



## MEMORANDUM

**To:** Mayor and City Council

**From:** Suzanne Arnold, Chief Building Official

**Date:** March 20, 2017

**Reference:** Consider the adoption of the 2015 International Codes and Amendments

**2030:** Special Place to Live

---

### Executive Summary:

The City is seeking to move from the 2012 Editions to the 2015 Editions of the International Codes, along with local amendments. This includes the 2015 International Building, Residential, Existing Building, Energy Conservation, Property Maintenance, Mechanical, Plumbing, Fuel Gas, and Fire Codes. On February 2<sup>nd</sup>, 2017, the Building and Standards Commission voted unanimously to recommend the 2015 Codes and amendments for adoption. Please note that the City is not seeking to adopt a new edition of the National Electric Code, as the 2014 edition that the City adopted previously is still current and in widespread use.

### Introduction:

Every three years, the International Code Council publishes new editions of its codes, reflecting the latest technologies and methods in construction. These codes are the product of years of research and input by code officials, designers, and construction industry professionals, culminating in public hearings and global voting on proposed changes. It is vital that the City of Coppell stay on the leading edge of building regulations in order to build and maintain a safe and efficient community.

The International Codes allow for jurisdictions to adopt amendments to the codes to reflect local and regional practices. The codes grant the Building Official the power to render interpretations and clarifications. This level of flexibility allows the City to make reasonable decisions to foster

successful development, while preserving the safety of Coppel's residents and visitors. The City's proposed amendments to the 2015 Codes are based largely on the amendments to the 2012 editions, with substantial input from the North Central Texas Council of Governments' (NCTCOG) recommended code amendments. NCTCOG has promoted the standardization of construction code application throughout our region for 50 years. By utilizing the same code edition and similar interpretations as our neighboring jurisdictions, we can simplify the construction process, increase safety, reduce costs, and attract and facilitate development in our City. For your reference, the NCTCOG recommended building code amendments are available at [www.nctcog.org](http://www.nctcog.org).

### **Analysis:**

The 2015 International Building Code covers all buildings other than one- and two-family dwellings. The new edition removes the public restroom requirement from quick-service businesses, such as dry cleaners and take-out-only food service establishments. The Existing Building chapter has been removed and replaced by a stand-alone code, the International Existing Building Code, which staff is also recommending for adoption. The new International Building Code requires storm shelters to be constructed in essential emergency facilities, such as 911 call centers and fire and police stations, as well as in educational occupancies. New schools and school addition must contain a shelter constructed according to ICC 500 Storm Shelter Standards, and it must be sized to accommodate the entire occupant load of the new building, or of the new addition. New proposed amendments provide more detail about the qualifications of specialized, third-party inspectors, as well as providing for more flexibility in determining the required number of restrooms based on a reasonable analysis the use of a space.

Key changes in the 2015 International Residential Code include new design criteria for wind loads, clarification of carbon monoxide detector installation and power source, nailing specifications for exterior materials installed over foam sheathing (which is becoming more and more common with the changes in energy codes), and new structural requirements for rooftop solar panels. Allowable structural spans have been reduced for common lumber species such as Southern Pine. In the proposed amendments, staff recommends the addition of Chapter 45, which condenses the requirements for pool barrier design found elsewhere in the codes. The City's consideration of the International Residential Code includes the amended Appendix K, which is the Sound Transmission and Attenuation Standards for the airport noise area.

The City is seeking to adopt the International Existing Building Code for the first time. Since the Existing Building chapter in the International Building Code has been eliminated, the International Existing Building Code is now a necessary companion to the codes. The content is fundamentally similar to the previous chapter of code, but it allows for greater flexibility and more design options, which will promote the adaptive re-use of existing spaces.

The 2015 International Energy Conservation Code is now mandatory in Texas in accordance with House Bill 1736. Although insulation values have increased for residential construction, conventional 2x4 wood framing is still possible under this code. The biggest increase in focus in this edition is on air-sealing of the building envelope, with the allowed air changes per hour (under blower test) being reduced from five to three (although NCTCOG has endorsed a method of trade-offs that can bring the air change allowance up to four). Since this code is mandated by the State, amendments are minimal, and only serve to clarify compliance paths and testing requirements.

The International Property Maintenance Code has had minimal changes from the 2012 to the 2015 edition. Of note, the term “owner’s authorized agent” has been added to the codes, which is of legal significance in enforcement of property standards. Our existing local amendments detail Coppell’s rental property protocols and specific standards to preserve the integrity of Coppell’s neighborhoods. New amendments to the overcrowding section change the square footage per occupant of bedrooms to be more in line with neighboring cities and past precedent, as well as adding language limiting changes that result in a disproportionately high number of bedrooms with respect to other spaces.

The 2015 International Mechanical Code includes additional requirements for exhaust fans at manicure/pedicure stations and recognizes booster fans as a means of increasing the length of dryer ducts. In addition, the previous edition of this code required locking caps (requiring a special tool to loosen) on the freon ports of new air conditioners to prevent “huffing” and leaks; the 2015 edition expands that requirement to require retrofitting existing air conditioners with these caps when the units are serviced. There are no significant changes in the local amendments.

The 2015 International Plumbing Code gives the Building Official more leeway in determining the number of required plumbing fixtures with respect to occupant load, requires temperature-limiting devices (mixing valves) on pedicure foot baths and shampoo sinks (previously just required for public hand sinks), and decreases the allowed lead content in pipes and fixtures to 0.25%. The new code also clarifies that when a water heater is replaced, the pan drain is not required to be piped out to the exterior if such a pipe did not already exist, since adding a drain pipe may be impractical in many cases. In the proposed local amendments, the Grease Interceptor and Automatic Grease Removal Device section has been revised in accordance with local standards.

The 2015 International Fuel Gas Code addresses clearance issues between hot vent terminals and door swing. There were no significant changes in the local amendments.

The 2015 International Fire Code had a few revisions, including new safety measures for beverage dispensing systems utilizing carbon dioxide, UL standards for circuits serving fire pumps, required cleaning for commercial exhaust hoods, and the removal of obsolete wiring in plenums. The existing amendments to the fire code detail local standards and practices. There were no significant changes

in those amendments.

**Legal Review:**

The documents were reviewed by Alexis Allen at NJDHS.

**Fiscal Impact:**

N/A

**Recommendation:**

Building Inspections recommends approval of the 2015 Codes and amendments.