Sioux Chief Manufacturing prepared the following guidelines to aid design professionals. Incorporate these guidelines into the appropriate project specification Section. Sioux Chief Manufacturing is not liable in any way for revisions or for the use of this Section by any end user. A qualified design professional should review and edit the document to suit project requirements.

Notes are included to assist the design professional in editing the specifications to suit project requirements and are not intended to be included in the final specification. These notes appear in blue text.

For more information or assistance, contact Sioux Chief Manufacturing.

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# SECTION 224216.13 - COMMERCIAL LAVATORIES

Revise this Section by deleting and inserting text to meet Project-specific requirements.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

# GENERAL

## RELATED DOCUMENTS

Retain or delete this article in all Sections of Project Manual.

### Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## SUMMARY

### Section Includes:

#### Lavatories.

#### Faucets.

#### Supports.

#### Supply Fittings.

#### Riser Tubes.

#### Waste Fittings.

### 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 "Medical Plumbing Fixtures" for healthcare lavatories.

#### Section 224600 "Security Plumbing Fixtures" for security lavatories.

## ACTION SUBMITTALS

### 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.

### LEED Submittals:

Retain "Product Data for Prerequisite WE 1 ( and Credit WE 3) (, Credit WE 2, and Credit WE 3)" Subparagraph below for LEED-NC, LEED-CS, and LEED for Schools for fixtures and equipment that consume water.

#### Product Data for Prerequisite WE 1[ and Credit WE 3] [, Credit WE 2, and Credit WE 3]: Documentation indicating flow and water consumption requirements.

Retain "Product Data for Prerequisite WE 1" Subparagraph below for LEED-CI for fixtures and equipment that consume water.

#### Product Data for Prerequisite WE 1: Documentation indicating flow and water consumption requirements.

Retain "Product Data for Prerequisite WE 1(and Credit WE 2)" Subparagraph below for LEED-EB for fixtures and equipment that consume water.

#### Product Data for Prerequisite WE 1[ and Credit WE 2]: Documentation indicating flow and water consumption requirements.

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

### Shop Drawings: Include diagrams for power, signal, and control wiring of automatic faucets.

## INFORMATIONAL SUBMITTALS

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

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

## CLOSEOUT SUBMITTALS

### Operation and Maintenance Data: For lavatories and faucets to include in operation and maintenance manuals.

Retain first 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.

# PRODUCTS

See Editing Instruction No. 1 in the Evaluations for cautions about named manufacturers and products. For an explanation of options and Contractor's product selection procedures, see Section 016000 "Product Requirements."

Do not use same lavatory designation as is used for another lavatory in Section 224100 "Residential Plumbing Fixtures," Section 224300 "Medical Plumbing Fixtures," and Section 224600 "Security Plumbing Fixtures."

## VITREOUS-CHINA, WALL-MOUNTED LAVATORIES

Copy "Lavatory" Paragraph below and re-edit for each type of vitreous-China, wall-mounted lavatory with back required.

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

### Lavatory Vitreous China, wall mounted <Insert drawing designation>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed. Retain option and delete insert note if manufacturer's name and model number are indicated on Drawings.

#### Basis-of-Design Product: Subject to compliance with requirements, provide <Insert Specified Manufacture> ; <Insert product name or designation>:

###### Substitutions: [Under provisions of Division 01.] [Not permitted.]

### ADA, Lavatory Vitreous China, wall mounted <Insert drawing designation>:

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed. Retain option and delete insert note if manufacturer's name and model number are indicated on Drawings.

#### Basis-of-Design Product: Subject to compliance with requirements, provide <Insert Specified Manufacture>; <Insert product name or designation>:

###### Substitutions: [Under provisions of Division 01.] [Not permitted.]

## FAUCETS:

### Automatic Faucet <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide <Insert Specified Manufacture>; <Insert product name or designation>:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

### Manual Faucet <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide <Insert Specified Manufacture>; <Insert product name or designation>:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

## SUPPORTS:

### Concealed-Arm Floor Affixed Lavatory Support Carrier:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [837-7CA Series] [837-7C Series]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Standard: ASME A112.6.1M, Type II, adjustable concealed arm.

### Plate Type Floor Affixed Lavatory Support Carrier:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [837-7PL Series] [837-7W Series]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Standard: ASME A112.6.1M, Type III, Plate.

### Exposed-Arm Floor Affixed Lavatory Support Carrier:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [837 Series]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Standard: ASME A112.6.1M, Type I, exposed arm.

## SUPPLY FITTINGS

### Quarter-Turn Angle Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [130-G Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Quarter-Turn Angle Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Finish: Chrome.

##### Inlet Connection: [3/8 inch] [5/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] compression.

### Quarter-Turn Straight Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [129-G Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Quarter-Turn Straight Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Finish: Chrome.

##### Inlet Connection: [3/8 inch] [5/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] compression.

### Heavy Duty, Quarter-Turn Angle Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [132-G04 Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Heavy Duty, Quarter-Turn Angle Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Maximum pressure: 125psi / 8.6 bar

##### Maximum temperature: 160°F / 71.1°C.

##### Finish: Chrome.

##### Operation: [Loose Handle] [5-inch extension with escutcheon].

##### Inlet Connection: [3/8 inch] [5/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] [5/8 inch] compression [1/2-inch MIP].

### Heavy Duty, Quarter-Turn Straight Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [131-G04 Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Heavy Duty, Quarter-Turn Straight Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Maximum pressure: 125psi / 8.6 bar

##### Maximum temperature: 160°F / 71.1°C.

##### Finish: Chrome.

##### Operation: [5-inch extension with escutcheon] <Delete if not needed>.

##### Inlet Connection: [3/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] compression [1/2-inch MIP] [1/2-inch PEX F1807].

