

ORDINANCE NO. 155, 2018
OF THE COUNCIL OF THE CITY OF FORT COLLINS
AMENDING CHAPTER 5, ARTICLE IV, OF THE CODE OF THE
CITY OF FORT COLLINS FOR THE PURPOSE OF REPEALING THE
2015 INTERNATIONAL MECHANICAL CODE, AND ADOPTING THE
2018 INTERNATIONAL MECHANICAL CODE, WITH AMENDMENTS

WHEREAS, since 1924, the City has reviewed, amended and adopted the latest nationally recognized building standards available for the times; and

WHEREAS, upon recommendation of City staff, the City Council has determined that it is in the best interests of the City to align seven interconnected basic construction codes under one publication year; and

WHEREAS, the seven interconnected basic construction codes are the *International Building Code*, *International Residential Code*, *International Mechanical Code*, *International Fuel Gas Code*, *International Energy Conservation Code*, and *International Property Maintenance Code*; and

WHEREAS, the City Council has determined that the 2018 publication year of the seven interconnected basic construction codes ought to be adopted and that any counterpart codes previously adopted should be repealed, both in order to align the publication years of the codes and also because the 2018 publications contain improvements in construction code regulation; and

WHEREAS, City staff has conducted a significant public outreach program, working with the regulated construction industry and building professionals; and

WHEREAS, the adoption of the seven interconnected basic construction codes has been presented to and recommended by the Board of Realtors, Water Board, Energy Board, Commission on Disability, Natural Resource Advisory Board, Poudre Fire Authority Board, Building Review Board, Affordable Housing Board, Air Quality Advisory Board, Northern Colorado Home Builder Association and the Chamber of Commerce; and

WHEREAS, the City Council has determined that it is in the best interest of the health, safety and welfare of the City and its citizens that the *2015 International Mechanical Code*, as previously adopted and amended by the City pursuant to Ordinance No. 072, 2017, be repealed and that in its place, the *2018 International Mechanical Code* be adopted, with local amendments as set forth in this Ordinance; and

WHEREAS, pursuant to the City Charter II, Section 7, City Council may enact any ordinance which adopts a code by reference in whole or in part provided that before adoption of such ordinance the Council hold a public hearing thereon and that notice of the hearing is published twice in a newspaper of general circulation published in the City, with one of such publications occurring at least eight (8) days preceding the hearing and the other publication occurring at least fifteen (15) days preceding the hearing; and

WHEREAS, in compliance with Article II, Section 7, the City Clerk published in the Fort Collins *Coloradoan* such notice of hearing concerning adoption of the 2018 International Building Code on November 18, 2018, and November 25, 2018; and

WHEREAS, attached as Exhibit “A” and incorporated herein by reference is the Notice of Public Hearing dated November 18, 2018, that was so published and which the Council hereby finds meets the requirements of Article II, Section 7 of the City Charter.

Section 1. That the City Council hereby makes and adopts the determinations and findings contained in the recitals set forth above.

Section 2. That Section 5-106 of the Code of the City of Fort Collins is hereby amended to read as follows:

Sec. 5-106. – Adoption of standards.

Pursuant to the power and authority conferred on the City Council by Section 31-16-202, C.R.S., and Article II, Section 7 of the Charter, the City Council hereby repeals the *2018 International Mechanical Code* (2018 IMC) and adopts as the mechanical code of the City the *2018 International Mechanical Code* (2018 IMC), published by the International Code Council, which shall have the same force and effect as though set forth in full herein except as amended pursuant to Section 5-107 of the City Code. The subject matter of the *2018 International Mechanical Code* (2018 IMC), adopted herein includes comprehensive provisions and standards regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance of heating, ventilating, cooling and refrigeration systems, incinerators, miscellaneous heat-producing appliances for the purposes of protecting public health, safety and general welfare. None of the 2018 *International Mechanical Code* Appendices are hereby adopted.

