

AN ORDINANCE
ADOPTING THE NFPA 70 NATIONAL ELECTRIC CODE, 2020 EDITION,
AS THE ELECTRICAL CODE FOR THE CITY OF ELGIN

WHEREAS, the City of Elgin is a home rule unit pursuant to the Constitution of the State of Illinois and, as a home rule unit, may exercise any power and perform any function pertaining to its government and affairs; and

WHEREAS, the regulation of electric systems, conductors and equipment utilized in building and construction activities within the City relates to the public health, safety and welfare, and pertains to the government and affairs of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ELGIN, ILLINOIS:

Section 1. That Chapter 16.24 entitled "Electrical Code" of the Elgin Municipal Code, be and is hereby repealed.

Section 2. That Chapter 16.24 entitled "Electrical Code" be and is hereby added to the Elgin Municipal Code, to read as follows:

"Chapter 16.24
ELECTRICAL CODE

Sections:

16.24.010	Adopted-Exceptions.
16.24.020	Definitions.
16.24.030	Department of Code Administration.
16.24.040	Permits-Required.
16.24.050	Registrations of Electrical Contractors.
16.24.060	Inspections Required.
16.24.070	Adoption of Local Utility Company Information and Requirements for Supply of Electric Service.
16.24.080	Additions, Insertions and Changes.
16.24.090	Conflicts With Other Provisions.

16.24.010 ADOPTED-EXCEPTIONS.

That a certain document, one (1) copy of which is on file in the office of the City Clerk of the City of Elgin, being marked and designated as the NFPA 70 *National Electric Code*, 2020 Edition, as published by the National Fire Protection Association, be and is hereby adopted as and shall be known as the Electrical Code of the City of Elgin, regulating and governing installations of electric

conductors and equipment within or on public or private buildings or other structures, including mobile homes, recreational vehicles, and floating buildings, and other premises such as yards, carnival, parking and other lots, and industrial substations; and each and all of the regulations, provisions, penalties, conditions and terms of the NFPA 70 *National Electric Code*, 2020 Edition, are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes prescribed in this chapter. It shall be mandatory that all equipment, material, devices, and appliances covered by the provisions of this code shall be tested and listed by a standard testing laboratory, of nationally accepted stature, which performs services equal to, or greater than, those performed by the Underwriters Laboratories, Inc. In those instances where it is impossible to receive such a listing or label, the Community Development Department shall make the determination of acceptability.

16.24.020 DEFINITIONS.

The following words and phrases used in this Chapter shall have and include the several meanings given in this section:

CODE OFFICIAL: The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

ELECTRICAL CONTRACTOR: Any person, firm, or corporation engaged in the business of installing or altering by contract, electrical equipment for the utilization of electricity supplied for light, heat, or power, not including 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; but the term “electrical contractor” does not include employees employed by any person, firm, or corporation to do or supervise such work.

ELECTRICAL EQUIPMENT: Conductors and equipment installed for the utilization of the electricity supplied for light, heat, or power, but does not include radio apparatus or equipment for wireless reception of sounds and signals, and does not include apparatus, conductors and 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.

OWNER-OCCUPANT: Any person who is the owner and occupant of a single-family detached residence, not being used for any rental purposes, where specific electrical work is to be done.

16.24.030 COMMUNITY DEVELOPMENT DEPARTMENT.

The Community Development Department is responsible for enforcing the rules and regulations relating to the installation and alteration and use of all electrical equipment, as herein provided.

16.24.040 PERMITS REQUIRED.

- A. Any person, firm or corporation installing or altering electrical equipment shall apply to the Community Development Department for an electrical permit. Electrical plans and specifications for proposed installation or alteration of multiple family dwellings (three (3) or more units), commercial or industrial buildings, structures or equipment, must be submitted to the Community Development Department for approval and shall be sealed by a registered architect or professional engineer. The approved plans shall be available on the job site at all times.
- B. Permits for work performed under this code may be issued only to registered electrical contractors or to the owner-occupant of single-family detached residences doing their own work, except that all service installations and upgrades shall be done by registered electrical contractors. Electrical contractors shall furnish bona fide proof of their current electrical contractor's registration. Owner-occupants shall satisfy the pre-qualification provisions of the City prior to being granted a permit.

