SECTION 224100 - RESIDENTIAL PLUMBING FIXTURES

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.

1. GENERAL
	* + 1. RELATED DOCUMENTS

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

* + - * 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
			1. SUMMARY
				1. Section Includes:

Bathtubs.

Bathtub faucets.

Whirlpool baths.

Walk-in baths.

Bidets.

Lavatories.

Lavatory faucets.

Showers.

Shower faucets.

Bar sinks.

Kitchen sinks.

Laundry trays

Sink faucets.

Laminar-flow, faucet-spout outlets.

Disposers.

Hot-water dispensers.

Water closets.

Toilet seats.

Supply fittings.

Waste fittings.

Grout.

* + - * 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 224213.13 "Commercial Water Closets."

Section 224213.16 "Commercial Urinals."

Section 224216.13 "Commercial Lavatories."

Section 224216.16 "Commercial Sinks."

Section 224223 "Commercial Showers."

Section 224300 "Healthcare Plumbing Fixtures."

Section 224500 "Emergency Plumbing Fixtures."

Section 224600 "Security Plumbing Fixtures."

Section 224713 "Drinking Fountains."

Section 224716 "Pressure Water Coolers."

Section 224723 "Remote Water Coolers."

* + - 1. DEFINITIONS
				1. FRP: Fiberglass-reinforced plastic.
				2. PMMA: Polymethyl methacrylate, also known as "acrylic."
			2. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. 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 equipment includes wiring.

* + - * 1. Shop Drawings: Include diagrams for power, signal, and control wiring.

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 plumbing fixtures.
				2. Sample Warranty: For special warranty.
			1. CLOSEOUT SUBMITTALS
				1. Operation and Maintenance Data: For plumbing fixtures and faucets to include in emergency, operation, and operation and maintenance manuals.

Retain subparagraph below if whirlpool baths or walk-in baths are required for Project.

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

Servicing and adjustments of [**whirlpool baths**] [**and**] [**walk-in baths**].

* + - 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.

Flushometer-Tank Repair Kits: Equal to [**5**] <**Insert number**> percent of amount of each type installed, but no fewer than [**two**] <**Insert number**> of each type.

Toilet Seats: Equal to [**5**] <**Insert number**> percent of amount of each type installed.

* + - 1. WARRANTY

When warranties are required, verify with Director’s Representative's counsel that warranties stated in this article are not less than remedies available to Director’s Representative under prevailing local laws.

* + - * 1. Special Warranty: Manufacturer agrees to repair or replace components of [**walk-in baths**] [**and**] [**whirlpool baths**] that fail in materials or workmanship within specified warranty period.

Failures include, but are not limited to, the following:

Structural failures of unit shell.

Faulty operation of controls, blowers, pumps, heaters, and timers.

Deterioration of metals, metal finishes, and other materials beyond normal use.

Verify available warranties and warranty periods for units and components.

Warranty Period for Residential Applications of Shells: [**Five**] [**20**] [**30**] <**Insert number**> years from date of Substantial Completion.

Warranty Period for Residential Applications of Pumps and Blowers: [**Five**] [**20**] <**Insert number**> years from date of Substantial Completion.

Warranty Period for Residential Applications of Electronic Controls: [**Five**] <**Insert number**> years from date of Substantial Completion.

1. PRODUCTS

Manufacturers and products listed in SpecAgent and MasterWorks Paragraph Builder are neither recommended nor endorsed by the AIA or Deltek. Before inserting names, verify that manufacturers and products listed there comply with requirements retained or revised in descriptions and are both available and suitable for the intended applications. For definitions of terms and requirements for Contractor's product selection, see Section 016000 "Product Requirements."

* + - 1. GENERAL REQUIREMENTS

Since January 2014, the U.S. Safe Drinking Water Act (SDWA) has required national compliance with less than or equal to 0.25 percent weighted average lead content at wetted surfaces for pipe, fittings, and devices intended to convey or dispense water for human consumption. The IPC and the UPC have the same requirements. Items in compliance with NSF 61 and NSF 372 also comply with this requirement. Some manufacturers choose to comply with this requirement through independent testing and have "Certified Lead-Free" products, which may or may not have NSF 61 or NSF 372 certification.

Domestic water faucets intended to convey or dispense water for human consumption are to comply with the SDWA, requirements of authorities having jurisdiction, and NSF 61 and NSF 372, or to be certified in compliance with NSF 61 and NSF 372 by an American National Standards Institute (ANSI)-accredited third-party certification body that the weighted average lead content at wetted surfaces is less than or equal to 0.25 percent.

* + - 1. BATHTUBS

Copy paragraph below and re-edit for each type of bathtub required.

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

* + - * 1. Bathtubs with Shower - [Enameled Cast Iron] [Enameled Steel] [FRP] [PMMA] <Insert drawing designation>:

Enameled Cast-Iron Bathtubs:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7404) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167591).

Approved equivalent.

Enameled-Steel Bathtubs:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7405) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167611).

Bootz.

[Crane Plumbing, LLC; a division of American Standard](http://www.specagent.com/Lookup?uid=123457167614).

Approved equivalent.

FRP Bathtubs:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7406) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167597).

[Sterling](http://www.specagent.com/Lookup?uid=123457167595).

Approved equivalent.

PMMA Bathtubs:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7407) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167617).

[Crane Plumbing, LLC; a division of American Standard](http://www.specagent.com/Lookup?uid=123457167622).

[Mansfield Plumbing Products LLC](http://www.specagent.com/Lookup?uid=123457167626).

Approved equivalent.

Fixture:

Standard:

ASME A112.19.1/CSA B45.2 “Enameled Cast Iron and Enameled Steel Plumbing Fixtures” for enameled[**-steel**] [**cast-iron**] bathtubs.

IAPMO Z124/CSA B45.5 “Plastic Plumbing Fixtures” for [**FRP**] [**PMMA**] plastic bathtubs.

Bathing Surface: Slip resistant.

Size: [**48 by 30 inches (1219 by 762 mm)**] [**60 by 30 inches (1525 by 762 mm)**] [**66 by 30 inches (1680 by 762 mm)**] <Insert dimensions> [with front apron] [drop-in type].

Color: [White] <Insert color>.

Drain Location: [**Left**] [**Right**] end.

Drain: NPS 1-1/21-1/2 inch (DN 40); chrome-plated brass, pop-up waste and overflow.

Faucet: <Insert faucet designation from "Bathtub Faucets" Article>.

Supply Fittings: Included in faucet.

Tub Filler: Chrome-plated-brass diverter spout.

Waste Fittings:

Standard: ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Drain: Stainless steel or chrome-plated brass, removable strainer.

Overflow: Chrome-plated-brass escutcheon with toggle drain-plug device.

Drain Piping:

NPS 1-1/21-1/2 inch (DN 40) cast-brass overflow, P-trap, and waste.

Schedule 40 [**ABS**] [**or**] [**PVC**], NPS 1-1/21-1/2 inch (DN 40) P-trap, and waste.

* + - 1. BATHTUB FAUCETS
				1. NSF Standard: Comply with NSF61 and NSF 372 for faucet materials that will be in contact with potable water.

Copy paragraph below and re-edit for each type of single-handle, pressure-balance, or thermostatic bathtub faucet required.

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

* + - * 1. Bathtub Faucets - Single Handle, [Pressure Balance] [Thermostatic] <Insert drawing designation>:

Pressure-Balance Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7408) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167630).

[Gerber Plumbing Fixtures LLC](http://www.specagent.com/Lookup?uid=123457167635).

[POWERS; A WATTS Brand](http://www.specagent.com/Lookup?uid=123457167641).

Approved equivalent.

Thermostatic Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7409) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167649).

[POWERS; A WATTS Brand](http://www.specagent.com/Lookup?uid=123457167652).

