

TOWN OF FLOWER MOUND, TEXAS

ORDINANCE NO. 36-16

AN ORDINANCE OF THE TOWN OF FLOWER MOUND, TEXAS, AMENDING CHAPTER 14, "BUILDINGS AND BUILDING REGULATIONS," ARTICLE XV, OF THE CODE OF ORDINANCES OF THE TOWN OF FLOWER MOUND, TO PROVIDE FOR ADOPTION OF THE *INTERNATIONAL ENERGY CONSERVATION CODE*, 2015 EDITION, AND LOCAL AMENDMENTS THERETO; PROVIDING THAT THE BOARD OF ADJUSTMENT SHALL BE THE BOARD OF APPEALS FOR PURPOSES SET OUT HEREIN; REPEALING ALL CONFLICTING ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY; PROVIDING FOR PUBLICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the 77th Texas Legislature passed Senate Bill 5 ("SB 5") in 2001 adopting the *International Energy Conservation Code* for all structures in Texas not otherwise regulated by the *International Residential Code*; and

WHEREAS, SB 5 requires all municipalities to adopt the *International Energy Conservation Code*, allows municipalities to adopt local amendments thereto, and further requires municipalities to review and consider adopting updates to the Code, which occur in three-year cycles; and

WHEREAS, the current energy code in the Town is the 2012 edition of the *International Energy Conservation Code*, and the Town's energy code should be updated to the most current published energy code available; and

WHEREAS, the Town of Flower Mound, together with other local governments of the North Central Texas Council of Governments region, has participated in a study of the 2015 edition of the *International Energy Conservation Code* to provide local amendments that address the conditions of the North Central Texas area; and

WHEREAS, the 2015 edition of the *International Energy Conservation Code* is the most current published code available that addresses the standard for energy efficiency of buildings and structures within the Town; and

WHEREAS, the Town Council of the Town of Flower Mound has determined that it is in the best interest of the citizens of the Town of Flower Mound to update and adopt the 2015 edition of the *International Energy Conservation Code* and has determined that this will promote the health, safety and general welfare of the citizens of the Town of Flower Mound and the general public;

WHEREAS, the Town Council of the Town of Flower Mound further desires to adopt certain local amendments to such Code reflecting the unique needs of the Town of Flower Mound;

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, THAT:

SECTION 1

All of the above premises are found to be true and correct factual and legislative determinations of the Town of Flower Mound and are hereby approved and incorporated into the body of this Ordinance as if copied in their entirety.

SECTION 2

From and after the effective date of this Ordinance, Section 14-601 of the Code of Ordinances of the Town of Flower Mound, Texas, entitled "International Energy Conservation Code Adopted," is hereby deleted and replaced with the following provision:

"Sec. 14-601. International Energy Conservation Code Adopted.

The *International Energy Conservation Code*, 2015 edition, a copy of which is on file in the office of the town secretary, is hereby adopted and designated as the energy code of the town, the same as though the provisions of the *International Energy Conservation Code*, 2015 edition, were copied at length in this section, subject to the deletions, amendments, and additions provided in section 14-602."

SECTION 3

From and after the effective date of this Ordinance, Section 14-602 of the Code of Ordinances of the Town of Flower Mound, Texas, entitled "Local Amendments to International Energy Conservation Code," is hereby deleted and replaced with the following provision:

"Sec. 14-602. Local Amendments to International Energy Conservation Code.

The *International Energy Conservation Code*, 2015 edition, is hereby amended by amending only the enumerated sections and provisions, as follows, and all sections and provisions not expressly amended or deleted shall remain in full force and effect:

- (a) Section C101.1 and Section R101.1 of the *International Energy Conservation Code*, 2015 edition, are hereby amended to read as follows:

Section C101.1. Title. This code shall be known as the Energy Conservation Code of the Town of Flower Mound and shall be cited as such. It is referred to herein as "this code."

Section R101.1 Title. This code shall be known as the Energy Conservation Code of the Town of Flower Mound and shall be cited as such. It is referred to herein as "this code."

- (b) Section C102.1.2 and R102.1.2 of the *International Energy Conservation Code*, 2015 edition, are hereby added to read as follows:

Section C102.1.2. Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the code official, be considered

in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

Section R102.1.2. Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the code official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.4 and R403.3.3 respectively.

- (c) Section C202 and R202 of the *International Energy Conservation Code*, 2015 edition, are hereby amended by adding a new definition of "Projection Factor" to the list of definitions, adding the definition of "Dynamic Glazing" to R202 only, and amending the definition of "Building Thermal Envelope", in alphabetical order to read as follows:

BUILDING THERMAL ENVELOPE. *{Existing text unchanged}*. The building thermal envelope shall include any building element that separates a commercial occupancy from a residential occupancy and provides a boundary between conditioned spaces.

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including U-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

PROJECTION FACTOR. The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.

- (d) Table R402.1.2 of the *International Energy Conservation Code*, 2015 edition, is hereby amended by changing the Wood Frame Wall R-Value for Climate Zone 3 to read as follows:

Table R402.1.2. Insulation and Fenestration Requirements by Component. This amendment allows the Wood Frame Wall R-Value; Climate Zone 3; to be **13**, until September 1, 2016 when this amendment will expire and the value listed in the table must be used.