16.24.050 REGISTRATION OF ELECTRICAL CONTRACTORS.

- A. Any person, firm or corporation engaging in the business of electrical contracting shall be registered in a city or village located within the State of Illinois that tests consistent with the standards of the National Electrical Code.
- B. Any person desiring to engage in the business of electrical contracting may make a written application, pay a nonrefundable examination fee in the amount as provided in the most recently enacted ordinance establishing fees for various city services, permit, licenses, use of facilities and other matters, and pass an examination, as provided by the electrical committee. Upon passing the examination, the committee shall transmit their approval to the Community Development Department who shall issue a certificate of registration to the applicant upon payment of an annual registration fee in the amount as provided in the most recently enacted ordinance establishing fees for various city services, permit, licenses, use of facilities and other matters.
- C. Electrical contractor registrations and permit privileges may be reviewed and approved, revoked or retested for reasonable cause, at any time by the electrical committee.
- D. Prior to being allowed to take the City of Elgin Electrician License Exam, an applicant must provide written verification from a currently licensed Illinois electrician who has been tested on NFPA 70 National Electrical Code, stating that the applicant has a minimum of four years full-time, hands-on experience working in the electrical trade.

16.24.060 INSPECTIONS REQUIRED.

- A. Electrical work shall be inspected prior to being concealed or covered, and upon completion of the work. Failure to receive an approved required inspection shall result in the uncovering or opening up of the area for inspection of the work at the direction of the code official. All safety and code compliance of work performed shall be the continuing responsibility of the permit applicant. A final inspection approval is required by the City

of Elgin. The permit applicant shall be responsible for insuring that a final inspection is completed by the City of Elgin's appropriate inspector immediately upon completion of the permitted project. A permit which does not show any inspection to confirm continuing work for over a six (6) month period shall be considered expired. A renewal fee may be paid to extend the permit prior to its expiration.

- B. When a temporary or permanent service is installed, the applicant shall request an inspection. The code official shall then notify the local utility upon approval of the work.
- C. The Community Development Department shall be notified eight (8) regular working hours in advance for service, underslab, rough and final inspection. When the work has been approved, a notice of approval will be posted on or in the building.
- D. All institutional, commercial and industrial occupancies, using electricity for lighting, heating and/or power, may be subject to inspection at least annually. The Community Development Department shall furnish the person, firm or corporation occupying or in charge of the premises inspected, a written notice of any required changes or alterations required. Such changes or alterations shall be made within thirty (30) days after receipt of such written notice. If, in the opinion of the code official, such changes shall be made sooner, such notice providing for the time in which to make such changes or alterations shall be given. The changes or alterations required by such notice shall be re-inspected by the code official.

16.24.070 ADOPTION OF LOCAL UTILITY COMPANY INFORMATION AND REQUIREMENTS FOR THE SUPPLY OF ELECTRIC SERVICE.

The provisions of the rules and regulations regarding the installations, alteration, and use of electrical equipment as last adopted by the electrical supply company now supplying the city are hereby made a part of this chapter. A copy of such rules and regulations shall be on file in the Department of Code Administration.

Adoption of metering sequences and location of metering equipment: The provisions of the rules and regulations regarding the installation, alteration, and use of metering equipment as last adopted by the local utility company now supplying the city and identified as Operating Instruction are hereby made a part of this chapter; a copy of such rules and regulations shall be on file in the office of the Community Development Department.

16.24.080 ADDITIONS, INSERTIONS AND CHANGES.

The National Electrical Code 2020 (NFPA 70) is amended and revised in the following respects:

Section 110.24(A) Field Marking, shall be amended to read as follows:

Service equipment in other than dwelling units shall be legibly marked in the field with the maximum available fault current. The field marking(s) shall include the date the fault current calculation was performed, the correct fault current per the review at that time, the

maximum available fault current, and be of sufficient durability (as determined by the building official) to withstand the environment involved.

Section 210.8(A)(1), shall be amended to read as follows:

Bathrooms, provided that the tripping of this GFCI device shall not leave the entire room or area in the dark.

Section 210.8(A)(5), shall be amended to read as follows:

Basements

Exception to (5): Sump pump and battery back-up equipment outlets shall be permitted to be on a dedicated non-GFCI device.

Section 210.12(A) Dwelling Units, shall be amended to read as follows:

All 120-volt, single phase, 15- and 20- ampere branch circuits supplying receptacle outlets installed in dwelling unit bedrooms shall be protected by a listed arc-fault circuit interrupter, combination type, installed to provide protection of the branch circuit. Exception: AFCI protection shall not be required for remodeling projects.

Section 210.12(B) Dormitory units, shall be amended to read as follows:

All 120-volt, single phase, 15- and 20- ampere branch circuits supplying receptacle outlets installed in dormitory unit bedrooms shall be protected by a listed arc-fault circuit interrupter, combination type, installed to provide protection of the branch circuit. Exception: AFCI protection shall not be required for remodeling projects.

Section 210.52(D) Bathrooms, shall be amended to read as follows:

In dwelling units, at least one receptacle outlet shall be installed in bathrooms within 900 mm (3 ft) of the outside edge of each basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop, or installed on the side or face of the basin cabinet not more than 300 mm (12 in) below the countertop.

