

Appendix C - International NEC Electric Code Amendments

The International NEC Electric Code shall be amended as follows:

110 Requirements for Electrical Installations

Section 110.12 **Mechanical Execution of Work.** At the end of this Section, the following Sub-Sections are added to read as follows:

- (D) All abandoned conduit, wire, or other electrical equipment and material must be removed. This includes low-voltage wiring, data processing cable, etc.
- (E) Free standing electrical distribution centers and motor control centers designed for floor installation must be mounted on a three and a half inch (3 ½") thick concrete house-keeping pad.

Section 110.27(C) **Warning Signs.** At the end of this Sub-Section, the following sentence shall be added:

All rooms that house electric panel boards, control centers, and transformer will be labeled as "ELECTRIC" to the satisfaction of the Authority Having Jurisdiction.

Article 210 Branch Circuits

Section 210.3 **Rating.** At the end of this Section, the following sentence shall be added:

The minimum electric wire size for commercial and industrial building is a 12 awg wire for branch circuits.

Section 210.8(A) **Dwelling Units.** At the end of this Sub-Section the following Sub-Section shall be added:

- (9) **Dwelling Units.** All 125-volt single-phase 15 and 20 amp receptacles installed within six foot (6') horizontal measurement of a water bearing fixture (i.e. tubs, sinks, etc), shall be ground-fault interrupter protection for personnel. The GFCI protection must be from a receptacle in said room, or service panel. Protection from room to room for receptacles is not allowed.

Section 210.8(B): **Other Than Dwelling Units.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Other Than Dwelling Units. All 125-volt single phase 15 and 20 amp receptacles within six foot (6') horizontal measurement of all water bearing fixtures, or when installed in the locations specified below shall have ground-fault protection for personnel. The GFCI protection must be from a receptacle in said room, or service panel. Protection from room to room for receptacles is not allowed.

Section 210.8(B) **Other than Dwelling Units.** At the end of this Sub-Section, the following Sub-Section shall be added:

(1) **Mechanical, Boiler, Electrical Room.** All 125-volt single-phase 15 and 20 amp receptacles used as conveniences in these rooms shall be ground-fault protected for personnel.

Section 210.21(B)(3) **Receptacle Ratings.** At the end of this Sub-Section, the following sentence shall be added:

All receptacles shall be rated at the same size as the branch circuit rating.

Section 210.25 **Common Area Branch Circuits.** At the end of this Section, the following sentence shall be added:

This requirement is also required for office building, warehouse building, retail building, etc., where multi-tenant building occurs.

Section 210.70 **Lighting Outlets Required.** At the end of this Section, the following shall be added:

In all occupancies: stairs, halls, corridors, garages, and rooms of any shape, size, or location, with more than one entry and exit must have the lighting for that area switched at all exits and entries and the path of travel. When entering one room and leaving another, you must be able to turn on the light when entering and off when leaving at that point. The switch shall be located at the latch side of the door, and cannot be located at any point further than three-feet (3') in path of travel or behind objects. All entrance or exit doors that provide access to grade level must be provided with exterior illumination by a light located on the building.

Exception: Business with adequate night lighting.

Section 210.70(A)(3) **Storage or Equipment Spaces.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Storage or Equipment Spaces. At least one wall switch controlled lighting outlet shall be installed in attics; under floor spaces; utility rooms; basements; or spaces containing heating, air conditioning, refrigeration equipment, sign equipment, and spaces containing any equipment of any kind. In residential basements, the entire basement must have adequate lighting of not less than fifteen-foot (15') candles of illumination thirty-inches (30") above finished floor.

Article 220 Branch-Circuit, Feeder, and Service Calculations

Section 220.14(A) **Specific Appliances or Loads.** At the end of this Sub-Section, the following sentence shall be added:

Individual circuits are required for each of the following: microwaves, trash compactors, dishwashers, freezers, refrigerators, furnaces, vacuum system, window air conditioners, circulation pumps, and garbage disposals.

Section 220.14(L) **Other Outlets.** At the end of this Sub-Section, the following sentence shall be added:

Receptacle spacing for other than residential uses shall be set a maximum of twelve feet (12') on center along all walls, as specified in Section 210-52, in all conference rooms, office areas, lunch rooms, and waiting rooms, regardless of furniture layout. The volt-ampere (VA) calculation shall be calculated as specified in Article 220-3(b)(9) of this Section (but only 20 amp circuits are allowed). When a floor to ceiling glass (wall/window) is installed, receptacle spacing is not required.

