★ **Roll Call Number**

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Agenda Item Number
51 D

Date November 18, 2019

An Ordinance entitled, "AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by amending Sections 26-601, 26-606, 26-621, 26-642, 26-670 and 26-671, by repealing Sections 26-609, 26-620, 26-622, 26-623, 26-624, 26-625, 26-626, 26-627, 26-628, 26-629, 26-630, 26-631, 26-633, 26-634, 26-635, 26-636, 26-637, 26-638, 26-639, 26-640, 26-641, 26-643, 26-644, 26-672, and by adding and enacting new Section 26-645, relating to adoption of the State Plumbing Code",

presented. **(Council Communication No.** 19-499

Moved by_____ that this ordinance be considered and given first vote for passage.

FORM APPROVED:

(First of three required readings)

Ann DiDonato
Assistant City Attorney

COUNCIL ACTION	YEAS	NAYS	PASS	ABSENT
COWNIE				
BOESEN				
COLEMAN				
GATTO				
GRAY				
MANDELBAUM				
WESTERGAARD				
TOTAL				

MOTION CARRIED APPROVED

_____ Mayor

CERTIFICATE

I, P. Kay Cmelik, City Clerk of said City hereby certify that at a meeting of the City Council of said City of Des Moines, held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year first above written.

_____ City Clerk

510

ORDINANCE NO. _____

AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by amending Sections 26-601, 26-606, 26-621, 26-642, 26-670 and 26-671, by repealing Sections 26-609, 26-620, 26-622, 26-623, 26-624, 26-625, 26-626, 26-627, 26-628, 26-629, 26-630, 26-631, 26-633, 26-634, 26-635, 26-636, 26-637, 26-638, 26-639, 26-640, 26-641, 26-643, 26-644, 26-672, and by adding and enacting new Section 26-645, relating to adoption of the State Plumbing Code.

Be It Ordained by the City Council of the City of Des Moines, Iowa:

Section 1. That the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, is hereby amended by amending Sections 26-601, 26-606, 26-621, 26-642, 26-670 and 26-671, by repealing Sections 26-609, 26-620, 26-622, 26-623, 26-624, 26-625, 26-626, 26-627, 26-628, 26-629, 26-630, 26-631, 26-633, 26-634, 26-635, 26-636, 26-637, 26-638, 26-639, 26-640, 26-641, 26-643, 26-644, 26-672, and by adding and enacting new Section 26-645, relating to adoption of the State Plumbing Code, as follows:

ARTICLE VI. PLUMBING CODE

Sec. 26-601. Adoption of Uniform Plumbing Code.

(a) ~~This article shall consist of the Uniform~~The State Plumbing Code, which consists of Sections 101 and 102 and Chapters 2 to 17 of the 2018 edition of the Uniform Plumbing Code, ~~("UPC"), 2015 edition,~~ published by the International Association of Plumbing and Mechanical Officials, 4755 E. Philadelphia Street, Ontario, CA 91761, with amendments, as provided in 641 I.A.C., Chapter 25, and the 2018 edition of the National Fuel Gas Code ("NFPA 54") published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, and the 2017 edition of the Liquefied Petroleum Gas Code ("NFPA 58") published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, as provided in 661 I.A.C., Chapter 226, are adopted and ~~2816 which volume is~~ incorporated by this reference ~~in its~~ their entirety as though set forth in this article, except as otherwise indicated in this article. This adoption of the State Plumbing Code is pursuant to I.C. Section 105.4.

(b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the plumbing code. References to section numbers not preceded by "26-" will be to sections in the ~~Uniform~~ State Plumbing Code.

Sec. 26-606. Plumbing permits required.

(a) Plumbing permits are required for any installation, alteration, repair, replacement, or remodel to a plumbing system regulated by the ~~as identified in the Uniform~~ State Plumbing Code ~~chapter 1~~.

(b) A fee for each plumbing permit shall be paid to the building official in the amount set in the schedule of fees adopted by the city council by resolution.

(c) Excavation permits issued by the city engineer pursuant to chapter 102 to open streets, parking or other public property for the purpose of installation or repair shall be issued only after plumbing permits for the work have been obtained in accordance with this division. Each excavation permit shall contain the plumbing permit number.

Sec. 26-609. ~~Definitions~~Repealed by Ord. No. 15,---.

~~In addition to the definitions described in chapter 2 of the Uniform Plumbing Code, the following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:~~

~~*Building (house) storm drain* means a building drain used for conveying rainwater, surface water, groundwater, subsurface water, or other similar discharge to a building storm sewer or a combined building sewer, extending to a point not less than three feet outside the building wall.~~

~~*Building (house) storm sewer* means the extension from the building storm drain to the public storm sewer, combined sewer, or other point of disposal.~~

~~*Storm sewer* means a sewer used for conveying rainwater, surface water, condensate, cooling water, or similar liquid wastes, exclusive of sewage and industrial waste.~~

~~*Subsoil drain* means a drain which receives only subsurface or seepage water and conveys it to a place of disposal.~~

Division 2. ~~Deletions and~~ Amendments and Additions

Sec. 26-620. ~~Deletions~~Repealed by Ord. No. 15,---.