Section 210.52(G) Basements, Garages, and Accessory Buildings, shall be amended to read as follows:

At least one receptacle outlet, in addition to those for specific equipment, shall be installed in the areas specified in 210.52(G)(1) through 210.62(G)(3).

Section 210.52(G)(1) Garages, shall be amended to read as follows:

In each attached garage and each detached garage. At least one receptacle outlet shall be installed in each bay and not more than 1.7 m (5 1/2 ft) above the floor. The branch circuit supplying this receptacle(s) shall not supply outlets outside of the garage.

Exception: Garage spaces not attached to an individual dwelling unit of a multifamily dwelling shall not require a receptacle outlet in each vehicle bay.

Section 210.70(A)(2)(2), shall be amended to read as follows:

For dwelling units, attached garages and detached garages, at least one wall switch controlled lighting outlet shall be installed to provide illumination on the exterior side of outdoor entrances or exits with grade level access. A vehicle door in a garage shall not be considered as an outdoor access.

Section 210.70(A)(2)(5), shall be created to read as follows:

Additional Light Fixtures: A light shall be installed directly over every kitchen sink, bathroom lavatory, and utility sink, in addition to the general lights in the room. Each clothes closet or storage area of 6 square feet or larger shall have a ceiling light. Walk-in closets shall have a light controlled by a wall switch. Stairways, halls, passageways, corridors, garages, patios, basements, and rooms accessible by more than one (1) entry or exit shall have a ceiling light or outlet controlled by three-way or four-way switches. Basements or cellars shall have one (1) lighting outlet for each 300 square feet, or fraction thereof. At every outlet used exclusively for lighting, the box shall be designed to conform to the requirements of Section 314.27(C) excluding hallways, bathrooms, closets, and pantries. .

Section 225.27 Raceway Seal, shall be amended to read as follows:

Where a raceway enters a building or structure from an underground distribution system, it shall be sealed in accordance with 300.5(G) with a listed duct seal. Spare or unused raceways shall also be sealed. The duct seal shall be identified for use with the cable insulation, conductor insulation, bare conductor, shield, or other components.

Section 225.31 Disconnecting Means, shall be amended to read as follows:

Means shall be provided for disconnecting all ungrounded conductors that supply or pass through the building or structure. Detached garages, sheds and/or accessory structures shall be provided with this disconnecting means, which shall be properly labeled.

Section 225.32 Location, shall be amended to read as follows:

The disconnecting means shall be installed either inside or outside of the building or structure served or where conductors pass through the building or structure. The disconnecting means shall be at a readily accessible location nearest the point of entrance of the conductors. For the purposes of this section, the requirements in 230.6 shall be utilized. None of the below exceptions shall apply to residential applications.

Exception No. 1: For installations under single management, where documented safe switching procedures are established and maintained for disconnection, and where the

installation is monitored by qualified individuals, the disconnecting means shall be permitted to be located elsewhere on the premises.

Exception No. 2: For buildings or other structures qualifying under the provisions of Article 685, the disconnecting means shall be permitted to be located elsewhere on the premises.

Exception No. 3: For towers or poles used as lighting standards, the disconnecting means shall be permitted to be located elsewhere on the premises.

Exception No. 4: For poles or similar structures used only for support of signs installed in accordance with Article 600, the disconnecting means shall be permitted to be located elsewhere on the premises.

Section 230.8 Raceway Seal, shall be amended to read as follows:

Where a raceway enters a building or structure from an underground distribution system, it shall be sealed in accordance with 300.5(G) with a listed duct seal. Spare or unused raceways shall also be sealed. The duct seal shall be identified for use with the cable insulation, shield, or other components.

Section 230.9(D) Other Clearances, shall be created to read as follows:

A minimum spacing of 900 mm (3 ft) shall be maintained between the electric meter or outside disconnect and the gas meter. A minimum of 6 inches of clearance shall be maintained from the arc of any swinging door. Meters shall not be installed over a sidewalk, driveway, or paved areas without protective barriers. Meters are not to be installed in locations susceptible to vehicle damage.

Section 230.25 Service Masts, shall be created to read as follows:

Service masts or risers shall be a minimum of 1-1/4 inches in size. Additionally, when used as a support for the service drop, service risers up to 100 amps shall be a minimum 2-1/2 inches in size and shall be a minimum 3 inches in size over 100 amps, and shall be (steel) rigid metal conduit.

Section 230.27 Means of Attachment, shall be amended to read as follows:

Multiconductor cables used for overhead service conductors shall be attached to the building or other structures by fittings identified for use with service conductors. Roof plates shall not be used as a service drop support.

