

ORDINANCE NO. 076, 2017
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
2012 INTERNATIONAL FUEL GAS CODE (IFGC) AND ADOPTING THE
2015 INTERNATIONAL FUEL GAS 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 the five interconnected basic construction codes under one publication year; and

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

WHEREAS, the City Council has determined that the 2015 publication year of the five interconnected basic construction codes ought to be adopted and that their counterpart codes previously adopted should be repealed, both in order to align the publication years of the codes and also because the 2012 publications contain improvements in construction code regulation; and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 five interconnected basic construction codes has been presented to and recommended by the Affordable Housing Board, the Commission on Disability, the Air Quality Advisory Board, the Natural Resources Advisory Board, the Building Review Board, the Electric Board, the Landmark Preservation Commission and the Water Board; 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that the *2012 International Fuel Gas Code*, as adopted and amended by the City pursuant to Ordinance No. 022, 2014, be repealed, and that in its place, the *2015 International Fuel Gas Code* be adopted, with local amendments.

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 2015 International Fuel Gas Code on May 21, 2017, and May 2, 2017; and

WHEREAS, attached as Exhibit "A" and incorporated herein by reference is the Notice of Public Hearing dated May 14, 2017, that was so published and which the Council hereby finds meets the requirements of Article II, Section 7 of the City Charter.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

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 5-111 of the Code of the City of Fort Collins is hereby amended to read as follows:

Sec. 5-111. Adoption of standards for fuel gas piping, equipment and accessories.

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 *2012 International Fuel Gas Code* (2012 IFGC), and adopts, as the fuel gas code of the City, the *2015 International Fuel Gas Code* (2015 IFGC), 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 5-112 of the City Code. The subject matter of the *2015 International Fuel Gas Code* (2015 IFGC) adopted herein includes comprehensive regulations governing the design, installation, maintenance, alteration and inspection of fuel gas piping systems, fuel gas utilization equipment and related accessories for the purposes of protecting public health, safety and general welfare. None of the 2015 *International Fuel Gas Code* Appendices are hereby adopted.

Section 3. That Section 5-112 of the Code of the City of Fort Collins is hereby repealed and reenacted to read in its entirety as follows:

Sec. 5-112. Amendments and deletions to the 2015 International Fuel Gas Code.

The *2015 INTERNATIONAL FUEL GAS CODE* adopted in § 5-111 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 *Fuel Gas Code* of the City of Fort Collins, hereinafter referred to as "this code."

(2) **Section 102.8 reference 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 in this *code* shall be those that are *listed* in Section 101.4 of the adopted *International Building Code*, entitled “Referenced codes,” and such codes and standards shall be considered as part of the requirements of this *code* to the prescribed extent of each such reference.

- (3) *Section 102.8.1, Conflicts* is hereby deleted in its entirety;
- (4) *Section 102.8.2, Provisions in referenced codes and standards* is hereby deleted in its entirety;
- (5) *Section 103 Department Of 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,” as amended and set forth in Section 5-27(3) of the City Code.

- (6) *Section 106.6 Fees* is hereby deleted and replaced in its entirety and the following is hereby added in lieu thereof:

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

- (7) *Section 106.6.1 Work commencing before permit issuance* is hereby deleted in its entirety;
- (8) *Section 106.6.2 Fee schedule* is hereby deleted in its entirety;
- (9) *Section 106.6.3 Fee refunds* is hereby deleted in its entirety;
- (10) *Section 108.4 Violation penalties* is hereby retained in its entirety with the following amendments:

108.4 Violation penalties. Persons who shall violate a provision of this code, fail to comply with any of the requirements thereof or erect, install, alter or repair 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 subject to the penalties, and fines specified in Section 1-15 of the City Code. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

- (11) 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.

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

109 Means of Appeal. 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."

- (13) *Section 301.3 Listed and labeled* is hereby retained in its entirety with the following amendments:

301.3 Listed and labeled. Appliances regulated by this code shall be *listed and labeled* for the application in which they are used unless otherwise *approved* in accordance with Section R104.11.

- (14) *Section 303.3 Prohibited locations* is hereby retained in its entirety with the following amendments:

3. The *appliance* is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an *approved* self-closing device. All *combustion air* shall be taken directly from the outdoors in accordance with Section 304.6.

