

SECTION 15440 - PLUMBING FIXTURES

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK:

- A. Extent of plumbing fixtures work required by this section is indicated on drawings and schedules and by requirements of this section.
- B. This Section specifies plumbing fixtures and trim. The types of fixtures specified included but are not limited to the following:
 - 1. Lavatories (including wheelchair type);
 - 2. Sinks;
 - 3. Service Sinks;
 - 4. Water Closets;
 - 5. Urinals;
 - 6. Shower Receptors;
 - 7. Bathtubs;
 - 8. Molded Tub and Shower Units;
 - 9. Mop Sink Basins;
 - 10. Emergency Eyewash Fountains;
 - 11. Emergency Showers;
 - 12. Emergency Showers/Eyewash;
 - 13. Drinking Fountains;
 - 14. Wall Mounted Water Coolers (including wheelchair type);
 - 15. Faucets;
 - 16. Flush Valves;
 - 17. Fixture Supports (including wheelchair type);
 - 18. Toilet Seats;
 - 19. Fittings, Trim, and Accessories;
 - 20. Surgeon's Scrub and Clinical Sinks;
 - 21. Wash Machine Supply and Drain Box;
 - 22. Bedpan Washers;
 - 23. Food Waste Disposers;
 - 24. Wash Basins;

1.2 QUALITY ASSURANCE:

- A. Codes and Standards:
 - 1. ASHRAE Standard 18: "Method of Testing for Rating Drinking Water Coolers with Self-Contained Mechanical Refrigeration Systems."
 - 2. ARI Standard 1010: "Drinking-Fountains and Self- Contained Mechanically-Refrigerated Drinking-Water Coolers"
 - 3. ANSI Standard A117.1: "Specifications for Making Buildings and Facilities Accessible To and Usable By Physically Handicapped People."
 - 4. Public Law 90-480: "Architectural Barriers Act of 1968."
 - 5. UL Standard 399: "Drinking-Water Coolers."
 - 6. Public Law 101-336: "Americans With Disabilities Act."

7. NSF Standard 61: "Drinking Water Components."
 8. Energy Conservation Act - 1992: "Energy Conservation Standards."
- B. Where fixtures are specified as handicapped, it shall be the sole responsibility for all manufacturers and/or suppliers to provide plumbing fixtures and related trim which meet or exceed the ADA requirements.
- 1.3 SUBMITTALS:
- A. Product Data: Submit Product Data and installation instructions for each fixture, faucet, specialties, accessories, and trim specified; clearly indicate rated capacities of selected models of water coolers.
 - B. Shop Drawings: Submit rough-in drawings with brand names on each sheet and item. Detail dimensions, rough-in requirements, required clearances, and methods of assembly of components and anchorages. Coordinate requirements with Architectural Woodwork shop drawings specified in Division 6 for fixtures installed in countertops and cabinets. Furnish templates for use in woodwork shop.
 - C. Wiring Diagrams: Submit manufacturer's electrical requirements and wiring diagrams for power supply to units. Clearly differentiate between portions of wiring that are factory installed and field installed portions.
 - D. Color Charts: Submit manufacturer's standard color charts for cabinet finishes and fixture colors.
 - E. Maintenance Data: Submit maintenance data and spare parts lists for each type of manufactured plumbing fixtures, valves and trim. Include this data, product data, and shop drawings in maintenance manual; in accordance with requirements of Division 15.
 - F. Submit certification of compliance with specified ANSI, UL, and ASHRAE Standards.
 - G. Submit certification of compliance with performance verification requirements specified in this Section.
- 1.4 DELIVERY, STORAGE, AND HANDLING:
- A. Store fixtures where environmental conditions are uniformly maintained within the manufacturer's recommend temperatures to prevent damage.
 - B. Store fixtures and trim in the manufacturer's original shipping containers. Do not stack containers or store in such a manner that may cause damage to the fixture on trim.
- 1.5 SEQUENCE AND SCHEDULING:
- A. Schedule rough-in installations with the installation of other building components.
- 1.6 MAINTENANCE:
- A. Extra Stock:
 1. Furnish special wrenches and other devices necessary for servicing plumbing fixtures and trim to Owner with receipt in a quantity of one device for each 10 fixtures, minimum of one wrench and one device.

2. For each type of faucet, furnish faucet repair kits complete with all necessary washers, springs, pins, retainers, packings, O-rings, sleeves, and seats in a quantity of 1 kit for each 40 faucets, minimum one repair kit per faucet type.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. Manufacturer subject to compliance with requirements, provide products by one of the following:

1. Lavatories, Sinks, Bidets, Service Sinks, Water Closets, Urinals, Bath Tubs, Surgeon Scrub Sinks, Clinical Service Sinks:
 - a. American Standard U.S. Plumbing Products.
 - b. Crane Co.
 - c. Kohler Co.
 - d. Eljer
2. Stainless Steel Sinks:
 - a. Elkay Mfg. Co.
 - b. Just Mfg. Co.
 - c. Moen; Div. of Stanadyne.
3. Molded Tubs and Shower Units:
 - a. Fiat Products.
 - b. Kohler Co.
 - c. Aquaglas
 - d. Universal-Rundle Corp.
 - e. Eljer
4. Column Showers:
 - a. Bradley
 - b. Metcraft
 - c. Acorn
 - d. Symmons
5. Wash Basins:
 - a. Bradley
 - b. Intersan/Sanispray
6. Faucets:
 - a. American Standard; U.S. Plumbing Products.
 - b. Chicago Faucet Co.
 - c. Delta Faucet Co./Cambridge Brass; Div. of Masco Corp.
 - d. Elkay Mfg. Co.
 - e. Kohler Co.
 - f. T & S Brass
 - g. Eljer
 - h. Bradley

7. Flush Valves:
 - a. Sloan Valve Co.
 - b. Zurn Industries, Inc.
8. Water Closet Seats:
 - a. Bemis Mfg. Co.
 - b. Beneke Corp.
 - c. Church Seats
 - d. Olsonite Corp.; Olsonite Seats.
9. Water Coolers:
 - a. Elkay Mfg. Co.
 - b. Halsey Taylor Div.; Household International Co.
 - c. Haws Drinking Faucet Co.
 - d. Sunroc Corp.
 - e. Oasis
10. Service Sinks:
 - a. American Standard; U.S. Plumbing Products.
 - b. Crane Co.
 - c. Kohler Co.
 - d. Eljer
11. Fixture Supports:
 - a. Josam Mfg. Co.
 - b. Kohler Co.
 - c. Tyler Pipe.
 - d. J.R. Smith.
 - e. Zurn.
12. Emergency Showers, and Eye/Face Washes:
 - a. Guardian Equipment
 - b. Haws Drinking Faucet Co.
 - c. Speakman
 - d. Bradley
 - e. Hamilton
13. Mop Service Basins and Shower Receptors:
 - a. Oberon
 - b. Fiat
14. Shower and Tub Trim-(Thermostatic)
 - a. Powers
 - b. Leonard
 - c. Symmons
 - d. T & S Brass
 - e. Bradley

15. Shower and Tub Trim:
 - a. American Standard
 - b. Kohler
 - c. Powers
 - d. Symmons
 - e. Chicago Faucets
 - f. T & S Faucets
 - g. Delta
 - h. Bradley
 - i. Eljer
16. Drinking Fountains:
 - a. Kohler
 - b. Sunroc Corp.
17. Food Waste Disposers:
 - a. In-Sink-Erator
 - b. Waste King
 - c. Hobart
18. Wash Machine Supply/Drain Box:
 - a. Symmons
 - b. Guy Gray
19. ADA Sink/Lavatory Pipe Insulation:
 - a. True Bro
 - b. McGuire

2.2 FIXTURES:

A. Water Closets

1. WC- 1 Water Closet

Vitreous china, wall mounted, siphon jet action, elongated bowl, 1-1/2inches top inlet spud, 2-1/4inches minimum passageway, 1.6 GPF. Provide support as specified in the following articles.

American Standard No. 2257.103 or equivalent by approved manufacturer.
Kohler No. K-4330

Flush Valve Type: A
Seat Type: A

2. WC- 2 Water Closet - ADA Accessible

Vitreous china, wall mounted 17inches to 19inches from finished floor to top of seat, siphon jet action, elongated bowl, 1-1/2inch top inlet spud, 2-1/4inches minimum passageway, 1.6 GPF. Provide support as specified in the following articles.

