

To: Members of Dublin City Council

From: Dana L. McDaniel, City Manager 

Date: January 21, 2016

Initiated By: Jeffrey S. Tyler, AIA, LEED AP BD+C, Director of Building Standards/Chief Building Official

Re: Ordinance 01-16 - Amending Section 150 (Building Regulations) of the Dublin Codified Ordinances to include Adoption of the 2014 National Electric Code and the 2012 International Swimming Pool and Spa Code.

Summary

The proposed amendments include the adoption of the 2014 edition of the National Electric Code (NEC) and the 2012 International Swimming Pool and Spa Code (ISPSC) along with various “clean-up” modifications to the Dublin Codified Ordinances. Both the NEC and the ISPSC were developed on a national basis in a forum that was open to public input. This means anyone could submit a proposal for code language, and anyone could debate the merits of the proposal at open hearings. The base document of the NEC was adopted for use in Ohio through an open hearing process, sponsored by the Residential Code Advisory Committee (RCAC), which was then adopted by the Ohio Board of Building Standards (OBBS). The State of Ohio has designated this Code as mandatory for all jurisdictions that desire to enforce residential electric code standards to promote uniformity and standardization. The ISPSC did not go through an Ohio adoption process. However, the RCAC and the OBBS has permitted the use of this code at the jurisdiction’s discretion.

The City of Dublin will benefit from the adoption of these Codes in the following ways:

1. The current Code that regulates residential electrical work is the 2011 Edition of the National Electric Code. The current Code that regulates swimming pool and spa installations is Appendix G of the 2009 International Residential Code. Technology and construction practices have changed. This adaptation of these two Codes allows our regulations to reflect this changing technology and practices within their respective industries.
2. The Codes have been developed through the knowledge and debate of many experts throughout the country and this state. The community benefits from that expertise by adopting this document.
3. The Codes are recognized as a means to provide buildings and structures that are safe and sanitary to the public, but because they are so widely accepted, it allows business people, developers, contractors and designers to be familiar with the requirements of the Codes and function more efficiently from jurisdiction to jurisdiction. That is good for business.
4. The Insurance Service Organization (ISO) rates the City Building Standards Division in much the same way the fire department is rated. One of the most significant factors in the evaluation is whether or not the City has adopted and is enforcing the most current codes. It is necessary to adopt a more current code than the one we are currently enforcing to maintain our above average rating. Good ratings from ISO reflect lower insurance costs to our citizens.

The following are a list of the substantive changes to the NEC:

1. Increased Arc Fault Circuit Interrupter (AFCI) requirements (all rooms except for garage) **NEC 210.12(A)**
2. Increased Ground Fault Circuit Interrupter (GFCI) requirements (within 6' of all sinks, bath, shower and laundry areas) **NEC 210.8(A)(7)(9)(10)**
3. Revised requirements for garage (one receptacle for each car, one dedicated electric vehicle receptacle, garage receptacles cannot be on circuit with outlets outside of the garage) **NEC 210.52(G)**
4. No GFCI for hardwired dishwasher. GFCI is required for plug in dishwasher **NEC 210.8(D)**
5. No AFCI for receptacles serving kitchen countertop **NEC 210.12(A)**
6. Expand to include 3-family in Dwelling separate form Multifamily (coordinates with RCO for 1, 2, and 3 family)

The ISPSC is a more comprehensive Code than the appendix in the International Residential Code (IRC). It actually takes provisions found in both the appendix of the IRC and the base code and consolidates them into a Code that is more user friendly to both the designers and installers of these structures and the enforcers of the code that regulate their installations. Most of the provisions that deal with barriers, bonding and electrical issues are similar if not the same as provisions found in the previous version of the IRC Appendix G.

Recommendation

Staff recommends adoption of Ordinance 01-16 at the second reading/public hearing on February 8, 2016.

RECORD OF ORDINANCES

Dayton Legal Blank, Inc.