Approved equivalent.

Standards: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings” and ASSE 1016/ASME A112.1016/CSA B125.16 “Performance Requirements for Individual Thermostatic Pressure Balancing and Combination Control for Bathing Facilities”.

Faucet:

Body Material: Solid brass.

Finish: Polished chrome plate.

Maximum Flow Rate: [**2.5 gpm (9.5 L/min.)**] <**Insert value**> unless otherwise indicated.

Mounting: [**Concealed**] [**Exposed**].

Operation: Single handle, [**push-pull**] [**or**] [**twist-or-rotate**] control, with hot- and cold-water indicators.

Antiscald Device: [Integral with mixing valve] [Separate unit] [Not required].

Check Stops: Check-valve type, integral with or attached to body; on hot- and cold-water supply connections.

Diverter: In-tub filler spout.

Supply Connections: NPS 1/21/2 inch (DN 15).

Shower Head:

Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Type: [Ball joint with arm and flange] [Without ball joint, but with arm and flange] [Ball joint and head integral with mounting flange] [Integral with mounting flange] [Hand shower. Include wall-mounting device] <Insert type>.

Retain "Backflow-Prevention Device" Subparagraph below with hand-shower type.

Backflow-Prevention Device: ASSE 1014 “Performance Requirements for Backflow Prevention Devices for Hand-held Showers”.

Shower Head Material: Metallic with chrome-plated finish.

Spray Pattern: [**Adjustable**] [**Fixed**].

Integral Volume Control: [**Not required**] [**Required**].

Retain "Shower-Arm, Flow-Control Fitting" Subparagraph below only if retaining option that includes arm and flange in "Type" Subparagraph above.

Shower-Arm, Flow-Control Fitting: [Not required] [**1.5 gpm (5.7 L/min.)**] [**2.0 gpm (7.6 L/min.)**].

Verify availability of feature in "Temperature Indicator" Subparagraph below if required.

Temperature Indicator: [Integral with faucet] [Not required].

Bathtub Filler Spout: Chrome-plated brass.

* + - 1. HYDROMASSAGE WHIRLPOOL BATHS

Copy paragraph below and re-edit for each type of hydromassage bathtub required.

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

* + - * 1. Hydromassage Whirlpool Baths - [Enameled Cast Iron] [Enameled Steel] [FRP] [PMMA] <Insert drawing designation>:

Enameled Cast-Iron Hydromassage Whirlpool Baths:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7410) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167599).

Approved equivalent.

Enameled-Steel Hydromassage Whirlpool Baths:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7411) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167653).

[Mansfield Plumbing Products LLC](http://www.specagent.com/Lookup?uid=123457167654).

Approved equivalent.

FRP Hydromassage Whirlpool Baths:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7412) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Aquarius Bathware; a Praxis Company](http://www.specagent.com/Lookup?uid=123457167658).

[Clarion Bathware](http://www.specagent.com/Lookup?uid=123457167656).

[Sterling](http://www.specagent.com/Lookup?uid=123457167659).

Approved equivalent.

PMMA Hydromassage Whirlpool Baths:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7413) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Aquatic.

[Jacuzzi Inc](http://www.specagent.com/Lookup?uid=123457167671).

[Mansfield Plumbing Products LLC](http://www.specagent.com/Lookup?uid=123457167678).

Approved equivalent.

Description: Bathtub with water-jet nozzles and water circulation.

Standards:

ASME A112.19.1/CSA B45.2 “Enameled Cast Iron and Enameled Steel Plumbing Fixtures” and UL 1795 for enameled[**-steel**] [**cast-iron**] hydromassage bathtubs.

ANSI Z124.1.2/CSA B45.5 “Plastic Bathtub and Shower Units” and UL 1795 “Standard for Hydromassage Bathtubs” for [**FRP**] [**PMMA**] hydromassage bathtubs.

Fixture:

Seating Capacity: [**One**] [**Two**] <**Insert number**> person(s).

Bathing Surface: Slip resistant.

Size: [**60 by 30 inches (1525 by 762 mm)**] [**66 by 30 inches (1680 by 762 mm)**] [**60 by 42 inches (1525 by 1065 mm)**] <Insert dimensions>.

Nominal Water Capacity: <**Insert gal. (L)**>.

Apron: Matching unit, covering exposed front and sides, and with access panel.

Color: [White] <Insert color>.

Drain Location: [**Left**] [**Right**] end.

Insert specific controls required for "Controls" Subparagraph below.

Controls: For pump[**, timer,**] [**and water heater**].

Faucet:

NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Description: Fixture manufacturer's chrome-plated, solid-brass [**individual valves**] [**mixing valve**] with over-rim tub filler.

Faucet Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Supplies: NPS 1/21/2 inch (DN 15) copper tubing with ball, gate, or globe valves.

Waste Fittings:

Standard: ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Size: NPS 1-1/21-1/2 inch (DN 40).

Drain: Chrome-plated exposed parts; brass pop-up waste and overflow.

Drain Piping:

Retain one of first two subparagraphs below.

Cast- and tubular-brass overflow, P-trap, and waste.

Schedule 40 [**ABS**] [**or**] [**PVC**], overflow, P-trap, and waste.

Water-Circulating System: Electric circulating pump complying with ASME A112.19.7/CAS B45.10 “Hydromassage Bathtub Appliances” and with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application and plastic piping.

"Water Heater" Subparagraph below is an optional feature.

Water Heater: Electric, inline complying with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application.

Unit Electrical Characteristics:

Volts: [120] [240] [277] [480] <Insert number> V.

Phase(s): [**Single**] [**Three**].

Hertz: [**60**] <**Insert number**> Hz.

Full-Load Amperes: <**Insert value**> A.

Minimum Circuit Ampacity: <**Insert value**> A.

Maximum Overcurrent Protection: <**Insert value**> A.

* + - 1. AIR MASSAGE WHIRLPOOL BATHS

Copy paragraph below and re-edit for each type of air massage bathtub required.

Insert drawing designation. Use these designations on Drawings to identify each air massage bathtub.

* + - * 1. PMMA Air Massage Whirlpool Baths: <**Insert drawing designation**>

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2472) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acryline USA, Inc](http://www.specagent.com/Lookup?uid=123457167684).

[American Whirlpool](http://www.specagent.com/Lookup?uid=123457167685).

[Jacuzzi Inc](http://www.specagent.com/Lookup?uid=123457167689).

Approved equivalent.

Description: Air massage bathtub with air-injection nozzles.

Standards: IAPMO Z124.1.2/ANSI Z124.1.2 “Plastic Bathtub and Shower Units” and UL 1795 “Standard for Hydromassage Bathtubs”.

Fixture: Seating Capacity: [**One**] [**Two**] <**Insert number**> person(s).

Bathing Surface: Slip resistant.

Size: [**60 by 30 inches**] [**66 by 30 inches**] [**60 by 42 inches**] <Insert dimensions>.

Nominal Water Capacity: <**Insert gal.**>.

Apron: Matching unit, covering exposed front and sides, and with access panel.

Color: [White] <Insert color>.

Drain

Drain Location: [**Left**] [**Right**] end.

Insert specific controls required for "Controls" Subparagraph below.

Controls: For blower[, timer,] [and water heater].

Faucet:

NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Description: Fixture manufacturer's chrome-plated, solid-brass [**individual valves**] [**mixing valve**] with over-rim tub filler.

Faucet Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Supplies: 1/2 inch copper tubing with ball, gate, or globe valves.

Waste Fittings:

Standard: ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Size: NPS 1-1/21-1/2 inch (DN 40).

Drain: Chrome-plated exposed parts; brass pop-up waste and overflow.

Drain Piping:

Retain one of first two subparagraphs below.

Cast- and tubular-brass overflow, P-trap, and waste.