Section 230.30(B) Wiring Methods, shall be amended to delete items (3), (7), (8), (9) and (10).

Section 230.31(B) Minimum Size, shall be amended to read as follows:

The conductor shall not be smaller than 8 AWG copper.

Exception: Conductors supplying only limited loads of a single branch circuit – such as small polyphase power, controlled water heaters, and similar loads – shall not be smaller than 12 AWG copper.

Section 230.43 Wiring Methods for 1000 Volts, Nominal, or Less, shall be amended to read as follows:

Service entrance conductors shall be installed in accordance with the applicable requirements of this Chapter 16.24, as amended, covering the methods used and shall be limited to the following methods:

1. Rigid Metal Conduit.
2. Intermediate Metal Conduit.
3. Wireways.
4. Busways.
5. Auxiliary Gutters.
6. Rigid Polyvinyl Chloride (PVC) Conduit.
7. Cablebus.
8. Flexible metal conduit not over 1.8 m (6 ft) long or liquidtight flexible metal conduit not over 1.8 m (6 ft) long between raceways or between raceway and service equipment, with equipment bonding jumper routed with flexible metal conduit or the liquidtight flexible conduit according to provisions of Section 250.102(A), (B), and (C).
9. High density polyethylene conduit (HDPE) allowed for directional boring only.

Section 230.44 Cable Trays, shall be deleted in its entirety.

Section 230.45 Overhead Conductors, shall be created to read as follows:

Duplex service conductors shall provide a minimum of two (2) #1 AWG and one (1) #2 AWG copper conductors. All single family and duplex dwellings requiring separate riser installations shall have a minimum service capacity of two (2) #2 and one (1) #3 copper conductors. There shall be no junction or outlet boxes in a service run. Weather tight fittings shall be used in service runs from the service head to the meter cabinets. Revision of services shall conform to new service requirements. Junction boxes are allowed when approved by the building official prior to installation.

Section 230.46 Spliced and Tapped Conductors, shall be amended to read as follows:

Service entrance conductors shall be continuous (without splices), from the service head to the meter fitting and service disconnecting means.

Section 230.63 Service Upgrades, shall be created to read as follows:

When services are upgraded in existing residential occupancies, all new and existing wiring in exposed areas shall be installed in conduit. Existing flexible wiring methods concealed in walls may be exposed for a maximum 18 inches in exposed areas in order to connect to new wiring system. Existing electrical systems which are of inadequate capacity shall be replaced with a new system or shall be supplemented with new wiring and equipment, as necessary, to meet the requirements of this code.

Note: Service revisions not requiring a new service panel may continue the use of tandem breakers; all other revisions will conform to new service requirements.

Section 230.70(A)(1) Readily Accessible Location, shall be amended to read as follows:

The service disconnecting means shall be installed at a readily accessible location either outside a building or structure or inside the nearest point of entrance for the service conductors. When installed inside, the nearest point shall be defined as that point using not more than 5 feet of IMC or other approved raceway.

Section 230.72(C) Access to Occupants, shall be amended to read as follows:

In a newly constructed or remodeled multi-occupancy building, each occupant shall have access to the occupant's service disconnecting means. Each service main, or branch feeder, disconnect must be marked so it is easily identified as to which unit is being served by that disconnect.

Exception: In a multiple-occupancy building where electric service and electrical maintenance are provided by the building management and where these are under continuous building management supervision, the service disconnecting means supplying more than one occupancy, shall be permitted to be accessible to authorized management personnel only.

Section 230.79(C) One-Family Dwellings, shall be amended to read as follows:

For a one-family dwelling, as well as all other permanent dwelling units, the service disconnecting means shall have a rating of not less than 100 amperes, 3-wire. A minimum twenty (20) space branch circuit panel is required; four (4) breaker spaces shall be provide for future use. Split bus and tandem breakers are prohibited. Panel schedules and load calculations shall be required for each installation.

Section 240.4(H) Circuit Panels, shall be created to read as follows:

Except as specifically approved by the electrical inspector, each occupancy shall be provided with fuse or circuit breaker type branch circuit over current devices for the number of circuits as required to serve the minimum load stated herein, except that for single-family dwellings the minimum shall not be less than one (1) circuit for every 350 square feet, or fraction thereof, of floor area. The floor area shall be computed from the outside dimensions of the building or area involved, including one-half (1/2) the area of

the basement, enclosed porches, garages, and breezeways.

Section 240.91(B) Devices Rated Over 800 Amperes, shall be deleted in its entirety.

Section 250.52(B) Not Permitted for Use as Grounding Electrodes, shall be amended to read as follows:

The following systems and materials shall not be used as grounding electrodes:

- (1) Metal underground gas piping.
- (2) Aluminum.
- (3) Building fire sprinkler system.

