22 40 00 – Plumbing Fixtures
DIVISION 22 - Plumbing

STATEMENT OF PURPOSE & BACKGROUND

- Scope:
  - Selection, preparing and installation of plumbing fixtures.

- Statement of goals:
  - Provide consistent, high quality products that are:
    - Durable;
    - Easily maintainable;
    - Code compliant.

- Revision history of section:
  - 04/15/19
  - 04/07/21

SELECTION AND APPLICATION CRITERIA

- Single Occupancy Toilet Room, Accessible (except for PK-K and ECSE):
  - Wall mounted toilet, mount rim at 17” A.F.F.
  - Wall mounted lavatory, mount rim at 34” maximum A.F.F.

- Inclusive Toilet Rooms - Individual Toilet Rooms with Common Wash Area:
  - Non-accessible stalls: Wall mounted toilet, mount rim at 15” A.F.F.
  - Accessible and Ambulatory stalls: Wall mounted toilet, rim at 17” A.F.F.
  - Wall mounted lavatory where occurs (Accessible per code), rim at 34” A.F.F.
  - Communal Use Lavatories in Solid Surface Countertops (Accessible).

- PK-K and ECSE Single Occupancy Toilet Rooms, Accessible:
  - Wall mounted toilet, mount rim at 15” maximum A.F.F.
  - Wall mounted lavatory, rim to be 31” maximum A.F.F. Mount outside of and adjacent to toilet room; verify locations and clearances with Owner.
  - Floor mounted toilets shall not be used except to replace existing units where wall mount is not feasible. Child-size toilets shall not be used.

- Standard Drinking Fountain:
  - Single Station with or without Bottle Filler. Mount at ADA height typical.
  - 2 Station, 2 Level with Bottle Filler. Quantities and Locations per MN Building Code. Mount lower unit at ADA height typical. Bottle filler at lower unit.

- Locker Rooms:
  - Shower mixing valves and heads
  - Wall mounted lavatories
  - Wall mounted water closets (Accessible per Code)

- Laboratories:
  - Single or Dual Gas Turret (where provided)
  - Deck Mounted Gooseneck Faucet for Laboratory Sinks
  - Emergency Shut-off Valves in a Secure Access Panel
  - Emergency Eye Wash and Wash Shower (where required)
  - Acid Resistant Piping to Acid Neutralization Tank (See section 22 10 00)
  - Refer to Section 12 35 53 Laboratory Casework for further information.

- Art Room:
  - Counter Mounted stainless steel sink with Solid Polymer countertop; provide open space below with pipe shield per ADA requirements.
  - Sink Type S-2 as noted below.
  - A Wall Mounted stainless steel utility sink may be used in addition to counter mounted sinks per Owner direction.
  - Include Solids Interceptor for Clay/Waste at all art room sinks and where required.
• Music/Band Room:
  o Counter Mounted stainless steel sink with Solid Polymer countertop; provide open space below with pipe shield per ADA requirements.
  o Sink Type S-2 as noted below.
  o In addition, a Wall Mounted stainless steel utility sink shall be used at secondary music suites for cleaning brass and wind musical instruments.

• PK-K Classrooms, Staff Lounge:
  o Counter Mounted stainless steel sink with Solid Polymer countertop
  o Deck Mounted Faucets without drinking fountain bubbler
  o Sink Type S-1 as noted below

• Support Spaces, Workrooms, Health Office:
  o Counter Mounted stainless steel sink with Solid Polymer countertop
  o Deck Mounted Faucets without drinking fountain bubbler
  o Sink Type S-2 as noted below, u.n.o.

• Custodial Rooms:
  o Molded Stone Floor Mounted Service Basin
  o Mechanical Wall Mounted Faucets with mop bucket hook
  o Molded Stone Floor Mounted Laundry Tub where provided with Mechanical Deck Mounted Faucet; location per Owner.

• Laundry Equipment:
  o Washer / Waste Unit Outlet Box where provided; verify location with Owner.