- (e) Table R402.1.4 of the *International Energy Conservation Code*, 2015 edition, is hereby amended by changing the Wood Frame Wall R-Value for Climate Zone 3 to read as follows:

Table R402.1.4. Equivalent U-Factors. This amendment allows the Frame Wall U-Factor; Climate Zone 3; to be **0.082**, until September 1, 2016 when this amendment will expire and the value listed in the table must be used.

- (f) Section C402.2.7 and R402.2.14 of the *International Energy Conservation Code*, 2015 edition, are hereby added to read as follows:

Section C402.2.7. Insulation installed in walls. To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting, or other equivalent material approved by the building official.

Section R402.2.14. Insulation installed in walls. To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting, or other equivalent material approved by the building official.

- (g) Section R402.3.2 of the *International Energy Conservation Code*, 2015 edition, is hereby amended by adding a paragraph and table following the exception to read as follows:

Section R402.3.2. Glazed fenestration SHGC. {Existing text unchanged}.

Where vertical fenestration is shaded by an overhang, eave, or permanently attached shading device, the SHGC required in Table R402.1.2 shall be reduced by using the multipliers in Table R402.3.2 SHGC Multipliers for Permanent Projections.

Table R402.3.2 SHGC Multipliers for Permanent Projections ^a

Proj ecti	SHGC Multiplier (all Other Orientation)	SHGC Multiplier (North Oriented)
0	1.00	1.00
>0.10 – 0.20	0.91	0.95
>0.20 – 0.30	0.82	0.91
>0.30 – 0.40	0.74	0.87
>0.40 – 0.50	0.67	0.84
>0.50 – 0.60	0.61	0.81
>0.60 – 0.70	0.56	0.78
>0.70 – 0.80	0.51	0.76
>0.80 – 0.90	0.47	0.75
>0.90 – 1.00	0.44	0.73

^a North oriented means within 45 degrees of true north.

- (h) Section R402.4.1.2 of the *International Energy Conservation Code*, 2015 edition, is hereby amended by changing the first sentence to read as follows and adding a paragraph at the end to read as follows:

Section R402.4.1.2. Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour in Climate Zone 3. This portion of is only effective until September 1, 2016. After that date the above amendment expires and the verbiage in the code must be used. *{Remainder of text unchanged}*.

Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

- (i) Section R403.3.3 of the *International Energy Conservation Code*, 2015 edition, is hereby amended by adding a paragraph at the end to read as follows:

Section R403.3.3. Duct testing. (Mandatory). *{Existing text unchanged}*.

Mandatory testing shall only be performed by individuals that are certified to perform duct testing leakage testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

- (j) Section R405.6.2 of the *International Energy Conservation Code*, 2015 edition, is hereby amended by adding a sentence to the end of the paragraph to read as follows:

Section R405.6.2. Specific approval. *{Existing text unchanged}*. Acceptable performance software simulation tools may include, but are not limited to, REM Rate™, Energy Gauge and IC3. Other performance software programs accredited by RESNET BESTEST and having the ability to provide a report as outlined in R405.4.2 may also be deemed acceptable performance simulation programs and may be considered by the building official.

- (k) Table R406.4 of the *International Energy Conservation Code*, 2015 edition, is hereby amended to read as follows:

**TABLE R406.4
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
3	65

SECTION 4

From and after the effective date of this Ordinance, Section 14-603 of Chapter 14 of the Code of Ordinances of the Town of Flower Mound, Texas, entitled "Board of Appeals," is hereby deleted and replaced with the following:

"Sec. 14-603. Board of Appeals

The members of the Flower Mound Board of Adjustment are hereby appointed as the Board of Appeals as provided by the *International Energy Conservation Code*, 2015 edition, and any changes in membership of said Board of Adjustment shall likewise be reflected in the membership of said Board of Appeals."

SECTION 5

All ordinances, orders, or resolutions heretofore passed and adopted by the Town of Flower Mound, Texas, are hereby repealed to the extent that said ordinances, orders, or resolutions, or parts thereof, are in conflict herewith.

SECTION 6

If any section, subsection, clause, phrase, or provision of this Ordinance or the application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void, or unconstitutional, the remaining sections, subsections, clauses, phrases, and provisions of this Ordinance, or the application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired, or invalidated.

SECTION 7

Any person who violates any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine as provided in Section 1-13 of the Code of Ordinances of the Town of Flower Mound, Texas. Each day any such violation or violations exist shall constitute a separate offense and shall be punishable as such.

SECTION 8

The Town Secretary of the Town of Flower Mound is hereby directed to publish the caption in the official newspaper of the Town of Flower Mound as required by Section 3.07 of the Charter of the Town of Flower Mound.

SECTION 9

This Ordinance shall take effect and be in full force from and after its passage and publication, as provided by the Revised Civil Statutes of the State of Texas and the Home Rule Charter of the Town of Flower Mound, Texas.

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, BY A VOTE OF 4 TO 0, ON THIS 20TH DAY OF JUNE, 2016.

APPROVED:

Thomas E. Hayden, MAYOR

ATTEST:

Theresa Scott, TOWN SECRETARY

APPROVED AS TO FORM AND LEGALITY:

Bryn Meredith, TOWN ATTORNEY