Section 250.53(A)(3) Supplemental Electrode, shall be amended to read as follows:

If multiple rod, pipe, or plate electrodes are installed to meet the requirements of this section, they shall not be less than 1.8 m (6 ft) apart. In residential installations, that portion of the grounding electrode conductor between the grounding electrodes shall be protected by an approved raceway. Ferrous metal raceways shall be bonded to the grounding electrode conductors at both ends. PVC raceways shall be required to be schedule 80.

Section 250.62 Grounding Electrode Conductor Material, shall be amended to read as follows:

The grounding electrode conductor shall be of copper. The material shall be resistant to any corrosive condition existing at the installation or shall be protected against corrosion. The conductor shall be solid or stranded and insulated. This conductor shall be routed to avoid physical damage.

Section 250.64(A) Aluminum or Copper-Clad Aluminum Conductors, shall be deleted in its entirety.

Section 250.118 Types of Equipment Grounding Conductors, shall be amended to read as follows:

An equipment grounding conductor shall be run in all raceways for all types of construction. This conductor shall be bonded to all metal boxes, wiring devices, motors, utilization equipment, and all devices requiring grounding. The conductors shall be as follows:

- (1) A copper conductor, solid or stranded, with green insulation or green insulation with one or more continuous yellow stripes.
- (2) Cablebus framework as permitted in Section 370.60.

Section 250.120 Equipment Grounding Conductor Installation, shall be amended to read as follows:

An equipment grounding conductor shall be installed in accordance with Section 250.

120(A) and (C). This equipment grounding conductor shall be green insulated, or green insulated with one or more continuous yellow stripes, either solid or stranded, sized in accordance with Table 250.122.

(A) Cablebus. Where it consists of a cablebus framework, or where it is a wire within a raceway, it shall be installed in accordance with the applicable provisions in this *Code* using fittings for joints and terminations approved for use with the type of raceways used. All connections and joints shall be made tight using suitable tools.

(B) Aluminum and Copper-Clad Aluminum Conductors. [Deleted].

(C) Equipment Grounding Conductors Smaller Than 6 AWG. Where not routed with circuit conductors as permitted in Sections 250.130(C) and 250.134(B) Exception No. 2, equipment grounding conductors smaller than 6 AWG shall be protected from physical damage by an identified raceway or cable armor unless installed within hollow spaces of framing members of the building or structures and where not subject to physical damage.

Section 250.146 Connecting Receptacle Grounding Terminal to an Equipment Grounding Conductor, shall be amended to read as follows and subparagraphs (A) through (C) shall be deleted:

An equipment bonding jumper shall be used to connect the grounding terminal of a grounding type receptacle to a metal box that is connected to an equipment grounding conductor unless grounded as in Section 250.146(D). The equipment bonding jumper shall be sized in accordance with Table 250.122 based on the rating of the overcurrent device protecting the conductors.

(D) Isolated Receptacles. Where installed for the reduction of electrical noise (electromagnetic interference) on the grounding circuit, a receptacle in which the grounding terminal is purposely insulated from the receptacle mounting means shall be permitted. The receptacle grounding terminal shall be connected to an insulated equipment grounding conductor run with the circuit conductors. This equipment grounding conductor shall be permitted to pass through one or more panelboards without a connection to the panelboard grounding terminal bar as permitted in 408.40, Exception, so as to terminate within the same building or structure directly at an equipment grounding conductor terminal of the applicable derived system or service. Where installed in accordance with the provisions of this section, this equipment grounding conductor shall also be permitted to pass through boxes, wireways, or other enclosures without being connected to such enclosures.

Section 300.22(B) Ducts Specifically Fabricated for Environmental Air, shall be amended to read as follows:

Equipment, devices and the wiring methods specified in this section shall be permitted within such ducts only if necessary for the direct action upon, or sensing of, the contained air. Where equipment or devices are installed and illumination is necessary to facilitate

maintenance and repair, enclosed gasketed-type luminaires shall be permitted. Only wiring methods consisting of electrical metallic tubing, flexible metallic tubing, intermediate metal conduit, or rigid metal conduit without an overall nonmetallic covering shall be installed in ducts specifically fabricated to transport environmental air. Flexible metal conduit shall be permitted, in lengths not to exceed 1.2 m (4 ft.), to connect physically adjustable equipment and devices permitted to be in these fabricated ducts. The connectors used with flexible metal conduit shall effectively close any openings in the connection.

Section 300.22(C)(1) Wiring Methods, shall be amended to read as follows:

The wiring methods for such other spaces shall be limited to factory-assembled multi-conductor control or power cable that is specifically listed for use within an air-handling space, or listed prefabricated cable assemblies of metallic manufactured wiring system without nonmetallic sheath. Other types of cables, conductors, and raceways shall be permitted to be installed in electrical metallic tubing, intermediate metal conduit, rigid metal conduit without an overall nonmetallic covering, and metal flexible conduit.

