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## SECTION 224216.13 - COMMERCIAL LAVATORIES

### **Access Product MasterSpec Sections:**

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## PART 1 - GENERAL

### 1.1 SUMMARY

#### A. Section Includes:

1. Lavatories.
2. Shampoo bowls.
3. Faucets.
4. Supply fittings.
5. Waste fittings.
6. Supports.

### 1.2 ACTION SUBMITTALS

#### A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for lavatories.
2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

- B. Sustainable Design Submittals:
  - 1. Product Data: For water consumption.
- C. Shop Drawings: Include diagrams for power, signal, and control wiring of automatic faucets.

### 1.3 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Counter cutout templates for mounting of counter-mounted lavatories.

### 1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For lavatories and faucets to include in operation and maintenance manuals.
  - 1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
    - a. Servicing and adjustments of automatic faucets.

### 1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Faucet Washers and O-Rings: Equal to [10] <Insert number> percent of amount of each type and size installed.
  - 2. Faucet Cartridges and O-Rings: Equal to [5] <Insert number> percent of amount of each type and size installed.

## PART 2 - PRODUCTS

### ENAMELED, CAST-IRON, COUNTER-MOUNTED LAVATORIES

- A. Lavatory <Insert drawing designation>: Rectangular, flat rim, enameled, cast iron, flush counter mounted.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Commercial Enameling Company.
    - b. Kohler Co.
    - c. <Insert manufacturer's name>.
  - 2. Fixture:
    - a. Standard: ASME A112.19.1/CSA B45.2.

- b. Type: For flush mounting with kit.
  - c. Nominal Size: Rectangular, [**18 by 15 inches (457 by 381 mm)**] [**20 by 18 inches (508 by 457 mm)**].
  - d. Faucet-Hole Punching: [**Three holes, 2 inch (51 mm)**] [**Three holes, 4 inch (102 mm)**] centers.
  - e. Faucet-Hole Location: Top.
  - f. Color: [**White**] <Insert color>.
  - g. Mounting Materials: With stainless steel ring, and sealant.
3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.
- B. Lavatory <Insert drawing designation>: Oval, self-rimming, enameled, cast iron, counter mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Kohler Co.
    - b. Zurn Industries, LLC.
    - c. <Insert manufacturer's name>.
  2. Fixture:
    - a. Standard: ASME A112.19.1/CSA B45.2.
    - b. Type: Self-rimming for above-counter mounting.
    - c. Nominal Size: Oval, [**20 by 17 inches (508 by 432 mm)**] [**24 by 18 inches (610 by 457 mm)**] <Insert dimensions>.
    - d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2 inch (51 mm) centers**] [**Three holes, 4 inch (102 mm) centers**].
    - e. Faucet-Hole Location: Top.
    - f. Color: [**White**] <Insert color>.
    - g. Mounting Material: Sealant.
  3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.
- C. Lavatory <Insert drawing designation>: Oval, enameled, cast iron, undercounter mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by the following:
    - a. Kohler Co.
    - b. <Insert manufacturer's name>.
  2. Fixture:
    - a. Standard: ASME A112.19.1/CSA B45.2.
    - b. Type: For undercounter mounting.
    - c. Nominal Size: Oval, [**24 by 18 inches (610 by 457 mm)**] <Insert dimensions>.

- d. Faucet-Hole Punching: No holes.
  - e. Faucet-Hole Location: On countertop.
  - f. Color: [White] <Insert color>.
  - g. Mounting Materials: Sealant and undercounter mounting kit.
3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.

## 2.2 VITREOUS-CHINA, COUNTER-MOUNTED LAVATORIES

- A. Lavatory <Insert drawing designation>: Rectangular, self-rimming, vitreous china, counter mounted.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. Gerber Plumbing Fixtures LLC.
    - c. Kohler Co.
    - d. Mansfield Plumbing Products LLC.
    - e. TOTO USA, INC.
    - f. <Insert manufacturer's name>.
  2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: Self-rimming for above-counter mounting.
    - c. Nominal Size: Rectangular, [21 by 19 inches (533 by 483 mm)] [24 by 20 inches (610 by 508 mm)] <Insert dimensions>.
    - d. Faucet-Hole Punching: [One hole] [Three holes, 2 inch (51 mm) centers] [Three holes, 4 inch (102 mm) centers].
    - e. Faucet-Hole Location: Top.
    - f. Color: [White] <Insert color>.
    - g. Mounting Material: Sealant.
  3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.
- B. Lavatory <Insert drawing designation>: [Oval] [Round], self-rimming, vitreous china, counter mounted.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. Briggs Plumbing Products, Inc.
    - c. Crane Plumbing, L.L.C.
    - d. FNW; Ferguson Enterprises, Inc.
    - e. Gerber Plumbing Fixtures LLC.

