

WVU DESIGN GUIDELINES & CONSTRUCTION STANDARDS

DIVISION 22 – PLUMBING

SECTION 224000 - PLUMBING FIXTURES

PART 1 - GENERAL

- 1.1 Any deviance from the following instructions must be approved during design by WVU Facilities Management.
- 1.2 Ball valves shall be installed at each fixture.
- 1.3 Hydro-pneumatic water hammer arresters shall be installed on any piping where flush valves or any quick-acting automatic valves are used.

PART 2 - PRODUCTS

2.1. Floor Drains

- A. Install floor drains in custodial rooms, laundry rooms, mechanical rooms, restrooms and other rooms with similar uses.
- B. In mechanical rooms, laundries, terraces and similar locations shall have perforated sediment bucket with integral auxiliary drainage rim so designed that grate cannot be set in place until bucket is in position. Drains shall have a minimum 2" outlet.
- C. All floor drains shall be fitted with a trap guard instead of a trap primer.

2.2. Water Closets

- A. Toilets shall be wall hung, white, vitreous china, elongated bowl, siphon jet action, with a 1.5" top spud.
- B. Toilet seats shall be open front, no cover, white, with concealed stainless steel check hinge.
- C. On new construction, pressure assisted water closets are not allowed. They may only be used when replacing older tank style units.
- D. Flush valves shall be hard-wired sensor activated, side mounted, and not exceed 1.6 gallons/flush. Valves shall have a manual mechanical override.
- E. Allowable flushometer brands: Sloan, Zurn and Delaney.

2.3. Urinals

- A. Urinals shall be wall hung, white, vitreous china, 0.75" top spud, with 2" outlet and operate at 0.125 gallons per flush.
- B. Urinals shall flush by sensor activated, hard-wired flushometer rated at 0.125 gpf.
- C. No waterless urinals will be used or considered.
- D. Allowable flushometer brands: Sloan, Zurn and Delaney.

2.4. Lavatories

- A. Lavatories shall be wall hung, white, vitreous china, institutional style with concealed hangers.
- B. Supply and drain lines should come from the wall and not the floor to allow for easier cleaning.
- C. Faucets in dormitory restrooms shall be two handle manually operated.
- D. Faucets in public restrooms shall be: Sloan or Speakman. The faucets are electronic sensor activated powered by either a solar cell with a 6VDC battery back-up or A/C hardwired. Aerator shall be 0.5 gpm.

2.5. Hose Bibs

- A. Wall hydrants shall be encased with a lockable door and a vacuum breaker. One non-freeze hydrant shall be located adjacent to all building entrances or at least one on each of the four exterior walls.
- B. At least one hydrant shall be provided in all restrooms and mechanical areas.

2.6. Showers

- A. Shower heads shall be institutional level of build, chrome plated, pressure compensating, adjustable spray and 100% brass. They shall flow 2.0 gpm maximum.
- B. Shower controls shall be thermostatic temperature controlled to prevent scalding. Controls shall be chrome plated with one handle for volume and another for temperature.
- C. Only allowable shower control brands: Grohe, Speakman, Moen and Symmons.

2.7. Mop Service Basin

- A. Basins shall be plastic. Size: minimum 24" x 24" with 10" high shoulders and a 3 inch drain connection.
- B. Basin fittings shall have a bucket hook, wall brace, threaded hose connection, chrome plated, vacuum breaker, and 100% brass.

PART 3 - EXECUTION

3.1. N/A

END OF SECTION 224000