

ELECTRIC CODE ARTICLE IV

CHAPTER 24

ELECTRIC CODE

ARTICLE I - REGULATIONS

24-1-1 **DEFINITIONS.** The term "electrical equipment" as used in this Chapter, means conductors and equipment installed for the utilization of electricity but does not include apparatus, conductors and other equipment installed by public utilities, including common carriers, which are under the jurisdiction of the Illinois Commerce Commission, for use in their operation as public utilities.

24-1-2 **ELECTRICAL COMMISSION.** There is hereby established an Electrical Commission which shall consist of **six (6) members**, as follows:

The Electrical Inspector who shall be ex-officio member of such commission; of the other **five (5) members, one (1)** shall be a registered electrical contractor; **one (1)** a journeyman electrician; **one (1)** a representative of an inspection bureau maintained by the fire underwriters (or Chief of the Fire Department); **one (1)** a consulting engineer; and **one (1)** a representative of an electrical utility company. Such member shall be appointed for a term of **four (4) years** by the Mayor with the advice and consent of the City Council. The Electrical Inspector shall serve on such Commission without additional compensation therefore. The members shall receive no compensation as members of the Commission.

24-1-3 **DUTIES OF ELECTRICAL COMMISSION.** The Electrical Commission shall recommend safe and practical standards and specifications for the installation, alteration and use of electrical equipment designed to meet the necessities and conditions that prevail in the City, shall ascertain by written and/or oral examination, the knowledge and experience of all applicants for registration all applicants who have satisfactorily passed the examination. They shall recommend reasonable rules and regulations governing the issuance of permits by the electrical inspection department. They shall recommend reasonable fees to be paid for permits and inspection by the electrical inspection department of all electrical equipment installed or altered within the City of Belleville. Such standards and specifications, rules and regulations and fees shall not become effective until adopted by ordinance by the City Council.

24-1-4 **ELECTRICAL INSPECTOR.**

(A) **Appointment.** There is hereby created the office of Electrical Inspector. The person chosen to fill the office of Electrical Inspector shall be a competent electrician of good moral character. He shall have had at least **five (5) years** experience as a journeyman in the practice of his trade, or **three (3) years** training in a recognized college of electrical

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engineering and in addition thereto, **two (2) years** of practical experience in electrical construction. He shall have knowledge of the statutes of the State of Illinois relating to electrical work and rules and regulation issued by the Fire Marshal of Illinois under authority of the safety rules and standards approved by the American Engineering Standards Committee. The Electrical Inspector shall be appointed by the Mayor, by and with the advice and consent of the City Council.

(B) **Salary.** The salary of the Electrical Inspector shall be set by the City Council.

(C) Any official or employee connected with the office of electrical inspector shall not engage in, directly or indirectly, with the furnishing of labor, materials or appliances for the construction, alteration or maintenance of electrical installations over which they may have official authority.

24-1-5 STANDARDS. No electrical equipment shall be installed or altered, except upon a permit issued by the Electrical Inspection Department.

24-1-6 PERMITS.

(A) Permits are required for all electrical installations, alterations and replacement of major appliances as detailed in **Section 24-1-12**. Permits are not required for minor electrical repairs and/or replacement of electrical wiring devices.

(B) Application for permit shall be made by the designated person of a firm to install all or any part of an electrical system. The applicant shall meet all qualifications established under this Chapter. The permit application for commercial or industrial jobs shall be accompanied by **four (4)** or more complete sets of construction drawings, specifications and construction documents. The applicant shall file adequate details of electrical work including computations, diagrams, and other essential technical data. All construction documents shall be signed and sealed by a registered design professional engineer. The electrical inspector is permitted to waive the requirements for filing construction documents when the scope of work is of a minor nature or can be adequately described by other means.

24-1-7 INSPECTIONS.

(A) The Electrical Inspector shall inspect and shall require that all installations conform to the current edition of the National Electrical Code as published by the National Fire Protection Association, Inc. and all subsequent editions and updates thereof.