Section 300.22(C)(2) Cable Tray Systems, shall be amended to read as follows:

Metal cable tray systems in other spaces used for environmental air (plenums), where accessible, shall be used to support low voltage cables only.

Section 300.50(A) General, shall be amended to read as follows:

Underground conductors shall be installed in approved raceways and shall be identified for the voltage and conditions under which they are installed.

Section 310.15(C)(1)(c) Adjustment Factors, shall be amended to read as follows:

Adjustment factors shall not apply to underground conductors entering or leaving an outdoor trench if those conductors have physical protection in the form of rigid metal conduit, intermediate metal conduit or rigid polyvinyl chloride conduit (PVC).

Section 310.15(D), shall be deleted in its entirety

Section 310.15(E), shall be deleted in its entirety

Section 311.12(B) Conductor Material, shall be amended as follows:

Conductors in this article shall be of copper unless otherwise approved.

Section 314.24 Depth of Boxes, the first sentence only shall be amended to read as follows:

Outlet and device boxes shall have sufficient depth to allow equipment installed within them to be mounted properly and without likelihood of damage to the conductors within the box. Boxes shall not be less than 1-1/2 inches in depth unless it would be impossible,

due to the construction of the building.

Section 314.26 Boxes Allowed, shall be created to read as follows:

Where construction does not allow a 4 inch square box with suitable cover, a single “gem” box not less than 2 inches in depth may be used, provided not more than one raceway enters the box. Ganging of gem boxes is prohibited in new or exposed construction. “Handy” boxes are not allowed.

(A) Octagon Boxes. A 4 inch octagon box, minimum depth of 1-1/2 inches, may be used in the following:

1. In unfinished basements and garages when using porcelain light receptacles or swivel type covers with rigid conduit stem to the light bulb socket, provided that not more than 2 knock-outs are used.
2. Commercial or industrial lighting used in similar installations to Item #1 above.
3. For low-voltage alarm or fire protection systems.

A listed octagon box shall be used for paddle/ceiling fans where specifically designed for that purpose.

Section 314.27(A)(2) Ceiling Outlets, shall be amended to read as follows:

At every outlet used exclusively for lighting, the box shall be designed to conform to the requirements of Section 314.27(C) excluding hallways, bathrooms, closets, and pantries.

Article 320 Armored Cable: Type AC, shall be deleted in its entirety.

Article 322 Flat Cable Assemblies: Type FC, shall be deleted in its entirety.

Article 324 Flat Conductor Cable: Type FCC, shall be deleted in its entirety.

Article 326 Integrated Gas Spacer Cable: Type IGS, shall be deleted in its entirety.

Article 330.10 (A) General Uses, shall be amended to read as follows:

- (1) Type MC cable may be used on commercial remodeling projects, in a 12 feet maximum length drop, from the first junction box to a suspended light fixture in an existing suspended ceiling grid.
- (2) Type MC cable may be used on residential remodeling projects to daisy-chain new recessed lighting can fixtures into an existing ceiling system. A maximum of 2 cables per lighting fixture is allowed.
- (3) Type MC cable may be used on residential remodeling projects in a 12 feet maximum length within an existing wall with no access other than removing the wall board.
- (4) Type MC cable is not allowed in new construction.

Article 332 Mineral-Insulated, Metal-Sheathed Cable: Type MI, shall be deleted in its entirety.

Article 334 Nonmetallic-Sheathed Cable: Types NM, NMC, and NMS, shall be deleted in its entirety.

Article 336 Power and Control Tray Cable: Type TC, shall be deleted in its entirety.

Article 338 Service-Entrance Cable: Types SE and USE, shall be deleted in its entirety.

Article 340 Underground Feeder and Branch-Circuit Cable: Type UF, shall be deleted in its entirety.

Section 348.10 Uses Permitted, shall be amended to read as follows:

FMC shall be permitted to be used in exposed and concealed locations. Its use is limited to 6 feet in length. Where FMC is being “fished” into existing non-exposed walls a length in excess of 6 feet may be used where approved by the building official prior to installation.

Section 350.10 Uses Permitted, shall be amended to read as follows:

LFMC shall be permitted to be used, with an equipment ground installed, in exposed or concealed locations as follows:

- (1) Where conditions of installation, operation, or maintenance require flexibility or protection from liquids, vapors, or solids.
- (2) As permitted by 501.10(B), 502.10, 503.10, 504.20 and in other hazardous (classified) locations where specifically approved, and by 553.7(B).
- (3) For direct burial where listed and marked for the purpose.
- (4) LFMC is limited to 6 feet in length.

