CHAPTER 4
FIXTURES, FAUCETS AND FIXTURE FITTINGS

SECTION PC 401
GENERAL
401.1 Scope. This chapter shall govern the materials, design and installation of plumbing fixtures, faucets and fixture fittings in accordance with the type of occupancy, and shall provide for the minimum number of fixtures for various types of occupancies.

401.2 Prohibited fixtures and connections. Water closets having a concealed trap seal or an unventilated space or having walls that are not thoroughly washed at each discharge in accordance with ASME A112.19.2M shall be prohibited. Any water closet that permits siphonage of the contents of the bowl back into the tank shall be prohibited. Trough urinals shall be prohibited.

401.3 Water conservation. The maximum water flow rates and flush volume for plumbing fixtures and fixture fittings shall comply with 604.4.

SECTION PC 402
FIXTURE MATERIALS
402.1 Quality of fixtures. Plumbing fixtures shall be constructed of approved materials, with smooth, impervious surfaces, free from defects and concealed fouling surfaces, and shall conform to standards cited in this code. All porcelain enameled surfaces on plumbing fixtures shall be acid resistant.

402.2 Materials for specialty fixtures. Materials for specialty fixtures not otherwise covered in this code shall be of stainless steel, soapstone, chemical stoneware or plastic, or shall be lined with lead, copper-base alloy, nickel-copper alloy, corrosion-resistant steel or other material especially suited to the application for which the fixture is intended.

402.3 Sheet copper. Sheet copper for general applications shall conform to ASTM B 152 and shall not weigh less than 12 ounces per square foot (3.7 kg/m²).

402.4 Sheet lead. Sheet lead for pans shall not weigh less than 4 pounds per square foot (19.5 kg/m²) coated with an asphalt paint or other approved coating.

SECTION PC 403
MINIMUM PLUMBING FACILITIES
403.1 Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the commissioner. The number of occupants shall be determined in accordance with the New York City Building Code.

403.1.1 Unisex toilet and bath fixtures. Fixtures located within unisex toilet and bathing rooms complying with Section 404 are permitted to be included in determining the minimum required number of fixtures for assembly and mercantile occupancies.

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 private facilities.
2. Separate employee facilities shall not be required in occupancies in which 15 or less people are employed.
3. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or less.

403.3 Number of occupants of each sex. The required water closets, lavatories, and showers or bathtubs shall be distributed equally between the sexes based on the percentage of each sex anticipated in the occupant load. The occupant load shall be composed of 50 percent of each sex, unless statistical data approved by the commissioner indicate a different distribution of the sexes.

403.4 Location of employee toilet facilities in occupancies other than assembly or mercantile. Access to toilet facilities in occupancies other than mercantile and assembly occupancies shall be from within the employees’ working area. Employee facilities shall be either separate facilities or combined employee and public facilities.

Exception: Facilities that are required for employees in storage structures or kiosks, and are located in adjacent structures under the same ownership, lease or control, shall be a maximum travel distance of 500 feet (152 m) from the employees’ working area.

403.4.1 Travel distance. The required toilet facilities in occupancies other than assembly or mercantile shall be located not more than one story above or below the employee’s working area and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