(B) The Electrical Inspector shall have the right during reasonable hours to enter any building in the discharge of his official duties, for the purpose of making any inspection or test of the installation or alteration of electrical equipment contained therein, and shall have the authority to cause the turning off of all electrical currents and to cut or disconnect any conductors where such electrical currents are dangerous to life or property, or may interfere with the work of the Fire Department.

(C) Any reinspection made necessary by the installer's failure to meet this Code shall be charged for each additional inspection, the minimum fee as per fee schedule.

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24-1-8 **CERTIFICATE OF APPROVAL.** Upon the completion of the installation or alteration of electrical equipment in any building, it shall be the duty of the person installing or altering the same to notify the Electrical Inspector who shall inspect the work within **two (2) working days** after such notice is given, and if such electrical installation is found to be fully in compliance with this Code, he shall issue a Certificate of Approval authorizing connection to the electrical service. All wiring which is to be concealed shall be inspected and a Certificate of Approval issued before concealment and any person installing such wiring shall notify the Electrical Inspector giving him **two (2) working days** in which to make the required inspection before such wiring is concealed.

24-1-9 **NATIONAL ELECTRICAL CODE.** No certificate of approval will be issued unless the electrical installation is in strict conformity with the provisions of this Chapter, the statutes of the State of Illinois, and the 2005 edition of the National Electrical Code as published by the National Fire Protection Association, Inc. **(Ord. No. 7408; 07-06-10]**

24-1-10 **TIME OF INSPECTION.** The provisions for inspection of work authorized by the permits shall not be construed as prohibiting the inspection of any electrical installation whenever the Electrical Inspector shall determine that the public safety requires it.

24-1-11 **RECORDS.** The Electrical Inspection Department shall keep complete records of all permits issued and inspections made and other official work performed under the provisions of this Code.

24-1-12 **INSTALLATION REGULATIONS.**

(A) Where any building is undergoing remodeling, all changes to be made to the electrical installation must be reviewed with the Electrical Inspector and a permit obtained before the work proceeds.

(B) Permits shall be issued to licensed electrical contractors or a homeowner, provided the homeowner personally performs the electrical work and provided that the electrical work is to be installed in the home occupied by the owner and that the home is a single-family residence.

(C) Homeowner permits are not required for minor electrical repairs. Minor electrical repairs shall be defined as:

Replacement of outlets, switches, lampholders, light fixtures, fractional HP motors (of the same HP), (where replacement does not require any alteration of the existing wiring).

(D) Permits may also be issued to specialized contractors, bonded with the City, engaged in the business of installing major electrical appliances, solely for the reconnection of major appliances, furnaces, condensing units and water heaters from the existing disconnect mounted at or near the unit where the reconnection does not require any alteration of the existing wiring.

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(E) When a permit is issued, as provided herein, the Electrical Inspector will inspect such installation and will issue a certificate of approval if the installation meets the requirements of this Code.

24-1-13 FEES.

(A) The Electrical Inspector shall collect all fees in advance and shall turn all fees over to the City Treasurer and shall make a monthly report of fees to the City Council.

(B) Fees for Electrical Permits shall be based upon and as set forth on the accompanying Fee Schedule. In cases where any work for which an electrical permit is required has been started without the issuance of the necessary permit, the total fees as required for the permit shall be doubled. Permit fees are to be paid before the electrical permit shall be issued.

24-1-14 RIGHT OF APPEAL. Any permit holder not in agreement with the decision of the Electrical Inspector, shall have the right to appeal to the Electrical Commission of the City and the decision of the Electrical Commission shall be final in all cases. The Electrical Inspector shall not serve on the Board of Appeal.

