000	4500	-	12	12

The number of connections is based on standard secondary terminals depending on depth of secondary compartments. More terminations may be made per phase by utilizing spade terminal extensions.

Final determination of service size can be made only after sufficient information is submitted to MLGW for transformer size.

Section 1519 Electrical Signs; UL Requirements - Electrical Signs shall bear the Underwriters Laboratory Label.

Exception: Electrical signs manufactured by local licensed and bonded sign contactors may be constructed to meet the UL standards and identified as per NEC 600-4

Section 1520 License Required For All Sign Work - All wiring, service, and alteration of electrical signs shall be performed by a person, firm, or corporation that is properly licensed and bonded to perform such work.

1520.1 Neon - Transformers used to supply neon letters, neon decorative lighting, neon signs, or any other neon shall be limited to an output voltage of not more than 9,000 volts.

Section 1521 Securing And Supporting On Ceiling Structure – Installing and supporting branch circuits, conduits, boxes and cables on ceiling supports grid and wires will be allowed, however, electrical conduit and cables supported in this manner shall contain a green ground conductor and shall terminate at all outlet boxes with green ground pigtailed.

Section 1522 - Separation Of Meter Line And Load Conductors.

1522.1 Separate Conduit Required - Line wires to a meter and load wires from a meter to customer’s load shall not be run in the same conduit, nipples, or auxiliary gutters.

1522.2 Isolation Of Separate Occupancies - Load conductors from meters supplying separate occupancies shall not be installed in the same

conduit, raceway, pull boxes, junction boxes, outlet boxes, or conduit fittings. This does not apply to wiring a trough at meter centers located in public places. Attic spaces or crawlspaces under buildings are not considered public places.

Section 1523 Workmanship – All wiring installations shall be made in a neat and workmanlike manner.

Section 1524 Warehouse Smoke Evacuation Systems (WSES).

1524.1 Wiring Must Meet Codes - All electrical work must meet this code, the current *International Fire Code* (IFC) and the *International Building Code* (IBC) as locally amended.

The warehouse smoke evacuation systems are not considered, as a smoke control system of Section [IBC] 909.11 and therefore do not require a second source of power.

1524.1.2 Protection Of Fan Circuits - All fan circuits must have provisions for Overload Protection as well as Short Circuit protection in accordance with NEC.

1524.1.3 Effect Of Four Hour Rated Firewalls - A building that is segmented by 4-hour rated firewalls may be considered as either one building or may be considered as several buildings.

1524.1.4 Grouping Of Fan Controls - All of the electrical WSES Fan controls and equipment for a single building must be grouped in one location except as permitted in 1524.1.11 or 1524.1.15. This may be in a special fire rated room inside the building meeting the IFC code or it may be located outside of the building at a common location.

1524.1.5 Fire Rated Room Installation – If the above equipment is installed in a special fire rated room, it must be provided with an automatic sprinkler protection and an outside entrance.

1524.1.6 Single Main Disconnect Required - A single main disconnect switch is to be provided for the WSES Fan System in each building. This switch is to be appropriately marked and connected ahead of the building mains. This switch may be the 7th main for that building.

1524.1.7 Dedicated Raceway - The entire WSES Fan electrical system shall have a dedicated raceway and no other wiring may be installed in its raceway.

1524.1.8 Source Of Power - WSES Fan control power, and power for the louvers, must be obtained from the same source as the power for the fans themselves.

1524.1.9 Disconnect Switches - Disconnect switches for the fan motors and the louver motors must comply with the NEC. All motorized louvers are to be considered as an electrical motor.

1524.1.10 Switches For Fans - WSES Fans may be switched independently or grouped in units of up to three. The wiring for this group of fans (or louvers) may be installed in a single common conduit. No other equipment may share this conduit. A single Fireman override switch may control the fans independently or in above groups of two or three fans.

1524.1.11 Fireman Control Station - A single Fireman Control Station must control all fans in a single building. This station is to contain the override switches for all fans in that building. The station is to be appropriately marked, it is to be acceptable to the Fire Department having jurisdiction, and its location must be approved by that Fire Department.

Exception: A single occupancy building of 400,000 sq. ft. or larger, where approved by the Fire Department having jurisdiction, shall be permitted to have more than one fireman's control station.

1524.1.12 Shared System With Building Ventilation - If the WSES Fan system is also to be used as a building ventilation system, the controls must be designed so that all fans will be stopped when they receive a signal from the House (building) fire alarm or if the Fireman Station is activated. The Fireman Station then must take complete control of the fans. Individual fire alarm systems in tenant spaces that do not report back to the house fire alarm panel are not required to activate the WSES system.

1524.1.13 Control Wiring Requirements - The control wiring from the Fireman Station to the

WSES fan equipment shall not be installed inside the building in such a manner that a fire at a single location could disable all the WSES fan operation. It is to be installed outside the building or contained within a properly fire rated space.

1524.1.14 Metering - Multi-tenant buildings shall have the WSES system on a house meter. A single fireman control station will be required. The station shall be appropriately marked, and acceptable to the Fire Department having jurisdiction, and its location must be approved by that Fire Department.

Exception: Large tenants of 100,000 square feet and larger, that have a dedicated transformer that serves no other tenant may have a separate system and control station if approved by the Fire Department.

Section 1525 - Generators

1525.1. Optional Standby Systems - An optional standby system shall have adequate capacity and rating for the supply of all equipment intended to be operated at one time. The user of the optional standby system shall be permitted to select the load connected to the system.

Section 1526 Cutting, Notching And Boring – The cutting, notching and boring of wood or steel framing members, structure members, engineered wood products shall be in accordance with the *International Building Code*.

