**Florida Supplement to the 7th Edition (2020) FBC, Plumbing**

**ICC EDIT VERSION**

**Note 1**: Throughout the document, change International Building Code to Florida Building Code, Building; Energy Conservation Code tothe Florida Building Code, Energy Conservation; change the International Existing Building Code to Florida Building Code, Existing Building; change the International Fire code to Florida Fire Prevention Code; change International Fuel Gas Code to Florida Building Code, Fuel Gas; change the International Mechanical Code to Florida Building Code, Mechanical; change the International Plumbing Code to Florida Building Code, Plumbing; change the International Residential Code to Florida Building Code, Residential.

**PREFACE**

**……**

The model codes used for the Florida Building Code, 8th Edition (2023) include: the ~~2018~~ 2021 editions of the International Building Code®; the International Plumbing Code®; the International Mechanical Code®; the International Fuel Gas Code®; the International Residential Code®; the International Existing Building Code®; the International Energy Conservation Code®; the National Electrical Code, 20~~1720~~ edition; or substantive criteria from ASHRAE Standard 90.1-20~~16~~ 19. State and local codes adopted and incorporated into the code include the Florida Building Code, Accessibility, and special hurricane protection standards for the High-Velocity Hurricane Zone.

**……**

**Marginal Markings**

Solid vertical lines in the margins within the body of the code indicate a change from the requirements of the Florida Building Code, Fuel Gas, 7th Edition (20~~17~~20) to the Florida Building Code, Fuel Gas, 8th Edition (20~~20~~23) effective December 31, 20~~20~~23.

Sections deleted from the base code are designated “Reserved” in order to maintain the structure of the base code.

**Chapter 1 SCOPE AND ADMINISTRATION**

**2018 International Plumbing Code**

**SECTION 101**

**SCOPE AND GENERAL REQUIREMENTS**

**(CA9156 / CCC-ADM1-19)**

**CHAPTER 2 DEFINITIONS**

**Add new definition as follows:**

**COPPER ALLOY.** A metal alloy where the principle component is copper.

 **(P8543/P1-18 Part I AM)**

**Add new definition as follows:**

**DUAL FLUSHING DEVICE.**  A feature that allows the user to flush a water closet with either a reduced or full volume of water depending upon bowl contents.

**(P8973/P68-18 AS)**

**Add new definition as follows:**

**GROUP WASH FIXTURE.** A type of lavatory that allows more than one person to utilize the fixture at the same time. The fixture has one or more drains and one or more faucets.

**(P8677/P55-18 AS)**

**Add new definition as follows:**

**PUSH-FIT FITTING.** A mechanical fitting that joins pipes or tubes and achieves a seal by mating the pipe or tube into the fitting.

**(P8770/P89-18 Part I AM)**

**Revise as follows:**

**PUBLIC OR PUBLIC UTILIZATION.** In the classification of plumbing fixtures, ~~“~~"public~~”~~ " applies to fixtures ~~in general toilet rooms of schools, gymnasiums, hotels, airports, bus and railroad stations, public buildings, bars, public comfort stations, office buildings, stadiums, stores, restaurants and other installations where a number of fixtures are installed so that their utilization is similarly~~ ~~unrestricted~~ with unrestricted exposure to walk-in traffic.

**PRIVATE.**  In the classification of plumbing fixtures, ~~“~~"private~~”~~ " applies to fixtures ~~in residences and apartments, and to fixtures in nonpublic toilet rooms of hotels and motels and similar installations in buildings where the plumbing fixtures are intended for utilization by a family or an individual~~ that are not public.

**(P8531/P2-18 AS)**

**Revise as follows:**

**WATER DISPENSER.** A plumbing fixture that is manually controlled by the user for the purpose of dispensing potable drinking water into a receptacle such as a cup, glass or bottle. Such fixture is connected to the potable water distribution system of the premises. ~~This definition includes a freestanding apparatus for the same purpose that is not connected to the potable water distribution system and that is supplied with potable water from a container, bottle or reservoir.~~

**(P8438/P3-18 AS)**

**SERVICE SINK.** A sink exclusively intended to be used for facilitating the cleaning of a building or tenant space.

**(P9983 AM with A1)**

**CHAPTER 3 GENERAL REGULATIONS**

**Revise as follows:**

**308.2 Piping seismic supports.**Reserved.  ~~Where earthquake loads are applicable in accordance with the building code, plumbing piping supports, anchorage, and bracing shall be designed and installed for seismic forces in accordance with Chapter 16 the~~*~~Florida Building Code, Building~~*~~.~~

**(P10000 AS)**

**Revise as follows:**

## 308.9 Parallel water distribution systems. Piping bundles for manifold systems shall be supported in accordance with Table 308.5. Support at changes in direction shall be in accordance with the manufacturer's instructions. Where hot water piping is bundled with cold ~~or hot~~ water piping, ~~each~~ hot water ~~pipe~~ piping shall be insulated in accordance with Section 607.5.

**(P8481/P9-18 AM)**

312.6 Gravity sewer test.

Gravity sewer tests shall consist of plugging the end of the building sewer at the point of connection with the public sewer, ~~filling the building sewer with water, testing with not less than a 5-foot (1524 mm) head of water~~ completely filling the building sewer with water from the lowest to the highest point thereof, and maintaining such pressure for fifteen minutes. The building sewer shall be water tight at all points.

**(P9876 AS)**

**Revise as follows:**

## 312.10.2 Testing. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies and hose connection backflow preventers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10 or CSA B64.10.1. Test gauges shall comply with ASSE 1064.

**(P8495/P12-18 AS)**

**CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS**

**403.1**

[8th row, 3rd column of table 403.1] Coliseums, arenas, skating rinks,~~pools~~and tennis courts for indoor sporting events and activities

…

[notes at end of Table 403.1] f. The required number and type of plumbing fixtures for indoor andoutdoor public swimming pools shall be in accordance with Section 403.6.

**(SW10210 AS**)

**Revise as follows:**

## 403.1.1 Fixture calculations. To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 403.1. Fractional numbers resulting from applying the fixture ratios of Table 403.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

**~~Exception~~Exceptions:**

1. The total occupant load shall not be required to be divided in half where approved statistical data indicates a distribution of the sexes of other than 50 percent of each sex.

2. Where multi-user facilities are designed to serve all genders, the minimum fixture count shall be calculated 100%, based on total occupant load. In such multi-user user facilities, each fixture type shall be in accordance with ICC A117.1 and each urinal that is provided shall be located in a stall.

**(P8497/P14-18 AS)**

**Revise as follows:**

## 403.1.1 Fixture calculations. To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 403.1. Fractional numbers resulting from applying the fixture ratios of Table 403.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

**~~Exception~~ Exceptions:**

​1. The total occupant load shall not be required to be divided in half where approved statistical data indicates a distribution of the sexes of other than 50 percent of each sex.

2. Distribution of the sexes is not required where single-user water closets and bathing room fixtures are provided in accordance with Section 403.1.2.

## 403.1.2 Single-user toilet ~~facility~~ and bathing room fixtures. The plumbing fixtures located in single-user toilet ~~facilities~~ and bathing rooms, including family or assisted use toilet and bathing rooms that are required by Section 1109.2.1 of the International Building Code, shall contribute toward the total number of required plumbing fixtures for a building or tenant space. Single-user toilet ~~facilities~~ and bathing rooms, and family or assisted-use toilet rooms and bathing rooms shall be identified as being available for use by ~~either~~ all persons regardless of their sex.

The total number of fixtures shall be permitted to be based on the required number of separate facilities or based on the aggregate of any combination of single-user or separate facilities.

## 403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

**Exceptions:**

1. Separate facilities shall not be required for dwelling units and sleeping units.

2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.

3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.

4. Separate facilities shall not be required in business occupancies in which the maximum occupant load is 25 or fewer.

5. Separate facilities shall not be required to be designated by sex where single-user toilets rooms are provided in accordance with Section 403.1.2.

6. Separate facilities shall not be required where rooms having both water closets and lavatory

fixtures are designed for use by both sexes and privacy for water closets is provided in accordance

with Section 405.3.4. Urinals shall be located in an area visually separated from the remainder of the

facility or each urinal that is provided shall be located in a stall.

**(P8503/P15-18 AM)/ (P8544/P16-18 AS)**

**Revise as follows:**

## 403.3.1 Access. The route to the public toilet facilities required by Section 403.3 shall not pass through kitchens, storage rooms or closets. Access to the required facilities shall be from within the building or from the exterior of the building. ~~Routes shall comply with the accessibility requirements of the~~ ~~International Building Code.~~ The public shall have access to the required toilet facilities at all times that the building is occupied.

## 403.5 Drinking fountain location. Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a distance of travel of 500 feet (152 m) of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet (91 m). ~~Drinking fountains shall be located on an accessible route.~~

**(P8547/P19-18 AS)**

**Revise as follows:**

## 403.3.3 Location of toilet facilities in occupancies other than malls. In occupancies other than covered and open mall buildings, the required public and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

**~~Exception~~Exceptions:**

1. The location and maximum distances of travel to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum distance of travel are approved.

