

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda


 X Resolution or Ordinance (Blue) _____ *Waiver of First Requested*
 X Recommendations of Boards, Commissions & Committees (Green)
_____ Other Business (Pink)

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: Scott R. Niehaus, Village Manager

DATE: September 23, 2016 (B of T) Date: October 6, 2016

TITLE: Text Amendments to the Lombard Village Code - Electrical Code

SUBMITTED BY: Department of Community Development 

BACKGROUND/POLICY IMPLICATIONS:

Your Board of Building Appeals (BOBA) submits for your consideration its recommendation on the above referenced petition. The BOBA recommends that the Village Board approve an ordinance granting approval of text amendments to Title 15, Chapter 150, Section 150.060 et. seq. of the Lombard Village Code with regard to electrical installation rules and regulations and other general code amendments.

The BOBA recommended approval of this petition by a vote of 5-0 at its September 9, 2016 meeting.

Fiscal Impact/Funding Source:

Review (as necessary):

Village Attorney X _____ Date _____


Finance Director X _____ Date _____

Village Manager X _____ Date _____



MEMORANDUM

TO: Scott R. Niehaus, Village Manager

FROM: William J. Heniff, AICP, Director of Community Development 

MEETING DATE: October 6, 2016

SUBJECT: **Text Amendments to the Building Code Ordinance (Electrical Code Provisions)**

Please find the following items for Village Board consideration as part of the October 6, 2016 Village Board meeting:

1. Staff memo to BOBA;
2. Board of Building Appeals referral letter; and
3. An Ordinance granting approval of text amendments to the Building Code.

The Board of Building Appeals recommended approval of the amendments by a vote of 5-0. Please place this petition on the October 6, 2016 Board of Trustees agenda for a first reading.

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MEMORANDUM

TO: Board of Building Appeals

FROM: Keith N. Steiskal, Building Official

DATE: September 7, 2016

SUBJECT: BUILDING CODE AMENDMENTS – CHAPTER 150.060 OF THE VILLAGE CODE (ELECTRICAL CODE PROVISIONS)

As part of the regular review of Village Code, attached for BOBA's review and consideration is a draft copy of the proposed amendments to the Village of Lombard's Building Code, Chapter 150.060 of the Village Code as it pertaining to aluminum wiring. Currently, existing code precludes the use of aluminum wiring systems. However, based upon inquiries to the Village, we are bringing forward an amendment to allow for aluminum wiring in selected exterior applications.

Currently the utility provider (ComEd) exclusively uses aluminum wire to feed electric services. Private Electricians have started doing much of this work. The current ordinance requiring copper wire was written at a time when all installation of wire to electric services was done by the utility provider who was not subject to our ordinances. The recommended change in the Village ordinance would allow for private licensed Electricians to install the same aluminum wire ComEd does for outside electric service feeder wire.

Attached is the proposed amendment to the National Electrical Code (Section 230.41. Exception (4)).

ACTION REQUESTED

Staff is placing the proposed amendments on the September 7, 2016 BOBA for consideration and recommends that BOBA recommend approval of the amendments to the Village Board.

§ 150.066 - Adoption by reference amendments, additions, and deletions.

(A) The National Electrical Code (2011 edition), as amended, is adopted by reference as modified by this Chapter.

In the event any provisions, articles, wording, and the like, of the National Electrical Code (2011 edition), as amended, are in conflict with any ordinances, amendments, and/or addendums, as recognized and approved by the Electrical Commission of the Village of Lombard and/or as adopted by the Village of Lombard, or in conflict with the state law, the most restrictive provisions, articles, wording, and the like, shall prevail.

Wiring methods and/or materials listed by the National Electrical Code (2011 Edition), but amended, deleted, prohibited or requiring Special Expressed Written Permission (SEWP) by this Chapter as noted in subsections (B), (C), (D) below shall be considered to be amended, deleted, prohibited or requiring Special Expressed Written Permission (SEWP) where ever and there after mentioned or referenced in the National Electrical Code (2011 edition).

(B) The following articles, or portions thereof, of the National Electric Code (2011 Edition) shall be deleted for the purpose of this Chapter:

Section 230.41. Ex.(4)

~~Aluminum wire not allowed~~ Aluminum wire is not allowed, except AA-8000 series electrical grade aluminum conductors are approved for outside use to feed an electric meter only.

Article 320

Armored Cable: Type AC

Article 322

Flat Cable Assemblies: Type FC

Article 324

Flat Conductor Cable: Type FCC

Article 334

Nonmetallic Sheathed Cable: Type NM, NMC, & NMS

Article 338

Service Entrance Cable: Type SE & USE

Article 362

Electrical Nonmetallic Tubing: Type ENT

Article 394

Concealed Knob & Tube

Article 330

Metal Clad Cable: Type MC when extended a length of greater twenty (20) feet per circuit.

(C) Certain constructions recognized by the National Electrical Code (NEC) shall only be permitted with the Special Expressed Written Permission (SEWP) of the Building Division of the Community Development Department.