Section 1527 Penetrations – Penetrations of walls, floors, ceilings and assemblies required to have a fire resistant rating, shall be protected in accordance with the *International Building Code*. Where cables, conductors, and raceways penetrate fireblocking or draftstopping, such penetrations shall be protected by filling the annular space with an approved fireblocking material.

Section 1528 Smoke Control Systems – Smoke control systems required by the International Building Code or the International Fire Code shall be supplied with two sources of power. Primary power shall be the normal source of power. Secondary power shall be from an approved standby source complying with this code. The standby power source and its transfer switches shall be either outside of the building or

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 exterior. 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.

1528.1 Power Sources And Power Surges – Elements of smoke management systems relying on volatile memories or the like shall be supplied with an uninterruptible power source 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 conditioners, suppressors or other approved means.

1528.2 Wiring – In addition to meeting the requirements of this code, all signals and control wiring for smoke control systems, regardless of voltage shall be fully enclosed within continuous raceways.

1528.3 Warehouse Smoke Evacuation – Warehouse smoke evacuation systems are not considered as a smoke control system, therefore are not required to have a second source of power. See Section 1524 of this code.

Chapter 16 - Technical Rules Applicable to Multi-Family Dwelling and Multiple Occupancy Residential Buildings.

R-2 & R-4 Uses Building Code

The Rules herein are Exceptions to Chapter 15 of the Joint Electrical Code.

Section 1601 Multi-Family Dwelling Residential Services; Requirements

1601.1 Service Connector Requirements -An individual building shall be supplied power by one set of service conductors, except as permitted by the NEC and Section 1601.2, Item 3.

1601.2 Voltage Of 250 Volts Or Less - On residential occupancies where voltage between conductors is 250 volts and less, the following requirements shall govern:

1. All multiple occupancy dwelling buildings shall have the disconnecting means for each metered tenant grouped at the point of either underground or overhead service attachment. For existing installations only the disconnecting means for each metered tenant may consist of not more than six fused switches or six circuit breakers in a common enclosure or a group of separate enclosures. The disconnecting means for not more than 6-metered tenants may be grouped at the point of service attachment. Groups of disconnecting means shall be separated by 10 feet or greater distance between adjacent ends to qualify as separate groups.
2. All branch circuits that supply 125 volts single phase 15 and 20-ampere outlets in bedrooms shall be protected by an ARC FAULT CIRCUIT INTERRUPTER (S). These AFCI Circuits may also extend into other bedrooms.
3. Building of multiple-occupancy may be supplied by two or more service drops. The disconnecting means for each tenant shall conform to the requirements of Section 1601.2.Item 1 and shall be grouped at the individual service drops. Branch circuits and service sizes shall comply with the NEC, and this chapter.
4. Any residential appliance or equipment rated at 1,000 watts and any electric motor of ½ horsepower or larger shall be supplied by individual circuits of adequate capacity for the device to be connected. Receptacles installed in

such circuits shall be single opening grounding type rated at 125% of the nameplate current of the equipment to be connected, but in no case shall they be rated less than 20 amperes. Service outlets installed at heating equipment may be duplex outlets rated at 20 amperes.

Section 1602 Additional Load For Existing Occupancies – On existing residential occupancies where the main service to each dwelling consist of No. 8 AWG conductors, additional load may be added without increasing the service conductor size provided the sum of the existing load and additional load as computed under Section 1601..2 Item 4 shall not exceed 40 amperes per phase or leg.

Section 1603 - Load Calculations

1603.1 General - Service feeders, overcurrent devices, and panel board buses shall have a current carrying capacity equal to the connected load supplied. This includes circuits in use and spare circuits. (Notice: This shall not include spaces.)

1603.2 Spare Lighting And Appliance Circuits -Spare lighting and appliance branch circuits shall be computed as circuits in use.

1603.3 Other Spare Circuits - Spare circuits for load other than lighting and appliances shall be computed on the basis of their intended use, or where the future load is not known, the average of the connected load of similar circuits in use on the premises.

Section 1604 Underground Service Conductors – When a service from overhead secondary conductors is carried under ground to a building, that portion of the service running underground and up the pole shall have moisture resistant insulation and shall be suitably protected from mechanical injury. The sizing of these residential underground service conductors shall be determined by the Commercial and Residential Engineering Department of MLGW. The neutral conductors of such underground service may have weatherproof covering or be bare.

Section 1605 Service Conductor Splicing – On existing installations, the conductor from the meter to the service drop may be extended splices being made with approved fittings. On new installations service entrance conductors

from the meter to the service drop shall be without splices, except as permitted by Section 1501.4.

Section 1606 Service Equipment And Meters: Locations And Requirements

1606.1 Location Of Service Outlets And Meters - Location of service outlets, meters, and metering equipment shall conform to the requirements of MLGW.

1606.2 Location Of Disconnects - Disconnect means shall always be located on the load side of metering equipment, except where a master disconnect is required ahead of the meters to comply with subdivision requirements.

1606.3 Additional Taps On Existing Residential Installations - On existing residential installations, in addition to the tap or connection from the load terminals of the meter socket to the line terminals of the main or subdivision switch, and that from the load terminals of the main or subdivision switch to the load, two additional taps to load may be made, one from the load terminal of the meter socket and one from either the line terminals or the load terminals of the main or sub-division switch.

1606.4 Additional Taps In Existing Panel. - On existing residential electrical installations where there is no trough or gutter installed, taps may be made in panels to supply additional load.

Section 1607 Identification.

1607.1 Marking - Main disconnecting devices and feeder protective devices of the service equipment of multiple occupancies shall be legible and permanently marked and branch circuit panels shall be legible, and permanently marked as to occupancy or apartment designation when located outside of occupancy. Panel boards shall be legibly indexed.