American Standard No. 2257.103 or equivalent by approved manufacturer.
Kohler No. K-4330

Flush Valve Type: A
Seat Type: A

3. WC- 3 Water Closet

Vitreous china, floor mounted, siphon jet action, elongated bowl, 1-1/2inches top inlet spud, and 2-1/4inches minimum passageway, 1.6 GPF.

American Standard No. 2234.015 or equivalent by approved manufacturer.
Kohler No. K-4350

Flush Valve Type: A
Seat Type: A

4. WC- 4 Water Closet - ADA Accessible

Vitreous china, floor mounted, 17inches to 19inches from finished floor to top of seat, floor mounted, siphon jet action, elongated bowl, 1-1/2inches top inlet spud, 2-1/4inches passageway, 1.6 GPF.

American Standard No. 3043.102 or equivalent by approved manufacturer.
Kohler No. K-4368

Flush Valve Type: A
Seat Type: A

5. WC- 5 Water Closet - ADA Accessible

Vitreous china, 17inches to 19inches from finished floor to top of seat, floor mounted, siphon jet action, elongated bowl, close coupled tank tank cover locking device, 2inch passageway, 2 bolt caps, backflow preventer water control with volume regulator, flush valve, triplever located on wide side of stall, 1.6 GPF.

American Standard No. 2216.143 or equivalent by approved manufacturer.
Kohler No. K-3427
Seat Type: A

6. WC - 6 Water Closet - Pressure Assist

Vitreous china, floor mounted, siphon jet action, elongated bowl, close-coupled tank, pressure assist, tank covering locking device, 2inch passageway, 2 bolt caps, backflow preventer water control with volume regulator, flush valve, triplever, 1.6 GPF.

American Standard No. 2292.100 or equivalent by approved manufacturer.
Kohler No. K-3458

Seat Type: A

7. WC - 7 Water Closet - ADA Accessible - Pressure Assist

Vitreous china, 17inches to 19inches from finished floor to top of seat, floor mounted, siphon jet action, elongated bowl, close-coupled tank, pressure assist, tank cover locking device, 2inch passageway, 2 bolt caps, backflow preventer water control with valve regulator, flush valve, triplever located on wide side of stall, 1.6 GPF.

American Standard No. 2168.100 or equivalent by approved manufacturer.
Kohler No. K-3544

Seat Type: A

8. WC- 8 Water Closet - Children's Toilet

Vitreous china, 10 inches high, floor mounted, siphon jet action, round front, 1-1/2inch top inlet spud, 2-1/8inch passageway, 1.6 GPF.

American Standard No. 2282.010 or equivalent by approved manufacturer.

Kohler No. K-4321

Flush Valve Type: A

Seat Type: Church No. 158OC or Kohler includes toilet seat, K-4686, verify color with Architect.

B. Urinals

1. UR- 1 - ADA Accessible

Vitreous china, wall mounted, 1.0 GPF, siphon jet action, 3/4inch top inlet spud, flushing rim, extended stall sides, 2inch outlet connection, open trap-way with visible water surface, and back and sidewall wash. Provide support as specified in the following articles.

American Standard No. 6561.017 or equivalent by approved manufacturer.

Kohler No. K-4989-T

Flush Valve Type: C

2. UR- 2 - ADA Accessible

Vitreous china, 1.0 GPF , 14inches front to wall, 17inches from finished floor to rim maximum, wall mounted with siphon jet action, 3/4inch top inlet spud, 2inch outlet connection, and wall hangers. Provide support as specified in the following articles.

American Standard No. 6541.132 or equivalent by approved manufacturer.

Kohler No. K-5016-T

Flush Valve Type: C

C. Lavatories

1. L- 1

<p>Edit Note: This fixture is ADA Accessible. Refer to manufacturer's mounting criteria.</p>
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Vitreous china, 19-1/8inch diameter round, self-rimming countertop lavatory with front overflow, fitting ledge, template and sealant. Faucet holes on 4"/8" centers.

American Standard No. 0490.011 8inch centers or equivalent by approved manufacturer.

Kohler No. K-2202-8

American Standard No. 0491.019 4inch centers or equivalent by approved manufacturer.
Kohler No. K-2022-4

Lavatory Trim Type:

2. L- 2

Edit Note: This fixture is ADA Accessible. Refer to manufacturer's mounting criteria.

Vitreous china, 20-1/2inches x 18-1/4inches, wall mounted lavatory with front overflow, integral back and made for concealed arm supports. Faucet holes on 4"/8" centers.

American Standard No. 0355.012 4inch centers or equivalent by approved manufacturer.
Kohler No. K-2032

American Standard No. 0356.015 8inch centers or equivalent by approved manufacturer.
Kohler No. K-2030

Lavatory Trim Type:

Support Type: B

3. L- 3

Vitreous china, 18inches x 15-7/8inches, wall mounted lavatory with front overflow, soap depression, integral back and made for concealed arm supports. Faucet holes on 4"/8" centers.

American Standard No. 0373.050 4inch centers or equivalent by approved manufacturer.
Kohler No. K-2027

American Standard No. 0372.052 8inch centers or equivalent by approved manufacturer.
Kohler No. K-2023

Lavatory Trim Type:

Support Type: B

4. L- 4

Edit Note: This fixture is ADA Accessible. Refer to manufacturer's mounting criteria.

Vitreous china, 20-1/2inches x 17-1/2inches self-rimming rectangular countertop lavatory with front overflow, soap depressions, template and sealant. Faucet holes on 4"/8" centers.

American Standard No. 0498.800 8inch centers or equivalent by approved manufacturer.
Kohler No. K-2187

American Standard No. 0498.400 4inch centers or equivalent by approved manufacturer.
Kohler No. K-2185

Lavatory Trim Type:

5. L- 5

Edit Note: This fixture is ADA Accessible. Refer to manufacturer's mounting criteria.

Vitreous china, 20inches x 17inches self-rimming oval countertop lavatory with front overflow, fitting ledge, template and sealant. Faucet holes on 4"/8" centers.

American Standard No. 0475.020 8inch centers or equivalent by approved manufacturer.
Kohler No. K-2196-8

American Standard No. 0476.028 4inch centers or equivalent by approved manufacturer.
Kohler No. K-2196-4

Lavatory Trim Type:

6. L- 6 Wheelchair Lavatory - ADA Accessible

Vitreous china, 27inches x 20inches, wall mounted wheelchair lavatory with front overflow and made for concealed arm support. Faucet holes on 4"/12" centers.

American Standard No. 9141.011 4inch centers or equivalent by approved manufacturer.
Kohler No. K-1263

American Standard No. 9140.013 12inch centers or equivalent by approved manufacturer.
Kohler No. K-12634

Lavatory Trim Type: 7 12inch centers
Support Type: B

D. Showers

1. SH- 1

Fiberglass reinforced plastic 36" x 36" x 76" high shower stall with integral molded base and 2" drain fitting with chrome plated strainer; Provide additional reinforcement for grab bars as shown on Architectural drawings. See mechanical floor plans for right or left shower head mounting location.

Kohler No. K-1596 or equivalent by approved manufacturer.

Shower Trim Type:

2. SH- 2 Shower - Terrazzo Base Only.

Precast terrazzo 36" x 36" O.D. shower floor with single threshold and 2inch integrally cast stainless steel drain with removable stainless steel strainer. Walls and ceiling/shower stall by General Contractor. Color selection by Architect.

Fiat Style Monterey/Sierra or equivalent by approved manufacturer.

Shower Trim Type:

3. SH- 3 ADA Accessible

Design Note: Provide auxiliary/second floor drain outside of shower stall for all handicapped showers.

Precast terrazzo 48" x 48" O.D. shower floor with single threshold and 2inch integrally cast stainless steel drain with removable stainless steel strainer. Walls and ceiling/shower stall by General Contractor. Color selection by Architect. Basin shall be approved handicap accessible. Submit shop drawings.

Fiat WTR5000 Series or equivalent by approved manufacturer.

