

ORDINANCE NO. 238-18

AN ORDINANCE TO AMEND AND REENACT SECTION 5-0901 AND TO REPEAL AND REENACT SECTION 5-0902 OF THE REVISED ORDINANCES OF 2000 OF THE CITY OF MAPLETON RELATING TO THE INTERNATIONAL ENERGY CONSERVATION CODE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MAPLETON, NORTH DAKOTA:

SECTION 1. Section 5-0901 of the Revised Ordinances of 2000 of the City of Mapleton is hereby amended and reenacted to read as follows:

5-0901. ADOPTION OF INTERNATIONAL ENERGY CONSERVATION CODE. There is hereby adopted by reference by the City Council, for the purpose of prescribing regulations governing standards, relative to housing in the City of Mapleton, that certain code known as the International Energy Conservation Code, recommended and compiled by the International Code Council, being particularly the ~~2009~~ 2015 edition thereof, as the same are now established in said code, a copy of which is on file in the office of the Building Administrator for the City of Mapleton, with the exception of the sections hereinafter set forth affecting local conditions of the City of Mapleton, which sections shall be substituted for and in lieu of like sections or paragraphs in said International Energy Conservation Code; the City Council of said City of Mapleton, by this section hereby approves and adopts such rules and regulations, so modified, for the use and application within the city limits of Mapleton, North Dakota, as well as for any area within the extraterritorial zoning jurisdiction of the City. Provided, that any amendments of the ~~2009~~ 2015 edition of the Code may be adopted by the City by resolution.

SECTION 2. Section 5-0902 of the Revised Ordinances of 2000 of the City of Mapleton is hereby repealed and reenacted to read as follows:

5-0902. AMENDMENT TO INTERNATIONAL ENERGY CONSERVATION CODE. The International Energy Conservation Code, as adopted in Section 5-0901 is hereby changed and amended as follows:

SECTION C101.1 is hereby amended to read as follows:

C101.1 Title. This code shall be known as the *International Energy Conservation Code* of ~~[NAME OF JURISDICTION]~~ City of Mapleton, and shall be cited as such. It is referred to herein as “this code.”

SECTION C109 is hereby deleted in its entirety.

TABLE R402.1.2 is hereby amended to read as follows:

TABLE R402.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^s										
CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT ^b U-FACTOR ^b	GLAZED FENESTRATION SHGC ^{b, c}	CEILING R-VALUE	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE ^d	FLOOR R-VALUE	BASEMENT ^e WALL R-VALUE	SLAB ^f R-VALUE AND DEPTH	CRAWL SPACE ^g WALL R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13 + 5 ^h	7/13	19	5/13 ^f	0	5/13
4 except Marine	0.35	0.55	0.40	49	20 or 13 + 5 ^h	8/13	19	10/13	10, 2 ft.	10/13
5 and Marine 4	0.32	0.55	NR	49	20 or 13 + 5 ^h	13/17	30 ^f	15/19	10, 2 ft.	15/19
6	0.32	0.55	NR	19	20 + 5 or 13 + 10^h 20 or 13 + 5 ^{h, i}	15/20	30 ^g	15/19 <u>10/13</u>	10, 4 ft.	15/19
7 and 8	0.32	0.55	NR	49	20 + 5 or 13 + 10^h 20 or 13 + 5 ^{h, i}	19/21	38 ^g	15/19 <u>10/13</u>	10, 4 ft.	15/19

(Remainder of page intentionally left blank)

TABLE R402.1.4 is hereby amended to read as follows:

TABLE R402.1.4								
EQUIVALENT U-FACTORS ^a								
CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR ^b	CEILING U-FACTOR	WOOD FRAMED WALL U-FACTOR	MASS WALL U-FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
1	0.50	0.75	0.035	0.084	0.197	0.064	0.360	0.477
2	0.40	0.65	0.030	0.084	0.165	0.064	0.360	0.477
3	0.35	0.55	0.030	0.060	0.098	0.047	.091 ^c	0.136
4 except Marine	0.35	0.55	0.026	0.060	0.098	0.047	0.059	0.065
5 and Marine 4	0.32	0.55	0.026	0.060	0.082	0.033	0.050	0.055
6	0.32	0.55	0.026	0.045 <u>0.057</u>	0.060	0.033	0.05 <u>0.059</u>	0.055
7 and 8	0.32	0.55	0.026	0.045 <u>0.057</u>	0.057	0.028	0.05 <u>0.059</u>	0.055

SECTION R402.4 is hereby amended to read as follows:

R402.4 Air leakage (Mandatory). The *building thermal envelope* shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.4. Dwelling units of R-2 Occupancies and multiple single family dwellings shall be permitted to comply with IECC C402.5.

SECTION R402.4.1.2 is hereby amended to read as follows:

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding five air changes per hour in Climate Zones 1 and 2, and ~~three air changes per hour in Climate Zones 3~~ through 8. Testing shall be conducted in accordance with ASTM E 779 or ASTM E 1827 and ...

SECTION R402.4.1.3 is hereby added to read as follows:

R402.4.1.3 Visual inspection option. Building envelope tightness and insulation shall be considered acceptable when installed in accordance with Table R402.4.1.1 – “Air Barrier and Insulation” and has been field verified.

SECTION R403.3.2 is hereby amended to read as follows:

R403.3.2 Sealing (Mandatory). Ducts, air handlers and filter boxes shall be sealed. Joints and seams shall comply with either the *International Mechanical Code* or Section M1601.4.1 of this code, as applicable.

Exceptions:

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.
2. For ducts having a static pressure classification of less than 2 inches of water column (500 Pa), additional closure systems shall not be required for continuously welded joints and seams, and locking-type joints and seams ~~of other than the snap-lock and button-lock types.~~

SECTION R403.3.5 is hereby amended to read as follows:

R403.3.5 Building cavities (Mandatory). Building framing cavities shall not be used as supply ducts ~~or plenums.~~

SECTION R403.6 is hereby amended to read as follows:

R403.6 Mechanical Ventilation (Mandatory). The building shall be provided with ventilation that meets the requirements of Section M1507 of this code or the *International Mechanical Code*, as applicable, or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

TABLE R405.5.2 (1) is hereby amended to read as follows:

TABLE R405.5.2(1)		
SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS		
BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
...
Air exchange rate	Air leakage rate of 5 air changes per hour in Climate Zones 1 and 2, and 3 air changes per hour in Climate Zones 3 through 8 at a pressure of 0.2 inches w.g changes per hour in Climate Zones 3 through 8 at a pressure of 0.2 inches w.g (50 Pa). The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than $0.01 \times \text{CFA} + 7.5 \times (\text{Nbr} + 1)$ where: CFA = conditioned floor area Nbr = number of bedrooms Energy recovery shall not be assumed for mechanical ventilation.	For residences that are not tested, the same air leakage rate as the standard reference design. For tested residences, the measured air exchange rate ^a . The mechanical ventilation rate ^b shall be in addition to the air leakage rate and shall be as proposed.
...

SECTION 3. Effective Date. This ordinance shall be in full force and effect from and after the date of its final passage and publication.

Mayor

ATTEST:

City Auditor

Date of First Reading:

Date of Second Reading:

Date of Publication: