

2012 International Energy Conservation Code
ORDINANCE NO. 1091

AN ORDINANCE ADOPTING THE 2012 EDITION OF THE *INTERNATIONAL ENERGY CONSERVATION CODE*, REGULATING THE DESIGN OF BUILDING ENVELOPES FOR ADEQUATE THERMAL RESISTANCE AND LOW AIR LEAKAGE AND THE DESIGN AND SELECTION OF MECHANICAL, ELECTRICAL, SERVICE WATER-HEATING AND ILLUMINATION SYSTEMS AND EQUIPMENT IN THE CITY OF SOUTHLAKE; PROVIDING FOR THE ADOPTION OF LOCAL AMENDMENTS THERETO; PROVIDING FOR RECORDING OF SUCH CODE AS A PUBLIC RECORD; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE OF ALL ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY FOR VIOLATIONS HEREOF; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR PUBLICATION IN PAMPHLET FORM; PROVIDING FOR PUBLICATION IN THE OFFICIAL NEWSPAPER; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Southlake is a home rule city acting under its charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Local Government Code; and

WHEREAS, beginning in the spring of 2012, NCTCOG's Regional Codes Coordinating Committee (RCCC) and its four advisory boards conducted open review meetings over a 1-year period to review the 2012 editions of the International Codes and to develop regional amendments. Their review and recommendations were completed and endorsed by NCTCOG's Executive Board in March 2013. Now NCTCOG encourages jurisdictions in North Central Texas to adopt the *2012 International Energy Conservation Code* along with its respective regional amendments with an effective date of April 1, 2014:

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SOUTHLAKE, TEXAS:

SECTION 1

That the International Energy Conservation Code, 2012 Edition, published by the International Code Council, including the standards referenced therein, is hereby adopted as the Energy Conservation Code of the City of Southlake regulating the design of building envelopes for adequate thermal resistance and low air leakage and the design and selection of mechanical, electrical, service water-heating and illumination systems and equipment in the City of Southlake, except for facilities otherwise regulated under the International Residential Code for One- and Two- Family Dwellings as adopted. A true and correct copy of this document is attached as Exhibit "A."

SECTION 2

That the 2012 International Energy Conservation Code, as adopted herein, is hereby amended as provided in Exhibit "B" incorporated herein and attached hereto for all purposes of this ordinance. The City of Southlake, Texas may from time to time determine that additional local modifications to the Energy Conservation Code are necessary and appropriate to meet the unique needs of the City of Southlake, Texas. To effectuate these local modifications, the City Council shall enact individual ordinances amending this Ordinance, fully setting forth the change to be made in the Energy Conservation Code. These amendments shall be consolidated as Exhibit "B" to this Ordinance.

SECTION 3

The material contained in Exhibits "A" and "B" to this ordinance shall not be included in the formal municipal codification of ordinances, but shall be maintained as a public record in the office of the City Secretary and will be available for public inspection and copying during regular business hours.

SECTION 4

This ordinance shall be cumulative of all provisions of ordinances of the City of Southlake, Texas, except where the provisions of this ordinance are in direct conflict with the provisions of such ordinances, in which event the conflicting provisions of such ordinances are hereby repealed.

SECTION 5

It is hereby declared to be the intention of the City council that the phrases, clauses, sentences, paragraphs, and sections of this ordinance are severable, and if any phrase, clause sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.

SECTION 6

Any person, firm or corporation who violates, disobeys, omits, neglects or refuses to comply with or who resists the enforcement of any of the provisions of this ordinance shall be fined not more than Two Thousand Dollars (\$ 2,000.00) for all violations involving zoning, fire safety or public health and sanitation, including dumping or refuse, and shall be fined not more than five hundred dollars (\$500) for all other violations of this ordinance each day that a violation is permitted to exist shall constitute a separate offense.

SECTION 7

All rights and remedies of the City of Southlake are expressly saved as to any and all violations of the provisions of any ordinances affecting the regulation of the design of building envelopes for adequate thermal resistance and low air leakage and the design and selection of mechanical, electrical service water-heating and illumination systems and

equipment within the City which have accrued at the time of the effective date of this ordinance; and, as to such accrued violations and all pending litigation, both civil and criminal, whether pending in court or not, under such ordinances, same shall not be affected by this ordinance but may be prosecuted until final disposition by the courts.