Section 3. That Section 5-107 of the Code of the City of Fort Collins is hereby repealed and re-enacted to read in its entirety as follows:

Sec. 5-107. - Amendments and deletions to the 2018 International Mechanical Code.¹

The *2018 INTERNATIONAL MECHANICAL CODE* adopted in § 5-106 is hereby amended in the following respects:

(1) ***Section 101.1 Title*** is hereby retained in its entirety with the following amendments:

101.1 Title. These regulations shall be known as the *Mechanical Code* of the City of Fort Collins, hereinafter referred to as “this *code*.”

¹ Changes to the *2018 International Mechanical Code* are shown as follows: inserted language is highlighted in yellow and deleted language is shown as stricken.

- (2) **Section 102.8 Referenced codes and standards** is hereby retained in its entirety with the following amendments:

Section 102.8 Reference codes and standards. The codes and standards referenced herein shall be those that are listed in ~~Chapter 15~~ Section 101.4 of the adopted *International Building Code*, entitled “*Referenced Codes*” and shall be considered part of the requirements of this *code* to the prescribed extent of each such reference.

Exception: Where enforcement of a *code* provision would violate the conditions of the listing of the *equipment* or *appliance*, the conditions of the listing and the manufacturer’s installation instructions shall apply.

- (3) **Section 103 Department of Mechanical Inspection** is hereby deleted and replaced in its entirety and the following is hereby added in lieu thereof:

SECTION 103 – CODE ADMINISTRATION

103.1 Entity charged with code administration. The entity charged with *code* administration shall be as determined in accordance with Section 103 of the adopted *International Building Code*, entitled “*Code Administration*.”

- (4) **Sections 106.1.1 Annual permit and 106.1.2 Annual permit records** are deleted in their entirety:

- (5) **Sections 106.5 Fees, 106.5.1 Work commencing before permit issuance, 106.5.2 Fee schedule, and 106.5.3 Fee refunds** are hereby deleted and replaced in their entirety and the following is hereby added in lieu thereof:

106.5 Payment of fees. All items relating to fees shall be as specified in Section 109 of the adopted *International Building Code*, entitled “*Fees*.”

- (6) **Sections 107.3 Testing and verification, 107.3.1 New, altered, extended or repaired systems, 107.3.2 Apparatus, material and labor for tests, and 107.3.3 Reinspection and Testing** are hereby deleted and replaced in their entirety and the following is hereby added in lieu thereof:

107.3 Testing and verification. Installed heating, cooling and *ventilation systems* shall be performance-tested by an *approved agency* and adjusted to operate within design specifications, in accordance with ANSI/ACCA QI 5-2010 *HVAC Quality Installation Specification*. Documentation of results shall be submitted to the *building official* prior to approval.

Exception: *Buildings* subject to *commissioning* requirements in Section 3604.1 of the 2018 *International Building Code* as amended.

- (7) **Section 108.4 Violation Penalties** is hereby retained in its entirety with the following revision:

108.4 Violation penalties. Persons who violate a provision of this *code* or fail to comply with any of the requirements thereof or who erect, install, alter or repair a mechanical work in violation of the *approved construction documents* or directive of the *code official*, or of a permit or certificate issued under the provisions of this *code*, shall be guilty of a misdemeanor and shall be subject to the penalties and fines specified in Section 1-15 of the City Code. Each day that a violation continues shall be deemed a separate offense.

- (8) A new ***Section 108.4.1 Work Commencing before Permit Issuance*** is hereby added to read as follows:

108.4.1 Work commencing before permit issuance. In addition to the penalties set forth in Section 108.4, any person or firm who, before obtaining the necessary permit(s), commences any construction of, or work on, a *building*, structure, electrical, gas, mechanical or plumbing system that is not otherwise exempted from obtaining a permit, shall be subject to a fine in addition to the standard prescribed permit fee. Said fine shall be equal in amount to the permit fee, except that it shall not be less than \$50 nor more than \$1,000 for the first such violation. A person or firm committing the same such violation repeatedly shall be subject to a fine equal to double the amount of the permit fee or double the amount of the fee imposed for the preceding violation, whichever is greater, for every such subsequent violation committed within 180 days of a previous violation. Said fines may be appealed to the City Manager pursuant to Chapter 2, Article VI of the City Code.