24-1-15 USER CHANGES – AMERENUE TO NOTIFY CITY. Any month when there is a change of user of residential (rate 001) or non-residential (rate 043) electric service within the City, AmerenUE Company shall notify the Building Commission (or other appropriate official) of the City in writing within **seven (7) working days** after the end of the month of said changes, indicating the address and apartment or unit number in whose name the service is connected or billed. **(Ord. No. 6433; 06-17-02)**

ARTICLE II - RULES GOVERNING ELECTRICAL INSTALLATION

24-2-1 **GENERAL.** All work shall be done in a neat and workmanlike manner and it shall be unlawful for any person in any way to alter or change any electrical wiring or to knowingly permit such electrical wiring to be altered or changed unless done in conformity with this Code. **(Ord. No. 7301; 08-17-09)**

24-2-2 **ADDITIONAL LOAD ON EXISTING SERVICE.** Any and all additional load to an existing service shall be in complete compliance with the requirements of the current edition of the National Electrical Code then in effect.

24-2-3 **SERVICE ENTRANCES.** All service conductors shall be in complete compliance with the requirements of the National Electrical Code then in effect and the standards of the applicable utility company.

24-2-4 **SPECIFIC REQUIREMENTS FOR COMMERCIAL BUILDINGS.**
Specific requirements for commercial buildings which are not industrial buildings or buildings for specific occupancies shall include:

- (A) No ENT conduit, MC Cable or AC cable allowed.
- (B) All conduit run on the exterior of a building, must be rigid galvanized conduit or schedule 40 PVC unless subject to physical damage, in which case schedule 80 PVC or rigid galvanized conduit will be required.
- (C) Ground wire (#6 for 100 amp; #4 for 200 amp) to ground rods shall be installed in PVC conduit.
- (D) All overhead service masts (risers) shall be rigid galvanized conduit. All overhead service masts (risers) penetrating the roof shall be minimum of 2" rigid galvanized conduit.
- (E) Aluminum wire is not permitted except on the utility side of the metering device in which the service feeders are installed underground.
- (F) Service feeders and neutral shall be of equal size and rating.
- (G) No tandem breakers allowed in new installation.
- (H) All motor driven appliances must be on a separate circuit.
- (I) All commercial raceway shall be in approved conduit (thin wall or approved by electrical inspector).

(Ord. No. 7301; 08-17-09)

24-2-5 **SPECIFIC REQUIREMENTS FOR RESIDENTIAL BUILDINGS.**
Specific requirements for residential buildings shall include:

- (A) No ENT conduit, MC Cable or AC cable allowed.

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(B) All conduit run on the exterior of a building, must be rigid galvanized conduit or schedule 40 PVC unless subject to physical damage, in which case schedule 80 PVC or rigid galvanized conduit will be required.

(C) Ground wire (#6 for 100 amp; #4 for 200 amp) to ground rods shall be installed in PVC conduit.

(D) All overhead service masts (risers) shall be rigid galvanized conduit. All overhead service masts (risers) penetrating the roof shall be minimum of 2" rigid galvanized conduit.

(E) Aluminum wire is not permitted except on the utility side of the metering device in which the service feeders are installed underground.

(F) Service feeders and neutral shall be of equal size and rating.

(G) No tandem breakers allowed in new installations.

(H) All major appliances are to be on dedicated circuits, such as but not limited to:

refrigerator	freezer
washer	dryer (gas or electric)
furnace	all motor over ¼ HP
dishwasher	garbage disposal
garage door openers	sump pump
range hood/microwave	central vacuum
jacuzzi or whirlpool	air conditioner condensing unit
window air conditioner	P-Tac unit

(I) All wiring having a voltage of 50 volts, or higher, to neutral (ground) shall be minimum size 12 gauge wire. All non-metallic sheathed cable (romex) shall be a minimum of 12 gauge.

(J) Not more than **four (4) outlets** per circuit permitted in kitchen and dining area. All others, up to **eight (8) outlets** per circuit.

(K) A maximum of **three (3)** non-metallic sheathed cables (romex) will be permitted in any drilled hole.

(L) All branch circuits are to be sized to ampere rating of installed equipment. (12 gauge minimum sizes).

