

CHAPTER 6 ELECTRICAL CODE

4-6-1. ADOPTION.

- (A) Pursuant to the authority granted by 65 ILCS 5/1-2-4, and pursuant to its home rule powers, the City of Evanston hereby adopts by reference the 2020 National Electrical Code, with the additions, deletions, exceptions, and other amendments set forth in this Chapter. All advisory or text notes, other than the rules and regulations contained in the 2020 National Electrical Code adopted hereby, are expressly excluded from this Chapter.
- (B) Any reference in the 2020 National Electrical Code to "Administrative Authority," "Building Official" or "Code Official" shall refer to the City's Manager of Building and Inspection Services Division. Any reference to "municipality" shall mean the City of Evanston.
- (C) In the event that any provision of the 2020 National Electrical Code adopted hereby is in conflict with any provision(s) of the City Code, the more/most stringent shall control.
- (D) There shall be a copy of the 2020 National Electrical Code kept on file for public inspection in the City Clerk's office.

4-6-2. Application of Regulations.

The regulations of said 2020 National Electrical Code shall apply to all matters concerning the construction, reconstruction, alteration, or installation of all electrical wiring apparatus, fixtures, machinery, or devices, and their service equipment, and shall apply to all existing or proposed buildings and structures in the City.

4-6-3. AMENDMENTS.

The 2020 National Electrical Code adopted hereby shall read as follows with respect to the indicated Sections.

Article 210.8 (A)(5), Ground-Fault Circuit-Interrupter Protection for Personnel

Exception to (5): Add sump pumps and ejector pumps

Article 210.11(3) Bathroom Branch Circuits: Delete the Exception.

Article 210.12 Arc-Fault Circuit-Interrupter Protection. (Revised to read as follows)

Arc- fault circuit-interrupter protection shall be provided as required in 210.12(A), (B), (C) and (D). The arc-fault circuit interrupter shall be installed in a readily accessible location.

(A) Dwelling Units. All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets and devices installed in dwelling units shall be protected by a listed arc-fault circuit interrupter, combination-type, installed to provide protection of the branch circuit.

(B) Dormitory Units. All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets and devices installed in dormitory units shall be protected as described in 210.12(A).

(C) Guest Rooms, Guest Suites and Patient Sleeping Rooms in Nursing Homes and Limited-Care Facilities. All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets and devices installed in guest suites, guest rooms of hotels and motels and patient sleeping rooms in nursing homes and limited-care facilities shall be protected as described in 210.12(A).

(D) Branch Circuit Extensions or Modifications – Dwelling Units, Dormitory Units, and Guest Rooms and Guest Suites. In any of the areas specified in 210.12(A), (B) or (C), where branch- circuit wiring is modified, replaced or extended, the branch-circuit shall be protected by one of the following:

- (1) A listed combination-type AFCI located at the origin or the branch circuit.
- (2) A listed outlet branch-circuit type AFCI located at the first outlet of the existing branch circuit.

Exception No. 1 to 210.12(A), (B), and (C): It shall be permitted to omit AFCI protection for that portion of the branch circuit enclosed in rigid metal conduit (RMC), flexible metal conduit (FMC), intermediate metal conduit (IMC), electrical metal tubing (EMT), or Type MI cable sheath meeting the requirements of 250.118 along with metal outlet and junction boxes.

Exception No. 2 to 210.12(D): It shall be permitted to omit AFCI protection for that portion of the branch circuit installed in rigid metal conduit (RMC), flexible metal conduit (FMC), intermediate metal conduit (IMC), electrical metal tubing (EMT), or steel sheathed cable, Type AC, Type MC, or Type MI cable sheath, meeting the requirements of 250.118, with metal outlet and junction boxes.

Exception No. 3 to 210.12(A), (B), (C) and (D): Where an individual branch circuit to a fire alarm system is installed in accordance with 760.41(B) or 760.121(B) is installed in rigid metal conduit (RMC), intermediate metal conduit (IMC), electrical metal tubing (EMT), or Type MI Cable sheath meeting the requirements of 250.118, with metal outlet and junction boxes, AFCI protection shall be permitted to be omitted.

Informational Note No. 1: For information on types of arc-fault circuit interrupters, see UL 1699, Standard for Arc-Fault Circuit Interrupters.

Informational Note No. 2: See 11.6.3(5) of NFPA 72, National Fire Alarm and Signaling Code, f

Article 210-70 Lighting Outlets Required (A)(2): (Add the following)

- (4)** All exterior lighting shall be designed, shielded and directed so that direct light from the lamp does not cause light trespass and protects adjacent properties and public ways from glare and excessive lighting. Light level at any property line is limited to one-half (0.5) foot-candle unless otherwise regulated by city code.