SECTION 8

The City Secretary of the City of Southlake is hereby authorized to publish this ordinance in book or pamphlet form for general distribution among the public, and the operative provisions of this ordinance as so published shall be admissible in evidence in all courts without further proof than the production thereof.

SECTION 9

The City Secretary of the City of Southlake is hereby directed to publish in the official newspaper of the City of Southlake, the caption, penalty clause, publication clause and effective date of this ordinance one time within ten days after passage of this ordinance, as required by Section 3.13 of the Charter of the City of Southlake.

SECTION 10

This ordinance shall be in full force and effect from and after its passage and publication as required by law but not before April 1, 2014.

PASSED AND APPROVED ON FIRST READING THIS 18TH DAY OF FEBRUARY, 2014.

MAYOR

ATTEST:

CITY SECRETARY

PASSED AND APPROVED ON SECOND READING THIS 4TH DAY OF MARCH, 2014.

MAYOR

ATTEST:

CITY SECRETARY

APPROVED AS TO FORM AND LEGALITY:

City Attorney

Date: _____

EFFECTIVE:

EXHIBIT “B”

Amendments to the 2012 International Energy Conservation Code

The following sections, paragraphs, and sentences of the *2012 International Energy Conservation Code* (IECC) are hereby amended as follows: Standard type is text from the IECC. Underlined type is text inserted. ~~Lined through type is deleted text from IECC.~~ A double (**) asterisk at the beginning of a section identifies an amendment carried over from the 2009 edition of the code and a triple (***) asterisk identifies a new or revised amendment with the 2009 code.

The 2012 IECC contains separate provisions for commercial buildings (preceded by “C” for Commercial) and for residential buildings (preceded by “R” for residential buildings) 3 stories or less. Each set of provisions are separately applied to buildings within their respective scope. Each set of provisions also contains a Scope and Administration chapter, a Definitions chapter, a General Requirements chapter and a chapter containing energy efficiency requirements applicable to building within their respective scope.

Recommended amendments that match sections in each of the respective provisions (“C” and “R”) are written to represent both sections rather than duplicating the recommended amendment in this document.

Sections N1101.2 through N1105 of the *2012 International Residential Code* (IRC) are noted to be extracted from the 2012 IECC. The Building and Residential Advisory Board (BRAB) recommends amending Chapter 11 [RE] ENERGY EFFICIENCY of the 2012 IRC to refer to the residential provisions of the 2012 IECC.

As of the date of the recommendations the State Energy Conservation Office (SECO) has not adopted the 2012 IECC. Consequently the recommended amendments to the 2012 IECC have been analyzed for stringency with the current Texas Building Energy Performance Standards (TBEPS) which is the 2009 Edition of the IECC and the energy provisions of the IRC. Some amendments below are noted that if/when SECO does by rule adopt the 2012 IECC as the TBEPS, the proposed amendment would be deemed less stringent and therefore would not be considered a recommended amendment.

****Section C101.4.2 and R101.4.2; change to read as follows:**

C101.4.2/R101.4.2 Historic Buildings. Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer of the Keeper of the National Register of Historic Places, ~~are exempt from~~ shall comply with all of the provisions of this code.

Exception: Whenever a provision or provisions shall invalidate or jeopardize the historical designation or listing, that provision or provisions may be exempted.

(Reason: This is less restrictive than the legislative mandates. It is reasonable to expect compliance with duct sealing, replacement lighting and the installation of insulation, for example, when possible.)

****Section C102/R102; add Section C102.1.2 and R102.1.2 to read as follows:**

C102.1.2/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.

(Reason: this amendment is added to allow alternative compliance in accordance with Texas HB 1365, 78th Legislature.)

****Section C202 and R202; add the following definition:**

GLAZING AREA. Total area of the glazed fenestration measured using the rough opening and including sash, curbing or other framing elements that enclose conditioned space. Glazing area includes the area of glazed fenestration assemblies in walls bounding conditioned basements. For doors where the daylight opening area is less than 50 percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the rough opening area for the door including the door and the frame.

(Reason: Since the window to floor area ratios have been added to the prescriptive tables, it is necessary to define glazing area.)

*****Section R402.2.2; amend the section to read as follows:**

R402.2.2 Ceilings without attic spaces. Where Section R402.1.1 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Section R402.1.1 shall be limited to 500 square feet (46 m²) or 20 percent of the total insulated ceiling area, whichever is less. This reduction shall not apply to the U-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.