(M) Hallway shall have at least **one (1) receptacle** outlet.

(N) Minimum of **three (3)** spare, full sized, spaces shall be left in the panel for future on all new installations.

(O) Ground rods: copper-clad ground rods are required and shall be a minimum of 5/8" x 8' long.

(Ord. No. 7301; 08-17-09)

ARTICLE III – LICENSING OF ELECTRICAL CONTRACTORS

24-3-1 **DEFINITIONS.**

(A) **Electrical Contractor or Electrical Sign Contractor.** The term “electrical contractor”, as used in this Chapter, means any person, partnership, firm or corporation whose principal business is the installing or altering of electrical equipment, including persons engaged in the business of installing, erecting, or altering any electrical service or equipment and making service connections of material, wiring, fixtures, machinery, and other apparatus to be used, or in use for the generation and utilization of electricity, the transmission of light, lighting (direct or indirect), heat, air conditioning, or power in or on any building or premises in the City; or a person engaged in the installing, erecting or altering of electrical apparatus for remote controls or systems that are pertinent to public health or safety; or grounding or bonding of any type, including status or cathodic; and all raceways, or engaged in the installation, erecting, altering or maintenance of signs. This shall include, but not be limited to, all 120-volt or more circuits serving systems such as fire alarms, security device, and burglar alarms that interfere with building systems.

(B) **Electrical Sign Contractor.** The term “electrical sign contractor” as used in this Chapter means any person, partnership, firm or corporation who engages in the business of installing, erecting, altering or maintaining any electrical service or equipment relating to signs.

(C) **Designated Person.** Any person, partnership, firm or corporation seeking an electrical contractor’s or electrical sign contractor’s license shall designate an individual owner, partner, officer or full time employee to apply for, take, and pass the examination hereinafter described. The City may request proof that the person designated is an owner, partner, officer or full time employee. If the license fails to provide proof within **fourteen (14) days** of the request, the license may be revoked. The electrical contractor’s or electrical sign contractor’s license shall be issued to the person, partnership, firm or corporation designating the person and such license shall be valid as long as the designated person remains an owner, partner or officer of such firm and pays the annual registration fee prescribed hereinafter. Such designated person shall be deemed to be in charge of and responsible for the supervision of any electrical work performed in the City. An individual may serve as the designated person for only **one (1)** electrical contractor. The designated person shall produce such evidence as the Electrical Commission may require to establish that the individual is an owner, partner or officer of the corporation for which the individual is serving as the designated person. An individual serving as designated person for an electrical contractor shall not be employed by another electrical contractor effective **May 1, 2011**. **(Ord. No. 7408; 07-06-10)**

24-3-2 **LICENSE REQUIRED.** No person, partnership, firm or corporation shall engage in the business of electrical contractor or electrical sign contractor as defined above without first being licensed as an electrical contractor or electrical sign contractor as hereinafter set forth. **(Ord. No. 7408; 07-06-10)**

24-3-3 **BUSINESS REQUIREMENTS.** Each electrical contractor or electrical sign contractor licensed by the City shall meet each of the following requirements:

- (A) Have and maintain an established street addressed place of business.
- (B) Have and maintain a means to receive telephone calls at all times.
- (C) Have all service type vehicles engaged in the business visibly identified with the name of the business. **(Ord. No. 7408; 07-06-10)**

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24-3-4 **QUALIFICATIONS OF APPLICANTS.** The Electrical Commission shall receive, record, and preserve all applications from persons made for an electrical contractor's or electrical sign contractor's license. An applicant for an electrical contractor's or electrical sign contractor's license must be at least **twenty-one (21) years** of age and satisfy **one (1)** of the following requirements:

(A) Furnish written evidence that he or she is a graduate electrical engineer of an accredited college or university and has **one (1) year** practical electrical experience in the construction industry, or