Form No. 30043

Ordinance No. 01-16

Passed _____, 20____

AN ORDINANCE AMENDING SECTION 150 (BUILDING REGULATIONS) OF THE DUBLIN CODIFIED ORDINANCES TO INCLUDE ADOPTION OF THE 2014 NATIONAL ELECTRIC CODE AND THE 2012 INTERNATIONAL SWIMMING POOL AND SPA CODE.

WHEREAS, Dublin's Codified Ordinances related to residential building construction require updating; and

WHEREAS, the City of Dublin Building Department determined that revisions were required to the residential building sections, including formal adoption by reference of the 2014 National Electrical Code and the 2012 International Swimming Pool and Spa Code, except as further modified by this Ordinance; and

WHEREAS, other modifications are being made to Dublin's Codified Ordinances related to building construction in order to be consistent with current policies and practices; and

WHEREAS, the revisions to the Building Code will further enhance the quality of residential development in the City.

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of Dublin, State of Ohio, _____ of the elected members concurring that:

Section 1. The attached revisions to the Dublin Building Code are hereby adopted.

Section 2. This Ordinance shall be effective upon the earliest date permitted by law.

Passed this _____ day of _____, 2016

Mayor – Presiding Officer

ATTEST:

Clerk of Council

§ 150.001 ADOPTION BY REFERENCE.

There is hereby adopted by reference the 2013 Residential Code of Ohio including Appendixes F ~~and G~~ of the 2009 International Residential Code, which shall be known as the Dublin Residential Code, save and except such portions as are hereinafter deleted, modified or amended by this chapter. One copy of such Code has been and is now filed in the office of the Clerk of Council. Such Code is hereby adopted and incorporated as if fully set out at length herein, and from the date on which this chapter shall take effect, the provisions thereof shall be controlling within the limits of the city.

(Ord. 02-13, passed 1-28-13)

§ 150.003

There is hereby adopted for the purposes of practical safeguarding of persons from hazards arising from the use of swimming pools, spas and for other purposes, that certain code known as the International Swimming Pool and Spa Code, being particularly the 2012 edition thereof, recommended by the International Code Council.

📖 § 150.020 ADOPTION BY REFERENCE.

There is hereby adopted for the purpose of the practical safeguarding of persons, buildings and dwellings and their contents from hazards arising from the use of electricity, for light, heat, power, radio, signaling and for other purposes, that certain code known as the National Electric Code, being particularly the ~~2011~~2014 edition thereof, recommended by the National Fire Prevention Association.

(Ord. 02-13, passed 1-28-13)

📖 § 150.021 AMENDMENTS, DELETIONS AND ADDITIONS.

(A) In residential dwelling units the load side of the meter to the line side of the panel shall be installed in a raceway, i.e., PVC conduit.

(B) The minimum service for a new single-family dwelling unit shall be 200 AMPS.

(C) In the kitchen area there shall be a separate circuit for the refrigerator.

(D) Circuits for kitchen counter outlets shall be alternately spaced so that no two adjacent outlets are on the same circuit.

(E) Whenever any electrical wiring or any other electrical equipment shall have been inspected and approved, it shall thereafter be unlawful for any person to alter, damage or interfere with the same without the authority of the ~~Electrical Inspector~~Building Official.

(Ord. 02-13, passed 1-28-13)

§ 150.183 WARM AIR HEATING AND VENTILATION PERMIT FEES.

(A) Warm air heating and ventilation permits shall be required as follows:

(1) Residential. Only one warm air heating and ventilation permit shall be required for each residential building ~~of R-2 use group, not over two stories high~~ regulated by the Dublin Residential Code.

(2) Nonresidential. For all other buildings not included above, a separate warm air heating and ventilation permit shall be required for each certified address.

(3) Permits for alterations of existing, multi-story buildings shall require a separate permit for each floor, except that all floors occupied by a single tenant shall require only one permit.

(4) Whenever repair of a warm air heating device necessitates replacement of a heat exchanger or burner assembly a minimum fee shall be required.

