SECTION 22 4200
COMMERCIAL PLUMBING FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

A. Includes But Not Limited To:
   1. Furnish and install plumbing fixtures as described in Contract Documents.

B. Related Sections:
   1. Section 07 9213: Sealants used between fixtures and other substrates.
   2. Section 22 0501: Common Plumbing Requirements.
   3. Section 22 1116: Domestic Water Piping.

PART 2 - PRODUCTS

2.1 GENERAL

A. Interior exposed pipe, valves, and fixture trim, including trim behind custom casework doors, shall be chrome plated.

B. Do not use flexible water piping.

C. Flow Control Fittings: Vandal proof type and fit faucet spout of fixture used. Flow shall be controlled as required by local codes.

2.2 MANUFACTURED UNITS

A. Water Closets:
   1. Maximum water usage of 1.6 gallons 6 liters per flush.
   2. Standard Fixture:
      a. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         2) Briggs: 'Vacuity' 4200.
         3) Crane:
            a) Economiser (Elongated) 3-835.
            b) VIP 3-996.
         4) Eljer: 'Aqua-Saver' 091-7025.
         6) Toto: 'Drake' CST744S.
   3. Handicap Accessible Fixture:
      a. 18 inch 450 mm maximum rim height.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) American Standard: Elderly New Cadet 'Aquameter' Combination Elongated 2377.100.
         2) Briggs: 'Vacuity' 4240.
         3) Crane:
            a) Economiser (Elongated) 3-818.
            b) VIP 3-999.
         6) Toto: 'ADA Drake' CST744SL.
   4. Nursery Fixture:
a. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) American Standard: Baby Devoro 2315.016 (flush valve required).
   2) Crane: Baby Bowl with tank 3-811.
   3) Eljer: Kindergarten 091-1010.
   4) Kohler: Primary K4321-O.

5. Seats:
a. Provide split front type with check hinge.

b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) Standard And Handicap Accessible Fixtures:
      a) Bemis: 1655-C.
      b) Beneke: Series 527 – CH.
      c) Church: No. 9500-C.
      d) Kohler: K-4666-C.
      e) Olsonite: 95CC.
      f) Toto SC534.
   2) Nursery Fixtures:
      a) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      b) All Others:
         (1) Bemis: 955-C.
         (2) Beneke: 323-5.
         (3) Church: No. 1580-C.
         (4) Olsonite: 126-CC.

6. Supply Pipe And Stop:
a. Provide stuffing box and chrome plating.

b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) BrassCraft: TCR 1912 DL-CP.
   2) Tubular Brass Plumbing Products: Z8804-LR-PC.

B. Urinals:

1. Standard Fixture:
a. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) American Standard: Trimbrook 6561.017.
   2) Crane: Embassy 7-160.
   3) Eljer: Savon 161-1090.
   4) Kohler: Freshman K-4985-T.
   5) Toto: UT104, UT447, or UT370.

2. Handicap Fixture:
a. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) American Standard: Washbrook 6501.010.
   2) Crane: Cromwell 7-197E.
   3) Eljer: Corecto 161-1030.
   4) Kohler: Bardon K-4960-ET.
   5) Toto: UT370.

3. Carrier / Support:
a. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) Josam.
   2) J. R. Smith.
   3) Light Commercial Specialty Plumbing Products by Zurn.
   4) Mifab.
   5) Wade.
   6) Watts Drainage

4. Flush Valve:
a. Low flow, 1.6 gallons 6 liters per flush maximum.

b. Proximity sensor type.

c. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   1) AMTC: AEF-801 DualFlush
   2) Sloan: Regal 186-SMO with override button.
   3) Taiko: TSS-603.
   4) Toto: TEUIDNCR-12 with maintenance override button.
5) Zurn: ZR-6003-AV with maintenance override button.