Section 220.14 **Other Loads – All Occupancies.** At the end of this Section, the following Sub-Section shall be added:

(M) **Openings Per Circuits.** The maximum of electrical openings per circuits shall be nine (9) for 15 ampere branch circuits and eleven (11) for 20 ampere branch circuits.

Section 220.61 **Feeder or Service Neutral Load.** This Section is deleted in its entirety and a new Section is added to read as follows:

Feeder or Service Neutral Load. The feeder or service neutral load shall be the same size as the phase conductor. If nonlinear loads induce a large unbalanced load on the neutrals ampacity rating, it must be increased to ample size per Table 310.

Article 225 Outside Branch Circuits and Feeders

Section 225.10 **Wiring on Buildings.** This is deleted in its entirety and a new Section is added to read as follows:

Wiring on Buildings. The installation of outside wiring on surfaces of buildings, signs, or poles, shall be permitted for circuits of not over 600 volts, nominal, and must only be installed in rigid galvanized metal conduit, galvanized intermediate metal conduit, or rigid aluminum conduit. When rigid aluminum conduit is used, it shall be installed in a manner as not to be exposed to mechanical damage. Rigid non-metallic conduit may only be used for grounding electrical conductor (GEC).

Section 225.32 **Location.** At the end of this Section, the following sentence shall be added:

A disconnecting means shall be located inside of the occupant's space and disconnect all power inside of said space.

Article 230 Services

Section 230.23(A) **General.** At this end of this Sub-Section, the following shall be added:

All residential service revisions shall be a minimum 100 amp with twenty (20) circuit openings and have a main circuit breaker. The service entrance conductors must be a minimum of three (3) #3 copper wire and be installed in a minimum of not less than one and one-quarter inch (1- 1/4") conduit. The panel must have 10% of spare space at final inspection.

All new single family dwelling units shall have a minimum of 200 amp service with at least forty (40) circuit openings and have a main circuit breaker. The service entrance conductors must be a minimum of three (3) 3/0 copper wires and be installed in a minimum of not less than a two inch (2") conduit. The panel must have 10% of spare space at final inspection.

Exception: Townhomes and apartments under 1400 square feet are allowed to have a 100 amp, twenty (20) circuit panel with main breaker.

For all industrial, commercial, and retail service entrances, must be a minimum of 100 amp with twenty-four (24) circuits with a main circuit breaker and be bolt-on type. Conductor must be a minimum of #3 copper for 100 amp; 1/0 copper for 150 amp; 3/0 copper for 200 amp; and 500 mcm copper for 400 amp. Panels are required to be bolt-on type and have 10% spare space on final inspection.

Section 230.23(C) **Grounded Conductors.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Grounded Conductors. The grounded conductors shall be the same size as the phase (ungrounded) conductors and be of copper.

Section 230.31(A) **General.** At this end of this Sub-Section, the following shall be added:

All residential service revisions shall be a minimum 100 amp with twenty (20) circuit openings and have a main circuit breaker. The service entrance conductors must be a minimum of three (3) #3 copper wire and be installed in a minimum of not less than one and one-quarter inch (1-1/4") conduit. The panel must have 10% of spare space at final inspection.

All new single family dwelling units shall have a minimum of 200 amp service with at least forty (40) circuit openings and have a main circuit breaker. The service entrance conductors must be a minimum of three (3) 3/0 copper wires and be installed in a minimum of not less than a two inch (2") conduit. The panel must have 10% of spare space at final inspection.

Exception: Townhomes and apartments under 1400 square feet are allowed to have a 100 amp, twenty (20) circuit panel with main breaker.

For all industrial, commercial, and retail service entrances, must be a minimum of 100 amp with twenty-four (24) circuits with a main circuit breaker and be bolt-on type. Conductor must be a minimum of #3 copper for 100 amp; 1/0 copper for 150 amp; 3/0 copper for 200 amp; and 500 mcm copper for 400 amp. All panels are required to be bolt-on type and have 10% spare space at final inspection.

Section 230.31(C) **Grounded Conductors.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Grounded Conductors. The grounded conductors shall be the same size as the phase (ungrounded) conductors and be of copper.