(B) The minimum warm air heating and ventilation permit fee shall be as set forth from time to time by ordinance.

(C) Warm air heating and ventilating permit fees shall be assessed according to the following schedule:

(1) Warm air heating systems to include heating units, toilet room exhaust fans not exceeding 100 CFM, and all duct outlets and inlets. The permit shall describe devices installed and capacities of each device and the fee shall be based on the total installed BTU/hr.

(2) Ventilation permit fees for all types of ventilation systems, including but not limited to fans with no ducts, ducting systems, air handling systems, dust collecting systems, and makeup air systems shall be assessed according to the total CFM installed except as excluded in division (C)(1) hereof.

(D) Warm air heating and ventilating permits shall be required for alteration or extension of supply and return ducts where heating and ventilating systems are existing. Permit fees for the duct work shall be assessed according to a schedule as set forth from time to time by ordinance.

(E) Warm air heating and ventilation permits shall be required for gas or oil conversion burners and the fees for said permits shall be assessed as set forth from time to time by ordinance.

(F) Warm air heating and ventilating permits shall be required for dual-fuel burners where equipment is and has been existing but was installed and fired with one fuel on original permit. The permit shall be for installation and firing with the standby fuel and the fees for such permit shall be assessed as set forth from time to time by ordinance.

(G) Warm air heating and ventilation permits shall be required for infrared heaters and the fees for such permits shall be assessed, as set forth from time to time by ordinance, for the total BTU's.

(H) Warm air heating and ventilation permits shall be required for stokers and shall be assessed as set forth from time to time by ordinance.

(I) Warm air heating and ventilation permits shall be required for commercial clothes dryers and the fees for such permits shall be assessed as set forth from time to time by ordinance. No warm air heating and ventilation permit shall be required for domestic clothes dryers under 30,000 BTU/hr. or 9,000 watts.

(J) Warm air heating and ventilation permits for warm air heating devices with variable input burners shall be assessed on the maximum inputs of the device.

(K) Warm air heating and ventilation permits shall be required for incinerators and crematories and the fee for such permits shall be assessed as set forth from time to time by ordinance.

(L) Warm air heating and ventilation permits shall be required for solar warm air heating systems and the fees for such permits shall be based upon BTU's at 400 BTU per square feet of solar panel and shall be assessed as set forth from time to time by ordinance.

(M) Warm air heating and ventilation permits shall be required for retrofit automatic flue dampers on warm air heating devices and domestic hot water heaters and the fee for such permit shall be assessed as set forth from time to time by ordinance.

(N) Warm air heating and ventilating permits shall be required for wood or coal burning stoves connected to a central heating system and the fee for such permits shall be as set forth from time to time by ordinance.

(O) Warm air heating and ventilating permits shall be required for commercial kitchen hood and exhaust and the fee for such permits shall be as set forth from time to time by ordinance.

('80 Code, § 1333.09) (Ord. 76-80, passed 11-3-80)

§ 150.184 ENVIRONMENTAL COMFORT SYSTEMS PERMITS; FEES.

(A) Permits shall be required as follows:

(1) *Residential*. Only one permit shall be required for each residential building regulated by the Dublin Residential Code of R-2 use group not over two stories high;

(2) *Nonresidential*. For all other buildings not included above, a separate heating, air conditioning and refrigeration permit shall be required in accordance with §§ [150.183](#) through [150.185](#).

(B) For the purpose of this section, environmental comfort systems shall include heating, air conditioning, humidification, air cleaning, ventilation devices and all ducts, outlets and inlets in each dwelling unit.

(C) Whenever repair of any environmental comfort system or heat pump necessitates replacement of a major component, a permit shall be required and a fee shall be assessed in accordance with the appropriate heating or refrigeration schedule in § [150.183](#) or § [150.185](#).

(D) Permit fees shall be assessed as follows: residential, each new and existing building, multiple-family dwelling - as set forth from time to time by ordinance.