2. The location and maximum distances of travel to required public and employee facilities in Group S occupancies are permitted to exceed that required by this section, provided that the location and maximum distance of travel are approved

**(P8554/P21-18 AS)**

**403.6 Sanitary facilities for public swimming pools.**

**~~Swimming pools with a bathing load of 20 persons or less may utilize a unisex restroom. Pools with bathing loads of 40 persons or less may utilize two unisex restrooms or meet the requirement of Table 403.6. Unisex r~~Restrooms ~~shall meet all the requirements for materials, drainage and signage as indicated in Sections~~ ~~454.1.6.1.1 through 454.1.6.1.4 of the~~*~~Florida Building Code, Building~~*~~. Each~~ shall include a water closet, a diaper change table, ~~a urinal,~~and a lavatory. Diaper changing Tables are not required at restrooms where all pools served are restricted to adult use only. ~~Pools with a bathing load larger than 40 persons shall provide separate sanitary facilities labeled for each sex.~~ The entry doors of all restrooms shall be located within a 200-foot (60 960 mm) walking distance of the nearest water’s edge of each pool served by the facilities.**

**Exception: Where a swimming pool serves only a designated group of residential dwelling units including hotel rooms and not the general public, poolside sanitary facilities are not required if all living units are within a 200-foot horizontal radius of the nearest water’s edge, are not over three stories in height unless serviced by an elevator, and are each equipped with private sanitary facilities.**

**TABLE 403.6 PUBLIC SWIMMING POOL—REQUIRED FIXTURES COUNT PER SQUARE FOOT OF POOL SURFACE**

|  |  |  |
| --- | --- | --- |
| ~~SIZE~~~~a~~~~(square feet)~~ | MEN’S RESTROOMS | WOMEN’S RESTROOMS |
|   | ~~Urinals~~ | WC | Lavatory | WC | Lavatory |   |
| ~~0 - 2500 sq ft~~ | ~~1~~ | 1 per 2,500 for first 10,000, 1 per 5,000 for remainder exceeding 10,000 | 1 per 5,000 for first 10,000, 1 per 10,000 for remainder exceeding 10,000 | 1 per 1,250 for first 10,000, 1 per 2,500 for remainder exceeding 10,000 | 1 per 5000 for first 10,000, 1 per 10,000 for remainder exceeding 10,000 |   |
| ~~2501 - 5000 sq ft~~ | ~~2~~ | ~~1~~ | ~~1~~ | ~~5~~ | ~~1~~ |   |
| ~~5001 - 7500 sq ft~~ | ~~2~~ | ~~2~~ | ~~2~~ | ~~6~~ | ~~2~~ |   |
| ~~7501 - 10,000 sq ft~~ | ~~3~~ | ~~2~~ | ~~3~~ | ~~8~~ | ~~3~~ |   |

**For SI: 1 square foot = 0.0929 m2.**

**~~a. Square footage of interactive water features (IWFs) is required to be included when calculating the “size of pool” for the purposes of determining the type and number of fixtures for the sanitary facilities. For those facilities with an IWF in addition to the pool, causing the combined pool size square footage to exceed the threshold required category fixture count, a unisex restroom may be installed to satisfy the fixture requirement for every additional 1,250 square feet or fraction thereof. The interactive water feature flow for one unisex restroom shall not exceed 100 gpm, nor shall the bathing load exceed 20 patrons.~~**

**403.6.1 Required fixtures.**

**Fixtures shall be provided as indicated on Table 403.6. The fixture count of Table 403.6 is deemed to be adequate for the pool and pool deck area that is up to three times the area of the pool surface provided. ~~An additional set of fixtures shall be provided in the men’s restroom for every 7,500 square feet or major fraction thereof for pools greater than 10,000 square feet. Women’s restrooms shall have a ratio of three to two water closets provided for women as the combined total of water closets and urinals provided for men. Lavatory counts shall be equal.~~**

**(SW10211 AS)**

**Add new text as follows:**

## 403.8 Service sink location. Service sinks shall not be required to be located in individual tenant spaces in a covered mall provided that service sinks are located within a distance of travel of 300 feet (91 m) of the most remote location in the tenant space and not more than one story above or below the tenant space. Service sinks shall be located on an accessible route.

**(P8589/P23-18 AS)**

**~~Revise as follows:~~**

## ~~404.1 Where required. Accessible plumbing facilities and fixtures shall be provided in accordance with the International Building Code and ICC A117.1.~~

**~~Delete without substitution:~~**

## ~~404.2 Accessible fixture requirements. Accessible plumbing fixtures shall be installed with the clearances, heights, spacings and arrangements in accordance with ICC A117.1.~~

## ~~404.3 Exposed pipes and surfaces. Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9.~~

**~~Committee: Modify as follows;~~**

**~~404.1 Where required.~~** ~~Accessible plumbing facilities and fixtures shall be provided in accordance with Chapter 11 of the International Building Code and ICC A117.1.~~

**~~404.2 Accessible fixture requirements.~~**~~Accessible plumbing fixtures shall be installed in accordance with ICC A117.1.~~

**~~404.3 Exposed pipes and surfaces.~~**~~Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9.~~

**~~Public comment 1~~**

## ~~404.3 Exposed pipes and surfaces. Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9.~~

**~~404.1 Where required.~~** ~~Accessible plumbing facilities and fixtures shall be provided in accordance with Chapter 11 of the~~ *~~International Building Code~~*~~.~~

**~~404.2 Accessible fixture requirements.~~** ~~Accessible plumbing fixtures shall be installed in accordance with ICC~~

~~A117.1.~~

**Note: These requirements are subject to the Accessibility Code. Do not add to the code.**

**(P8590/P24-18 AMPC1)**

**~~Revise as follows:~~**

# ~~Where required. Accessible plumbing facilities and fixtures shall be provided in accordance with Chapter 11 of the International Building Code.~~

* 1. **~~Accessible fixture requirements.~~** ~~Accessible plumbing fixtures shall be installed in accordance with ICC A117.1.~~

## ~~CCC As Modified text.~~

**~~404.3 Exposed pipes and surf aces.~~** ~~Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9 or ASTM C1822.~~

# ~~404.3 Exposed pipes and surf aces. Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9 or ASTM C1822.~~

**~~Reason:~~** ~~Staff recommends revising Section 404.3 to correlate conflicting actions related to P24-18 and P25-18. Proposal P24-18 (AMPC1) and P25-18 (AS) have conflicting final actions as shown below. P24-18 deletes section~~

~~404.3 while P25-18 revises Section 404.3.~~

**~~P24-18:~~** ~~(partial proposal shown; complete proposal see~~ *~~IPC Related Code Changes~~* ~~document)~~

**~~404.3 Exposed pipes and surfaces.~~** ~~Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9.~~

**~~P25-18:~~** ~~(partial proposal shown; complete proposal complete proposal see~~ *~~IPC Related Code Changes~~* ~~document)~~

**~~404.3 Exposed pipes and surf aces.~~** ~~Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact. Pipe coverings shall comply with ASME A112.18.9 or ASTM C1822.~~

*~~Add new standard as follows:~~*

## ~~ASTM~~

**~~C1822-2015:~~** ~~Standard Specification for Insulating Covers on Accessible Lavatory Piping~~

~~The proposed 2021 IPC text above retains 404.3 based on the Final Action of P25-18, however the language “Water supply and drain pipes under accessible lavatories and sinks shall be covered or otherwise configured to protect against contact.” is proposed to be removed along with reference to ASME A112.18.9 based on the Final Action of P24-18. Although the proponents of P24-18 were also against the addition of the new standard in P25-18, the Final Action of the membership was to approve it.~~

**Note: These requirements are subject to the Accessibility Code. Do not add to the code.**

**(P9276/CCC P1-20)**

**Revise as follows:**

## 405.3.1 Water closets, urinals, lavatories and bidets. A water closet, urinal, lavatory or bidet shall not be set closer than 15 inches (381 mm) from its center to any side wall, partition, vanity or other obstruction. Where partitions or other obstructions do not separate adjacent ~~fixtures,~~ water closets, urinals, or bidets, the fixtures shall not be set closer than 30 inches (762 mm) center to center between adjacent fixtures or adjacent water closets, urinals, or bidets. There shall be not less than a 21-inch (533 mm) clearance in front of a water closet, urinal, lavatory or bidet to any wall, fixture or door. Water closet compartments shall be not less than 30 inches (762 mm) in width and not less than 60 inches (1524 mm) in depth for floor-mounted water closets and not less than 30 inches (762 mm) in width and 56 inches (1422 mm) in depth for wall-hung water closets.