1607.2 Multiple Meter Installation Markings - Each meter position on all multiple meter installations shall be permanently and legibly marked with a metal tag as to apartment designation or occupancy on the socket body so as to be visible after the installation and not on its lid.

Section 1608 Wiring Methods; Two Stories Or More In Height

existing multiple occupancy dwellings or buildings two stories or more in height shall be wired using a wiring method approved in Chapter 15. **Type NM Non-Metallic or NMC Non-Metallic Sheath cable shall not be used.**

Exception: Service-entrance cable shall be permitted for use as service conductors on the exterior of existing multifamily dwellings in accordance with Article 338 of the NEC

Section 1609 Wiring Methods – One Story – Branch circuit wiring in new or existing multiple occupancy (apartment) buildings not over one story in height may be wired using type NM or NMC non-metallic sheathed cable or other wiring methods permitted by this code.

Exception: Service-entrance cable shall be permitted for use as service conductors on the exterior of existing multifamily dwellings in accordance with Article 338 of the NEC

Section 1610 Installation Requirements; Cable Installation.

1610.1 General – Cable assemblies with conductors smaller than No. 8 AWG must be run through bored holes, except that in attics where the distance between the top of the ceiling joists and the bottom rafter is two feet or less, the cable may be secured directly to the structural member.

1610.2 Truss Roof Construction Installations - In truss roof construction, cable assemblies with conductors smaller than No. 8 AWG may be secured to the bottom of top chord of trusses and/or may be secured to other structural members, except that protection for cable assembly shall be required within 6 feet of the nearest edge of scuttle hole or attic entrance, Nominal 2 x 4 truss members shall not be bored for cable assemblies.

1610.3 Branch Circuit Conductors - All branch circuit conductors shall be properly joined and terminated prior to rough-in inspection.

Section 1611 Garages, Storage And Carports – Attached or detached garages, and attached carports, and storage areas of 20 square feet or more in area shall have a minimum of one grounding type convenience outlet and one

lighting outlet, which may be combined if supplied by a 20 – ampere circuit.

Section 1612 - Kitchen Circuits – Two or more circuits, each protected at 20 amperes, and with each such circuit supplying not more than three convenience outlets, shall be installed in every kitchen in new buildings or where kitchens are completely remodeled, or where kitchens are added to existing buildings, or where existing kitchens are enlarged. A vent-a-hood, gas fired appliance, or electric clock may be wired as the fourth outlet on a kitchen circuit. These circuits and outlets shall not extend beyond the kitchen (except as permitted in Section 1715.5)

Section 1613 Lighting Circuit – At least one lighting circuit shall be installed for each 750 square feet of floor area or fraction of this area, in residential occupancies. Not more than 12 lighting outlets shall be connected to any lighting circuit. Lighting circuits may be wired with 14-gauge wire and protected by 15-amp overcurrent devices.

Section 1614 Receptacle Circuits – Not more than 16 convenience outlets, single or duplex, shall be connected to any circuit and no single circuit shall supply an area of more than 750 square feet. Receptacle circuits shall be wired with 12-gauge wire and protected by 20-amp over current devices.

Section 1615 Public Area Lighting

1615.1 General - Sufficient lighting outlets shall be installed to light all public hallways, stairways, corridors, porches and outside entrances for apartment or houses. Such lighting outlets may be controlled in either of two ways:

1. Time switch, photocell, or other automatic device, on house meter located at distribution center.
2. Switches controllable by individual tenants and on that tenant's meter (light for inside stairs shall be controlled by 3-way switches or equivalent control at top and bottom of stairs).

1615.2 House Meter Required - Where three or more apartments are located above the first floor and are served by a common stair, a house meter shall be installed.

Section 1616 Special Convenience Lighting – Special wall convenience outlets for clocks, fans etc., located 5 feet or more above floor shall not be considered as complying with convenience outlets required for each room, but such special wall outlets may be connected to either the lighting or convenience outlet circuit.

Section 1617 Existing Residential Structures.

1617.1 Boarding, Lodging Or Rooming Houses - Existing portions of buildings with or without cooking facilities, such as boarding houses, lodging houses, or rooming houses, buildings arranged or used for lodging, with or without meals, for compensation, where more than 5 but not more than 20 individuals reside, may be wired with 20 ampere capacity circuits with not over 10 outlets per circuit.

1617.2 Use Of Existing Wiring Allowed - Existing wiring, not defective, may be used, providing there are not over 10 outlets on a circuit, and the circuit does not extend beyond two family units.

1617.3 Combining Light And Receptacles On A Circuit - Light and receptacles may be combined on circuits of 20-ampere capacity, providing there are not over 10 outlets installed on a circuit in existing dwellings.

Section 1618 Air Conditioning Units

1618.1 Window Units - Window type air conditioning units shall be wired for 120 volt or 208/240- volt operation, but each unit shall be wired on an individual grounded circuit of proper ampacity.

1618.2 Accessibility - The electrical equipment of air conditioning and/or electrical resistance heating units installed in unfinished attics or crawl spaces shall be accessible for inspection and maintenance. Such equipment shall be considered accessible when located within 12 feet of access hole or opening to attic or crawl space, and not less that two sides of the unit are adjacent to working spaces. A combination keyless lamp holder and convenient outlet shall be installed adjacent to each unit and the combination shall be counted as one outlet on either a lighting or receptacle circuit.

1618.2.1 Control Switches And Motor Disconnect - The combination device shall be

controlled by a switch located adjacent to access hole or opening to attic or crawl space. Each complete unit shall have a motor rated disconnecting means without over-current protection device, mounted adjacent to or on the unit. Each unit shall be grounded.

1618.3 Power Conductors In Raceway -

Raceway required to protect conductors supplying power to central air conditioning units shall be UL approved and identified for use where subject to physical damage. An equipment-grounding conductor sized in accordance with NEC shall be installed.

