

★ **Roll Call Number**

Agenda Item Number

35A

Date December 22, 2014

An Ordinance entitled, "AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by adding and enacting a new Article II, ENERGY CODE, consisting of Sections 26-200 to 26-216, to Chapter 26, BUILDINGS AND BUILDING RESTRICTIONS, and by amending Sections 26-300, 26-310 and 26-311 of said Chapter 26, to adopt the International Energy Conservation Code, 2012 edition, and to delete and amend portions thereof",

which was considered and voted for the first time upon under Roll Call No. 14-~~182~~ of December 8, 2014, again presented.

MOVED by _____ that this ordinance be considered and given second vote for passage.

FORM APPROVED:

(Second of three required readings)

Roger K. Brown

Roger K. Brown

Assistant City Attorney

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COUNCIL ACTION	YEAS	NAYS	PASS	ABSENT
COWNIE				
COLEMAN				
GATTO				
GRAY				
HENSLEY				
MAHAFFEY				
MOORE				
TOTAL				
MOTION CARRIED			APPROVED	
_____ Mayor				

CERTIFICATE

I, DIANE RAUH, City Clerk of said City hereby certify that at a meeting of the City Council of said City of Des Moines, held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year first above written.

City Clerk

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ORDINANCE NO. _____

AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by adding and enacting a new Article II, ENERGY CODE, consisting of Sections 26-200 to 26-216, to Chapter 26, BUILDINGS AND BUILDING RESTRICTIONS, and by amending Sections 26-300, 26-310 and 26-311 of said Chapter 26, to adopt the International Energy Conservation Code, 2012 edition, and to delete and amend portions thereof.

BE IT ORDAINED by the City Council of the City of Des Moines, Iowa:

Section 1. That the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as amended by Ordinance No. 15,206 passed August 12, 2013, be and is hereby amended by adding and enacting a new Article II, ENERGY CODE, consisting of Sections 26-200 to 26-216, to Chapter 26, BUILDINGS AND BUILDING RESTRICTIONS, and by amending Sections 26-300, 26-310 and 26-311 of said Chapter 26, to adopt the International Energy Conservation Code, 2012 edition, and to delete and amend portions thereof, as follows:

ARTICLE II. ENERGY CODE
DIVISION 1. GENERALLY

Sec. 26-200. Adoption of the International Energy Conservation Code.

- (a) This article shall consist of the International Energy Conservation Code ("IECC"), 2012 edition, published by the International Code Council, including both the Commercial Provisions and the Residential Provisions thereof, which are incorporated by this reference in their entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the energy code. References to section numbers in this article not preceded by "26-" will be to sections in the IECC. References to sections numbers in this article preceded with a "C" will be to the Commercial Provisions in the IECC. References in this article to sections preceded with an "R" will be to the Residential Provisions in the IECC.
- (c) Nothing in this division shall be interpreted to apply a lower standard or requirement than imposed by the residential energy code or the nonresidential energy code of the state of Iowa building code. In the event the residential energy

code or the nonresidential energy code of the state of Iowa building code imposes a higher standard or requirement, the applicable energy code of the state of Iowa building code shall be enforced in lieu of this division.

Sec 26-201—26-209. Reserved.

DIVISION 2. DELETIONS & AMENDMENTS

Sec. 26-210. Deletions.

The following sections are deleted from the International Energy Conservation Code, and are of no force or effect in this article:

- (1) Section C109
- (2) Section R109

Sec. 26-211. Amendments and additions.

The remaining sections in this division are and represent amendments and additions to the requirements contained in the International Energy Conservation Code, and where their requirements conflict with that code, the requirements of this division shall prevail.

26-212. Statement of review.

A statement that a review has been accomplished and that the design is in compliance with the energy efficiency standards shall be provided. If the building volume exceeds 100,000 cubic feet of enclosed space that is heated or cooled, the review shall be signed and sealed by the responsible registered architect or licensed professional engineer. This statement shall be filed with the building official on a form approved by the building official prior to construction or before obtaining building permits. The building official may issue permits for footings and foundations prior to the submittal of the statement of review.

Sec. 26-213. Scope of IECC residential provisions.

Delete section R101.2 of the IECC and insert in lieu thereof the following new section:

R101.2 Scope. This code applies to residential buildings and the buildings' sites and associated systems and equipment, except the remodeling or renovation of one- and two-family dwelling units. The remodeling or renovation of one- and two-family dwelling units is not within the scope of the IECC or this article.