Drain Piping: Schedule 40 [**ABS**] [**or**] [**PVC**], overflow, P-trap, and waste.

Water-Circulating System: Electric circulating pump, complying with ASME A112.19.7/CSA B45.10 “Hydromassage Bathtub Appliances” and with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application and plastic piping.

"Water Heater" Subparagraph below is an optional feature.

Water Heater: Electric, inline complying with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application.

Air-Injection System: Electric [**blower**] [**combination blower/heater**] complying with ASME A112.19.7/CSA B45.10 “Hydromassage Bathtub Appliances” and with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application and plastic piping.

Unit Electrical Characteristics:

Volts: [**120**] [**240**] [**277**] [**480**] <**Insert value**> V.

Phase(s): [**Single**] [**Three**].

Hertz: [**60**] <**Insert value**> Hz.

Full-Load Amperes: <**Insert value**> A.

Minimum Circuit Ampacity: <**Insert value**> A.

Maximum Overcurrent Protection: <**Insert value**> A.

* + - 1. WALK-IN BATHS

Copy paragraph below and re-edit for each type of standard, plastic, walk-in bath required.

Insert drawing designation. Use these designations on Drawings to identify each standard walk-in bath.

* + - * 1. Standard Walk-in Baths - Plastic, with Side-Entry Door, Seat, and Faucet <**Insert drawing designation**>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2478) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167693).

[Best Bath Systems](http://www.specagent.com/Lookup?uid=123457167694).

[Glamour Baths](http://www.specagent.com/Lookup?uid=123457167697).

Approved equivalent.

Fixture:

Standards: IAPMO Z124.1.2/ANSI Z124.1.2 “Plastic Bathtub and Shower Units”.

Material: [Plastic] [PMMA] <Insert material>.

Nominal Size: Approximately 60 by 32 by 21 inches (1525 by 815 by 535 mm).

Skirt: [Front only] [On sides not against walls].

Seat: Integral.

Grab Bar: Manufacturer's standard.

Door: Side opening with rubber sealing gasket.

Door Location: [**Left**] [**Right**] side.

Drain Location: [**Left**] [**Right**] end.

Faucet:

NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Description: Fixture manufacturer's chrome-plated, solid-brass [**individual valves**] [**mixing valve**] with over-rim tub filler.[**Include diverter and hand shower.**]

Faucet Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Mounting: Deck.

Supplies: NPS 1/21/2 inch (DN 15) copper tubing with ball, gate, or globe valves.

Waste Fittings:

Standard: ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Size: NPS 1-1/21-1/2 inch (DN 40).

Drain: Chrome-plated exposed parts; brass pop-up waste and overflow.

Drain Piping:

Retain one of first two subparagraphs below.

Cast- and tubular-brass overflow, P-trap, and waste.

Schedule 40 [**ABS**] [**or**] [**PVC**], overflow, P-trap, and waste.

Water-Circulating System: Electric circulating pump complying with ASME A112.19.7/CSA B45.10 “Hydromassage Bathtub Appliances” and with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application and plastic piping.

Unit Electrical Characteristics:

Volts: [**120**] [**240**] [**277**] [**480**] <**Insert value**> V.

Phase(s): [**Single**] [**Three**].

Hertz: [**60**] <**Insert value**> Hz.

Full-Load Amperes: <**Insert value**> A.

Minimum Circuit Ampacity: <**Insert value**> A.

Maximum Overcurrent Protection: <**Insert value**> A.

Copy paragraph below and re-edit for each type of plastic, hydromassage, walk-in bath required.

Insert drawing designation. Use these designations on Drawings to identify each hydromassage walk-in bath.

* + - * 1. Hydromassage Walk-in Baths - Plastic, with Side-Entry Door, Seat, and Faucet <**Insert drawing designation**>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2488) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167702).

[Glamour Baths](http://www.specagent.com/Lookup?uid=123457167704).

[Safety Tubs LLC](http://www.specagent.com/Lookup?uid=123457167706).

Approved equivalent.

Fixture:

Standards: IAPMO Z124.1.2/ANSI Z124.1.2 “Plastic Bathtub and Shower Units” and UL 1795 “Standard for Hydromassage Bathtubs.

Nominal Size: Approximately 60 by 32 by 21 inches (1525 by 815 by 535 mm).

Skirt: [Front only] [On sides not against walls].

Seat: Integral.

Grab Bar: Manufacturer's standard.

Door: Side opening with rubber sealing gasket.

Door Location: [**Left**] [**Right**] side.

Drain Location: [**Left**] [**Right**] end.

Faucet:

NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Description: Fixture manufacturer's chrome-plated, solid-brass [**individual valves**] [**mixing valve**] with over-rim tub filler.[**Include diverter and hand shower.**]

Faucet Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Mounting: Deck.

Supplies: NPS 1/21/2 inch (DN 15) copper tubing with ball, gate, or globe valves.

Waste Fittings:

Standard: ASME A112.18.2/CSA B125.2 “Plumbing Waste Fittings”.

Size: NPS 1-1/21-1/2 inch (DN 40).

Drain: Chrome-plated exposed parts; brass pop-up waste and overflow.

Drain Piping:

Retain one of first two subparagraphs below.

Cast- and tubular-brass overflow, P-trap, and waste.

Drain Piping: Schedule 40 [**ABS**] [**or**] [**PVC**], overflow, P-trap, and waste.

Water-Circulating System: Electric circulating pump complying with ASME A112.19.7/CSA B45.10 “Hydromassage Bathtub Appliances” and with UL 1951 “Standard for Safety Electric Plumbing Accessories”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application and plastic piping.

Unit Electrical Characteristics:

Volts: [**120**] [**240**] [**277**] [**480**] <**Insert value**> V.

Phase(s): [**Single**] [**Three**].

Hertz: [**60**] <**Insert value**> Hz.

Full-Load Amperes: <**Insert value**> A.

Minimum Circuit Ampacity: <**Insert value**> A.

Maximum Overcurrent Protection: <**Insert value**> A.

* + - 1. BIDETS

Copy paragraph below and re-edit for each type of bidet required.

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

* + - * 1. Bidets <Insert drawing designation>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2510) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167708).

[Crane Plumbing, LLC; a division of American Standard](http://www.specagent.com/Lookup?uid=123457167711).

[Mansfield Plumbing Products LLC](http://www.specagent.com/Lookup?uid=123457167717).

[TOTO USA, INC](http://www.specagent.com/Lookup?uid=123457167720).

Approved equivalent.

Fixture:

Standard: ASME A112.19.2/CSA B45.1 “Ceramic Plumbing Fixtures” for vitreous-china bidets.

Type: With [spray] [flushing rim] [spray and flushing rim] [no spray].

Hole Punching: Number and spacing to match faucet.

Mounting: Floor.

Overflow: [Not required] [Required].

Color: [White] <Insert color>.

Faucet:

Standard: ASME A112.18.3 “Performance Requirements for Backflow Devices and Systems in Plumbing Fixture Fittings.

Type: Manufacturer's standard with [vacuum breaker, diverter, and submerged spray] [over-rim filling], pop-up drain,[ **NPS 1-1/41-1/4 inch (DN 32)**] tailpiece, and chrome-plated finish. Include [manufacturer's standard] [cross] [lever] [wrist-blade] <Insert type> handles.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article, except faucet includes pop-up drain.

* + - 1. LAVATORIES

Copy first paragraph below and re-edit for each type of counter-mounted lavatory required.

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

* + - * 1. Lavatories - [Enameled Cast Iron] [Enameled Steel] [PMMA] [Solid Surface] [Stainless Steel] [Vitreous China], [Counter Top Mounted] [Undercounter Mounted] <Insert drawing designation>:

Enameled Cast-Iron Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7415) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457168017).

[Sloan Valve Company](http://www.specagent.com/Lookup?uid=123457168018).

