



CITY COUNCIL MEMORANDUM

FROM: The Office of the City Manager **DATE:** October 14, 2019
SUBJECT: Consider Ordinance No. 3615, amending Chapter 98, Article IV, Division 2, of the North Richland Hills Code of Ordinances, adopting the 2018 International Energy Conservation Code with Amendments.
PRESENTER: David Pendley, Chief Building Official

SUMMARY:

In a continuing effort to modernize the city's building codes in support of council's goal to provide quality community development and revitalization, staff brings forth for consideration the 2018 International Energy Conservation Code (IECC). This ordinance will bring the North Richland Hills Code of Ordinances in-line with state mandated requirements.

GENERAL DESCRIPTION:

In 1997, after many years of growing levels of air pollution, the United States Environmental Protection Agency officially designated several Texas metropolitan areas (including the DFW metroplex) as a "Nonattainment Area" and ordered the state to begin addressing their pollution levels or be subject to the loss of federal funding on various programs. As a result of the mandate, the Texas Legislature passed the Texas Emissions Reduction Plan in 2001 (SB 5). This law, among other things, created the State Energy Conservation Office (SECO) and the Energy Systems Laboratory; and adopted the 2000 International Energy Conservation Code (IECC) as the official energy code of the State of Texas. The act also mandated cities within the nonattainment areas to begin enforcing the energy code provisions with certified inspectors.

The Texas legislature eventually delegated to SECO the authority to review and adopt by rule, newer energy codes as the industry warranted them. Currently the minimum energy code in the non-attainment regions is the 2015 International Energy Conservation Code. However, due to relatively minor increases in energy efficiency between the 2015 and 2018 versions, staff is proposing the adoption of the 2018 IECC. This action will bring all of the city's codes within the same published year (2018 I-Codes).

The International Building Codes (I-Codes) are developed by construction industry professionals and adopted around the world as model codes based on the best, most recent building science. The I-Codes form a framework upon which the city develops a building code with regional and local amendments reflecting the city's unique needs as determined by local code users. These codes are reviewed by the Regional Codes Coordinating Committee appointed by the North Central Texas Council of Governments



(NCTCOG) and staff; and are ultimately recommended for approval by the Council-appointed Construction Code Board of Appeals, which serves as our Technical Code Review Committee.

The I-Codes are continuously updated and republished every three years by the International Code Council, Inc. (ICC), headquartered in Washington D.C. with organizational roots dating back to the early 20th century. It has been the city's policy to update our codes every-other code cycle (every six years).

Adoption of the 2018 I-Codes is in the best interest of the citizens of North Richland Hills by promoting health, safety and welfare. Updated codes also benefits our citizens by:

- Establishing consistency of code adoptions with other local jurisdictions.
- Ensuring the best rating possible by the Insurance Services Organization (ISO). ISO collects information nation-wide on building codes in effect in communities, as well as how the communities enforce their building codes. ISO analyzes the data using a Building Code Effectiveness Grading Schedule and assigns a grade to each community. Insurers use this grading to determine premium rates for buildings constructed within the city. The single most important factor used by ISO is how modern a jurisdiction's adopted codes are. Any city that is more than two code-cycles behind (which are the 2012 I-Codes), are automatically given the lowest rating possible.
- Contributes to the city's good standing in FEMA's Community Rating System (CRS) which enables discounted flood insurance rates for our residents.

Staff is proposing the adoption of the 2018 International Energy Conservation Code to go into effect upon Council's approval. However, if approved, staff intends to establish a policy providing a 45 day window to submit projects that were designed under earlier version; giving engineers, architects, homeowners and builders time to adjust to the requirements.

Significant code changes include:

- Window efficiency has increased approximately 8.5%.
- A new default table has been included for windows and doors that don't contain their factory applied efficiency labels at the time of inspection.
- R-values must be printed on batt and rigid foam board insulation.
- Requirements for installer's certificate have been updated to include R-value, initial installed thickness, installed density, settled thickness/settled R-value, area covered, and number of bags installed.



- Insulation markers must be installed every 300 square feet.
- A new option that allows HVAC ducts to be buried beneath insulation with sufficient cover.
- A new option to reduce R-values in attics from R-38 to R-30 if insulation is full height (uncompressed) over the exterior wall top plate.
- The insulation above an attic pull-down stair must be the same thickness as the rest of the attic insulation. Pull-down stair must also be weather stripped.
- HVAC equipment efficiency ratings has been removed from the code since they are regulated by federal law.
- Updated table for minimum insulation thickness of supply and return air ducts.
- Framing cavities can no longer be used as ducts or plenums.
- 90% of all permanent lighting fixtures must have high efficacy bulbs.

This action follows suit with surrounding communities that have adopted or will soon be adopting the 2018 I-Codes. The council-appointed Construction Code Appeals Board (acting in its role as the Technical Code Review Committee) voted on September 12, 2019, to recommend the approval of the 2018 International Energy Conservation Code.

RECOMMENDATION:

Approve Ordinance No. 3615