- f. Kohler Co.
  - g. Mansfield Plumbing Products LLC.
  - h. Peerless Pottery Sales, Inc.
  - i. TOTO USA, INC.
  - j. Zurn Industries, LLC.
  - k. **<Insert manufacturer's name>**.
2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: Self-rimming for above-counter mounting.
    - c. Nominal Size: Oval, [**19 by 17 inches (483 by 432 mm)**] [**20 by 17 inches (508 by 432 mm)**] **<Insert dimensions>**.
    - d. Nominal Size: Round, [**19 inches (483 mm)**] **<Insert dimension>**.
    - e. Faucet-Hole Punching: [**One hole**] [**Three holes, 2 inch (51 mm) centers**] [**Three holes, 4 inch (102 mm) centers**].
    - f. Faucet-Hole Location: Top.
    - g. Color: [**White**] **<Insert color>**.
    - h. Mounting Material: Sealant.
  3. Faucet: **<Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>**.
- C. Lavatory **<Insert drawing designation>**: Oval, vitreous china, undercounter mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. Gerber Plumbing Fixtures LLC.
    - c. Kohler Co.
    - d. Mansfield Plumbing Products LLC.
    - e. Peerless Pottery Sales, Inc.
    - f. Sloan Valve Company.
    - g. TOTO USA, INC.
    - h. Zurn Industries, LLC.
    - i. **<Insert manufacturer's name>**.
  2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: For undercounter mounting.
    - c. Nominal Size: Oval, [**19 by 16 inches (483 by 406 mm)**] [**22 by 14 inches (559 by 356 mm)**] [**23 by 15 inches (584 by 381 mm)**] **<Insert dimensions>**.
    - d. Faucet-Hole Punching: No holes.
    - e. Faucet-Hole Location: On countertop.
    - f. Color: [**White**] **<Insert color>**.
    - g. Mounting Material: Sealant and undercounter mounting kit.

3. Faucet: **<Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>**.

## 2.3 STAINLESS STEEL, WALL-MOUNTED LAVATORIES

### A. Lavatory **<Insert drawing designation>**: Stainless steel, wall mounted.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Acorn Engineering; Morris Group International; Dura-Ware model [1950] [1950LC] [1951] [1951LC] [1953] [1953LC] [1955] **<Insert product name or designation>** or comparable by one of the following:
  - a. Metcraft Industries, Inc.
  - b. Willoughby Industries.
  - c. **<Insert manufacturer's name>**.
2. Fixture:
  - a. Applicable Standards:
    - 1) ASME A112.19.1/CSA B45.2.
    - 2) ICC A117.1.
    - 3) NSF/ANSI 61, NSF/ANSI 372.
  - b. Material: [16 gauge] [18 gauge] thickness, Type 304 stainless steel.
  - c. Finish: [No. 4 satin] [Powder-coated] finish on exposed surfaces **<Insert color from manufacturer's color chart>**.
  - d. Receptor: Provide manufacturer's standard unit shape and configuration for each model number furnished. Provide units with integral soap depression and integral backsplash.
  - e. Hot- and Cold-Water Supply Valves:
    - 1) Type: [Pneumatic, nonmetering] [Pneumatic, metering] [Pneumatic, nonmetering on hot water side only] [Electronic] type **<Insert designation>**, with push-button actuation and individual check stops complying with ASME A112.18.1/CSA B125.1. [Fixture punched for valve furnished separately.]
    - 2) Temperature: [Single] [Separate hot and cold] temperature.
  - f. Valve Water Outlet:
    - 1) Deck-mounted spout.
    - 2) Centerset faucet with gooseneck spout and wrist blade handles.
    - 3) Centerset faucet with spout.
  - g. Drain: 1-1/2 inch (38 mm) punching.
  - h. Waste Connection: [Grid strainer with close elbow] [Grid strainer with 1-1/2 inch (38 mm) OD tailpiece] [Tubular P-trap with 1-1/2 inch (38 mm) OD plain-end] **<Insert type>**.