('80 Code, § 1333.10) (Ord. 76-80, passed 11-3-80) [Penalty, see § 150.999](#)

§ 150.185 REFRIGERATION PERMIT FEES.

(A) Refrigeration permits shall be required as follows:

(1) Only one refrigeration permit shall be required for each residential building regulated by the Dublin Residential Code. of R-2 use group, not over two stories high.

(2) For all other buildings not included above, a separate refrigeration permit shall be required for each certified address.

(3) Whenever repair of environmental or product refrigeration systems necessitates replacement of component parts, a major component part shall be a non-hermetically sealed compressor, condenser, receiver, accumulator or evaporator.

(B) The minimum refrigeration permit shall be as set forth from time to time by ordinance.

(C) For all refrigeration permit calculations 12,000 BTU's shall be equal to one ton of refrigeration or one horsepower.

(D) Refrigeration permit fees shall be assessed as follows:

(1) Residential refrigeration, each new building - as set forth from time to time by ordinance.

(2) Nonresidential refrigeration, new and existing buildings - as set forth from time to time by ordinance.

Refrigeration systems shall include all condensing units, evaporators and refrigeration accessories; replacement of condensing units shall be assessed fees in accordance with this schedule and shall include the electrical inspection of the final connection, not to exceed five feet beyond equipment.

(E) Refrigeration permit fees for cooling towers shall be assessed as set forth from time to time by ordinance.

(F) Refrigeration permit fees for evaporative coolers shall be assessed as set forth from time to time by ordinance.

(G) Refrigeration permits for installation of product refrigeration shall be required as follows: Whenever repair of nonresidential environmental product refrigeration systems necessitates replacement of component parts, a major component part shall be a non-hermetically sealed compressor, condenser, receiver, accumulator or evaporator.

(H) Refrigeration permit fees for installation of product refrigeration systems shall be assessed as set forth from time to time by ordinance.

Refrigeration systems shall include all condensing units, evaporators and refrigeration accessories. The permit shall describe devices installed and capacities of each device and the fee shall be based on the total installed BTU/hour. One evaporator shall be included with each condensing unit listed as a device on the permit schedule. A fee as set forth from time to time by ordinance for each additional evaporator listed on the same permit shall be assessed. Heat reclamation coil in conjunction with refrigeration system shall be assessed a fee as set forth from time to time by ordinance.

(I) Refrigeration permit fees for alteration of environmental or product refrigeration systems shall be assessed according to the schedule for installation of such system.

(J) Refrigeration permit fees for repair of nonresidential environmental or product refrigeration systems shall be assessed as set forth from time to time by ordinance.

(K) Refrigeration permits shall be required for solar refrigeration systems and such permits shall be based on 400 BTU's per square foot of solar panel assessed according to schedule for installation of such systems set forth in division (D) above.

('80 Code, § 1333.11) (Ord. 76-80, passed 11-3-80; Am. Ord. 24-07, passed 5-21-07) [Penalty.](#)
[see § 150.999](#)

§ 150.186 STEAM AND HOT WATER HEATING PERMIT FEES.

(A) Steam and hot water permits shall be required, when not regulated by the Ohio Boiler and Pressure Vessel rules, "Chapters 4101: 4-1 to 4101:4-10 of the Ohio Administrative Code, as follows:

(1) *Residential.* Only one steam and hot water permit shall be required for each residential building regulated by the Dublin Residential Code of R-2 use group, not over two stories high.

(2) *Nonresidential.* For all other buildings not included above, a separate steam and hot water permit shall be required for each certified address.

(B) For any steam and hot water heating permit the minimum fee shall be as set forth from time to time by ordinance. Whenever modification of a steam or hot water boiler necessitates revision of the safety control sequence a minimum permit fee shall not be assessed.

(C) Steam and hot water heating permit fees for new and replacement boilers connected to a system shall be assessed as set forth from time to time by ordinance.

(D) Steam and hot water heating permit fees for heating fixtures or devices to be attached to steam or hot water boilers shall be assessed as set forth from time to time by ordinance.

