

CHAPTER 25
STATE PLUMBING CODE
[Prior to 7/29/87, see Health Department[470] Ch 25]

641—25.1(135) Adoption. Sections of Chapter 1 listed below, Chapters 2 to 11, Chapter 14, and Appendix D of the Uniform Plumbing Code, 1994 Edition, as published by the International Association of Plumbing and Mechanical Officials, 20001 South Walnut Drive, Walnut, California 91789-2825, are hereby adopted by reference with amendments as the state plumbing code authorized by Iowa Code section 135.11(5).

101.3	101.4.1.1 with subsections	101.4.1.2
101.4.1.3	101.5.1	101.5.2
101.5.3	103.5.3.3	103.8

Local ordinances or rules and regulations may provide for higher but not lower standards than those found in the state plumbing code. Local ordinances or rules and regulations shall be consistent with Iowa Code section 364.3(3).

641—25.2(135) Applicability. The provisions of this code are applicable to the plumbing in buildings or on premises within cities and to plumbing in a building or on premises located outside the corporate limits of any city if the building or premises is served by an individual connection to a municipally owned water distribution system or wastewater collection system.

641—25.3(135) Fuel gas piping. Fuel gas piping shall comply with 661—Chapter 5, Iowa Administrative Code.

641—25.4(104B) Minimum toilet facilities. The following table shall be used to determine the minimum number of plumbing fixtures which shall be installed for public use in places of assembly, restaurants, pubs and lounges constructed after the effective date of these rules. Additions to or adding seating capacity in these types of occupancies shall require the installation of additional fixtures based upon the added number of occupants unless it can be shown that the present facilities comply for the total number of occupants including the additional occupants.

All water closets installed pursuant to this rule shall be water-efficient water closets which use 3½ gallons of water or less per flush.

MINIMUM PLUMBING FIXTURES

Type of Building or Occupancy	Water Closets (Fixtures per occupants)		Urinals** (Fixtures per occupants)	Lavatories (Fixtures per occupants)	
	Male	Female		Male	Female
Places of Assembly for Public Use, including but not limited to Theaters, Auditoriums, and Convention Halls	1:100	3:1-50	1:1-100	1:1-200	1:1-200
	2:101-200	4:51-100	2:101-200	2:201-400	2:201-400
	3:201-400	8:101-200	3:201-400	3:401-750	3:401-750
		11:201-400	4:401-600		
	Over 400, add 1 fixture for each additional 500 males and 2 for each additional 300 females.		Over 600, add 1 fixture for each additional 500 males.	Over 750, add 1 fixture for each additional 500 persons.	
Restaurants, Pubs and Lounges*	1:1-50	1:1-50	1:1-150	1:1-150	1:1-150
	2:51-150	2:51-150		2:151-200	2:151-200
	3:151-300	4:151-300		3:201-400	3:201-400
	Over 300, add 1 fixture for each additional 200 persons.		Over 150, add 1 fixture for each additional 150 males.	Over 400, add 1 fixture for each additional 400 persons.	

*Rest rooms in restaurants which have occupancies of 50 or less comply with these requirements if they have one water closet and one lavatory.

**Urinal requirements apply only to male-only rest rooms.

1. The division of occupancy is to be based upon one half being male and one half being female. The number of occupants shall be determined by use and the occupancy class of the state building code or the local building code which is in effect.

2. The number of fixtures may be graduated within the group. Example: 8:101-200
 4 fixtures are required for 100 persons.
 5 fixtures are required for 101-125 persons.
 6 fixtures are required for 126-150 persons.
 7 fixtures are required for 151-175 persons.
 8 fixtures are required for 176-200 persons.

3. Accessibility for the physically disabled shall be provided as required by Division VII of the state building code, section 104B.1.

641—25.5(135) Amendments to the Uniform Plumbing Code.

25.5(1) Section 202. Delete the definition for “administrative authority” and insert in lieu thereof the following:

Administrative authority—The administrative authority is an individual, board, department, or agency employed by a city, county or other political subdivision of the state who is authorized by local ordinance to administer and enforce the provisions of the plumbing code as adopted.

Add definitions:

Building storm drain—A building (house) storm drain is a building drain used for conveying rainwater, surface water, groundwater, or other similar discharge exclusive of sewage and industrial waste to a building storm sewer or a combined building sewer.

Building storm sewer—A building (house) storm sewer is a building sewer which conveys the discharge of a building storm drain to a public storm sewer, combined sewer or other point of discharge.

Storm sewer—A storm sewer is a sewer for conveying rainwater, surface water, condensate, cooling water, or similar liquid wastes, exclusive of sewage and industrial waste.