Section 352.10 Uses Permitted, the first sentence only shall be amended to read as follows:

The use of PVC conduit shall be permitted only in accordance with 352.10 (B), (D) and (G).

Section 353.10 Uses Permitted, shall be amended to read as follows:

The use of HDPE conduit shall be permitted for directional boring only.

Article 354 Nonmetallic Underground Conduit with Conductors: Type NUCC, shall be deleted in its entirety.

Article 355 Reinforced Thermosetting Resin Conduit: Type RTRC, shall be deleted in its entirety.

Article 356 Liquidtight Flexible Nonmetallic Conduit: Type LFNC, shall be deleted in its entirety.

Section 360.10 Uses Permitted, shall be amended to read as follows:

FMT shall be permitted to be used for branch circuits, in a maximum of six (6) feet in length, as follows:

- (1) In dry location.
- (2) Where concealed.
- (3) In accessible locations.
- (4) For system voltages of 1000 volts maximum.

Section 362.10 Uses Permitted, the first three sentences shall be deleted and replaced with a single sentence to read as follows:

The use of ENT shall be permitted for low voltage use only in accordance with 362.10(1) through (9).

Section 366.10 Uses Permitted, shall be amended by adding the following sentence to immediately precede subsection 366.10(A):

Auxiliary gutters are permitted only when installed in accordance with 366.10(A).

Section 378.10 Uses Permitted, the first sentence only shall be amended to read as follows:

The use of nonmetallic wireways shall be permitted for low voltage only and in accordance with 378.10(1) through (4).

Article 382 Nonmetallic Extensions, shall be deleted in its entirety.

Article 388 Surface Nonmetallic Raceways, shall be deleted in its entirety.

Section 392.10 Uses Permitted, the first paragraph only shall be amended to read as follows:

Cable trays shall be permitted to be used to support low-voltage system conductors only.

Article 394 Concealed Knob-and-Tube Wiring, shall be deleted in its entirety.

Article 396 Messenger-Supported Wiring, shall be deleted in its entirety.

Article 398 Open Wiring on Insulators, shall be deleted in its entirety.

Section 404.2(C) Switches Controlling Lighting Loads, shall be amended to read as follows:

The grounded circuit conductor for the controlled lighting circuit shall be provided at the location where switches control lighting loads that are supplied by grounded general-purpose branch circuits.

Section 406.12(1), shall be amended to read as follows:

Dwelling Units: In all bedrooms/sleeping areas, all nonlocking-type 125-volt, 15- and 20-ampere receptacles shall be listed tamper-resistant receptacles.

Section 410.10(D) Bathtub and Shower Areas, shall be amended to read as follows:

No parts of cord-connected luminaires, chain-, cable-, or cord-suspended luminaires, lighting track, pendants, or ceiling-suspended (paddle) fans shall be located within a zone measured 900mm (3 ft) horizontally and 2.5 m (8 ft) vertically from the top of the bathtub rim or shower stall threshold. This zone is all encompassing and includes the space directly over the tub or shower stall. Luminaires located within the actual outside dimension of the bathtub or shower to a height of 2.5 m (8ft) vertically from the top of the bathtub rim or shower threshold shall be marked for damp locations, or marked for wet locations where subject to shower spray. Any luminaire or exhaust fan located within the tub or shower area shall be GFCI protected. The tripping of this GFCI device shall not leave the entire room or area in the dark.

Section 410.10(F) Luminaires Installed in or Under Roof Decking, shall be deleted in its entirety.

Section 422.13(A) Disconnect, shall be created to read as follows:

A disconnect is required within sight of all commercial and residential electric water heater and boiler installations.

Section 430.75(C) Disconnect, shall be created to read as follows:

A disconnect shall be installed within sight of all fractional horsepower motors and paddle fans.

Section 550.10(I)(1), shall be amended to read as follows:

One mast weatherhead installation, installed in accordance with Article 230, containing four (4) continuous, insulated, color coded feeder conductors, one of which shall be an equipment grounding conductor. The mast shall be of either steel IMC or RMC.

Section 550.10(I)(2), shall be amended to read as follows:

A metal raceway of either steel IMC or RMC or rigid nonmetallic conduit from the disconnecting means in the mobile home to the underside of the mobile home, with

provisions for attachment to a suitable junction box or fitting to the raceway on the underside of the mobile home [with or without conductors as in 550.10(I)(1)]. The manufacturer shall provide written instructions stating the proper feeder size for the raceway and the size junction box to be used.