Section 230.42(A) **General.** At this end of this Sub-Section, the following shall be added:

All residential service revisions shall be a minimum 100 amp with twenty (20) circuit openings and have a main circuit breaker. The service entrance conductors must be a minimum of three (3) #3 copper wire and be installed in a minimum of not less than one and one-quarter inch (1-1/4") conduit. The panel must have 10% of spare space at final inspection.

All new single family dwelling units shall have a minimum of 200 amp service with at least forty (40) circuit openings and have a main circuit breaker. The service entrance conductors must be a minimum of three (3) 3/0 copper wires and be installed in a minimum of not less than a two inch (2") conduit. The panel must have 10% of spare space at final inspection.

Exception: Townhomes and apartments under 1400 square feet are allowed to have a 100 amp, twenty (20) circuit panel with main breaker.

For all industrial, commercial, and retail service entrances, must be a minimum of 100 amp with twenty-four (24) circuits with a main circuit breaker and be bolt-on type. Conductor must be a minimum of #3 copper for 100 amp; 1/0 copper for 150 amp; 3/0 copper for 200 amp; and 500 mcm copper for 400 amp. All panels are required to be bolt-on type and have 10% spare space at final inspection.

Section 230.42(C) **Grounded Conductors.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Grounded Conductors. The grounded conductors shall be the same size as the phase (ungrounded) conductors and be of copper.

Section 230.43 **Wiring Methods for 600 Volts, Nominal, or Less.** The following Sub-Sections shall be deleted: (1); (2); (5); (6); (7); (8); (9); (12); (13); (14); (15); and (16) from the list of approved wiring methods of service entrance conductors.

Section 230.43(11) At the end of this Sub-Section, the following shall be added:

PVC may be used underground and must be encased in no less than three and a half inches (3 ½") of concrete and emerge up with rigid conduit to the termination point.

Article 240 Overcurrent Protection

Section 240.80 **Method of Operation.** At the end of this Section, the following shall be added:

All panel boards, except those used in residential occupancies, must have bolt-on type breakers and must have 10% spare spaces on final inspection.

Article 250 Grounding and Bonding

Section 250.50 **Grounding Electrode System.** At the end of this Section, the following paragraph shall be added:

Grounding electrode conductors must be installed in a raceway system.

Section 250.52(A) **Electrodes Permitted for Grounding.** At the end of this Sub-Section, the following Sub-Section shall be added:

(8) Where plastic underground water piping or where a building receives water by a non-conductive type well, supplemental grounding electrodes must be installed outside of the building and used as the main grounding electrode. The two (2) grounding electrodes must be installed at twice the length of the ground electrode, or a minimum of sixteen feet (16') apart.

Section 250.66 **Size of Alternating-Current Grounding Electrode Conductor.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Size of Alternating-Current Grounding Electrode Conductor. The size of the grounding electrode conductor of a grounded or ungrounded alternating current system shall not be less than given in Table 250-66, but never less than No. 4 AWG and made of copper only. The grounding electrode conductor must be installed from a direct connection on the neutral buss bar in panel board, to the street side of the incoming water service ahead of any valves or connections, and be installed in a raceway system.

Table 250.66 **Grounding Electrode Conductor for Alternating-Current System.**
Under the Headings “Size of Largest Underground Service-Entrance Conductor or Equivalent Area for Parallel Conductors” and “Size of Grounding Electrode Conductor,” delete the columns for “Aluminum or Copper- Clad Aluminum” shall be deleted.

Article 300 Wiring Methods

Section 300.4(A)(2) **Notches in Wood.** Change this Sub-Section to read as follows:

Notches in Wood. No notching of any kind will be allowed for any type of wiring methods. All holes drilled must be no closer than 5/8 of one inch (5/8") from the front face of the stud.

Section 300.5(C) **Underground Cables Under Buildings.** At the end of this Sub-Section, the following Sentence shall be added:

Underground cable installed under sidewalks, roadways, driveways, aprons, parking lots, alley ways, and similar areas, shall be installed through a raceway sleeve that extends beyond the end of said areas.

Article 310 Conductors for General Wiring

Section 310.2(B) **Conductor Material.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Conductor Material. Conductors in this Article shall be of only copper.

Article 314 Outlet, Device, Pull and Junction Boxes; Conduit Bodies; Fittings; and Handhole Enclosures

Section 314.4 **Metal Boxes.** At the end of this Section, the following paragraph shall be added:

All conduit boxes for switches and receptacles and other devices must be a minimum of four inches (4") square and not less than one and one half inches (1-1/2") deep (1900 box).