- (15) A new *Section 303.5.1 Natural Draft Appliances locations* is hereby added to read as follows:

303.5.1 Natural draft appliances locations. For new *buildings* and new *appliance* or new HVAC systems installed within additions, *natural draft appliances* shall not be located within the *building thermal envelope* or be located in a space where the only

access to that space is from sleeping rooms, bathrooms, toilet rooms, storage closets, or surgical rooms.

Exceptions

1. Where *natural draft appliances* are located in an enclosed mechanical room and sealed to air flow from adjoining conditioned area and the following conditions are met:
 - a. The *access* to the mechanical room is through a self-closing, gasketed door;
 - b. No other exhaust *appliances* are located within the mechanical room;
 - c. The mechanical room is provided with outside *combustion air* as specified in this *code*;
 - d. The isolation of the mechanical room from adjoining conditioned areas is verified with a differential-*pressure test* not exceeding 45 Pascals, performed by *approved* licensed contractors;
 - e. Such *natural draft appliances* pass a *combustion safety test* under worst-case depressurization conditions in accordance with Building Performance Institute (BPI) Technical Standards for the Heating Professional; and
 - f. Documentation of satisfactory testing results are submitted to the building official prior to final approval.
2. *Natural draft* fireplaces that pass a *combustion safety test*, under worst-case depressurization conditions, performed by *approved* licensed contractors and conducted in accordance with the Building Performance Institute (BPI) Technical Standards for the Heating Professional, prior to final approval.

(16) **Section 304.11 Combustion air ducts** is hereby retained in its entirety with the following amendments:

...

1. Ducts shall be constructed of galvanized steel complying with Chapter 6 of the *International Mechanical Code* or of a material having equivalent corrosion resistance, strength and rigidity.

Exception:

Where the installation of galvanized steel ducts is not practical due to existing finish materials within dwelling units that are undergoing *alteration* or reconstruction, unobstructed stud and joist spaces shall not be prohibited from conveying *combustion air*, provided that not more than one required fireblock is removed.

...

9. All *combustion air* openings or ducts shall be readily identifiable with an *approved* label or by other means warning persons that obstruction of such openings or ducts may cause fuel-burning *equipment* to release *combustion products* and dangerous levels of carbon monoxide into the building.

- (17) **Section 305.1 General** is hereby retained in its entirety with the following amendments:

Where *natural draft appliances* are replaced in existing *multi-family buildings*, all appliances with a *draft hood* shall pass a *combustion* safety test under natural conditions, conducted by an *approved agency* in accordance with the Building Performance Institute (BPI) Technical Standards for the Heating Professional. Such *appliances* shall also be *combustion* safety tested under worst-case depressurization conditions, by an *approved agency* in accordance with Building Performance Institute (BPI) Technical Standards for the Heating Professional. Should an *appliance* not pass such test, a disclosure form reporting the test results shall be provided to the *dwelling unit* owner. A copy of such disclosure form, signed by the homeowner, shall be submitted to the *Building Official* prior to approval.

- (18) **Section 305.3 Elevation of ignition source** is hereby retained in its entirety with the following amendments:

305.3 Elevation of ignition source. Electrical devices, *equipment* and *appliances* having an *ignition source* shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor in hazardous locations and public garages, private garages, repair garages, motor fuel-dispensing facilities and parking garages. For the purpose of this Section, rooms or spaces that are not part of the *living space* of a *dwelling unit* and that communicate directly with a private garage through openings shall be considered to be part of the private garage.

- (19) **Section 308.4.5 Clearance from supply ducts** is hereby retained in its entirety with the following amendments:

308.4.5 Clearance from supply ducts. Supply air ducts connecting to listed central heating furnaces where the bonnet temperature exceeds 150°F (68°C) shall have the same minimum clearance to combustibles as required for the furnace supply plenum for a distance of not less than 3 feet (914 mm) from the supply plenum. Clearance is not required beyond the 3-foot (914 mm) distance.

- (20) **Section 404.9 Above-ground piping outdoors** is hereby retained in its entirety with the following amendments:

404.9 Above-ground piping outdoors. Piping installed outdoors shall be elevated not less than 6 inches (152 mm) above ground and where installed across roof surfaces, shall be elevated not less than 3½ inches (89 mm) above the roof surface. *Piping* installed

above ground, outdoors, and installed across the surface of roofs shall be securely supported and located where it will be protected from physical damage. Where passing through an outside wall, the *pipng* shall be protected against corrosion by coating or wrapping with an inert material. Where *pipng* is encased in a protective pipe sleeve, the annular space between the *pipng* and the sleeve shall be sealed.