Subsoil drain—A subsoil drain is a drain which receives only subsurface or seepage water and conveys it to a place of disposal.

25.5(2) Section 410.5. Delete the paragraph beginning “Non-metallic shower subpans...” and insert in lieu thereof the following:

Shower subpans or linings constructed of asphalt impregnated roofing felt shall not be permitted.

25.5(3) Section 603.3. Replace “listed reduced pressure principle backflow preventer” with “stainless steel dual check valve with an atmospheric opening” in subsection 603.3.12.

25.5(4) Section 604.1. Delete the second and third sentences of the section and insert in lieu thereof the following:

Asbestos-cement, CPVC, PB, PE, or PVC water pipe manufactured to recognized standards may be used for cold water distribution systems outside a building. CPVC and PB water pipe and tubing manufactured to recognized standards may be used for hot and cold water distribution systems within a building.

Add a note to the end of the section:

NOTE: The use of plastic water supply pipe above grade inside certain licensed care facilities is prohibited by the rules of the Iowa department of inspections and appeals (481—subrules 60.11(4) and 61.11(4), Iowa Administrative Code).

25.5(5) Section 604.2. Delete the section and insert in lieu thereof the following:

604.2 Copper tube for water piping shall have a weight of not less than Type M copper tubing.

EXCEPTION: Copper tube for underground water piping shall have a weight of not less than Type K copper tubing.

25.5(6) Add new sections 604.11 and 604.12:

604.11 Insert fittings and crimp rings for PB pipe and tubing shall comply with the requirements of ASTM F1380-92.

604.12 PB pipe and tubing for underground installation shall comply with the requirements of AWWA C902-88.

25.5(7) Section 701.1. Add this sentence after the first sentence in subsection 701.1.2:

No horizontal branch shall exceed 25 feet in developed length.

25.5(8) Section 701.1. Delete subsections 701.1.4 and 701.1.5 and insert in lieu thereof:

701.1.4 Copper tube for underground drainage and vent piping shall have a weight of not less than that of copper drainage tube Type L.

701.1.5 Copper tube for aboveground drainage and vent piping shall have a weight of not less than that of copper drainage tubing Type M.

EXCEPTION: Type DWV may be used in one- and two-family dwellings.

25.5(9) Section 710.1. Add an exception to the end of the section:

EXCEPTION: The requirements of 710.1 shall apply only when it is determined necessary by the administrative authority based on local conditions.

25.5(10) Section 710.6. Add these sentences to the end of the section:

When backwater valves are required by section 710.1, they shall consist of manually operated valves. Approved valves which are automatic in operation as described in this section may also be used but are not required.

25.5(11) Section 717.0. Add this sentence to the end of the section:

The minimum diameter for a building sewer shall be four inches.

25.5(12) Add a new section 719.7:

719.7 A cleanout shall be provided in each stack.

25.5(13) Section 807.4. Delete the section and insert in lieu thereof the following:

807.4 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 gap fittings shall be installed with the flood level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher.

25.5(14) Section 903.1. Add this sentence after the first sentence in subsection 903.1.2:

No horizontal branch shall exceed 25 feet in developed length.

25.5(15) Section 904.1. Delete the second sentence of the section and the exception and insert in lieu thereof the following:

Each building shall have a vent stack or main vent equal in size or larger than the building sewer. The vent stack or main vent shall extend through the roof undiminished in size.

EXCEPTION: In single-family dwellings, a three-inch vent stack or main vent is permitted.

25.5(16) Section 906.7. Change “two (2) inches (50.8 mm)” to “three (3) inches (76.2 mm).”

25.5(17) Add a new section 907.3:

907.3 A vent stack or a main vent shall be installed with a soil or waste stack whenever back vents, relief vents or other branch vents are required in two or more branch intervals or stories.

25.5(18) Section 908.1. Delete “vertical” in the first sentence of the section.

25.5(19) Section 1002.2. Delete Table 10-1 and insert in lieu thereof:

TABLE 10-1
Horizontal Distance of Trap Arms
(Except for water closets and similar fixtures)*

Trap Arm Size		Distance Trap to Vent	
Inches	Millimeters	Feet	Meters
1¼	31.8	5	1.52
1½	38.1	6	1.83
2	50.8	8	2.44
3	76.2	12	3.66
4 & larger	102 & larger	12	3.66

Slope one-fourth (¼) inch per foot (20.9 mm/m)

*The developed length between the trap of a water closet or similar fixture (measured from the top of the closet ring [closet flange] to the inner edge of the vent) and its vent shall not exceed six (6) feet (1.8 m).