Exception:

1. Security lighting: Exterior lighting installed primarily for safety or emergency shall be permitted provided that said lighting is solely for security and activated by a motion or a controlled system and shall be extinguished within 5 minutes of cessation of actual or perceived emergency.
2. Holiday lighting: Subject to NFPA 70 National Electric Code regulations as adopted and amended by the City of Evanston.

Article 230 Services: Add the following: "The maximum number of branch circuits allowed for a 100-amp, 120/240 volt, single phase service is thirty (30). The maximum number of branch circuits allowed for a 200-amp, 120/240 volt, single phase service is sixty (60)."

Article 230 Services: Add the following: "No additional fuse or breaker boxes shall be installed without the prior written approval of the city's Electrical Inspector."

Article 250.62: Grounding Electrode Conductor Material: Delete the words "Aluminum" and "Copper Clad Aluminum."

Article 334 Nonmetallic Sheathed Cable: Types NM, NMC, and NMS: Delete.

Article 338 Service Entrance Cable: Types SE and USE: Delete.

Article 352 Polyvinyl Chloride Conduit: Type PVC 352.12(A) Concealed: PVC conduit shall only be concealed in the following manner: direct buried below grade, in slab below grade, in slab at and above grade. PVC conduit stub ups where subject to physical damage shall be RMC, IMC, or EMT.

Article 362 Electrical Nonmetallic Tubing: Types ENT: Add the following:

- 1) Shall not be used for Electrical Power and Lighting Circuits.
- 2) When not concealed inside walls and ceilings, only Plenum Rated ENT shall be installed.

Appeals: Delete.

4-6-4. PERMIT FEES.

Fees for electrical constructions, reconstructions, alterations or installations as required by the 2020 National Electrical Code adopted hereby, shall be those established from time to time by ordinance of the City Council. The fee for the installation of standby generators shall be the same as the fee for that size of service.

4-6-5. PERMITS; INVALIDITY.

Reference 2021 International Building Code Section 105 Permits as amended.

4-6-6. ADDITIONAL REGULATIONS.

- (A) *Treatment of Aluminum Wire:* All aluminum wire installed in any installation shall be wire brushed and treated with a compound according to manufacturers' recommendations.
- (C) *Luminaires:* Luminaires two square feet (2 ft²) and larger located in framing members of a suspended ceiling shall be supported to the structure by a minimum of two (2) pencil rods or other approved means.
- (D) *Receptacle Outlets:* Receptacle outlets connected to small appliance branch circuits, as required by Art. 210.52(B)(1), shall be 20 amp rated devices.

4-6-7. ELECTRICAL CONTRACTORS.

- (A) **Definition:** The term "electrical contractor", as used in this section, means any person, firm, or corporation engaged in the business of installing or altering by contract electrical equipment for the utilization of electricity for light, heat, or power. But the term "electrical contractor" shall not include:
 - 1. The installing or altering of radio apparatus or equipment for wireless reception of sounds and signals; or
 - 2. The installing or altering of apparatus, conductors, or other equipment installed for or by public utilities, including common carriers, which are under the jurisdiction of the Illinois commerce commission, for use in their operation as public utilities; or
 - 3. Employees employed by an electrical contractor to do or supervise his work.
- (B) **Registration Required:** No person shall engage in the business of electrical contracting within the City without first having registered with the Building Official. Reference 4-2-3 Building Contractors of City Code Title 4 – Building Regulations.

Exceptions:

- 1. Nothing contained in this section shall prohibit the owner-occupant of a single-family residence from planning, installing, altering, or repairing the electrical system of such residence, provided that said owner-occupant complies with all ordinances, rules and regulations of the City, and provided further, that any such owner-occupant may not employ any person other than an electrical contractor registered with the City to assist him in such work. An affidavit certifying installation by owner and familiarity with the provisions of the 2020 National Electrical Code is required prior to permit issuance.

4-6-8. PENALTIES.

Reference 4-2-4 Penalty for Violations of City Code Title 4 – Building Regulations.

4-6-9. - SEVERABILITY.

It is the intention of the City Council that the provisions of this Chapter and the Code adopted hereby are severable and the invalidity of any Section or any portion of any such Section of either of them shall not affect any other Section.

4-6-10. – IDENTIFICATION OF ORDINANCE WITH THE ILLINOIS CAPITAL BOARD.

The adoption of this Ordinance and code, by title and edition, shall be reported to the Illinois Capital Development Board Illinois or any successor agency of the State of Illinois pursuant to Section 1-2-3.1 of the Illinois Municipal Code, 65ILCS 5/1-2-3.1.

4-6-11. – EFFECTIVE DATE.

This Ordinance shall be in full force and effect thirty (30) days after its approval and passage.