



**ELECTRICAL CODE AMENDMENTS
TO THE**

**2014
NATIONAL
ELECTRICAL
CODE**

AND THE

**2015
INTERNATIONAL
RESIDENTIAL
CODE**

REQUIRED LICENSES TO DO WORK IN THE CITY OF BARTLETT

ADD Article 91:

91 Required

All contractors that do work in the city limits of Bartlett will be required to have either a Shelby County Electrical License or a State of Tennessee Electrical License (no LLE) as well as a Bartlett Business License before a permit can be acquired.

91.1 Bartlett Business License Fees

A Bartlett Business License can be obtained in the Tax and Finance Office at Bartlett City Hall for \$20.00 or 1/15 of 1%. Bartlett Business Licenses are to be renewed on an annual basis.

91.2 Low Voltage Contractors

When a Low Voltage Contractor does work in the city of limits of Bartlett they will be required to have a Shelby County Low Voltage Electrical License or a State of Tennessee Electrical License that includes Low Voltage (no LLE) and a Bartlett Business License before a permit can be acquired.

91.3 Workmanship

All wiring shall be made in a neat and workmanlike manner.

ADD Article 92:

92 Permits

All electrical work requiring a permit must be applied for by a duly licensed and bonded contractor.

ADD Article 93:

93 Final Electrical Inspection

All light fixtures must have bulbs installed in all sockets of each fixture meeting the manufacturers recommended wattage before a final will be approved.

AMEND Article 200 to Article 100 Definitions:

100 Definitions

Administrator-Whenever the term “Administrator” is used in the Technical Codes herein adopted, it shall mean the Administrator of The City of Bartlett Code Official.

Administrative Authority-Whenever the term “Administrative Authority” is used in the Electrical Code herein adopted, it shall mean the Code Official.

ELECTRICAL CODE

Approved: Acceptable to the authority having jurisdiction-Whenever the term “approved” is used in the NEC, it shall mean the Code Official.

Building Contractor Registration-The term Building Contractor Registration as used in the Building Code is defined to include any person, firm, or corporation whose principal business is to, or performing, any of the following: erect, construct, enlarge, alter, repair, move, improve, convert, or demolish any building or structure in the applicable jurisdiction, or cause the same to be done.

Building Department-Whenever the term “Building Department” is used the Technical Codes herein adopted, it shall mean The City of Bartlett, Tennessee.

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-Whenever the term “Chief Appointing Authority” is used in the Technical Codes herein adopted, it shall mean the Mayor of The City of Bartlett, 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 Bartlett, Tennessee.

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, buildings, 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 of Memphis & Shelby County 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 procedure of the State of Tennessee.

Electrical Fixture Installer-The term Electrical Fixture Installer is defined to include any person having a license to engage in such business which shall authorize the holder thereof to secure permits only for assembling, installing and wiring of electric light fixtures, fixtures to be attached only to such outlets as have been properly installed by a licensed Electrical Contractor. Every Electrical Fixture Installer shall be required to have an Electrical Fixture Installer’s license from the Code Official of Memphis & Shelby County.

Electrical Section-Whenever the term “Electrical Section” is used in the Electrical code herein adopted, it shall mean the Electrical Section of The City of Bartlett Code Enforcement.

Electrical or Specialist Contractor-The term Electrical or Specialist Contractor as used in the Technical Codes 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.

Elevator Installer-The term Elevator Installer is defined to include any person who is licensed by the Code Official to install, service, alter or repair elevators of any type where electricity is used as a motive power. Each Elevator Installer shall be required to have an Elevator Installer’s License from the Board.

ELECTRICAL CODE

Employee-Whenever the word “Employee” is used in the Technical Codes herein adopted, it shall mean a person working directly for a licensed 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 the County for the purpose of maintaining the existing electrical equipment of said plant. Every Industrial Plant Electrician shall be required to have an Industrial Electrician license.

Licensed Contractor-Licensed Contractor will be the same as Contractor as defined by State of Tennessee Licensing Board, and the Technical Boards.

Master Electrician-The term Master Electrician as used in the Technical Codes 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 Code Official of Memphis & Shelby County.

Mechanic Elevator Constructor-A Mechanic Elevator Constructor is defined as an individual with no less than 4 years experience in the physical installation of elevators, hoists, dumbwaiters, and the wiring related thereto as described under JEC Section 308.

(Add Definition)

Moveable -Capable of being moved by one person without causing damage to floor. (*Island on wheels*)

National Electrical Code-Whenever the word “National Electrical Code” is used in the Technical Codes herein adopted, it shall mean the National Electrical Code and Local Amendments and will be known as the Electrical Code of The City of Bartlett.