Shower Trim Type:

E. Sinks

1. S- 1 Single Compartment

18 gauge type 302 or 304 stainless steel 19" x 21" O.D., compartment size 14" x 18" x 7-1/2"; self-rimming ledge back, thoroughly sound deadened, with 1/2/3-hole punching for faucet.

Just No. SL-1921-A-GR or equivalent by approved manufacturer.

Sink Trim Type:

2. S- 2 Single Compartment

gauge Type 302 or 304/316 stainless steel " x " O.D., compartment size " x " x "; self-rimming ledge back, thoroughly sound deadened, with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

3. S- 3 Single Compartment

gauge Type 302 or 304/316 stainless steel " x " O.D., compartment size " x " x "; self-rimming ledge back, thoroughly sound deadened,with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

4. S- 4 Single Compartment

gauge Type 302 or 304/316 stainless steel " x " O.D., compartment size " x " x "; self-rimming ledge back, thoroughly sound deadened,with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

5. S- 5 Single Compartment

gauge Type 302 or 304/316 stainless steel ___" x ___" O.D., compartment size ___" x ___" x ___"; self-rimming ledge back, thoroughly sound deadened, with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

6. S- 6 Single Compartment

gauge Type 302 or 304/316 stainless steel ___" x ___" O.D., compartment size ___" x ___" x ___"; self-rimming ledge back, thoroughly sound deadened, with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

7. S- 7 Single Compartment

gauge Type 302 or 304/316 stainless steel ___" x ___" O.D., compartment size ___" x ___" x ___"; self-rimming ledge back, thoroughly sound deadened, with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

8. S- 8 Single Compartment

gauge Type 302 or 304/316 stainless steel ___" x ___" O.D., compartment size ___" x ___" x ___"; self-rimming ledge back, thoroughly sound deadened, with 1/2/3-hole punching for faucet.

Just No. or equivalent by approved manufacturer.

Sink Trim Type:

9. S- 9 Double Compartment

18 gauge type 302 or 304 stainless steel 19" x 33" O.D. with (2) compartments at 14" x 14" x 7-1/2" each; self-rimming ledge-back, thoroughly sound deadened with 1/2/3/4-hole punching for faucet.

Just No. DL-1933-A-GR or equivalent by approved manufacturer.

Sink Trim Type:

10. S- 12 Double Compartment

[] gauge type 302 or 304/316 stainless steel ___" x ___" O.D., (2) compartments at ___" x ___" x ___" each, self-rimming ledge-back, thoroughly sound deadened with 1/2/3/4-hole punching for faucet.

Just No. [] or equivalent by approved manufacturer.

Sink Trim Type: []

11. S-[] Double Compartment Unequal Compartments

[] gauge type 302 or 304/316 stainless steel ___" x ___" O.D., (2) compartments. Left compartment at ___" x ___" x ___", right compartment at ___" x ___" x ___" self-rimming ledge-back, thoroughly sound deadened with 1/2/3/4-hole punching for faucet.

Just No. [] or equivalent by approved manufacturer.

Sink Trim Type: []

12. S-[] Classroom Sink Single Compartment, Stainless Steel, Countertop, Sink with Drinking Bubbler

[] gauge, Type 302 or 304 stainless steel ___" x ___" O.D., compartment size ___" x ___" x ___" deep I.D., thoroughly sound deadened sink with rear/right/left faucet ledge and right/left bubbler ledge. Provide 3/4-hole punching for faucet and bubbler.

Just No. [] or equivalent by approved manufacturer.

Sink Trim Type: []

Bubbler Type: A

13. S-[] Plaster Sink

Edit Note: Edit size for Kohler fixture.
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Vitreous china, 30" x 22" x 9-1/2" deep O.D., wall mounted sink with high splash-back, faucet holes on 8" centers, and exposed sink support brackets; wall support brackets to be secured to stud walls with steel backing plate anchored to studs.

2" open grid, chrome plated, all brass drain fitting with 1-1/2inch tailpiece.

American Standard No. 9061.193 or equivalent by approved manufacturer.
Kohler No. K-12785

Sink Trim Type 7

14. US-[] Utility Sink

Acid resistant, enameled cast iron 24" x 18" x 6-3/4" deep wall mounted high back sink with 8inch center faucet holes and wall hangers.

Kohler No. K-5980 or equivalent by approved manufacturer.

Sink Trim Type: 8

16. US-[] Utility Sink

Acid resistant enameled cast iron 24" x 21" x 13-1/4" deep, counter top mounted with ledge back, flat rim and 8" center faucet holes.

Eljer No. 222-2200 or equivalent by approved manufacturer.

Sink Trim Type: []

17. MSB-[] Mop Service Basin

Precast terrazzo 24" x 24" x 12" deep, O.D., service basin with 3inch integrally cast brass or stainless steel drain with removable stainless steel or nickel bronze strainer. Provide stainless steel guards on all sides.

Provide and install 12inch high, stainless steel splash panels to protect walls above rim.

Fiat Model No. TSB-100 or equivalent by approved manufacturer.

Sink Trim Type: 9

18. MSB-[] Mop Service Basin - Corner Type

Precast Terrazzo 24" x 24" x 12" deep front drop corner type mop service basin with 3inch integrally cast brass or stainless steel drain with removable stainless steel or nickel bronze strainer. Provide stainless steel guards on threshold.

Provide and install stainless steel splash panels to protect walls above basin rim.

Fiat Model No. TSBC-1610 or equivalent by approved manufacturer.

Sink Trim Type 9

19. LT-[] Laundry Tub

Enameled cast iron, 24" x 20" x 14" deep O.D., floor mounted, single compartment tub with angle iron supporting frame.

2inch open grid, chrome plated brass drain fitting with 1-1/2inch tailpiece.

American Standard No. 7602.000 with 7602.124 supporting frame or equivalent by approved manufacturer.

Sink Trim Type 10

20. LT-[] Laundry Tub - Double Compartment

(2) Enameled cast iron, 24" x 20" x 14" deep O.D., floor mounted single compartment tubs with angle iron supporting frame.

(2) 2inch open grid open, chrome plated brass drain fittings with 1-1/2inch tailpiece.

(2) American Standard No. 7602.000 with (2) 7602.124 supporting frame or equivalent by approved manufacturer.

Sink Trim Type 10 Mounted in center of tubs.

21. SS-[] Service Sink, Trap Standard

Acid resistant enameled cast iron, 22" x 18" x 11-1/4" deep O.D., wall mounted sink with wall hangers and stainless steel rim guard; 3 inch cast iron P-trap with enameled interior, painted exterior, floor bracket and chrome plated brass sink strainer with open grid drain.

American Standard No. 7692.049 with 7798.176 trap standard or equivalent by approved manufacturer.

Kohler No. K-6716

Sink Trim Type: 11

22. HWS-[] Hand Wash Sink

18 gauge type 302 or 304 stainless steel 23" x 20" O.D., compartment size 15" x 11" x 6" wall mounted, ledge back thoroughly sound deadened, with 1 hole punching for faucet.

2inch open grid drain fitting, stainless steel with 1-1/2" or 1-1/4" stainless steel tailpiece.

Just No. B-21429 or equivalent by approved manufacturer.

Sink Trim Type: 15

F. Drinking Fountain

1. DF-[] Drinking Fountain

Wall mounted vitreous china with [push button] lever handle, self closing valve, chrome plated anti-squirt bubbler with automatic stream regulation, 1/2inch screwdriver stop, chrome plated brass or stainless steel waste strainer and mounting brackets. Provide support brackets secured to stud wall with steel backing plate anchored to studs; approximate size 14" x 13" x 15-1/4" high.

Kohler No. K-5264-A

G. Wash Fountains

1. WF-[] Wash fountain

[Precast terrazzo] [terreon] [stainless steel] [molded fiberglass] [54"] [36"] [] circular wash fountain [foot] [hand] operated, with [supplies from below and vent off drain.] [supplied from above and vent thru column.] [supplies from below and vent thru column.] [supplies from above and vent off drain.] Wash fountain shall be provided with [liquid] [powder] soap dispenser, and individual spray head for each washing station. Spray heads shall be operated by [individual push buttons, one for each station] [one pushbutton controlling all spray heads simultaneously.] Control valves shall be slow-closing and shall have automatic timed shut-off. Supply pipes shall be brass or copper. Provide stainless steel telescope type shroud to ceiling.