25.5(20) Appendices. Except as provided in 25.1(135), the appendices in the Uniform Plumbing Code are not approved as part of the Iowa state plumbing code; however, those other than Appendix I (private sewage disposal) may be used as a point of reference when circumstances warrant. Iowa Administrative Code 567—Chapter 69 is the standard to follow for private sewage disposal.

641—25.6(135) Backflow prevention with containment. Cities of 15,000 population or greater as determined by the 1990 census or any subsequent special census shall enact a backflow prevention program with containment by January 1, 1996. The minimum requirements for a program are given in subrules 25.6(1) to 25.6(5). These requirements are in addition to the applicable requirements of subsection 603 of the Uniform Plumbing Code, 1994 Edition.

25.6(1) Definitions. The following definitions are added to those in Chapter 2 and section 603 of the Uniform Plumbing Code, 1994 Edition, or are modified from those definitions for the purposes of rule 25.6(135) only.

a. Administrative authority. The administrative authority for this rule is the city council and its designees.

b. Approved backflow prevention assembly for containment. A backflow prevention assembly which is listed by the University of Southern California-Foundation for Cross Connection Control and Hydraulic Research as having met the requirements of ANSI-AWWA Standard C510-92, "Double Check Valve Backflow-Prevention Assemblies," or ANSI-AWWA Standard C511-92, "Reduced-Pressure Principle Backflow-Prevention Assemblies," for containment. The listing shall include the limitations of use based on the degree of hazard. The backflow prevention assembly must also be listed by the International Association of Plumbing and Mechanical Officials.

c. Approved backflow prevention assembly for containment in a fire protection system. A backflow prevention assembly to be used in a fire protection system which meets the requirements of Factory Mutual Research Corporation (FM) and Underwriters Laboratory (UL) in addition to the requirements of 25.6(1) "a."

d. Containment. Containment is a method of backflow prevention which requires a backflow prevention assembly on certain water services. Containment requires that the backflow prevention assembly be installed on the water service as close to the public water supply main as is practical.

e. Customer. 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.

f. Degree of hazard. The rating of a cross connection or a water service which indicates if it has the potential to cause contamination (high hazard) or pollution (low hazard).

g. Water service. Depending on the context, water service is 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.

25.6(2) Proposed water service.

a. No person shall install, or cause to have installed, a water service to a building, property or private water system if it is found that contamination or pollution of the public water supply could occur unless the water service is protected by an approved backflow prevention assembly for containment.

b. The administrative authority shall require the submission of plans, specifications and other information deemed necessary for a building, property or private water system to which a water service is proposed. The administrative authority shall review the information submitted to determine if cross connections will exist and the degree of hazard.

c. The owner of a building, property or private water system shall install, or cause to have installed, an approved backflow prevention assembly for containment as directed by the administrative authority before water service is initiated.

d. Reconstruction of an existing water service shall be treated as a proposed water service for the purposes of rule 641—25.6(135).

25.6(3) Existing water services.

a. The administrative authority shall publish the standards which it uses to determine the degree of hazard for a water service. These shall be consistent with standards published by the Iowa department of public health.

b. Each customer shall survey the activities and processes which receive water from the water service and shall report to the administrative authority if cross connections exist and the degree of hazard.

c. The administrative authority may inspect the plumbing of any building, property and private water system which has a water service to determine if cross connections exist and the degree of hazard.

d. If, based on information provided through 25.6(3) “b” and “c,” the administrative authority determines that a water service may contaminate the public water supply, the administrative authority shall require that the customer install the appropriate backflow prevention assembly for containment.

e. If a customer refuses to install a backflow prevention assembly for containment when it is required by the administrative authority, the administrative authority may order that water service to the customer be discontinued until an appropriate backflow prevention assembly is installed.

25.6(4) Backflow prevention assemblies for containment.

a. Backflow prevention assemblies for containment shall be installed immediately following the water meter or as close to that location as deemed practical by the administrative authority.

b. A water service determined to present a high hazard shall be protected by an air gap or an approved reduced pressure principle backflow prevention assembly.

c. A water service determined to present a low hazard shall be protected by an approved double check valve assembly or as in 25.6(5) “b.”

d. A water service to a fire protection system shall be protected from backflow in accordance with the recommendations of American Water Works Association Manual M14. Where backflow prevention is required for a fire protection system, an approved backflow prevention assembly for containment in a fire protection system shall be used.

25.6(5) Backflow incidents.

a. The customer shall immediately notify the agency providing water service when the customer becomes aware that backflow has occurred in the building, property or private water system receiving water service.

b. The administrative authority may order that a water service be temporarily shut off when a backflow occurs in a customer’s building, property or private water system.

These rules are intended to implement Iowa Code section 135.11(5).

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