**~~Exception:~~** ~~An accessible children's water closet shall be set not closer than 12 inches (305 mm) from its center to the required partition or to the wall on one side.~~

**(P8596/P27-18 AMPC1)**

**Revise as follows:**

## 405.4.3 Securing wall-hung water closet bowls. Wall-hung water closet bowls shall be supported by a concealed metal carrier that is attached to the building structural members so that strain is not transmitted to the ~~closet~~ fixture connector or any other part of the plumbing system. The carrier shall conform to ASME A112.6.1M or ASME A112.6.2.

**(P8611/P30-18 AS)**

**Revise as follows:**

## 407.2 Bathtub waste outlets and overflows. Bathtubs shall be equipped with a waste outlet ~~and an overflow outlet. The outlets shall be connected to waste tubing or piping~~ that is not less than 11/2 inches (38 mm) in diameter. The waste outlet shall be equipped with a water-tight stopper. Where an overflow is installed, the overflow shall be not less than 11/2inches (38mm) in diameter.

**(P8612/P31-18 AS)**

**Revise as follows:**

## 408.1 Approval. Bidets shall conform to ASME A112.19.2/CSA B45.1~~.~~ or ASME A112.19.3/CSA B45.4.

**(P8620/P32-18 AS)**

**Revise as follows:**

## 408.3 Bidet water temperature. The discharge water temperature from a bidet fitting shall be limited to not greater than 110°F (43°C) by a water-temperature-limiting device conforming to ASSE 1070/ASME A112.1070/CSA B125.70 ~~or CSA B125.3.~~

**(P8622/P33-18 Part I AS)**

**Revise as follows:**

## 410.1 Approval. Drinking fountains shall conform to ASME A112.19.1/CSA B45.2 or ASME A112.19.2/CSA B45.1, or ASME A112.19.3/CSA B45.4 and water coolers shall conform to ASHRAE 18. Drinking fountains, water coolers and water dispensers shall conform to NSF 61, Section 9. Electrically operated, refrigerated drinking water coolers and water dispensers shall be listed and labeled in accordance with UL 399.

**(P8632/P36-18 AS)**

**Revise as follows:**

## 410.4 Substitution. Where restaurants provide drinking water in a container free of charge, drinking fountains shall not be required in those restaurants. In other occupancies where three or more drinking fountains are required, water dispensers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

 **(P8643/P39-18 AS)**

**Revise as follows:**

## 411.3 Water supply. Where hot and cold water is supplied to an emergency shower or eyewash station, the temperature of the water supply shall only be controlled by a temperature actuated mixing valve complying with ASSE 1071. Where water is supplied directly to an emergency shower or eyewash station from a water heater, the water heater shall comply with ASSE 1085.

**(P8656/P42-18 AS)**

## 412.3 Individual shower valves. Individual shower and tubshower combination valves shall be balanced-pressure, thermostatic or combination balanced-pressure/thermostatic valves that conform to the requirements of ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1 and shall be installed at the point of use. Shower control valves shall be rated for the flow rate of the installed showerhead. Shower and tub-shower combination valves required by this section shall be equipped with a means to limit the maximum setting of the valve to 120°F (49°C), which shall be field adjusted in accordance with the manufacturer's instructions. In-line thermostatic valves shall not be utilized for compliance with this section.

## 412.4 Multiple (gang) showers. Multiple (gang) showers supplied with a single-tempered water supply pipe shall have the water supply for such showers controlled by an approved automatic temperature control mixing valve that conforms to ASSE 1069 or CSA B125.3, or each shower head shall be individually controlled by a balanced-pressure, thermostatic or combination balanced-pressure/thermostatic valve that conforms to ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1 and is installed at the point of use. Where a showerhead is individually controlled, shower control valves shall be rated for the flow rate of the installed showerhead. Such valves shall be equipped with a means to limit the maximum setting of the valve to 120°F (49°C), which shall be field adjusted in accordance with the manufacturers' instructions.

**(P8665/P46-18 Part I AS)**

**Revise as follows:**

## 412.3 Individual shower valves. Individual shower and tub-shower combination valves shall be balanced-pressure, thermostatic or combination balanced-pressure/thermostatic valves that conform to the requirements of ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1 ~~and~~ . Such valves shall be installed at the point of use. Shower and tub-shower combination valves required by this section shall be equipped with a means to limit the maximum setting of the valve to 120°F (49°C), which shall be field adjusted in accordance with the manufacturer's instructions to provide water at a temperature not to exceed 120ºF. In-line thermostatic valves shall not be utilized for compliance with this section.

## 412.4 Multiple (gang) showers. Multiple (gang) showers supplied with a single-tempered water supply pipe shall have the water supply for such showers controlled by an approved automatic temperature control mixing valve that conforms to ASSE 1069 or CSA B125.3, or each shower head shall be individually controlled by a balanced-pressure, thermostatic or combination balanced-pressure/thermostatic valve that conforms to ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1 and that is installed at the point of use. Such valves shall be equipped with a means to limit the maximum setting of the valve to 120°F (49°C), which shall be field adjusted in accordance with the manufacturers' instructions to provide water at a temperature not to exceed 120ºF. Access shall be provided to a ASSE 1069 or CSA B125.3 valve.

## 412.5 Bathtub and whirlpool bathtub valves. ~~The~~ ~~hot water~~ ~~supplied to bathtubs~~ Bathtubs and whirlpool ~~bathtubs~~ bathtub valves shall ~~be limited to not greater than 120°F (49°C)~~ have or be supplied by a water-temperature limiting device that conforms to ASSE 1070/ASME A112.1070/CSA B125.70 ~~or CSA B125.3~~ or by a water heater complying with ASSE 1082 or ASSE 1084, except where such ~~protection is otherwise provided by a~~ valves are combination tub/shower ~~valve~~ valves in accordance with Section 412.3. The water temperature3 limiting device required by this section shall be equipped with a means to limit the maximum setting of the device to 120ºF (49ºC), and, where adjustable, shall be field adjusted in accordance with the manufacturer's instructions to provide hot water at a temperature not to exceed (120ºF (49ºC). Access shall be provided to water temperature limiting devices that conform to ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3.

**Exception:** Access is not required for non-adjustable water temperature limiting devices that conform to ASSE 1070/ASME A112.1070/CSA B125.70 or CSA B125.3 and are integral with a fixture fitting, provided that the fixture fitting itself can be accessed for replacement.

**(P8657/P44-18 Part I AS)/ (P8671/P47-18 Part I AS)/(P8673/P48-18 Part I AS)**

**Revise as follows:**

## 412.10 Head shampoo sink faucets. Head shampoo sink faucets shall be supplied with hot water that is limited to not more than 120°F (49°C) ~~by a water-temperature-limiting device that conforms to ASSE 1070/ASME A112.1070/CSA B125.70.~~ . Each faucet shall have integral check valves to prevent crossover flow between the hot and cold water supply connections. The means for regulating the maximum temperature shall be one of the following:

1. A limiting device conforming to ASSE 1070/ASME A112.1070/CSA B125.70.

2 A water heater conforming to ASSE 1082.

3. A temperature actuated flow reduction device conforming to ASSE 1062.

 **(P8674/P51-18 AM)**

**Add new text as follows:**

## 412.11 Pre-rinse spray valve. Pre-rinse spray valves for commercial food service shall conform to ASME A112.18.1/CSA B125.1.

**(P8675/P52-18 AS)**

**Revise as follows:**

## 416.1 Approval. Domestic food waste disposers shall conform to ASSE 1008 and shall be listed and labeled in accordance with UL 430. Commercial food waste disposers shall be listed and labeled in accordance with UL 430. Food waste disposers shall not increase the drainage fixture unit load on the sanitary drainage system.

**(P8676/P54-18 AS)**

**Revise as follows:**

## 419.1 Approval. Lavatories shall conform to ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4 or CSA B45.5/IAPMO Z124. Group wash ~~-up equipment~~ fixtures shall conform to the requirements of Section 402. ~~Every~~ For determining the number of lavatories required by Table 403.1, every 20 inches (508 mm) of rim space of a group wash fixture shall be considered as one lavatory.

## 419.3 Lavatory waste outlets. Lavatories and group wash fixtures shall have a waste ~~outlets~~ outlet not less than 11/4 inches (32 mm) in diameter. A strainer, pop-up stopper, crossbar or other device shall be provided to restrict the clear opening of the waste outlet.

**(P8677/P55-18 AS)**

**419.5 Water for public hand-washing facilities**

Cold or tempered water shall be delivered from lavatories and group wash fixtures located in public toilet facilities provided for customers, patrons and visitors. Tempered water shall be delivered through an approved water-temperature limiting device that conforms to ~~ASSE 1070 or CSA B125.3.~~ ASSE 1070/ASME A112.1070/CSA B125.70.

**(P9873 AS)**

**Revise as follows:**

## 421.1 Approval. Prefabricated showers and shower compartments shall conform to ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4 or CSA B45.5/IAPMO Z124. Shower valves for individual showers shall conform to the requirements of Section 412.3.