## 3. Accessories:

- a. Angle braces.
- b. Brass valve body.
- c. 14 gauge housing.
- d. Integral shelf.
- e. Lavatory overflow.
- f. Elbow enclosure.
- g. Integral Transformer: 120 V ac to 24 V ac.

## 4. Mounting:

- a. Wall-Mounted: Installed from fixture side to reinforced wall with backing to match manufacturers mounting locations.
- b. Carrier Support: [**Lavatory carrier**] <Insert carrier> with fixture support arms, fixture bolts and hardware matching fixture. [**Include rectangular, steel uprights.**]

## 2.4 ENAMELED, CAST-IRON, WALL-MOUNTED LAVATORIES

## A. Lavatory &lt;Insert drawing designation&gt;: Rectangular, enameled, cast iron, wall mounted.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. American Standard.
  - b. Kohler Co.
  - c. Zurn Industries, LLC.
  - d. <Insert manufacturer's name>.
2. Fixture:
  - a. Standard: ASME A112.19.1/CSA B45.2.
  - b. Type: Straight-front apron with straight back.
  - c. Nominal Size: Rectangular, [**19 by 17 inches (483 by 432 mm)**] [**20 by 18 inches (508 by 457 mm)**].
  - d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2 inch (51 mm) centers**] [**Three holes, 4 inch (102 mm) centers**].
  - e. Faucet-Hole Location: Top.
  - f. Color: [**White**] <Insert color>.
  - g. Mounting Material: Wall bracket.
3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.
4. Support: [**Type III lavatory carrier.**] [**Include rectangular, steel uprights.**] <Insert carrier>.
5. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].

- B. Lavatory <Insert drawing designation>: Corner, enameled, cast iron, wall mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by the following:
    - a. Kohler Co.
    - b. <Insert manufacturer's name>.
  2. Fixture:
    - a. Standard: ASME A112.19.1/CSA B45.2.
    - b. Type: Three-sided-front apron with three-sided back.
    - c. Nominal Size: Corner, **11 by 11 inches (279 by 279 mm)**.
    - d. Faucet-Hole Punching: Three holes, **2 inch (51 mm)** centers.
    - e. Faucet-Hole Location: Top.
    - f. Color: [**White**] <Insert color>.
    - g. Mounting Material: Wall brackets.
  3. Faucet: Manufacturer's standard; factory installed.
  4. Support: Type III lavatory carrier with two hanger plates made for corner lavatories. [**Include rectangular, steel uprights.**] <Insert carrier>.
  5. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].

## 2.5 VITREOUS-CHINA, WALL-MOUNTED LAVATORIES

- A. Lavatory <Insert drawing designation>: Vitreous china, wall mounted, with back.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. Briggs Plumbing Products, Inc.
    - c. Gerber Plumbing Fixtures LLC.
    - d. Kohler Co.
    - e. Mansfield Plumbing Products LLC.
    - f. Peerless Pottery Sales, Inc.
    - g. Sloan Valve Company.
    - h. Zurn Industries, LLC.
    - i. <Insert manufacturer's name>.
  2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: For wall hanging.
    - c. Nominal Size: Oval, [**19 by 16 inches (483 by 406 mm)**] [**22 by 14 inches (559 by 356 mm)**] [**23 by 15 inches (584 by 381 mm)**] <Insert dimensions>.
    - d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2 inch (51 mm) centers**] [**Three holes, 4 inch (102 mm) centers**].

