

SECTION 22 42 39

COMMERCIAL [SOAP DISPENSERS AND]FAUCETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SECTION INCLUDES

- A. Commercial matching designs touch-free soap dispensers and faucets that integrate with lavatories.
- B. Commercial faucet that integrate with matching design touch-free soap dispensers and lavatories.

1.3 RELATED SECTIONS

- A. Division 10 Section "Toilet, Bath and Laundry Accessories" for matching design soap dispensers.
- B. Division 22 Section "Commercial Lavatories and Faucets" for quartz and solid surface wash basins.
- C. Division 22 Section "Domestic Water Piping Specialties" for thermostatic mixing valves.
- D. Division 22 Section "Healthcare Plumbing Fixtures" for healthcare lavatories.
- E. Division 22 Section "Emergency Plumbing Fixtures" for emergency fixtures.
- F. Division 22 Section "Security Plumbing Fixtures" for security lavatories.

1.4 REFERENCES:

- A. American National Standards Institute (ANSI):
- B. American Society of Mechanical Engineers (ASME):
 - 1. ASME A112.18.1 Plumbing Supply Fittings.
- C. GREENGUARD Environmental Institute (GEI):
 - 1. GREENGUARD listed and certified low emitting products.
- D. International Association of Plumbing and Mechanical Officials (IAPMO):
 - 1. Universal Plumbing Code (cUPC both U.S. and Canada).
- E. National Fire Protection Association (NFPA):
 - 1. NFPA 70 – National Electrical Code.
- F. Public Law 102-486, Energy Policy Act, requires that public lavatories manufactured after December 31, 1996, have flow rate or consumption not greater than 0.5 gpm (1.5 L/min.) or 0.25 gal. (0.95 L) per metering cycle.

- G. State of Texas:
 - 1. Texas Accessibility Standards (TAS).
- H. US Federal Government:
 - 1. Public Law 102-486 - Energy Policy Act. 1992.
 - 2. U.S. Architectural & Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG).

1.5 ACTION SUBMITTALS

- A. Product Data: For each product:
 - 1. Manufacturer's data sheets indicating operating characteristics, materials and finishes.
 - 2. Include details of electrical and mechanical operating parts.
 - 3. Provide mounting requirements and rough-in dimensions.
 - 4. Mark each sheet with product drawing designation.
- B. LEED Submittals:
 - 1. Product Data for [Credit WE 2] and [Credit WE 3]: Documentation indicating compliance with requirements.

1.6 INFORMATION SUBMITTALS

- A. Sample warranty.
- B. Operation, care and cleaning instructions.

1.7 MAINTENANCE SUBMITTALS

- A. Furnish indicated spare parts that are packaged with identifying labels listing associated products.
- B. Operation and Maintenance data.

1.8 QUALITY ASSURANCE

- A. Laminar-Flow, Faucet-Spout Outlets:
 - 1. NSF Standard: Comply with NSF 372 for faucet-spout outlet materials that will be in contact with potable water.
 - 2. Description: Chrome-plated-brass, faucet-spout outlet that produces non-aerating, laminar stream. Include external or internal thread that mates with faucet outlet for attachment to faucets where indicated and flow-rate range that includes flow of faucet.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with Public Law 102-486, Energy Policy Act.
- D. Comply with NSF 372, Drinking Water System Components – Health Effects.
 - 1. Product shall meet a weighted average of not more than 0.25 percent lead as required by the U.S. Safe Drinking Water Act.

1.9 WARRANTY

- A. Special Manufacturer's Warranty: Provide manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship.

1. Soap Dispenser: Three years.
2. Faucets: Three years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Verge Design Series commercial faucets [and soap dispensers]manufactured by Bradley Corporation, Menomonee Falls, WI 53051, (800)272-3539, fax (262)251-5817; Email info@BradleyCorp.com; Website www.bradleycorp.com.
1. Submit comparable products of one of the following for approval by Architect:
 - a. [Insert name of manufacturer of comparable product.]
 2. Submit requests for substitution in accordance with Instructions to Bidders and Division 01 General Requirements.
 3. Provide specified product; Owner will not consider substitution requests.