Approved equivalent.

Enameled-Steel Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7416) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167725).

[Crane Plumbing, LLC; a division of American Standard](http://www.specagent.com/Lookup?uid=123457167728).

[Sloan Valve Company](http://www.specagent.com/Lookup?uid=123457168019).

Approved equivalent.

PMMA Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7417) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Meganite Inc](http://www.specagent.com/Lookup?uid=123457167733).

[Royal Baths Manufacturing Co](http://www.specagent.com/Lookup?uid=123457167732).

[Sloan Valve Company](http://www.specagent.com/Lookup?uid=123457168020).

Approved equivalent.

Solid-Surface Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7418) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167734).

[Bradley Corporation](http://www.specagent.com/Lookup?uid=123457167735).

[Sloan Valve Company](http://www.specagent.com/Lookup?uid=123457167744).

Approved equivalent.

Stainless Steel Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7419) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Acorn Engineering Company; a Division of Morris Group International](http://www.specagent.com/Lookup?uid=123457167745).

[Elkay](http://www.specagent.com/Lookup?uid=123457167746).

Approved equivalent.

Vitreous-China Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7420) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167749).

[Kohler Co](http://www.specagent.com/Lookup?uid=123457167756).

[Mansfield Plumbing Products LLC](http://www.specagent.com/Lookup?uid=123457167757).

[Sloan Valve Company](http://www.specagent.com/Lookup?uid=123457167762).

Approved equivalent.

Fixture:

Standard:

ASME A112.19.1/CSA B45.2 “Enameled Cast Iron and Enameled Steel Plumbing Fixtures” for enameled[**-steel**] [**cast-iron**] lavatories.

IAPMO Z124.3/ANSI Z124.3 “Plastic Lavatories” for PMMA lavatories.

ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures” for stainless steel lavatories.

ASME A112.19.2/CSA B45.1 “Ceramic Plumbing Fixtures” for vitreous-china lavatories.

Type: [Flat rim with ledge] [Self-rimming].

Retain "Oval Nominal Size," ''Rectangular Nominal Size," or "Round Nominal Size" Subparagraph below.

Oval Nominal Size: [**19 by 16 inches (483 by 406 mm)**] [**20 by 17 inches (508 by 432 mm)**] <Insert dimensions>.

Rectangular Nominal Size: [**18 by 15 inches (457 by 381 mm)**] [**19 by 16 inches (483 by 406 mm)**] [**20 by 18 inches (508 by 457 mm)**] [**24 by 20 inches (610 by 508 mm)**] <Insert dimensions>.

Round Nominal Size: [**18 inches (457 mm)**] [**19 inches (483 mm)**] <Insert dimensions> in diameter.

Faucet-Hole Punching: [One hole] [Three holes, **2-inch (51-mm)** centers] [Three holes, **4-inch (102-mm)** centers].

Faucet-Hole Location: [**None**] [**Rim**].

Color: [Not applicable] [White] <Insert color>.

Faucet: <Insert lavatory-faucet designation from "Lavatory Faucets" Article>.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article.

Copy first paragraph below and re-edit for each type of vitreous-china, pedestal lavatory required.

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

* + - * 1. Lavatories - Vitreous China, Pedestal <**Insert drawing designation**>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2530) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167770).

[Gerber Plumbing Fixtures LLC](http://www.specagent.com/Lookup?uid=123457167765).

[Kohler Co](http://www.specagent.com/Lookup?uid=123457167766).

[TOTO USA, INC](http://www.specagent.com/Lookup?uid=123457167767).

Approved equivalent.

Fixture:

Standard: ASME A112.19.2/CSA B45.1 “Ceramic Plumbing Fixtures”.

Retain "Oval Nominal Size" or "Rectangular Nominal Size" Subparagraph below.

Oval Nominal Size: [**20 by 17 inches (508 by 432 mm)**] [**24 by 18 inches (610 by 457 mm)**] <Insert dimensions>.

Rectangular Nominal Size: [**18 by 15 inches (457 by 381 mm)**] [**19 by 16 inches (483 by 406 mm)**] [**20 by 18 inches (508 by 457 mm)**] [**24 by 20 inches (610 by 508 mm)**] <Insert dimensions>.

Retain "Rectangular Pedestal Nominal Size" or "Oval Pedestal Nominal Size" Subparagraph below.

Rectangular Pedestal Nominal Size: [**20 by 17 inches (508 by 432 mm)**] <Insert dimensions>.

Oval Pedestal Nominal Size: [**20 by 17 inches (508 by 432 mm)**] <Insert dimensions>.

Faucet-Hole Punching: [One hole] [Three holes, **2-inch (51-mm)** centers] [Three holes, **4-inch (102-mm)** centers].

Faucet-Hole Location: [**Top**] [**Front wall**] [**Inclined panel**].

Color: [White] <Insert color>.

Faucet: <Insert sink-faucet designation from "Sink Faucets" Article>.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article.

Copy first paragraph below and re-edit for each type of integral-bowl countertop lavatory required.

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

* + - * 1. Lavatories - Integral Bowl Countertop <**Insert drawing designation**>:

Usually, manufacturers of cultured-marble products only sell locally. See the International Cast Polymer Alliance's website at www.icpa-hq.org or the National Association of Home Builders Research Center's website at www.nahbrc.org for a list of manufacturers near Project site.

Cultured-Marble Countertop Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7421) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Crane Plumbing, LLC; a division of American Standard](http://www.specagent.com/Lookup?uid=123457167776).

[Tri-City Marble, Inc](http://www.specagent.com/Lookup?uid=123457167778).

Approved equivalent.

Solid-Surface Countertop Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7422) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[DuPont de Nemours, Inc](http://www.specagent.com/Lookup?uid=123457167782).

[Meganite Inc](http://www.specagent.com/Lookup?uid=123457167787).

[Swan Surfaces LLC (Swanstone)](http://www.specagent.com/Lookup?uid=123457167785).

Approved equivalent.

Fixture:

Description: Countertop lavatory with integral bowl(s) for mounting on base unit.

Backsplash: [Integral with countertop] [Separate, same material as countertop] [Not required].

Overall Rectangular Top Size: [**25 by 17 inches (635 by 432 mm)**] [**31 by 19 inches (787 by 483 mm)**] [**49 by 22 inches (1245 by 559 mm)**] [**73 by 22 inches (1854 by 559 mm)**] <Insert dimensions> with [one] [two] [three] [four] bowl(s).

Bowl Size: Oval, [**19 by 16 inches (483 by 406 mm)**] [**20 by 17 inches (508 by 432 mm)**] <Insert dimensions>.

Faucet-Hole Punching: [One hole] [Three holes, **2-inch (51-mm)** centers] [Three holes, **4-inch (102-mm)** centers].

Faucet-Hole Location: [**Countertop**] <**Insert location**>.

Color: [White] <Insert color>.

* + - * 1. Lavatories Countertop-Mounted Bowl <**Insert drawing designation**>:

Glass Countertop Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=13864) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Affinity Surfaces; a brand of Domain Industries, Inc](http://www.specagent.com/Lookup?uid=123457168021).

Approved equivalent.

Copper Countertop Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=13865) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Affinity Surfaces; a brand of Domain Industries, Inc](http://www.specagent.com/Lookup?uid=123457168024).

[Copper and Brass Sinks Direct](http://www.specagent.com/Lookup?uid=123457168025).

Approved equivalent.

Bronze Countertop Lavatories:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=13866) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Affinity Surfaces; a brand of Domain Industries, Inc](http://www.specagent.com/Lookup?uid=123457168027).

Approved equivalent.

Fixture:

General: Countertop lavatory bowl for mounting on base unit.

Overall Size: [**17-inch (142-mm)** OD] <Insert dimensions>.