- (21) **Section 404.12 Minimum burial depth** is hereby retained in its entirety with the following amendments:

404.12 Minimum burial depth. Underground *pipng* systems shall be installed a minimum depth of 18 inches (457 mm) below grade.

- (22) **Section 404.12.1 Individual outside appliances**, is hereby retained in its entirety with the following amendments:

404.12.1 Individual outside appliances. Individual lines to outdoor lights, grills and other *appliances* shall be installed a minimum of not less than 18 inches (457 mm) below finished grade.

Exception:

Approved materials installed a minimum of 6 inches (152 mm) below finished grade when covered with a concrete slab 3 1/2 inches (89 mm) in minimum thickness, stone patio, concrete pavers or other *approved* materials.

- (23) **Section 404.15 Outlet closure** is hereby retained in its entirety with the following amendments:

404.15 Outlet closures. Gas *outlets* and fittings which allow for future gas line expansion that do not connect to *appliances* shall be provided with an *approved* gas shutoff *valve* with the end capped gas-tight.

Exception:

1. *Listed* and *labeled* flush-mounted-type quick disconnect devices and *listed* and *labeled* gas convenience *outlets* shall be installed in accordance with the manufacturer's instructions.

2. *Drip/dirt* legs installed at the floor level at appliances.

- (24) **Section 405.1 General** is hereby retained in its entirety with the following amendments:

405.1 General. Changes in direction of rigid metallic pipe specified in Section 403.4 shall be permitted to be made only by the use of fittings, and factory bends.

- (25) **Section 405.2 Metallic pipe** is hereby deleted in its entirety:

- (26) **Section 406.4.1 Test pressure** is hereby retained in its entirety with the following amendments:

406.4.1 Test pressure. The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (67 kPa gauge) irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the *pipng* greater than 50 percent of the specified minimum yield strength of the pipe.

- (27) A new **Section 409.3.2.1 Exterior appliances** is hereby added to read as follows:

409.3.2.1 Exterior appliances, Any building serving exterior *appliances* shall provide a shut-off *valve* at the exterior of the building.

- (28) **Section 409.5.2 Vented decorative appliances and room heaters** is hereby retained in its entirety with the following amendments:

409.5.2 Vented decorative appliances and room heaters. Shutoff valves for *vented decorative appliances*, room heaters and decorative *appliances* for installation in vented *fireplaces* shall be permitted to be installed in an area remote from the *appliances* where such valves are provided with ready *access*. Such *valves* shall be permanently identified and shall not serve another *appliance*. Remote *valves* shall be operable on the same floor as the *appliance* served and within 12 feet (3.66 m) of the *appliance* as measured along the floor line. The *pipng* from the shutoff *valve* to within 6 feet (1829 mm) of the *appliance* shall be designed, sized and installed in accordance with Sections 401 through 408.

- (29) **Section 410.3 Venting of regulators** is hereby retained in its entirety with the following amendments:

410.3 Venting of regulators. *Pressure regulators* that require a *vent* shall be vented directly to the outdoors. The *vent* shall be designed to prevent the entry of insects, water and foreign objects. *Vents* shall not terminate within 3 feet (0.916 m) of openings into the building.

...

- (30) **Section 501.8 Appliances not required to be vented** is hereby retained in its entirety with the following amendments:

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8. Direct-fired makeup air heaters.

...

- (31) *Section 503.2.2 Well-ventilated spaces* is hereby deleted in its entirety.
- (32) *Section 503.5.6.1 Chimney lining* is hereby retained in its entirety with the deletion of the listed "Exception" which is stricken in its entirety.
- (33) *Section 503.6.5 Minimum height* is hereby retained in its entirety with the following amendments:

503.6.5 Minimum height. A Type B or L gas vent shall terminate not less than 5 feet (1524 mm) in vertical height above the highest connected *appliance draft hood* or *flue collar*. A Type B-W gas vent shall terminate not less than 12 feet (3658 mm) in vertical height above the bottom of the wall furnace. All gas vents shall terminate a minimum of 22 inches (559 mm) above the surface or grade directly below.

- (34) *Section 614.4 Exhaust installation* is hereby retained in its entirety with the following amendments:

614.4 Exhaust installation. Exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a backdraft damper. Dryer exhaust duct terminations shall not be located within 36 inches (914 mm) of exterior openings into *conditioned spaces*, *crawl spaces* and attics. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.