Exception No. 1: For remodeling situation where the wall finish is not removed.

Exception No. 2: Where structural damage will occur because of the installation of the four inch (4") square box.

Exception No. 3: When installed in masonry, a box over fourteen cubic inches (14") may be used.

Section 314.27(D) **Boxes at Ceiling-Suspended (Paddle) Fan Outlets.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

(D) **Boxes at Ceiling-Suspended (Paddle) Fan Outlets.** All outlet boxes mounted on the ceiling more than two feet (2') from walls must be listed and installed for fan support.

Exception: In bath, laundry, utility, garages, unfinished basement, and in lay-in ceiling areas or smoke detectors.

Article 320 Armored Cable: Type AC

This entire Article shall be deleted in its entirety.

Article 322 Flat Cable Assemblies: Type FC

This entire Article shall be deleted in its entirety.

Article 324 Flat Conductor Cable: Type FCC

This entire Article shall be deleted in its entirety.

Article 326 Integrated Gas Spacer Cable: Type IGS

This entire Article shall be deleted in its entirety.

Article 328 Medium Voltage Cable: Type MV

This entire Article shall be deleted in its entirety.

Article 330 Metal-Clad Cable: Type MC

This entire Article shall be deleted in its entirety.

Article 332 Mineral-Insulated, Metal-Sheathed Cable: Type MI

This entire Article shall be deleted in its entirety.

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

Section 334.10 **Uses Permitted.** This Section is deleted in its entirety and a new Section is added to read as follows:

Uses Permitted. Type NM, Type NMC, and Type NMS cables shall be permitted only for the use of temporary construction sites as prescribed in Article 590.

Article 336 Power and Control Tray Cable: Type TC

Section 336.10 **Uses Permitted.** This Section is deleted in its entirety and a new Section is added to read as follows:

Uses Permitted. Type TC cable will only be allowed for power, lighting, and single circuits where installed in a cable tray in an industrial establishment where the conditions of maintenance and supervision ensure that only qualified persons will service the installation.

Where the cable leaves the tray, it must be installed in a conduit system that is bonded and connected to the cable tray.

Article 338 Service-Entrance Cable: Types SE and USE

This entire Article shall be deleted in its entirety.

Article 340 – Underground Feeder and Branch-Circuit Cable: Type UF

Section 340.10 **Uses Permitted.** This Section is deleted in its entirety and a new Section is added to read as follows:

Uses Permitted. Type UF cable shall be permitted for use only for ground lighting in a residential dwelling (see Section 300.5).

Article 348 Flexible Metal Conduit: Type FMC

Section 348.10 **Uses Permitted.** At the end of this Section, the following language shall be added:

Flexible metallic conduit may be used in remodeling situations where the wall finish is not removed, and/or, where the installation of EMT is not feasible, and must have a grounding conductor installed in all lengths (regardless). The determination must be made by the Building Department. When flex is used, no more than twenty-four inches (24") may be exposed before termination or change over (i.e. when fishing down a wall, in cabinet work, etc.).

Section 348.12 **Uses Not Permitted.** At the end of this Section, the following Sub-Section and language shall be added:

(8) Flexible metal conduit shall not be used in lengths exceeding six feet (6'), or in a daisy chain installation.

Exception: When alterations are made to the electrical system and the wall finish is not removed, flexible metal conduit may be allowed to exceed six feet (6') in length and must have a green grounding conductor installed with the supply conductors and connects to the fixture or appliance to the metal raceway system.

Section 348.60 **Grounding and Bonding.** This Section is deleted in its entirety and a new Section is added to read as follows:

Grounding. All flexible metal conduit shall have a grounding conductor installed, no matter what length. Where an equipment bonding jumper is required around flexible metal conduit, it shall be installed in accordance with Section 250.102.

Article 350 Liquidtight Flexible Metal Conduit

Section 350.10 **Use Permitted.** At the end of this Section, the following Sub-Section shall be added:

(4) Lengths over six foot (6') are not allowed. All liquidtight flexible metal conduit must have a green grounding conductor installed.