- (9) ***Section 109 Means of Appeal*** is hereby deleted and replaced in its entirety and the following is hereby added in lieu thereof:

109 Appeals. Appeals of decisions, determinations and interpretations of this *code* shall be made pursuant to the applicable provisions of Section 113 of the adopted *International Building Code*, entitled “Board of Appeals.”

- (10) ***Section 202 GENERAL DEFINITIONS***, is hereby amended to add, in alphabetical order, the following definitions:

Multifamily. Any *building* housing group R-1, R-2 or R-4 occupancies.

Whole-dwelling unit mechanical ventilation system. An *exhaust system*, supply system, or combination thereof that is designed to mechanically exchange indoor air for *outdoor air* when operating continuously or through a programmed intermittent schedule to satisfy the whole-dwelling *ventilation* rate.

- (11) A new ***Section 408 Whole-dwelling unit ventilation*** is hereby added to read as follows:

408.1 Whole-dwelling unit mechanical ventilation system. For new *buildings*, a *mechanical exhaust system*, supply system, or combination thereof shall be installed for each *dwelling unit* to provide whole-dwelling unit *ventilation*. Such system shall comply with Sections 408.1.1 through 408.5.

408.1.1 Whole-dwelling unit ventilation rate. The dwelling unit mechanical *ventilation system* shall provide *outdoor air* at a continuous rate of not less than that determined in accordance with IRC section M1505.

Exception:

The whole-dwelling unit mechanical *ventilation system* is permitted to operate intermittently where the system has *controls* that enable operation for not less than 25-percent of each 4-hour segment and the *ventilation* rate prescribed in IRC Table M1505.4.3(1) is multiplied by the factor determined in accordance with IRC Table M1505.4.3(2).

408.2 System design. The design of the required whole *dwelling unit ventilation system* shall comply with the requirements of this Section. System design documents shall be submitted, as required by the *building official*, at the time of application for a *building permit*.

408.2.1 System type. The system shall consist of one or more supply or exhaust fans, or a combination thereof, and associated *ducts* and *controls*. Exhaust fans shall be permitted to be part of a *mechanical exhaust system*. *Outdoor air ducts* connected to the return *duct* of a forced air furnace shall be considered to provide supply *ventilation* and shall be sized to provide adequate mechanical *ventilation* in accordance with ASHRAE 62.2 and shall meet the manufacturer's requirements for minimum *return air* temperature to the furnace heat exchange.

408.2.2 Outdoor air intakes. *Outdoor air* intakes shall have automatic dampers that close when the *ventilation system* is not operating.

408.2.3. Exhausts. Exhausts shall have gravity *dampers* that close when the *ventilation system* is not operating.

408.2.4 Air Circulation fan motors. Motors for air circulation fans used in the *ventilation system*, rated at one-quarter horsepower or greater, shall meet at least one of the following criteria:

1. Where the *furnace* serves as an air handler for the *ventilation system*, the *furnace* shall be certified as an "Electrically Efficient Furnace" by the Air-conditioning, Heating and Refrigeration Institute (AHRI).
2. The blower motor shall be specified as a "Brushless DC" (BL or BLDC) motor by the manufacturer.
3. The blower motor shall be specified as "Brushless Permanent Magnet" (BPM) motor.
4. The blower motor shall be specified as "Electronically Commutated Motor (ECM)."
5. The blower shall meet equivalent criteria acceptable to the *building official*.

408.2.5 System controls. The mechanical *ventilation system* shall be provided with readily accessible and labeled *controls* that enable occupant override.

408.2.6 Sound ratings for fans. Whole-*dwelling unit ventilation* fans shall be rated for sound at a maximum of 1.5 sones, in accordance with the procedures of the Home Ventilating Institute (*HVI 915, Procedure for Loudness Rating of Residential Fan Products*).

408.3 System installation. The installation of the whole-*dwelling unit ventilation system* and *equipment* shall be carried out in accordance with the manufacturers' design requirements and installation instructions.

408.4 Performance verification. Performance of installed mechanical *ventilation systems* shall be verified in accordance with Section 107.3.

408.5 Multifamily buildings. In *multifamily buildings*, all doors between *dwelling units* and common hallways shall be gasketed or otherwise substantially airtight with weather stripping, except when the *ventilation system* explicitly requires transfer of air from corridors into units.