**(P8680/P62-18 AS)**

**Add new text as follows:**

## 421.3.1 Waste Fittings. Waste fittings shall conform to ASME A112.18.2/CSA B125.2.

**(P8681/P63-18 Part I AS)**

**423.1 Water connections.**

Baptisteries, ornamental and lily pools, aquariums, ornamental fountain basins, swimming pools, and similar constructions, where provided with water supplies, shall be protected against backflow in accordance with Section 608.

…

**423.4 Secondary Waterproofing**

Where installed over a building (as defined in the Florida Building Code), large permanent water retaining constructions such as ornamental basins, spas, and swimming pools shall be installed over a waterproof surface that slopes to drains with access to as defined herein, such that if the construction ever leaks, the leaking water will be conveyed away from the building structure or structures below, and no water can be impounded.

**(SW10323 AM A2 plus comment post October TAC meeting)**

**Revise as follows:**

## 423.3 Footbaths and pedicure baths. The water supplied to specialty plumbing fixtures, such as pedicure chairs having an integral foot bathtub and footbaths, shall be limited to not greater than 120°F (49°C) by a water-temperature-limiting device that conforms to ASSE 1070/ASME A112.1070/CSA B125.70 ~~or CSA B125.3~~ or by a water heater complying with ASSE 1082.

**(P8683/P66-18 AM)/ (P8685/P67-18 AS)**

**Revise as follows:**

## 425.1 Approval. Water closets shall conform to the water consumption requirements of Section 604.4 and shall conform to ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4 or CSA B45.5/IAPMO Z124. ~~Water closets shall conform to the hydraulic performance requirements of~~ ~~ASME A112.19.2/CSA B45.1. Water closet tanks shall conform to~~ ~~ASME A112.19.2/CSA B45.1,~~ ~~ASME A112.19.3/CSA B45.4~~ ~~or~~ ~~CSA B45.5/IAPMO Z124. Electro-hydraulic water closets shall comply with~~ ~~ASME A112.19.2/CSA B45.1. Water closets equipped with a dual flushing device shall comply with~~ ~~ASME A112.19.14.~~

**Add new definition as follows:**

**DUAL FLUSHING DEVICE.**  A feature that allows the user to flush a water closet with either a reduced or full volume of water depending upon bowl contents.

**Add new text as follows:**

## 425.1.1 Hydraulic performance. Water closets shall conform to the hydraulic performance requirements of ASME A112.19.2/CSA B45.1.

## 425.1.2 Water closet tanks. Water closet tanks shall conform to ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4 or CSA B45.5/IAPMO Z124.

## 425.1.3 Dual flush water closets. Water closets equipped with a dual flushing device shall comply with ASME A112.19.14.

**(P8973/P68-18 AS)**

**CHAPTER 5 WATER HEATERS**

**Revise as follows:**

## 501.2 Water heater as space heater. Where a combination potable water heating and space heating system requires water for space heating at temperatures greater than 140°F (60°C), ~~a master thermostatic~~ temperature-actuated mixing valve complying with ASSE 1017 shall be provided to limit the water supplied to the potable hot water distribution system to a temperature of 140°F (60°C) or less. The potability of the water shall be maintained throughout the system. Requirements for combination potable water heating and space heating systems shall be in accordance with the Florida Building Code, Mechanical.

**(P8727/P69-18 AS)/ (P8729/P71-18 Part I AS)**

**502.4 Seismic supports.**Reserved.  ~~Where earthquake loads are applicable in accordance with the~~*~~Florida Building Code, Building~~*~~, water heater supports shall be designed and installed for the seismic forces in accordance with the~~*~~Florida Building Code, Building~~*~~.~~

**(P10001 AS)**

**CHAPTER 6 WATER SUPPLY AND DISTRIBUTION**

**Revise as follows:**

## 602.3.5 Pumps. Pumps shall be rated for the transport of potable water. Pumps in an individual water supply system shall be constructed and installed so as to prevent contamination from entering a potable water supply through the pump units. Pumps intended to supply drinking water shall conform to NSF 61. Pumps shall be sealed to the well casing or covered with a water-tight seal. Pumps shall be designed to maintain a prime and installed such that ready access is provided to the pump parts of the entire assembly for repairs.

**602.3.5.1 Pump enclosure.** The pump room or enclosure around a well pump shall be drained and protected from freezing by heating or other approved means. Where pumps are installed in basements, such pumps shall be mounted on a block or shelf not less than 18 inches (457 mm) above the basement floor. Well pits shall be prohibited.

**(P8732/P77-18 Part I AS)**

**Revise as follows:**

**TABLE 605.3**

**WATER SERVICE PIPE**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic pipe | ASTM D1527; ASTM D2282 |
| Chlorinated polyvinyl chloride (CPVC) plastic pipe | ASTM D2846; ASTM F441; ASTM F442; CSA B137.6 |
| Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC) | ASTM F2855 |
| Copper or copper-alloy pipe | ASTM B42; ASTM B302 |
| Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM) | ASTM B75; ASTM B88; ASTM B251; ASTM B447 |
| Cross-linked polyethylene (PEX) plastic pipe and tubing | ASTM F876; AWWA C904; CSA B137.5 |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL- PEX) pipe | ASTM F1281; ASTM F2262; CSA B137.10 |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE) | ASTM F1986 |
| Ductile iron water pipe | AWWA C151/A21.51; AWWA C115/A21.15 |
| Galvanized steel pipe | ASTM A53 |
| Polyethylene (PE) plastic pipe | ASTM D2239; ASTM D3035; AWWA C901; CSA B137.11 |
| Polyethylene (PE) plastic tubing | ASTM D2737; AWWA C901; CSA B137.1 |
| Polyethylene/aluminum/polethylene (PE-AL-PE) pipe | ASTM F1282; CSA B137.9 |
| Polyethylene of raised temperature (PE-RT) plastic tubing | ASTM F2769; CSA B137.18 |
| Polypropylene (PP) plastic pipe or tubing | ASTM F2389; CSA B137.11 |
| Polyvinyl chloride (PVC) plastic pipe | ASTM D 1785; ASTM D2241; ASTM D2672; CSA B137.3 |
| Stainless steel pipe (Type 304/304L) | ASTM A269, ASTM A312; ASTM A778 |
| Stainless steel pipe (Type 316/316L) | ASTM A269, ASTM A312; ASTM A778 |

**(P8758/P83-18 AS)**

**Revise as follows:**

**TABLE 605.3**

**WATER SERVICE PIPE**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic pipe | ASTM D1527; ASTM D2282 |
| Chlorinated polyvinyl chloride (CPVC) plastic pipe | ASTM D2846; ASTM F441; ASTM F442; CSA B137.6 |
| Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC) | ASTM F2855 |
| Copper or copper-alloy pipe | ASTM B42; ASTM B43, ASTM B302,  |
| Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM) | ASTM B75; ASTM B88; ASTM B251; ASTM B447 |
| Cross-linked polyethylene (PEX) plastic pipe and tubing | ASTM F876; AWWA C904; CSA B137.5 |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL- PEX) pipe | ASTM F1281; ASTM F2262; CSA B137.10 |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE) | ASTM F1986 |
| Ductile iron water pipe | AWWA C151/A21.51; AWWA C115/A21.15 |
| Galvanized steel pipe | ASTM A53 |
| Polyethylene (PE) plastic pipe | ASTM D2239; ASTM D3035; AWWA C901; CSA B137.11 |
| Polyethylene (PE) plastic tubing | ASTM D2737; AWWA C901; CSA B137.1 |
| Polyethylene/aluminum/polethylene (PE-AL-PE) pipe | ASTM F1282; CSA B137.9 |
| Polyethylene of raised temperature (PE-RT) plastic tubing | ASTM F2769; CSA B137.18 |
| Polypropylene (PP) plastic pipe or tubing | ASTM F2389; CSA B137.11 |
| Polyvinyl chloride (PVC) plastic pipe | ASTM D 1785; ASTM D2241; ASTM D2672; CSA B137.3 |
| Stainless steel pipe (Type 304/304L) | ASTM A312; ASTM A778 |
| Stainless steel pipe (Type 316/316L) | ASTM A312; ASTM A778 |