5. Flush Valve Filter:
   a. Category Four Approved Product. See Section 01 6000 for definitions of Categories.
      1) SFDG1 'Dirt Grabber' by South Fork Manufacturing

C. Standard Lavatories:
   1. Self Supporting Fixtures:
      a. Size: 20 by 18 inches 500 by 450 mm.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         2) Crane: Norwich 1-412V.
         3) Eljer: Delwyn 051-2104.
         4) Kohler: Greenwich K-2032.
      c. Carrier / Support:
         1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
            a) Josam.
            b) J. R. Smith.
            c) Light Commercial Specialty Plumbing Products by Zurn.
            d) Mifab.
            e) Wade.
            f) Watts Drainage

   2. Counter Top Fixture:
      a. Size 20 by 17 inches 500 by 425 mm (maximum).
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) American Standard: Aqualyn 0476.028.
         2) Crane: Sonnet 1-283-V.
         3) Eljer: Laura 051-0124.
         4) Kohler: Pennington K-2196.
         5) Toto: LT501.

   3. Fittings:
      a. Faucet and Drain:
         1) Provide flow control fitting on each spout in place of aerator.
         2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
            a) American Standard: 5502.140.
            b) Cambridge Brass: 21T341CB with metal HDL.
            c) Chicago: 1802A with 327A.
            d) Delta: 2500.
            e) Grohe: 20831650 8-inch center faucet, 4-inch blade handle, and drain.
            f) Kohler: K-7404 with K-7715 strainer.
            g) Sloan: Polaris SL-2971 with SL-899
            h) Speakman: SC-3073 complete with drain.
            i) T S Brass: B-2971 with B-899 Drain.
            j) Tubular Brass Plumbing Products: Z-81103.
      b. Supply pipes with stops:
         1) Provide stuffing box and chrome plating.
         2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
            a) Brass Craft: TCR 1912 A-CP.
            b) Tubular Brass Plumbing Products: Z8804 LR-PC.
      c. Trap:
         1) 17 ga 1.4 mm tube 'P' trap, chrome plated.
         2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
            a) Dearborn.
            b) Keeney Manufacturing.
            c) Tubular Brass Plumbing Products.
            d) Watts Drainage Brass And Tubular.

D. Handicap Accessible Lavatories:
   1. Self Supporting Fixture:
      a. Size: 20 by 27 inches 500 by 650 mm.
b. Carrier / Support:
   1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a) Josam.
      b) J. R. Smith.
      c) Light Commercial Specialty Plumbing Products by Zurn.
      d) Wade.
      e) Watts Drainage Brass And Tubular
   
c. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   2) Crane: 1H-364-V.
   3) Eljer: Wheelchair 051-2964.
   4) Kohler: Morningside K-12636.
   5) Toto: LT308.

2. Counter Top Fixture:
   a. Size 20 by 17 inches 500 by 425 mm maximum.
   b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      1) American Standard: Aqualyn 0476.028.
      2) Eljer: Laura 051-0124.
      3) Kohler: Pennington K-2195.
      4) Toto: LT501.

3. Fittings:
   a. Faucet And Drain:
      1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         b) Cambridge Brass: 21T344.
         d) Delta: 2523 HDF.
         e) Grohe: 20831660 8-inch center faucet, 4-inch blade handle, and drain.
         f) Kohler: K-7404-5-A with K-13885 drain.
         g) Sloan: Polaris SL-890.
         h) Speakman: SC-3075-ADA.
         i) T & S Brass: B-890.
         j) Tubular Brass Plumbing Products: Z-81104.
      b. Supply pipes with stops:
         1) Provide stuffing box and chrome plating.
      2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) BrassCraft: TCR 1912 A-CP.
         b) Tubular Brass Plumbing Products: 8804 LR-PC.
   c. Traps:
      1) 17 ga 1.4 mm tube "P" trap, chrome plated.
      2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) Dearborn.
         b) Keeney Manufacturing.
         c) Tubular Brass Plumbing Products.
         d) Watts Drainage Brass And Tubular

4. Safety Covers:
   a. Provide protection on water supply pipes and on trap.
   b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      1) Trapwrap by Brocar Products Inc.
      2) Pro Wrap by McGuire Products.
      3) Handy-Shield by Plumberex Specialty Products.
      4) Handi Lav-Guard by TrueBro.
      5) Tubular Brass Plumbing Products.

E. Service Sink:
   1. Fixture:
      a. Floor Type, 28 inches 700 mm square with vinyl coated rim guard or 24 inches 600 mm square with Stainless Steel rim guard.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) Eljer: Custodial 242-0050.
2) Fiat: TSBC-1610.
4) Stern-Williams: Cornaro SBC-1502.