2.2 SENSOR-OPERATED WASHBAR

- A. Sleek single Casting WashBar with integral soap and faucet, infrared control, smart technology with adjustable LED lighting and easy to identify icons and external tempering control **FCT#_____**:
1. Basis of Design Manufacturer/Model: Bradley WBD1.
 2. Function: Blue LED lights help guide the user, indicating the functions. The LED light will change from blue to green to signify that the function is in use. Each function is easily identified by the corresponding icon on the WashBar top surface. Each sensor includes a turn-off delay of 1-2 seconds to aid in a smooth, controlled hand-washing
 3. Body: Polished chrome plated stainless steel. Load tested to 500 pounds, WashBar is secured to the basin with two anti-rotational shanks.
 4. Chrome Finish: "PC" Polished Chrome.
 5. Physical Vapor Deposition (PVD) Finish: "BB" Brushed Black Stainless.
 6. Physical Vapor Deposition (PVD) Finish: "BS" Brushed Stainless.
 7. Physical Vapor Deposition (PVD) Finish: "BZ" Brushed Bronze.
 8. Physical Vapor Deposition (PVD) Finish: "BR" Brushed Brass.
 9. Physical Vapor Deposition (PVD) Finish: "BN" Brushed Nickel.
 10. Tempered Water Supply: [Single tempered line][Single thermostatic mixing valve].
 11. Aerator: [0.35 gpm (1.32 L/s) PCA Rubber Tip Aerator][0.50 gpm (1.89 L/s) PCA Rubber Tip Aerator]
 12. Soap Type: [Foam Soap Dispenser][Liquid Soap Dispenser]. Soap system accommodates up to a 1 gallon (3.8 L) container.
 13. Sensor Module: Water-conserving, durable sensor unit with adjustable timing turn-off delay and stationary object automatic timed cutoff, with diagnostic signal light.
 - a. Sensing Distance: 5 inches (127mm).
 14. Power Supply: 120V 2A 12V DC adapter that plugs directly into the electrical outlet.
 15. Thermostatic Mixing Valve: Thermostatic mixing valve, ASSE 1070 listed, with stop/strainer/check valves, and flexible stainless steel connectors.

2.3 SENSOR-OPERATED LAVATORY FAUCETS

- A. Deck Mounted Faucet – General:
1. Basis of Design Manufacturer/Model: **Bradley Verge**
 2. Touch free dual sensor activation.
 3. Compliance and Certifications:
 - a. ADA ANSI/ICC A117.1, Citation 609.3.
 - b. ASME A112.18.1/CSA B125.1.
 - c. NSF/ANSI 372 – Lead Free.
 - d. NSF/ANSI 61.
 - e. cUPC.

- f. CE electrical components.
 4. Vandal-resistant construction shall include concealed sensor package, durable finish, and anti-rotational gasket/washer.
 5. In-line filter supplied with either mixing assembly or tempered line assembly to trap debris.
 6. Operation: Dual sensors utilizing time of flight and diffuse reflective sensors.
 - a. Operating Water Pressure Range: 20 to 125 psi.
 - b. Faucet activates water flow only when user's hands enter the infrared detection zone.
 - c. Faucet turns off after user's hands are removed from the lavatory bowl area.
 - d. Eleven (11) second run time (with or without hands under sensor). Manually set run time using control module (4s, 11s, 15s, 30s, 60s, 180s with or without auto system rinse).
 - e. Sixty (60) second auto system rinse every 24 hours. Option for sanitary manual flush.
 7. Chrome Finish: "PC" Polished Chrome.
 8. Physical Vapor Deposition (PVD) Finish: "BB" Brushed Black Stainless.
 9. Physical Vapor Deposition (PVD) Finish: "BS" Brushed Stainless.
 10. Physical Vapor Deposition (PVD) Finish: "BZ" Brushed Bronze.
 11. Physical Vapor Deposition (PVD) Finish: "BR" Brushed Brass.
 12. Physical Vapor Deposition (PVD) Finish: "BN" Brushed Nickel.
- B. Electronic Lavatory Faucets:
1. Sensor-Operated, High-Arc Profile Metering Faucet with Infrared Control **FCT#**____: Vandal-resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: Bradley Verge, Crestt Series, Model S53-3100.
 - b. Body: Commercial solid cast brass.
 - c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
 - i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.
- C. Electronic Lavatory Faucets:
1. Sensor-Operated, Tubular Design Metering Faucet with Infrared Control **FCT#**____: Vandal-resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: Bradley Verge, Metro Series, Model S53-3300.
 - b. Body: Commercial solid cast brass.
 - c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
 - i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.
- D. Electronic Lavatory Faucets:
1. Sensor-Operated, Tubular Design Metering Faucet with Infrared Control **FCT#**____: Vandal-resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: Bradley Verge, Linea Series, Model S53-3500.
 - b. Body: Commercial solid cast brass.

- c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
- d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
- e. Drain Strainer: Finish to match.
- f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
- g. Power Supply: Battery (standard).
- h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
- i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.