**(P8759/P84-18 AS)**

**Revise as follows:**

**TABLE 605.5**

**PIPE FITTINGS**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic | ASTM D2468 |
| Cast iron | ASME B16.4 |
| Chlorinated polyvinyl chloride (CPVC) plastic | ASSE 1061; ASTM D2846; ASTM F437; ASTM F 438; ASTM F439; CSA B137.6 |
| Copper or copper alloy | ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.26; ASME B16.51; ASSE 1061; ASTM F1476; ASTM F1548; ASTM F3226 |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE) | ASTM F1986 |
| Fittings for cross-linked polyethylene (PEX) plastic tubing | ASSE 1061, ASTM F877; ASTM F1807; ASTM F1960; ASTM F2080; ASTM F2098, ASTM F2159; ASTM F2434; ASTM F2735; CSA B137.5 |
| Fittings for polyethylene of raised temperature (PE-RT) plastic tubing | ASSE 1061, ASTM D3261; ASTM F1807; ASTM F2098; ASTM F2159; ASTM F2735; ASTM F2769; CSA B137.18 |
| Gray iron and ductile iron | ASTM F1476; ASTM F1548; AWWA C110/A21.10; AWWA C153/A21.53; |
| Insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) | ASTM F1974; ASTM F1281; ASTM F1282; CSA B137.9; CSA B137.10 |
| Malleable iron | ASME B16.3 |
| Metal (brass) insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) | ASTM F1974 |
| Polyethylene (PE) plastic pipe | ASTM D2609; ASTM D2683; ASTM D3261; ASTM F1055; CSA B137.1 |
| Polypropylene (PP) plastic pipe or tubing | ASTM F2389; CSA B137.11 |
| Polyvinyl chloride (PVC) plastic | ASTM D2464; ASTM D2466; ASTM D2467; CSA B137.2; CSA B137.3 |
| Stainless steel (Type 304/304L) | ASTM A312; ASTM A778; ASTM F1476; ASTM F1548; ASTM F3226 |
| Stainless steel (Type 316/316L) | ASTM A312; ASTM A778; ASTM F1476; ASTM F1548; ASTM F3226 |
| Steel | ASME B16.9; ASME B16.11; ASME B16.28; ASTM F1476; ASTM F1548 |

**(P8760/P86-18 AS)**

**Revise as follows:**

**605.13.7 Push-fit fitting joints.** Push-fit fittings ~~joints~~ shall conform to ASSE 1061 and shall be installed in accordance with the manufacturer's instructions.

**(P8770/ P89 Part I AM)**

**Revise as follows:**

## 605.12.3 Solder joints. Solder joints shall be made in accordance with ASTM B828. Cut tube ends shall be reamed to the full inside diameter of the tube end. Joint surfaces shall be cleaned. A flux conforming to ASTM B813 shall be applied. The joint shall be soldered with a solder conforming to ASTM B32. The joining of water supply piping shall be made with lead-free solder and fluxes. “Lead free” shall mean a chemical composition equal to or less than 0.2-percent lead. Solder and flux joining pipe or fittings intended to supply drinking water shall conform to NSF 61.

## 605.13.6 Solder joints. Solder joints shall be made in accordance with the methods of ASTM B828. Cut tube ends shall be reamed to the full inside diameter of the tube end. Joint surfaces shall be cleaned. A flux conforming to ASTM B813 shall be applied. The joint shall be soldered with a solder conforming to ASTM B32. The joining of water supply piping shall be made with lead-free solder and flux. “Lead free” shall mean a chemical composition equal to or less than 0.2-percent lead. Solder and flux joining pipe or fittings intended to supply drinking water shall conform to NSF 61.

**(P8763/P88-18 Part I AS)**

**Revise as follows:**

## 606.1 Location of full-open valves. Full-open valves shall be installed in the following locations:

1. On the building water service pipe from the public water supply near the curb.

2. On the water distribution supply pipe at the entrance into the structure.

2.1. In multiple tenant buildings, where a common water supply piping system is installed to supply other than one and two family dwellings, a main shutoff valve shall be provided for each tenant.

3. On the discharge side of every water meter.

4. On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are two stories or less in height and in one- and two-family residential occupancies.

5. On the top of every water down-feed pipe in occupancies other than one- and two-family residential occupancies.

6. On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.

7. On the water supply pipe to a gravity or pressurized water tank.

8. On the water supply pipe to every water heater.

**(P8774/P91-18 AS)**

**Delete without substitution:**

**~~606.7 Labeling of water distribution pipes in bundles.~~** ~~Where water distribution piping is bundled at installation, each pipe in the bundle shall be identified using stenciling or commercially available pipe labels. The identification shall indicate the pipe contents and the direction of flow in the pipe. The interval of the identification markings on the pipe shall not exceed 25 feet (7620 mm). There shall be not less than one identification label on each pipe in each room, space or story.~~

**(P8778/P93-18 AS)**

**Revise as follows:**

## 607.1.1 Temperature limiting means. A thermostat control for a water heater shall ~~not~~ only serve as the temperature limiting means for the purposes of complying with the requirements of this code for maximum allowable hot or tempered water delivery temperature at fixtures where the water heater complies with ASSE 1082 or ASSE 1085.

## 607.1.2 Tempered water temperature control. Tempered water shall be ~~supplied through a water temperature~~controlled by one the following:

1. A limiting device ~~that conforms~~ conforming to ASSE 1070/ASME A112.1070/CSA B125.70 ~~and shall limit the~~ ~~tempered water~~ ~~to not greater than~~ set to a maximum of 110ºF (43ºC).

2. A thermostatic mixing valve conforming to ASSE 1017.

3. A water heater conforming to ASSE 1082.

4. A water heater conforming to ASSE 1084.

This provision shall not supersede the requirement for protective shower valves in accordance with Section 412.3.

**(P8780/P96-18 AM)**

##

## 607.2.2 Piping for recirculation systems having ~~master thermostatic~~ temperature-actuated mixing valves. Where a ~~thermostatic~~ temperature-actuated mixing valve is used in a system with a hot water recirculating pump, the hot water or tempered water return line shall be routed to the cold water inlet pipe of the water heater and the cold water inlet pipe or the hot water return connection of the ~~thermostatic~~ temperature-actuated mixing valve.

**(P8729/P71-18 Part I AS)**

**Revise as follows:**

## 608.14.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012, ASSE 1081, or CSA B64.3. These devices shall be permitted to be installed where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged.

## 608.17.2 Connections to boilers. The potable supply to the boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012, ASSE 1081, or CSA B64.3. Where conditioning chemicals are introduced into the system, the potable water connection shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or AWWA C511.

**TABLE 608.1**

**APPLICATION OF BACKFLOW PREVENTERS**

|  |  |  |  |
| --- | --- | --- | --- |
| **DEVICE** | **DEGREE OF HAZARDa** | **APPLICATIONb** | **APPLICABLE STANDARDS** |
| Backflow prevention assemblies: |   |   |   |
| Double check backflow prevention assembly and double check fire protection backflow prevention assembly | Low hazard | Backpressure or backsiphonage Sizes 3/8˝–16˝ | ASSE 1015, AWWA C510, CSA B64.5, CSA B64.5.1 |
| Double check detector fire protection backflow prevention assemblies | Low hazard | Backpressure or backsiphonage Sizes 2˝–16˝ | ASSE 1048 |
| Pressure vacuum breaker assembly | High or low hazard | Backsiphonage only Sizes 1 / 2 ˝–2˝ | ASSE 1020, CSA B64.1.2 |
| Reduced pressure principle backflow prevention assembly and reduced pressure principle fire protection backflow assembly | High or low hazard | Backpressure or backsiphonage Sizes 3/8˝–16˝ | ASSE 1013, AWWA C511, CSA B64.4, CSA B64.4.1 |
| Reduced pressure detector fire protection backflow prevention assemblies | High or low hazard | Backsiphonage or backpressure Fire sprinkler systems) | ASSE 1047 |
|   |   | Sizes 1/4˝–2˝ |   |
| Backflow preventer plumbing devices: |   |   |   |
| water closet flush tanks |   |   |   |
| Backflow preventer for carbonated beverage machines | Low hazard | Backpressure or backsiphonage Sizes 1/4˝–3/8˝ | ASSE 1022 |
| Backflow preventer with intermediate atmospheric vents | Low hazard | Backpressure or backsiphonage Sizes 1/4˝–3/4˝ | ASSE 1012, CSA B64.3 |
| Backflow preventer with intermediate atmospheric vent and pressure reducing valve | Low hazard | Backpressure or backsiphonage Sizes 1/4˝–3/4˝ | ASSE 1081 |
| Dual-check-valve-type backflow preventer | Low hazard | Backpressure or backsiphonage Sizes 1/4˝–1˝ | ASSE 1024, CSA B64.6 |
| Hose connection backflow preventer | High or low hazard | Low head backpressure, rated working pressure, backpressure or backsiphonage Sizes 1/2˝–1˝ | ASME A112.21.3, ASSE 1052, CSA B64.2.1.1 |
| Hose connection vacuum breaker | High or low hazard | Low head backpressure or backsiphonage Sizes 1 / 2 ˝, 3 / 4 ˝, 1˝ | ASME A112.21.3, ASSE 1011, CSA B64.2, CSA B64.2.1 |
| Laboratory faucet backflow preventer | High or low hazard | Low head backpressure and backsiphonage | ASSE 1035, CSA B64.7 |
| Pipe-applied atmospheric-type vacuum breaker | High or low hazard | Backsiphonage only Sizes 1/4˝–4˝ | ASSE 1001, CSA B64.1.1 |
| Vacuum breaker wall hydrants, frost-resistant, automatic-draining-type | High or low hazard | Low head backpressure or backsiphonage Sizes 3 / 4 ˝, 1˝ | ASME A112.21.3, ASSE 1019, CSA B64.2.2 |
| Other means or methods: |   |   |   |
| Air gap | High or low hazard | Backsiphonage or backpressure | ASME A112.1.2 |
| Air gap fittings for use with plumbing fixtures, appliances and appurtenances | High or low hazard | Backsiphonage or backpressure | ASME A112.1.3 |
| Barometric loop | High or low hazard | Backsiphonage only | (See Section 608.14.4) |

For SI: 1 inch = 25.4 mm.

a. Low hazard-See Pollution (Section 202).High hazard-See Contamination (Section 202).

b. See Backpressure, low head ( Section 202).See Backsiphonage ( Section 202).