(B) That he or she is a graduate of a recognized **two (2) year** electrical trade school or school of electrical technology or technical college and has at least **four (4) years** of practical experience on electrical work or has **one (1) year** of practical experience in planning, laying out, supervising, and installing wiring, apparatus, or equipment for electrical light, heat, and power beyond the practical experience requirements for a journeyman's license; or

(C) An applicant for an electrical contractor's license shall furnish written evidence that he/she has at least **six (6) years** of previous practical experience in personally installing, altering or repairing electric wiring for electric light, heat or power; an applicant for an electrical sign contractor's license shall furnish written evidence that he/she has at least **six (6) years** of previous practical experience in personally installing, erecting, altering or repairing electric service and electric equipment relating to signs. In lieu of previous practical experience, credit may be allowed for each academic year of successful completion of a recognized trade school if the majority of courses taken by the applicant were primarily directed at education in the electrical industry.

All applications shall be interviewed by the Electrical Commission to determine their qualifications. Letters of reference attesting to the applicant's practical experience shall be received by the Commission prior to the applicant being interviewed. **(Ord. No. 7408; 07-06-10)**

24-3-5 **APPLICATION PROCEDURES.**

(A) No person will be permitted to take the written examination without being first interviewed by the Electrical Commission. A schedule of meetings with the Electrical Commission will be provided to the applicants.

(B) An "Application for Electrical Contractor License" or "Application for Electrical Sign Contractor License" must be completed by the applicant that includes years of experience, background, education, etc. **(Ord. No. 7408; 07-06-10)**

(C) Upon completion of the application, the applicant will be scheduled to appear before the Electrical Commission to discuss his or her qualifications.

(D) A registration fee per attached Fee Schedule is required to be paid to the City in order to process the application to take the written examination.

(E) A separate registration fee per attached Fee Schedule is required to be made each time the individual plans to take the examination.

(F) Upon approval to sit for the examination, the applicant will be given an "Examination Registration Form" that is required to be submitted directly to an independent testing organization selected by the Electrical Commission with the appropriate examination fee. This registration form must be signed by an appropriate City official before it is mailed to the independent testing organization.

(G) Applicants will receive information directly from the independent testing organization on the specifics of the test site and location as well as other pertinent information. Each applicant must have an admission letter that will be presented at the test site in order to gain admittance to the examination.

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(H) Upon complying with the application procedures and payment of the non-refundable examination fee, the Electrical Commission shall cause the applicant to be examined by the independent testing organization. A minimum grade of **seventy-five percent (75%)** must be attained in order to qualify for licensing as an electrical contractor.

(I) The independent testing organization will provide the results of the examination to the City within approximately **three (3) to four (4) weeks** of the exam date. The applicant will be promptly notified of their exam results.

(J) If the applicant receives a passing grade on the examination, he or she will be required to seek the appropriate license from the City within **one (1) year** from date of test. After the Commission is satisfied the applicant has satisfied all requirements of this Chapter, permits may be granted and work initiated.

(K) The Electrical Commission may waive the written examination for an applicant for an electrical sign contractor's license upon proof that the applicant has at least **six (6) years** of satisfactory experience of installing, erecting, altering or maintaining electrical signs in the City before the establishment of the requirement of an electrical sign contractor's license by the City. **(Ord. No. 7408; 07-06-10)**

24-3-6 **FEES.**

(A) The annual fee for licensing shall be as set forth in the attached Fee Schedule. All licenses shall be renewable on **May 1** of each year. The Electrical Commission shall notify each licensee of the annual renewal of his or her license.

(B) **Bond Required.** Prior to being granted a license, the applicant shall file with the Electrical Commission an indemnifying bond with good and sufficient sureties and in the sum as set forth in the attached Fee Schedule. Such bond shall name as the insured the City for the use and benefit of any person with whom such applicant shall thereafter contract to do electrical work. This bond shall indemnify any such person for damages sustained because of the failure of the application to perform the work as contracted according to the articles and provisions of this Chapter. Such bond shall be written by a person, firm or corporation authorized to do business in the State of Illinois and shall be approved by the City prior to the issuance of an electrical license.