Section 1619 Multi-Pole Circuits – Plug fuses, when used on 208/240 volt circuits, shall be opposite or adjacent and will not be accepted for the required disconnecting means of appliances or heating devices.

Chapter 17- Technical Rules Applicable To Residential Occupancies (One And Two Family Dwellings)

Section 1701 General Requirements

1701.1 Applicability – Chapter 17 shall apply to all one- and two-family dwellings except that sections 1703 and 1711 shall not apply where the prescriptive requirements of the NEC are met. Where the feeder and service loads are calculated in accordance with the NEC, the load calculations shall be submitted with the permit application.

1701.2 Arc- Fault Protection. Arc Fault Circuit Interrupter protection shall not be required for bathrooms, garages, and unfinished basements; and for individual branch circuits supplying refrigeration equipment.

Section 1701.3 Additional Load For Existing Occupancies – On existing residential occupancies where the main service to each dwelling consist of No. 8 AWG conductors, additional load may be added without increasing the service conductor size provided the sum of the existing load and additional load as computed shall not exceed 40 amperes per phase or leg.

Section 1703 - Load Calculations

1703.1 General - The load for services and feeders shall be permitted to be calculated in accordance with this section in lieu of the methods required by Article 220 of the National Electrical Code. Where this method is used the installation shall comply with all of the provisions of this Chapter.

1703.2 General Purpose Circuits - The service conductors, feeder and service equipment in single and two family residential occupancies, for general purpose circuits shall have a capacity of not less than 10 amperes for each of the first six 120 volt 2-wire branch circuit; not less than 5 amperes for the next six 120 volt 2-wire branch circuits, and all other 120 volt 2-wire branch circuits 13 and over shall be computed at 3.5 amperes each.

1703.3 Addition Of Load - On existing jobs where additional load is being installed, services, feeders, and service equipment shall be increased to provide for the additional load.

1703.4 Range Service Requirements - Where the total connected single-family range does not exceed 17 KW, a service and/or feeder demand of 35 amperes may be used. Conductors supplying outlets for ranges other than built-in type shall be of sufficient size for the range connected, but in no case shall they be smaller than number 8 copper (AWG) rated at 50 amperes. Receptacles used for disconnecting means shall be rated at 50 amperes and supplied by a 50-ampere overcurrent device. Cook tops may be wired with #10 conductors and protected by 30 ampere over current devices.

1703.5 Electric Washer-Dryer Combinations - Electric washer-dryer combinations rated 5KW or less may be wired on a 30-ampere circuit with a 30 ampere grounding type receptacle. The service demand shall be 20 amperes.

1703.6 Spare Circuits For Lighting And Appliances - Spare lighting and appliance branch circuits shall be computed as circuits in use.

1703.7 Other Spare Circuits - Spare circuits for loads other than lighting and appliances shall be computed on the basis of their intended use, or where the future load is not known, the average of the connected load of similar circuits in use on the premises.

1703.8 Other Loads – Loads for appliances and equipment not listed in this section shall be calculated in accordance with the 2014 National Electrical Code.

Section 1704 Unprotected Service Conductors Length – Service entrance conductors (without over current protection) shall not extend more than 15 feet inside a building measuring horizontal from the point of entrance.

Section 1705 Minimum Service Size - No service shall be installed with less than #6 AWG. In new single-family dwellings and in each unit of duplex residential dwellings, the service entrance conductors shall have the equivalent capacity of not less than the following:

1. 100-amperes for residences with an area of 501 square feet through 1,500 square feet; the service conductors shall extend from the service head to the terminals of the first over current devices or the distribution equipment.

2. 200-amperes for residences with an area of 1,501 square feet through 3,000 square feet; the service conductors shall extend from the service head to the line terminals of the first over current devices or the distribution equipment.

3. 225-amperes for residences with 3,001 through 4,000 square feet, the service conductors shall extend from the service head to the line terminals of the first over current device or distribution equipment.

4. 400 amperes for residences with over 4,000 square feet, the service conductors shall extend from the service head to the line terminals of the meter socket.

Section 1706 Service Conductor Splicing - On existing installations, the conductors from the meter to the service drop may be extended splices being made with the appropriate fittings. On new installations, service entrance conductors from the meter to the service drop shall be without splices, except as permitted by Section 1501.4.

Section 1707 Service Equipment And Meters; Location And Requirements.

1707.1 Location - Location of services outlets, meters, and metering equipment shall conform to the requirements of MLGW.

1707.2 Location Of Disconnect - Disconnect means shall always be located on the load side of metering equipment.

1707.3 Additional Taps On Existing Residential Installations - On existing residential installations, in addition to the tap or connection from the load terminals of the meter socket to the line terminals of the main or sub-division switch, and that from the load terminals of the main or subdivision switch to the load, two additional taps to load may be made, one from the load terminal of the meter socket and one from either the line terminals or the load terminals of the main or sub-division switch.

1707.4 Taps for Alternative Energy Metering Equipment - A tap complying with MLGW requirements shall be permitted to be made to conductors or equipment on the line side of metering equipment, within the metering equipment enclosure, for the connection of

alternative energy source metering equipment to the premises wiring system

Section 1708 Wiring Methods; Single And Two Family Occupancies

1708.1 General - Nonmetallic-sheathed cable and service-entrance cable shall be permitted to be used in one- and two-family dwellings. Where nonmetallic-sheathed cable is extended through outside walls or floors the cable shall be run through a conduit nipple, properly bushed. Roof sheathing must be completed before cable is installed.