~~The following are deleted from the Uniform Plumbing Code, and are of no force or effect in this article:~~

~~(1) Chapter 1 Administration subsections:~~
~~a. Section 103.3 Application for Permit (See section 134-136~~
~~b. Table 104.5 Permit Fees (See adopted schedule of fees)~~
~~(2) Chapter 6 Residential Fire Sprinkler Systems.~~
~~a. Sections 612.0 through 612.7.2~~
~~(3) Chapter 12 Fuel Pipe Sizing Pressure Drop Tables:~~
~~a. Table 1216.2(15) CSST Pipe sizing table.~~
~~b. Table 1216.2(16) CSST Pipe sizing table.~~

Sec. 26-621. Amendments and additions.

The remaining sections in this article are and represent amendments and additions to the requirements contained in the ~~Uniform~~ State Plumbing Code which are more restrictive than the State Plumbing Code, and where their requirements conflict with those of the ~~Uniform~~ State Plumbing Code, the requirements of this article shall prevail.

Sec. 26-622. ~~Water temperature for public lavatories~~ Repealed by Ord. No. 15,---.

~~Section 407.3 Limitation of Hot Water Temperatures for Public Lavatories. Modify the section by adding the following sentence to the end of the section: "These devices shall be installed at or as close as possible to the point of use."~~

Sec. 26-623. ~~Shower waste outlet~~ Repealed by Ord. No. 15,---.

~~Section 408.4 Waste Outlet. Modify the section by adding the following exception. Exception: In a residential dwelling unit where a 2-inch waste pipe is not readily and approval for the Authority Having Jurisdiction has been granted, the waste outlet, fixture tailpiece, trap and trap arm may be 1 ½ inch when an existing tub is being replaced by a shower sized per Section 408.6(2). This exception only applies where one shower head rated at 2.5 gpm is installed.~~

Sec. 26-624. ~~Limitation of hot water in bathtubs and whirlpool bath tubs~~ Repealed by Ord. No. 15,---.

~~Section 409.4 Limitation of Hot Water in Bathtubs and Whirlpool Bath Tubs. Modify the section by adding the following sentence to the end of the section: "These devices shall be installed at or as close as possible to the point of use."~~

Sec. 26-625. ~~Limitation of hot water in bidets~~ Repealed by Ord. No. 15,---.

~~Section 410.3 Limitation of Hot Water in Bidets. Modify the section by adding the following sentence to the end of the section: "These devices shall be installed at or as close as possible to the point of use."~~

Sec. 26-626. ~~Required plumbing fixture calculations~~ Repealed by Ord. No. 15,---.

~~Section 422 and Table 422.1 of the UPC regarding the minimum number of fixtures are hereby amended by deleting said section and table and inserting in lieu thereof the following:~~

~~Plumbing fixtures shall be provided in accordance with chapter 29 of the International Building Code (IBC) adopted in section 26-300, with the following amendments and additions:~~

~~(1) All references in chapter 29 of the IBC to provisions in the International Plumbing Code shall instead be interpreted to refer to the corresponding provisions in the Iowa State Plumbing Code at Iowa Administrative Code chapter 641-25, which are repeated below for ease of reference.~~

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(a) *IPC 410.1 – Drinking fountains.* Section 410.1. Approval – Drinking fountains shall conform to ASME A112.19.1, ASME A112.19.2M, or ASME A112.19.9M and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, water coolers or bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.

(b) *IPC 411 - Emergency showers and eye wash stations.*
Section 411.1. Approval – Emergency showers and eyewash stations shall conform to ISEA Z358.1.
Section 411.2. Waste Connection – Waste connections shall not be required for emergency showers and eyewash stations.

(2) The following provisions in the Iowa State Plumbing Code at Iowa Administrative Code chapter 641-25 are hereby incorporated into the plumbing code:
IPC 419.2 Substitution for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies.

(3) Accessible plumbing facilities and fixtures shall be provided as required by chapter 11 of the IBC.

Sec. 26-627. ~~Floor drains required~~ Repealed by Ord. No. 15,---.

Notwithstanding provisions of section 418, floor drains shall be provided as required in this section.

(1) Unless otherwise approved by the plumbing inspector, at least one floor drain shall be provided in each room where an automatic water heater is or will be installed and in each mechanical room. When installed in a basement floor, such floor drain shall be at least three inches in diameter. Floor drains in other locations may be no less than two inches in diameter.

(2) Every water heater shall be located in close proximity to a floor drain.

Sec. 26-628. ~~Cross connection control-containment~~ Repealed by Ord. No. 15,---.

Notwithstanding provisions of section 603, cross-connection control shall be provided in accordance with this section.

(1) *Definitions.* For the purpose of this section, the following definitions supersede definitions given elsewhere in this article or in the plumbing code and shall apply only to this section:

Administrative authority means Des Moines Water Works and the building official.