Residential Electricians-The term Residential Electrician as used in the Technical Codes is defined to include any person having the general charge of supervision of the business of installing, erecting or repairing electrical wires, conductors, moldings, conduit, apparatus, devices, systems, or instruments for single family or two-family dwellings only, whether on his/her own account or as the manager or superintendent of a Licensed Residential Electrical Business.

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

State of Tennessee Certified Licensed Contractor (E, M, P)-Defined as a Contractor Licensed by the State of Tennessee who is not required to have a journeyman or apprentice on the job site. Also, employees are not required to be registered.

Supervising Sign Installer-The term supervising Sign Installer is defined to include any person licensed to assemble, install, alter, repair, and service illuminated signs, including outdoor on-premise signs or the 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, bonded, and insured Electrical Contractor. All such work shall be performed in strict accordance with the Electrical Code and the NEC.

Wiring Definition-Wiring, as described in this section, shall mean the service entrance conduit and conductors, busways, bus bars or other devices connecting an overhead or underground source of power to the electrical metering equipment, and all equipment, apparatuses, conductors, busways, bus bars, and other items connected to the load side of the electrical metering equipment or main disconnect switch(es).

101.0 Tense, Gender and Number

Words used in the present tense include the future. Words in the masculine gender include the feminine and neuter. Words in the feminine and neuter gender include the masculine. The singular number includes the plural and the plural number includes the singular.

(Add Section)

COMMERCIAL/ INDUSTRIAL INSTALLATIONS

ADD Article 210:

210 Wiring Methods for Living Quarters in Commercial Occupancies

Living quarters located in connection with commercial building shall be wired in accordance with requirements for the commercial portion and may have separate meters.

ADD the following Articles:

210.26 General Wiring Requirements; Ampacity of Circuits and Number of Outlets per Circuit

210.26(A) Circuits supplying convenience outlets, lighting or appliances shall have a minimum capacity of 20 amperes.

210.26(B) Not more than six convenience outlets or floor box receptacles, single or duplex shall be connected to on 120-volt circuit. Convenience outlets shall not be installed on lighting circuits.

ADD New Article 220.16(C):

220.16(C) Responsibility 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 the Electrical Code.

(Revise Section)

ADD New Article 230.28(C):

230.28(C) A 2" rigid metal conduit or 2" IMC conduit will be the minimum size allowed for an overhead service mast when used as the service attachment device. The conduit shall be securely mounted to withstand a minimum pull of 2,000 pounds.

(Revise Section)

ADD New Article 230.2 (F)(G):

230.30 Marking and Labeling of Service Equipment; Devices to be Identified

230.30(F) The service disconnecting means meters for multiple occupancy buildings shall be legibly and permanently marked showing occupancy or apartment designation.

ELECTRICAL CODE

230.30(G) 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.

ADD the following New Articles:

230.70(A) (1) (a) Service Entrance Conductors without Over Current Protection

Service entrance conductors without over current protection shall not extend more than 15 feet inside a building measured from the point of entrance.

230.201 Service and Feeder Requirement in Excess of 600 Volts; Design Requirements

230.201(A) System installed by contractors for private owners above 600 volts shall be designed by a Registered Professional Engineer in accordance with the requirement of MLGW and the NEC.

230.201(B) The plans of such systems shall be approved by the Building Official and MLGW prior to installation.

(Delete Section):

~~**230.213 Service Sizes over 600 Amperes**~~

~~Service conductors to an overhead secondary shall terminate in a busway weather head when the ampacity requirement is in excess of 600 amperes. Lugs shall be provided to meet the requirements of MLGW and the weather head busbars shall meet all requirements of the NEC.~~

~~**Exception:** When proper ampacity can be provided with two conductors per phase not larger than 750 KCMIL the bushing may be omitted.~~

(Revise Section):

300.4(A) Wiring Methods Inside Buildings where the Voltage is less than 600 volts

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, under floor raceway, wire way, busway, MC Cable, Rigid PVC, ENT, or other approved wiring methods.