(C) **Renewals.** Each holder of a license shall renew his or her license on **May 1st** of each year. **(Ord. No. 6354; 12-03-01)**

24-3-7 **FAILURE TO PASS EXAMINATION.** Any applicant who fails the written examination shall be required to reapply to retake the examination.

24-3-8 **RECIPROCITY.** An Illinois electrical contractor who possesses a current and valid electrical license issued by another jurisdiction can perform electrical work in the City provided that the jurisdiction from which the contractor possesses a license has implemented a written testing procedure that is similar to the testing procedure of the City, as set forth hereinabove, and the contractor has achieved a passing grade of **seventy-five percent (75%)** and the qualifications for issuance of an electrical contractor's license from the other jurisdiction are the same or similar to the qualifications as set forth herein for the applicant. Evidence of the current license shall be submitted along with a certified letter from the testing agency indicating when the contractor had taken the test, what test was taken, and the grade

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that was received. After the documentation has been reviewed by the Electrical Commission and approved, the contractor will be required to obtain a license from the City before he can legally perform electrical work in the City. The Commission will only recognize those electrical contractors who have taken and achieved a passing score on a test similar to the one given in the City and only with those communities that have a reciprocal agreement with the City recognizing City electrical contractors' licenses. This same procedure may be followed with respect to electrical contractors who are licensed in another state who seek to obtain licensing in the City. The City may enter into reciprocal agreements with other municipalities in other states who recognize City of Belleville electrical contractors' licenses.

24-3-9 SUSPENSION OR REVOCATION OF LICENSE. The Electrical Commission, after a hearing with due notice to the licensee, may suspend or revoke the electrical contractor's or electrical sign contractor's license for violation of any of the following:

(A) Intentional violation of any of the provisions of this Electrical Code by any licensee.

(B) Misrepresentation of any material fact on the application or any misrepresentation in obtaining the license.

(C) Failure to perform electrical work in a good and workmanlike manner or performance of electrical work in a negligent manner or, if the licensee is found to be unfit or incompetent in performing electrical work for which the license has been issued.

(D) Allowing an electrical license to be used by another unauthorized person, partnership, firm or corporation for the purpose of obtaining permits or doing electrical work in the City.

(E) Allowing the designated person to whom the license was issued to serve as a designated person for more than **one (1) person**, firm, partnership or corporation.

(F) Being in arrears on payment of electrical permit fees or in arrears in payment of any of City of Belleville business license fees, tax levies, or other fees.

(G) Failure to maintain bond.

(H) Failure to satisfy continuing education or the equivalent as required in **Section 24-3-6(C)**.

(Ord. No. 7408; 07-06-10)

24-3-10 HEARING ON SUSPENSION OR REVOCATION OF LICENSE.

No electrical contractor's or electrical sign contractor's license shall be suspended or revoked until the licensee has been afforded an opportunity for a hearing before the Electrical Commission after notice of at least **ten (10) days**. Such notice shall be served either personally or by first-class mail, postage prepaid, to licensee's address of record and shall state the date, time, and place of hearing and set forth the charges

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against the licensee. The licensee shall have the opportunity to present evidence and/or witnesses before the Electrical Commission in person or by counsel. A record of the hearing shall be made by recording the same on a tape recorder. The Board shall issue a decision in writing, within **ten (10) days** of the conclusion of the hearing. The Electrical Commission may suspend or revoke the electrical contractor's or electrical sign contractor's license, in its sole discretion, based upon the severity of the offense committed. First offense may result in a suspension of up to **ninety (90) days** which shall continue until reinstated by order of the Board. Second offenses may result in a suspension period of up to **one hundred eighty (180) days** and shall continue until reinstated by order of the Electrical Commission. Subsequent offenses shall result in revocation of the license for a period of not less than **one (1) year**. Serious violations may result in revocation of the license immediately. **(Ord. No. 7408; 07-06-10)**

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(Ord. No. 7408; 07-06-10)