Approved backflow prevention assembly for containment means a backflow prevention assembly which is approved by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research. The approval listing shall include the limitations of use based on the degree of hazard. The backflow prevention assembly shall also be listed by the International Association

of Plumbing and Mechanical Officials (IAPMO) or by the American Society of Sanitary Engineering (ASSE) as having met the requirements of one of the standards listed below.

Standard	Product Covered
ANSI/ASSE 1013-2009	Reduced Pressure Principle Backflow Preventers
ANSI/ASSE 1015-2009	Double Check Backflow Prevention Assembly
ANSI/ASSE 1047-2009	Reduced Pressure Detector Backflow Preventer
ANSI/ASSE 1048-2009	Double Check Detector Assembly Backflow Preventer
ANSI/AWWA C510-07	Double Check Valve Backflow Prevention Assembly
ANSI/AWWA C511-07	Reduced Pressure Principle Backflow Prevention Assembly

Approved backflow prevention assembly for containment in a fire protection system means a backflow prevention assembly to be used in a fire protection system which meets the requirements of Factory Mutual Research Corporation (FM) and Underwriters' Laboratories, Inc. (UL), and the requirements of the city fire code and building code, in addition to the requirements of subsection (g)(1). Devices sized smaller than 2 1/2 inches, which have not been listed by Underwriters' Laboratories, Inc. (UL) and tested by Factory Mutual Research Corporation (FM), may be allowed if they meet the requirements of the city fire code and building code.

Auxiliary water supply means any water supply on or available to the premises other than the water purveyor's approved public water supply, such as but not limited to a private well, pond, or river.

Containment means a method of backflow prevention which requires the installation of a backflow prevention assembly at the water service entrance.

Cross connection means any actual or potential connection or arrangement, physical or otherwise, between a potable water supply system and any plumbing fixture or tank, receptacle, equipment, or device, through which it may be possible for non-potable, used, unclean, polluted, and contaminated water or other substance to enter into any part of such potable water system under any condition.

Customer means the owner, operator, or occupant of a building or property which has a water service from a public water system, or the owner or operator of a private water system which has a water service from a public water system.

Degree of hazard means the rating of a cross connection or water service which indicates if it has the potential to cause contamination or pollution.

Double check valve backflow prevention assembly means a backflow prevention device consisting of two independently acting internally loaded check valves, four properly located test cocks, and two isolation valves.

High hazard cross connection means a cross connection which may cause an impairment of the quality of the potable water by creating an actual hazard to the public health, through poisoning or through the spread of disease by sewage, industrial fluids, or waste.

Isolation means a method of backflow prevention in which a backflow prevention assembly is located at the cross connection rather than at the water service entrance.

Low hazard cross connection means a cross connection which may cause an impairment of the quality of potable water to a degree which does not create a hazard to the public health, but which does adversely and unreasonably affect the aesthetic qualities of such potable waters for domestic use.

Reduced pressure principle backflow prevention assembly means a backflow prevention device consisting of two independently acting internally loaded check valves, a different pressure relief valve, four properly located test cocks, and two isolation valves.

Registered backflow prevention assembly technician means a person who is registered by the state to test or repair backflow prevention assemblies and report on the condition of those assemblies.

Thermal expansion means volumetric increase of water due to heating resulting in increased pressure in a closed system.

Water service, depending on the context, means the physical connection between a public water system and a customer's building, property, or private water system, or the act of providing potable water to a customer.

Water works means the city water works.

(2) *Administrative authority.*

a. Water works or the building official shall have the right to enter, with the consent of the customer or upon the basis of a suitable warrant issued by a court of appropriate jurisdiction, any property to inspect for possible cross connections.

b. Water works shall maintain records of cross connection hazard surveys and the installation, testing, and repair of all backflow prevention assemblies installed for containment purposes.

(3) *New water services.* New water services shall comply with the following:

a. Plans shall be submitted to water works for review on all new water services in order to determine the degree of hazard.

b. The water works shall, in consultation with the building official, determine the type of backflow prevention assembly required for containment based on the degree of hazard.

c. The building official shall inspect the installation of the required backflow prevention assembly for containment before the initiation of water service.

(4) *Existing water services.* Existing water services shall comply with the following:

a. Upgrades of existing water services shall be treated as new water services for the purpose of this section.

b. The water works shall, on the basis of information received from customers or gathered through on-premises investigations or surveys, determine the type of backflow prevention assembly required for containment based on the degree of hazard.

c. Within the timeframe specified in writing by water works, the customer shall install a backflow prevention assembly for containment required by water works.

d. For existing water services, water works may inspect the premises to determine the degree of hazard. When high hazard cross connections are found, water works shall, at its sole discretion:

1. Develop a schedule of compliance which the customer shall follow; or

2. Terminate the water service until a backflow prevention assembly for containment required by water works has been installed.

e. Failure of water works to notify a customer that the customer is believed to have a high hazard cross connection and that the customer shall install backflow prevention assemblies for containment in no way relieves a customer of the responsibility to comply with all requirements of this section.

