

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE AMENDING THE  
VILLAGE OF NORTH RIVERSIDE MUNICIPAL CODE  
2008 NATIONAL ELECTRIC CODE**

BE IT ORDAINED by President and Board of Trustees of the Village of North Riverside, Cook County, Illinois, as follows:

**SECTION 1.** The Village of North Riverside hereby adopts the 2008 National Electric Code with local amendments. Chapter 15.56 (Electrical Code) of Title 15 (Buildings and Construction) of the North Riverside Municipal Code is hereby amended by deleting Section 15.56 in its entirety and substituting the following:

**15.56.010 Adoption of electrical code; amendments**

**(a)**

*Adoption.* The standards and specifications of the National Electric Code (NFPA No. 70-2002) are hereby adopted as the standards and specifications and rules and regulations for the installations, alteration, repair, and use of electrical equipment, subject; however, to additional standards, rules and regulations set forth in this Chapter and except where they are in conflict with other provisions of this Code.

**(b)**

*Amendments.* The following Amendments to the National Electric Code, 2008 Addition, are hereby adopted:

*Section 110.26(c)(1)* (page 70-37) add: all three (3) phase shall have the entrance and egress door swing outward with panic hardware.

*Section 210.8(A)* (page 70-47) under this Section, or any other Section of the Code, with the heading "Dwelling Units" shall be deleted and "All Occupancies" shall be substituted.

*Section 210.8(A)* (page 70-47) under this Section insert self-diagnostic type ground fault interrupter protection for personnel (LED). Any equipment with a motor that starts up and shuts down, including but not limited to sump pumps and furnaces, shall be on a dedicated non-GFIC circuit.

*Section 210(A)* (page 70-53) add as paragraph nine (9) all floor receptacles shall have ground fault circuit interrupter protection (breaker) as required.

*Section 210.12* (page 70-49) Arc Fault Circuit-Interrupter Protection. Add paragraph (C) Bedroom circuit shall not exit to common hallways.

*Section 210*, Table 210.21(B)(3) (page 70-51) Receptacle Ratings for Various Size Circuits. Line two (2) shall read: Circuit rating twenty (20) amp, receptacle rating of twenty (20) amp only

*Section 220.102* (page 70-66) Optional Calculation - All Occupancies. Add as paragraph (A)(1): All single family units having living spaces less than two thousand (2,000) square feet shall utilize a minimum one hundred (100) ampere service excluding the requirements of electrical heating, if any. All Occupancies having living spaces greater than two thousand (2,000) square feet shall utilize a minimum of two hundred (200) ampere service exclusive of electrical heating.

#### *Article 230. Services*

##### VI. Service - Equipment - Disconnecting Means

*Section 230.70(A)(1)* (page 70-78) Readily Accessible Location. The service disconnection means shall be installed at a readily accessible location outside of a building or structure nearest to inside of an electrical distribution panel. Delete the words "inside" in this paragraph. Location shall be installed outside of a building or structure nearest to the inside of an electrical distribution panel.

#### *Article 250 - Grounding*

*Section 250-1(A)* (page 70-94) Add the following Subsection No. 7: "no electrical installation in the Village of North Riverside shall rely on a ground rod, or rods, as means of grounding when a water utility system connection exists on the property".

*Section 250-62* (page 70-106) Grounding Electrode Conductor Material. Delete the first (1<sup>st</sup>) sentence and insert "Conductors in this Article shall be copper only."

*Section 250.64* (page 70-107) Grounding Electrode Conductor Installation. Delete paragraph (A).

*Section 250-66* Table (page 70-108) Grounding Electrode Conductor for alternating current systems, delete aluminum and copper clad aluminum.

*Section 314.27* (page 70-173) Luminaire Boxes. Add: F fan rated boxes are required in all bedrooms.

#### *Article 320 Armored Cable Type AC*

*Section 320-10* (page 70-175) Uses Permitted. Delete this Section in its entirety and insert the following paragraph: Armored cable may be used only for concealed working dry locations, except as permitted in Revised Section 320-15. Armored cable may be run, or fished, in the air voids of concrete masonry block or tile walls where such walls are not subject to moisture or dampness. It may be run, or fished, in existing walls or partitions where it is not

possible to install conduit or EMT; it may be run in existing floors or ceilings where it is not possible to install conduit or EMT.