Faucet-Hole Punching: [One hole] [Three holes, **2-inch (51-mm)** centers] [Three holes, **4-inch (102-mm)** centers].

Faucet-Hole Location: [**Countertop**] [**Wall**] <**Insert location**>.

Color: <Insert color>.

* + - * 1. Accessories:

Chrome-plated 17-gage brass P-trap [with clean-out plug] and arm with escutcheon.

Offset waste with [perforated open strainer] [plug and strainer].

[Wheel handle] [Screwdriver] stops.

**[Rigid]** [**Flexible**] supplies.

[Trap and waste insulated and offset to meet ADA compliance.]

* + - 1. LAVATORY FAUCETS
				1. NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Copy paragraph below and re-edit for each type of lavatory faucet valve required.

Insert drawing designation. Use these designations in lavatory description to identify required faucet for that lavatory.

* + - * 1. Lavatory Faucets Valve - [Single Control, Mixing] [Single Control, Nonmixing] [Two Handle, Mixing] <Insert drawing designation>:

General-Duty, Solid-Brass Lavatory Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7423) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167788).

[Bradley Corporation](http://www.specagent.com/Lookup?uid=123457167789).

[Elkay](http://www.specagent.com/Lookup?uid=123457167796).

Approved equivalent.

General-Duty, Copper- or Brass-Underbody Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7424) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167816).

[Delta Faucet Company](http://www.specagent.com/Lookup?uid=123457167818).

[Gerber Plumbing Fixtures LLC](http://www.specagent.com/Lookup?uid=123457167821).

Approved equivalent.

Description: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Body Material: [General duty, solid brass] [General-duty, copper or brass underbody with brass cover plate].

Finish: [Polished chrome plate] [Polished brass].

Maximum Flow Rate: [**2.2 gpm (8.3 L/min.)**] [**2.5 gpm (9.5 L/min.)**] <Insert value>.

Centers: [**3-3/8 inches (86 mm)**] [**4 inches (102 mm)**] [**6 inches (152 mm)**] [**8 inches (203 mm)**] [Single hole] [Adjustable].

Mounting: [Deck, exposed] [Deck, concealed] [Back/wall, exposed] [Back/wall, concealed].

Valve Handle(s): [Lever] [Knob] [Knob, nonmetallic] [Cross, four arm] [Wrist blade, **4 inches (102 mm)**] [Elbow, **6 inches (152 mm)**] [Push button] [Not applicable].

Inlet(s): [**NPS 3/83/8 inch (DN 10)** tubing, plain end] [**NPS 3/83/8 inch (DN 10)** tubing, with **NPS 1/21/2 inch (DN 15)** male adaptor] [**NPS 1/21/2 inch (DN 15)** male shank] [**NPS 1/21/2 inch (DN 15)** female shank].

Spout: [Rigid] [Swing] [Rigid, gooseneck] [Swivel, gooseneck].

If retaining "laminar flow" option in "Spout Outlet" Subparagraph below, retain "Laminar-Flow, Faucet-Spout Outlets" Article.

Spout Outlet: [Aerator] [Spray] [Laminar flow] [Plain end] [Spray, **0.5 gpm (1.5 L/min.)**].

Operation: [Compression, manual] [Noncompression, manual] [Sensor] [Self-closing, metering].

Drain: [Pop up] [Stopper with chain] [Grid].

* + - 1. SHOWERS

Copy first paragraph below and re-edit for each type of standard shower required.

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

* + - * 1. Showers - Standard [**FRP**] [**PMMA**] with Base and Faucet <**Insert drawing designation**>:

FRP Showers:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7425) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Clarion Bathware](http://www.specagent.com/Lookup?uid=123457167827).

[Sterling; a Kohler Company](http://www.specagent.com/Lookup?uid=123457168029).

Approved equivalent.

PMMA Showers:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7426) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Clarion Bathware](http://www.specagent.com/Lookup?uid=123457167838).

Comfort Designs Bathware.

[Jacuzzi Inc](http://www.specagent.com/Lookup?uid=123457167840).

Approved equivalent.

Standard: IAPMO Z124.1.2/ANSI Z124.1.2 “Plastic Bathtub and Shower Units”.

Nominal Size: [**36 by 34 inches (915 by 865 mm)**] [**42 by 36 inches (1065 by 915 mm)**] [**43 by 39 inches (1090 by 990 mm)**] [**48 by 34 inches (1219 by 865 mm)**] <Insert dimensions>.

Surround:

Retain first subparagraph below for FRP surround.

One piece[ or sealed, multiple piece].

Retain first subparagraph below for PMMA surround.

Surround: One piece.

Bathing Surface: Slip resistant.

Color: [White] <Insert color>.

Drain Location: [**Left side**] [**Center**] [**Right side**].

Faucet: <Insert faucet designation from "Shower Faucets" Article>.

Copy first paragraph below and re-edit for each type of accessible shower required.

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

* + - * 1. Showers - Accessible, [**FRP**] [**PMMA**] with Seat, Grab Bar, Base, and Faucet <**Insert drawing designation**>:

FRP Showers, Accessible:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7427) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Clarion Bathware](http://www.specagent.com/Lookup?uid=123457167846).

Approved equivalent.

PMMA Showers, Accessible:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7428) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Aquatic.

Comfort Designs Bathware.

Approved equivalent.

Standards: IAPMO Z124.1.2/ANSI Z124.1.2 “Plastic Bathtub and Shower Units” and ICC Code/ANSI A117.1 “Accessible and Usable Buildings and Facilities” for roll-in shower compartments.

Design Consultant to review code references and verify that the referenced sections/tables are current. Note that code references shall be based on the current version of the Uniform Code.

Nominal Size: [**60 by 36 inches (1525 by 915 mm)**] [**72 by 36 inches (1830 by 915 mm)**] <Insert dimensions>.

Retain first subparagraph below for FRP surround.

Surround:

One piece[ or sealed, multiple piece].

Retain first subparagraph below for PMMA surround.

Surround: One piece.

Bathing Surface: Slip resistant.

Color: [White] <Insert color>.

Drain Location: [**Left side**] [**Center**] [**Right side**].

Accessibility Options: Grab bar and bench.

Faucet: Shower <Insert faucet designation from "Shower Faucets" Article>.

Drain: Grid, NPS 22 inch (DN 50).

Copy paragraph below and re-edit for each type of factory-fabricated cabinet shower required.

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

* + - * 1. Showers - Factory-Fabricated Cabinet <**Insert drawing designation**>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2537) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Comfort Designs Bathware.

[Swan Surfaces LLC (Swanstone)](http://www.specagent.com/Lookup?uid=123457167853).

Approved equivalent.

Size: [**30 by 30 inches (762 by 762 mm)**] [**32 by 32 inches (815 by 815 mm)**] [**36 by 36 inches (915 by 915 mm)**] [**36 by 39 inches (915 by 990 mm)**] [**45 by 39 inches (1145 by 990 mm)**] <Insert dimensions>.

Material: [Steel] [Composite] [Plastic], [front] [corner] [front and rear] access.

Color: [Not applicable] <Insert color>.

Accessibility Options: Grab bar and bench.

Faucet: <Insert faucet designation from "Shower Faucets" Article>.

Supplies: NPS 1/21/2 inch (DN 15) copper tubing with shutoff valves.

Drain: Grid, NPS 22 inch (DN 50).

* + - 1. SHOWER FAUCETS
				1. NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Copy paragraph below and re-edit for each type of shower faucet required.

Insert drawing designation. Use these designations in shower description to identify required shower faucet.

* + - * 1. Shower Faucets <Insert drawing designation>:

Single-Handle, Pressure-Balance Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7429) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167856).

[Gerber Plumbing Fixtures LLC](http://www.specagent.com/Lookup?uid=123457167861).

[POWERS; A WATTS Brand](http://www.specagent.com/Lookup?uid=123457167867).