1708.2 Securing Methods For Cable - Service entrance cable and non-metallic sheathed cable, 8 AWG or larger, may be secured directly to permanent structural members on attics and lower edges of joists under houses and unfinished basements. Where distance between ceiling joist and bottom rafters is two feet or less in attics, cable may be run on top of joists or lower edges of roof rafters. Where cable is run parallel to joists, it shall be secured at intervals not exceeding 4-1/2 feet. Where cable is run across joists, it shall be secured on every other joist.

Section 1709 Installation Requirements; Cable Installation

1709.1 General - Assemblies with conductors smaller than No. 8 AWG must be run through bored holes, except that in attics where the distance between the top of the ceiling joist and bottom of rafters is two feet or less, the cable may be secured directly to structural members.

1709.2 Truss Roof Construction Installation - In truss roof construction, cable assemblies with conductors smaller than No. 8 AWG may be secured to the bottom of top chord trusses or may be secured to the top of the bottom chord of trusses and/or may be secured to other structural members, except that protection for cable assemblies shall be required within 6 feet of the nearest edge of scuttle hole or attic entrance. Nominal 2 x 4 truss members shall not be bored for cable assemblies.

1709.3 Branch Circuit Installation - All branch circuit conductors shall be properly joined and terminated prior to rough-in inspection.

Section 1710 - Wiring Methods Service Requirements For Townhouses

1710.1 Definition – A single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from foundation to roof and with an open space on at least two sides.

1710.2 Meter Location – The electric meter for townhouses shall be located on the dwelling unit it serves.

Exception: The meter shall be permitted to be located in a common area as dedicated on the recorded plat provided that the feeder conductors are routed below grade from the meter center to the occupancy served and do not pass through or enter any other occupancy.

Section 1711 Minimum Requirements for Dwellings Using the Shelby County Optional Calculation Method (1703)

1711.1 Applicability - This section amends the requirements of the NEC for dwelling units that have the service and feeder loads calculated in accordance with Section 1703. Where this optional method is used, the dwelling unit shall comply with all of the requirements of this section. This section shall not apply to dwelling units wired in accordance with the 2014 NEC. Where ever floor areas are mentioned herein, it shall be understood that such areas are to be calculated from the outside dimensions of the building and by the number of floors.

1711.1.2.1 Locations Not Included In Area - Carports, open porches, unfinished attics, basements, and rooms not connected to the house shall not be computed in the area requirements.

1711.1.2.2 Omissions Allowed For Lighting Circuits - Living rooms and dens without lighting outlets shall be omitted from floor area calculations for lighting circuit calculations.

1711.1.2.3 Kitchen Exclusion - The area of the kitchens supplied by special kitchen circuits shall be omitted from the floor area calculations for receptacles.

1711.2.1 Branch Circuit Wiring - At least one lighting outlet shall be installed in each room, including bathrooms, toilet rooms, halls, and storage rooms, on porches, and at outside

entrances without porches, in attics where stairs are installed or provided, and in basement rooms, attached garages, except in living rooms, bedrooms, and dens where one or more convenience outlets are controlled by wall switch. Porch and outside entrance lights shall be walled switched. Switch shall be adjacent to door where practicable. Attic light shall be installed close to or over attic stairs and controlled by wall switch. Switches for lighting outlets shall be located on the strike side of doors; if this is not possible, it shall be located as near the door as possible, but in no case shall it be behind the door swing.

1711.2.2 Lighting Circuits, Minimum Required - At least one lighting circuit shall be installed for each 750 square feet of floor area or fraction of this area, in residential occupancies. Not more than 12 lighting outlets shall be connected to any lighting circuit. Lighting circuits may be wired with 14-gauge wire and protected by 15-amp overcurrent devices. Receptacles shall not be supplied by lighting circuits.

1711.2.3 Bathrooms - Toilet rooms that have a washbasin and bathrooms shall have one convenience outlet adjacent to each sink. Halls having over 50 square feet of floor space shall have at least one convenience outlet.

1711.2.4 Special Installation Allowed - Where the required number of convenience outlets is installed in a room, and due to special conditions it is impractical to space them 12 feet apart, they may be spaced in the most practical manner as near as possible to the 12 foot requirement.

1711.2.5 Separate Eating Areas - Receptacle outlets in eating areas, which are or are not a part of the kitchen may be installed as part of the kitchen receptacle circuits, or installed on receptacle circuits.

1711.2.6 Kitchen Circuits - Two or more circuits, each protected at 20 amperes, and with each such circuit supplying not more than three convenience outlets, shall be installed in every kitchen in new buildings or where kitchens are completely remodeled, or where kitchens are added to existing building, or where existing kitchens are enlarged. A vent-a-hood, gas fired appliance or electric clock may be wired as the fourth outlet on a kitchen circuit. These circuits

and outlets shall not extend beyond the kitchen (except as permitted in Section 1715.5).

1711.2.7 Electric Clothes Washing Machines -

Electric clothes washing machines shall be installed on a separate circuit.

1711.2.8 Central Vacuum Power Units -

Permanently installed central vacuum cleaner power units shall be installed on a separate circuit.

Section 1711.1.3 Garage, Storage, Basements And Carports –

Attached and detached garages, and attached carports, basements, and storage areas of 20 square feet or more in area shall have a minimum of one grounding type convenience outlet and one lighting outlet, which may be combined if supplied by a 20-ampere circuit. Such outlets shall not include those installed for door openers and freezers.

Section 1711.1.4 Detached Living Quarters –

Rooms connected to a house and used, as living quarters shall comply with requirements for installation of convenience outlets. Ceiling outlets may be combined with the convenience outlet on a 20-ampere circuit in rooms not exceeding 250 square feet.

Section 1711.1.5 Receptacle Circuits –

Not more than 16 convenience outlets, single or duplex shall be connected to any circuit and no single circuit shall supply an area of more than 750 square feet. Receptacle circuits shall be wired with 12-gauge wire and protected by 20-amp overcurrent devices.