**(P8781 / P97-18 Part I AS)**

**Revise as follows:**

## 608.15.2.1 Relief port piping. The termination of the piping from the relief port or air gap fitting of a backflow preventer shall discharge to an approved indirect waste receptor or to the outdoors where it will not cause damage or create a nuisance. The indirect waste receptor and drainage piping shall be sized to drain the maximum discharge flow rate from the relief port as published by the backflow preventer manufacturer.

**(P8797/P98-18 Part I AS)**

**608.17.4 Connections to automatic ~~fire~~ sprinkler systems and standpipe systems.** The potable water supply to automatic ~~fire~~ sprinkler systems and standpipe systems shall be protected against backflow by a double check backflow prevention assembly, a double check fire protection backflow prevention assembly or a reduced pressure principle fire protection backflow prevention assembly.

**Exceptions:**

1. Where systems are installed as a portion of the water distribution system in accordance with the requirements of this code and are not provided with a fire department connection, isolation of the water supply system shall not be required.

2. Isolation of the water distribution system is not required for deluge, preaction or dry pipe systems.

**608.17.4.1 Additives or nonpotable source.** Where systems under continuous pressure contain chemical additives or antifreeze, or where systems are connected to a nonpotable secondary water supply, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly or a reduced pressure principle fire protection backflow prevention assembly. Where chemical additives or antifreeze are added to only a portion of an automatic ~~fire~~ sprinkler system or standpipe system, the reduced pressure principle backflow prevention assembly or the reduced pressure principle fire protection backflow prevention assembly shall be permitted to be located so as to isolate that portion of the system. Where systems are not under continuous pressure, the potable water supply shall be protected against backflow by an air gap or an atmospheric vacuum breaker conforming to ASSE 1001 or CSA B64.1.1.

**(F9775 / F4-18 Part II)**

**~~608.18Protection of individual water supplies.~~**

~~An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with Sections 608.18.1 through 608.18.8.~~

**~~608.18.1Well locations.~~**

~~A potable ground water source or pump suction line shall not be located closer to potential sources of contamination than the distances shown in Table 608.18.1. In the event the underlying rock structure is limestone or fragmented shale, the local or state health department shall be consulted on well site location. The distances in Table 608.18.1 constitute minimum separation and shall be increased in areas of creviced rock or limestone, or where the direction of movement of the ground water is from sources of contamination toward the well.~~

**~~TABLE 608.18.1~~**

~~DISTANCE FROM CONTAMINATION TO PRIVATE WATER SUPPLIES AND PUMP SUCTION LINES~~

|  |  |
| --- | --- |
| ~~SOURCE OF CONTAMINATION~~ | ~~DISTANCE (feet)~~ |
| ~~Barnyard~~ | ~~100~~ |
| ~~Farm site~~ | ~~25~~ |
| ~~Pasture~~ | ~~100~~ |
| ~~Pumphouse floor drain of cast iron draining to ground surface~~ | ~~2~~ |
| ~~Seepage pits~~ | ~~50~~ |
| ~~Septic tank~~ | ~~25~~ |
| ~~Sewer~~ | ~~10~~ |
| ~~Subsurface disposal fields~~ | ~~50~~ |
| ~~Subsurface pits~~ | ~~50~~ |

~~For SI: 1 foot = 304.8 mm.~~

**~~608.18.2Elevation.~~**

~~Well sites shall be positively drained and shall be at higher elevations than potential sources of contamination.~~

**~~608.18.3Depth.~~**

~~Private potable well supplies shall not be developed from a water table less than 10 feet (3048 mm) below the ground surface.~~

**~~608.18.4Water-tight casings.~~**

~~Each well shall be provided with a water-tight casing extending to not less than 10 feet (3048 mm) below the ground surface. Casings shall extend not less than 6 inches (152 mm) above the well platform. Casings shall be large enough to permit installation of a separate drop pipe. Casings shall be sealed at the bottom in an impermeable stratum or extend several feet into the water-bearing stratum.~~

**~~608.18.5Drilled or driven well casings.~~**

~~Drilled or driven well casings shall be of steel or other approved material. Where drilled wells extend into a rock formation, the well casing shall extend to and set firmly in the formation. The annular space between the earth and the outside of the casing shall be filled with cement grout to a depth of not less than 10 feet (3048 mm) below the ground surface. In an instance of casing to rock installation, the grout shall extend to the rock surface.~~

**~~608.18.6Dug or bored well casings.~~**

~~Dug or bored well casings shall be of water-tight concrete, tile or galvanized or corrugated metal pipe extending to not less than 10 feet (3048 mm) below the ground surface. Where the water table is more than 10 feet (3048 mm) below the ground surface, the water-tight casing shall extend below the table surface. Well casings for dug wells or bored wells constructed with sections of concrete, tile or galvanized or corrugated metal pipe shall be surrounded by 6 inches (152 mm) of grout poured into the hole between the outside of the casing and the ground and extending not less than 10 feet (3048 mm) below the ground surface.~~

**~~608.18.7Cover.~~**

~~Potable water wells shall be equipped with an overlapping water-tight cover at the top of the well casing or pipe sleeve such that contaminated water or other substances are prevented from entering the well through the annular opening at the top of the well casing, wall or pipe sleeve. Covers shall extend downward not less than 2 inches (51 mm) over the outside of the well casing or wall. A dug well cover shall be provided with a pipe sleeve permitting the withdrawal of the pump suction pipe, cylinder or jet body without disturbing the cover. Where pump sections or discharge pipes enter or leave a well through the side of the casing, the circle of contact shall be water tight.~~

**~~608.18.8Drainage.~~**

~~Potable water wells and springs shall be constructed such that surface drainage will be diverted away from the well or spring.~~

**(P10380 AS)**

**Revise as follows:**

## 609.2  Water service for Group I-2, Condition 2. ~~Hospitals~~ Group I-2, Condition 2 facilities shall have a minimum of two water service pipes ~~installed in such a manner so as to minimize the potential for an interruption of the supply of water in the event of a water main or water service pipe failure~~ sized such that with the loss of the largest service pipe, the remaining service pipes will meet the water demand for the entire facility. Each water service shall have a shut off valve in the building and a shut off valve at the utility-provided point of connection to the water main or other source of potable water.

**(P8799/P100-18 AS)**

**Add new text as follows:**

**609.2.1 Tracer wire for nonmetallic piping.** An insulated tracer wire listed for the purpose or other *approved*

conductor shall be installed adjacent to underground nonmetallic piping serving as a water service for a hospital.

*Access* shall be provided to the tracer wire or the tracer wire shall terminate above ground at each end of

the nonmetalic piping. The tracer wire size shall be not less than 18 AWG and the wire insulation type shall be

suitable for direct burial.

**(P8800/P101-18 AM)**

**CHAPTER 7 SANITARY DRAINAGE**

**Revise as follows:**

**TABLE 702.3**

**BUILDING SEWER PIPE**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters, including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a solid, cellular core or composite wall | ASTM D2661; ASTM D2680; ASTM F628; ASTM F1488; CSA B181.1 |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters, including SDR 42 (PS 20), PS 35, SDR 35 (PS 45), PS 50, PS 100, PS 140, SDR 23.5 (PS 150) and PS 200; with a solid, cellular core or composite wall | ASTM F1488; ASTM D2751 |
| Cast-iron pipe |  ASTM A74; ASTM A888; CISPI 301 |
| Concrete pipe | ASTM C14; ASTM C76; CSA A257.1M; CSA A257.2M |
| Copper or copper-alloy tubing (Type K or L) | ASTM B75; ASTM B88; ASTM B251 |
| Polyethylene (PE) plastic pipe (SDR-PR) | ASTM F714 |
| Polypropylene (PP) plastic pipe | ASTM F2736; ASTM F2764; CSA B182.13 |
| Polyvinyl chloride (PVC) plastic pipe in IPS diameters, including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a solid, cellular core or composite wall | ASTM D2665; ASTM F891; ASTM F1488 |
| Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters, including PS 25, SDR 41 (PS 28), PS 35, SDR 35 (PS 46), PS 50, PS 100, SDR 26 (PS 115), PS 140 and PS 200; with a solid, cellular core or composite wall | ASTM F891; ASTM F1488; ASTM D3034; CSA B182.2; CSA B182.4 |
| Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D. and a solid, cellular core or composite wall | ASTM D2949 , ASTM F1488 |
| Polyvinylidene fluoride (PVDF) plastic pipe | ASTM F1673; CSA B181.3 |
| Stainless steel drainage systems, Types 304 and 316L | ASME A112.3.1 |
| Vitrified clay pipe | ASTM C4; ASTM C700 |

**(P8801/P103-18 Part I AS)**

**Add new text as follows:**

## 705.10.4 Push-fit joints. Push-fit joints shall conform to ASME A112.4.4 and shall be installed in accordance with the manufacturer's instructions.