[] Model No. [] or equivalent by approved manufacturer.

2. WF-[] Wash fountain

[Precast terrazzo] [terreon] [14 gauge stainless steel] [Molded fiberglass] [54"] [36"] semi-circular wash fountain, foot operated, [supplies thru wall] [supplies and waste thru wall] [Supplies and waste thru floor]. Wash fountain shall be provided with [liquid] [powder] soap dispenser, spray head with stainless steel supporting tube and bowl gasket, spud with locknut and beehive strainer, brass supply pipes, mixing valve, volume control valve, two combination soap-strainer and check valves, slow closing foot valve with complete foot operating mechanism. Provide water-saver spray head. 2inch cast brass P-trap with integral vent and cleanout 2inch cast iron P-trap below floor.

[] Model No. [] or equivalent by approved manufacturer.

H. Emergency Equipment

1. EW-[] Eye-Wash

Wall mounted, 13 inches wide x 6-1/2 inches deep vitreous china receptor with integral mounting bracket, twin chrome plated brass aerated heads angled to direct water flow into eyes and ocular face area. Provide flag push-type ball valve to stay open until manually closed, 1/2inch O.D. supply, with loose key stop valve, chrome plated, 1-1/2inch O.D. tailpiece, and 1-1/2inch chrome plated cast brass union joint P-trap.

Speakman Model SE-502 or equivalent by approved manufacturer.

2. EW-[] Eye wash Wall Mounted, Twin Heads, Stainless Steel Bowl

Wall mounted, 10inches dia. x 3inches deep, corrosion resistant stainless steel receptor with wall mounting bracket, and twin chrome plated anti-squirt heads angled to direct water flow into eyes and ocular face area. Provide flag push-type ball valve to stay open until manually closed, 1/2inch O.D. supply with loose key stop valve chrome plated, 1-1/4inch O.D. tailpiece, and 1-1/2inch rough chrome plated cast brass union joint P-trap; stainless steel wall bracket.

Bradley Model S19-220SS or equivalent by approved manufacturer.

3. EW-[] Eye-Wash Countertop, Single Head

Vertical countertop mounted, chrome plated double head eye/face wash to bathe entire face. Provide flag push-type ball to stay open until manually closed, 1/2inch O.D. supply with loose key stop valve.

Bradley Model S19-270B or equivalent by approved manufacturer.

4. EW-[] Eye-Wash

In wall mounted, 18 gauge, Type 304 stainless steel cabinet fully recessed with lower locking access door to provide access to stop valve, twin chrome plated brass anti-squirt heads angled to direct water flow into eyes and ocular face area. Water flow to be activated by pulling heads down 90 degrees, valve to stay open until manually closed, 1/2inch O.D. supply with loose key stop valve.

Bradley Model S19-520 or equivalent by approved manufacturer.

5. EW-[] Spout Mounted Eye-Wash

Faucet mounted eye-wash with (2) outlets at 3inch apart and angled forward: once activated water pressure shall hold valve open allowing users hands to be free.

Guardian Has Models - Consult Catalog

6. ES-[] Emergency Shower Mounted Flush with Ceiling

Ceiling mounted, flanged aluminum head with polished face, 10inches diameter deluge shower head for mounting flush with ceiling. Rigid triangular pull rod to actuate instant-action stay open ball valve, 1inch O.D. supply; support from structure.

Haws Model 8169 or equivalent by approved manufacturer.

7. ES-EW-1 Emergency Shower and Eye-Wash Free Standing Floor Mounted

Floor mounted, free standing, all chrome plated brass construction with 10inches diameter deluge shower head mounted at 7feet-0inches above finished floor and eye-wash bowl at 3feet-6inches above finished floor. Shower shall have rigid pull rod to actuate instant-action stay open ball valve. Eye-wash shall have twin chrome plated anti-squirt heads angled to direct water flow into eyes and ocular face area with flag push-type ball valve actuator, valve to stay open until manually closed. Unit shall be provided with 1-1/4inches stand pipe with floor flange. Provide 1-1/4inches O.D. supply and 1-1/4inches O.D. waste for eye wash bowl.

Bradley Model No. S19-310JJ or equivalent by approved manufacturer.

2.3 WATER COOLERS:

Edit Note: Coordinate location/mounting height to avoid protruding object rule.

A. EWC-[] Wall Mounted Water Coolers /Barrier Free:

1. Units shall be factory assembled and tested, listed and labeled in compliance with UL Standard 399, and have capacities rated in accordance with ASHRAE Standard 18, and ARI Standard 1010.
2. Cabinet: 25-7/8" x 17" x 18" deep surface mounted, heavy gauge, welded steel cabinet, with removable vinyl front panel and hanger bracket for wall mounting. Cabinet finish and vinyl color as selected by the Architect/Engineer. Standard color is a brushed sterling.
3. Top: Deep basin, anti-splash, smoothly contoured stainless steel with raised bubbler mount, chrome plated brass strainer, and 1-1/4inch tailpiece.
4. Bubbler and Valve: Chrome plated brass, automatic stream control, push-button valve with bubbler designed to provide uniform stream without spurting. Push bars shall not be plastic.
5. Refrigeration System: Refrigerant R-134A, hermetically sealed, capillary tube. All joints lead free silver soldered.
 - a. Compressor: Hermetically sealed, with automatic reset overload protection.

- b. Condenser: Air-cooled
 - c. Cooling Unit: Tube type, self-cleaning, continuous coil of seamless copper.
 - d. Temperature Control: Thermostat with adjustable range of 45 degrees F to 55 degrees F, factory set at 50 degrees F.
- 6. Electrical Characteristics: 120 volts, 60 Hz, 1/6 HP, 3.0 amperes, provide 3-prong power lead-in cord.
- 7. Capacity: 8.5 GPH of 50 degrees F. water, with ambient temperature of 90 degrees F., and 80 degrees F. entering water temperature.
- 8. Connections: Provide Trap, and supply and stop as specified in the Articles below.
 - a. Haws Model No. HWBFA8
 - b. Haws Model No. NWBFA8ET (7.5 second timed water flow)
- 9. Provide 4inch air space on both sides of unit for cooling air flow.
- 10. Mounting: Tubular steel supports bolted to floor.
- B. EWC-[] Wall Mounted Barrier Free Water Cooler:
 - 1. Units shall be factory assembled and tested, listed and labeled in compliance with UL Standard 399, and have capacities rated in accordance with ASHRAE Standard 18, and ARI Standard 1010.
 - 2. Receptor: Heavy gauge, stainless steel, with No. 4 finish on the outside, raised bubbler mount.
 - 3. Bubbler and Valve: Chrome plated brass, automatic stream control, push button valve with bubbler designed to provide uniform stream without spurting. Push button shall not be plastic.
 - 4. Waste: Concealed 1-1/4inch O.D. tailpiece, chrome plated waste strainer and 1-1/4inch I.P.S. trap.
 - 5. Supply: 1/2inch I.P.S. screwdriver stop with water strainer assembly.
 - 6. Grille: Stainless steel, one-piece louvered grille matching receptor.
 - 7. Refrigeration System: Refrigerant R-134A, hermetically sealed, capillary tube. All joints lead free silver soldered.
 - a. Compressor: Hermetically sealed, with automatic reset overload protection.
 - b. Condenser: Air-cooled
 - c. Cooling Unit: Tube type, self-cleaning, continuous coil of seamless copper.
 - d. Temperature Control: Thermostat with adjustable range of 45 degrees F. to 55 degrees F., factory set at 50 degrees F.
 - 8. Electrical Characteristics: 120 volts, 60 Hz, 4.5 amperes, 1/5 HP, provide 3-prong power lead-in cord.