Article 352 Rigid Nonmetallic Conduit (RNC)

Section 352.10 **Uses Permitted.** This Section is deleted in its entirety and a new Section is added to read as follows:

Uses Permitted. Listed rigid nonmetallic conduit shall be permitted under the following conditions:

- (A) Inside of a structure when installed “beneath” a three and a half-inch (3 ½”) thick concrete slab. Where emerging through concrete, R.N.C. must change over to IMC or RMC.
- (B) Underground installation outside of structures may be used only when Article 300 Table 5 is followed, and may not extend more than two inches (2”) above grade, if deemed a protected area by the Building Department, and special permission is obtained. If not, PVC must be changed over to IMC (intermediate metal conduit), or RMC (rigid metallic conduit), when emerging above grade level.

Exception: R.N.C. shall not be used when poured into concrete, pole bases, sign bases, concrete pads, etc. R.N.C. must be changed over to IMC or RMC, and may not emerge above grade if used for services or panel.

Article 354 Nonmetallic Underground Conduit with Conductors: Type NUCC

This entire Article shall be deleted in its entirety.

Article 356 Liquidtight Flexible Nonmetallic Conduit: Type LFNC

This entire Article shall be deleted in its entirety.

Article 358 Electrical Metallic Tubing: Type EMT

Section 358.10.B **Corrosion Protection.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Corrosion Protection. Electrical metallic tubing and its listed fittings shall be permitted to be installed in concrete, when installed above basement or grade, and must have a grounding conductor installed.

Section 358.12 **Uses Not Permitted.** At the end of this Section, the following Sub-Sections shall be added:

- (7) Where it is in direct contact with weather.

- (8) When exposed to moisture, must follow other sections of the code and is considered a wet location - Section 300-6, Protection Against Corrosion; Section 370-15, Damp, Wet, Hazardous Locations. If not, EMT shall not be used.

Article 362 Electrical Nonmetallic Tubing: Type ENT

Section 362.10 **Uses Permitted.** This Section is deleted in its entirety and a new Section is added to read as follows:

Uses Permitted. The use of electrical nonmetallic tubing and fittings shall only be permitted for light carrying fiber optic branch lines; computer, phone or speaker wiring.

Article 378 Nonmetallic Wireways

This entire Article shall be deleted in its entirety.

Article 382 Nonmetallic Extensions

This entire Article shall be deleted in its entirety.

Article 394 Concealed Knob-and-Tube Wiring

This entire Article shall be deleted in its entirety.

Article 396 Messenger Supported Wiring

Section 396.10 **Uses Permitted.** Sub-Sections A through C are deleted in their entirety and a new Sub-Section is added to read as follows:

- A. **In Temporary Construction Services.** Messenger supported wiring shall only be permitted for temporary construction services where conditions of maintenance and supervision ensure that only qualified persons will service the installed messenger supported wiring.

Article 398 Open Wiring on Insulators

This entire Article shall be deleted in its entirety.

Article 400 Flexible Cords and Cables

Section 400.8 **Uses Not Permitted.** At the end of this Section, add the following:

Flexible cords exceeding six feet (6') in length must receive the approval of the Building Department. All flexible cords must be equipped with a grounding conductor, and installed with an approved cord grip, strain relief, and have only one terminal point (cord cap).

Article 408 Switchboards and Panelboards

Section 408.1 **Scope.** At the end of this Section, the following Sub-Section shall be added:

- (3) All switchboards, panel boards, and distribution boards for all industrial, commercial, and retail establishments must be of the bolt-on type and have a main breaker installed.

Article 410 Luminaires (Lighting Fixtures), Lampholders, and Lamps

Section 410.8 **Luminaires (Fixtures) in Clothes Closets.** This Section is deleted in its entirety and a new Section is added to read as follows:

Luminaires (Fixtures) in Clothes Closets.

- (A) All closets, pantries, and storage areas over eight (8) square feet shall have lighting installed and located for adequate illumination, per Article 410-8.
- (B) **Type of Lighting.** Lights installed in these areas shall be recessed cans or florescent fixtures with an enclosed bulb. Florescent screw-in bulbs will not be considered as an acceptable alternative.

Article 422 Appliances

Section 422.10(A) **Individual Circuits.** At the end of this Sub-Section, the following sentence shall be added:

Individual circuits are required for each of the following: microwaves, trash compactors, dishwashers, freezers, refrigerators, furnaces, vacuum systems, window air conditioners, circulation pumps, and garbage disposals.