**Revise as follows:**

**TABLE 702.4**

**PIPE FITTINGS**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters | ASTM D2661; ASTM F628; CSA B181.1 |
| Acrylonotrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters | ASTM D2751 |
| Cast iron | ASME B16.4; ASME B16.12; ASTM A74; ASTM A888; CISPI 301 |
| Copper or copper alloy | ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29 |
| Glass | ASTM C1053 |
| Gray iron and ductile iron | AWWA C110/A21.10 |
| Polyethylene | ASTM D2683 |
| Polyolefin | ASTM F1412; CSA B181.3 |
| Polyvinyl chloride (PVC) plastic in IPS diameters | ASTM D2665; ASTM F1866; ASME A112.4.4 |
| Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters | ASTM D3034 |
| Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D. | ASTM D2949 |
| Polyvinylidene fluoride (PVDF) plastic pipe | ASTM F1673; CSA B181.3 |
| Stainless steel drainage systems, Types 304 and 316L | ASME A112.3.1 |
| Steel | ASME B16.9; ASME B16.11; ASME B16.28 |
| Vitrified clay | ASTM C700 |

**TABLE 702.4**

**PIPE FITTINGS**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters | ASTM D2661; ASTM F628; CSA B181.1 |
| Acrylonotrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters | ASTM D2751 |
| Cast iron | ASME B16.4; ASME B16.12; ASTM A74; ASTM A888; CISPI 301 |
| Copper or copper alloy | ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29 |
| Glass | ASTM C1053 |
| Gray iron and ductile iron | AWWA C110/A21.10 |
| Polyethylene | ASTM D2683 |
| Polyolefin | ASTM F1412; CSA B181.3 |
| Polyvinyl chloride (PVC) plastic in IPS diameters | ASTM D2665; ASTM F1866; ASME A112.4.4 |
| Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters | ASTM D3034 |
| Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D. | ASTM D2949 |
| Polyvinylidene fluoride (PVDF) plastic pipe | ASTM F1673; CSA B181.3 |
| Stainless steel drainage systems, Types 304 and 316L | ASME A112.3.1 |
| Steel | ASME B16.9; ASME B16.11; ASME B16.28 |
| Vitrified clay | ASTM C700 |

**(P8807/P108-18 AS)**

**Add new text as follows:**

**705.2.4 Push-fit joints.** Push-fit DWV fittings shall be listed and labeled to ASME A112.4.4 and shall be

installed in accordance with the manufacturer’s instructions.

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**Revise as follows:**

**TABLE 702.4**

**PIPE FITTINGS**

|  |  |
| --- | --- |
| **MATERIAL** | **STANDARD** |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters | ASTM D2661; ASTM F628; CSA B181.1; ASME A112.4.4 |
| Acrylonotrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters | ASTM D2751 |
| Cast iron | ASME B16.4; ASME B16.12; ASTM A74; ASTM A888; CISPI 301 |
| Copper or copper alloy | ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29 |
| Glass | ASTM C1053 |
| Gray iron and ductile iron | AWWA C110/A21.10 |
| Polyethylene | ASTM D2683 |
| Polyolefin | ASTM F1412; CSA B181.3 |
| Polyvinyl chloride (PVC) plastic in IPS diameters | ASTM D2665; ASTM F1866 |
| Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters | ASTM D3034 |
| Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D. | ASTM D2949 |
| Polyvinylidene fluoride (PVDF) plastic pipe | ASTM F1673; CSA B181.3 |
| Stainless steel drainage systems, Types 304 and 316L | ASME A112.3.1 |
| Steel | ASME B16.9; ASME B16.11; ASME B16.28 |
| Vitrified clay | ASTM C700 |

**(P8803/P105-18 AM)**

**705.2.1 Mechanical joints.** Mechanical joints on drainage ~~pipes~~ pipe shall be made with an elastomeric seal conforming to ASTM C1173, ASTM D3212, or CSA B602. Mechanical joints shall not be installed ~~only~~ in ~~underground~~ above-ground systems unless otherwise *approved*. Joints shall be installed in accordance with the manufacturer's instructions.

**705.10.1 Mechanical joints.** Mechanical joints on drainage pipe shall be made with an elastomeric seal conforming to ASTM C1173, ASTM D3212 or CSA B602. Mechanical joints shall not be installed in above-ground systems, unless otherwise *approved*. Joints shall be installed in accordance with the manufacturer's instructions.

**(P9153/CCC-P1-18)**

**Add new text as follows:**

## 708.1.12 Cleanout equivalent. A fixture trap or a fixture with integral trap, removable without altering concealed piping, shall be acceptable as a cleanout equivalent.

**Revise as follows:**

## 708.1 Cleanouts required. Cleanouts shall be provided for drainage piping in accordance with Sections 708.1.1 through ~~708.1.11~~ 708.1.12.

**(P8814/P113-18 Part I AS)**

**Add new text as follows:**

##

## SECTION 717 RELINING BUILDING SEWERS AND BUILDING DRAINS

## 717.1 General. This section shall govern the relining of existing building sewers and building drainage piping.

## 717.2 Applicability. The relining of existing building sewer and building drainage piping shall be limited to gravity drainage piping,4 inches (102 mm) in diameter and larger. The relined piping shall be of the same nominal size as the existing piping.

## 717.3 Pre-installation requirements. Prior to commencement of the relining installation, the existing piping sections to be relined shall be descaled and cleaned. After the cleaning process has occurred and water has been flushed through the system, the piping shall be inspected internally by a recorded video camera survey.

## 717.3.1 Pre-installation recorded video camera survey. The video survey shall include verification of the project address location. The video shall include notations of the cleanout and fitting locations, and the approximate depth of the existing piping. The video shall also include notations of the length of piping at intervals no greater than 25 feet.

## 717.4 Permitting. Prior to permit issuance, the code official shall review and evaluate the pre-installation recorded video camera survey to determine if the piping system is capable to be relined in accordance with the proposed lining system manufacturer's installation requirements and applicable referenced standards.

## 717.5 Prohibited applications. Where review of the pre-installation recorded video camera survey reveals that piping systems are not installed correctly or defects exist, relining shall not be permitted. The defective portions of piping shall be exposed and repaired with pipe and fittings in accordance with this code. Defects shall include, but are not limited to, backgrade or insufficient slope, complete pipe wall deterioration or complete separations such as from tree root invasion or improper support.

## 717.6 Relining materials. The relining materials shall be manufactured in compliance with applicable standards and certified as required in Section 303. Fold -and-form pipe reline materials shall be manufactured in compliance with ASTM F1504 or ASTMF1871.

## 717.7 Installation. The installation of relining materials shall be performed in accordance with the manufacturer's installation instructions, applicable referenced standards and this code.

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## 717.7.1 Material data report. The installer shall record the data as required by the relining material manufacture and applicable standards. The recorded data shall include but is not limited to the location of the project, relining material type, amount of product installed and conditions of the installation. A copy of the data report shall be provided to the code official prior to final approval.

## 717.8 Post-installation recorded video camera survey. The completed relined piping system shall be inspected internally by a recorded video camera survey after the system has been flushed and flow tested with water. The video survey shall be submitted to the the code official prior to finalization of the permit. The video survey shall be reviewed and evaluated to provide verification that no defects exist. Any defects identified shall be repaired and replaced in accordance with this code.

## 717.9 Certification. A certification shall be provided in writing to the code official, from the permit holder, that the relining materials have been installed in accordance with the manufacturer's installation instructions, the applicable standards and this code.

## 717.10 Approval. Upon verification of compliance with the requirements of Sections 717.1 through 717.9, the code official shall approve the installation.