Section 550.15(H) Under-Chassis Wiring (Exposed to Weather), shall be amended to read as follows:

Where outdoor or under-chassis line-voltage (120 volts, nominal, or higher) wiring is exposed to moisture or physical damage, it shall be protected by rigid metal conduit or steel intermediate metal conduit. The conductors shall be suitable for wet locations.

Section 550.16(C)(1) Exposed Non-Current Carrying Metal Parts, shall be amended to read as follows:

All exposed non-current carrying metal parts that are likely to become energized shall be effectively bonded to the grounding terminal or enclosure of the distribution panelboard. A bonding conductor shall be connected between the distribution panelboard and accessible terminal on the chassis. Each mobile home shall have an approved grounding system to the shell and metal framework.

Section 550.25(B) Mobile Homes and Manufactured Homes, shall be amended to read as follows:

All 120 volt, single phase, 15 and 20 ampere branch circuits installed in bedrooms of mobile home and manufactured home shall comply with Section 210.12.

Section 550.32(A) Mobile Home Service Equipment, shall be amended to read as follows:

The mobile home service equipment shall be located adjacent to the mobile home and not mounted in or on the mobile home. The service equipment shall be located in sight from and not more than 9.0 m (30 ft) from the exterior wall of the mobile home it serves. The service equipment shall be permitted to be located elsewhere on the premises, provided that a disconnecting means suitable for use as service equipment is located within sight from, and not more than 9.0 m (30 ft) from the exterior wall of the mobile home it serves and is rated not less than that required for service equipment in accordance with Section 550.32(C). Grounding at the disconnecting means shall be in accordance with Section 250.32. A minimum of 2 breaker spaces shall be left unused in the panel for future expansion of the system.

Section 550.32(B)(8) shall be created to read as follows:

The connection from the distribution panel in a mobile home to the power source shall be installed in 1-1/4 inch or larger steel IMC or RMC.

Section 600.5(D)(1) Supply, shall be amended to read as follows:

The wiring methods used to supply signs and outline lighting systems shall terminate within a sign, an outline lighting system enclosure, a suitable box, or a conduit body. All wiring for permanent, free standing signs shall be installed underground.

Section 604.100(A)(2) Conduits, shall be deleted in its entirety.

Section 680.5 Ground-Fault Circuit Interrupters, shall be amended to read as follows:

Ground fault circuit interrupters shall be circuit breakers.

Section 680.21(A)(1) General, shall be amended to read as follows:

The branch circuits for pool-associated motors shall be individual branch circuits (dedicated circuits) installed in rigid metal conduit, steel intermediate metal conduit, or rigid polyvinyl chloride conduit. Other wiring methods and materials shall be permitted in specific applications as covered in this section. Any wiring methods employed shall include a green insulated copper equipment grounding conductor sized in accordance with Section 250.122 and/or Table 250.122, but not smaller than 12 AWG.

Section 680.21(A)(2) Flexible Connections, shall be amended to read as follows:

Where necessary to employ flexible connections at or adjacent to the motor, liquidtight flexible metal or liquidtight flexible nonmetallic conduit (when attaching to PVC conduit) with approved fittings shall be permitted.

Section 690.4(G) Installation, shall be created to read as follows:

The PV array system shall be installed to provide access and/or maintenance clearance a minimum of 36" around all rooftop mounted equipment and/or skylights. Refer to the International Fire Code, as adopted and amended by Chapter 16.28 of the Elgin Municipal Code, for additional installation location requirements.

Section 700.16(E) Additional Locations for Emergency Lighting shall be created to read as follows:

In addition to the areas required to have emergency egress illumination/lighting by the *International Building Code*, as adopted and amended by Chapter 16.04 of the Elgin Municipal Code, the following areas shall also have emergency egress lighting:

1. All exterior man-doors shall have 2 head emergency lighting fixtures at the exterior of those locations.
2. All commercial, institutional or industrial washrooms shall have a 2 head emergency lighting fixture installed within that space.

Exception: Alternative means that ensure emergency lighting illumination level is maintained shall be permitted.

16.24.090 CONFLICTS WITH OTHER PROVISIONS.

When the provisions of this chapter conflict with any other provision of the Elgin Municipal Code regulating the same subject matter, either as presently adopted or to be adopted or amended in the future, the more stringent or restrictive provision shall apply."

Section 3. That all ordinances or parts of ordinances in conflict with the provisions of this ordinance be and are hereby repealed.

Section 4. That this ordinance shall be in full force and effective immediately after its passage in the manner provided by law."

s/ David J. Kaptain

David J. Kaptain, Mayor

Presented: March 26, 2025

Passed: March 26, 2025

Omnibus Vote: Yeas: 9 Nays: 0

Recorded: March 26, 2025

Published: March 26, 2025

Attest:

s/ Kimberly Dewis

Kimberly Dewis, City Clerk