9. Capacity: 8.0 GPH of 50 degrees F. water, with ambient temperature of 90 degrees F., and 80 degrees F. entering water temperature.
10. Mounting: Frame manufactured of heavy gauge galvanized steel with pre-drilled mounting holes.
 - a. Haws Model No. HWCF8

C. EWC-[] Wall Mounted Electric Water Coolers - Barrier Free - High/Low

1. Units shall be factory assembled and tested, listed and labeled in compliance with UL Standard 399, and have capacities rated in accordance with ASHRAE Standard 18, and ARI Standard 1010.
2. Cabinets: Surface mounted, heavy gauge, welded steel cabinet, with removable front panel and hanger bracket for wall mounting. Cabinet finish and color as selected by the Architect. (Standard color is a brush sterling.)
3. Tops: Deep basin, anti-splash, smoothly contoured stainless steel with raised bubbler mount, chrome plated brass strainer, and 1-1/4inch tailpiece.
4. Bubblers and Valves: Chrome plated brass, automatic stream control, push-button valve with bubbler designed to provide uniform stream without spurting. Push bars shall not be plastic.
5. Refrigeration System: Refrigerant R-134A, hermetically sealed, capillary tube. All joints lead free silver soldered.
 - a. Compressor: Hermetically sealed, with automatic reset overload protection.
 - b. Condenser: Air-cooled
 - c. Cooling Unit: Tube type, self-cleaning, continuous coil of seamless copper.
 - d. Temperature Control: Thermostat with adjustable range of 45 degrees F. to 55 degrees F., factory set at 50 degrees F.
6. Electrical Characteristics: 120 volts, 60 Hz, 1/6 HP, 3.0 amperes, provide 3-prong power lead-in cord.
7. Capacity: 8.0 GPH of 50 degrees F. water, with ambient temperature of 90 degrees F., and 80 degrees F. entering water temperature.
8. Connections: Provide Trap, and supply and stop as specified in the Articles below.
9. Provide 4inch air space on both sides of unit for cooling air flow.
10. Provide tubular steel supports bolted to floor.
 - a. Haws Model No. HWBFA8L.

D. EWC-[] Wall Mounted Barrier Free Water Cooler, High/Low:

1. Units shall be factory assembled and tested, listed and labeled in compliance with UL Standard 399, and have capacities rated in accordance with ASHRAE Standard 18, and ARI Standard 1010.

2. Receptors: Heavy gauge, stainless steel, with No. 4 finish on the outside, raised bubbler mount.
3. Bubblers and Valves: Chrome plated brass, automatic stream control, push button valve with bubble designed to provide uniform stream without spurting. Push button shall not be plastic.
4. Waste: Concealed (2) 1-1/4inch O.D. tailpieces, (2) chrome plated waste strainers and (2) 1-1/4inch I.P.S. traps.
5. Supply: 1/2inch I.P.S. screwdriver stop with water strainer assembly.
6. Grille: Stainless steel, one-piece louvered grille matching receptor.
7. Refrigeration System: Refrigerant R-134A, hermetically sealed, capillary tube. All joints lead free silver soldered.
 - a. Compressor: Hermetically sealed, with automatic reset overload protection.
 - b. Condenser: Air-cooled
 - c. Cooling Unit: Tube type, self-cleaning, continuous coil of seamless copper.
 - d. Temperature Control: Thermostat with adjustable range of 45 degrees F. to 55 degrees F., factory set at 50 degrees F.
8. Electrical Characteristics: 120 volts, 60 Hz, 4.5 amperes, 1/5 HP, provide 3-prong power lead-in cord.
9. Capacity: 8.0 GPH of 50 degrees F. water, with ambient temperature of 90 degrees F., and 80 degrees F. entering water temperature.
 - a. Haws Model No. HWCF8-2
10. Mounting: Frame manufactured of heavy gauge galvanized steel with pre-drilled mounting holes.

2.4 WB- WASHER SUPPLY AND DRAIN BOX:

- A. 9inches high x 10-3/4inches wide x 3-5/8 inches deep flush with wall supply and drain box with single lever actuated ball valve complete shut-off of hot and cold water supplies; 2inch drain pipe outlet, 1/2inch hot and cold water inlets.

Guy Gray Model WB-200 or equivalent by approved manufacturer.

2.5 FAUCETS:

Edit Note: Provide flow control (laminar flow) for hospital work.

- A. Sink Trim

1. Single Compartment Sink Fitting, Low Profile Swing Spout

All brass concealed type supply faucet with renewable seats, one piece/three piece top cover escutcheon, 8inch low profile swing spout with aerator/3/4 gpm aerator/2.5 gpm aerator outlet vandal proof/lever/cross/4inch wrist blade handles, 1/2inch male thread inlet with coupling nuts, chrome plated exterior finish.

Chicago Faucet No.201A/1201A/1100 or equivalent by approved manufacturer.

3-1/2inch diameter 316 stainless steel basket type strainer with rubber seat stopper and 1-1/2inch tailpiece.

2. Double Compartment Sink Fitting, Low Profile Swing Spout with Optional Spray and Food Waste Disposer.

All brass concealed type supply faucet with renewable seats, one piece/three piece cover escutcheon, 8inch low profile swing spout with aerator /3/4 gpm aerator/2.5 gpm aerator outlet vandal proof/lever/cross/4inch wrist blade handles, 1/2inch male thread inlets 8inch on center with coupling nuts, chrome plated exterior finish. Provide diverter valve in faucet with hose, spray head and deck escutcheon.

Chicago Faucet No. 200A/1200A/1102 with lever/cross/4inch wrist blade handles or equivalent by approved manufacturer.

1 or 2 3-1/2inch diameter 316 stainless steel basket type strainers with rubber seat stopper and 1-1/2inch tailpiece.

1-1/2inch 17 gauge tubular brass end/center outlet continuous waste with cast brass tee flow directing, 1-1/2inch tailpiece/1-1/2inch tailpiece with 3/4inch Y-connection for dishwasher waste, chrome plated.

Edit Note: Provide deck mounted vacuum breaker for dishwasher connection or note code requirements for indirect waste connection.

3. Single Compartment Sink Fitting, Gooseneck Spout, Wrist Blade Handles

All brass concealed type supply faucet with renewable seats, three piece cover escutcheons, 5-3/8inch x 9-3/4inch high gooseneck swing spout with aerator/3/4 gpm aerator/vacuum breaker and aspirator/flow control-laminar flow outlet vandal proof, 4inch wrist blade handles, 1/2inch male thread inlets on 8inch on center with coupling nuts, chrome plated and exterior finish.

Chicago Faucet No. 785 or equivalent by approved manufacturer.

3-1/2inch diameter drain fitting /flat grid stainless steel/basket type stainless steel/316 stainless, flat grid with 1-1/2inch /stainless steel/316 stainless tailpiece.

4. Double Compartment Sink Fitting, Gooseneck Spout, Wrist Blade Handles

All brass concealed type supply faucet with renewable seats, three piece cover escutcheons, 8inch x 11-1/4inch high swing spout with aerator/3/4 gpm aerator/vacuum breaker and aspirator/flow control - laminar flow outlet vandal proof, 4inch wrist blade handles, 1/2inch male thread inlets 8inch on center with coupling nuts, chrome plated exterior finish.

Chicago Faucet No. 785 or equivalent by approved manufacturer.

3-1/2inch diameter drain fitting flat grid stainless steel/basket type stainless steel/316 stainless, flat grid with 1-1/2inch stainless steel/316 stainless tailpiece.

5. Clinical Service Sink, Hot & Cold Mixing Faucet, Flush Valve, Cold or Hot and Cold Bed Pan Washer Faucet with Hose and Spray

Wall mounted, exposed type, hot and cold water supply faucet with renewable seats, integral stop arms, faucet supply extenders to clear flush pipe, 6inch wrist blade handles, 14-3/4inch stationary spout with plain outlet and pail hook, wall brace below spout with attaching ring for flush pipe and wall bracket, 1/2inch female thread inlets 8inch on center; faucet and all bracing to be chrome plated.

American Standard No. 8345.118 or equivalent by approved manufacturer.

Exposed type single valve (cold water) bed pan washer faucet with 1/2inch control valve, loose key stop, vacuum breaker, vinyl hose, self closing lever control spray and hook, wall flanges; all exposed parts, fittings, and pipe to be chrome plated.

American Standard No. 7582.067 or equivalent by approved manufacturer.

Concealed type single valve (cold water) bed pan washer faucet with 1/2inch concealed control valve and screwdriver stop, elevated exposed vacuum breaker with union outlet, vinyl hose, self closing lever control spray and hook; chrome plated.