Sec. 26-214. Testing.

Delete the first three sentences of section R402.4.1.2 of the IECC and insert in lieu thereof the following new sentences:

The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding 4 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Testing shall be conducted by an approved third party holding one of the following certifications,

or an equivalent certification approved by the building official:

- 1) Building Analyst certified by Building Performance Institute, Inc.
- 2) Home Energy Rating System Rater certified by Residential Energy Services Network.
- 3) Duct and Envelope Tightness (DET) Verifier certified by the Illinois Association of Energy Raters.

Sec. 26-215. Sealing.

Delete section R403.2.2 of the IECC and insert in lieu thereof the following new section:

R403.2.2 Sealing (mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with either the International Mechanical Code or International Residential Code, as applicable.

EXCEPTIONS:

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.
2. Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.
3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressures less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

Duct tightness shall be verified by either of the following:

1. Postconstruction test: Leakage to outdoors shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area or total leakage shall be less than or equal to 6 cfm (170 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
2. Rough-in test: Total leakage shall be less than or equal to 6 cfm (170 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.

EXCEPTION: The duct leakage test is not required for ducts and air handlers located entirely within the building thermal envelope unless cavities are used for returns.

26-216. Building cavities.

Delete section R403.2.3 of the IECC and insert in lieu thereof the following new section:

R403.2.3 Building cavities (mandatory). Building framing cavities shall not be

used as supply ducts. Building framing cavities may be used as return ducts only if both of the following conditions exist:

1. Ducts must be tested for duct leakage in accordance with section R403.2.2.
2. Exterior wall cavities shall not be used for return ducts.

Secs. 26-217—26-299. Reserved.

ARTICLE III. BUILDING CODE DIVISION 1. GENERALLY

Sec. 26-300. Adoption of international codes.

- (a) This article shall consist of the International Building Code (“IBC”), the International Existing Building Code (“IEBC”), and Parts I, II, III, V, VI, IX and appendix chapters G, H, J and K of the International Residential Code (“IRC”) all 2012 editions ~~and the 2009 edition of the International Energy Conservation Code (“IECC”) published by the International Code Council, which volumes are incorporated by this reference in their entirety, except as otherwise indicated in this article.~~
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the building code. References to section numbers not preceded by "26-" will be to sections in the International Building Code, the International Existing Building Code, ~~International Energy Conservation Code~~ or the International Residential Code.
- ~~(c) All references to the International Energy Conservation Code (“IECC”) found within the IRC, IBC, and IEBC shall be interpreted to refer to the 2009 edition of the IECC until such time the State of Iowa mandates enforcement of the 2012 IECC.~~
- ~~(cd) All references to the International Plumbing Code found within the IRC, IBC, and IEBC shall be interpreted to refer to the corresponding provision in the Uniform Plumbing Code.~~
- (de) The following climatic and geographic design criteria shall be applied in the application of the IRC to structures in for the City of Des Moines.

Ground Snow Load	Wind Speed	Seismic Design Category	Subject To Damage From:				Winter Design Temp	Ice Shield Underlayment Required	Flood Hazard	Air Freezing Index	Mean Annual Temperature
			Weathering	Frost Line Depth	Termite	Decay					
30 psf	90 mph	A	Severe	42"	Moderate to Heavy	Slight to Moderate	0°F	Yes	Mar-1984	1833	48.6°

DIVISION 2. DELETIONS AND AMENDMENTS

Sec. 26-310. Deletions.

The following are deleted from the building code and are of no force or effect in

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this article:

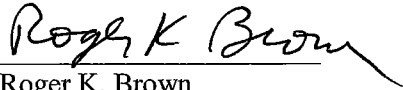
- (1) Sections 113; and,
- (2) Subsections 105.2, 105.5 and 110.3.5 of the International Building Code.
- (3) Sections R112; and,
- (4) Subsections R105.2, R105.5, G2420.5.3, item 2 in G2422.1, exception 4 in G2422.1.2.3, and AG105.2 item 10.1 of the International Residential Code.
- (5) Section 103, 112, 115; and,
- (6) Subsections 105.2, 105.5, and 109.3.5 of the International Existing Building Code.
- (7) ~~Section C109 of the International Energy Conservation Code.~~

Sec. 26-311. Amendments and additions.