OUTLINE SPECIFICATION
• Part 1 General
• Part 2 Products
  o Listed products and manufacturers are for design intent. Equivalent manufacturers, approved, in writing, in advance, by the Architect, may be substituted in accordance with the provisions of the Contract.
  o Prior to final documents, review all plumbing fixtures and faucets with SPPS Project Manager and Plumbing Shop to ensure compatibility with maintenance requirements.
  o Water Closets:
    ▪ Wall Mounted:
      • Manufacturer: American Standard
      • Model: AFWALL
      • Rim Height AFF: 15” or 17” as noted above
      • Material: Vitreous China
      • Color: White
      • Seat: Church 295 SSCT Elongated Rim, Self Sustaining Hinges and Sta-Tite fastening system
      • Flow: 1.6 GPF
      • Brass: Sloan Valve, Model #111-1.6 Royal Flush Valve
    ▪ Retrofit / Wall Mounted / ADA Compliant:
      • Manufacturer: American Standard
      • Model: AFWALL, EverClean (where required)
      • Rim Height AFF: 17”
      • Material: Vitreous China
      • Color: White
      • Trim: Church 295 SSCT Elongated Rim, Self Sustaining Hinges with Sta-Tite fastening system
      • Flow: 1.6 GPF
      • Brass: Sloan Valve, Model #111-1.6 Royal Flush Valve
Floors Mounted (For replacement of existing only where wall mount is not feasible):
- Manufacturer: American Standard
- Model: Madera
- Height AFF: 15” or 17” to meet ADA requirements
- Material: Vitreous China
- Color: White
- Trim: Church 295 SSCT Elongated Rim, Self Sustaining Hinges and Sta-Tite fastening system
- Flow: 1.6 GPF
- Brass: Sloan Valve, Model #111-1.6 Royal Flush Valve
- Child-size toilets shall not be used.

Urinals:
- Standard Height:
  - Manufacturer: Sloan
  - Model: Efficiency Series
  - Height AFF: 24” To Rim
  - Material: Vitreous China w/ Integral Flushing Rim
  - Color: White
  - Trim: Ultra Low Flush Fixture
  - Flow: .25 GPF
  - Brass: Sloan Valve specifically designed for china, No-hold open handle
- Accessible Height:
  - Manufacturer: Sloan
  - Model: Efficiency Series
  - Height AFF: 17” To Rim
  - Material: Vitreous China w/ Integral Flushing Rim
  - Color: White
  - Trim: Ultra Low Flush Fixture
  - Flow: .25 GPF
  - Brass: Sloan Valve specifically designed for china, No-hold open handle

Lavatories and Sinks:
- Standard Wall Hung Lavatory:
  - Manufacturer: American Standard
  - Model: Lucerne, 20”x18”
  - Height AFF: 31”-34” Rim (31” max. at PK-K; 34” typical ADA)
  - Material: Vitreous China
  - Color: White
  - Protect/insulate piping below per ADA requirements

Communal Use Lavatories in solid-surface countertop at wash areas:
- Manufacturer: American Standard
- Model: Ovalyn Universal Access undercounter sink, #9482.000.020; Mount at height to meet ADA Compliance.
- May also use bowls integrated into solid-surface counters; meet ADA compliance.
- Verify quantities required and verify mounting height with Owner’s Project Manager.
- See below for standard lavatory faucet type.
• Stainless Steel / Top Mount Sink S-1 (Classrooms and where noted):
  - Manufacturer: Elkay
  - Model: Lustertone LRAD 312255; 31” x 22” x 5.5” deep, single bowl; Provide accessibility where required by Code.
  - Height AFF: Counter height 34” typical u.n.o.
  - Material: 18 GA 304 Stainless Steel
  - Finish: Satin
  - Trim: 3 Hole, 8” Centers with Elkay Model #LK-35 Strainer & Tail Piece
  - Flow: “Softflo” aerator, 1.5 gpm.
  - Brass: Chicago Model #786-GN1AE3 ABCP with Gooseneck Spout, wrist blade handles, E-34 vandal resistant aerator, XTAB cartridge; no drinking fountain bubbler

• Stainless Steel / Top Mount Sink S-2 (Support Spaces, Workrooms, etc.):
  - Manufacturer: Elkay
  - Model: Lustertone LRAD252155; 25” x 21” x 5.5” deep, single bowl, ADA compliant. Sink size may differ depending on specific locations/conditions; verify with SPPS Project Manager.
  - Height AFF: Counter
  - Material: 18 GA 304 Stainless Steel
  - Finish: Satin
  - Trim: 3 Hole, 8” Centers with Elkay Model #LK-35 Strainer & Tail Piece
  - Flow: “Softflo” aerator, 1.5 gpm.
  - Brass: Chicago Model #786-GN1AE3 ABCP with Gooseneck Spout, wrist blade handles, E-34 vandal resistant aerator, XTAB cartridge; no drinking fountain bubbler

• Stainless Steel Wall Mount Sink (Art, Band Room, Industrial Arts, etc.)
  - Manufacturer: Elkay
  - Model: ESS2319; 23” x 19” x 12” deep
  - Provide Solids Interceptor / Clay Trap at Art Room and technical labs, graphics labs, industrial arts labs, etc.

  o Utility Service Sinks:
    - Precast Terrazzo / Floor Mounted
      - Manufacturer: Fiat
      - Model: TSB 3000 24”x24” or TSB 3001 32”x32” (preferred where space allows). Material: Precast Terrazzo
      - Color: Off White
      - Trim: Stainless Steel Caps, hose and bracket, wall guard
      - Brass: Chicago 897-CP, Polished Chrome, vacuum breaker, pail hook, hose end spout and adjustable wall brace. Mount at 48” AFF.