American Standard No. 7880.091 or equivalent by approved manufacturer.

Concealed type mixing valve (hot and cold water) bed pan washer faucet, 1/2inch concealed control valves and screwdriver stops, exposed vacuum breaker with union outlet, vinyl hose, self closing lever spray and hook; chrome plated.

American Standard No. 7880.083 or equivalent by approved manufacturer.

Wall mounted, bed pan washer pedal mixing valve with long pedals, self-closing, indexed for hot and cold, loose key stops, elevated vacuum breaker with union outlet, vinyl hose with angle spray bed pan washer nozzle, insulated handle, spray hook, wall flanges; chrome plated.

American Standard No. 7880.024 or equivalent by approved manufacturer.

6. Classroom Sink

All brass, single post, pantry type supply faucet with renewable seats for hot and cold water, gooseneck spout with 3/4 gpm aerator outlet, vandal proof, lever handles, 1/2inch male thread inlets with coupling nuts, chrome plated exterior finish.

Chicago Faucet No. 50-E3 or equivalent by approved manufacturer.

7. Plaster Sink

Edit Note: Refer to Chicago Faucets if gooseneck spout required.

Back mounted, all brass supply faucet with brass lever handles, 5-5/8inch swing spout with aerator outlet, soap dish, flanges, 1/2inch female thread inlets; chrome plated.

American Standard No. 7295-152 or equivalent by approved manufacturer.

Open Grid Strainer Drain Fitting with 1-1/2inch tailpiece.

American Standard No. 7716.020 or equivalent by approved manufacturer.

Floor mounted solids interceptor with removable cover and strainer basket; 13-1/8inch x 13-1/8inch x 16-1/2inch high cast iron, acid resistant coating interior and exterior.

Jay R. Smith Fig. 8715 or equivalent by approved manufacturer.

2inch chrome plated brass waste piping from sink to interceptor and to waste to wall from interceptor.

8. Utility Sink Wall Mounted

Back mounted, all brass supply faucet with lever handles, 8inch swing spout with aerator outlet, soap dish, integral stop arms with flanges, 1/2inch female thread inlets; chrome plated.

Kohler No. K-7855 or equivalent by approved manufacturer.

3-1/2inch diameter drain fitting flat grid stainless steel/ basket type stainless steel/316 stainless, flat grid with 1-1/2inch stainless steel/316 stainless tailpiece.

9. Mop Service Basin

Wall mounted, all brass supply faucet, 10inch spout with wall brace, 3/4inch male hose thread outlet and vacuum breaker, lever handles, loose key stops in shanks, wall flanges and 1/2inch female thread inlets, chrome plated finish.

Chicago Faucet No. 897 or equivalent by approved manufacturer.

10. Laundry Tub

Wall mounted, all brass supply faucet, 12inch swing spout with aerator outlet, wall or dock flanges and 1/2inch female thread inlets, chrome plated finish.

Chicago Faucet No. 540-LD-L9 or equivalent by approved manufacturer.

11. Service Sink - Trap Standard

Backmount, all brass supply faucet with short spout, lever handles, vacuum breaker, 3/4inch male hose thread outlet, stops in shanks, wall flanges and 1/2inch female thread inlets; chrome plated.

American Standard No. 8341.075 or equivalent by approved manufacturer.

12. Utility Wash Sink

Sink fitting with lever handles, 5-3/4inch swing spout with vacuum breaker, 3/4inch hose thread and flanged female adjustable supply arms; 8inches on center.

Chicago Faucet No. 540-L5-VB or equivalent by approved manufacturer.

Sink fitting with lever handles, 8-3/4inch swing spout with aerator, adjustable supply arms; 8inch on center.

Chicago Faucet No. 540 LD or equivalent by approved manufacturer.

13. Hand Wash Sink

Double pantry sink fitting with swing gooseneck spout, aerator, lever handles for hot and cold water service.

Chicago Faucet No. 50-E3 or equivalent by approved manufacturer.

B. Lavatory Trim

Edit Note: If trim is for ADA fixture, change tailpiece to "offset type tailpiece."

1. Center Set Faucet, Open Grid Drain

All brass, one piece supply faucet with ceramic disk valving, 1/2inch male thread inlets 4inch on center with coupling nuts, 3-3/4inch spout with 1/2 gpm aerator outlet, vandal proof, lever/4inch wrist blade handles. Chrome plated exterior finish.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

American Standard No. 5500-170VP (wrist blades)/5500.140VP (lever handles) or equivalent by approved manufacturer.

2. Wide Spread Faucet, Open Grid Drain

All brass, 3-piece supply faucet with ceramic disk valving, 1/2inch male thread inlets 8inch on centers with coupling nuts and rigid connectors, 4inch spout, 1/2 GPM aerator outlet, vandal proof, lever, 4inch wrist blade; Handles chrome plated exterior finish.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

American Standard No. 6500.170VP (wrist bladed)/6500.140VP (lever handles) or equivalent by approved manufacturer.

3. Center Set Faucet, Pop-Up Drain

All brass, one piece supply faucet with ceramic disk valving, 1/2inch male thread inlets 4inch on center with coupling nuts, 3-3/4inch spout with 1/2inch gpm aerator outlet, vandal proof, lever/4inch wrist blade handles, hole in faucet body for waste actuator rod, waste actuator rod with chrome knob, chrome plated exterior finish.

Pop-up drain assembly, chrome plated brass with 1-1/4inch tailpiece.

American Standard No. 5501.170 (wrist blades)/5501.140 (lever handles) or equivalent by approved manufacturer.

4. Wide Spread Faucet, Pop-Up Drain

All brass, 3-piece supply faucet with ceramic disk valving, 1/2inch male thread inlets 8inch on center with coupling nuts and rigid connectors, 4inch spout with 1/2 gpm aerator outlet, vandal proof, chrome plated brass 4inch wrist blade/lever handles, hole in spout for waste actuator rod, waste actuator rod with chrome knob, chrome plated exterior finish.

Pop-up type drain assembly, chrome plated brass with 1-1/4inch tailpiece.

American Standard No.6501.170 (wrist blades)/6501.140 (lever handles) or equivalent by approved manufacturer.

5. Center Set Faucet, Gooseneck Spout, wrist blade handles, open grid drain

All brass, one piece supply faucet with ceramic disk valving, 1/2inch male thread inlets 4inch on center with coupling nuts, rigid/swing gooseneck spout 5inch x 10-5/8inch high with 1/2 gpm aerator outlet vandal proof, 4inch wrist blade handles, chrome plated exterior finish.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

American Standard No. 7500.170VP or equivalent by approved manufacturer.

6. Wide Spread Faucet, Gooseneck Spout, Wrist Blades, Open Grid Drain.

All brass, three piece supply faucet with ceramic disk valving, 1/2inch male thread inlets 8inch on center with coupling nuts and rigid connectors, 5inch x 10-5/8inch high gooseneck spout with 1/2 gpm aerator outlet, vandal proof, 4inch wrist blade handles, chrome plated exterior finish.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

American Standard No. 6530.170VP or equivalent by approved manufacturer.

7. Wheelchair Lav, Wide Spread Faucet, Gooseneck Spout, Wrist Blades, Open Grid Drain

All brass, three piece supply faucet with ceramic disk valving, 1/2inch male thread inlets, 12inch on center with coupling nuts and flexible connectors, 5inches x 10-5/8inches high gooseneck spout 6inches above slab with 1/2 gpm aerator outlet, vandal proof, 4inch wrist blade handles, chrome plated exterior finish.

Open grid drain assembly with 1-1/4inch off-set type tailpiece for wheel chair, chrome plated brass.

American Standard No. 6930.170VP equivalent by approved manufacturer.

8. Metering Faucet, Center Set, Open Grid Drain

All brass, one piece metering faucet with stainless steel cartridge sleeve, self cleaning feature with a filtering device prior to the metering device, with renewable seats, slow-closing metering valve and concealed cycle adjustment without shutting off supply, set cycle at 1-20 seconds/1/4 GPM, 1/2inch male thread inlets 4inch on center with coupling nuts, 3-1/2inch spout with 1/2 gpm aerator outlet, vandal proof, chrome plated exterior finish.

