

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

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

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: David A. Hulseberg, Village Manager *DAH*

DATE: January 12, 2010 (B of T) Date: January 21, 2010

TITLE: Residential Energy Code

SUBMITTED BY: Department of Community Development *WJ*

BACKGROUND/POLICY IMPLICATIONS:

The Board of Building Appeals (BOBA) through the Department of Community Development transmits for your consideration an ordinance approving text amendments to the Lombard Building Code Title 15, Chapter 150 of the Code of Lombard.

BOBA recommended approval of the proposed amendments.

Please place this item on the January 21, 2010 Board of Trustees agenda.

Fiscal Impact/Funding Source:

Review (as necessary):

Village Attorney X

Finance Director X

Village Manager X *David Hulseberg*

Date \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_


*1/11/10*

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.



**MEMORANDUM**

**TO:** David A. Hulseberg, Village Manager

**FROM:** William Heniff, AICP, Director of Community Development 

**DATE:** January 21, 2010

**SUBJECT:** BOBA Recommendation – Text Amendments to the Building Code; Residential Energy Code

At the December 16, 2009 Board of Building Appeals (BOBA) meeting, BOBA discussed the recently adopted regulations to the state Energy Efficient Commercial Building Act (Public Act 09-0778). The regulations amend the previously adopted Energy Commercial Building Act and establish energy code provisions for residential buildings, in addition to structures previously regulated through the code. Municipalities are obligated to enforce the provisions set forth within the Act and municipalities cannot establish regulations that are more restrictive or less restrictive than those provisions set forth in the Act, unless those provisions were established prior to the new state regulations.

Staff undertook a review of the provisions set forth within the Act and offered the attached summation for BOBA discussion purposes at their December 16, 2009 meeting. Staff reviewed these applications with BOBA and discussed how these mandates would be administered in the Village. Key elements are:

- Builders will be mandated to undertake broad energy saving evaluations as part of new residential construction and residential addition activities. Staff also noted how such activities will be undertaken to meet the state mandate while providing reasonableness to the development community.
- Inspection staff will also be required to undertake reviews of new residential construction projects or additions to ensure that the Act's provisions are being met. Staff will be examining this issue further to determine whether this will necessitate a separate inspection or whether this item can be reviewed concurrent with other inspection activities.

- New windows will need to meet energy requirements. A broad interpretation of the state mandate would necessitate the Village to regulate and inspect all new windows or window replacements for compliance with the energy code provisions.

- The state's Capital Development Board has been tasked to adopt the Act's provisions and establish the applicability provisions. Staff anticipates that this activity will be completed in early 2010 in order to meet the Act's mandate. However, staff and BOBA are recommending that Village Code reflect the Act's provisions by reference in order to provide the development community with a comprehensive listing of all pertinent regulations pertaining to new construction.

- BOBA raised concerns about the additional costs associated with the new regulations. While one source (The Midwest Energy Efficiency Alliance) estimates that the new regulations would save homeowners \$267-\$667 annually on energy costs, this cannot be confirmed. BOBA discussed this issue and noted there would be additional costs associated with the new construction. Staff notes that the cost benefits associated with energy conservation or payback period for the mandates cannot be readily made. It was noted at the BOBA meeting that the new requirements may increase the construction cost of a new residence by 7 to 10 percent.

- From a code amendment standpoint, the text amendment to Section 150 of the Village Code would be adopting the latest edition of the International Energy Conservation Code.

### **ACTION REQUESTED**

Please place this item on the January 21, 2010 Village Board agenda for consideration and approval. BOBA recommends that the Village amend Section 150: Building Code to establish applicable references to the Residential Energy Code provisions set forth within Energy Efficient Commercial Building Act.

# THE VILLAGE OF LOMBARD

## 2009 INTERNATIONAL

## ENERGY CODE HIGHLIGHTS

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Community Development Department

The Building Division

12/10/2009

This document is designed to be an overview of the changes to new residential construction/remodeling as a result of the State of Illinois adoption of the 2009 International Energy Code. The Energy Code has been in effect for new commercial construction/remodeling since 2004. This is the first time that residential structures will be mandated by the State of Illinois to follow the Energy Code.

The residential chapter of the International Energy Code is Chapter 4 and can be found on pages 27 through page 36. To follow the applicable charts in the code book, please use climate zone 5 for Lombard, IL. The new requirements of the Energy Code will be broken down into General, Building, HVAC, and Electrical changes.

\*The following are **General** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- A permanent certificate shall be posted on the electric panel and shall include R-values used in all areas of the structure, U-Factors for all fenestration (glass), and types and efficiency of heating, cooling, and hot water equipment. This is a new requirement.
- A "Compliance report" shall be submitted including all proposed designs and checklists needed to inspect the structure. RES-CHECK will be required as part of the permit submittal and can be used for the compliance report. This is a new requirement.