- e. Faucet-Hole Location: Top.
  - f. Color: [White] <Insert color>.
  - g. Mounting Material: Chair carrier.
3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.
  4. Support: [Type I, exposed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier with escutcheons].[ Include rectangular, steel uprights.]
  5. Lavatory Mounting Height: [Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].
- B. Lavatory <Insert drawing designation>: Ledge back, vitreous china, wall mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. Briggs Plumbing Products, Inc.
    - c. Gerber Plumbing Fixtures LLC.
    - d. Kohler Co.
    - e. Mansfield Plumbing Products LLC.
    - f. Peerless Pottery Sales, Inc.
    - g. Sloan Valve Company.
    - h. <Insert manufacturer's name>.
  2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: For wall hanging.
    - c. Nominal Size: Oval, [19 by 16 inches (483 by 406 mm)] [22 by 14 inches (559 by 356 mm)] [23 by 15 inches (584 by 381 mm)] <Insert dimensions>.
    - d. Faucet-Hole Punching: [One hole] [Three holes, 2 inch (51 mm) centers] [Three holes, 4 inch (102 mm) centers].
    - e. Faucet-Hole Location: Top.
    - f. Color: [White] <Insert color>.
    - g. Mounting Material: Chair carrier.
  3. Faucet: <Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>.
  4. Support: [Type I, exposed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier with escutcheons].[ Include rectangular, steel uprights.] <Insert carrier>.
  5. Lavatory Mounting Height: [Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].
- C. Lavatory <Insert drawing designation>: Slab type, vitreous china, wall mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. American Standard.
  - b. Gerber Plumbing Fixtures LLC.
  - c. Kohler Co.
  - d. Zurn Industries, LLC.
  - e. **<Insert manufacturer's name>**.
2. Fixture:
- a. Standard: ASME A112.19.2/CSA B45.1.
  - b. Type: For wall hanging.
  - c. Nominal Size: Oval, [**19 by 16 inches (483 by 406 mm)**] [**22 by 14 inches (559 by 356 mm)**] [**23 by 15 inches (584 by 381 mm)**] **<Insert dimensions>**.
  - d. Faucet-Hole Punching: [**One hole**] [**Three holes, 2 inch (51 mm) centers**] [**Three holes, 4 inch (102 mm) centers**].
  - e. Faucet-Hole Location: Top.
  - f. Color: [**White**] **<Insert color>**.
  - g. Mounting Material: Chair carrier.
3. Faucet: **<Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>**.
4. Support: [**Type I, exposed-arm lavatory carrier**] [**Type II, concealed-arm lavatory carrier**] [**Type II, concealed-arm lavatory carrier with escutcheons**]. [**Include rectangular, steel uprights**]. **<Insert carrier>**.
5. Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].
- D. Lavatory **<Insert drawing designation>**: Wheelchair, vitreous china, wall mounted.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. Gerber Plumbing Fixtures LLC.
    - c. Kohler Co.
    - d. Mansfield Plumbing Products LLC.
    - e. Peerless Pottery Sales, Inc.
    - f. Sloan Valve Company.
    - g. Zurn Industries, LLC.
    - h. **<Insert manufacturer's name>**.
  2. Fixture:
    - a. Standard: ASME A112.19.2/CSA B45.1.
    - b. Type: Slab or wheelchair.
    - c. Nominal Size: Rectangular, **27 by 20 inches (686 by 508 mm)**.
    - d. Faucet-Hole Punching: Three holes, [**2 inch (51 mm)**] **<Insert dimension>** centers.
    - e. Faucet-Hole Location: Top.
    - f. Color: [**White**] **<Insert color>**.
    - g. Mounting: For concealed-arm carrier.

3. Faucet: **<Insert lavatory faucet designation from "Solid-Brass, Manually Operated Faucets" or "Solid-Brass, Automatically Operated Lavatory Faucets" Article>**.
4. Support: **[Type II, concealed-arm lavatory carrier] [Type II, concealed-arm lavatory carrier with escutcheons]. [ Include rectangular, steel uprights.]**
5. Lavatory Mounting Height: **[Child] [Handicapped/elderly in accordance with ICC A117.1].**

E. Lavatory **<Insert drawing designation>**: Corner type, vitreous china, wall mounted.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - a. American Standard.
  - b. **<Insert manufacturer's name>**.
2. Fixture:
  - a. Standard: ASME A112.19.2/CSA B45.1.
  - b. Type: Three-sided-front apron with three-sided back.
  - c. Nominal Size: Corner, **16 by 16 inches (406 by 406 mm)**.
  - d. Faucet-Hole Punching: Three holes, **2-inch (51-mm)** centers.
  - e. Faucet-Hole Location: Back wall.
  - f. Color: **[White] <Insert color>**.
  - g. Mounting Materials: Wall brackets.
3. Faucet: Manufacturer's standard; solid brass; factory installed.
4. Support: **[Type III lavatory carrier with two hanger plates made for corner lavatories]. [ Include rectangular, steel uprights.] <Insert carrier>**.
5. Lavatory Mounting Height: **[Standard] [Child] [Handicapped/elderly in accordance with ICC A117.1].**