Chicago Faucet No. 802A-665 or equivalent by approved manufacturer.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

9. Metering Faucet, wide spread, open grid drain

All brass three piece metering faucet with stainless steel cartridge sleeve, self cleaning feature with a filtering device prior to the metering device, with renewable seats, slow closing metering valve, concealed cycle adjustment without shutting off supply, set cycle at 1-20 seconds/1/4 GPM, and 1/2inch male thread inlets 8inches on center with coupling nuts, 5inch spout with 1/2 gpm aerator outlet, vandal proof, chrome plated exterior finish.

Chicago Faucet No. 408-665 or equivalent by approved manufacturer.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

10. Single Metering Faucet for Tempered Water, Open Grid Drain.

Edit Note: Provide mixing valve or tempered water

All brass single metering faucet, chrome plated pushbutton, slow closing metering valve, adjustable closing time, set cycle at 1-20 seconds/1/4 GPM 1/2inch male thread inlet with coupling nut, 3-3/8inch spout with 1/2 gpm aerator outlet, vandal proof. Chrome plated exterior.

Chicago Faucet No. 333-665 or equivalent by approved manufacturer.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

11. Sensor Faucet for Tempered Water; Open Grid Drain.

Edit Note: Provide tempered water, master mixing valve or below counter type for individual fixture.

4inch centerset electronic proximity faucet, vandal resistant, all brass body, below deck mixing valve, built in checks, in-line strainer, 1/2 GPM aerator/1.5 GPM laminar flow/battery powered with new AA alkaline batteries/low voltage powered with low voltage transformer, electronically operated solenoid valve with microprocessor, chrome plated finish.

(Battery Powered) American Standard No. 6518VP.2DC (1/2 GPM) or equivalent by approved manufacturer.

(Low Voltage) American Standard No. 6518VP.2AC (1/2 GPM) or equivalent by approved manufacturer.

Open grid drain assembly, chrome plated brass with 1-1/4inch tailpiece.

2.6 FLUSH VALVES:

A. Water Closet

Exposed type, quiet action, flush valve, all brass, chrome plated, oscillating non hold open handle, 1inch screwdriver angle stop with vandal resistant cap, vacuum breaker, 1-1/2inch flushing connection with tailpiece, spud coupling for 1-1/2inch top spud, wall and spud flanges, sweat solder adaptor, low consumption 1.6 GPF, handle shall conform to A.D.A. requirements.

Sloan Royal 111 or equivalent by approved manufacturer.

B. Water Closet with Bed Pan Washer

Exposed type, quiet action, flush valve, all brass, chrome plated, oscillating non hold open handle, 1inch check type angle valve with screwdriver stop and vandal resistant cap, vacuum breaker, 1-1/2inch flushing connection with tailpiece, wall support and spud coupling for 1-1/2inch top spud, wall and spud flanges, sweat solder adaptor; "Pull Down" activated, bed pan washer arm with spray head, wall bracket mounted in center line of flush tube, low consumption 1.6 GPF. Meets ADA requirements.

Sloan Royal BPW-1100-1.6 or equivalent by approved manufacturer.

C. Urinal, Siphon Jet or Washout

Exposed type, quiet action, flush valve, all brass, chrome plated, oscillating non hold open handle, 3/4inch screwdriver angle stop with vandal resistant cap, vacuum breaker, 3/4inch flushing connection with tailpiece, spud coupling for 3/4inch top spud, wall and spud flange, sweat solder adaptor, low consumption 1.0 GPF, handle shall conform to A.D.A. requirements.

Sloan Royal 186-1 or equivalent by approved manufacturer.

D. Urinal Blowout

Exposed type, quiet action, flush valve, all brass, chrome plated, oscillating non hold open handle, 1inch screwdriver angle stop with vandal resistant cap, vacuum breaker, 1-1/4inch flushing connection with tailpiece, spud coupling for 1-1/4inch top spud, wall and spud flanges, sweat solder adapter, low consumption, 1.0 GPF.

Sloan Royal 180-1 or equivalent by approved manufacturer.

2.7 SHOWER TRIM:

A. Tempering Valve and Shower Head

Pressure balanced water tempering supply faucet, all brass, concealed type with integral stops and check valves, chrome plated handle and 3-color face plate.

All brass, adjustable spray pattern, swivel joint, shower head with 2.5 gpm flow restrictor; 1/2inch chrome plated brass bent arm shower head supply pipe with wall escutcheon.

2inch floor drain with cast iron body, round nickel bronze adjustable strainer head with square or round hole grate, flashing ring and clamp.

Provide flashing membrane as shown in detail on [mechanical] [architectural] drawings; see specifications for flashing type.

Powers No. P413-J or equivalent by approved manufacturer.

Edit Note: Trims B & C listed below meet the minimum requirements for ADA Accessibility. Verify with client/owner whether a fixed shower head with a diverter valve and hand held shower spray is preferred.

B. Tempering Valve, Removable Spray with Hose, 24inch Slide Bar

Thermostatic water tempering supply faucet, all brass, concealed type with integral stops and check valves, maximum water temperature limit stops set at 110 degrees F, 1/2inch inlet and outlet connections, chrome plated handle and multi-color face plate.

Removable type deluxe hand held shower spray with insulated handle; 2.5 gpm flow restrictor, 60" minimum chrome plated hose; chrome plated 1/2inch wall elbow with wall flange and in line vacuum breaker for hose connection; volume control, chrome plated 24inch slide bar with wall brackets and adjustable hand spray holder.

2inch floor drain with cast iron body, round nickel bronze adjustable strainer head with square or round hole grate, flashing ring and clamp.

Provide flashing membrane as shown in detail on [mechanical/Arch.] drawings; see specifications for flashing type.

Powers No. T425-P/N 141 - 163 hot water supply greater than 120 degrees F. or equivalent by approved manufacturer.

Powers No. L425-P/N 141-163 hot water supply less than 120 degrees F or equivalent by approved manufacturer.

C. Wheelchair Showers Tempering Valve with Thermometer, Removable Spray with Hose, 24inch Slide Bar and Floor Drain.

Thermostatic water tempering supply faucet, all brass concealed type with integral stops and check valves, maximum temperature limit stop set at 110 degrees F; chrome plated handle and multi-color face plate. In wall type outlet water temperature thermometer with 0-200 degrees F. 3-color face and wall flange.

Removable type deluxe hand held shower spray with insulated handle; 2.5 gpm flow restrictor 60inch minimum chrome plated hose; chrome plated 1/2inch wall elbow with wall flange and in-line vacuum breaker for hose connection; volume control, chrome plated 24inch slide bar with wall brackets and adjustable hand spray holder.

2inch floor drain with cast iron body, round nickel bronze adjustable strainer head with square or round hole grate, flashing ring and clamp.

Provide flashing membrane as shown in detail on [mechanical/Arch.] drawings; see specifications for flashing type.

Powers No. T425-P/N 141-163 hot water supply greater than 120 degrees F or equivalent by approved manufacturer.

Powers No. L425-P/N 141-163 hot water supply less than 120 degrees F or equivalent by approved manufacturer.

Powers Thermometer No. P/N 131-251.

D. Tempering Valve with Thermometer, Removable Spray with Hose and 24" Slide Bar

17 gauge 1-1/2inch tubular brass trip lever drain fitting and overflow; brass fittings, slip nuts and integral parts; chrome plated trip lever and face plate; chrome plated brass flat grid drain with removable grid, 17 gauge 1-1/2inch tailpiece.

Thermostatic water tempering supply faucet, all brass, concealed type with integral stops and check valves and shower-tub diverter; maximum temperature limit stop set at 110 degrees F; 1/2inch inlet and outlet connections, chrome plated handle and multi-color face plate; in wall type outlet water temperature thermometer with 0-200 degrees F. 3-color face and stainless steel wall flange; chrome plated tub spout of sufficient length for tub specified. Volume control

Removable type hand held shower spray with insulated handle, 2.5 gpm flow restrictor, 60inch white reinforced chrome plated hose; chrome plated 1/2inch wall elbow with wall flange and in-line vacuum breaker for hose connection; chrome plated 24inch slide bar with wall brackets and adjustable hand spray holder.