    - Laundry Tub / Molded Stone / Floor Mounted (where provided):
      - Manufacturer: Fiat
      - Model: FL1
      - Material: Molded Stone
      - Color: White
- Legs: White baked enamel angle legs, with Easy Leveling Devices. Tub is capable of handling 600 lbs.
- Brass: Chicago Faucet 895-317FC ABCP deck mounted faucet, 4” centers, 317 wristblade handles, Flow Control.
- **Solids Interceptor (Clay Trap) – Verify locations with Owner:**
  - Manufacturer: Zurn
  - Model: ZA1180
  - Material: Acid resistant coated steel with top access gasketed cover, for on-floor installation.

**Drinking Fountains:**
- **Single / Accessible Height with or without Bottle Filler:**
  - Manufacturer: Elkay
  - Model: LVRC8WSK with filter, 8 GPH
  - Height AFF: 27” clear to bottom of front apron (ADA requirement)
  - Material: Stainless Steel
  - Vandal-resistant Pushbutton activation
  - Bubbler: One piece polished chrome plated brass, Vandal Resistant
- **Dual Station / Dual Height, with Bottle Filler at lower unit:**
  - Manufacturer: Elkay
  - Model: LVRCTL8WSK with filter, 8 GPH
  - Height AFF: 27” clear to bottom of lower unit front apron (ADA requirement)
  - Material: Stainless Steel
  - Vandal-resistant Pushbutton activation
  - Bubbler: One piece polished chrome plated brass, Vandal Resistant

**Lavatory Faucets and Valves:**
- **4” Centers w/ cast brass spout and metering handles (Typical at lavatories and wash basins)**
  - Manufacturer: Chicago
  - Model: 802-V335 ABCP or 802-V336 ABCP
  - Height AFF: Lavatory Rim
  - Material: Brass
  - Finish: Polished Chrome
  - Flow: Chicago E37JKABCP, 1.5 gpm laminar flow.
  - Brass: 4” Centers, MVP metering push handles with adjustable cycle time closure cartridge.
- **4” Centers w/ Gooseneck Spout (Classrooms, Work Rooms, Health Office, etc.):**
  - Manufacturer: Chicago
  - Height AFF: Counter
  - Material: Brass
  - Finish: Polished Chrome
  - Flow: Chicago E37JKABCP, 1.5 gpm laminar flow.
  - Brass: 4” Centers, with Gooseneck Spout, wristblade handles to meet accessibility requirements.
- **Service Sink Faucet**
  - Manufacturer: Chicago
  - Model: Service Sink
  - Height AFF: 48"
  - Material: Brass
  - Finish: Chrome
  - Brass: Faucet with integral stops, vacuum breaker, pail hook and adjustable wall brace

- For faucets and trim at Kitchen and Food Service areas, refer to Section 11 40 00 Food Service Equipment.

  - **Showers**
    - Wall Mounted Shower System, ADA Accessible:
      - Manufacturer: Leonard Surfashower
      - Model: SS-7600-100/3ISA-D2L/501P(G)-44
      - Copper encapsulated thermostat assembly with brass shuttle, compensates for temperature fluctuations induced by water temperature and pressure changes; Built-in shutoff for single handle operation; Integral checkstops; Cast wall flange and lever handle, polished chrome plated. Maximum operating pressure: 125 PSI (860 KPA) Adjustable high temperature limit stop set for 110°F (43°C). Color-coded dial ½” flexible stainless steel hose on inlets. Capacity of 4 GPM (15L/min). Institutional shower head, 2.5 GPM (95 l/min.) max. Exposed parts chrome plated, vandal resistant. Maximum supply pressure: 125 PSI (860 KPA). 18 Ga. Stainless steel soap dish.

  - Wall Mounted Shower System
    - Manufacturer: Leonard Surfashower
    - Model: SS-7600-100/3ISA

  - **Emergency Eyewash (where required):**
    - Wall Mounted Emergency Eyewash
      - Manufacturer: Bradley
      - Model: S19-220
      - Plastic eyewash bowl
      - Complies with ANSI/ISEA Standard Z358.1

  - **Emergency Shower (where required):**
    - Emergency Drench Shower, Barrier Free
      - Manufacturer: Bradley
      - Model: S19-120BF (Horizontal Supply)
      - Model: S19-110BF (Free Standing)
      - Impact resistant shower head
      - Complies with ANSI/ISEA Standard Z358.1
      - Verify with Building Official if floor drain is required.

- **Part 3 Execution**
  - Per Consultant and / or manufacturer specification.

End of Section