Exception: The location and maximum travel distance to required employee toilet facilities in factory and industrial occupancies are permitted to exceed that required in Section 403.4.1, provided the location and maximum travel distance are approved by the commissioner.
<table>
<thead>
<tr>
<th>NO. CLASSIFICATION</th>
<th>OCCUPANCY</th>
<th>DESCRIPTION</th>
<th>WATER CLOSETS</th>
<th>LAVATORIES</th>
<th>BATHTUBS/SHOWERs</th>
<th>DRINKING FOUNTAIN</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A-1</td>
<td>Theaters usually with fixed seats and other buildings for the performing arts and motion pictures</td>
<td>1 per 70 for the first 210 and 1 per 125 for the remainder exceeding 210</td>
<td>1 per 35 for the first 210 and 1 per 65 for the remainder exceeding 210</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-2</td>
<td>Nightclubs, bars, taverns, dance halls and buildings for similar purposes</td>
<td>1 per 75</td>
<td>1 per 40</td>
<td>1 per 75</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-3</td>
<td>Restaurants, banquet halls and food courts</td>
<td>1 per 75</td>
<td>1 per 75</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-4</td>
<td>Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiu</td>
<td>1 per 75 for the first 210</td>
<td>1 per 75</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-5</td>
<td>Passenger terminals and transportation facilities</td>
<td>1 per 75 for the first 1,500</td>
<td>1 per 75</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-6</td>
<td>Places of worship and other religious services. Churches without assembly halls</td>
<td>1 per 75 for the first 1,500</td>
<td>1 per 75</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-7</td>
<td>Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities</td>
<td>1 per 75 for the first 1,500</td>
<td>1 per 75</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>A-8</td>
<td>Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities</td>
<td>1 per 75 for the first 1,500</td>
<td>1 per 75</td>
<td>1 per 200</td>
<td>1 per 500</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Buildings for the transaction of business, professional services, other services including merchandise, office buildings, banks, light industrial and similar uses</td>
<td>1 fixture for each additional 50 persons</td>
<td>1 fixture for each additional 50 persons</td>
<td>1 fixture for each additional 50 persons</td>
<td>1 fixture for each additional 50 persons</td>
<td>1 fixture for each additional 50 persons</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Educational facilities</td>
<td>1 per 50</td>
<td>1 per 50</td>
<td>—</td>
<td>1 per 100</td>
<td>1 service sink</td>
</tr>
<tr>
<td></td>
<td>F-1 and F-2</td>
<td>Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials</td>
<td>1 per 100</td>
<td>1 per 100</td>
<td>(see Section 411)</td>
<td>1 per 400</td>
<td>1 service sink</td>
</tr>
</tbody>
</table>

(continued)
### Table 403.1—continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES*
(See Sections 403.2 and 403.3)

<table>
<thead>
<tr>
<th>NO.</th>
<th>CLASSIFICATION</th>
<th>OCCUPANCY1</th>
<th>DESCRIPTION</th>
<th>WATER CLOSETS</th>
<th>URINALS (SEE SECTION 419.2)</th>
<th>LAVATORIES</th>
<th>BATHTUBS/SHOWERs</th>
<th>DRINKING FOUNTAIN (SEE SECTION 410.1)</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Institutional</td>
<td>I-1</td>
<td>Residential care</td>
<td>1 per 10</td>
<td>1 per 10</td>
<td>1 per 8</td>
<td>1 per 100</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I-2</td>
<td>Hospital ambulatory nursing home patients</td>
<td>1 per room2</td>
<td>1 per room2</td>
<td>1 per 15</td>
<td>1 per 100</td>
<td>1 service sink per floor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Employees, other than residential careb</td>
<td>1 per 25</td>
<td>1 per 35</td>
<td>—</td>
<td>1 per 100</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Visitors, other than residential care</td>
<td>1 per 75</td>
<td>1 per 100</td>
<td>—</td>
<td>1 per 500</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I-3</td>
<td>Prisonsb</td>
<td>1 per cell</td>
<td>1 per cell</td>
<td>1 per 15</td>
<td>1 per 100</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reformatories‡, detention centers and correctional centers</td>
<td>1 per 15</td>
<td>1 per 15</td>
<td>1 per 15</td>
<td>1 per 100</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I-4</td>
<td>Adult day care and childcareb</td>
<td>1 per 15</td>
<td>1 per 15</td>
<td>1 per 15</td>
<td>1 per 100</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Mercantile (see Sections 403.2, 403.5 and 403.6)</td>
<td>M</td>
<td>Retail stores, service stations, shops, salesrooms, markets and shopping centers</td>
<td>1 per 500</td>
<td>1 per 750</td>
<td>—</td>
<td>1 per 1,000</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Residential</td>
<td>R-1</td>
<td>Hotels, motels, boarding houses (transient)</td>
<td>1 per guestroom</td>
<td>1 per guestroom</td>
<td>1 per guestroom</td>
<td>—</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R-1</td>
<td>Dormitories, fraternities, sororities and boarding houses (not transient)</td>
<td>1 per 10</td>
<td>1 per 10</td>
<td>1 per 8</td>
<td>1 per 100</td>
<td>1 service sink</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R-2</td>
<td>Apartment house</td>
<td>1 per dwelling unit</td>
<td>1 per dwelling unit</td>
<td>1 per dwelling unit</td>
<td>—</td>
<td>1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R-3</td>
<td>One- and two-family dwellings</td>
<td>1 per dwelling unit</td>
<td>1 per dwelling unit</td>
<td>1 per dwelling unit</td>
<td>—</td>
<td>1 kitchen sink per dwelling unit; 1 automatic clothes washer connector per dwelling unit</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Storage (see Sections 403.2 and 403.4)</td>
<td>S-1 and S-2</td>
<td>Structures for the storage of goods, warehouses, storehouse and freight depots, Low and moderate hazard</td>
<td>1 per 100</td>
<td>1 per 100</td>
<td>1 per 1,000</td>
<td>See Section 411</td>
<td>1 service sink</td>
<td></td>
</tr>
</tbody>
</table>