Section 1711.6 Special Convenience Lighting

– Special wall convenience outlets for clocks, fans, etc., located 5 feet or more above floor level shall not be considered as complying with the convenience outlet required in each room, but such special wall outlet may be connected to either lighting or convenience outlet circuits.

Section 1711.7 Room Additions–

Rooms added to existing residential occupancies, where the addition does not exceed 250 square feet of floor areas, the lighting and convenience outlets, not exceeding 12, may be connected to the same circuit, and not less than 20 ampacity wires can be used. This shall not apply to kitchen additions.

Section 1712 Small Appliance Circuits – For installations not utilizing the optional methods permitted by sections 1703 and 1711, the small appliance circuits required by Section 210.11(C) of the NEC shall have the load evenly proportioned between the circuits by having each adjacent receptacle in the area(s) served supplied by a different circuit.

Section 1720 Branch Circuits Existing Residential Occupancies; General Wiring Requirement – (Minimum Property Standards)

1720.1 Removal Of Unsafe Wiring - In existing dwelling building previously wired with cord wiring, unauthorized extensions, or where other hazardous wiring conditions exist, all hazardous wiring shall be removed, and the new wiring installed to comply with the minimum requirements.

1720.2 Wiring Upgrade For Substandard Dwellings - Existing substandard dwellings shall be wired to meet the minimum requirements as stated below.

1720.3 Retention Of Existing Wiring - Existing portions of dwelling buildings may be wired with 15-ampere capacity circuits for lighting and 20-ampere capacity circuits for receptacles.

1720.4 Required Receptacles, Circuits, Special Location Standards And Lighting Outlets -

In determining the minimum number of receptacles or lighting outlet in each room of a building, their location in such rooms, the circuits required to properly accommodate such receptacles and outlets and related requirements, the standards and minimum requirements established in the 2003 Edition of the *ICC Property Maintenance Code*, or any later edition hereafter adopted by Memphis and Shelby County, shall be used to locate, size, type and establish the minimum number of such items.

Section 1721 Fire Damaged Buildings - An inspection and written ruling must be obtained from the MSCCE prior to commencing work, other than demolition work or temporary service, on fire damaged building.

Section 1722 Building Relocation – Minimum Requirements Buildings moved from one location to another that are to be used as a single-

family dwelling shall meet the following minimum requirements:

1. Service entrance conductors shall be governed by new service rules.

2. Kitchens shall have no less than two circuits with a maximum of 3 convenience outlets per circuit.

3. Lights and convenience outlets shall comply with existing branch circuit residential occupancies general requirements.

Chapter 18 - Amendments to NEC Provisions

Section 1801 Scope – This Chapter is intended to provide local amendments deemed appropriate and necessary to the 2008 Edition of the National Electric Code (NEC) to provide appropriate local electrical construction. It is not intended to weaken the protection provided by this national code.

Section 1804 Amendment to NEC Article 700, Section 700.27 This article shall read as follows:

Section 700.27 Coordination. Emergency systems installed after January 1, 2012 shall be selectively coordinated with all emergency system overcurrent devices for faults with a duration of 0.1 seconds or longer using accepted engineering practice. For new emergency systems that are supplied from existing emergency systems installed prior to January 1, 2012, this requirement shall apply only to the new portion of the emergency system. The engineer shall certify that the system is coordinated in accordance with these requirements.

Appendix A

Electrical - Permit and Inspection Fees

The fee for each permit shall start with a base fee of \$20.00, with the exception of meter put backs (E-5.2.) Additional fees shall be computed from the *Electrical Permit Fee Schedule* as listed below.

E-1 Fees for Amending Permits

E1.1 After a permit has been issued and an amendment or supplemental revision is applied for, the additional fee or service charge shall be as follows:

E1.2 For each amendment, which involves additional work, not originally applied for to complete the entire project, the additional fee shall be the normal fee for the work contemplated and shall be computed disregarding the valuation of the work previously permitted.

E-1.3 For each amendment or supplement a minimum fee of \$20.00 shall be charged.

E-1.4 Fee(s) for amendments or supplements shall be paid prior to re-inspection.

E-2 Work Commencing Before Permit Issuance and Penalty

E-2.1 In the event work is begun prior to obtaining the required electrical permit, the total fee applicable shall be doubled. The payment of said fee shall not relieve any persons from fully complying with the requirements of this code for performance or execution of the work, nor from other penalties prescribed by law.

E-2.2 Penalties issued by the Technical Boards to persons appearing or caused to appear before the Technical Board shall pay in the lump sum the penalty fee of 300% (3 times) of the original permit fee plus the cost of the original permit or \$50.00 a day for each day or portion thereof, which ever is greater to MSCCE. The license holder, and/or non-license holder shall not proceed with the work until he has paid the Building Official the penalty.

E-3 Minimum Fees, Payment, & Address Assignments

E-3.1 Wiring on each meter installation shall require a separate permit and fee; separate meter installations on apartment jobs may be listed on one permit so long as the apartments listed are for one address. No permit, initial or added after an inspection has been made shall be issued for a fee of less than \$15.00.

E-3.2 Full payment for all fees shall accompany any electrical permit submitted.

E-3.3 Address assignments from MLGW will be the official address used by the Office of Construction Code Enforcement.

E-4 Refunds. - Permit fees may be refunded if no work has commenced and a request for refunds is submitted to the Building Official in writing by the permittee within 6 months of the date of the issuance. The permit is surrendered when a request for refund is submitted. The amount of the refund will be 2/3 of the permit fee, but in no case, will the amount retained by the Office of Construction Code Enforcement be less than \$15.00. Note that the refund does not include the \$20.00 base fee, the \$4.00 Data Processing fee, or the \$1.00 Residential/\$5.00 Commercial Housing Initiative.

