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SECTION 224216.13 - COMMERCIAL LAVATORIES

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Enameled, cast-iron, wall-mounted lavatories.

Supply fittings.

Waste fittings.

* + - * 1. Related Requirements:

Retain subparagraphs below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.

Section 224100 "Residential Plumbing Fixtures" for residential lavatories.

Section 224300 "Healthcare Plumbing Fixtures" for healthcare lavatories.

Section 224600 "Security Plumbing Fixtures" for security lavatories.

* + - 1. ACTION SUBMITTALS
				1. Product Data: For each type of product.

Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for lavatories.

Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

Retain "Shop Drawings" Paragraph below if automatic, electronic-sensor faucets are required for Project.

* + - * 1. Shop Drawings: Include diagrams for power, signal, and control wiring of automatic faucets.
			1. INFORMATIONAL SUBMITTALS

Retain "Coordination Drawings" Paragraph below if coordination is required for installation of products and materials by separate installers.

* + - * 1. Coordination Drawings: Counter cutout templates for mounting of counter-mounted lavatories.
			1. CLOSEOUT SUBMITTALS
				1. Operation and Maintenance Data: For lavatories and faucets to include in operation and maintenance manuals.

Retain subparagraph below if automatic, electronic-sensor faucets are required for Project.

In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:

Servicing and adjustments of automatic faucets.

* + - 1. MAINTENANCE MATERIAL SUBMITTALS
				1. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

Faucet Washers and O-Rings: Equal to [**10**] <**Insert number**> percent of amount of each type and size installed.

Faucet Cartridges and O-Rings: Equal to [**5**] <**Insert number**> percent of amount of each type and size installed.

1. PRODUCTS
	* + 1. ENAMELED, CAST-IRON, WALL-MOUNTED LAVATORIES

Copy "Lavatory - Enameled, Rectangular, Cast Iron, Wall Mounted" Paragraph below and re-edit for each type of lavatory required.

Insert drawing designation. Use these designations on Drawings to identify each lavatory.

* + - * 1. Lavatory - Enameled, Rectangular, Cast Iron, Wall Mounted :

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide **Zurn Industries, LLC; Z5830 Wall Hung Cast Iron Lavatory** or comparable product by one of the following:

<**Insert manufacturer's name**>

Fixture:

Standard: ASME A112.19.1/CSA B45.2.

Type: Straight-front apron with straight back.

Nominal Size: Rectangular, [**19 by 17 inches**] [**20 by 18 inches**].

Faucet-Hole Punching: [**One hole**] [**Three holes, 2-inch centers**] [**Three holes, 4-inch centers**].

Faucet-Hole Location: Top.

Color: [**White**] <**Insert color**>.

Mounting Material: Wall bracket.

Faucet: <**Insert lavatory faucet designation from "Manually Operated Lavatory Faucets" or "Automatically Operated Lavatory Faucets" Article**>.

Coordinate "Support" Subparagraph below with "Lavatory Supports" Article.

Support: [**Type III lavatory carrier**].[ **Include rectangular, steel uprights**] <**Insert carrier**>.

Lavatory Mounting Height: [**Standard**] [**Child**] [**Handicapped/elderly in accordance with ICC A117.1**].

* + - 1. SUPPLY FITTINGS
				1. NSF Standard: Comply with NSF 61 and NSF 372 for supply-fitting materials that will be in contact with potable water.
				2. Standard: ASME A112.18.1/CSA B125.1.
				3. 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.
				4. Supply Stops: Chrome-plated-brass, one-quarter-turn, ball-type or compression valve with inlet connection matching supply piping.

Retain second option in "Operation" Paragraph below for one-quarter-turn, ball-type stops.

* + - * 1. Operation: [**Loose key**] [**Wheel handle**] <**Insert type**>.
				2. Risers:

[**NPS 3/8**] [**NPS 1/2**].

[**Chrome-plated, rigid-copper-pipe and brass straight or offset tailpieces**] [**Chrome-plated, soft-copper flexible tube**] [**ASME A112.18.6/CSA B125.6, braided- or corrugated-stainless steel, flexible hose**] riser.

* + - 1. WASTE FITTINGS
				1. Standard: ASME A112.18.2/CSA B125.2.
				2. Drain: Grid type with NPS 1-1/4 offset and straight tailpiece.
				3. Trap:

Size: [**NPS 1-1/2 by NPS 1-1/4**] [**NPS 1-1/4**].

Material:

Retain one of two subparagraphs below.

Chrome-plated, [**two-piece, cast-brass trap and swivel elbow with 0.032-inch- thick brass tube to wall**] [**two-piece, cast-brass trap and ground-joint swivel elbow with 0.032-inch- thick brass tube to wall**] [**one-piece, cast-brass trap with swivel 0.029-inch- thick tubular brass wall bend**] <**Insert trap type**>; and chrome-plated, brass or steel wall flange.

Stainless steel, two-piece trap and swivel elbow with 0.012-inch thick stainless steel tube to wall, and stainless steel wall flange.

1. EXECUTION
	* + 1. EXAMINATION
				1. Examine roughing-in of water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before lavatory installation.
				2. Examine counters and walls for suitable conditions where lavatories will be installed.
				3. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION
				1. Install lavatories level and plumb in accordance with roughing-in drawings.
				2. Install supports, affixed to building substrate, for wall-mounted lavatories.

Indicate on Drawings those lavatories that are required to be accessible.

* + - * 1. Install accessible wall-mounted lavatories at handicapped/elderly mounting height for people with disabilities or the elderly, in accordance with ICC A117.1.
				2. 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 220500 "Common Work Results for Plumbing."
				3. 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."

Indicate on Drawings those lavatories that are required to be accessible.

* + - * 1. 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."
			1. PIPING CONNECTIONS

Coordinate piping installations and specialty arrangements with Drawings and with requirements specified in piping systems. If Drawings are explicit enough, these requirements may be reduced or omitted.

* + - * 1. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
				2. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
				3. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."
			1. ELECTRICAL CONNECTIONS
				1. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
				2. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
				3. Install electrical devices furnished by manufacturer, but not factory mounted in accordance with NFPA 70 and NECA 1.
				4. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.

Retain one of two subparagraphs below. First subparagraph cross-references Section 260553 "Identification for Electrical Systems" and should be retained for consistent electrical identification. Second subparagraph is an abbreviated version of the product specified in Section 260553 "Identification for Electrical Systems."

Nameplate to be laminated acrylic or melamine plastic signs, as specified in Section 260553 "Identification for Electrical Systems."

Nameplate to be laminated acrylic or melamine plastic signs with a black background and engraved white letters at least [**1/2 inch**] <**Insert dimension**> high.

* + - 1. ADJUSTING
				1. Operate and adjust lavatories and controls. Replace damaged and malfunctioning lavatories, fittings, and controls.
				2. Install new batteries in battery-powered, electronic-sensor mechanisms.
			2. CLEANING AND PROTECTION
				1. After completing installation of lavatories, inspect and repair damaged finishes.
				2. Clean lavatories, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
				3. Provide protective covering for installed lavatories and fittings.
				4. Do not allow use of lavatories for temporary facilities unless approved in writing by Owner.

END OF SECTION 224216.13