a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated. Any fraction of the number of persons requires an additional fixture. The number of occupants shall be determined by the *New York City Building Code*.
b. Toilet facilities for employees shall be separate from facilities for inmates or patients.
c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient rooms shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.
d. For day nurseries, a maximum of one bathtub shall be required.
e. For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.
f. Use a calculation based on 1 person/125 net square feet.
g. For the purposes of this table only, “Bar” shall mean a business establishment or a portion of a nonprofit entity devoted primarily to the selling and serving of alcoholic beverages for consumption by the public, guests, patrons, or members on the premises and in which the serving of food is only incidental.
h. The total number of occupants for a single establishment comprising‡ of a restaurant with an accessory bar shall be considered as a restaurant for the purposes of determining the minimum number of plumbing fixtures.
i. As per the *New York City Building Code*.
j. The requirements for the number of water closets for a total occupancy of 150 persons or fewer shall not apply to bars except that there shall be at least one water closet for men and at least one water closet for women or at least two unisex toilet rooms.

2008 NEW YORK CITY PLUMBING CODE
FIXTURES, FAUCETS AND FIXTURE FITTINGS

403.5 Location of employee toilet facilities in mercantile and assembly occupancies. Employees shall be provided with toilet facilities in building and tenant spaces utilized as restaurants, nightclubs, places of public assembly and mercantile occupancies. The employee facilities shall be either separate facilities or combined employee and public facilities. The required toilet facilities shall be located not more than one story above or below the employees' work area and the path of travel to such facilities, in other than covered spaces, shall not exceed a distance of 500 feet (152,440 m). The path of travel to required facilities in covered malls shall not exceed a distance of 300 feet (91,440 m).

Exception: Employee toilet facilities shall not be required in tenant spaces where the travel distance from the main entrance of the tenant space to a central toilet area does not exceed 300 feet (91,440 m) and such central toilet facilities are located not more than one story above or below the tenant space.

403.6 Public facilities. Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. Public toilet facilities shall be located not more than one story above or below the space required to be provided with public toilet facilities and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

Exception: Public utilization of toilet facilities shall not be required for establishments less than 10,000 square feet (929 m²) in Occupancy Group B or M.

403.6.1 Covered malls. In covered mall buildings, the path of travel to required toilet facilities shall not exceed a distance of 300 feet (91 440 mm). Facilities shall be installed in each individual store or in a central toilet area located in accordance with this section. The maximum travel distance to the central toilet facilities in covered mall buildings shall be measured from the main entrance of any store or tenant space.

403.6.2 Pay facilities. Where pay facilities are installed, such facilities shall be in excess of the required minimum facilities. Required facilities shall be free of charge.

403.7 Signage. Required public facilities shall be designated by a legible sign for each sex. Signs shall be readily visible and located near the entrance to each toilet facility.

SECTION PC 404
ACCESSIBLE PLUMBING FACILITIES

404.1 Where required. Accessible plumbing facilities and fixtures shall be provided in accordance with the New York City Building Code.

SECTION PC 405
INSTALLATION OF FIXTURES

405.2 Access for cleaning. Plumbing fixtures shall be installed so as to afford easy access for cleaning both the fixture and the area around the fixture.

405.3 Setting. Fixtures shall be set level and in proper alignment with reference to adjacent walls.

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, or closer than 30 inches (762 mm) center-to-center between water closets, urinals or adjacent fixtures. There shall be at least a 21 inch (533 mm) clearance in front of the water closet, urinal or bidet to any wall, fixture or door. Water closet compartments shall not be less than 30 inches (762 mm) wide or 60 inches (1524 mm) deep. There shall be at least a 21 inch (533 mm) clearance in front of a lavatory to any wall, fixture or door (see Figure 405.3.1).