(D) The following Articles or Sections the National Electric Code (2011 Edition) are amended as follows:

Section 110.14 Electrical Connections. (Add the following:)

(A) *Terminals*. The use of stab type screwless pressure terminals of the conductor push-in type is prohibited.

(B) *Splices*. The use of device terminals for splicing is strictly prohibited.

Section 110.26 Spaces About Electric Equipment. (Add the following:)

(A) *Dead Front Assemblies*—When in the judgment of the Electrical Inspector or his/her designee, the conditions of the installation or the equipment being installed or modified require additional clearances at front, sides or rear of electrical equipment, such additional clearances shall be provided.

Section 210.19 Conductors—Minimum Ampacity and Size. (Add the following:)

(1) *General*. All branch circuits shall be wired with copper conductors only.

Article 210

III. Required Outlets

Section 210.52

(G) (3) Where an installation includes a sump pump or pumps and an ejector pump or pumps, each pump shall be provided an Individual Branch Circuit (dedicated circuit) compliant with Section 210.21(B)(1), (2) and (3). That is, a receptacle with a rating of not less than the branch circuit rating (usually 20 amperes) and compliant with Section 210.8, (GFCI protected) and with Section 406.11, TR (Tamper Resistant). Where in wet locations Section 406.9(B) WR (Weather Resistant) outlets are required in addition to "In Use" covers.

Section 230.1 Scope (Add the following:)

Whenever a service is revised or replaced, all current pertinent provisions of this Chapter shall apply.

All service and feeder conductors shall be copper. It is intended that all electrical conductors be copper.

Section 230.43 Wiring Methods for 600 Volts, Nominal, or Less. (Delete the following methods:)

(1) Open Wiring on insulators; (2) TYPE IGS Cable; (5) Electrical metallic tubing; (6) Electrical Nonmetallic Tubing; (7) Service-entrance cables; (13) Type MC cable; (14) Mineral-insulated, metal-sheathed cable; (15) Flexible metal conduit and LFMC, Liquidtight flexible metal conduit; (16) Liquid tight flexible nonmetallic conduit; (17) High density polyethylene conduit (HDPE); (18) Nonmetallic underground conduit with conductors (NUCC); (19) Reinforced thermosetting resin conduit (RTRC).

Section 230.70 General.

(A) Location.

- (1) Readily Accessible Location. (Amend to read as follows:) The service disconnecting means shall be installed at a readily accessible location either outside of a building or structure, or inside nearest the point of entrance of the service conductors, in any case within five (5) feet of conduit and conductor entrance to the building.

Section 230.71 Maximum Number of Disconnects. (Replace NEC text with the following:)

- (A) General. The service disconnecting means for each service permitted by Section 230.2, or for each set of service-entrance conductors permitted by Section 230.40, Exception Nos. 1, 3, 4 or 5, shall consist of one main switch or circuit breaker. There shall be no more than six (6) main disconnects grouped in any one location. For the purpose of this section, disconnecting means installed as part of listed equipment and used solely for the following shall not be considered a service disconnecting means:

- (1) Power monitoring equipment
- (2) Surge-protective device(s)
- (3) Control circuit of the ground-fault protection system
- (4) Power-operable service disconnecting means

Section 250.64 Grounding Electrode Conductor Installation. (Delete (A) and (B) and replace with the following:)

- (A) Only Copper grounding and bonding conductors are allowed.
- (B) Securing and Protection from Physical Damage. A grounding electrode conductor or its enclosure shall be securely fastened to the surface on which it is carried. All grounding electrode conductors shall be in an approved raceway. The following raceways shall be approved: rigid metal conduit, intermediate metal conduit, rigid nonmetallic conduit (Schedule 80) for exterior use; electrical metallic tubing or cable armor for interior use. (C), (D), (E), & (F), (Retain NEC text.)

Article 340 (Add the following:)

UF & BC Cable: Type UF

Approved for use only in exterior underground installations without Special Expressed Written Permission (SEWP); all other uses require SEWP. Article 340 otherwise applies entirely.

Article 348 (Add the following:)

Flexible Metal Conduit: Type FMC

Not approved for use as a general wiring method. Article 348 otherwise applies entirely.

Article 350 (Add the following:)

Liquidtight Flexible Metal Conduit: Type LFMC

Not approved for use as a general wiring method. Article 350 otherwise applies entirely.

Article 352 (Add the following:)

Rigid Nonmetallic conduit: Type RNC

Not approved for use as a general wiring method. Approved for use only in exterior underground installations without Special Expressed Written Permission (SEWP); all other uses require (SEWP). Article 352 otherwise applies entirely.

Article 366 (Add the following:)

Auxiliary gutters: Metal only are allowed. Article 366 otherwise applies entirely.

Section 410.2 Definitions.

Closet Storage Space: (Add the following:)

In residential occupancies, all clothes closets over six (6) square feet shall have an approved (listed for use) luminaire installed.

Section 545.4 Manufactured Building—Wiring methods.

(Replace (A) and (B) with the following):

Only wiring methods and materials previously approved by this Chapter shall be authorized for use in manufactured buildings, except that those constructions which require Special Expressed Written Permission (SEWP) for use may be considered on a case by case basis.

