

**City of Prospect Heights**  
**AMENDMENTS**  
to the  
**NFPA NATIONAL ELECTRIC CODE, 2002 edition**

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## City of Prospect Heights

### AMENDMENTS

#### To the NFPA NATIONAL ELECTRIC CODE, 2002 edition

1. **The City of Prospect Heights Amendments.**  
The City of Prospect Heights amendments to the IBC, the IRC, other amendments, the Zoning Ordinance and Municipal Ordinance shall supercede all sections of all of the adopted model codes.
2. **Conflicts**  
Whenever two codes are in conflict, the more stringent requirement shall govern.
3. **Licensed, Bonded and Registered**  
All electrical work shall be performed by a licensed and bonded electrician who is also registered with the City of Prospect Heights Building Department. The electrical license must be one, which was acquired by passing a written electrical examination offered by an approved municipality or city. The electrician/s shall provide a legible copy of their electrical license, to the building department, with the application for registration.
4. **Deleted Articles**  
The following articles of the 2002 NEC are hereby deleted in their entirety; and are not permitted:

<b>ARTICLE 320</b>	ARMORED CABLE
<b>ARTICLE 324</b>	TYPE FCC FLAT CONDUCTOR CABLE
<b>ARTICLE 326</b>	TYPE IGS INTEGRATED GAS SPACER CABLE
<b>ARTICLE 330</b>	METAL CLAD CABLE
<b>ARTICLE 332</b>	MINERAL INSULATED, METAL SHEATHED
<b>ARTICLE 334</b>	NON-METALLIC-SHEATHED CABLE
<b>ARTICLE 338</b>	SERVICE ENTRANCE CABLE
<b>ARTICLE 356</b>	LIQUID FLEXIBLE NON-METALLIC CONDUIT
<b>ARTICLE 362</b>	ELECTRICAL NON-METALLIC TUBING
<b>ARTICLE 378</b>	NON-METALLIC WIREWAYS NON-
<b>ARTICLE 382</b>	METALLIC EXTENSIONS SURFACE NON-
<b>ARTICLE 388</b>	METALLIC RACEWAYS
<b>ARTICLE 394</b>	CONCEALED KNOB AND TUBE WIRING
<b>ARTICLE 398</b>	OPEN WIRING ON INSULATORS

5. **Indoor Use Only**  
Power and Control Tray Cable: Type TC as presented in Article 336, shall be permitted for indoor use only. Outdoor or exterior installations of this product shall not be permitted.
6. **Non-Metallic Auxiliary Gutters – not permitted**  
Non-metallic Auxiliary gutters as presented in Article 366, are not permitted.
7. **Not Permitted**  
Aluminum conductors shall not be permitted. (All electrical conductors shall be copper). Non-metallic sheathed cable, mineral insulated, metal-sheathed cable, flexible non-metallic conduit, rigid non-metallic conduit and boxes; armored cable and flat conductor cable are all **NOT PERMITTED**. (PVC type conduit shall be permitted underground.)
8. **GFCI Protected**  
All switches, receptacles and light fixtures in a toilet room, bathroom, powder room, shower, etc. shall be GFCI protected. (ref. 210.8A of the NEC)
9. **Arc-Fault Circuit – Interrupter Protection**  
All branch circuits that supply 125-volt, single phase, 15- and 20- ampere outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit. (per Article 210.12(B) of the NEC)
10. **Smoke Detectors (i.e. Smoke Alarms)**  
**Smoke Alarms** shall be interconnected and shall be located per all requirements of Section **R-313 of the IRC** and other locations as follows:
  - In each sleeping room
  - Outside each separate sleeping area in the immediate vicinity of the bedrooms
  - On each story of the dwelling, including basements
  - Above or near the furnace
11. **Carbon Monoxide Detectors**  
**Carbon Monoxide Detectors** shall be provided as follows:
  - Outside each separate sleeping area in the immediate vicinity of the bedrooms (within 15 feet).
  - **On every floor** on which a fossil fuel burning boiler or furnace is located and/or in a room in which the furnace or water heater is located.
  - **On every floor** in which sleeping rooms are heated by any type of warm air heating plant that burns fossil fuelRef: State of Illinois 91<sup>st</sup> General Assembly Legislation 91-HB0603 Engrossed.