405.3.2 Public lavatories. In employee and public toilet rooms, the required lavatory shall be located in the same room as the required water closet.

405.4 Floor and wall drainage connections. Connections between the drain and floor outlet plumbing fixtures shall be made with a floor flange. The flange shall be attached to the drain and anchored to the structure. Connections between the drain and wall-hung water closets shall be made with an approved extension nipple or horn adapter. The water closet shall be bolted to the hanger with corrosion-resistant bolts or screws. Joints shall be sealed with an approved elastomeric gasket, flange-to-fixture connection complying with ASME A112.4.3 or setting compound conforming to FS TT-P-1536A.

405.4.1 Floor flanges. Floor flanges for water closets or similar fixtures shall not be less than 0.125 inch (3.2 mm)
thick for brass, 0.25 inch (6.4 mm) thick for plastic, and 0.25 inch (6.4 mm) thick and not less than a 2 inch (51 mm) caulking depth for cast-iron or galvanized malleable iron.

Floor flanges of hard lead shall weigh not less than 1 pound, 9 ounces (0.7 kg) and shall be composed of lead alloy with not less than 7.75 percent antimony by weight. Closet screws and bolts shall be of brass. Flanges shall be secured to the building structure with corrosion-resistant screws or bolts.

405.4.2 Securing floor outlet fixtures. Floor outlet fixtures shall be secured to the floor by screws or bolts of corrosion-resistant material.

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 connector or any other part of the plumbing system. The carrier shall conform to ASME A112.6.1M or ASME A112.6.2.

405.5 Water-tight joints. Joints formed where fixtures come in contact with walls or floors shall be sealed.

405.6 Plumbing in mental health centers. In mental health centers, pipes or traps shall not be exposed, and fixtures shall be bolted through walls.

405.7 Design of overflows. Where any fixture is provided with an overflow, the waste shall be designed and installed so that standing water in the fixture will not rise in the overflow when the stopper is closed, and no water will remain in the overflow when the fixture is empty.

405.7.1 Connection of overflows. The overflow from any fixture shall discharge into the drainage system on the inlet or fixture side of the trap.

Exception: The overflow from a flush tank serving a water closet or urinal shall discharge into the fixture served.

405.8 Slip joint connections. Slip joints shall be made with an approved elastomeric gasket and shall only be installed on the trap outlet, trap inlet and within the trap seal. Fixtures with concealed slip-joint connections shall be provided with an access panel or utility space at least 12 inches (305 mm) in its smallest dimension or other approved arrangement so as to provide access to the slip joint connections for inspection and repair.

405.9 Design and installation of plumbing fixtures. Integral fixture fitting mounting surfaces on manufactured plumbing fixtures or plumbing fixtures constructed on site, shall meet the design requirements of ASME A112.19.2M or ASME A112.19.3M.

SECTION PC 406
AUTOMATIC CLOTHES WASHERS

406.1 Approval. All automatic clothes washers shall conform to ASSE 1007

406.2 Water connection. The waste from an automatic clothes washer shall discharge through an air break into a standpipe in accordance with Section 802.4 or into a laundry sink. The trap and fixture drain for an automatic clothes washer standpipe shall be a minimum of 2 inches (51 mm) in diameter. The automatic clothes washer fixture drain shall connect to a branch drain or drainage stack a minimum of 3 inches (76 mm) in diameter.

406.3 Waste connection. The waste from an automatic clothes washer shall discharge through an air break into a standpipe in accordance with Section 802.4 or into a laundry sink. The trap and fixture drain for an automatic clothes washer standpipe shall be a minimum of 2 inches (51 mm) in diameter. The automatic clothes washer fixture drain shall connect to a branch drain or drainage stack a minimum of 3 inches (76 mm) in diameter.

SECTION PC 407
BATHTUBS

407.1 Approval. Bathtubs shall conform to ANSI Z124.1, ASME A112.19.1M, ASME A112.19.4M, ASME A112.19.9M, CSA B45.2, CSA B45.3 or CSA B45.5.