Article 520 Theaters, Audience Areas of Motion Picture and Television Studios, Performance Areas, and Similar Locations

Section 520.47 **Backstage Lamps (Bare Bulbs)**. This Section is deleted in its entirety and a new Section is added to read as follows:

Backstage Lamps (Bare Bulbs). Lamps installed in backstage and ancillary areas must have covered or protected bulbs so as not to cause an accidental fire.

Section 520.63 **Bracket Fixture Wiring**. This entire Section shall be deleted in its entirety.

Article 545 Manufactured Buildings

This entire Article shall be deleted in its entirety.

Article 550 Mobile Homes, Manufactured Homes, and Mobile Home Parks

This entire Article shall be deleted in its entirety.

Article 551 Recreational Vehicles and Recreational Vehicle Park

This entire Article shall be deleted in its entirety.

Article 552 Park Trailers

This entire Article shall be deleted in its entirety.

Article 553 Floating Buildings

This entire Article shall be deleted in its entirety.

Article 555 Marinas and Boatyards

This entire Article shall be deleted in its entirety.

Article 590 Temporary Installations

Section 590.3 (B) **90 Days.** At the end of this Sub-Section, the following paragraph shall be added:

Extension cords must be a minimum of 3 x 14 AWG molded cords, and be approved. The cord must be as short as possible to the point of use. All temporary power must be approved.

Article 600 Electric Signs and Outline Lighting

Section 600.1 **Scope.** At the end of this Section, the following sentence shall be added:

All installations for electric signs and outline lighting shall be listed and labeled by a nationally recognized testing laboratory (NRTL) and shall be an approved installation.

Section 600.32: **Neon Secondary Circuit Conductor, Over 1000 Volts, Nominal.**

Section 600.32(A) **Wiring Methods.** This Sub-Section is deleted in its entirety and a new Sub-Section is added to read as follows:

Wiring Method. Conductors shall only be installed in IMC, RMC, EMT, FMC, and LFMC, and be a minimum of 1/2 trade size; and be installed in accordance with the requirements of Chapter 3. Only one conductor shall be allowed in each conduit for high-voltage wiring systems.

Article 604 Manufactured Wiring Systems

This entire Article shall be deleted in its entirety.

Article 680 Swimming Pools, Fountains, and Similar Installations

Section 680.41 **Emergency Switch for Spas and Hot Tubs.** The language in the last sentence of this Section which reads "This requirement shall not apply to single-family dwellings" is hereby deleted and the following language is hereby added:

This requirement applies to all spas and hot tubs.

Section 680.71 **Protection.** This Section is deleted in its entirety and a new Section is added to read as follows:

Protection. Hydromassage bathtubs and their associated electrical components shall be protected by a GFCI, face-less in the same room, located a minimum of five feet (5') from tub, or by GFCI breaker in the service panel. All 125 volt single-phase receptacles, not exceeding 30 amperes and located within fifteen (15) feet measured horizontally from the inside wall of a hydromassage tub, shall be protected by a ground fault circuit interruptor(s).

Article 700 Emergency Systems

Section 700.16 **Emergency Illumination.** The following language is hereby added to the end of this Section:

Emergency lighting with battery back-up must be provided in the additional following locations: vaults, toilet rooms, electrical closets or rooms, switch gear rooms, and adjacent to the incoming electrical service. Where installed for electrical services or panel boards, it must light the face of the electrical equipment.

Exception: Residential

All exit lights will be updated to battery back-up regardless. Exit lights shall not be connected to general lighting or power circuits. However, they may share circuits serving night lights and emergency lights. Breakers for exits/battery light circuits shall be locked on. Battery back-up lighting must be installed to light the path of egress, even if a generator is used for emergency lighting.

Section 700.20 **Switch Requirements.** At the end of this Section, the following shall be added:

Circuit lockon devices must be installed on all circuits providing power to emergency lighting, exit signs, fire alarm panels, and smoke detectors.

Article 720 Circuits and Equipment Operating at Less than 50 Volts

Section 720.1 **Scope.** At the end of this Section, the following shall be added:

Cables, wiring, etc., where permitted by this Code and Amendments, installed enclosed in building partitions, walls, or in anyway made inaccessible by building construction, shall be encased in a raceway system governed by these Amendments. Such raceway will protect the conductors during construction and provide ready means of replacement of conductors after building is complete without damaging the finish building. These raceways need to terminate in a box at the device and extended to underside of the structure, (to an accessible location) and the end of the raceway system must have a connector or bushing installed on the end. When passing through a wall, an approved sleeve must be installed and be fire-stopped.