2. Fittings:
   a. Supply:
      1) Mounting height of 42 inches 1 050 mm.
      2) Provide 48 inch 1 200 mm hose and clamp unless spout is threaded.
   3) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a) American Standard: 8344.112 with threaded spout.
      b) Cambridge Brass: 28T2383CB.
      c) Chicago: 897.
      d) Fiat: No. 830AA.
      e) Grohe: 31417000 and 13121000.
      f) Kohler: K-8928.
      g) Sloan: Polaris SL-665-BSTR
      h) Speakman: SC-5811 RCP-5H.
      i) T & S Brass: B-665-BSTR.
   b. Drain and Strainer:
      1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) American Standard: 7721.038.
         b) Eljer: 803-0630.
         c) Kohler: K-9146, 3 inch IPS.
   c. Trap: Cast iron, PVC, or ABS to match piping.

F. Sacrament Preparation Room Sink:
1. Fixture:
   a. Self-rimming, 18 ga 1.3 mm stainless steel with satin finish.
   b. Size: 22 by 19 inches 550 by 475 mm.
   c. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      1) Elkay: LR-2219.
      2) Just: SL-1921-AGR.
2. Fittings:
   a. Supply:
      1) Provide flow control fitting on spout in place of aerator.
      2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) American Standard: 7100.241H.
         b) Cambridge Brass: W6600-8 less serrated spout.
         c) Chicago: 350.
         d) Grohe: 20162000 body with 13047000 spout.
         e) Kohler: K-7895.
         f) Sloan: Polaris SL-0305 with B-0199-02
         g) Speakman: SC-7059-LVB less serrated spout.
         h) T & S Brass: B-0305 with B-0199-02.
         i) Tubular Brass Plumbing Products: Z-825B1FC.
   b. Supply with Stops:
      1) Provide stuffing box and chrome plating.
      2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) BrassCraft - TCR 1912 A-CP.
         b) Tubular Brass Plumbing Products: Z8804 LR-PC.
   c. Waste:
      1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) Eljer: 803-0570.
         b) Elkay: LK-18 C P.
         c) Just: J-35-FS.
         d) Kohler: K-8807.
         e) Tubular Brass Plumbing Products: Z-8739.
   d. Trap:
      1) 17 ga 1.4 mm tube 'P' trap, chrome plated.
      2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
G. Serving Area Sinks:
   1. Fixtures:
      a. Self-rimming, 18 ga 1.3 mm stainless steel, satin finish.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) Three compartment:
            a) Elkay: LTR-5422-10.
            b) Just: TLX-2255-A-GR.
         2) Two Compartment:
            a) Elkay: LR 3319.
            b) Just: DL-1933-A-GR.
         3) One Compartment:
            a) Elkay: LR 1918.
            b) Just: SL-17519-A-GR.
   2. Fittings:
      a. Provide flow control fittings on spouts in place of aerator.
      b. Supply:
         1) Category Four Approved Products for Three-Compartment Sinks. See Section 01 6000 for definitions of Categories.
            b) Cambridge Brass: Two 27T2443CB with 11 inch 275 mm spout.
            c) Chicago: 1888.
            d) Delta: Two 2100 HDF modified with 4381 handles.
            e) Eljer: Two 718-1000.
            f) Grohe: Two Kitchen Faucet 20707000 body with 18754000 handles.
            g) Kohler: Two K-7761-K with handles K-16012-5.
            h) Sloan: Polaris SL-855 and B-199-1.
            i) Speakman: SC-5763.
            j) T & S Brass: B-855 and B-199-1.
            k) Zurn Commercial Brass: Z-831J3.
         2) Category Four Approved Products for One- or Two-Compartment Sinks. See Section 01 6000 for definitions of Categories.
            a) American Standard: 7270.342H.
            b) Cambridge Brass: 27T2443CB with 11 inch 275 mm spout.
            c) Chicago: 1888.
            d) Delta: 2100 HDF modified with 4381 handles.
            e) Eljer: 718-1000.
            f) Grohe: Kitchen Faucet 20707000 body with 18754000 handles.
            g) Kohler: K-7761-K with handles K-16012-5.
            h) Sloan: Polaris SL-855 and B-199-1.
            i) Speakman: SC-5763.
            j) T & S Brass: B-855 and B-199-1.
            k) Zurn Commercial Brass: Z-831J3.
   c. Waste:
      1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) Eljer: 803-0580.
         d) Kohler: K-8801.
         e) Tubular Brass Plumbing Products: Z-8740.
   d. Supply pipes with stops:
      1) Provide stuffing box and chrome plating.
      2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         a) Brass Craft: TCR 1912 A-CP.
         b) Tubular Brass Plumbing Products: Z8804 LR-PC.
   e. Trap:
1) 17 ga 1.4 mm tube 'P' trap, chrome plated.
2) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
   a) Dearborn.
   b) Keeney Manufacturing.
   c) Watts Drainage Brass And Tubular
   d) Tubular Brass Plumbing Products.