## 2.6 SHAMPOO BOWLS

A. Shampoo Bowls **<Insert drawing designation>**: Enameled, cast iron.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Belvedere, LLC.
  - b. Takara Belmont.
  - c. **<Insert manufacturer's name>**.
2. Fixture:
  - a. Standard: ASME A112.19.2/CSA B45.1.
  - b. Bowl: Shaped for head rest.
  - c. Nominal Size: **[19 by 19 by 10 inches (483 by 483 by 250 mm)] <Insert dimensions>**.
  - d. Color: **[White] <Insert color>**.

3. Faucet: Manufacturer's standard with vacuum breaker complying with ASME A112.18.3 and with hose spray head.
4. Waste Fittings: Comply with requirements in "Waste Fittings" Article except as follows:
  - a. Drain: Cup type with hair basket and NPS 1-1/2 (DN 40) tailpiece.
  - b. Trap Size: NPS 1-1/2 (DN 40).
5. Mounting Material: **[Bracket or devices for attaching to counter]** **[Wall bracket]**.

B. Shampoo Bowls <Insert drawing designation>: Plastic.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - a. Belvedere, LLC.
  - b. <Insert manufacturer's name>.
2. Fixture:
  - a. Standard: ANSI Z124.3 or ANSI Z124.6.
  - b. Material: **[Plastic]** **[FRP]** **[PMMA]** <Insert material>.
  - c. Bowl: Shaped for head rest.
  - d. Nominal Size: **[19 by 19 by 10 inches (483 by 483 by 250 mm)]** <Insert dimensions>.
  - e. Color: **[White]** <Insert color>.
  - f. Mounting Material: **[Bracket or devices for attaching to counter]** **[Wall bracket]**.
3. Faucet: Manufacturer's standard with vacuum breaker complying with ASME A112.18.3 and with hose spray head.
4. Waste Fittings: Comply with requirements in "Waste Fittings" Article except as follows:
  - a. Drain: Cup type with hair basket and NPS 1-1/2 (DN 40) tailpiece.
  - b. Trap Size: NPS 1-1/2 (DN 40).

C. Shampoo Bowls <Insert drawing designation>: Solid-surface material.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - a. Willoughby Industries.
  - b. <Insert manufacturer's name>.
2. Fixture:
  - a. Standard: ANSI/ICPA SS-1 for solid-surface materials.
  - b. Material: Molded, cast polymer.
  - c. Bowl: Shaped for head rest.
  - d. Nominal Size: **[19 by 19 by 9 inches (483 by 483 by 229 mm)]** **[20 by 18 by 9 inches (508 by 457 by 229 mm)]** <Insert dimensions>.

- e. Color: [Gray granite] [Sandstone] [White granite] <Insert color>.
  - f. Mounting Material: [Bracket or devices for attaching to counter] [Wall bracket].
3. Faucet: Manufacturer's standard with vacuum breaker complying with ASME A112.18.3 and with hose spray head.
  4. Waste Fittings: Comply with requirements in "Waste Fittings" Article except as follows:
    - a. Drain: Cup type with hair basket and NPS 1-1/2 (DN 40) tailpiece.
    - b. Trap Size: NPS 1-1/2 (DN 40).