When installed on the finished wall in a storage, warehouse, mechanical room, or similar area, a raceway system must be provided and extended to the under side of the deck out of the physical damage area.

Exception: Single family house.

When installed as free air, open joist, or exposed condition. The wire must be supported between every six (6) to eight (8) feet and be parallel and perpendicular to the building structure.

Article 725 Class 1, Class 2, and Class 3 Remote-Control, Signaling, and Power-Limited Circuits

Section 725.1 **Scope.** At the end of this Section, the following shall be added:

Cables, wiring, etc., where permitted by this Code and Amendments, installed enclosed in building partitions, walls, or in anyway made inaccessible by building construction, shall be encased in a raceway system governed by these Amendments. Such raceway will protect the conductors during construction and provide ready means of replacement of conductors after building is complete without damaging the finish building. These raceways need to terminate in a box at the device and extended to underside of the structure, (to an accessible location) and the end of the raceway system must have a connector or bushing installed on the end. When passing through a wall, an approved sleeve must be installed and be fire-stopped. When installed on the finished wall in a storage, warehouse, mechanical room, or similar area, a raceway system must be provided and extended to the under side of the deck out of the physical damage area.

Exception: Single family house.

Article 760 Fire Alarm Systems

Section 760.1: **Scope.** At the end of this Section, the following shall be added:

Cables, wiring, etc., where permitted by this Code and Amendments, installed enclosed in building partitions, walls, or in anyway made inaccessible by building construction, shall be encased in a raceway system governed by these Amendments. Such raceway will protect the conductors during construction and provide ready means of replacement of conductors after building is complete without damaging the finish building. These raceways need to terminate in a box at the device and extended to underside of the structure, (to an accessible location) and the end of the raceway system must have a connector or bushing installed on the end. When passing through a wall, an approved sleeve must be installed and be fire-stopped.

When installed on the finished wall in a storage, warehouse, mechanical room, or similar area, a raceway system must be provided and extended to the under side of the deck out of the physical damage area.

Exception: Single family house.

Section 760.8 **Mechanical Execution of Work.** At the end of this Section, the following shall be added:

The supports shall be a maximum of eight (8) feet and be parallel and perpendicular to the structure.

Section 760.10 **Fire Alarm Circuit Identification.** At the end of this Section, the following shall be added:

All fire alarm wiring not installed in a raceway, must be red in color and be approved. All splices must be made in an approved J-box and identified. Red low-voltage cable will only be allowed for fire alarm systems.

Article 770 Optical Fiber Cables and Raceways

Section 770.1: **Scope.** At the end of this Section, the following shall be added:

Cables, wiring, etc., where permitted by this Code and Amendments, installed enclosed in building partitions, walls, or in anyway made inaccessible by building construction, shall be encased in a raceway system governed by these Amendments. Such raceway will protect the conductors during construction and provide ready means of replacement of conductors after building is complete without damaging the finish building. These raceways need to terminate in a box at the device and extended to underside of the structure, (to an accessible location) and the end of the raceway system must have a connector or bushing installed on the end. When passing through a wall, an approved sleeve must be installed and be fire-stopped. When installed on the finished wall in a storage, warehouse, mechanical room, or similar area, a raceway system must be provided and extended to the under side of the deck out of the physical damage area.

Exception: Single family house.

Article 780 Closed-Loop and Programmed Power Distribution

This entire Article shall be deleted in its entirety.

Article 800 Communications Circuits

Section 800.1 **Scope.** At the end of this Section, the following shall be added:

Cables, wiring, etc., where permitted by this Code and Amendments, installed enclosed in building partitions, walls, or in anyway made inaccessible by building construction, shall be encased in a raceway system governed by these Amendments. Such raceway will protect the conductors during construction and provide ready means of replacement of conductors after building is complete without damaging the finish building. These raceways need to terminate in a box at the device and extended to underside of the structure, (to an accessible location) and the end of the raceway system must have a connector or bushing installed on the end. When passing through a wall, an approved sleeve must be installed and be fire-stopped. When installed on the finished wall in a storage, warehouse, mechanical room, or similar area, a raceway system must be provided and extended to the under side of the deck out of the physical damage area.

Exception: Single family house.

Section 800.24 **Mechanical Execution of Work.** At the end of this Section, the following shall be added:

The supports shall be a maximum of eight (8) feet and be parallel and perpendicular to the structure.