

## BRADLEY COMMERCIAL SINKS

Bradley Corporation, the industry's leading manufacturer of premium quality commercial sinks and sink faucets, serves a diverse customer base ranging from local business facilities to international corporations like Wal-Mart, General Motors, U.S. Postal Service, W.W. Grainger, AMC Theaters Corporation.

Architects, engineers, and specifiers look to Bradley Corporation for innovation in design and leadership in the development of environmentally conscious products. Bradley Corporation, a member of the U.S. Green Building Council, the Wisconsin Green Building Alliance, has several products earning certification by Greenguard Environmental Institute, and Greenguard Children and Schools program.

Bradley eases the specifying process with a seasoned customer service staff and a range of helpful information tools on an advanced website. For example, easy-to-use sizing software, available on Bradley's website, allows engineers to quickly determine the correct size Thermostatic Mixing Valves.

Bradley is the industry leader in the manufacture of premium quality commercial plumbing fixtures, valves, TMVs and washroom accessories that appear in the following CSI MasterFormat 2004™ Sections:

- Section 10 21 13 – Toilet Compartments (Mills Metal, Plastic-laminate, Phenolic, and Plastic units)
- Section 10 28 13.13 – Commercial Toilet Accessories
- Section 10 28 13.15 – Hand and Hair Dryers
- Section 10 28 13.63 – Detention Toilet Accessories
- Section 10 51 26.00 – Plastic Lockers (Lenox Plastic Lockers)
- Section 10 51 26.13 – Plastic Lockers (Lenox Recycled Plastic lockers)
- Section 22 11 19 – Domestic Water Piping Specialties (Thermostatic mixing valves)
- Section 22 42 16.01 – Commercial Lavatories and Faucets (Single and multi-station lavatory systems)
- Section 22 42 16.02 – Commercial Lavatories and Faucets (Bradley Advocate Lavatory System)
- Section 22 42 16.03 – Commercial Lavatories and Faucets (Bradley Verge Lavatory System)
- Section 22 42 16.11 – Commercial Sinks and Faucets
- Section 22 42 23 – Commercial Showers and Shower Valves
- Section 22 42 33 – Wash Fountains
- Section 22 43 00 – Healthcare Plumbing Fixtures (Patient care lavatory units)
- Section 22 45 00 – Emergency Plumbing Fixtures (Emergency Eyewash Fixtures and Drench Showers)
- Section 22 46 00 – Security Plumbing Fixtures

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Bradley Corporation is an AIA/CES registered provider currently offering five programs earning one (1) HS&W Learning Unit each; several qualify for sustainable design (SD) credit. All active AIA members must successfully complete 18 learning unit (LU) hours each year.

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## **SECTION 22 42 16 COMMERCIAL SINKS AND FAUCETS**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

1. Commercial sinks.

#### **1.2 RELATED SECTIONS**

- A. Division 22 Section "Domestic Water Piping Specialties."

#### **1.3 REFERENCES**

##### **A. American National Standards Institute (ANSI):**

1. ANSI Z 124.3 - Plastic Lavatories.
2. ANSI Z 124.6 - Plastic Sinks.
3. ANSI/ICPA SS-1-2001 - Performance Standard for Solid Surface Materials.
4. ICC/ANSI A117.1 - Accessible And Usable Buildings And Facilities.

##### **B. ASME International (ASME):**

1. ASME A112.18.1 - Plumbing Fixture Fittings.
2. ASME A112.18.2 - Plumbing Fixture Waste Fittings.
3. ASME A112.18.3M - Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings.
4. ASME A112.19.1M - Enameled Cast Iron Plumbing Fixtures.
5. ASME A112.19.2M - Vitreous China Plumbing Fixtures.
6. ASME A112.19.4M - Porcelain Enameled Formed Steel Plumbing Fixtures.

##### **C. Canadian Standards Association (CSA):**

1. CSA B125 - (See ASME A112.18.1 - Plumbing Fixture Fittings).

##### **D. International Association of Plumbing and Mechanical Officials (IAPMO):**

1. Uniform Plumbing Code (cUPC).

##### **E. NSF International (NSF):**

1. NSF 61 - Drinking Water System Components - Health Effects; Sections 1 through 9.

##### **F. Underwriters Laboratories, Inc.:**

1. UL 1951 - Electric Plumbing Accessories.

#### **1.4 ACTION SUBMITTALS**

- A. Product Data: For each product indicated.

- B. Wiring Diagram: For products requiring electrical power.