**12. Rigid Conduit Required**

- a) All exterior above ground conduit shall be rigid galvanized pipe.
- b) All service entrance conductor conduit to the first disconnect enclosure shall be rigid galvanized pipe.
- c) All outside above ground conduit and ground rod conduit shall be rigid galvanized pipe.

**EXCEPTION:** Air conditioning condensers may utilize liquid tight metal flexible conduit. If flexible conduit is over 6'-0", it must include a ground wire bonded to the disconnect enclosure and the condenser. GFCI protection is not required on dedicated circuits.

**13. Service Panel**

All service panels and sub panels shall be installed with a main breaker in the panel. All breakers shall be in 1". Whenever the electric meter is more than 5'-0" from the panel, an outside service disconnect breaker is required at the electric meter. A minimum one hundred (100)-amp service with (minimum) 20-circuit positions is required. Homes in excess of 1,500 square feet, excluding basement, must be equipped with a (minimum) two hundred- (200) amp service with a (minimum) 30 circuits positions.

**14. One Service for a Single-Family Dwelling**

Only one electrical service shall be permitted to a single-family dwelling. (ref. *Article 230.2*).

All sub-panels shall be fed through the main panel, located in the dwelling. (ref. *Article 230.40*).

**15. Interior Underground Installations**

Rigid galvanized or underground PVC conduit may be used under all interior concrete slab construction. All slab and foundation wall penetrations must be rigid galvanized conduit, which is grounded. (ref. *Article 250.80*)

**16. Exterior Underground Installations – Minimum Cover Requirements**

Exterior below ground conduit may be rigid galvanized (min.) 6" deep,  
- or -

Electrical grade PVC type non-metallic conduit (min.) 18" deep  
- or -

Type "UF" cable with ground conductor (min.) 24" deep. Table 300.5 in the NEC.

**17. Interior Conduits**

All new interior electrical installations shall be piped in rigid or EMT (minimum 1/2") Greenfield whips up to 6'-0" as needed. (BX armored cable is not permitted).

**18. Garages**

All garages shall have a minimum of two (2) wall outlet receptacles plus one (1) additional outlet in the ceiling for each overhead garage door. All wall outlets in the garage shall be GFCI protected. At least one (1) ceiling light is required for each bay, plus one (1) outside light at each exterior service door and one (1) light on each side of the overhead doors.

**19. Dedicated Circuits**

A dedicated circuit is an Individual Branch Circuit that supplies only one piece of utilization equipment. Heating and cooling systems, sump pumps, sewage ejectors, washers and dryers shall be installed on their own separate dedicated circuits. A single receptacle is required for pumps and ejectors. Provide a readily accessible on-off switch on heating and cooling systems. GFCI protection is not required on dedicated circuits.

**20. Plaster Rings**

All plaster rings shall be for 5/8" Gypsum board.

Plaster rings at garage ceilings shall be for 1-1/4" Gypsum board, when there is habitable space, a closet or storage room above the garage.

**21. Low Voltage Wiring in Commercial Buildings**

**Low Voltage Wiring** shall be defined as wires/cables which are used for fire alarms, burglar alarms, telephone, intercoms, security systems, computer cable, CATV, doorbells, thermostats and the like.

21a) All low voltage wiring shall be "**plenum rated**", cables or wires.

21b) **Concealed Areas**

When concealed, low voltage wiring/cables are not required to be in conduit. Concealed shall be defined as follows: - Located within a gypsum board partition.

- Located within a floor/ceiling assembly in which the ceiling is gypsum board, suspended acoustical ceiling panel and grid, or similar.
- Located in a tray or runway that is located above the bottom cord of bar joists in a warehouse space.

21 c) **Exposed Areas**

Low voltage wiring is required to be in EMT Conduit in all exposed areas, in the interior of a building and rigid conduit on the exterior of buildings.

Some examples of exposed areas are as follows:

- Vertically on a wall and not concealed in the wall.
- Horizontal runs which are below the top of the bar joists or ceiling assembly or any location where one can see the wires.

**EXCEPTION:** Low voltage wires may run exposed at the top or bottom of the bar joists providing that the wires are bundled with ties and that proper hangers are installed at regular intervals to prevent sagging, or installed on cable trays.

**22. Low Voltage Wiring in Single-Family Dwellings and Townhouses**

**Low voltage wiring** and cables are not required to be in conduit for single-family homes and townhomes and are not required to be plenum rated.

~~~ **END** ~~~