(5) *Customer.* Responsibilities of the customer shall be as follows:

a. The customer shall be responsible for ensuring that no cross connections exist without approved backflow protection within his or her premises starting at the point of service from the public potable water system.

b. The customer shall, at his or her own expense, cause installation, operation, testing and maintenance of backflow prevention assemblies.

c. The customer shall ensure that copies of records of the installation and of all tests and repairs made to the backflow prevention assembly on the approved form within 15 days after testing and/or repairs are completed.

d. If a backflow incident occurs, the customer shall immediately notify water works of the incident and take steps to confine the contamination or pollution.

(6) *Required backflow prevention assemblies for containment for water services.* Backflow prevention assemblies for containment for water services shall be required as follows:

a. An air gap or an approved reduced pressure principle backflow prevention assembly is required for water services having one or more cross connections which the administrative authority has classified as high hazard.

b. An approved double check valve assembly is required for water services having no high hazard cross connections but having one or more cross connections which the water works has classified as low hazard.

(7) *Required backflow prevention assemblies for containment for fire protection systems.* Backflow prevention assemblies for containment for fire protection systems shall be required as follows:

a. A reduced pressure principle backflow prevention assembly shall be installed on all new and existing fire protection systems which water works determines to have any of the following:

1. Direct connections from public water mains with an auxiliary water supply on or available to the premises for pumper connection.

2. Interconnections with auxiliary supplies such as reservoirs, rivers, ponds, wells, mills, or other industrial water systems.

3. Use of antifreezes or other additives in the fire protection system.

4. Combined industrial and fire protection systems supplied from the public water mains only, with or without gravity storage or pump suction tanks.

5. Any other facility, connection, or condition which may cause contamination.

b. A double check valve assembly will be required for all other fire protection systems. The double check valve assembly shall be required on all new systems at the time of installation and on existing systems at the time that they are upgraded.

c. Submittal of proposed backflow prevention devices to water works does not relieve the designer or the sprinkler contractor of the responsibility of submitting plans, including backflow prevention devices to the fire marshal for approval.

(8) *Backflow prevention assembly technicians.* A backflow prevention assembly technician registered by the state shall include his or her registration number on all correspondence and forms required by or associated with this section.

(9) *Registered backflow prevention assembly technician noncompliance.* Noncompliance with any of the following by a registered technician shall be grounds for reporting such individual to the state department of public health:

a. Improper testing or repair of backflow prevention assemblies.

b. Improper reporting of the results of testing or of repairs made to backflow prevention assemblies.

c. Failure to meet registration requirements.

d. Related unethical practices.

(10) *Installation of backflow prevention assemblies.* Backflow prevention assemblies shall be installed in compliance with the following:

a. The required backflow prevention assemblies for containment shall be installed in horizontal plumbing immediately following the meter or as close to that location as deemed practical by water works. In any case, it shall be located upstream from any branch piping. Installation at this point does not eliminate the responsibility of the customer to protect the water supply system from contamination or pollution between the backflow prevention assembly and the water main.

b. Reduced pressure principle backflow prevention assemblies shall be installed so as to be protected from flooding.

c. Reduced pressure principle backflow prevention assemblies shall not be installed in underground vaults or pits.

d. All backflow prevention assemblies shall be protected from freezing. Those devices used for seasonal water services may be removed in lieu of being protected from freezing; however, the devices must be reinstalled and tested by a registered backflow prevention technician prior to service being reactivated.

e. If hot water is used within the water system, thermal expansion shall be provided for when installing a backflow prevention assembly for containment.

f. Provisions shall be made to convey the discharge of water from reduced pressure principle backflow prevention assemblies to a suitable drain.

g. No backflow prevention assemblies shall be installed in a place where it would create a safety hazard, such as but not limited to over an electrical panel or above ceiling level.

h. If interruption of water service during testing and repair of backflow prevention assemblies for containment is unacceptable, another backflow prevention assembly, sized to handle the temporary water flow need during the time of test or repair, should be installed in parallel piping.

i. All backflow prevention assemblies shall be installed so that they are accessible for testing as stated in section 603.3.4.

j. All shutoff valves shall conform with the current edition of the Manual of Cross-Connection Control (University of Southern California) requirements for either ball or resilient seat gate valves at the time of installation. Ball valves shall be used on assemblies installed in piping two inches and smaller and resilient seat gate valves on assemblies installed in piping larger than two inches.

k. Location and protection of the containment assembly shall be approved by water works prior to installation.

(11) *Testing of backflow prevention assemblies.* Backflow prevention assemblies shall be tested as follows:

a. Testing of backflow prevention assemblies shall be performed by a registered backflow prevention assembly technician. The costs of tests required in the subsections (k)(2) through (5) of this section shall be borne by the customer.

b. Backflow prevention assemblies shall be tested upon installation and tested and inspected at least annually.

c. Backflow prevention assemblies which are in place, but have been out of operation for more than three months, shall be tested before being put back into operation. Backflow prevention assemblies used in seasonal applications shall be tested before being put into operation each season.

d. Any backflow prevention assembly which fails a periodic test shall be repaired or replaced. When water service has been terminated for noncompliance, the backflow prevention assembly shall be repaired or replaced prior to the resumption of water service. A registered backflow prevention assembly technician shall retest Backflow prevention assemblies immediately after repair or replacement.

e. Water works or the building official may require backflow prevention assemblies to be tested at any time in addition to the annual testing requirement.

f. The registered backflow prevention assembly technician shall report the successful test of a backflow prevention assembly to the customer and to water works on the form provided by water works within 15 days of the test.

g. Water works or the building official may require, at the owner's expense, additional tests of individual backflow prevention assemblies as it shall deem necessary to verify test procedures and results.

