

SECTION 224000 - PLUMBING FIXTURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Water closets.
 - 2. Lavatories.

1.2 REFERENCES

- A. American National Standards Institute:
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
- B. Air-Conditioning and Refrigeration Institute:
 - 1. ARI 1010 - Self-Contained, Mechanically Refrigerated Drinking-Water Coolers.
- C. American Society of Mechanical Engineers:
 - 1. ASME A112.6.1 - Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use.
 - 2. ASME A112.18.1 - Plumbing Fixture Fittings.
 - 3. ASME A112.19.2M - Vitreous China Plumbing Fixtures.
 - 4. ASME A112.19.3 - Stainless Steel Plumbing Fixtures (Designed for Residential Use).
 - 5. ASME A112.19.5 - Trim for Water-Closet Bowls, Tanks and Urinals.

1.3 SUBMITTALS

- A. Product Data: Submit catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
- B. Manufacturer's Installation Instructions: Submit installation methods and procedures.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit fixture, trim, exploded view and replacement parts lists.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with State of Illinois Plumbing Code.
- B. Provide products requiring electrical connections listed and classified by Underwriters Laboratories Inc., as suitable for purpose specified and indicated.
- C. Provide plumbing fixture fittings in accordance with ASME A112.18.1 that prevent backflow from fixture into water distribution system.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Accept fixtures on site in factory packaging. Inspect for damage.
- B. Protect installed fixtures from damage by securing areas and by leaving factory packaging in place to protect fixtures and prevent use.

PART 2 PRODUCTS

2.1 FLUSH VALVE WATER CLOSETS

A. Manufacturers:

- 1. Bowl:
 - a. American Standard
 - b. Kohler Co
 - c. Zurn
 - d. Crane.
 - e. Sloan.
- 2. Flush Valve:
 - a. American Standard
 - b. Kohler Co.
 - c. Sloan
 - d. Zurn
- 3. Carrier:
 - a. Zurn.
 - b. Jay R. Smith.
 - c. Josam.
 - d. Wade.

- B. Bowl (WC-1): ASME A112.19.2M, EPA Watersense Listed in combination with flush valve; wall hung, siphon jet vitreous china closet bowl, with elongated rim, 1-1/2" top spud, static load rated for 750 lbs.
- C. Manual Operated Flush Valve: ASME A112.19.2, EPA Watersense Listed; exposed chrome plated brass, diaphragm type with manual flush valve, screwdriver stop and vacuum breaker; maximum 1.1 gallon flush volume.
- D. Seat: Solid white plastic, open front, extended back, self-sustaining hinge, brass bolts, without cover.
- E. Wall Mounted Carrier: ASME A112.6.1; adjustable cast iron frame, integral drain hub and vent, adjustable spud, lugs for floor and wall attachment, threaded fixture studs with nuts and washers. See plans for locations requiring back-to-back carriers, or carriers with 2" auxiliary inlets.

2.2 LAVATORIES

- A. See architectural specifications for counter types.
- B. Manufacturers:

1. American Standard Plumbing.
 2. Kohler Co.
 3. Zurn.
- C. Vitreous China Undermount Basin (LAV-1): ASME A112.19.2M; vitreous china, unglazed rim for under counter mount with front overflow. 17 X 14 inches with drillings on 4 inch centers. Verify exact size with architectural drawings.
- D. Supply Fitting: ASME A112.18.1; chrome plated combination supply fitting with open grid strainer, water economy vandal resistant pressure compensating aerator with maximum 1.5 gpm flow, single lever handle, cast brass chrome plated cover plate with 4” centers.
- E. Waste Fittings: ASME A112.18.2 or ASTM F 409.
- F. For all hand washing facilities, provide tempered water through regulating device conforming to ASSE 1070.
- G. Accessories:
1. Chrome plated 17 gage brass P-trap with clean-out plug and arm with escutcheon.
 2. Offset waste with perforated open strainer.
 3. Wheel-handle stops.
 4. Supplies.
 5. Trap and waste insulated and offset to meet ADA compliance.

2.3 LAVATORY INSULATION KIT

- A. Product Description: Where Lavatories are noted to be insulated for ADA compliance, furnish the following: Safety Covers conforming to ANSI A177.1 and consisting of insulation kit of molded closed cell vinyl construction, 3/16 inch thick, White color, for insulating tailpiece, P-trap, valves, and supply piping. Furnish with weep hole and angle valve access covers.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify walls and floor finishes are prepared and ready for installation of fixtures.
- B. Coordinate the installation of electric power is available and of correct characteristics.
- C. Confirm millwork is constructed with adequate provision for installation of counter top lavatories and sinks.

3.2 PREPARATION

- A. Rough-in fixture piping connections in accordance with minimum sizes indicated in fixture rough-in schedule for particular fixtures.

3.3 INSTALLATION

- A. Install each fixture with trap, easily removable for servicing and cleaning.
- B. Provide chrome plated rigid or flexible supplies to fixtures with screwdriver stops, reducers, and escutcheons.
- C. Install components level and plumb.
- D. Install and secure fixtures in place with wall carriers and bolts.
- E. Seal fixtures to wall and floor surfaces with sealant, color to match fixture.
- F. Solidly attach water closets to floor with lag screws. Lead flashing is not intended hold fixture in place.
- G. For ADA accessible water closets, provide fixture with flush valve with handle to wide side of stall.

3.4 INTERFACE WITH OTHER PRODUCTS

- A. Review millwork shop-drawings. Confirm location and size of fixtures and openings before rough in and installation.

3.5 ADJUSTING

- A. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.

3.6 CLEANING

- A. Clean plumbing fixtures and equipment.

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Do not permit use of fixtures before final acceptance.

END OF SECTION