**(P8817/P115-18 Part I AS)**

**Add new text as follows:**

**SECTION 718**

**REHABILITATION OF BUILDING SEWERS AND BUILDING DRAINS**

**718.1 Cure-in-place.** Sectional cure-in-place rehabilitation of *building sewer* piping and sewer service lateral piping

shall be in accordance with ASTM F2599. Main and lateral cure-in-place rehabilitation of *building sewer* and sewer

service lateral pipe and their connections to the main sewer pipe shall be in accordance with ASTM F2561. Hydrophilic rings or gaskets in cure-in-place rehabilitation of *building sewer* piping and sewer service laterals shall be in accordance with ASTM F3240 to ensure water tightness and elimination of ground water penetration.

**(P8820/P116-18 AM)**

**CHAPTER 8 INDIRECT/SPECIAL WASTE**

**No Change**

**CHAPTER 9 VENTS**

**Revise as follows:**

## 903.1 ~~Roof extension~~ Vent terminal required. ~~Open vent pipes that extend through a roof shall be terminated not less than~~ ~~[NUMBER]~~ ~~inches (mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.~~ The vent pipe shall terminate by extending to the outdoors through the roof or the side wall in accordance with one of the methods identified in Section 903.1.1 through 903.1.4.

**Add new text as follows:**

## 903.1.1 Roof extension unprotected. Open vent pipes that extend through a roof shall be terminated not less than [NUMBER] inches (mm) above the roof.

## 903.1.2 Roof used for recreational or assembly purposes. Where a roof is to be used as a promenade, restaurant, bar, observation deck, sunbathing deck, or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.

## 903.1.3 Protected vent terminal. Where an open vent pipe terminates above a sloped roof and is covered by either a roof-mounted panel (such as a solar collector or photovoltaic panel mounted over the vent opening) or a roof element (such as an architectural feature or a decorative shroud), the vent pipe shall terminate not less than 2 inches (51 mm) above the roof surface. Such roof elements shall be designed to prevent the adverse effects of snow accumulation and wind on the function of the vent. The placement of a panel over a vent pipe and the design of a roof element covering the vent pipe shall provide for an open area for the vent pipe to the outdoors that is not less than the area of the pipe, as calculated from the inside diameter of the pipe. Such vent terminals shall be protected by a method that prevents birds and rodents from entering or blocking the vent pipe opening.

## 903.1.4 Sidewall vent terminal. Vent terminals extending through the wall shall terminate not less than 10 feet (3048 mm) from the lot line and 10 feet (3048 mm) above the highest adjacent grade within 10 feet (3048 mm) horizontally of the vent terminal. Vent terminals shall not terminate under the overhang of a structure with soffit vents. Side wall vent terminals shall be protected to prevent birds or rodents from entering or blocking the vent opening.

**Delete without substitution:**

## ~~903.6~~ ~~Extension through the wall.~~ ~~Vent terminals extending through the wall shall terminate at a point not less than 10 feet (3048 mm) from a lot line and not less than 10 feet (3048 mm) above average ground level. Vent terminals shall not terminate under the overhang of a structure with soffit vents. Side wall vent terminals shall be protected to prevent birds or rodents from entering or blocking the vent opening.~~

**(P8822/P117-18 AS)**

**Revise as follows:**

## 915.1 Type of fixtures. A combination waste and vent system shall not serve fixtures other than floor drains, sinks, lavatories and drinking fountains. Combination waste and vent systems shall not receive the discharge from a ~~food waste disposer or~~ clinical sink.

**(P8827/P118-18 AS)**

**CHAPTER 10 TRAPS, INTERCEPTORS AND SEPARATORS**

**Revise as follows:**

## 1002.1 Fixture traps. Each plumbing fixture shall be separately trapped by a liquid-seal trap, except as otherwise permitted by this code. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 mm), and the horizontal distance shall not exceed 30 inches (610 mm) measured from the centerline of the fixture outlet to the centerline of the inlet of the trap. The height of a clothes washer standpipe above a trap shall conform to Section 802.3.3. A fixture shall not be double trapped.

**Exceptions:**

1. This section shall not apply to fixtures with integral traps.

2. A combination plumbing fixture is permitted to be installed on one trap, provided that one compartment is not more than 6 inches (152 mm) deeper than the other compartment and the waste outlets are not more than 30 inches (762 mm) apart.

~~3. A grease interceptor intended to serve as a fixture trap in accordance with the manufacturer's installation instructions shall be permitted to serve as the trap for a single fixture or a combination sink of not more than three compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches (762 mm) and the~~ ~~developed length~~ ~~of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches (1524 mm).~~

3. ~~4~~. Floor drains in multilevel parking structures that discharge to a building storm sewer shall not be required to be individually trapped. Where floor drains in multilevel parking structures are required to discharge to a combined building sewer system, the floor drains shall not be required to be individually trapped provided that they are connected to a main trap in accordance with Section 1103.1.

4. Where a hydromechanical grease interceptor serves a food utensil, dishes, pots and pans sink, in accordance with the manufacturer's installation instructions. The branch drain serving the interceptor shall be provided with an emergency floor drain down stream of the interceptor connection, and the branch shall serve only the emergency floor drain and the interceptor. Where the interceptor serves combination sink of not more than three compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches (762 mm) and the developed length of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches (1524 mm). The food utensil, dishes, pots and pans sink shall be required to connect directly with the interceptor.

**(P8830/P120-18 AM)**

**Add new text as follows:**

## 1002.4.1.5 Fixture drain connection for trap priming. A fixture drain from a lavatory or hand sink shall serve as a method of providing trap seal protection for an emergency floor drain, a trench drain, or a floor sink where such fixtures are located in the same room. A fixture drain from a drinking fountain shall serve as a method of providing trap seal protection for an emergency floor drain, a trench drain, or a floor sink where such fixtures are in the same room or in a room adjacent to the room having the drinking fountain. The fixture drain shall not be routed on or above the surface of the floor and shall connect to the floor drain, trench drain, or floor sink at a point that is below the flood level rim and above the inlet to the trap of the receiving fixture.

**Revise as follows:**

## 1002.4.1 Trap seal protection. Trap seals of emergency floor drain traps and trap seals subject to evaporation shall be protected by one of the methods in Sections 1002.4.1.1 through ~~1002.4.1.4~~1002.4.1.5.

**(P8834/P122-18 AS)**

**CHAPTER 11 STORM DRAINAGE**

**Revise as follows:**

## 1102.6 Roof Drains. Roof drains shall conform to ASME A112.6.4 or ASME A112.3.1. Roof drains, other than siphonic roof drains, shall be tested and rated in accordance with ASME A112.6.4 or ASPE/IAPMO Z1034.

**(P8837/P126-18 AS)**

**Revise as follows:**

## 1106.2 Size of storm drain piping. Vertical and horizontal storm drain piping shall be sized based on the flow rate through the roof drain. The flow rate, as calculated in accordance with Section 1106.2.1, shall be checked against the roof drain manufacturer's published flow rate for the specific roof drain model and size to verify that the selected roof drain will handle the anticipated flow. The flow rate in storm drain piping shall not exceed that specified in Table 1106.2.

**Add new text as follows:**

## 1106.2.1 Rainfall rate conversion method. The rainfall rate falling on a roof surface shall be converted to a gallons per minute flow rate in accordance with Equation 11-1.

GPM = R • A • 0.0104 **(Equation 11-1)**

where,

R = Rainfall intensity in inches per hour

A = Roof area in square feet

**(P8840/P129-18 AS)**

**CHAPTER 12 SPECIAL PIPING AND STORAGE SYSTEMS**

**Revise as follows:**

## [F] 1202.1 Nonflammable medical gases. Nonflammable medical gas systems, inhalation anesthetic systems and vacuum piping systems shall be ~~designed~~ installed, tested and ~~installed~~ labeled in accordance with NFPA 99.

**Exceptions:**

1. This section shall not apply to portable systems or cylinder storage.

2. Vacuum system exhaust terminations shall comply with the International Mechanical Code.

**(P9835/F297-18 Part II AS)**

**CHAPTER 13 NONPOTABLE WATER SYSTEMS**

**Revise as follows:**

## 1301.1 ~~Scope~~ General. The provisions of Chapter 13 shall govern the materials, design, construction and installation of systems for the collection, storage, treatment and distribution of nonpotable water. For nonpotable rainwater systems, the provisions of CSA B805/ICC 805 shall be an alternative for regulating the materials, design, construction and installation of systems for rainwater collection, storage, treatment and distribution of nonpotable water. The use and application of nonpotable water shall comply with laws, rules and ordinances applicable in the jurisdiction.

**1301.1.1 Alternate compliance path.** Systems for nonpotable uses that comply with CSA B805/ICC 805 are deemed to comply with this chapter.

 **(P8842/P131-18 Part I AMPC1)**

**CHAPTER 14 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS**

**CHAPTER 14**

**SUBSURFACE ~~LANDSCAPE IRRIGATION~~ GRAYWATER SOIL ABSORPTION SYSTEMS**

**RESERVED**

**(P9874 AS)**

**CHAPTER 15 REFERENCED STANDARDS**

**See attached**