(12) *Repair of backflow prevention assemblies.* Backflow prevention assemblies shall be repaired in accordance with the following:

a. All repairs to backflow prevention assemblies shall be performed by registered backflow prevention assembly technicians.

b. The registered backflow prevention assembly technician shall not change the design, material, or operational characteristics of a backflow prevention assembly during repair or maintenance, and shall use only original manufacturer replacement parts.

c. The registered backflow prevention assembly technician shall report the repair of a backflow prevention assembly to the customer and to water works on the form provided by water works within 15 days of the repair. The report shall include the list of materials or replacement parts used.

d. Any time fire services are discontinued for a period of time longer than necessary to test the device, the tester is required to notify the fire marshal's office that the fire services are shut off for repair.

(13) *Customer noncompliance.* The water service may be discontinued in the case of noncompliance with this section. Noncompliance includes but is not limited to the following:

a. Refusal to allow water works and/or the plumbing inspection division personnel access to the property to inspect for cross connections.

b. Removal of a backflow prevention assembly which has been required by water works.

c. Bypassing of a backflow prevention assembly which has been required by water works.

d. Providing inadequate backflow prevention when cross connections exist.

e. Failure to install a backflow prevention assembly which has been required by water works.

f. Failure to test and/or properly repair a backflow prevention assembly as required by water works.

g. Failure to comply with the requirements of this section.

(14) *Replacements.* Replace listed reduced pressure zone assemblies with stainless steel dual check backflow prevention assembly with an atmospheric opening complying with section 603.4.12 of the plumbing code.

Sec. 26-629. ~~Materials used for water distribution~~ Repealed by Ord. No. 15,---.

(a) Notwithstanding provisions of section 604, materials used for water distribution shall meet the requirements of this section. Water service materials shall comply with Des Moines Water Works regulations. PVC piping of four inches or larger may be used for service lines provided that it conforms to AWWA standard C-900 DR 14 and the following:

(1) A no. 12 or larger type TW or THWN solid single strand copper tracer wire is installed throughout the length of the pipe. Wire connections shall be soldered and waterproofed. Connection points shall be in accordance with water works specifications.

(2) PVC shall not be used within five feet of a building.

~~(b) When ductile iron pipe and cast iron fittings are used, they shall be encased in plastic at least eight mills thickness. Lead pipe, lead solders, and flux containing more than 0.2 percent lead shall not be used. All materials used in the water supply system, except valves and similar devices, shall be of a like material, except where otherwise approved by the building official.~~

~~(c) Notwithstanding the provisions of section 608.5, relief valve drains located inside a building shall not be of CPVC or PB.~~

Sec. 26-630. ~~Use of copper tubing~~ Repealed by Ord. No. 15,---.

~~(a) Notwithstanding provisions of section 701 and Table 701.2, copper tube for underground drainage and vent piping shall have a weight of not less than that of copper drainage tube type L.~~

~~(b) Notwithstanding provisions of section 701 and Table 701.2, copper tube for aboveground drainage and vent piping shall have a weight of not less than type M, except that type DWV may be used in one- and two-family dwellings.~~

~~(c) Notwithstanding provisions of section 604.3, copper tube for water piping shall have a weight of not less than type M, except that type K shall be used underground.~~

~~(d) Listed flexible copper water connections shall be installed in exposed locations, unless otherwise listed.~~

~~(e) Copper DWV pipe shall be located at least six inches above grade.~~

Sec. 26-631. ~~Depth of water service~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of section 609.1, water service piping shall, wherever feasible, have no less than five feet of soil cover.~~

Sec. 26-633. ~~Drainage, waste, storm and vent systems~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of chapters 7, 8, 9, and 11 drainage, waste, storm and vent piping systems shall be installed in accordance with this section.~~

~~(1) Pipe shall be cast iron, no-hub cast iron, galvanized steel, galvanized wrought iron, lead, copper, brass, ABS, PVC or other approved materials having a smooth and uniform bore.~~

~~(2) ABS and PVC pipes and fittings shall be marked to show conformance with the standards in the plumbing code. ABS and PVC installations are limited to construction not exceeding the following conditions:~~

~~a. ABS, PVC and (SDR 23.5 Exterior Use Only) shall be installed with a minimum bedding of four inches below and up all sides with three-eighths-inch clean smooth gravel or a bedding product allowed by the Des Moines Metropolitan Design Standards, class I, 1-inch clean bedding.~~

~~b. Fittings shall be of cast iron, malleable iron, lead, brass, copper, ABS, PVC, no-hub fittings or other approved materials having a smooth interior waterway of the same diameter as the piping served, and all such fittings shall conform to the type of pipe used, as follows:~~

1. Fittings on screwed pipe shall be of the recessed drainage type. Burred ends shall be reamed to the full bore of the pipe.
2. The threads of drainage fittings shall be tapped so as to allow one-fourth inch per foot (20.9 mm/m) grade.