E-5 Re-inspection

E-5.1 Fee for Excessive or Repeat Inspection Calls

E-5.1.1 A \$50.00 re-inspection fee shall be charged for the re-inspection and rejection of the same infraction and for every re-inspection thereafter until the infraction is corrected.

E-5.1.2 Any person, firm, or corporation aggrieved by the assessment of any re-inspection fee may appeal to the Chief Electrical Inspector for a review of the facts involved and a possible reduction or dismissal of said fees.

E-5.2 Interior Wiring Out of Service Meter Put Back. -No system or installation of interior electrical wiring in any building which has been out of service for 365 days or more on residential property or 90 days or more on commercial property shall be used as an electrical conductor without re-inspection by or a certificate from the Building Official. In emergency situations, the inspector is authorized to issue a temporary certificate until re-inspection can be made. A fee of \$50.00 shall be charged for a re-inspection or certificate required by this section. This section shall apply to new buildings, which have never been occupied as well as buildings, which are vacant after having been previously occupied.

E-6 Residential Fees – Chapter 6 & 7

E-6.1 New Residential (Multi-family Multi-occupancy)

The fee for multi-family & multi-occupancy shall be \$1.00 per amp for the main overcurrent device(s) for each metered tenant.

0-150 Amps	\$70.00
151-400 Amps	\$125.00
Over 400	\$250.00

This fee will include low voltage installations if they are listed on the permit. This fee provides three inspections; additional inspections shall be \$50.00 each.

E-6.2 Existing Residential Occupancies

The following fees shall apply to circuits only new or existing:

1 to 5 circuits	\$30
Over 5 circuit	\$45

The fee will provide two inspections; Additional inspections shall be \$50.00 each.

E-6.3 Service, Feeder, & Panel Replacement -

The fee for service, feeder, or panel replacement shall be \$50.00. This fee shall apply if one or all three are done; and if replacement(s) are for like equipment and conductors. This fee will provide one inspection; additional inspections shall be \$50.00 each.

E-6.4 Swimming Pools - The fee for residential in-ground pools shall be \$100.00 and will cover circuits for pool equipment only. This fee will provide two inspections; additional inspections shall be \$50.00 each. The fee for residential above ground pools shall be the same as set forth in E-6.2. This fee will provide one inspection; additional inspections shall be \$50.00 each.

E-6.5 Residential Low Voltage - The fee for low voltage installed in a 1 or 2-family dwelling by licensed and/or registered low voltage contractors shall be \$30.00. If low voltage Rough-in is not in place before walls are sheet rocked, a \$50.00 Inspection Fee will be assessed. The Fee for multi-family or multi-occupancy buildings, three floors or less shall be \$30.00 per system, per building. If Low Voltage Rough-in is not in place before walls are sheet rocked, a \$50.00 Inspection Fee will be assessed.

E-6.6 Manufactured (Mobile) Homes - The fee for mobile homes shall be \$50.00 and will include the A/C connection if it is listed on the permit. The fee applies to mobile home parks only; installations other than mobile home park shall be as set forth in E-6.1

E-6.7 Concealed Wiring - Wiring in all type residential (new or existing) occupancies shall not be concealed until approved inspections have been received for both low voltage and line voltage installations. Concealed wiring shall be uncovered in its entirety.

E-6.8 Residential Temporary Meter Center -

The fee for temporary meter centers used only for the construction of new one and two family dwellings shall be \$25.00.

E-7 Permit Fees for Installations Other Than Residential - New Services or Feeders

E-7.1 The permit fees listed below shall cover the installation of a new service or feeder including all circuits and current consuming equipment and devices connected thereto when installed concurrently with the service or feeder.

E-7.1.1 120-Volt single phase, 120/240-volt single phase, or 120/208 voltage three phase the fee shall be \$1 per ampere of service or feeder size.

E-7.1.2 277-volt single phase, 480 volt single phase, 480 volt three phase or 277/480 volt three phase; over 400 amperes shall be \$1.50 per ampere of service or feeder size.

E-7.1.3 277 volt single phase, 480 volt single phase, 480 volt three phase or 277/480 volt three phase up to 400 amperes shall be \$2 per ampere of service or feeder size.

E-7.1.4 Building or premises that are supplied by electrical services with voltage more than 480 volts; the fee shall be as follows:

\$1.50 per KVA for the first 10,000 KVA

\$0.50 for each additional KVA above 10,000 KVA and up to 50,000 KVA

\$0.25 for each additional KVA above 50,000 KVA

E-7.2.1 The capacity of a service or feeder shall be the overcurrent device or buss size.

E-7.2.2 The permit fee shall be based on the overcurrent device(s) or buss size of each metered service or feeder.

E-8 Increase in Service Size

E-8.1 The permit fee for the increase of size of a service shall be computed as set forth in section E-7.1, this fee will cover work associated with the service increase (new panels & circuits). Circuits in existing panels not associated with the increase that are to be re-configured in existing panels or relocated shall be assessed as set forth in Section E-12, The increase in the service size only shall be used in calculating the permit fee, (i.e. increasing an 800 ampere service to 1200 ampere will be computed as a 400 ampere fee).

E-9 Remodeling of Existing Buildings

E-9.1 Where an existing building is completely remodeled and the existing service is of adequate capacity, a permit fee shall be 75% of the fee as set forth in E-7.1 for a new service or feeder.

E-10 Service Feeder, & Panel Replacement (Nonresidential)

E-10.1 Replacement of existing services, feeders, or panels shall be permitted at 25% of the fee shown under the appropriate voltage figured in Section E-7. Replacement(s) shall be for like equipment and conductors. This fee shall apply if one or all three replacements are done for an individual service, feeder, or panel.