Bradley Corporation's TerreonRE recycled solid surface material contains 25-percent preconsumer recycled content and 8-percent rapidly renewable material. LEED WE Credit 2 is for 50 percent reduction

in water use for building sewer, based on use of water-conserving fixtures documented under Credit WE 3. LEED WE Credit 3 is for 30, 35, or 40 percent reduction in water usage. Coordinate with Division 01 requirements for LEED MR Credit 5 Regional Materials where applicable.

C. LEED Submittals:

1. Product Data for [Credit WE 2] [and] [Credit WE 3]: Documentation indicating compliance with requirements.

1.5 INFORMATIONAL SUBMITTALS

- A. Counter cutouts and plumbing connections requirements.

1.6 CLOSEOUT SUBMITTALS

- A. Cleaning and maintenance data.

1.7 QUALITY ASSURANCE

- A. Comply with NSF 61.
- A. Electrical Components: Listed and labeled per NFPA 70, Article 100.

1.8 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 for a period of [10] years from date of shipping from manufacturer.

PART 2 - PRODUCTS

2.1 COUNTERTOP-SUPPORTED SINKS

Specifier: **Bradley Terreon Classroom Sink** described below features solid surface material Terreon or recycled solid surface material TerreonRE deck, including one or two integral classroom sink(s), accepting faucets and optional soap dispenser, drinking fountain, and waste receptacle openings. Terreon Lav Deck is supported by casework supplied by others. Complies with accessibility requirements when mounted at required height on accessible casework.

- A. Integral Solid Surface Sink **SNK#\_\_\_**: Constructed of solid surface material with integral bowl, contoured front apron, coved backsplash[, side splashes], [, perimeter drip ledge], with deck mounted faucets[, liquid soap dispensers] [, and waste receptacle openings]. Unit includes waste and supply connections to wall[, concealed by high impact polymer trap cover].
  1. Basis of Design Manufacturer/Model: **Bradley, [Terreon] [TerreonRE] Classroom Sink**
  2. Bowl Size: [16 by 21 inch (406 by 533 mm)], [3-1/2 inch (89 mm)] [5-1/2 inch (140 mm)] [8 inch (203 mm)] deep.
  3. Bowl Size: [10 by 14 inch (254 by 356 mm)], 8 inch (203 mm) deep.
  4. Deck Color: As selected by Architect from manufacturer's full line.
  5. Bowl Color: [Match deck color] [As selected by Architect from manufacturer's full line].

Specifier: Faucet described below is standard with unit; see Faucets article for available Bradley faucets.

6. Faucet: Gooseneck, 10 inch (254 mm) high, with infrared sensor metering control[, with 110/24 VAC plug-in transformer] [battery operated].
    - a. Basis of Design Manufacturer/Model: **Bradley, Aerada 1000 Series Gooseneck.**
  7. Drinking Fountain: [Lever activated] [Push button activated].
  8. Soap Dispenser: 2: [16 oz. (473 mL)] [32 oz. (946 mL)] [stainless steel] [plastic] globe, with 4 inch (102 mm) spout.
- B. Countertop-Mounted Kitchen Sink **SNK#\_\_\_**: [One] [Two] [Three]-bowl, [stainless-steel] [enameled, cast-iron] [porcelain-enameled, formed-steel] [solid-surface] residential kitchen sink, counter-mounted, with [disposer fitting] [dishwasher air gap fitting] [hot water dispenser].
1. Basis of Design Manufacturer/Model: [Specifier: Insert manufacturer/model].
  2. Size: 33 by 22 by 8-1/4 inch (838 by 559 by 209 mm).
  3. Color: [Specifier: Insert color if required].
  4. Faucet: Kitchen sink [Specifier: Insert faucet description].
    - a. Basis of Design Manufacturer/Model: [Specifier: Insert manufacturer/model].

## 2.2 SERVICE SINKS

- A. Service Sinks **SNK#\_\_\_**: [Enameled, cast-iron] [Vitreous china] trap standard service sink, wall-mounting.
1. Basis of Design Manufacturer/Model: [Specifier: Insert manufacturer/model].
  2. Size: 22 by 18 inches (560 by 460 mm).
  3. Color: White.
  4. Faucet: Sink [Specifier: Insert faucet description].
- B. Laundry Trays **SNK#\_\_\_**: Plastic, stand-mounted laundry tray.
1. Size: 25 by 22 inches (635 by 560 mm).
  2. Faucet: Sink, fixture ledge-mounted.