H. Floor Sink:
   1. 8 inch square top, medium receptor cast iron body with flanged receptor, acid resistant coated
      interior, and acid resistant coated half grate. Aluminum sediment bucket and 2 inch calked
      regular outlet connection.
      1) Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      b) Jay R. Smith: 3411-12.
      c) Josam: 49002-3.
      d) Mifab: 1520.
      e) Wade: W9112-15-64-1C.
      g) Zurn Cast Metals: 1915-2-23.

I. Drains And Drain Accessories:
   1. Floor Drain FD-1:
      a. Approved types with deep seal trap and chrome plated strainer.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) Josam: 30000Z-5A with 88250 trap.
         2) J. R. Smith: 2010-A with 7222 trap.
         3) Mifab: F1100C
         4) Wade: 1100 with 2450-T trap.
         6) Zurn Cast Metals: 415 with Z 1000 trap.
   2. Floor Drain FD-2:
      a. Approved types with shallow trap, chrome plated 5 inch 125 mm diameter strainer, and 2-1/2
         to 4 inch 63 to 100 mm diameter by 4-1/4 inch 106 mm high chrome plated funnel.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) J. R. Smith: 3520-F11-CP.
         2) Mifab: F1120C-FF.
         4) Zurn Cast Metals: Z-450.
   3. Floor Drain FD-4:
      a. Approved types with deep seal trap and chrome plated strainer, and 2-1/2 to 4 inch 63 to
         100 mm diameter by 4-1/4 inch 106 mm high chrome plated funnel.
      b. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
         1) Josam: 30000Z-5A with 88152 trap.
         2) J. R. Smith: 3510-F11-CP with 7222 trap.
         3) Mifab: F1100C
         4) Wade: 1100 with 2450-T trap.
         6) Zurn: 415 with Z 1000 trap.
         7) Mifab: C1453
         8) Wade: W8550A.
        10) Zurn Cast Metals: Z-1440-4.

J. Exterior Hydrants:
   1. Provide with integral anti-siphon device. Key-operated.
   2. Non-freeze.
   3. Category Four Approved Products. See Section 01 6000 for definitions of Categories.
      a) Josam: 71050.
      b) J. R. Smith: 5609-QT.
      c) Mifab: MHY-10
2.3 MANUFACTURERS

A. Contact Information:
42. Zurn Commercial Brass, Sanford, NC www.zurn.com.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install fixtures including traps and accessories with accessible stop or control valve in each hot and cold water branch supply line.
B. Mounting:
   1. Urinals:
      a. Standard: 20 inches 500 mm from floor to bottom lip.
      b. Handicap Accessible: 17 inches 425 mm from floor to bottom lip.
      c. Install urinals using carriers.

C. Make fixture floor connections with approved brand of cast iron floor flange, soldered or calked securely to waste pipe. Make joints between fixtures and floor flanges tight with approved fixture setting compound or gaskets. Calk between fixtures and wall and floor with sealant specified in Section 07 9213. Point edges.

D. Flush Valve Filters:
   1. Install in Sloan, Taiko, and Zurn flush valves.
   2. Install after water lines have been flushed out, but before turning water into flush valve.

3.2 CLEANING

A. Polish chrome finish at completion of Project.

END OF SECTION