ORDINANCE NO. 2010-M-_____ Dated 03.10.2010

AN ORDINANCE AMENDING CHAPTER 15.04 "BUILDING CODE", SECTION 15.04.040 "NATIONAL ELECTRICAL CODE 2002-REGULATIONS ADOPTED AND MODIFIED" AND SECTION 15.04.045 "AMENDMENTS TO THE 2002 NATIONAL ELECTRIC CODE NFPA 70" OF THE ST. CHARLES MUNICIPAL CODE

WHEREAS, the standard code known as NFPA 70, the National Electrical Code, has been updated by the National Fire Protection Association, Inc.; and

WHEREAS, not less than three (3) copies of said code have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days prior to the passage and approval of this Ordinance; and

WHEREAS, the Building Official has provided notice to the Illinois Building Commission regarding proposed changes to regulations regarding construction related activities within the City of St. Charles, as provided by 20 ILCS 3918/55; and

WHEREAS, the City Council finds it to be in the interest of City of St. Charles to periodically update codes regulating buildings and structures.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of St. Charles, Kane and DuPage Counties, Illinois as follows:

SECTION ONE: That Title 15, "Buildings and Construction", Chapter 15.04 "Building Code" of the St. Charles Municipal Code be and is hereby amended by deleting Section 15.04.040 and substituting the following therefor:

"15.04.040 National Electrical Code 2008 – Regulations Adopted and Modified.

The provisions of the 2008 Edition of the National Electrical Code, NFPA 70 issued by the National Fire Protection Association, Inc., One Batterymarch Park, Quincy, Massachusetts, 02269 (hereinafter sometimes referred to as the "NEC") not less than three (3) copies of which have been and are on file in the Office of the Clerk of the City of St. Charles, Illinois for more than thirty (30) days, together with the amendments listed herein, are hereby adopted."

SECTION TWO: That Title 15, "Buildings and Construction", Chapter 15.04 "Building Code" of the St. Charles Municipal Code be and is hereby amended by deleting Section 15.04.45 and substituting the following therefor:

"15.04.045 Amendments to the 2008 National Electric Code NFPA 70.

1. **Section 110.13 (A) Mounting**: Add a new paragraph to read as follows:

"(A) Mounting. All electric panels mounted on concrete or masonry walls that are either exterior walls or below grade, shall have a minimum of ½-inch plywood installed behind

the panel, or the panel shall be mounted to structural mounting channel that provides a minimum ½-inch airspace between the panel and the wall, for the purposes of support and to help prevent moisture entering the panel. Such mounting shall allow panel replacement if required."

2. **Section 210.70 Lighting Outlets Required:** Add a new paragraph to read as follows:

"(D) Illumination of Mechanical Equipment. All occupancies shall have luminaries installed within four (4) feet of the front of all electric panels and within four (4) feet of mechanical heating equipment to enable servicing the equipment."

3.a **Section 230.2 Number of Services, (B) Special Occupancies:** Add new paragraph to read as follows:

"(B) Special Occupancies. Multiple-occupancy buildings with either an external building main disconnect, a key operated shunt trip main disconnect, or parallel key operated shunt trip main disconnects for all services supplied to the building. Parallel shunt trip key operated main disconnects must be provided and installed in a manner approved by the St. Charles Electric Utility."

3.b **Section 230.3 One Building or Other Structures Not to be Supplied Through Another:** Revise by deleting and substituting the following:

"230.3 One Building, or Other Structure, or Tenant Space, Not to be Supplied Through Another. Service conductors, feeders, or branch circuits of one building, or other structure, or tenant space shall not pass through the interior of another building, or structure, or other space."

3.c **Section 230.6 Conductors Considered Outside the Building:** Add new paragraph to read as follows:

"(5) Installed in any "common area" (hallway, corridor or common space accessible to multiple premises) that meets the construction requirements of a one-hour fire rating. Conductors shall be installed in solid metal raceway pipe within "common areas" and shall have a label every five (5) feet identifying the conductors within the conduit."

3.d **Section 230.46 Spliced Conductors**: Revise by deleting and substituting the following:

"230.46 Spliced Conductors. Splices in service entrance conductors, other than those installed by the Electric Utility, are not allowed."

3.e **Section 230.70 General (A) Location, (1) Readily Accessible Location:** Revise by deleting and substituting the following:

"(1) Readily Accessible Location. Service disconnecting means shall be provided either outside the building or via remote control at the Fire Control Panel and shall have

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provisions to allow the service to be locked open. Each building/tenant space shall have a main disconnect incorporated within the main distribution panel inside the space."

3.f **Section 230.70 General (A) Location**: Add new paragraph to read as follows:

"(4) Maximum Distance. Service conductors installed inside a building without over current protection shall not exceed five (5) feet in length."

3.g **Section 230.79 Rating of Service Disconnecting Means (C) One Family Dwelling, (D) All Others:** Revise by deleting and substituting the following:

"(C) One or Two Family Dwelling. All panel board installations for new single-family detached dwellings shall be a minimum of 200-ampere rated. The main service disconnecting means (circuit breaker or fused switch) shall be 200-ampere rated.

(D) Multi-family and Single-Family Attached Dwellings. All panel board installations for new multi-family dwellings and new single family attached three (3) units or more dwelling units shall be a minimum of 100-ampere rated. The main service disconnecting means (circuit breaker or fused switch) shall be a minimum of 100-ampere rated.