\*The following are **Building** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- Exterior windows that had no minimum U-Factor will need to have a minimum U-Factor of .35.
  - Skylights that had no minimum U-Factor will now have a minimum U-Factor of .60.
  - Ceiling insulation R-value will be increased from R-30 to R-38.
  - Wood framed exterior wall insulation R-value will be increased from R-13 to R-20.
  - Floor insulation R-value will be increased from R-19 to R-30.
  - Basement wall insulation R-value will increase from 0 to R-13.
  - Basement slab insulation will increase from 0 to R-10.
  - Crawl space wall insulation R-value will increase from 0 to R-13.
  - Any new windows, including replacement windows will need to meet the new energy code.
  - Air leakage testing or inspection is now required for the building envelope where no requirement existed prior.
  - Wood burning fireplaces will now need to have gasketed doors and have outside combustion air where gasketed doors were not required previously.
  - Recessed lighting will now be required to be air tight fixtures that are gasketed to the ceiling or wall covering. This is also a new requirement.
- \*This is a condensed version of the code and does not include all text and options.

\*The following are **HVAC** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

It should be noted that the law that the State of Illinois has adopted requires the enforcement of this code. No municipality will be allowed to make it more or less strict. The Lombard Building Division has decided to perform inspections of the building envelope in place of the blower door test that a third party would have had to perform. The HVAC duct leakage test will need to be performed by the contractor.

**\*This is a condensed version of the code and does not include all text and options.**

The following are **Electrical** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- 50% of the lamps installed are required to be high-efficiency lamps.

- A programmable thermostat will be required for all new furnace installations. This is a new requirement.
- Duct insulation required for HVAC ducts located in unconditioned spaces shall increase from R-2 to R-8.
- All HVAC ducts will be required to have all seams sealed. This is a new requirement.
- An air leakage test will be required to be performed on the sealed HVAC ducts. This is a new requirement.
- A duct leakage test will need to be performed by the contractor during the rough inspection phase of construction. This is a new requirement.
- Hot water heating systems will be required to have all water circulation piping insulated with R-2 where no insulation was required in the past.
- All heating and cooling systems will be required to be sized per the International Mechanical Code. There was no such requirement in the past.
- All heated pools will be required to have a vapor retardant cover and pools heated to over 90 degrees will be required to have an R-12 insulated cover.

**ORDINANCE**

**AN ORDINANCE APPROVING TEXT AMENDMENTS  
TO THE LOMBARD BUILDING CODE  
TITLE 15, CHAPTER 150 OF THE CODE OF LOMBARD, ILLINOIS**

(Residential Energy Code)

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

WHEREAS, the Board of Trustees deem it reasonable to periodically review said Building Code and make necessary changes; and

WHEREAS, the Board of Trustees recognize that the Public Act 96-0778, signed into law by on August 28, 2009 by the State of Illinois which amended the Energy Efficient Commercial Building Act to incorporate energy efficient regulations for residential construction activity; and

WHEREAS, the Act mandates compliance by municipalities and would be applicable to new residential construction and additions to such structures; and

WHEREAS, as the Director of Community Development has identified and recommends text amendments to the Building Code as set forth herein; and

WHEREAS, the Lombard Board of Building Appeals (BOBA) considered the Act's provisions and recommends that the Building Code be amended to reference the Act's provisions accordingly.

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, Section 150.030, of the Code of Lombard, Illinois is hereby amended to read in part, as follows:

**§ 150.030 ADOPTION BY REFERENCE.**

All provisions as listed in the International Building Code, 2000 Edition, are incorporated by reference with the following changes:

Section 109.3.7 Delete Chapter 13 reference and replace with 2000 latest edition of the International Energy Conservation Code adopted by the State of Illinois.

**SECTION 2:** That Title 15, Chapter 150, Section 150.040, of the Code of Lombard, Illinois is hereby amended to read in part, as follows:

*RESIDENTIAL USES SPECIAL REQUIREMENT  
(USE GROUPS R-2, R-3 AND R-4)*

**§ 150.040 SPECIAL RESIDENTIAL REQUIREMENTS.**

(A) Applies to all uses R-2, R-3 and R-4

(10) INSULATION

Minimum R values for all residential insulation installations shall be based on the values as set forth in the Residential Building Design Tables of the latest edition of the International Energy Conservation Code, 2000 Edition and any amendments as adopted by the Village of Lombard State of Illinois. Minimum R-values shall be as follows:

\_\_\_\_\_ Ceiling Insulation: R30  
\_\_\_\_\_ Exterior Wall Insulation: R13  
\_\_\_\_\_ R19

**SECTION 3:** That this ordinance shall be in full force and effect from and after its passage, approval and publication in pamphlet form as provided by law.

Passed on first reading this \_\_\_\_\_ day of \_\_\_\_\_, 2010.

First reading waived by action of the Board of Trustees this \_\_\_\_\_ day of \_\_\_\_\_, 2010.

Passed on second reading this \_\_\_\_\_ day of \_\_\_\_\_, 2010.

Ayes: \_\_\_\_\_

Nays: \_\_\_\_\_

Absent: \_\_\_\_\_



Approved this \_\_\_\_\_ day of \_\_\_\_\_, 2010.

William J. Mueller, Village President

ATTEST:

Brigitte O'Brien, Village Clerk

Published by me in pamphlet form this \_\_\_\_\_ day of \_\_\_\_\_, 2010.

Brigitte O'Brien, Village Clerk