## 2.7 SOLID-BRASS, MANUALLY OPERATED FAUCETS

- A. NSF Standard: Comply with NSF 372 for faucet materials that will be in contact with potable water.
- B. Lavatory Faucets <Insert designation>: Manual-type, [single-control mixing] [single-control nonmixing] [two-handle mixing], [commercial] [general-duty], solid-brass valve.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Standard.
    - b. CHG; Component Hardware Group, Inc.
    - c. Chicago Faucets; Geberit Company.
    - d. Delta Faucet Company.
    - e. Elkay Manufacturing Co.
    - f. Gerber Plumbing Fixtures LLC.
    - g. GROHE America, Inc.
    - h. Just Manufacturing.
    - i. Kohler Co.
    - j. Moen Incorporated.
    - k. Speakman Company.
    - l. T&S Brass and Bronze Works, Inc.
    - m. Zurn Industries, LLC.
    - n. <Insert manufacturer's name>.
  2. Standard: ASME A112.18.1/CSA B125.1.
  3. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and fixture receptor.
  4. Body Type: [Centerset] [Widespread] [Single hole] <Insert type>.
  5. Body Material: Commercial, solid brass.
  6. Finish: [Polished chrome plate] <Insert finish>.
  7. Maximum Flow Rate: [0.5 gpm (1.5 L/min.)] <Insert value>.
  8. Maximum Flow: [0.25 gal. (0.95 L)] <Insert value> per metering cycle.
  9. Mounting Type: [Deck, exposed] [Deck, concealed] [Back/wall, exposed] [Back/wall, concealed].

10. Valve Handle(s): [**Single lever**] [**Knob**] [**Knob, nonmetallic**] [**Cross, three arm**] [**Cross, four arm**] [**Wrist blade, 4 inches (102 mm)**] [**Elbow, 6 inches (152 mm)**] [**Push button**] <Insert type>.
11. Spout: [**Rigid**] [**Swing**] [**Rigid, gooseneck**] [**Swivel, gooseneck**] type.
12. Spout Outlet: [**Aerator**] [**Laminar flow**] [**Spray**] <Insert type>.
13. Operation: [**Compression, manual**] [**Noncompression, manual**].
14. Drain: [**Not part of faucet**] <Insert type>.

## 2.8 SOLID-BRASS, AUTOMATICALLY OPERATED LAVATORY FAUCETS

- A. NSF Standard: Comply with NSF 372 for faucet materials that will be in contact with potable water.
- B. Lavatory Faucets <Insert designation>: Automatic-type, [**battery-powered,**] [**hard-wired,**] electronic-sensor-operated, [**mixing**] [**nonmixing**], solid-brass valve.
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Advanced Modern Technologies Corporation - AMTC.
    - b. American Standard.
    - c. Bradley Corporation.
    - d. Chicago Faucets; Geberit Company.
    - e. Gerber Plumbing Fixtures LLC.
    - f. GROHE America, Inc.
    - g. Hydrotek International, Inc.
    - h. Kohler Co.
    - i. Moen Incorporated.
    - j. Sloan Valve Company.
    - k. Speakman Company.
    - l. Stern Engineering Ltd.
    - m. T&S Brass and Bronze Works, Inc.
    - n. TOTO USA, INC.
    - o. Zurn Industries, LLC.
    - p. <Insert manufacturer's name>.
  2. Standards: ASME A112.18.1/CSA B125.1 and UL 1951.
  3. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
  4. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and fixture receptor.
  5. Body Type: [**Single hole**] <Insert type>.
  6. Body Material: [**Commercial**] [**General-duty**], solid brass.
  7. Finish: [**Polished chrome plate**] <Insert finish>.
  8. Maximum Flow Rate: [**0.5 gpm (1.5 L/min.)**] <Insert value>.
  9. Mounting Type: [**Deck, concealed**] [**Back/wall, concealed**] <Insert type>.
  10. Spout: [**Rigid**] [**Swing**] [**Rigid, gooseneck**] [**Swivel, gooseneck**] type.
  11. Spout Outlet: [**Aerator**] [**Laminar flow**] [**Spray**] <Insert type>.

12. Drain: [**Not part of faucet**] <Insert type>.

## 2.9 LAMINAR-FLOW, FAUCET-SPOUT OUTLETS

- A. NSF Standard: Comply with NSF 372 for faucet-spout-outlet materials that will be in contact with potable water.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. AM Conservation Group, Inc.
  2. Chronomite Laboratories, Inc; a division of Morris Group International.
  3. NEOPERL, Inc.
  4. T&S Brass and Bronze Works, Inc.
  5. <Insert manufacturer's name>.
- C. Description: Chrome-plated-brass, faucet-spout outlet that produces non-aerating, laminar stream. Include external or internal thread that mates with faucet outlet for attachment to faucets where indicated and flow-rate range that includes flow of faucet.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- a. Jay R. Smith Mfg Co; a division of Morris Group International.
  - b. Josam Company.
  - c. MIFAB, Inc.
  - d. Wade Drains.
  - e. WATTS.
  - f. Zurn Industries, LLC.
  - g. <Insert manufacturer's name>.