407.2 Bathtub waste outlets. Bathtubs shall have waste outlets that are a minimum of 1.5 inches (38 mm) in diameter. The waste outlet shall be equipped with an approved stopper.

407.3 Glazing. Windows and doors within a bathtub enclosure shall conform to the safety glazing requirements of the New York City Building Code.

407.4 Bathtub enclosure. Doors within a bathtub enclosure shall conform to ASME A112.19.15.

SECTION PC 408
BIDETS

408.1 Approval. Bidets shall conform to ASME A112.19.2M, ASME A112.19.9M or CSA B45.1.

408.2 Water connection. The water supply to a bidet shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608.13.1, 608.13.2, 608.13.3, 608.13.5, 608.13.6 or 608.13.8.

SECTION PC 409
DISHWASHING MACHINES

409.1 Approval. Domestic dishwashing machines shall conform to ASSE 1006. Commercial dishwashing machines shall conform to ASSE 1004 and NSF 3.

409.2 Water connection. The water supply to a dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section PC 608.

409.3 Waste connection. The waste connection of a dishwashing machine shall comply with Sections 802.1.6 or 802.1.7, as applicable.

SECTION PC 410
DRINKING FOUNTAINS

410.1 Approval. Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M, and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9.
Fixtures, Faucets and Fixture Fittings

Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.

410.2 Prohibited location. Drinking fountains shall not be installed in public restrooms.

SECTION PC 411
EMERGENCY SHOWERS AND EYEWASH STATIONS

411.1 Approval. Emergency showers and eyewash stations shall conform to ISEA Z358.1.

411.2 Waste connection. Waste connections shall not be required for emergency showers and eyewash stations.

SECTION PC 412
FLOOR AND TRENCH DRAINS

412.1 Approval. Floor drains shall conform to ASME A112.6.3, ASME A112.3.1 or CSA B79. Trench drains shall comply with ASME A112.6.3.

412.2 Floor drain trap and strainer. Floor drain traps shall have removable strainers. The strainer shall have a waterway area of not less than the area of the tailpiece. The floor drain shall be constructed so that the drain is capable of being cleaned. Access shall be provided to the drain inlet.

412.3 Size of floor drains. Floor drains shall have a minimum 3-inch (76 mm) diameter drain outlet.

412.4 Public laundries and central washing facilities. In public coin-operated laundries and in the central washing facilities of multiple-family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum 3 inch (76 mm) diameter drain outlet and be provided with lint strainers.

SECTION PC 413
FOOD WASTE GRINDER UNITS

413.1 Approval. Domestic food waste grinders shall conform to ASSE 1008. Food waste grinders shall not increase the drainage fixture unit load on the sanitary drainage system.

413.2 Domestic food waste grinder waste outlets. Domestic food waste grinders shall be connected to a drain of not less than 2 inches (51 mm) in diameter.

413.3 Reserved.

413.4 Water supply required. All food waste grinders shall be provided with a supply of cold water.

SECTION PC 414
GARBAGE CAN WASHERS

414.1 Water connection. The water supply to a garbage can washer shall be protected against backflow by an air gap or a backflow preventer in accordance with Section 608.13.1, 608.13.2, 608.13.3, 608.13.5, 608.13.6 or 608.13.8.

414.2 Waste connection. Garbage can washers shall be trapped separately. The receptacle receiving the waste from the washer shall have a removable basket or strainer to prevent the discharge of large particles into the drainage system.

SECTION PC 415
LAUNDRY TRAYS

415.1 Approval. Laundry trays shall conform to ANSI Z124.6, ASME A112.19.1M, ASME A112.19.3M, ASME A112.19.9M, CSA B45.2 or CSA B45.4.

415.2 Waste outlet. Each compartment of a laundry tray shall be provided with a waste outlet a minimum of 1.5 inches (38 mm) in diameter and a strainer or crossbar to restrict the clear opening of the waste outlet.

SECTION PC 416
LAVATORIES

416.1 Approval. Lavatories shall conform to ANSI Z124.3, ASME A112.19.1M, ASME A112.19.2M, ASME A112.19.3M, ASME A112.19.9M, CSA B45.1, CSA B45.2, CSA B45.3 or CSA B45.4. Group wash-up equipment shall conform to the requirements of Section PC 402. Every 20 inches (508 mm) of rim space shall be considered as one lavatory.