Sec. 26-634. ~~Backwater valves~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of section 710.1, in areas of the city that have been determined to experience sanitary sewer backups by the city engineer, drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover of the public sewer serving such drainage piping shall be protected from backflow of sewage by installing an approved type backwater valve. Fixtures above such elevation shall not discharge through a required backwater valve.~~

Sec. 26-635. ~~Size of building sewers~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of sections 717, the minimum diameter for any building sewer, regardless of the number of fixtures, shall be four inches.~~

Sec. 26-636. ~~Appliances~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of section 807.3, no domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air gap fitting on the discharge side of the dishwashing machine, or by looping the discharge line of the dishwasher as high as possible near the flood level of the kitchen sink where the waste disposer is connected. Listed air gaps shall be installed with the flood level (FL) marking at or above the flood level of the sink or drain board, whichever is higher.~~

Sec. 26-637. ~~Swimming pools~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of section 813, in other than single family dwellings and duplexes pipes carrying wastewater from swimming pools, wading pools, or hot tubs, including pool drainage, backwash from filters, water from scum gutter drains or floor drains which serve walks around pools, shall be installed as an indirect waste by an air gap. Where the recirculation pump is used to discharge waste pool water to the drainage system, the pump discharge shall be installed as an indirect waste, with an air gap, to the sanitary sewer.~~

Sec. 26-638. ~~Air conditioning wastes~~ Repealed by Ord. No. 15,---.

~~Notwithstanding provisions of section 814, air conditioning waste piping systems shall be installed in accordance with this section.~~

~~(1) *Point of discharge.* Air conditioning condensate waste pipes shall discharge at one of the following:~~

~~a. Indirectly to a properly trapped fixture, floor drain or open sight drain.~~

~~b. Sump pump.~~

c. Surface (permission must be obtained from the building official for this point of discharge).

d. Indirectly to the building storm sewer through a roof drain.

(2) *Vents and traps.* Vents and traps shall not be required on air conditioning condensate waste pipes.

Sec. 26-639. ~~Vent termination~~ Repealed by Ord. No. 15,---.

Notwithstanding provisions of section 906.7, each plumbing vent extension through a roof shall be increased in size as follows:

Vent Diameter (inches)	Extension Diameter (inches)
Less than 3	3
3 to 4	4
Over 4	Same as vent

The change in diameter shall be made at least one foot below the roof and shall extend to the point of vent termination, which shall be not less than ten inches above the roof or as required by the plumbing inspector. Increasers shall be no longer than thirty inches in length.

Sec. 26-640. ~~Wet vent sizing~~ Repealed by Ord. No. 15,---.

Section 908.2.2 , Horizontal Wet Venting for a Bathroom Group, Size is hereby amended by deleting the second sentence from said section and inserting in lieu thereof the following: The wet vent shall not be less than 2 inches in diameter for 6 drainage fixture units (dfu) or less, and not less than 3 inches in diameter for 7 dfu or more.

Sec. 26-641. ~~Table of horizontal distance of trap arms~~ Repealed by Ord. No. 15,---.

Table 10-1, Horizontal Lengths of Trap Arms is hereby amended by modifying said table as follows:

TABLE 1002.2 HORIZONTAL DISTANCE OF TRAP ARMS*

(Except for water closets and similar fixtures not exceeding six feet)

	Distance Trap to Vent	
Trap Arm (inches)	Feet	Inches
1 1/4	5	0
1 1/2	6	0
2	8	0

3	12	0
4 and larger	12	0

* The developed length between the trap of a water closet, or similar fixture, and the vent shall not exceed six feet.

Sec. 26-642. Grease interceptors and FOG.

Notwithstanding provisions of section 1014.1, regulation of Fat Oil and Grease (FOG) and sizing of FOG removal devices shall be in accordance with section chapter 118, article III of this code the Wastewater Reclamation Authority ordinance for the regulation of industrial wastewater and commercial wastewater. Grease drainage lines shall be clearly identified by one of the following ways:

(1) Stenciled with "Grease Drainage". Letters size shall be 1½" for 2" piping, and 2" for 3" and larger piping. Stenciling shall be applied every 3 feet of piping and labeled at the future stubbed locations; or

(2) Prior approval of an identification system approved by the AHJ.

Sec. 26-643. Prohibited locations of CSST Repealed by Ord. No. 15,---.

Notwithstanding provisions of section 1208.5, corrugated stainless steel tubing shall not be installed where subject to physical damage. Locations subject to physical damage include but are not limited to building exteriors, and where used as an appliance connector between the appliance and the shutoff valve.

Sec. 26-644. Corrugated Stainless Steel Tubing (CSST) Repealed by Ord. No. 15,---.