*Section 320-15* (page 70-176) Exposed Work: Revise in its entirety and insert the following paragraph:

**(1)**

In lengths not more than twenty four inches (24") long terminators where flexibility is necessary, with ground wire.

**(2)**

In accessible, but not habitable, attics and roof spaces, with ground wire.

**(3)**

In lengths not to exceed five feet (5') below the basement ceiling joists where it is necessary to connect to a cabinet or a junction box, with ground wire.

*Article 410.* Luminaries, Lampholders, and Lamps.

*Article 410.2(A)* Clearance, then add all luminaries of recessed type shall be IC rated.

*Section 410-16* (page 70-269) Luminaries (Clothes Closets).

**(1)**

Delete entire paragraph. Add only recessed or fluorescent fixture may be used in clothes closets.

*Section 410-36(B)* (page 70-270) Suspended Ceilings. Luminaries.: Delete paragraph (B) and insert Luminaries (fixtures) shall lie inside of appropriate intervals ceiling framing members without means such as bolts, screws, or listed clips.

Pencil wire attached from the structure framing down to support luminaires with pencil wire attached from the structure framing down to support luminaires at two (2) angle ends.

Conduit and junction boxes shall be securely fastened to the structure at appropriate intervals not more than seven feet (7') apart; pencil wire attached from the structure framing down to support luminaires at (2) angle ends.

*Article 725.* Power Limited Circuits.

*Section 725.2(B)* (page 70-614) Spread of Fire or Products of Combustion. This is not terminated at equipment and not identified for future use with tag. Shall not be permitted to remain.

*Section 760.2* (page 70-625) Fire Alarm Circuits. Add to definitions, insert, "shall be completely piped in EMT conduit for new and largely remodeled spaces."

*Article 770 Optical Fiber Cables and Raceways*

*Section 770.2* (page 70-5633) Abandoned Optical Fiber Cable. Installed optical fiber cable that is not terminated at equipment other than a connector and not identified by a tag for future use are to be removed.

*Section 770.3* (page 70-634) Locations and Other Articles.

**(A)** Spread of Fire or Products of Combustion. The accessible portion of abandoned communication cables shall not be permitted to remain.

<b>Pages</b>	<b>Articles</b>	<b>"Uses Not Permitted"</b>
<b>70-178</b>	<b>324</b>	<b>Flat conductor cable type FCC</b>
<b>70-180</b>	<b>326</b>	<b>Integrated gas spacer cable</b>
<b>70-181</b>	<b>328</b>	<b>Medium voltage cable, type MV</b>
<b>70-182</b>	<b>330</b>	<b>Metal clad cable, type MC</b>
<b>70-184</b>	<b>332</b>	<b>Mineral insulated metal sheathed cable, type MI</b>
<b>70-185</b>	<b>334</b>	<b>Nonmetallic sheathed cable, type NM, NMC, and NMS</b>
<b>70-188</b>	<b>336</b>	<b>Power and control tray cable, type TC</b>
<b>70-189</b>	<b>338</b>	<b>Service entrance cable, type SE and USE</b>
<b>70-201</b>	<b>354</b>	<b>Rigid nonmetallic conduit with conductors, type NUCC</b>
<b>70-205</b>	<b>356</b>	<b>Liquid tight flexible nonmetallic conduit, type LFNC</b>
<b>70-210</b>	<b>362</b>	<b>Electrical nonmetallic tubing</b>
<b>70-218</b>	<b>374</b>	<b>Cellular metal floor raceways</b>
<b>70-227</b>	<b>388</b>	<b>Surface nonmetallic raceways</b>
<b>70-228</b>	<b>390</b>	<b>Under floor raceways</b>
<b>70-235</b>	<b>394</b>	<b>Concealed knob and tube wiring</b>
<b>70-237</b>	<b>396</b>	<b>Messenger supported wiring</b>
<b>70-227</b>	<b>398</b>	<b>Open wiring on insulators</b>

*Article 800. Communication Circuits*

*Article 800.2* (page 70-640) Definitions.