Section 600.21 Ballasts, Transformers and Electronic Power Supplies.

(A) Accessibility. (Add the following:)

A code approved enclosure designed for that purpose including a self contained disconnecting means or a disconnecting means installed within (3) three feet and in sight is required.

(Ord. 3267, passed 6/21/90; Ord. 5481, passed 5/6/04; Ord. 6522, passed 9/16/10; Ord. 6832, passed 5/17/13; Ord. No. 7137, 1, passed 10-15-15)



VILLAGE OF LOMBARD

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October 6, 2016

Village President
Keith T. Giagnorio

Village Clerk
Sharon Kuderna

Trustees

Dan Whittington, Dist. 1
Michael A. Fugiel, Dist. 2
Reid Foltyniewicz, Dist. 3
Bill T. Johnston, Dist. 4
Robyn Pike, Dist. 5
William "Bill" Ware, Dist. 6

Village Manager
Scott R. Niehaus

"Our shared Vision for Lombard is a community of excellence exemplified by its government working together with residents and businesses to create a distinctive sense of spirit and an outstanding quality of life."

"The Mission of the Village of Lombard is to provide superior and responsive governmental services to the people of Lombard."

Mr. Keith T. Giagnorio,
Village President, and
Board of Trustees
Village of Lombard

Subject: Text Amendments to the Building Code (Electrical)

Dear President and Trustees:

Your Board of Building Appeals transmits for your consideration its recommendation regarding the above-referenced petition. The petitioner requests amendments to Chapter 150 of the Code of Ordinances (i.e., the Building Code).

The Board of Building Appeals met on September 7, 2016. Keith Steiskal, Building Official, introduced the proposed text amendments to Chapter 150 of the Village. He noted amendments as it pertains to aluminum wiring. Currently, existing code precludes the use of aluminum wiring systems. However, based upon inquiries, staff is bringing forward an amendment to allow for aluminum wiring in selected exterior applications. He noted that currently ComEd exclusively uses aluminum wire to feed electric services. Private electricians have started doing much of this work. The current ordinance requiring copper wire was written at a time when all installation of wire to electric services was done by the utility provider, who was not subject to our ordinances. That is no longer the case. The recommended change would allow for private licensed electricians to install the same aluminum wire ComEd does for outside electric service feeder wire.

Mr. Bernardi noted that he deals with this issue all the time. Mr. Mueller concurred and noted some of the cost issues that can occur on projects in which an owner may double-pay for the connection. The members also discussed whether it would be appropriate to require conduit in exterior feeds. Mr. Cullen also sought clarification as to the length the aluminum wire could be extended toward a house. Mr. Steiskal noted that it would be up to the meter, with all other wiring

needing to be copper.

On a motion by Mr. Bernardi, and a second by Mr. Cullen, the Board of Building Appeals voted 5 to 0 to recommend to the Village Board approval of the proposed text amendments to Chapter 150.

Respectfully,

VILLAGE OF LOMBARD

Board of Building Appeals

ORDINANCE NO. _____

**AN ORDINANCE GRANTING APPROVAL OF TEXT AMENDMENTS TO TITLE 15,
CHAPTER 150 OF THE LOMBARD VILLAGE CODE
RELATIVE TO ELECTRICAL CODE AMENDMENTS**

WHEREAS, the Village of Lombard maintains a Building Code which is found in Title 15, Chapter 150 of the Lombard Code; and,

WHEREAS, the Board of Trustees deem it reasonable to periodically review said Building Code and make necessary changes to reflect locate and state amendments as well as trends in construction; and,

WHEREAS, a review of the Building Code has been conducted by the Village of Lombard Board of Building Appeals on September 7, 2016; and,

WHEREAS, the Board of Building Appeals has filed its recommendations with the President and Board of Trustees recommending approval of the text amendments described herein.

NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS, as follows:

SECTION 1: That Title 15, Chapter 150 of the Lombard Village Code is hereby amended as follows with text amendments in **bold and underline** and deletions denoted by ~~strikethrough~~:

NATIONAL ELECTRICAL CODE - 2011

§ 150.066 - Adoption by reference amendments, additions, and deletions.

(B) The following articles, or portions thereof, of the National Electric Code (2011 Edition) shall be deleted for the purpose of this Chapter:

Section 230.41. Ex.(4)

~~Aluminum wire not allowed~~ **Aluminum wire is not allowed, except AA-8000 series electrical grade aluminum conductors are approved for outside use to feed an electric meter only.**

SECTION 2: That this ordinance shall be in full force and effect on October 20, 2016 after its passage, approval and publication as provided by law.

Passed on first reading this _____ day of _____, 2016.

First reading waived by action of the Board of Trustees this _____ day of _____, 2016.

Passed on second reading this _____ day of _____, 2016, pursuant to a roll call vote as follows:

Ayes: _____

Nays: _____

Absent: _____

Approved this _____, day of _____, 2016.

Keith T. Giagnorio, Village President

ATTEST:

Sharon Kuderna, Village Clerk

Published by me in pamphlet form this _____ day of _____, 2016.

Sharon Kuderna, Village Clerk