## 2.3 SINK FAUCETS

- A. Sensor-Operated, Gooseneck Metering Faucet with Infrared Control FCT#\_: Vandal-resistant accessible faucet, meeting ASME A112.18.1/CSA B125. ADA/ANSI A117.1 compliant.
1. Basis of Design Manufacturer/Model: **Bradley, Aerada 1000 Series Gooseneck.**
  2. Body: Polished chrome plated commercial solid forged brass spout base, with [centershank] [4 inch (102 mm) centerset] mounting [with trim plate].
  3. Aerator: Flow rate 0.5 gpm (0.032 L/s) at operating range of 20 to 80 psi (138 to 552 kPa). Provide installer-optional 1.6 gpm (0.100 L/s) laminar flow insert with plain spray ring and 2.2 gpm (0.139 L/s) aerator insert.
  4. Water Supply: [Single tempered line] [Manual mixing valve, deck-mounted] [Single thermostatic mixing valve].
  5. Sensor Module: Water-conserving, vandal-resistant sensor unit with programmable sensor range, with field-configurable timing turn-off delay and stationary object automatic timed cutoff.
  6. Power Supply: [Battery operated] [Single faucet 110VAC/6VDC, 50/60Hz plug-in transformer with anti-theft bracket] [Existing supply].

## 2.4 SUPPLY FITTINGS

- A. NSF Standard: Comply with NSF/ANSI 61 for supply-fitting materials that will be in contact with potable water.
- B. Standard: ASME A112.18.1/CSA B125.1.
- C. Supply Piping: Chrome-plated brass pipe or chrome-plated copper tube matching water-supply piping size. Include chrome-plated brass or stainless-steel wall flange.
- D. Supply Stops: Chrome-plated brass, one-quarter-turn, ball-type or compression valve with inlet connection matching supply piping.

Specifier: Retain "Wheel handle" option in "Operation" Paragraph below for one-quarter-turn, ball-type stops.

- E. Operation: [Loose key] [Wheel handle].
- F. Risers:
  - 1. Size: [NPS 3/8 (DN 10)] [NPS 1/2 (DN 15)].
  - 2. Type: [Chrome-plated, rigid-copper pipe] [Chrome-plated, soft-copper flexible tube] [ASME A112.18.6, braided or corrugated stainless-steel flexible hose].

## 2.5 WASTE FITTINGS

- A. Standard: ASME A112.18.2/CSA B125.2.
- B. Drain: Grid type with NPS 1-1/2 (DN 40) offset and straight tailpiece.
- C. Trap:
  - 1. Size: NPS 1-1/2 (DN 40).

Specifier: Retain one of two "Material" subparagraphs below; select chrome-plated trap types used on project.

- 1. Material: Stainless-steel, two-piece trap and swivel elbow with 0.012-inch- (0.30-mm-) thick stainless-steel tube to wall; and stainless-steel wall flange.
- 2. Material: Chrome-plated, with and chrome-plated brass or steel wall flange, of the following type:
  - a. Two-piece, cast-brass trap and swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall
  - b. Two-piece, cast-brass trap and ground-joint swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall
  - c. One-piece, cast-brass trap with swivel 0.029-inch- (73-mm-) thick tubular brass wall bend.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

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

- B. Examine walls, floors, and counters for suitable conditions where sinks will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Install sinks level and plumb according to roughing-in drawings.
- B. Install supports, affixed to building substrate, for wall-hung sinks.

Specifier: Indicate on Drawings those sinks that are required to be accessible.

- C. Install accessible wall-mounted sinks at handicapped/elderly mounting height according to ICC/ANSI A117.1.
- D. Set floor-mounted sinks in leveling bed of cement grout.
- E. Install water-supply piping with stop on each supply to each sink faucet.
  - 1. Exception: Use ball, gate, or globe valves if supply stops are not specified with sink. Comply with valve requirements specified in Division 22 Section "General-Duty Valves for Plumbing Piping."
  - 2. Install stops in locations where they can be easily reached for operation.
- F. 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 Division 22 Section "Escutcheons for Plumbing Piping."
- G. Seal joints between sinks and 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 Division 07 Section "Joint Sealants."

Specifier: Indicate on Drawings those sinks that are required to be accessible.

- H. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible sinks. Comply with requirements in Division 22 Section "Plumbing Piping Insulation."

### 3.3 CONNECTIONS

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

- A. Connect sinks with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
- B. Comply with water piping requirements specified in Division 22 Section "Domestic Water Piping."
- C. Comply with soil and waste piping requirements specified in Division 22 Section "Sanitary Waste and Vent Piping."

3.4 ADJUSTING

- A. Operate and adjust sinks and controls. Replace damaged and malfunctioning sinks, fittings, and controls.
- B. Adjust water pressure at faucets to produce proper flow.

3.5 CLEANING AND PROTECTION

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

END OF SECTION