E. Electronic Lavatory Faucets:

- 1. Sensor-Operated, Tubular Design Metering Faucet with Infrared Control FCT#___: Vandal-resistant accessible faucet meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
 - a. Basis of Design Manufacturer/Model: Bradley Verge, Zen Series, Model S53-3700.
 - b. Body: Commercial solid cast brass.
 - c. Water Supply: [Tempered Line Assembly (Supply Hose and Shut-Off Included)][Navigator Thermostatic Mixing Assembly (Supply Hose and Shut-Off Included)].
 - d. Flow Type: [0.35 gpm (1.3 Lpm) Silicone Tip, multiple individual laminar flow streams][0.5 gpm (1.9 Lpm) Silicone Tip, multiple individual laminar flow streams].
 - e. Drain Strainer: Finish to match.
 - f. Sensor Module: Water-conserving, vandal-resistant dual sensors utilizing time of flight and diffuse reflective sensors with timing turn-off delay and stationary object automatic timed cutoff.
 - g. Power Supply: Battery (standard).
 - h. Power Supply: 120VAC/6VDC, 50/60Hz plug-in transformer adapter with battery back-up. 4x AA batteries (included). Low battery indicator on spout.
 - i. Power Supply: Provide power supply "splitter" for 2, 3 or 4 faucets as required. Provide 14 feet (4.3 m) extension power cable as required.

2.4 MATCHED SOAP DISPENSERS

A. Deck Mounted Soap Dispensers – General:

- 1. Touch free infrared sensor-operated.
- 2. Multi-station system shall supply up to six soap dispensers.
- 3. Compliance and Certifications:
 - a. ADA / ICC ANSI A117.1, Citation 609.4.
 - b. UL electrical components.
 - c. CE electrical components.
- 4. Vandal-resistant construction shall include concealed sensor package, durable finish, and anti-rotational gasket/washer.
- 5. Chrome Finish: "PC" Polished Chrome.
- 6. Physical Vapor Deposition (PVD) Finish: "BB" Brushed Black Stainless.
- 7. Physical Vapor Deposition (PVD) Finish: "BS" Brushed Stainless.
- 8. Physical Vapor Deposition (PVD) Finish: "BZ" Brushed Bronze.
- 9. Physical Vapor Deposition (PVD) Finish: "BR" Brushed Brass.
- 10. Physical Vapor Deposition (PVD) Finish: "BN" Brushed Nickel.

B. Sensored Soap Dispenser SD#___: Deck-mounted, sensor-operated, cast brass, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.][with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.][with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]

- 1. Basis of Design Manufacturer/Model: Bradley Verge Deck-Mounted Soap Dispenser, Crestt Series, Model 6-3100.

C. Sensored Soap Dispenser SD#___: Deck-mounted, sensor-operated, cast brass, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.][with single

dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.]]with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]

1. Basis of Design Manufacturer/Model: Bradley Verge Deck-Mounted Soap Dispenser, Metro Series, Model 6-3300.

- D. Sensored Soap Dispenser SD#___: Deck-mounted, sensor-operated, cast brass, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.]]with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.]]with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]

1. Basis of Design Manufacturer/Model: Bradley Verge Deck-mounted Soap Dispenser, Linea Series, Model 6-3500.

- E. Sensored Soap Dispenser SD#___: Deck-mounted, sensor-operated, cast bronze, with LED battery and soap level indicators, [with battery box and batteries. 70.5 oz (2080 mL) capacity bottle.]]with single dispenser 120VAC powerpack. 70.5 oz (2080 mL) capacity bottle.]]with maximum of 6 dispenser 120VAC powerpack. Multi-feed Tank: 166.5 oz (5026 ml).]

1. Basis of Design Manufacturer/Model: Bradley Verge Deck-Mounted Soap Dispenser, Zen Series, Model 6-3700.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Assemble fixtures and associated fittings and trim in accordance with manufacturer's instructions.
- B. Verify all rough-in dimensions prior to installation.
- C. Mount soap dispenser in 1-3/8 inches (35 mm) diameter hole in lavatory or countertop 1-1/2 inches (38 mm) from edge of sink. Shank will accommodate a maximum counter thickness of 1-1/2 inches (38 mm).
- D. Install water supply piping to each fixture requiring water supply connection. Provide stop on each supply in readily-serviced location. Fasten supply piping to supports or substrate.

3.2 CLEANING AND PROTECTION

- A. Repair or replace defective work, including damaged fixtures and components.
- B. Clean unit surfaces, test fixtures, and leave in ready-to-use condition.
- C. Install new batteries in battery-operated devices at time of Substantial Completion.
- D. Turn over keys, tools, maintenance instructions, and maintenance stock to Owner.
- E. Protect units with water-resistant temporary covering. Do not allow temporary use of plumbing fixtures unless approved in writing by Architect. Remove protection at Substantial Completion and dispose.

3.3 TESTING AND ADJUSTING

- A. Set field-adjustable temperature set points of temperature-actuated water mixing valves. Adjust set point within allowable temperature range.
- B. Test and adjust installation.
- C. Remove and replace malfunctioning thermostatic mixing valves and retest.

END OF SECTION