ProFlo; a Ferguson Enterprises, Inc. brand.

Approved equivalent.

Single-Handle, Thermostatic Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7430) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167875).

[POWERS; A WATTS Brand](http://www.specagent.com/Lookup?uid=123457167878).

ProFlo; a Ferguson Enterprises, Inc. brand.

Approved equivalent.

Two-Handle, Nonpressure-Balance and Nonthermostatic Mixing Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7431) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Gerber Plumbing Fixtures LLC.

[T&S Brass and Bronze Works, Inc](http://www.specagent.com/Lookup?uid=123457167893).

Approved equivalent.

Fixture:

Description: Include hot- and cold-water indicators, check stops, and [**fixed showerhead, arm, and flange**] [**handheld head complying with ASSE 1014 with arm, flange, hose, and bracket**]. Coordinate faucet inlets with supplies.

Retain option in "Standard" Subparagraph below for pressure-balance and thermostatic faucets.

Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings” [**and ASSE 1016**].

Body Material: [Solid brass] <Insert material> [ with nonmetallic trim].

Finish: [Polished chrome plate] [Polished brass] <Insert finish>.

Maximum Flow Rate: [**2.5 gpm (9.5 L/min.)**] <**Insert value**> unless otherwise indicated.

Mounting: [**Exposed**] [**Concealed**].

Backflow-Prevention Device for Handheld Shower: [**Required**] [**Not required**].

Operation: [Compression, manual] [Noncompression, manual].

Antiscald Device: [Integral with mixing valve] [Separate unit] [Not required].

Check Stops: Check-valve type, integral with or attached to body; on hot- and cold-water supply connections.

Supply Connections: [NPS 1/21/2 inch (DN 15)] [NPS 3/43/4 inch (DN 20)].

Shower Head:

Type: [Ball joint] [Without ball joint] [Ball joint and head integral with mounting flange] [Integral with mounting flange] [Handheld, slide-bar mounted] [Handheld, hook mounted].

Shower Head Material: [**Metallic**] [**Nonmetallic**] [**Combined, metallic and nonmetallic**] with chrome-plated finish.

Spray Pattern: [**Fixed**] [**Adjustable**].

Integral Volume Control: [**Required**] [**Not required**].

Shower-Arm, Flow-Control Fitting: [Not required] [**1.5 gpm (5.7 L/min.)**] [**2.0 gpm (7.6 L/min.)**].

* + - 1. BAR SINKS

Copy paragraph below and re-edit for each type of single-bowl, counter-mounted bar sink required.

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

* + - * 1. Bar Sinks - Single Bowl, Counter Mounted <**Insert drawing designation**>:

Enameled Cast-Iron Bar Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7432) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457168067).

Approved equivalent.

Enameled-Steel Bar Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7433) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167899).

[Commercial Enameling Company](http://www.specagent.com/Lookup?uid=123457168068).

Approved equivalent.

Solid-Surface Bar Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7435) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Meganite Inc](http://www.specagent.com/Lookup?uid=123457167911).

[Swan Surfaces LLC (Swanstone)](http://www.specagent.com/Lookup?uid=123457167910).

Approved equivalent.

Stainless Steel Bar Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7436) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Elkay](http://www.specagent.com/Lookup?uid=123457167913).

[Moen Incorporated](http://www.specagent.com/Lookup?uid=123457167919).

[Sterling; a Kohler Company](http://www.specagent.com/Lookup?uid=123457168070).

Approved equivalent.

Fixture:

Standard:

ASME A112.19.1/CSA B45.2 “Enameled Cast Iron and Enameled Steel Plumbing Fixtures” for enameled[**-steel**] [**cast-iron**] lavatories.

IAMPO Z124.3/ANSI Z124.3 “Plastic Lavatories” for PMMA lavatories.

IAMPO Z124.3/ANSI Z124.3 “Plastic Lavatories” for solid-surface lavatories.

ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures” for stainless steel lavatories.

ASME A112.19.2/CSA B45.1 “Ceramic Plumbing Fixtures” for vitreous-china lavatories.

Type: [Flat rim with ledge] [Self-rimming].

Overall Dimensions: <**Insert dimensions**>.

Bowl Dimensions: <**Insert dimensions**>.

Faucet: <Insert sink-faucet designation from "Sink Faucets" Article>.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article.

* + - 1. KITCHEN SINKS

Copy paragraph below and re-edit for each type of counter-mounted kitchen sink required.

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

* + - * 1. Kitchen Sinks - Counter Mounted <**Insert drawing designation**>:

Enameled Cast-Iron Kitchen Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7437) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457168071).

[Commercial Enameling Company](http://www.specagent.com/Lookup?uid=123457167923).

Approved equivalent.

Enameled-Steel Kitchen Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7438) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167926).

[Commercial Enameling Company](http://www.specagent.com/Lookup?uid=123457168072).

Approved equivalent.

PMMA Kitchen Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7439) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Gerber Plumbing Fixtures LLC.

[Sterling; a Kohler Company](http://www.specagent.com/Lookup?uid=123457168074).

Approved equivalent.

Solid-Surface Kitchen Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7440) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Swan Surfaces LLC (Swanstone)](http://www.specagent.com/Lookup?uid=123457167939).

Approved equivalent.

Stainless Steel Kitchen Sinks:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7441) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167610).

[Elkay](http://www.specagent.com/Lookup?uid=123457167600).

ProFlo; a Ferguson Enterprises, Inc. brand.

Approved equivalent.

Fixture:

Retain one of first four subparagraphs below.

ASME A112.19.1/CSA B45.2 “Enameled Cast Iron and Enameled Steel Plumbing Fixtures” for enameled[**-steel**] [**cast-iron**] kitchen sinks.

IAMPO Z124.3**/**ANSI Z124.3 “Plastic Lavatories” for PMMA kitchen sinks.

IAMPO Z124.3**/**ANSI Z124.3 “Plastic Lavatories” for solid-surface kitchen sinks.

ASME A112.19.3/CSA B45.4 “Stainless Steel Plumbing Fixtures” for stainless steel kitchen sinks.

Overall Dimensions: <**Insert dimensions**>.

Retain "Metal Thickness" Subparagraph below for stainless steel sinks.

Metal Thickness: [**0.038 inch (1.0 mm)**] [**0.050 inch (1.3 mm)**] <Insert dimension>.

Retain "Bowl" Subparagraph below for single-bowl sinks.

Bowl:

Dimensions: <Insert dimensions>.

Drain: 3-1/2-inch (89-mm) [**crumb cup**] [**grid**] [**outlet for disposer**].

Location: [Centered in bowl] [Near back of bowl] <Insert location>.

Retain "Left Bowl," "Right Bowl," and "Center Bowl" subparagraphs as required for multibowl sinks.

Left Bowl:

Dimensions: <Insert dimensions>.

Drain: 3-1/2-inch (89-mm) [crumb cup] [grid] [grid with offset waste] [outlet for disposer].

Location: [Centered in bowl] [Near back of bowl] <Insert location>.

Right Bowl:

Dimensions: <Insert dimensions>.

Drain: 3-1/2-inch (89-mm) [crumb cup] [grid] [grid with offset waste] [outlet for disposer].

Location: [Centered in bowl] [Near back of bowl] <Insert location>.

Center Bowl:

Dimensions: <Insert dimensions>.

Drain: [**1-1/2-inch (38-mm)**] [**3-1/2-inch (89-mm)**] [crumb cup] [grid] [grid with offset waste].

Location: [Centered in bowl] <Insert location>.

Faucet: <Insert sink-faucet designation from "Sink Faucets" Article>.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article, except include continuous waste for multibowl sinks.

Disposer: [Not required] <Insert disposer designation from "Disposers" Article>.

Hot-Water Dispenser: [Not required] [Comply with requirements in "Hot-Water Dispensers" Article].