(E) All Others. For all other installations, the service disconnecting means shall have a rating of not less that 60-ampere, unless approved by the City of St. Charles Municipal Electric Utility."

4. **Section 250.118 Types of Equipment Grounding Conductors:** Revise by deleting and substituting the following:

"250.118 Types of Equipment Grounding Conductors. The equipment grounding conductor must be a separate conductor run with the circuit conductors unless given exemption by the City of St. Charles Municipal Electric Utility or an approved certified testing agency."

5.a **Section 300.1 Scope (A) All Wiring Installations:** Add new paragraph to read as follows:

"(1). With the exception of one and two family dwellings, all current carrying conductors exceeding 50 volts shall be installed in rigid metal conduit, intermediate metallic conduit, electrical metallic tubing **or** flexible metallic tubing with the exception that PVC conduit can be used for corrosive or other special application areas."

5.b **Section 300.5 Underground Installations, (D) Protection from Damage, (3) Service Conductors**: Revise by deleting and substituting the following:

" (3) Service Conductors. Residential underground service conductors shall be installed in minimum Schedule 40 PVC. All other underground service conductors shall be

installed in conduit that is encased in concrete unless given exemption by the City of St. Charles Municipal Electric Utility."

5.c **Table 300.5 Minimum Cover Requirements, 0 to 600 Volts, Nominal, Burial in Millimeters (Inches):** Delete the third row table entries related to Under A Building.

5.d **Table 300.5 Minimum Cover Requirements, 0 to 600 Volts, Nominal, Burial in Millimeters (Inches):** Revise by deleting and substituting the fourth row to read as follows:

"Table 300.5 Minimum Cover Requirements, 0 to 600 Volts, Nominal, Burial in Millimeters (Inches). Under minimum of 102 mm (4-inch) thick concrete interior or exterior slab with no vehicular traffic and the slab extending not less than 152 mm (6-inch) beyond the underground installation."

6. **Section 310.2 Conductors, (B) Conductor Material:** Revise by deleting and substituting the following:

"(B) Conductor Material. Other than service conductors provided by the Utility, or Aerial, all service, feeder, and branch circuit conductors shall be copper."

7.a **Sections 314.3 Nonmetallic Boxes, 314.17 Nonmetallic Boxes and Conduit Bodies, 314.43 Nonmetallic Boxes, and Section 334.40 (A) Boxes of Insulating Materials:** Delete these sections.

7.b **Section 334.40 (B) Devices of Insulating Material**: Revise by deleting and substituting the following:

"(B) Devices of Insulating Material. Application of non-metallic equipment can be used for corrosive or other special application areas."

8. **Section 695.3 Power Source(s) for Electric Motor-Driven Fire Pumps, (B) Multiple Sources:** Add new paragraph to read as follows:

"(4) Signage. Where a generator provides a secondary source for a fire pump, and the generator feeds other systems, clearly marked key operated shunt trip switch/es must be provided at the fire panel allowing Fire Department personnel the ability to open main breakers to panels not feeding the fire pump."

9. **Section 700.16 Emergency Illumination:** Add new paragraph to read as follows:

"(1) Additional spaces that require emergency lighting shall include all restrooms and mechanical rooms."

10.a **Article 701 Legally Required Standby Systems, I General, Section 701.7 Transfer Equipment:** Add new paragraph to read as follows:

" (D) Transfer Equipment Requirements: Open type transfer switches are the only approved method for connection of standby systems. All transfer switch connections shall be "break before make" to insure the complete separation from the utility system and the generator supply. No parallel operation with the utility system shall be allowed. A minimum time delay of three (3) seconds and a maximum of ten (10) seconds after loss of utility power should be established before starting the generator. Utilization of Kirk Key systems or other mechanical means of isolating generating sources from the utility source are not allowed."

10.b **Article 701 Legally Required Standby Systems, III Sources of Power, Section 701.11 Legally Required Standby Systems (B) Generator Set**: Add new paragraph to read as follows:

"(6) Generator Noise Output. The maximum noise level allowable within ten (10') feet of transformer, switchgear, or other specified equipment operated by the City of St. Charles Municipal Electric Utility (SCMEU) is 80dBA. Sound enclosures, sound barrier walls, or other sound mitigation may be required if the noise level near SCMEU equipment exceeds 80dBA. Analysis of the need for sound abatement equipment will be performed by the City of St. Charles Municipal Electric Utility personnel after the generator is installed and tested."

SECTION TWO: That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance are, to the extent of such conflict, expressly repealed.

SECTION THREE: That after the adoption and approval hereof, this Ordinance shall be printed or published in book or pamphlet form, published by the authority of the City Council.

SECTION FOUR: That this Ordinance shall be in full force and effect on February 1, 2010.

Presented to the City Council of the City of St. Charles, Illinois this _____ day of _____, 2010.

Passed by the City Council of the City of St. Charles, Illinois this _____ day of _____, 2010.

Approved by the Mayor of the City of St. Charles, Illinois this _____ day of _____, 2010.

_____
Mayor

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Attest:

_____
City Clerk

Council Vote:
Ayes: _____
Nays: _____
Abstain: _____
Absent: _____

Approved as to Form:

_____
City Attorney

Date:_____

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