(Reason: Retains the current 2009 language to eliminate confusion and limit the area to 500 square feet maximum)

***** Table R402.1.1 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT; Amend by changing the WOOD FRAME WALL R-VALUE for CLIMATE ZONE 3 to read as follows:**

13

(Reason: Retain the values in the 2009 code.)

If/when SECO does by rule adopt the 2012 IECC, this proposed amendment would be deemed less stringent and therefore would not be considered a recommended amendment.

***** Table R402.1.3 EQUIVALENT U-FACTORS; Amend by changing the WOOD FRAME WALL U-FACTOR for CLIMATE ZONE 3 to read as follows:**

0.082

(Reason: Retain the values in the 2009 code.)

If/when SECO does by rule adopt the 2012 IECC, this proposed amendment would be deemed less stringent and therefore would not be considered a recommended amendment.

*****R402.4.1.2 Testing; Add a last paragraph to read as follows:**

Testing may only be performed by individuals that are certified HERS Raters or Rating Field Inspectors by RESNET or Performance Verification Technicians certified by Texas HERO, or other certifications as may be

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.

(Reason: The 2012 International Residential Code (IRC) and International Energy Conservation Code (IECC) include enhanced emphasis on envelope infiltration and duct leakage. Significant changes in the residential energy requirements include more frequent requirement of performance testing for leakage. Residential Duct systems must be tested unless all ducts and equipment are located within the conditioned space. Envelope testing is required to demonstrate compliance with maximum allowable leakage rate unless a detailed air barrier and insulation inspection has been performed to field verify component criteria. This language puts the regulatory authority on notice that the testing requires specialized credentials and establishes a conflict of interest baseline).

*****Section R402.4.1.2 Testing; modify the first paragraph 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 5 air changes per hour in Climate Zones 1 and 2, and 3 air changes per hour in Climate Zones 3 through 8. {Remainder of text unchanged}

(Reason: The 2012 IECC will require mandatory door blower testing on each dwelling unit. The visual inspection is no longer an option to performance testing. This change will give some time for those builders not currently using a performance approach to adapt construction practices.)

If/when SECO does by rule adopt the 2012 IECC, this proposed amendment would be deemed less stringent and therefore would not be considered a recommended amendment.

*****R403.2.2 Sealing (Mandatory); Add a last paragraph to read as follows:**

Testing may only be performed by individuals that are certified HERS Raters or Rating Field Inspectors by RESNET or Performance Verification Technicians certified by Texas HERO, or other certifications as may be 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 installed the duct system.

(Reason: The 2012 International Residential Code (IRC) and International Energy Conservation Code (IECC) include enhanced emphasis on envelope infiltration and duct leakage. Significant changes in the residential energy requirements include more frequent requirement of performance testing for leakage. Residential Duct systems must be tested unless all ducts and equipment are located within the conditioned space. Envelope testing is required to demonstrate compliance with maximum allowable leakage rate unless a detailed air barrier and insulation inspection has been performed to field verify component criteria. This language puts the regulatory authority on notice that the testing requires specialized credentials and establishes a conflict of interest baseline).

***** Section R403.2.2; Amend to read as follows:**

R403.2.3 Building cavities (Mandatory). Building framing cavities shall not be used as supply ducts and plenums. Building framing wall cavities in the exterior thermal envelope shall not be used as return ducts

(Reason: Continue the practice in the regions and to insure that the building thermal envelope is not compromised.)

****Section C402.2.9/R402.2; Add Section C402.2.9 and R402.2.13 to read as follows:**

Section C402.2.9/R402.2 Insulation installed in walls. To insure that insulation remains in place, insulation batts installed in walls shall be totally secured by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting or other equivalent material approved by the building official.

(Reason: This will increase the performance of the insulation by ensuring that the batt insulation stays in place.)

*****Section R405.6.2; add the following sentence to the end of paragraph:**

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.

(Reason: These performance software tools are accredited by RESNET at the time of recommendation.)

*****Section C101.4.3 Additions, alterations, renovations or repairs; add exception #9 to read as follows:**

9. Replacement of existing fenestration, provided, however, that the area of the replacement fenestration does not exceed 25% of the total fenestration area of an existing building and that the U-factor and SHGC will be equal to or lower than before the fenestration replacement.

(Reason: Provide some level of consideration for existing buildings, matches ASHRAE 90.1-2010 Exception "g" to Section 5.1.3.)

If/when SECO does by rule adopt the 2012 IECC, this proposed amendment would be deemed less stringent and therefore would not be considered a recommended amendment.

END