The remaining sections in this article represent amendments and additions to the requirements contained in the International Building Code, the International Residential Code, ~~the International Energy Conservation Code~~ and the International Existing Building Code. In the event there are requirements that conflict with these codes, the requirements of this article shall prevail.

Sec. 2. This ordinance shall be in full force and effect from and after the later of its passage and publication as provided by law.


FORM APPROVED:



Roger K. Brown
Assistant City Attorney

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 <p style="text-align: center;">Council Communication Office of the City Manager</p>	Date: December 8, 2014
	Agenda Item No. 54A&B Roll Call No. [147882] Communication No. 14-568 Submitted by: Phillip Delafield, Community Development Director

AGENDA HEADING:

Amendments to Chapter 26 of the Municipal Code to update the International Energy Conservation Code and National Electrical Code.

SYNOPSIS:

Recommend approval of an ordinance change to Chapter 26 of the Municipal Code to adopt the 2014 edition of the National Electrical Code (NEC) and the 2012 edition of the International Energy Conservation Code (IECC). Enforcement of these codes is mandated by the State of Iowa. Adopting them will maintain consistency between the City of Des Moines, State of Iowa, and neighboring jurisdictions.

FISCAL IMPACT: NONE

ADDITIONAL INFORMATION:

This action will update and amend Chapter 26 of the Municipal Code and the referenced model codes contained therein to the most recent editions being adopted by the State of Iowa, the 2012 IECC and the 2014 NEC. These changes are aligned with the State of Iowa Energy Code and Electrical Code and the codes adopted by the metropolitan area communities, wherever possible. The proposed amendments clarify language and adopt recent versions of the codes.

The Building and Fire Code Board of Appeals has reviewed the proposed changes with staff, notified stakeholders, and held public hearings. Stakeholders such as the International Brotherhood of Electrical Workers, Greater Des Moines Homebuilders Association, Associated Builders and Contractors of Iowa, Plumbers and Steamfitters Union Local 33, Greater Des Moines Heating & Cooling Association, Master Builders of Iowa, and the Iowa Chapter of the American Institute of Architects were given notification of and asked to provide comment on the proposed code adoption. A letter was provided by the Home Builders Association of Greater Des Moines in support of an amendment requiring air leakage testing of new homes to be conducted by an approved third party. No other comments were received.

PREVIOUS COUNCIL ACTION(S):

Date: August 12, 2013

Roll Call Number: 13-1281

Action: On adoption by reference of the International Fire, Building, and other standard codes:

(B) Final consideration of ordinance above amending Chapter 26 to adopt the 2012 editions of the International Building Code; International Residential Code; International Existing Building Code; International Mechanical Code; International Fuel Gas Code; Uniform Plumbing Code and the 2009 edition of the International Energy Conservation Code. Moved by Mahaffey that this ordinance do now pass, 15,206. Motion Carried 7-0.

Date: July 9, 2012

Roll Call Number: 12-1108 and 12-1109

Action: Amending Chapter 26 of the Municipal Code regarding adoption and amendment of the 2011 edition of the National Electrical Code and recognition of licensed residential electrical contractors. Moved by Hensley that his ordinance be considered and given second vote for passage. Motion Carried 7-0.

(A) Final consideration of ordinance above (waiver requested by Community Development Department), requires six votes. Moved by Hensley that the rule requiring that an ordinance must be considered and voted on for passage at two Council meetings prior to the meeting at which it is to be finally passed be suspended, that the ordinance be placed upon its final passage and that the ordinance do now pass, #15,117. Motion Carried 7-0.

BOARD/COMMISSION ACTION(S):

Date: September 11, 2014

Board: Building and Fire Code Board of Appeals

Resolution Number: N/A

Action: Motion made and seconded to recommend adoption of the 2012 International Energy Conservation Code, with amendments.

Date: November 13, 2014

Board: Building and Fire Code Board of Appeals

Resolution Number: N/A

Action: Motion made and seconded to recommend adoption of the 2014 National Electric Code, with amendments.

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

Current code editions are adopted every three (3) years.

For more information on this and other agenda items, please call the City Clerk's Office at 515-283-4209 or visit the Clerk's Office on the first floor of City Hall, 400 Robert D. Ray Drive. Council agendas are available to the public at the City Clerk's Office on Thursday afternoon preceding Monday's Council meeting. Citizens can also request to receive meeting notices and agendas by email by calling the Clerk's Office or sending their request via email to cityclerk@dmgov.org.