* + - 1. LAUNDRY TRAYS

Copy first paragraph below and re-edit for each type of enameled cast-iron, flat-rim-ledge and self-rimming with ledge laundry tray required.

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

* + - * 1. Laundry Trays - Enameled Cast Iron <**Insert drawing designation**>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2541) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Commercial Enameling Company](http://www.specagent.com/Lookup?uid=123457167941).

Approved equivalent

Fixture:

Standard: ASME A112.19.1/CSA B45.2 “Enameled Cast Iron and Enameled Steel Plumbing Fixtures”.

Nominal Size: [**24 by 21 inches (610 by 535 mm)**] [**24 by 23 inches (610 by 584 mm)**] <Insert dimensions>.

Color: [White] <Insert color>.

Mounting: [Freestanding on manufacturer's standard metal stand] [Flush, counter mounted with stainless steel ring and sealant or on-counter mounted with sealant].

Faucet: <Insert sink-faucet designation from "Sink Faucets" Article>.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article.

Copy paragraph below and re-edit for each type of plastic laundry tray required.

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

* + - * 1. Laundry Trays - Plastic Laundry Tray <**Insert drawing designation**>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2542) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

Gerber Plumbing Fixtures LLC.

[Swan Surfaces LLC (Swanstone)](http://www.specagent.com/Lookup?uid=123457167947).

Zurn Industries, LLC.

Approved equivalent.

Fixture:

Standard: IAPMO Z124.6/ANSI Z124.6 “Plastic Sinks”.

Style: Flat-rim ledge.

Retain "Plastic" option in "Material" Subparagraph below or retain one or more of other options if a specific material is required.

Material: [Plastic] [Cast polymer] [FRP] [PMMA] [or] [PP].

Nominal Size: [**24 by 21 inches (610 by 535 mm)**] [**25 by 22 inches (635 by 559 mm)**] <Insert dimensions>.

Color: [White] <Insert color>.

Mounting: Freestanding on manufacturer's standard legs or separate, painted-steel stand.

Faucet: <Insert sink-faucet designation from "Sink Faucets" Article>.

Supply Fittings: Comply with requirements in "Supply Fittings" Article.

Waste Fittings: Comply with requirements in "Waste Fittings" Article.

* + - 1. SINK FAUCETS
				1. NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.

Copy paragraph below and re-edit for each type of sink faucet required.

Insert drawing designation. Use these designations in sink description to identify required faucet for that sink.

* + - * 1. Sink Faucets <Insert drawing designation>:

General-Duty, Solid-Brass Sink Faucets:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7442) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167951).

[Bradley Corporation](http://www.specagent.com/Lookup?uid=123457167952).

[Elkay](http://www.specagent.com/Lookup?uid=123457167960).

Approved equivalent.

* + - 1. LAMINAR-FLOW, FAUCET-SPOUT OUTLETS

Retain this article if a laminar-flow, faucet-spout outlet is specified for any lavatory or sink faucet.

Spout outlets in this article are nonaerating, produce less splashing than conventional faucet spouts, and help reduce bacteria growth.

* + - * 1. NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” for faucet-spout outlet materials that will be in contact with potable water.

* + - * 1. [Manufacturers:](http://www.specagent.com/Lookup?ulid=2545) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457168086).

[Chronomite Laboratories, Inc; a division of Morris Group International](http://www.specagent.com/Lookup?uid=123457167979).

[Delta Faucet Company](http://www.specagent.com/Lookup?uid=123457168087).

Approved equivalent.

* + - * 1. Description: Chrome-plated-brass, faucet-spout outlet that produces nonaerating, 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. DISPOSERS

Copy paragraph below and re-edit for each type of food-waste disposer required.

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

* + - * 1. Disposers <**Insert drawing designation**> [**Batch**] [**Continuous**]-Feed Household, Food Waste:

Batch-Feed Disposers:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7444) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[InSinkErator; Emerson Electric Co., Commercial and Residential Solutions](http://www.specagent.com/Lookup?uid=123457167983).

[KitchenAid; Whirlpool Corporation](http://www.specagent.com/Lookup?uid=123457167984).

[Maytag; Whirlpool Corporation](http://www.specagent.com/Lookup?uid=123457167985).

Approved equivalent.

Continuous-Feed Disposers:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7445) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Anaheim Manufacturing, Inc](http://www.specagent.com/Lookup?uid=123457167987).

[KitchenAid; Whirlpool Corporation](http://www.specagent.com/Lookup?uid=123457167990).

[Maytag; Whirlpool Corporation](http://www.specagent.com/Lookup?uid=123457167991).

Approved equivalent.

Standards: ASSE 1008 “Performance Requirements for Plumbing Aspects of Residential Food Waste Disposer Units” and UL 430 “Standard for Waste Disposers”, and listed and labeled as defined in NFPA 70 “Standard for Electrical Safety in the Workplace”, by a qualified testing agency, and marked for intended location and application.

General: Include reset button; wall switch; corrosion-resistant chamber with jam-resistant, cutlery- or stainless steel grinder or shredder; NPS 1-1/21-1/2 inch (DN 40) outlet; quick-mounting, stainless steel sink flange; antisplash guard; and combination cover/stopper.

Model: [Not applicable] [Sound-insulated chamber] [Sound-insulated chamber and stainless-steel outer shell].

Motor: 115 V ac, 1725 rpm, [**1/3**] [**1/2**] [**3/4**] [**1**] hp with overload protection.

* + - 1. HOT-WATER DISPENSERS
				1. NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” for faucet materials that will be in contact with potable water.

Copy paragraph below and re-edit for each type of flow-control, hot-water dispenser required.

Insert drawing designation. Use these designations on Drawings to identify each hot-water dispenser.

* + - * 1. Hot-Water Dispensers, Flow Control <**Insert drawing designation**>:

Gooseneck Spout with Lever-Handle, Flow-Control, Hot-Water Dispensers:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2631) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Elkay](http://www.specagent.com/Lookup?uid=123457167995).

[KitchenAid; Whirlpool Corporation](http://www.specagent.com/Lookup?uid=123457167998).

Approved equivalent.

Spout with Twist-Knob or Push-Button, Flow-Control, Hot-Water Dispensers:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=7446) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[Elkay](http://www.specagent.com/Lookup?uid=123457168000).

[KitchenAid; Whirlpool Corporation](http://www.specagent.com/Lookup?uid=123457168003).

Approved equivalent.

Standard: ASSE 1023 “Performance Requirements for Electrically Heated or Cooled Water Dispensers”.

General: Household-type dispenser with instant on-off control; insulated, corrosion-resistant-metal storage tank that is open to atmosphere; electric heating element; chrome-plated faucet or spout; removable strainer; thermostat control for water temperature up to 190 deg F (88 deg C); and thermal-overload protection.

Storage Tank Capacity: 0.5 gal. (1.5 L).

Heating Element: 750 W minimum, 115 V ac.

* + - 1. WATER CLOSETS

Copy paragraph below and re-edit for each type of gravity-tank, vitreous-china water closet required.

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

* + - * 1. Water Closets <Insert drawing designation>: Floor mounted, floor outlet, close coupled (gravity tank), vitreous china, [**1.6 gal./flush (6 L)/flush)**] [**1.28 gal./flush (5.8 L/flush)**] [**1.0 gal./flush (4.5 L/flush)**].

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2632) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457167574).

[Gerber Plumbing Fixtures LLC](http://www.specagent.com/Lookup?uid=123457167582).

[Kohler Co](http://www.specagent.com/Lookup?uid=123457167583).

[Mansfield Plumbing Products LLC](http://www.specagent.com/Lookup?uid=123457167585).

Approved equivalent.