- (12) **Section 504.1 Installation** is hereby retained in its entirety with the following amendments:

504.1 Installation. *Clothes dryers* shall be exhausted in accordance with the manufacturer's instructions. Dryer *exhaust systems* shall be independent of all other systems and shall convey the moisture and any products of *combustion* to the outside of the *building*. Dryer exhaust *duct* terminations shall not be located within 36 inches (914 mm) of exterior openings into *conditioned spaces, crawl spaces, and attic spaces*.

Exception: This section shall not apply to *listed and labeled* condensing (ductless) clothes dryers.

- (13) **Section 506.3.11 Grease duct enclosures** is hereby retained in its entirety with the revision:

A commercial kitchen grease duct serving a Type I hood that penetrates a ceiling, wall, floor, or any concealed space shall be enclosed from the point of penetration to the outlet terminal. In-line exhaust fans not located outdoors shall be enclosed as required for grease ducts. A duct shall penetrate exterior walls only at locations where protected openings are permitted by the *International Building Code*. The duct enclosure shall serve a single grease duct and shall not contain other ducts, piping or wiring systems. Duct enclosures shall be a shaft enclosure in accordance with Section 506.3.11.1, a field-applied enclosure assembly in accordance with Section 506.3.11.2 or a factory-built enclosure assembly in accordance with Section 506.3.11.3. Duct enclosures shall have a fire-resistance rating not less than that of the assembly penetrated and not less than 1 hour. Fire dampers and smoke dampers shall not be installed in grease ducts.

- (14) **Section 512.1 General** is hereby retained in its entirety with the following amendments:

512.1 General. Where a subslab soil *exhaust system* is provided, the *duct* for such system shall conform to the requirements of *International Residential Code* Appendix F, entitled “Radon Control Methods,” as adopted and amended by the City of Fort Collins.

- (15) **Section 602.3 Stud cavity and joist space plenums** is hereby deleted and replaced in its entirety and the following is hereby added in lieu thereof:

Section 602.3 Building cavities (Mandatory). *Building* framing cavities shall not be used as *ducts* or *plenums*.

- (16) A new **Section 602.3.1 Return air** is hereby added to read as follows:

Section 602.3.1 Return air. *Return air* shall be taken from inside the *dwelling*. Dilution of *return air* with *outdoor air* shall be permitted. A *return air* path shall be provided in all *habitable rooms* by means of *ducts* or transfer grills.

- (17) A new **Section 603.18.3 Construction debris and contamination** is hereby added to read as follows:

603.18.3 Construction debris and contamination. Mechanical air-handling systems and their related *ducts* shall be protected from the entrance of dirt, debris, and dust during the construction and installation process. Prior to passing final inspection or issuance of a Certificate of Occupancy, such systems shall be substantially free of construction-related contaminants.

- (18) **Section 801.19 Multistory prohibited** is hereby retained in its entirety with the following amendments:

801.19 Multistory prohibited. Common *venting systems* for *appliances* located on more than one floor level shall be prohibited, except *engineered systems* where all of the *appliances* served by the common *vent* are located in rooms or spaces that are accessed only from the outdoors. The *appliance* enclosures shall not communicate with the occupiable areas of the *building*.

- (19) A new **Section 903.1.1 Solid fuel fireplaces and appliances** is added to read as follows:

903.1.1 Solid fuel fireplaces and appliances. *Solid fuel fireplaces, fireplace stoves* and solid-fuel-type room heaters shall also comply with Section 5-110 of the City Code.

- (20) **Section 903.3 Unvented gas logs heaters** is deleted in its entirety:

Section 4. The City Attorney and the City Clerk are authorized to modify the formatting and to make such other amendments to this Ordinance as necessary to facilitate publication in the Fort Collins Municipal Code; provided, however, that such modifications and amendments shall not change the substance of the Code provisions.

Introduced, considered favorably on first reading, and ordered published this 18th day of December, A.D. 2018, and to be presented for final passage on the 2nd day of January, A.D. 2019.

Mayor

ATTEST:

City Clerk

Passed and adopted on final reading on the 2nd day of January, A.D. 2019.

Mayor

ATTEST:

City Clerk