416.2 Cultured marble lavatories. Cultured marble vanity tops with an integral lavatory shall conform to ANSI Z124.3 or CSA B45.5.

416.3 Lavatory waste outlets. Lavatories shall have waste outlets not less than 1.25 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.

416.4 Moveable lavatory systems. Moveable lavatory systems shall comply with ASME A112.19.12.

SECTION PC 417
SHOWERS

417.1 Approval. Prefabricated showers and shower compartments shall conform to ANSI Z124.2, ASME A112.19.9M or CSA B45.5. Shower valves for individual showers shall conform to the requirements of Section 424.3.

417.2 Water supply riser. Every water supply riser from the shower valve to the shower head outlet, whether exposed or not, shall be attached to the structure in an approved manner.

417.3 Shower waste outlet. Waste outlets serving showers shall be at least 2 inches (51 mm) in diameter and, for other than waste outlets in bathtubs, shall have removable strainers not less than 3 inches (76 mm) in diameter with strainer openings not less than 0.25 inch (6.4 mm) in minimum dimension. Where each shower space is not provided with an individual waste outlet, the waste outlet shall be located and the floor pitched so that waste from one shower does not flow over the
floor area serving another shower. Waste outlets shall be fastened to the waste pipe in an approved manner.

417.4 Shower compartments. All shower compartments shall have a minimum of 900 square inches (0.58 m²) of interior cross-sectional area. Shower compartments shall not be less than 30 inches (762 mm) in minimum dimension measured from the finished interior dimension of the compartment, exclusive of fixture valves, showerheads, soap dishes, and safety grab bars or rails. Except as required in Section PC 404, the minimum required area and dimension shall be measured from the finished interior dimension at a height equal to the top of the threshold and at a point tangent to its centerline and shall be continued to a height not less than 70 inches (1778 mm) above the shower drain outlet.

417.4.1 Wall area. The wall area above built-in tubs with installed shower heads and in shower compartments shall be constructed of smooth, noncorrosive and nonabsorbent waterproof materials to a height not less than 6 feet (1829 mm) above the room floor level, and not less than 70 inches (1778 mm) where measured from the compartment floor at the drain. Such walls shall form a water-tight joint with each other and with either the tub, receptor or shower floor.

417.5 Shower floors or receptors. Floor surfaces shall be constructed of impervious, noncorrosive, nonabsorbent and waterproof materials.

417.6 Glazing. Windows and doors within a shower enclosure shall conform to the safety glazing requirements of the New York City Building Code.

SECTION PC 418

418.1 Approval. Sinks shall conform to ANSI Z124.6, ASME A112.19.1M, ASME A112.19.2M, ASME A112.19.3M, ASME A112.19.4M, ASME A112.19.9M, CSA B45.1, CSA B45.2, CSA B45.3 or CSA B45.4.

418.2 Sink waste outlets. Sinks shall be provided with waste outlets a minimum of 2 inches (51 mm) in diameter. A strainer or crossbar shall be provided to restrict the clear opening of the waste outlet.

418.3 Moveable sink systems. Moveable sink systems shall comply with ASME A112.19.12.

SECTION PC 419

419.1 Approval. Urinals shall conform to ASME A112.19.2M, CSA B45.1 or CSA B45.5. Urinals shall conform to the water consumption requirements of Section 604.4. Urinals shall conform to the hydraulic performance requirements of ASME A112.19.6, CSA B45.1 or CSA B45.5.

419.2 Substitution for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 50 percent of the required water closets.

419.3 Surrounding materials. Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, nonabsorbent material.

SECTION PC 420


420.2 Water closets for public or employee toilet facilities. Water closet bowls for public or employee toilet facilities shall be of the elongated type.

420.3 Water closet seats. Water closets shall be equipped with seats of smooth, nonabsorbent material. All seats of water closets provided for public or employee toilet facilities shall be of the hinged open-front type. Integral water closet seats shall be of the same material as the fixture. Water closet seats shall be sized for the water closet bowl type.

420.4 Water closet connections. A 4-inch by 3-inch (102 mm by 76 mm) closet bend shall be acceptable. Where a 3-inch (76 mm) bend is utilized on water closets, a 4-inch by 3-inch (102 mm by 76 mm) flange shall be installed to receive the fixture horn.