(E) Steam and hot water heating permit fees for heating fixtures or devices described in division (D) above shall include, but are not limited to the following:

Unit vents	Auditorium unit	300 sq. ft. radiant heat or
Cabinet unit heaters	Domestic hot water	fraction thereof
Ceiling radiators	coil boiler	Pressing machine
Ceiling radiators	Water and steam coils	Offset pressing machine
Console heaters	Air compressors	Puff-iron set
Cabinet heaters	Solvent still	Cleaning machine
300 sq. ft. snowmelting	Vulcanizing machine	Spot board
ovens	10 ft. 1 section	Vacuum machine
Hot water unit blower	baseboard radiation	

(F) Steam and hot water heating permits shall be required for gas and oil domestic and commercial conversion burners on boilers and the fees for such permits shall be assessed as set forth from time to time by ordinance.

(G) Steam and hot water heating permits shall be required for dual-fuel burners where equipment is or has been existing on boilers but was installed and fired with one fuel on original permit. This permit shall be for installation and firing with the standby or second fuel and the fee for such permit shall be assessed as set forth from time to time by ordinance.

(H) Steam and hot water heating permits for boilers with variable input burners shall be assessed on the maximum inputs.

(I) Steam and hot water heating permits shall be required for stokers and the fees for such permits shall be assessed as set forth from time to time by ordinance.

(J) Steam and hot water heating permits shall be required for retrofit automatic flue dampers on boilers and the fee for such permits shall be assessed as set forth from time to time by ordinance.

(K) Steam and hot water heating permits shall be required for solar panels or systems connected to hot water heating systems and the fees for such permits shall be based upon BTU's at 400 BTU per square feet of solar panel and shall be assessed as set forth from time to time by ordinance.

('80 Code, § 1333.12) (Ord. 76-80, passed 11-3-80) [Penalty, see § 150.999](#)

§ 150.188 CERTIFICATE OF OCCUPANCY FEES.

The fee assessed for a certificate of occupancy shall be as set forth from time to time by ordinance. The fee for a certificate of partial occupancy for use of a portion or portions of a building or structure, prior to the completion of the entire structure, and for a certificate of temporary occupancy shall be as set forth from time to time by ordinance and shall be valid for a period ~~of 30 days~~not to exceed 180 days from the date of issuance. For each additional 30-day period, the fee for a certificate of occupancy and conditional occupancy shall be as set forth from time to time by ordinance. The permit fees for a certificate of partial occupancy or conditional occupancy shall be paid in full prior to the certificate of occupancy inspection.

('80 Code, § 1333.14) (Ord. 54-87, passed 7-6-87; Am. Ord. 24-07, passed 5-21-07)

§ 150.189 FIRE PROTECTION SYSTEMS FEES.

(A) *Requirement.* Fire protection system permits shall be required as follows:

(1) *Residential.*

(a) Except as required by division (C)(1) below, low voltage systems installed in residential buildings regulated by the Dublin Residential Code of R-3 use group shall be exempt from the provisions of this section.

(2) *Nonresidential.* For all other buildings not included above a separate fire protection system permit(s) shall be required for each certified address.

(B) *Minimum fee.* The minimum fee for a fire protection system permit shall be as set forth from time to time by ordinance.

(C) *Fire protection permits for fire detection and alarm systems.*

(1) Fire protection permits shall be required for fire detection and alarm systems as follows:

(a) Fire detection and alarm systems include line voltage (over 49 volts) and low voltage (49 volts or less) systems.

(b) Only a licensed electrical contractor shall be issued a permit to install a line voltage system.

(c) All line voltage connections of a low voltage system shall be by a licensed electrical contractor, and shall require an electrical permit.

(2) Fire protection permit fees for fire detection and alarm system shall be assessed as set forth from time to time by ordinance, for fire detection and alarm systems in all occupancies, outlets, detectors, alarms horns, audible signaling appliances, loudspeakers, manual fire alarm boxes or similar devices or fire detection and alarm systems.