Installed communications cable that is not terminated at both ends at a connector or other equipment and not identified for future use with a tag.

*Section 800.2* (page 70-589) Abandoned Communications Cable. This new definition provides information necessary in determining what constitutes abandoned communications cables in buildings. This change is associated with requirements in Section 800.52(B) for the removal of accessible portions of abandoned cables covered by this Article. Two (2) specific conditions are associated with determining whether or not a cable is considered as abandoned. One (1) is that it does not terminate at both ends at a connector, or other equipment; and the other is that it is not identified by a tag for future use.

*Article 820. Community Antenna Television and Radio Distribution Systems*

*Section 820.26* (page 70-654) Spread of Fire or Products of Combustion. Section 300.21 shall apply. The accessible portion of abandoned network powered broadband communications cables shall not be permitted to remain.

**Sec. 15.56.020. - Additional standards and specifications.**

**(a)**

It shall be unlawful for any person to over fuse any conductor, motor, or apparatus in excess of the maximum allowed by the electrical regulations of this Code for such conductor, motor, or apparatus, or to install any substitute in lieu of an approved fuse or device, so as to remove or reduce the factor of safety of the same.

**(b)**

Heavy wall rigid metal conduit, intermediate metal conduit, or PVC conduit shall only be used in all poured concrete.

**(1)**

Conduit larger than one-half inch in four inch of concrete is not permitted.

**(2)**

EMT not permitted in concrete, or outdoors.

**(3)**

PVC #80, rigid galvanized or intermediate conduit may be used for underground service.

**(c)**

PVC shall not emerge from below grade level ground. PVC shall convert to galvanized rigid conduit prior to its emergence.

**(d)**

Minimum service size on commercial buildings shall be 100 single phase, or three phase.

**(e)**

Twin, or tandem, circuit breakers are not acceptable for new work.

**(f)** Dry wall rings must be installed on all concealed ceiling openings on new work.

**(g)** Over current protection shall be required in all underground conductors.

**(h)** Prints involving hazardous areas must be approved prior to installation.

**(i)** Only copper wire shall be permitted for use in the Village of North Riverside.

**(j)** All wiring shall be in metal conduit.

**(k)** Where new construction, or alteration work, involves electrical work of any type, the construction plans shall include a complete wiring plan that contains the following information:

**(1)** Size of wire, insulation type, and conduit size.

**(2)** Number of circuits and their ampere rating.

**(3)** Location of all electrical panels and cabinets.

**(4)** Size of all motors and power consuming equipment, and their ratings.

**(5)** Specifications and locations for all exit lights and emergency lights.

**(6)** Schedule on lighting and power panels.

**(7)** Every electrical panel shall contain a panel circuit director card identifying all circuits. Commercial and industrial panels shall be typed or computer generated.

**(8)** All commercial and industrial wiring shall be minimum 12 gauge wiring, except low voltage wiring.

**(9)** An approved nonferrous metal tag shall be attached to the ground electrode clamp giving warning against its removal.

**(10)** Thin wall (EMT) conduit shall not be used for electrical services. Aluminum rigid conduit, if used, shall be installed above grade only.

**(11)** Under ground electrical service permitted in PVC #80 at 32 inches below grade.

**(12)** No PVC shall emerge from the ground or concrete slab or encasement. PVC shall convert to galvanized rigid conduit prior to its emergence.

**(13)**

All rooms with multiple entrance or exits, which are more than six feet apart shall utilize three-way or four-way switches, unless an alternate arrangement is approved by electrical inspector.

**(14)**

Any secondary or sub feeder crossing under driveways, parking lots, or vehicle traffic ways shall be encased in heavy wall rigid conduit or intermediate metallic conduit; 30 inches depth required.

**15.56.030 Electrical contractor--Registration--Application.**

Any person desiring to engage in the business of electrical contractor shall apply for registration to the building commissioner. Upon the filing of such application in proper form, and the payment of the registration fee set out in Section 15.56.040, the Village shall register the applicant as an electrical contractor, and shall issue to the applicant a certificate of registration which will authorize the applicant to engage in such business for the year in which it is issued.