420.5 Water closets for children’s use. In nurseries, schools, and similar places where plumbing fixtures are provided for the use of children under 6 years of age, such water closets shall be of a size and height suitable for the children’s use.

SECTION PC 421

421.1 Approval. Whirlpool bathtubs shall comply with ASME A112.19.7M or with CSA B45.5 and CSA B45 (Supplement I).

421.2 Installation. Whirlpool bathtubs shall be installed and tested in accordance with the manufacturer’s installation instructions. The pump shall be located above the weir of the fixture trap. Access shall be provided to the pump.

421.3 Drain. The pump drain and circulation piping shall be sloped to drain the water in the volute and the circulation piping when the whirlpool bathtub is empty.

421.4 Suction fittings. Suction fittings for whirlpool bathtubs shall comply with ASME A112.19.8M.

421.5 Whirlpool enclosure. Doors within a whirlpool enclosure shall conform to ASME A112.19.15.
SECTION PC 422
HEALTH CARE FIXTURES AND EQUIPMENT

422.1 Scope. This section shall govern those aspects of health care plumbing systems that differ from plumbing systems in other structures. Health care plumbing systems shall conform to the requirements of this section in addition to the other requirements of this code. The provisions of this section shall apply to the special devices and equipment installed and maintained in the following occupancies: nursing homes, homes for the aged, orphanages, infirmaries, first aid stations, psychiatric facilities, clinics, professional offices of dentists and doctors, mortuaries, educational facilities, surgery, dentistry, research and testing laboratories, establishments manufacturing pharmaceutical drugs and medicines, and other structures with similar apparatus and equipment classified as plumbing.

422.2 Approval. All special plumbing fixtures, equipment, devices and apparatus shall be of an approved type.

422.3 Protection. All devices, appurtenances, appliances and apparatus intended to serve some special function, such as sterilization, distillation, processing, cooling, or storage of ice or foods, and that connect to either the water supply or drainage system, shall be provided with protection against backflow, flooding, fouling, contamination of the water supply system and stoppage of the drain.

422.4 Materials. Fixtures designed for therapy, special cleansing or disposal of waste materials, combinations of such purposes, or any other special purpose, shall be of smooth, impervious, corrosion-resistant materials and, where subjected to temperatures in excess of 180°F (82°C), shall be capable of withstanding, without damage, higher temperatures.

422.5 Access. Access shall be provided to concealed piping in connection with special fixtures where such piping contains steam traps, valves, relief valves, check valves, vacuum breakers or other similar items that require periodic inspection, servicing, maintenance or repair. Access shall be provided to concealed piping that requires periodic inspection, maintenance or repair.

422.6 Clinical sink. A clinical sink shall have an integral trap in which the upper portion of a visible trap seal provides a water surface. The fixture shall be designed so as to permit complete removal of the contents by siphonic or blowout action and to reseat the trap. A flushing rim shall provide water to cleanse the interior surface. The fixture shall have the flushing and cleansing characteristics of a water closet.

422.7 Prohibited usage of clinical sinks and service sinks. A clinical sink serving a soiled utility room shall not be considered as a substitute for, or be utilized as, a service sink. A service sink shall not be utilized for the disposal of urine, fecal matter or other human waste.

422.8 Ice prohibited in soiled utility room. Machines for manufacturing ice, or any device for the handling or storage of ice, shall not be located in a soiled utility room.

422.9 Sterilizer equipment requirements. The approval and installation of all sterilizers shall conform to the requirements of the New York City Mechanical Code.

422.9.1 Sterilizer piping. Access for the purposes of inspection and maintenance shall be provided to all sterilizer piping and devices necessary for the operation of sterilizers.

422.9.2 Steam supply. Steam supplies to sterilizers, including those connected by pipes from overhead mains or branches, shall be drained to prevent any moisture from reaching the sterilizer. The condensate drainage from the steam supply shall be discharged by gravity.

422.9.3 Steam condensate return. Steam condensate returns from sterilizers shall be a gravity return system.

422.9.4 Condensers. Pressure sterilizers shall be equipped with a means of condensing and cooling the exhaust steam vapors. Nonpressure sterilizers shall be equipped with a device that will automatically control the vapor, confining the vapors within the vessel.