Delete section 1208.5.3.4 and insert in lieu thereof the following new section:

1208.5.3.4 Corrugated Stainless Steel (CSST).

Only CSST with an Arc-Resistant Jacket or Covering System listed in accordance with ANSI LC 1 (Optional Section 5.16)/CSA 6.26-2016 shall be installed in accordance with the terms of its approval, the conditions of listing, the manufactures instructions and this code including electrical bonding requirements in Section 1211.2. CSST shall not be used for through wall penetrations from the point of delivery of the gas supply to the inside of the structure. CSST shall not be installed in locations where subject to physical damage unless protected in an approved manner.

Sec. 26-645. Existing Sewers.

Replacement of existing building sewer and building storm sewers using trenchless methodology and materials shall be installed in accordance with ASTM F1216. Cast-iron soil pipes and fittings shall not be repaired or replaced by using this method aboveground or belowground. Replacement using cured-in-place pipe liners shall not be used on collapsed piping or when the existing piping is compromised. Compromised piping is determined by the AHJ that would consist

of significant cracks, out of alignment piping, missing pieces from piping, and or fittings. If any portion of a bituminous fiber ("Orangeburg") building sewer fails, the Orangeburg sewer shall be replaced in its entirety from the building to the public sanitary sewer with new sewer that fully complies with this Code.

Division 4. Licenses

Sec. 26-670. Mechanical and plumbing contractor's license.

~~(a) Except as provided in section 26-672, only those individuals or business entities holding a mechanical or plumbing contractor license as recognized in this section may apply for and obtain permits to conduct mechanical or plumbing work in the City of Des Moines.~~Only those individuals or business entities holding a valid mechanical or plumbing contractor license issued by the Iowa plumbing and mechanical systems licensing board may apply for an obtain permits to conduct mechanical and plumbing work in the City of Des Moines.

~~(b) Any person, firm or business engaged in, or which presents itself as engaging in any plumbing, HVAC, refrigeration or hydronic systems activity or business within the city, shall present for copying by the building official, all licenses issued by the plumbing and mechanical systems examining board, to any of its workers or employees prior to such workers or employees engaging in such work within the city.~~

~~(c) Any person desiring a new city mechanical contractor license or city plumbing contractor license shall make application on forms furnished by the building official, shall provide the contractor's bond identified in section 26-673 and shall pay the application fee in the amount set in the schedule of fees adopted by the city council by resolution. Any applicant for a mechanical or plumbing contractor's license which satisfies the requirements set forth in this section for the type of contractor license applied for shall be issued such license.~~

~~(d) *Mechanical contractor.* Except as otherwise provided in this chapter, no person, firm or business shall engage in, or present itself as engaging in any HVAC, refrigeration or hydronic systems activity or business regulated by article V of this chapter, unless it satisfies one of the following qualifying criteria:~~

~~(1) It is a mechanical contractor licensed to engage in such discipline of the mechanical contractor trade by the Iowa plumbing and mechanical systems examining board and is, or employs, a master mechanic licensed in such trade by such board; or,~~

~~(2) It holds a city mechanical contractor license in such discipline of the mechanical contractor trade and is, or employs, either: i) a master mechanic licensed in such discipline by the city, or; ii) a master mechanic licensed in such discipline by the Iowa plumbing and mechanical systems examining board. HOWEVER, no person, firm or business shall engage in, or hold themselves out as engaging in, any discipline of the mechanical trade regulated by article V of this chapter, under authority of this paragraph, for more than four months after the Iowa plumbing and mechanical systems examining board begins issuing mechanical contractors licenses for such discipline of the mechanical contractor trade.~~

~~(e) *Plumbing contractor.* Except as otherwise provided in this chapter, no person, firm or business shall engage in, or present itself as engaging in, any plumbing activity or business regulated by article VI of this chapter unless it satisfies one of the following qualifying criteria:~~

~~(1) It is a plumbing contractor licensed as such by the Iowa plumbing and mechanical systems examining board and is, or employs, a master plumber licensed as such by such board; or,~~

~~(2) It holds a city plumbing contractor license and is, or employs, either: i) a master plumber licensed as such by the city, or; ii) a master plumber licensed as such by the Iowa plumbing and mechanical systems examining board. However, no person, firm or business shall engage in any plumbing work or business regulated by article IV of this chapter under authority of this paragraph for more than four months after the Iowa plumbing and mechanical systems examining board begins issuing plumbing contractor licenses.~~

Sec. 26-671. Master, journeyman, and apprentice license required.

A person shall not install or repair plumbing, HVAC, refrigeration, or hydronic systems without first obtaining a license issued by the State of Iowa for the applicable trade or discipline, or install or repair medical gas piping systems without first obtaining a valid certification approved by the Iowa plumbing and mechanical systems examining board. Those persons working in the mechanical and plumbing trades or disciplines who have been issued a license by the Iowa plumbing and mechanical systems examining board pursuant to Iowa Code chapter 105, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses.