- (35) *Section 614.8.4.2 Manufacturer's instructions* is hereby deleted in its entirety:
- (36) *Section 621 Unvented room heaters* is hereby deleted in its entirety:
- (37) A new *Section 623.3.1 Kitchens with gas cooking* is hereby added to read as follows:

623.3.1 Kitchens with gas cooking. Gas cooking *appliances* in residential kitchens shall be supplied with an exhaust system vented to the outside. Ducts serving kitchen exhaust systems shall not terminate in an attic or *crawl space* or areas inside the building and shall not induce or create a negative pressure in excess of negative 3 Pa or adversely affect gravity-vented *appliances*.

- (38) *Section 630.3 Combustion and ventilation air* is hereby amended to read as follows:

630.3 Combustion and ventilation air. Where infrared heaters are installed, natural or mechanical means shall provide outdoor ventilation air at a rate of not less than 4 cfm per 1,000 Btu/h (0.38 m³/min/kW) of the aggregate input rating of all such heaters installed in the space. Exhaust openings for removing flue products shall be above the level of the heaters.

- (39) **Section 636 Outdoor decorative appliances** is hereby retained in its entirety with the following amendments:

636.1 General. Permanently fixed-in-place outdoor decorative appliances shall be tested in accordance with ANSI Z21.97 and shall be provided with a *flame safeguard* device and be installed in accordance with the manufacturer's instructions. *Appliances* shall not be located beneath or within 10 feet (3048 mm) of combustible construction.

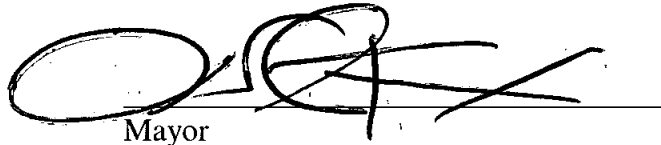
- (40) **Chapter 8 REFERENCED STANDARDS** is hereby amended to add, in alphabetical order, the following additional referenced standards:

BPI Building Performance Institute
107 Hermes Road, Suite 110
Malta, NY 12020


BPI 104 Envelope Professional Standard and BPI Technical Standards for the Heating Professional
Referenced in Amended 12 IFGC Section 303.5.1 Natural Draft Appliances Locations and Section 305.1 General

Introduced, considered favorably on first reading, and ordered published this 6th day of June, A.D. 2017, and to be presented for final passage on the 5th day of July, A.D. 2017.



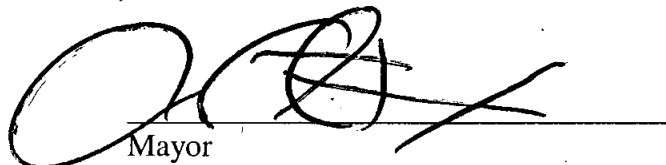

Mayor

ATTEST:



City Clerk

Passed and adopted on final reading on this 5th day of July, A.D. 2017.




Mayor

ATTEST:


City Clerk

NOTICE OF PUBLIC HEARING

NOTICE is hereby given of a public hearing to be held before the City Council of the City of Fort Collins, Colorado, on the 6th day of June, A.D., 2017 at 6:00 p.m., or as soon thereafter as the matter may come on for hearing, in the Council Chambers at the City Hall, 300 LaPorte Avenue, Fort Collins, Colorado for the purpose of considering the adoption of ordinances adopting by reference the *2015 International Building Code*, *2015 International Residential Code*, *2015 International Energy Conservation Code*, *2015 International Mechanical Code*, and the *2015 International Fuel Gas Code* together with local amendments; promulgated by the International Code Council.

Not less than one (1) copy of said Codes has been, and now is on file in the Office of the City Clerk of the City of Fort Collins and is available for public inspection.

The purpose of the International Building Code, International Residential Code, International Energy Conservation Code, International Mechanical Code, and the International Fuel Gas Code adopted by said ordinance is to provide for protection of public health and safety and general welfare.

The City of Fort Collins will make reasonable accommodations for access to City services, programs and activities and will make special communication arrangements for persons with disabilities. Please call 221-6515 (V/TDD: Dial 711 for Relay Colorado) for assistance.

This notice is given and published by order of the City of Fort Collins, Colorado.

Dated at Fort Collins, Colorado this 14th day of May, A.D. 2017.

Wanda Winkelmann
City Clerk