422.10 Special elevations. Control valves, vacuum outlets and devices protruding from a wall of an operating, emergency, recovery, examining or delivery room, or in a corridor or other location where patients are transported on a wheeled stretcher, shall be located at an elevation that prevents bumping the patient or stretcher against the device.

SECTION PC 423
SPECIALTY PLUMBING FIXTURES

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 PC 608.

423.2 Approval. Specialties requiring water and waste connections shall be submitted for approval.

SECTION PC 424
FAUCETS AND OTHER FIXTURE FITTINGS

424.1 Approval. Faucets and fixture fittings shall conform to ASME A112.18.1 or CSA B125. Faucets and fixture fittings that supply drinking water for human ingestion shall conform to the requirements of NSF 61, section 9. Flexible water connectors exposed to continuous pressure shall conform to the requirements of Section 605.6.

424.1.1 Faucets and supply fittings. Faucets and supply fittings shall conform to the water consumption requirements of Section 604.4.

424.1.2 Waste fittings. Waste fittings shall conform to one of the standards listed in Tables 702.1 and 702.4 for above-ground drainage and vent pipe and fittings, or the waste fittings shall be constructed of tubular stainless steel with a minimum wall thickness of 0.012 inch (0.30 mm), tubular copper alloy having a minimum wall thickness of 0.027 inch (0.69 mm) or tubular plastic complying with ASTM F 409.

424.2 Hand showers. Hand-held showers shall conform to ASSE 1014 or CSA B125.
424.3 Shower and tub valves. Shower, tub and shower-tub combination valves shall be balanced pressure, thermostatic or combination balanced-pressure/thermostatic valves that conform to the requirements of ASSE 1016 or CSA B125. Multiple (gang) showers supplied with a single tempered water supply pipe shall have the water supply for such showers controlled by a master thermostatic mixing valve complying with ASSE 1017. Shower, tub and shower-tub combination valves and master thermostatic mixing 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.

424.4 Hose-connected outlets. Faucets and fixture fittings with hose-connected outlets shall conform to ASME A112.18.3M.

424.5 Temperature-actuated, flow reduction valves for individual fixture fittings. Temperature-actuated, flow reduction devices, where installed for individual fixture fittings, shall conform to ASSE 1062. Such valves shall not be used alone as a substitute for the balanced pressure, thermostatic or combination shower valves required in Section 424.3.

424.6 Transfer valves. Deck-mounted bath/shower transfer valves containing an integral atmospheric vacuum breaker shall conform to the requirements of ASME A112.18.7.

SECTION PC 425
FLUSHING DEVICES FOR WATER CLOSETS AND URINALS

425.1 Flushing devices required. Each water closet, urinal, clinical sink and any plumbing fixture that depends on trap siphonage to discharge the fixture contents to the drainage system shall be provided with a flushometer valve, flushometer tank or a flush tank designed and installed to supply water in quantity and rate of flow to flush the contents of the fixture, cleanse the fixture and refill the fixture trap.

425.1.1 Separate for each fixture. A flushing device shall not serve more than one fixture.

425.2 Flushometer valves and tanks. Flushometer valves and tanks shall comply with ASSE 1037. Vacuum breakers on flushometer valves shall conform to the performance requirements of ASSE 1001 or CAN/CSA-B64.1.1. Access shall be provided to vacuum breakers. Flushometer valves shall be of the water-conservation type and shall not be utilized where the water pressure is lower than the minimum required for normal operation. When operated, the valve shall automatically complete the cycle of operation, opening fully and closing positively under the water supply pressure. Each flushometer valve shall be provided with a means for regulating the flow through the valve. The trap seal to the fixture shall be automatically refilled after each valve flushing cycle.

425.3 Flush tanks. Flush tanks shall be of nonferrous material and shall conform to ASME A112.19.5 or CSA B125.

SECTION PC 426
MANUAL FOOD AND BEVERAGE DISPENSING EQUIPMENT

426.1 Approval. Manual food and beverage dispensing equipment shall conform to the requirements of NSF 18.

SECTION PC 427
FLOOR SINKS

427.1 Approval. Sanitary floor sinks shall conform to the requirements of ASME A112.6.7.