Bowl:

Standards: ASME A112.19.2/CSA B45.1, ASME A112.19.5/CSA B45.15, and ASSE 1037/ASME A112.1060/CSA B125.16.

Bowl Type: [Siphon jet] <Insert type>.

Height: [Standard] [Child] [Handicapped/elderly].

Rim Contour: [**Elongated**] [**Regular**].

Retain first option in "Water Consumption" Subparagraph below unless special, low-consumption design is required.

Water Consumption: [**Water saving**] [**Low**].

Color: [White] <Insert color Toilet Seat: <Insert toilet-seat designation from "Toilet Seats" Article>.

Supply >.

Fittings:

with Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings”.

Supply Piping: Chrome-plated-brass pipe or chrome-plated-copper tube matching water-supply piping size. Include chrome-plated wall flange.

Stop: Chrome-plated-brass, one-quarter-turn, ball-type or compression stop inlet connection matching water-supply piping type and size.

Operation: [Loose key] [Wheel handle] <Insert type>.

Riser:

Size: [**NPS 3/83/8 inch (DN 10)**] [**NPS 1/21/2 inch (DN 15)**].

Material: [Chrome-plated, soft-copper flexible tube] [ASME A112.18.6/CSA 125.6, braided- or corrugated-stainless steel flexible hose] riser.

* + - 1. TOILET SEATS

Copy paragraph below and re-edit for each type of toilet seat required.

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

* + - * 1. Toilet Seats <Insert drawing designation>:

[Manufacturers:](http://www.specagent.com/Lookup?ulid=2636) Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

[American Standard](http://www.specagent.com/Lookup?uid=123457168004).

[Jones Stephens Corp](http://www.specagent.com/Lookup?uid=123457168013).

[Zurn Industries, LLC](http://www.specagent.com/Lookup?uid=123457168016).

Approved equivalent.

Standard: IAPMO Z124.5/ANSI Z124.5 “Interim Guide Criteria for Plastic Toilet (Water Closet) Seats”.

Material: Plastic.

Type: [Residential] [Commercial (Standard)].

Shape: [Regular rim (Open front)] [Regular rim (Closed front)] [Elongated rim (Open front)] [Elongated rim (Closed front)].

Configuration: [**Closed**] [**Open**] front [**with**] [**without**] cover.

Size: [Elongated] [Regular].

Hinge Type: [Check] [Self-sustaining] [Self-sustaining, check] [Self-raising].

Hinge Material: [Noncorroding metal] [Plastic].

Seat Cover: [Required] [Not required].

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

* + - 1. SUPPLY FITTINGS
				1. NSF Standard: Comply with NSF 61 “Drinking Water Systems Components - Health Effects” and NSF 372 “Drinking Water System Components - Lead Content” for faucet materials that will be in contact with potable water.
				2. Standard: ASME A112.18.1/CSA B125.1 “Plumbing Supply Fittings.
				3. [Bidet] [Lavatory] [Bar Sink] [Kitchen Sink] [and] [Laundry Tray] Supply Fittings:

Supply Piping: Chrome-plated-brass pipe or chrome-plated-copper tube matching water-supply piping size. Include chrome-plated wall flange.

Stops: Chrome-plated-brass, one-quarter-turn, ball-type or compression stop with inlet connection matching water-supply piping type and size.

Operation: [Loose key] [Wheel handle] <Insert type>.

Risers:

Size:

NPS 3/83/8 inch (DN 10) for [**bidets**] [**and**] [**lavatories**].

[**NPS 3/83/8 inch (DN 10)**] [**NPS 1/21/2 inch (DN 15)**] for [bar sinks] [kitchen sinks] [and] [laundry trays].

Material: [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 “Plumbing Waste Fittings”.
				2. Drain:

Grid type with NPS 1-1/41-1/4 inch (DN 32) offset tailpiece for accessible lavatories.

Pop-up type with NPS 1-1/41-1/4 inch (DN 32) straight tailpiece as part of faucet for standard lavatories.

Grid type with NPS 1-1/21-1/2 inch (DN 40) offset tailpiece for accessible [**bar sinks**] [**and**] [**kitchen sinks**].

Grid type with NPS 1-1/21-1/2 inch (DN 40) straight tailpiece for standard [**bar sinks**] [**and**] [**kitchen sinks**] [**and for laundry trays**].

* + - * 1. Trap:

Size:

[**NPS 1-1/41-1/4 inch (DN 32)**] [**NPS 1-1/21-1/2 inch by NPS 1-1/41-1/4 inch (DN 40 by DN 32)**] [**NPS 1-1/21-1/2 inch (DN 40)**] for [bidets] [and] [lavatories].

NPS 1-1/21-1/2 inch (DN 40) for [**bar sinks**] [**kitchen sinks**] [**and**] [**laundry trays**].

Material:

Retain one of three subparagraphs below.

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- (0.73-mm-)** 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- (0.30-mm-) thick stainless steel tube to wall; and stainless steel wall flange.

ASTM F409 [**ABS**] [**or**] [**PVC**] [**one**] [**two**]-piece trap and waste to wall and wall flange.

* + - 1. GROUT
				1. Standard: ASTM C1107/C1107M “Standard Specification for Packaged Dry, Hydraulic-Cement Grout”, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
				2. Characteristics: Nonshrink; recommended for interior and exterior applications.
				3. Design Mix: 5000 psi (34.5 MPa), 28-day compressive strength.
				4. Packaging: Premixed and factory packaged.
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 plumbing-fixture installation.
				2. Examine walls, floors, cabinets, and counters for suitable conditions where fixtures will be installed.
				3. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. INSTALLATION
				1. Install plumbing fixtures level and plumb in accordance with roughing-in drawings.
				2. Install floor-mounted water closets on closet flange attachments to drainage piping.

First paragraph below applies to counter-mounting fixtures, such as lavatories and sinks.

* + - * 1. Install counter-mounting fixtures in and attached to casework.
				2. Install pedestal lavatories on pedestals and secured to wood blocking in wall.
				3. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation.

Use ball or gate valves if supply stops are not specified with fixture. Comply with valve requirements specified in Section 220523.12 "Ball Valves for Plumbing Piping" and Section 220523.15 "Gate Valves for Plumbing Piping."

* + - * 1. Install tanks for accessible, tank-type water closets with lever handle mounted on wide side of compartment.
				2. Install toilet seats on water closets.
				3. Install faucet flow-control fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
				4. Install shower flow-control fittings with specified maximum flow rates in shower arms.
				5. Install traps on fixture outlets.

Omit trap on fixtures with integral traps.

Omit trap on indirect wastes unless otherwise indicated.

* + - * 1. Install disposer in outlet of each sink indicated to have a disposer. Install switch where indicated or in wall adjacent to sink if location is not indicated.
				2. Install hot-water dispensers in back top surface of sink or in countertop with spout over sink.
				3. Set [**bathtubs**] [**baths**] [**and**] [**shower receptors**] in leveling bed of cement grout.

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

* + - * 1. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible [**lavatories**] [**and**] [**sinks**]. Comply with requirements in Section 220719 "Plumbing Piping Insulation."
				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 220518 "Escutcheons for Plumbing Piping."
				3. Seal joints between plumbing fixtures, counters, floors, 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."
			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. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible [**lavatories**] [**and**] [**sinks**].
			1. ADJUSTING
				1. Operate and adjust plumbing fixtures and controls. Replace damaged and malfunctioning fixtures, fittings, and controls.
				2. Adjust water pressure at faucets to produce proper flow.
			2. CLEANING AND PROTECTION
				1. After completing installation of plumbing fixtures, inspect and repair damaged finishes.
				2. Clean plumbing fixtures, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
				3. Provide protective covering for installed plumbing fixtures and fittings.
				4. Do not allow use of plumbing fixtures for temporary facilities unless approved in writing by Director’s Representative.

END OF SECTION 224100