## 2.10 SUPPLY FITTINGS

- A. NSF Standard: Comply with NSF 372 for supply-fitting materials that will be in contact with potable water.
- B. Standard: ASME A112.18.1/CSA B125.1.
- C. Supply Piping: Chrome-plated-brass pipe or chrome-plated copper tube matching water-supply piping size. Include chrome-plated-brass or stainless steel wall flange.
- D. Supply Stops: Chrome-plated-brass, one-quarter-turn, ball-type or compression valve with inlet connection matching supply piping.
- E. Operation: [**Loose key**] [**Wheel handle**] <Insert type>.
- F. Risers:
1. [**NPS 3/8 (DN 10)**] [**NPS 1/2 (DN 15)**].

2. [Chrome-plated, rigid-copper-pipe and brass straight or offset tailpieces] [Chrome-plated, soft-copper flexible tube] [ASME A112.18.6, braided- or corrugated-stainless steel, flexible hose] riser.

## 2.11 WASTE FITTINGS

- A. Standard: ASME A112.18.2/CSA B125.2.
- B. Drain: Grid type with NPS 1-1/4 (DN 32) offset and straight tailpiece.
- C. Trap:
  1. Size: [NPS 1-1/2 by NPS 1-1/4 (DN 40 by DN 32)] [NPS 1-1/4 (DN 32)].
  2. Material: Chrome-plated, [two-piece, cast-brass trap and swivel elbow with 0.032 inch- (0.83 mm-) thick brass tube to wall] [two-piece, cast-brass trap and ground-joint swivel elbow with 0.032 inch- (0.83 mm-) thick brass tube to wall] [one-piece, cast-brass trap with swivel 0.029 inch- (73 mm-) thick tubular brass wall bend] <Insert trap type>; and chrome-plated, brass or steel wall flange.
  3. Material: Stainless steel, two-piece trap and swivel elbow with 0.012 inch- (0.30 mm-) thick stainless steel tube to wall; and stainless steel wall flange.

## 2.12 SUPPORTS

- A. Type II Lavatory Carrier:
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Jay R. Smith Mfg. Co.
    - b. Josam Company.
    - c. MIFAB, Inc.
    - d. Wade Drains.
    - e. Watts; a Watts Water Technologies company.
    - f. Zurn Industries, LLC.
    - g. <Insert manufacturer's name>.
  2. Standard: ASME A112.6.1M.
- B. Type III Lavatory Carrier:
  1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Jay R. Smith Mfg. Co.
    - b. Josam Company.
    - c. MIFAB, Inc.
    - d. Wade Drains.
    - e. Watts; a Watts Water Technologies company.

- f. Zurn Industries, LLC.
  - g. <Insert manufacturer's name>.
2. Standard: ASME A112.6.1M.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine roughing-in of water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before lavatory installation.
- B. Examine counters and walls for suitable conditions where lavatories will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Install lavatories level and plumb in accordance with roughing-in drawings.
- B. Install supports, affixed to building substrate, for wall-mounted lavatories.
- C. Install accessible wall-mounted lavatories at handicapped/elderly mounting height for people with disabilities or the elderly, in accordance with ICC/ANSI A117.1.
- D. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons if required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
- E. Seal joints between lavatories, counters, and walls using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color. Comply with sealant requirements specified in Section 079200 "Joint Sealants."
- F. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible lavatories. Comply with requirements in Section 220719 "Plumbing Piping Insulation."

### 3.3 CONNECTIONS

- A. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
- B. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
- C. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."

### 3.4 ADJUSTING

- A. Operate and adjust lavatories and controls. Replace damaged and malfunctioning lavatories, fittings, and controls.
- B. Adjust water pressure at faucets to produce proper flow.
- C. Install fresh batteries in battery-powered, electronic-sensor mechanisms.

### 3.5 CLEANING AND PROTECTION

- A. After completing installation of lavatories, inspect and repair damaged finishes.
- B. Clean lavatories, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
- C. Provide protective covering for installed lavatories and fittings.
- D. Do not allow use of lavatories for temporary facilities unless approved in writing by Owner.

END OF SECTION 224216.13