~~(a) Except as provided in section 26-672, a person shall not install or repair plumbing, HVAC, refrigeration, or hydronic systems without obtaining a license issued by the State of Iowa for the applicable discipline, or install or repair medical gas piping systems without obtaining a valid certification approved by the Iowa plumbing and mechanical systems examining board.~~

~~(b) Except as provided in section 26-672, a person shall not engage in the business of designing, installing, or repairing plumbing, HVAC, refrigeration, or hydronic systems unless at all times a state licensed master in such discipline, who shall be responsible for the proper designing, installing, and repairing of the HVAC, refrigeration, or hydronic system, is employed by the person and is actively in charge of the plumbing, HVAC, refrigeration, or hydronic work of the person. An individual who performs such work pursuant to a business operated as a sole proprietorship shall be a state licensed master in the applicable discipline.~~

~~(c) *State licenses - mechanical and plumbing.* Those persons working in the mechanical and plumbing trades who have been issued a license by the Iowa plumbing and mechanical systems examining board pursuant to I.C. chapter 105, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses.~~

~~(d) *City mechanical and plumbing licenses.* Except for mechanical contractor licenses and plumbing contractor licenses, all mechanical and plumbing licenses issued by the city have expired. Every mechanical contractor license and plumbing contractor license issued by the city pursuant to this chapter which was valid on July 1, 2009, or was first issued at any time thereafter, shall remain in effect without renewal until December 31, 2013.~~

Sec. 26-672. ~~Exemptions from licensing requirements~~Repealed by Ord. No. 15,---.

~~The requirements imposed by sections 26-670 and 26-671 shall not be construed to:~~

~~(1) Apply to a person licensed as an engineer pursuant to I.C. chapter 542B, licensed as a manufactured home retailer or certified as a manufactured home installer pursuant to I.C. chapter 103A, registered as an architect pursuant to I.C. chapter 544A, or licensed as a landscape architect pursuant to I.C. chapter 544B who provides consultations or develops plans or other work concerning plumbing, HVAC, refrigeration, or hydronic work and who is exclusively engaged in the practice of the person's profession.~~

~~(2) Require employees of municipal utilities, electric membership or cooperative associations, public utility corporations, rural water associations or districts, railroads, or commercial retail or industrial companies performing manufacturing, installation, service, or repair work for such employer to hold licenses while acting within the scope of their employment. This licensing exemption does not apply to employees of a rate-regulated gas or electric public utility which provides plumbing or mechanical services as part of a systematic marketing effort, as defined pursuant to I.C. section 476.80.~~

~~(3) Prohibit an owner of property from performing work on the owner's principal residence within the scope of section 26-136(b), if such residence is an existing dwelling rather than new construction and is not larger than a single-family dwelling, or farm property, excluding commercial or industrial installations or installations in public use buildings or facilities, or require such owner to be licensed under this chapter. In order to qualify for inapplicability pursuant to this subsection, a residence shall qualify for the homestead tax exemption.~~

~~(4) Require that any person be a member of a labor union in order to be licensed.~~

~~(5) Apply to a person who is qualified pursuant to administrative rules relating to the storage and handling of liquefied petroleum gases while engaged in installing, servicing, testing, replacing, or maintaining propane gas utilization equipment, or gas piping systems of which the equipment is a part, and related or connected accessory systems or equipment necessary to the operation of the equipment.~~

~~(6) Apply to a person who meets the requirements for a certified well contractor pursuant to I.C. section 455B.190A while engaged in installing, servicing, testing, replacing, or maintaining a water system, water well, well pump, or well equipment, or piping systems of which the equipment is a part, and related or connected accessory systems or equipment necessary to the operation of the water well.~~

~~(7) Require a helper engaged in general manual labor activities while providing assistance to an apprentice, journeyperson, or master to obtain a plumbing, HVAC, refrigeration, or hydronic license. Experience as a helper shall not be considered as practical experience for a journeyperson license.~~

~~(8) Apply to a person who is performing work subject to chapter I.C. 100C.~~

~~(9) Apply to an employee of any unit of state or local government, including but not limited to cities, counties, or school corporations, performing work on a mechanical system or plumbing system, which serves a government-owned or government-leased facility while acting within the scope of the government employee's employment.~~

~~(10) Apply to the employees of manufacturers, manufacturer representatives, or wholesale suppliers who provide consultation or develop plans concerning plumbing, HVAC, refrigeration, or hydronic work, or who assist a person licensed under this chapter in the installation of mechanical or plumbing systems.~~

~~(11) Prohibit an owner or operator of a health care facility licensed pursuant to I.C. chapter 135C, assisted living center licensed pursuant to I.C. chapter 231C, hospital licensed pursuant to I.C. chapter 135B, adult day care center licensed pursuant to I.C. chapter 231D, or a retirement facility certified pursuant to I.C. chapter 523D from performing work on the facility or requiring such owner or operator to be licensed under this chapter; except for projects that exceed the dollar amount specified as the competitive bid threshold in I.C. section 26.3.~~

~~(12) Prohibit a rental property owner or employee of such an owner from performing routine maintenance on the rental property.~~

Section 2. This ordinance shall be in full force and effect from and after its passage and publication as provided by law.

FORM APPROVED:

Ann DiDonato
Assistant City Attorney