**15.56.040 Electrical contractor--Registration--Fee--Certificate term.**

The fee for registration as an electrical contractor shall be two hundred dollars per year, which shall be paid by the applicant to the Village in advance upon filing the application. The certificate of registration issued thereunder shall expire on the thirty-first day of December of the year in which it is issued.

**15.56.050 Electrical contractor--Bond required.**

Every person desiring to engage in the business of making any electrical installation in the village shall execute and file a surety bond payable to the village in the penal sum of ten thousand dollars, conditioned that the applicant shall well and faithfully observe all of the provisions of this chapter and other ordinances and other regulations of the village relating to electrical installations.

**15.56.060 Electrical commission--Created--Composition.**

There is established a commission to be known as the electrical commission of the village which shall consist of five members. The building inspector shall be a member, an ex officio chairman of such commission. Of the other four members, one shall be an electrical contractor; one a journeyman electrician; one a representative of an inspection bureau maintained by the fire underwriters, if such a representative resides in the village, and if no such representative resides in the village, then the chief of the fire department; and one a representative of an electricity supply company, who shall be appointed by the president and board of trustees; provided, that if in the village there is no person qualified to act under any one of the above descriptions, the president and board of trustees may appoint some other person to fill such position.

**15.56.070 Electrical commission--Duties.**

It shall be the duty of the electrical commission to formulate and recommend safe and practical standards and specifications for the installation, alteration, and use of electrical equipment designed to meet the necessities and conditions that prevail in the village, to recommend reasonable rules and regulations governing the issuance of permits and to recommend reasonable fees to be paid for the inspection by the electrical inspection division of all electrical equipment installed or altered within the village.

**15.56.080 Electrical inspection division--Permit issuance.**

A. No electrical equipment shall be installed or altered except upon a permit first issued by the Village. No permit shall be issued for installing or altering, by contract, electrical equipment, unless the person applying for such permit is registered as an electrical contractor as required by this chapter.

B. All work covered under a permit must be performed by a licensed electrician or under the immediate supervision of a licensed electrician.

**15.56.090 Inspections.**

The building inspector shall inspect all electrical equipment installed or altered, and shall require that it conform to the standards and specifications applicable thereto and adopted as provided in this chapter and upon completion of such installation or alteration in compliance with such standards and specifications, shall immediately issue a certificate of inspection covering such installation or alteration.

**15.56.100 Reinspections.**

A. The building inspector is empowered to reinspect any electrical equipment and, when such equipment is found to be unsafe to life or property, shall notify the person owning, using, or operating the same to place the same in a safe and secure condition and in compliance with the standards and specifications provided in this chapter within such time as the electrical inspection division considers just and reasonable.

B. Upon refusal or willful failure to comply with the requirements of such notification, in addition to the penalties otherwise provided in this chapter, the building inspector may order and compel the cutting off and stopping of current until such electrical equipment has been placed in a safe and secure condition and in compliance with the standards and specifications referred to in this chapter.

C. No inspection fee shall be charged for such reinspection, but in case it becomes necessary to replace such electrical equipment on account of defects disclosed by such reinspection, a permit therefor shall be obtained and an inspection fee paid as provided for in Section 15.04.100.

**15.56.110 Recordkeeping.**

The building department shall keep complete records of all permits issued and inspections made and other official work performed under the provisions of this chapter.

**15.56.120 Electrical inspector--Inspections--Right of entry.**

A. The building inspector and his assistants shall have the power to enter buildings or premises at any reasonable hour in the discharge of their duties, and it shall be competent for them when necessary to remove any existing obstructions such as laths, plastering, boarding, or partitions which may prevent a perfect inspection of the electrical equipment.

B. It is unlawful for any person to interfere with the building inspector in the performance of his/her duties.

C. Whenever, in the opinion of the electrical inspector, it is necessary to call upon the police department for aid and assistance in carrying out or enforcing any of the provisions of this chapter governing the inspection of electrical equipment, he shall have the authority to do so, and it shall be the duty of any member of the police department, when called upon by the electrical inspector, to act according to the instructions of and to perform such duties as may be required by the chief electrical inspector in order to enforce or put into effect the provisions of this chapter relating to the inspection of electrical equipment.