### Heavy Duty, 3-Way Quarter-Turn Angle Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [132-G04 Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Heavy Duty, 3-Way Quarter-Turn Angle Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Maximum pressure: 125psi / 8.6 bar

##### Maximum temperature: 160°F / 71.1°C.

##### Finish: Chrome.

##### Operation: [Loose Handle] [5-inch extension with escutcheon].

##### Inlet Connection: [3/8 inch] [5/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] [5/8 inch] compression [1/2-inch MIP].

##### 2nd Outlet Connection: [1/4 inch] [3/8 inch] compression.

### Multi-Turn Straight Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [133-G04 Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Multi-Turn Straight Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Maximum pressure: 125psi / 8.6 bar

##### Maximum temperature: 160°F / 71.1°C.

##### Finish: Chrome.

##### Operation: [5-inch extension with escutcheon] <Delete if not needed>.

##### Inlet Connection: [3/8 inch] [5/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] compression.

### Multi-Turn Angle Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [134-G04 Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Multi-Turn Angle Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Maximum pressure: 125psi / 8.6 bar

##### Maximum temperature: 160°F / 71.1°C.

##### Finish: Chrome.

##### Operation: [Loose Key] [5-inch extension with escutcheon].

##### Inlet Connection: [3/8 inch] [5/8 inch] [1/2 inch] with Shallow, chrome-plated steel escutcheon. <Refer to SECTION 221116 - DOMESTIC WATER PIPING for connection type>.

##### Outlet Connection: [1/4 inch] [3/8 inch] [1/2 inch] compression.

### 3 Way Multi-Turn Angle Supply Stop: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [134-G2C04 Series with escutcheon] [134-G2F04 Series with escutcheon]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### 3 Way Multi-Turn Angle Supply Stop Description:

##### Standard: ASME A112.18.1/CSA B125.1. Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.

##### Maximum pressure: 125psi / 8.6 bar

##### Maximum temperature: 160°F / 71.1°C.

##### Finish: Chrome.

##### Inlet Connection: 1/2-inch [FIP] [compression] with Shallow, chrome-plated steel escutcheon.

##### Outlet Connection: 3/8-inch compression.

##### 2nd Outlet Connection: 3/8-inch compression.

## RISER TUBES

### Riser Supply Tubes: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [283-S Series] [285-S Series]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Lavatory Riser Supply Tubes Description:

##### Standard: ASME A112.18.6.

##### Riser Material: [Chrome-plated, soft-copper flexible tube] [PEX].

##### Finish: Chrome-Plated.

##### Inlet and Outlet Connection: 3/8" O.D. tube with **[lav nose cone] [male compression] outlet.**

##### Riser Length**: 12-inch. <Specify Length>**

## WASTE FITTINGS

### Lavatory Grid Drain: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [290-20514C04]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Lavatory Grid Drain Description:

##### Standard: ASME A112.18.2/CSA B125.2

##### Gauge: 17ga.

##### Finish: semi-cast brass, chrome.

##### Drain: Grid type with 1-1/4-inch straight tailpiece.

### ADA, Lavatory Grid Drain: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [290-20515C04]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Lavatory Grid Drain Description:

##### Standard: ASME A112.18.2/CSA B125.2

##### Gauge: 17ga.

##### Finish: semi-cast brass, chrome.

##### Drain: Grid type with 1-1/4-inch offset tailpiece.

### Lavatory P-Trap: <Insert drawing designation>:

#### Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing [240-04531C04 Series] [240-05531C04 Series] [240-05B531C04 Series]:

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

#### Lavatory P-Trap Description:

##### Standard: ASME A112.18.2/CSA B125.2

##### Type: P-Trap with shallow escutcheon, cleanout & brass nuts.

##### Gauge: 17ga.

##### Size: 1-1/4 inch.

* + - * 1. Drain-Type, Trap Primer Device <Insert drawing designation if any>:

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

#### **Basis-of-Design Product: Subject to compliance with requirements, provide Sioux Chief Manufacturing** **[213-06 Series with 240-01539C04] [213-09 Series with 240-01539C04] [215-06 Series with 240-01539C04] [213-06 Series with 240-01539C04]:**

##### Substitutions: [Under provisions of Division 01.] [Not permitted.]

Drain-Type, Trap Primer Device Description:

Standard: ASSE 1044

P-Trap Type: Low inlet P-trap.

Size: Lavatory 1-1/4-inch Inlet X 1-1/4-inch Outlet.

Trap Arm: [1/2-inch] [3/4-inch].

Material: Chrome-Plated.

# EXECUTION

## EXAMINATION

### Examine roughing-in of water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before lavatory installation.

### Examine counters and walls for suitable conditions where lavatories will be installed.

### Proceed with installation only after unsatisfactory conditions have been corrected.

## INSTALLATION

### Install lavatories level and plumb according to roughing-in drawings.

### Install supports, affixed to building substrate, for wall-mounted lavatories.

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

### Install accessible wall-mounted lavatories at handicapped/elderly mounting height for people with disabilities or the elderly, according to ICC/ANSI A117.1.

### 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."

### 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.

### 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."

## CONNECTIONS

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

### Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.

### Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."

### Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."

## ADJUSTING

### Operate and adjust lavatories and controls. Replace damaged and malfunctioning lavatories, fittings, and controls.

### Adjust water pressure at faucets to produce proper flow.

### Install fresh batteries in battery-powered, electronic-sensor mechanisms.

## CLEANING AND PROTECTION

### After completing installation of lavatories, inspect and repair damaged finishes.

### Clean lavatories, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.

### Provide protective covering for installed lavatories and fittings.

### Do not allow use of lavatories for temporary facilities unless approved in writing by Owner.

# END OF SECTION 224216.13 - COMMERCIAL LAVATORIES