E-11 Emergency Power Systems. - The installation of an emergency stand by system, (generator, UPS, etc.) required or non-required shall be 25% of the fee as set forth in E-7, at the appropriate voltage. This fee applies to installations not associated with new construction.

E-12 Non-Residential Fees for Branch Circuits.

The fee for branch circuits shall be figured at 25% of the overcurrent device at the appropriate voltage. All others shall be figured as set forth in Section E-7.

E-13 Empty Conduits

E-13.1 Empty Conduit systems for services, feeders, branch circuits, & low voltage systems shall be permitted for a fee of \$10 for each 50 ft. of conduit or bank of conduits.

E-13.2 Termination of services for multi-occupancy services shall be made on terminal blocks in the service trough and shall be permitted for a fee of \$10 for each 50 ft. of conduit or bank of conduits.

E-14 Inspection & Permit Procedures for Special Amusement Rides. - The procedure listed herein for the inspection of all electrical wiring and components, associated with the installation, construction, alteration, repair, removal, and use of amusement rides and devices and wiring for special events, are in conformance with the requirements of the Joint Building Code of Memphis and Shelby County.

E-14.1 A permit shall be required for each location for amusement rides or special events that require wiring.

E-14.2 Permits shall be issued only to licensed electrical contractors, as set forth in the Licensing section of the JEC of Memphis and Shelby County.

E-14.3 Permit fees shall be based on the service, or if power is received from generators, the ampere rating of the over-current device(s) protecting the circuit(s); the fee shall be figured at 25% of the amps at the appropriate voltage as set forth in A-7 If over-current devices(s) are not available KW will be converted to amps and the fee figured accordingly.

E-14.4 All wiring and grounding shall be in accordance with the requirements of the JEC,

E-15 Low Voltage (Non-residential) - All low voltage systems shall be figured as \$15 per system per floor. This fee will cover a permit for that category on a single floor or tenant space; and will provide two inspections. If additional inspections are required, they shall be \$50 each.

E-16 Temporary Meter Centers (Non-Residential) -The fee for temporary meter centers above 100 amperes other than residential 1&2 family shall be 25% of the ampacity at the appropriate voltage as set forth in A-7, all below shall be \$25.00.

E-17 Filing of Joint Board of Appeals - Notice of Joint Board of Appeals under Section 108 shall be accompanied by a fee of \$125.00.

E-18 Contractor for MLGW - The contractor shall obtain a permit for the work to be installed under the contract with MLGW Division and shall pay a full permit as set forth elsewhere in the fee schedule.

E-19 General Inspection - For general examination of a wiring system when requested by the owner a fee of \$50.00 shall be charged. The fee shall not apply to investigation of complaints.

E-20 Termination of Permits - Electrical permits issued for any project shall terminate 30 days after the Building Section has issued a certificate of occupancy. The Chief Electrical Inspector may grant an extension beyond the 30-day interval but not to exceed one year from the date of the Certificate of Occupancy on the presentation of adequate reasons for the extension.

E-21 Miscellaneous Fees

Fire Rulings (Sec. 1721)	\$50
Relocated Houses (Sec. 1722)	\$50
Modular Buildings	\$50

ELECTRICAL PERMIT AND INSPECTION FEES SCHEDULE

2018 Section	Section Title	2018 Fee
E-0	Fee Issuance Cost per Permit except for meter put backs (E5.2)	\$20.00
E-1.3	Each amendment minimum fee.	\$20.00
E2.1	Work commencing before permit issuance	Double Fee
E3.1	Minimum Fee	\$15.00
E-4	Refund will be 2/3rds of the permit fee minimum refund	\$15.00
E5.1.1	Re-inspection Fee	\$50.00
E5.2	Meter Put Back	\$50.00
E6-1	New Multi-Family residential	
	Main overcurrent devices per tenant	\$1.00
	0-150 Amps	\$70.00
	151-400 Amps	\$125.00
	Over 400 Amps	\$250.00
	This fee provides 3 inspections	
E-6.2	Existing Residential 1&2 Family Occupancies	
	1 to 5 circuits	\$30.00
	Over 5 circuits	\$45.00
	Existing Residential Multi-Family	
	1 to 5 circuits	\$30.00
	Over 5 circuits	\$45.00
	This fee provides 2 inspections.	

E6.3	Service, feeder, or panel replacement	\$50.00
	This fee will provide 1 inspections.	
E6.4	In ground residential swimming pool	\$100
	This fee provides 2 inspections	
E6.5	Residential Low Voltage	\$30.00
	Multi-Family Low Voltage	\$30.00
E6.6	Manufactured Homes	\$50.00
E6.8	Residential Temporary Meter Center	\$25.00
E7	Installations Other than Residential New Services or Feeders	
E7.1.1	120/240 volt single phase	\$1.00
E7.1.2	277 volt single phase over 400 ampere	\$1.50
E7.1.3	277 volt single phase up to 400 amperes	\$2.00
E7.1.4	Excess of 480 volts	
	First 10,000 KVA	\$1.50
	Between 10,001 and 50,000 KVA	\$0.50
	Greater than 50,000 KVA	\$0.25

ELECTRICAL PERMIT AND INSPECTION FEES SCHEDULE – Page 2

E8	Increase in service size	
E8.1.1	120/240 volt single phase	\$1.00
E8.1.2	277 volt single phase over 400 ampere	\$1.50
E8.1.3	277 volt single phase up to 400 amperes	\$2.00
E8.1.4	Excess of 480 volts	
	First 10,000 KVA	\$1.50
	Between 10,001 and 50,000 KVA	\$0.50
	Greater than 50,000 KVA	\$0.25