(D) *Fire protection permit for automatic fire suppression systems.*

(1) Fire protection permits shall be required for automatic fire suppression systems as follows:

(a) Construction of accessory on-site water supply and fire pump buildings or structures shall require separate building permits and fees, in addition to fire protection permits and fees.

(b) On-site water supply piping shall be included in the fire protection system permit issued for the building.

(c) No permits or fees shall be required for portable fire extinguishers or fire protection systems within residential kitchen range hoods and ducts.

(2) Fire protection permit fees for automatic fire suppression systems shall be assessed as set forth from time to time by ordinance.

('80 Code, § 1333.15) (Ord. 76-80, passed 11-3-80; Am. Ord. 02-13, passed 1-28-13)

 § 150.217 INSPECTIONS.

(A) *Purpose.* Following the issuance of a building or construction permit, the Building Official shall cause to be made such inspections and investigations as are necessary to determine whether or not the work done and installations made are in conformity with the approved plans relating thereto and the pertinent laws and ordinances of the state and municipality.

(B) *Required inspections.* The following inspections shall be required in construction of all buildings or structures and, as applicable, to additions, remodeling and improvement of other structures:

- (1) Sanitary sewer. (Where applicable)
- (2) Footings.
- (3) Foundations with waterproofing.
- (4) Foundation steel. (Where applicable)
- (5) Electrical: temporary service; rough-in; and final.
- (6) Plumbing.
- (7) Frame.
- (8) Insulation.
- (9) Heating: rough-in; pre-slab; and final.
- (10) Gas rough and final.
- (11) Drive: approach; sidewalk and curb. (Where applicable)
- (12) Fireplaces: heating; stoves. (Where applicable).
- (13) Occupancy.

(C) *Notice.* It shall be the duty of the permit holder or his agent to notify the ~~Dublin Building Inspector~~ Building Official who shall make all such inspections.

(D) *Additional inspections.* The Building Official may, due to additional requirements of this chapter or other related chapters or when he deems it necessary, require additional inspections, which shall be noted on the building record or attached thereto.

(E) Inspections upon request; fees; liability.

(1) Upon written request of an owner or occupant of improved real estate, or an authorized representative of such owner or occupant, the Building Official shall inspect, or cause to be inspected such property to determine its conformity or nonconformity with the provisions of the Building Code and applicable municipal ordinances. If requested by such owner or occupant or the authorized representative of either, he shall prepare and submit to such person a written statement of his findings. A fee as set forth from time to time by ordinance shall be charged and collected for each instance of such inspection.

(2) No liability of any kind shall attach to or exist against the municipality or any of its officers or employees by reason of any claim of error, omission or neglect on the part of such officers or employees in connection with such inspections or the findings or report thereof.

(3) Nothing contained herein shall be deemed to limit the right of the Building Official to make inspections of property in this municipality without charge, on his own initiative or at the request of the owner or occupant when there is a specific question as to compliance with building codes or as to the safety of such property.

(F) *Occupancy permit.*

(1) Upon completion of the final inspection and acceptance of the premises as in compliance with the regulations and ordinances for human occupancy, holder shall be issued an occupancy permit which shall be required prior to actual occupancy of the subject premises.

(2) No person or persons shall occupy any dwelling or structure for which an occupancy permit shall be required by the city prior to the issuance of such occupancy permit.

(G) *Compliance.* The holder of a building permit, the general contractor, and every other person, firm or corporation having charge or supervision of any building or operation covered by this section shall be responsible for compliance with its provisions. In case of a violation hereof, such persons, firms and corporations and any other person, firm or corporation violating or participating in the violation of any of the requirements hereof shall be subject to a fine as set forth in § [150.999](#).

(‘80 Code, §§ 1327.01 - 1327.07, 1327.99) (Ord. 10-87, passed 2-2-87; Am. Ord. 24-07, passed 5-21-07) [Penalty, see § 150.999](#)