

## PLUMBING FIXTURES IN TOILET ROOMS AND HOUSE SERVICE CLOSETS

### 1. GENERAL

1.01 This section outlines the plumbing fixtures which are generally considered good practice for toilet rooms and house service closets in telephone buildings. Variations from the recommendations may be expected to occur in some cases due to special conditions such as local laws and regulations and varying costs and these, of course, will require individual consideration. It is expected that the same general type of fixtures will be used throughout a building regardless of the capacities of the different toilet rooms.

1.02 This section is reissued to reflect current changes in plumbing fixtures for toilet rooms.

1.03 Arrows are used to indicate changes in the text.

### 2. TOILET ROOMS WITH TWO OR MORE WATER CLOSETS

#### Water Closets

2.01 Water closets for larger buildings should be vitreous china of either the elongated wall-hung or floor type. Wall-type closets are preferred for large buildings because they afford clear floor space for cleaning, and the piping may be placed above the floor in an adjacent pipe corridor, thereby avoiding the need for raised floors or exposed piping on the ceiling below. In general, wall closets require higher water operating pressures than floor closets. The proper carrier should be used for the wall-hung water closet to prevent accidental falling of fixture.

Siphon jet closets should be used where the water pressures are 30 pounds or less, and blow-out type closets where pressures are above 30 pounds, and ample volume is assured. Fifteen-pound pressure is considered minimum for wall-hung siphon jet closets, and where pressures are below 15 pounds or where building con-

ditions do not permit the use of wall-hung closets, floor-type siphon jet closets should be used.

The recommending of the siphon jets and blow-out types of plumbing does not preclude the use of other systems that lend themselves to a particular location such as a small CDO or where water pressure is not adequate for a pressure installation.

2.02 Where the toilet room fixture layout requires a double row of wall-hung blow-out type closets mounted back to back on opposite sides of a pipe corridor, the soil piping should be provided with double long-turn drainage fittings so arranged as to prevent the discharge of a flushed closet from flooding the bowl of the closet directly opposite. When the blow-out type of fixture is planned, the noise factor should be considered.

2.03 When the plumbing fixture layout is being planned, consideration should be given to routing the pipe lines and locating cleanouts in a manner to make them accessible for repairs and maintenance.

2.04 It is recommended that the lateral supply piping be so designed to allow for the isolation of each washroom in the event of an emergency. It is also recommended that the valves in the supply lines be easily accessible and readily identified. A piping schematic placed in a conspicuous area showing the location of valves and piping would assist in an emergency. A review of Section 760-510-150 Piping Identification might be helpful.

#### Seats

2.05 Water closets should be equipped with white, open-front seats without covers of nonflammable composition. The use of self-sustaining hinges allows the seat to be lowered manually, remaining in any position placed without falling free, a common cause of damage.

↗ The seat should remain tight on the bowl in correct alignment. The use of self-sustaining hinges prevents the possibility of slamming the seat against the tank or wall and eliminates the need of check hinges. The seat should have integral bumpers and the hinges should be non-flammable white plastic covered. The design of the seat should conform to the design of ↘ the bowl, regular or elongated.

**Urinals**

2.06 Urinals should be half-stall vitreous china with extended shields, wall-hung with flushing rims and with either blow-out or jet action traps. Traps should have exposed water seal with outlets entirely submerged when the fixtures are not being flushed. Where urinals are mounted back to back on opposite sides of a partition, special drainage fittings as outlined under Paragraph 2.02 should be provided. Preference for this type urinal over floor types is indicated by its improved piping arrangements, ease of cleaning, avoidance of odors and lower cost.

**Wash Basins**

2.07 Wash basins should be vitreous china with integral back and wall-hung without legs. Hooded overflows, pedestal or leg supports and fixtures without backs are not recommended from standpoints of house service economy. Where basins are mounted in front of a window so that integral backs would affect the uniform window arrangement, backless bracketed basins set about three inches from the wall should be provided.

**3. TOILET ROOMS WITH ONE WATER CLOSET**

**Water Closets**

3.01 Water closets should usually be of the elongated, vitreous china, siphon jet, floor type.

3.02 *Seats:* Water closets should be equipped with seats as outlined in Paragraph 2.05 of this section.

**Wash Basins**

3.03 Wash basins should be designed as outlined in Paragraph 2.07 of this section.

**4. SERVICE SINKS**

↗ 4.01 Service sinks should be located in house service closets except perhaps in basement areas, and should be of acid-resistant enameled iron with integral back. Locating service sinks in toilet rooms should generally be avoided. Porcelain service sinks should not be used because they can not be maintained in sanitary condition due to cracks and flakes in the glaze.

4.02 Mop truck sinks where used should be of vitreous china, installed adjacent to a service sink and so located as to avoid interference when filling the truck. These sinks should be installed in all buildings where mop trucks are to be used. Generally, trucks are desirable only in buildings having elevators, and only where there is an area of 10,000 square feet, or greater, requiring routine mopping. Each building should be individually studied to determine number and location of mop truck sinks. Where service sinks are considered necessary, they should be of low level design to ease ↘ the emptying of the mop truck.

**5. FITTINGS**

↗ 5.01 Exposed fittings for all fixtures should be of brass, chromium-plated, or stainless steel.

5.02 Wherever water pressure is over 15 pounds and ample volume is assured, water closets and urinals should be equipped with flush valves. If the pressure is less than 15 pounds, flush tanks should generally be installed, although some flush valves will operate at lower pressures and may be provided, if available. Flush valves for water closets and urinals should be provided with vacuum breakers.

5.03 Wash basin faucets for larger buildings should be either the compression combination type or the self-metering type, each having metal handles or buttons (porcelain not recommended) indexed for hot and cold water.

The advantages claimed for the compression combination faucet are:

- (1) The user is enabled to wash in running water of desired temperature and pressure.
- (2) The basin remains cleaner.

- (3) It is less costly than a pair of self-closing faucets.
- (4) Maintenance costs are lower.
- (5) It affords practical use of a spray head on the spout, or nonsplash created nozzle.
- (6) A compression fitting uses more water.

The advantages claimed for the self-closing faucet are:

- (1) Probable reduction of water consumption.
- (2) Reduction of the hazard of overflow flooding.

Stoppers should be generally omitted where the combination faucet is used, although the provision of stoppers for one or more basins in a group would afford the occasional opportunity of more thorough washing.

Where self-closing faucets are used, the provision of stoppers or lift-wastes appears desirable. Lift-waste plugs should be readily removable to facilitate the clearing of stoppages.

**5.04** Service sink faucets should be of the stationary hook-type spout with vacuum breaker and support bracket. The spout should have 5/8" hose bib thread, thus permitting the

use of a 3' length of hose to fill pails and mop trucks. The front rims and both sides of service sinks should be equipped with a metal guard.

**5.05** Every fixture should be provided with separate shut-off valves in each water supply.

**5.06** Metal handles are recommended for new installations of faucets and valves. Porcelain or china handles are subject to breakage with resultant injury to the hands. To reduce this hazard, in the case of existing vitreous handles, the faucets, valves and their washers should be well maintained so that forcing the handles to stop water leakage is unnecessary. When replacement of vitreous handles is necessary, metal handles should be used.

## 6. ANTISIPHON DEVICES

**6.01** Precautions should be taken to avoid cross-connections between piping carrying potable water and piping or fixtures containing nonpotable water.

Proper air gaps and backflow preventers to guard against the contamination of drinking water are covered by current recommendations of the American Standards Association.