~~**DELETE Article 310.2(B) and REPLACE with the following:**~~

~~**310.2(B)** Conductor Material shall be of copper.~~

~~**310.2(C)** Aluminum and copper clad aluminum shall not be allowed.~~

ADD the following New Article:

310.104 (1) Aluminum conductors shall be permitted under any of the following conditions:

1. Indoor Installations.

(a) Sizes No. 1/0 AWG and larger

DELETE the following Articles and REPLACE with:

Delete Article 320 of NEC and replace with the following:

320 Armored Cable shall not be used.

Delete Article 322 of NEC and replace with the following:

322 Flat cable assemblies shall not be used.

Delete Article 324 of NEC and replace with the following:

324 Flat conductor cable shall not be used.

ADD Article 680.20(A):

680.20 (A) Pool Alarms

As of January 1, 2011, Tennessee Code Annotated Title 68, Chapter 14 requires a pool alarm to be installed on any structure that is intended for swimming or recreational bathing and contains water over thirty-six inches (36”) deep. This includes, but is not limited to in-ground, above ground and on-ground swimming pools, hot tubs, and non-portable spas (T.C.A. 68-14-802 (3)).

A “pool alarm” means a device which emits a sound of at least fifty (50) decibels when a person or an object weighing fifteen (15) pounds or more enters the water in a swimming pool. But shall not include swimming protection alarm devices designed for individual use, such as an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water (T.C.A. 68-14-802 (1)).

Each person, enterprise, agency or entity that purchases or acquires a swimming pool to be installed after the effective date of this act shall install a pool alarm before using or making available for use such swimming pool (T.C.A. 68-14-804).

When an electrical inspection is required for the installation of a swimming pool, the electrical inspector shall not give final approval for the electrical wiring unless a properly functioning swimming pool alarm has been installed (T.C.A. 68-14-805 (a)).

No local government shall issue a building permit for the construction or substantial alteration of a swimming pool located at a residential dwelling unless the project calls for a functioning swimming pool alarm to be installed prior to the completion of the construction project (T.C.A. 68-14-805 (b)(1)).

It is an offense for any person, firm, association or corporation to knowingly accept a building permit for a swimming pool located at a residential dwelling unless a functioning swimming pool alarm will be installed prior to the completion of the construction project (T.C.A. 68-14-805 (b)(2)).

701.2.1.1 Exception 1: See City of Bartlett Ordinance # 93-14, Codified Ordinance # 09-0604 (Weather Proof Panels). Except by special permission from the City of Bartlett Director of Code Enforcement and the City of Bartlett Electrical Inspector.

IRC CHAPTER 34-43 AMMENDMENTS TECHNICAL RULES APPLICABLE TO RESIDENTIAL OCCUPANCIES (ONE & TWO FAMILY DWELLINGS)

Add Section:

3402.4 Wiring Penetrations All wiring penetrations of top plates shall be sealed with caulk or other sealing material.

Add Section:

3405.8 Weather Proof Panels Weather proof panels are not allowed in Bartlett as per City Of Bartlett Ordinance #93-14, Codified Ordinance #09-0604

Add Section:

3601.8 Unprotected Service Conductors Length Service entrance conductors without over current protection shall not be extended more than 15 feet inside a building measuring horizontal from the point of entrance.

Add To Section 3702:

3702.14 Any residential appliance or equipment rated at 1000 watts and any electric motor of ½ horse power 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 name plate 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. (Example: Microwave)

Add To Section 3703:

3703.3(A) 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.

Add To Section 3706:

3706.1 Weather Proof Panels Weather proof panels are not allowed in Bartlett as per City Of Bartlett Ordinance #93-14, Codified Ordinance #09-0604

Add Section:

3802.2.2.3 Installation Requirements; Cable Installation

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.

Add Section:

3802.2.2.4 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.

ELECTRICAL CODE

Add Section:

3802.2.2.5 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.

Add To Section 3901:

3901.4.2 Exception Island Receptacles. Receptacles are not required on *moveable* island counters without appliances. (SEE DEFINITIONS)

Add Section 3910:

3910 Fire Damage and Building Relocations Buildings moved from one location to another that are to be used as a single family dwelling shall meet the following requirements:

3910.1 Service entrance conductors shall be governed by new service rules.

Add Section:

3910.5 An inspection and written FIRE RULING must be obtained from the City Of Bartlett Code Enforcement Office prior to commencing work on fire damaged jobs.

Add Section:

IRC R314.4 Power for Smoke Detection Circuits Smoke Detectors required by the International Residential 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.

Chapter 17- Technical Rules Applicable To Residential Occupancies (One & 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 & 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 & 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 a yard or public on not less than two sides.

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

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. Wherever 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 wall 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 1711.2.9 - 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 1711.2.10 - 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 1711.2.11 - 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 1711.2.12 - 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 1711.2.13 - 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.