**15.56.130 Inspection required prior to supply of current.**

Whenever any electrical equipment has been installed or altered, no electrical current shall be supplied to or used on such equipment previous to the inspection of such equipment by the building department and the issuance of a certificate of inspection covering such installation or alteration; provided, that the inspection division may issue a temporary certificate for the use of electrical current during the course of construction or alteration of buildings, which temporary certificate shall expire when the construction or alteration of such building is complete.

**15.56.140 Defects in equipment--Action.**

A. In case the building inspector or his assistants find a defect in any electrical apparatus or equipment subject to inspection in the village, such inspector shall report the same in writing to the persons for whom the test is being made, using blanks furnished by the village for that purpose and giving a description of the character of the defect. If the defect is of a dangerous character necessitating immediate repair, the electrical inspector shall forthwith condemn the apparatus or equipment for further use, or until the same is removed, repaired, or renewed.

B. If the defect is of such a character that the apparatus or equipment may be safely operated for a period of some days pending repairs, the building inspector shall so report, and name the number of days during which the same may be operated.

C. A duplicate of all such reports shall be promptly filed in the office of the building department.

**15.56.150 Inspections--Fees.**

The fees for the inspection of wiring of any buildings or of any electrical apparatus to be paid to the village shall be as follows:

- A. Wiring: Ten dollars and forty-five cents for each of the first fifty circuits, plus seven dollars and eighty-five cents for each additional circuit or meter;
- B. Fixtures: Seven dollars and eighty-five cents, plus sixty-five cents per fixture;
- C. Motors: Thirty-two dollars and forty-five cents for the first motor, plus seven dollars and eighty-five cents for each additional motor;
- D. Floodlighting: Two dollars and seventy-five cents, plus three dollars and ninety-five cents per circuit;
- E. The minimum fee for any inspection of electrical equipment installed or altered shall be fifty-one dollars and fifteen cents;
- F. For inspection of all electrical apparatus or equipment for which no fee is specifically prescribed in this section, the charge for such inspection shall be fifty-one dollars and fifteen cents, plus fifty-one dollars and fifteen cents per hour for the time incurred or spent by each inspector engaged in making the test or inspection for each hour in excess of one hour;
- G. Electric heating shall be charged at the following rates:

TABLE INSET:

Area in Square Feet	Rate In Dollars
0--500	\$13.75
501--800	15.15
801--1600	17.85
1602--2400	22.55
2401 and over	26.10

H. In the event any new electrical service line for any parcel of land, building or other improvement is installed or in the event the amperage of any existing electrical service line is changed, the inspection fee shall be as follows:

TABLE INSET:

100 Amp	\$ 57.20
150 Amp	63.50
200 Amp	69.85
400 Amp	108.35
600 Amp	133.65
800 Amp	165.55
1000 Amp + greater	247.75

**15.56.170 Street poles and wires--Permit required--Village rights.**

No poles for the carrying of electric or other wires or cables shall be erected in any street or alley without a permit obtained from the director of public works, and all such permits to erect poles in any streets or alleys shall provide that the village may use the poles to be erected for the purpose of attaching thereto such necessary crossarms, wires, or other electrical appliances as may be deemed necessary by the village authorities for fire and police signal services of the village.

**15.56.180 Street poles and wires and trenching--Permit fee.**

Before any permit is issued for the setting or replacing of poles for the support or accommodation of electric conductors of any description whatever, or for the opening of any trench for underground construction, the applicant shall pay to the village treasurer as a fee for such permit, three dollars, plus one dollar for each pole proposed or required to be set, replaced, or removed; and three dollars, plus ten cents per lineal foot of trench proposed to be opened for such underground construction, under the permit sought; provided, nothing contained in this section shall be construed as exacting a fee for replacing a pole broken by accident or storms, or for shifting poles from one position to another under orders issued by the director of public works.