Powers No. L426-J-T-6-W.

2.8 SINK BUBBLER:

- A. All brass, push button, self closing angle stop bubbler angle stream nozzle with drain lip. Volume control in shank, 1/2inch male shank inlet with coupling nut, replaceable cartridge, chrome plated exterior finish, counter top mounting.

Just Model No. JCB-2

Just Model No. JSB-10/ADA/Vandal Resistant

- B. All brass, pushbutton, self closing angle stop bubbler, angle stream nozzle with drain lip, volume control in shank, 1/2inch male thread inlet with coupling nut, chrome plated exterior finish, counter top mounting.

Chicago Faucet No. 748-665

2.9 GARBAGE DISPOSER;

- A. GD-[] Garbage Disposer:

1. 3/4 hp, food waste disposer with stainless steel grinding chamber, stainless steel shredder, stainless steel stopper with anti-splash baffle, sound absorbing outer shell and overload protection; unit to have 5 year warranty.

In Sink-Erator Model PRO 333/SS or equivalent by approved manufacturer.

2.10 FIXTURE SUPPORTS:

- A. Lavatory Supports: Commercial grade adjustable cast iron, with thin concealed arms and sleeves, and complete with escutcheons and mounting fasteners.
- B. Lavatory Supports: Commercial grade cast iron supports, having tubular steel uprights with concealed arms and sleeves, mounted on adjustable headers and complete with heavy cast iron short feet bolted to floor, alignment trusses, and mounting fasteners.
- C. Water Closet and Clinical Service Sink Supports: Commercial grade adjustable, factory painted, cast iron face plate, support base, and appropriate type waste fitting having face plate

gasket; zinc plated steel fixture studs and fasteners; coated and threaded adjustable wall coupling with neoprene closet outlet gasket; and chrome plated fixture cap nuts and fiber fixture washers. Provide an appropriate model to suit deep or shallow rough-in, siphon jet or blow-out action and type of sanitary piping system to which it is connected.

- D. Wheelchair Water Closet Supports: Commercial grade adjustable, factory painted, cast iron face plate, support base, and appropriate type waste fitting having face plate gasket; zinc plated steel fixture studs and fasteners; coated and threaded adjustable wall coupling with neoprene closet outlet gasket; and chrome plated fixture cap nuts and fiber fixture washers. Units shall have elevated mounting heights of wheelchair fixtures, siphon jet or blow-out action water closet, and type of sanitary piping system to which it is connected.
- E. Urinal Supports: Commercial grade supports for urinals shall have steel top and bottom plates with bolts to support fixture independently from the wall; adjustable sleeves, steel tubular uprights bolted to floor and alignment trusses, steel plates with adjustable holes, bolts, nuts, and chrome plated cap nuts and washers. Top supporting plates shall have cutouts when used with back inlet urinals.

2.11 TOILET SEATS:

A. Toilet Seats

Elongated open front, less cover. Solid plastic, high impact, commercial weight stainless steel hinge posts self-sustaining check hinge. Color shall match fixture.

Church No. 9500SSC

2.12 FITTINGS, TRIM, AND ACCESSORIES:

- A. Supplies and Stops for Lavatories and Sinks: polished chrome-plated, loose-keyed/wheel handle angle stop having 1/2inch inlet and 3/8inch O.D. x 12inch long flexible tubing outlet, and wall flange and escutcheon. Quantity to match trim specified.
- B. Supplies and Stops for Water Closets: polished chrome-plated, loose-keyed/wheel handle angle stop having 1/2 inch inlet and 3/8 inch O.D. x 12inch long flexible tubing outlet with collar, and wall flange and escutcheon.
- C. Traps for Drinking Fountains, Lavatories and Bidets: 17 gauge tubular brass, 1-1/4inch adjustable "P" trap and waste to wall.
- D. Traps for Sinks: cast brass, 1-1/2inch adjustable "P" trap and waste to wall.
- E. Tub Waste and Overflow Fittings: 17 gauge brass bath waste and overflow, chrome plated waste spud with universal type outlet connection suitable for 1-1/2inch I.P.S., or 1-1/2" O.D. tubing, or 1-1/2inch solder-joint outlet connection on waste tee.
- F. Escutcheons: chrome-plated cast brass with set screw.
- G. All ADA Accessible lavatories, supplies and waste shall be insulated with molded vinyl covers. Truebro Inc. Lav-Guard insulation Kit, or approved equivalent.

PART 3 - EXECUTION

3.1 EXAMINATION:

- A. Verify all dimensions by field measurements. Verify that all plumbing fixtures may be installed in accordance with pertinent codes and regulations, the original design, and the referenced standards.
- B. Examine rough-in for potable water and waste piping systems to verify actual locations of piping connections prior to installing fixtures.
- C. Examine walls, floors, and cabinets for suitable conditions where fixtures are to be installed.
- D. Do not proceed until unsatisfactory conditions have been corrected.

3.2 INSTALLATION:

- A. Install plumbing fixtures level and plumb, in accordance with fixture manufacturer's written instructions, rough-in drawings, and pertinent codes and regulations, the original design, and the referenced standards.
- B. Fasten plumbing fixtures securely to supports or building structure. Secure supplies behind or within wall construction to provide rigid installation.
- C. Set shower receptor and mop basins in a leveling bed of cement grout.
- D. Install a stop valve in an accessible location in the water connection to each fixture.
- E. Install escutcheons at each wall, floor, and ceiling penetration in exposed finished locations and within cabinets and millwork.
- F. Seal fixtures to walls and floors using silicone sealant as specified in Section 07900. Match sealant color to fixture color.
- G. Visible parts of fixture brass and accessories shall be chrome plated.
- H. External finishes on all trim shall not be chrome plated plastic.
- I. Where possible, fixtures shall be product of one manufacturer. Where possible, fittings of same type shall be product of one manufacturer.
- J. Install hose end faucets and hose connection with vacuum breakers.
- K. Solidly attach floor mounted water closets to floor with hex expansion shield of cast iron closet flanges.

3.3 ADA ACCESSIBILITY:

- A. Review Mechanical and Architectural drawings to determine fixtures requiring ADA accessibility. Notify Architect/Engineer of any physical conflicts preventing full dimensional compliance prior to beginning work.
- B. Comply with the installation requirements of ANSI A117.1 and Public Law 90-480 with respect to plumbing fixtures for the physically handicapped. Arrange flush valve/flush tank handles with proper orientation to meet ADA requirements.

3.4 FIELD QUALITY CONTROL:

- A. Test fixtures to demonstrate proper operation upon completion of installation and after units are water pressurized. Replace malfunctioning units, then retest.
- B. Inspect each installed unit for damage. Replace damaged fixtures.

3.5 ADJUSTING:

- A. Adjust water pressure at drinking fountains, faucets, shower valves, and flush valves to provide proper flow and stream.
- B. Replace washers of leaking or dripping faucets and stops.
- C. Clean fixtures, trim, and strainers using manufacturer's recommended cleaning methods and materials.

3.6 CLEANING:

- A. Clean fixtures, trim, and strainers using manufacturer's recommended cleaning methods and materials.

3.7 PROTECTION:

- A. Provide protective covering for installed fixtures, water coolers, and trim.
- B. Do not allow use of fixtures for temporary facilities unless expressly approved in writing by the Owner.

3.8 MOUNTING HEIGHTS SCHEDULE:

Edit Note: Verify that Architect is providing a mounting height schedule.

- A. Fixture mounting height and rough-in dimensions shall be as indicated on the architectural drawings and specifications.

3.9 WATER CONSERVATION:

All plumbing fixtures shall be of water conservative design. Provide as a minimum devices to restrict water flow as follows:

1.	Lavatory	1/2 gpm
2.	Sink	2.5 gpm
3.	Mop Sink	1.6 gpm hot and 1.6 gpm cold
4.	Water Closets (siphon jet)	1.6 gallons per flush
5.	Urinals (siphon jet)	1 gallon per flush
6.	Showers Heads	2.50 gpm

7. Water Closet (tank type) 1.6 gallons per flush

Flow control devices shall maintain flow rate shown regardless of inlet pressure.

END OF SECTION 15440