**15.56.190 Installer's duty to notify for inspections.**

Any person installing electric wires or equipment in any building in the village which is to be hidden from view, shall notify the building inspector or assistant in writing of such intended installation at least twenty-four hours before the work is to be covered, and no such work shall be covered until inspection thereof has been made as provided in this chapter. In all cases where such notice has not been given or such work has been covered without inspection thereof, as provided in this chapter, the building inspector or assistant is authorized to take down or remove such portions of the building structure as shall be necessary for the inspection of such electric wires or equipment, and the cost of such taking down and replacing such work so removed by such official shall be borne by the person who has failed to give notice of the installation thereof or by the person who has covered such work after such notice and before inspection thereof as required in this chapter, as the case may be.

**15.56.200 Removal of dead wires--Notice.**

The building inspector shall have the right to cause all dead wires outside and inside of buildings to be removed at the expense of the owner of such wires, by giving the owner ten days' written notice so to do; and if the owner fails or neglects to remove such wires within ten days after receipt of such notice, such person shall be subject to a fine of not less than five dollars nor more than fifty dollars for each and every forty-eight hours such wires are permitted to remain in place after expiration of the time fixed in such notice for the removal of same.

**15.56.210 Condemnation of wires--Removal.**

The building inspector shall have the right to condemn wires which are defective and dangerous to life or property, and shall notify the owner of such wires, in writing, to remove or replace the same with new wires.

**15.56.220 Wiring--Standards.**

- A. Wiring for new construction shall be in conduit, and a minimum of eight circuits with a main disconnect and one hundred ampere service is required.
- B. Service entrance shall be in rigid galvanized heavy-wall conduit and minimum wire size for service shall be two No. 2 and one No. 4 copper insulation wires or two No. 3 RH and one No. 4, provided that thin-wall conduit may be used in revision.
- C. All circuits shall be limited to one thousand five hundred watts.
- D. A utility circuit shall not be smaller than No. 12 wire to supply a convenience outlet in a basement or kitchen. The circuit shall have no other outlet.
- E. Heating equipment and air conditioning shall be on separate circuits.
- F. Kitchen appliance outlets shall be on a separate circuit and only No. 12 wire shall be used in connection therewith.
- G. Not less than four electrical circuits shall be installed in each apartment of all apartment buildings, using only No. 12 wire.
- H. All outdoor circuits which include receptacles, lamps, and kindred items shall be of No. 12 wire and on a separate circuit.
- I. The use of range cable is prohibited on new construction and revisions.

**15.56.230 Violation--Penalty.**

Any person, firm, or corporation owning, controlling, or using any electrical apparatus or equipment subject to inspection under the provisions of this chapter for a longer period, pending repairs, than specified in the electrical inspector's report, or who uses or attempts to use such apparatus or equipment after the same has been condemned by the electrical inspector or his assistant, for further use, and before the same has been removed, fully repaired, or renewed and an order for a certificate of inspection obtained thereon in the manner above prescribed; or who refuses the building inspector or their assistants admittance to the premises where such apparatus or equipment is located for the purpose of making such inspection or test; or who needlessly hinders such inspection or test; or who violates any of the provisions of this chapter shall be deemed guilty of a misdemeanor, and upon the conviction thereof shall be fined in a sum not less than five dollars nor more than five hundred dollars or by imprisonment for not to exceed six months, or by both such fine and imprisonment for each offense. A separate offense shall be deemed committed on each day during or on which a violation occurs or continues.

**SECTION 2. REPEALER.** All ordinances or parts of ordinances in conflict with any of the provisions of this Ordinance shall be, and the same are hereby repealed.

**SECTION 3. SEVERABILITY.** This Ordinance, and every provision thereof, shall be considered severable. In the event that any court of competent jurisdiction may find and declare any word, phrase, clause, sentence, paragraph, provision or section or part of a phrase, clause, sentence, paragraph, provisions or section of this Ordinance is void or unconstitutional, the remaining words, phrases, clauses, sentences, paragraphs, and provisions and parts of phrases, clauses, sentences, paragraphs, provisions and sections not ruled void or unconstitutional shall continue in full force and effect.

**SECTION 4. EFFECTIVE DATE.** This Ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as provided by law.

AYES:

NAYS:

ABSENT:

---

Kenneth Krochmal,  
Village President

PASSED:

APPROVED:

PUBLISHED:

ATTEST:

---

Dr. Queenella Miller  
Village Clerk