

## **SECTION 15200**

### **PLUMBING FIXTURES AND EQUIPMENT**

#### **PART 1 - GENERAL**

##### **1.01 SPECIAL NOTICE**

- A. Each contractor shall read all relevant documents, become familiar with the job, the scope of work, type of general construction, architectural, structural, mechanical and electrical drawings and the specifications. Each contractor shall also familiarize himself with the purpose for which these documents have been prepared and shall become cognizant of all the details involved. Each contractor shall coordinate his work with that of others to the end that unnecessary delays be avoided.
- B. The term "contractor" used in this section of the specification shall mean the contractor whose work is covered by this section.
- C. When the term "Engineer" is used in this section of the specification, it shall mean the facility engineer.

#### **PART 2 - PRODUCTS**

##### **2.01 PLUMBING FIXTURES**

- A. All fixtures as hereinafter specified shall be furnished complete with all working trim at each location and as indicated by symbol and abbreviation on the drawings. Fixtures shall be standard products of approved manufacturers and shall be similar and equal in the Engineer's opinion to those specified by manufacturer's name in quality, material, appearance and operation. Care shall be taken when selecting substitutions to see that physical appearance and arrangement very nearly approaches the descriptions given hereinafter.
- B. Each unit shall be furnished with the first line chromium plated all brass trim, unless specifically mentioned to the contrary and shall be furnished with chromium plated wheel handle stops and flexible risers, except that service sink fittings have built-in screw driver stops. "P" traps on sinks, lavatories and similar fixtures shall not be less than 17 gauge brass tubing, chromium plated with screw type cleanouts. Connection between wheel handle stops and piping systems shall be chromium plated brass threaded nipple.
- C. All fixtures shall be installed so as to meet the requirements of the drawings, specifications and local plumbing codes.

- D. Where handicapped fixtures are designated on architectural drawings, they shall be furnished and installed to comply with applicable ANSI Standards.
- E. Handicapped water closets "P-1" shall be vitreous china, floor mounted, water saver, coupled tank type with elongated siphon action reverse trap bowl, white solid plastic open front seat and china bolt covers. Fixture shall be similar to American Standard 2998.012 Flush lever to be on open side. Open front seat Church 9500C.
- F. Wall hung handicap lavatories "P-2" shall be 21 1/4 x 22 inch white vitreous china with front overflow and concealed wall hanger. Lavatory shall be furnished complete with single lever ceramic cartridge type faucet with aerator. Lavatory shall be similar to American Standard 0954.000 with lever handle faucet 2385.404. Offset tailpiece with Delta #70415 ABS plastic grid strainer. Tailpiece and exposed piping shall be covered to meet ADA standards with shroud/knee contact guard 0059.020.
1. Alternate sink: Wall hung handicap lavatories "P-2A" shall be 20-1/2 x 18-1/4 inch white vitreous china with front overflow and exposed wall hanger. Lavatory shall be furnished complete with single lever ceramic cartridge type faucet with aerator. Lavatory shall be similar to American Standard Lucerne 0356.041 with lever handle faucet 2385.404. Offset tailpiece with Delta #70415 ABS plastic grid strainer. Tailpiece and exposed piping shall be covered to meet ADA standards with shroud/knee contact guard 0059.020.
- G. Dialysis prep sink "P-3" shall be Corian #804 (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl (or equal) to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Faucet shall be manufactured by Sloan, model ETF-770 (110V) with trim plate, plug-in transformer ETF-233, laminar flow and mix valve, Delta #70415 ABS plastic grid strainer.
1. Alternate sink for plastic laminate countertop installations: Dialysis prep sink "P-3L" shall be 19 x 18 inch self-rimming stainless steel with soft satin finish bowl, back ledge and sound dampened exterior. Sink shall be similar to Elkay LR-1918 (3 hole), faucet shall be manufactured by Sloan, model ETF-770 (110V) with trim plate, plug-in transformer ETF-233, laminar flow and mix valve, Delta #70415 ABS plastic grid strainer.
- H. Dialysis prep sink "P-3H" shall be a custom fabricated (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Faucet shall be manufactured by Sloan, Model E T F-77(110V) with laminar flow and mix valve, Delta #70415 ABS plastic grid strainer with off-set tailpiece. Tailpiece and exposed piping shall be covered with plastic laminate panel to meet ADA standards and shall have smooth finish.

1. Alternate sink for plastic laminate countertop installations: Dialysis handicap prep sink "P-3H/L" shall be 19" x 18" x 5 1/2" deep self-rimming stainless steel with soft satin finish bowl, back ledge and sound dampened exterior. Sink shall be similar to Elkay L.R.A.D. 1918 (3 Hole), faucet shall be manufactured by Sloan, Model E T F-77(110V) with laminar flow and mix valve, Delta #70415 ABS plastic grid strainer with off-set tailpiece. Tailpiece and exposed piping shall be covered with plastic laminate panel to meet ADA standards and shall have smooth finish.
- I. Dialysis medicine sink "P-4" shall be Corian #804 (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl (or equal) to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Faucet shall be Chicago #350 with Delta #70415 ABS plastic grid strainer. (Note Texas only, replace Chicago faucet #350 with Sloan model ETF-770).
    1. Alternate sink for plastic laminate countertop installations: Dialysis medicine sink "P-4L" shall be 15 x 15 inch self-rimming stainless steel, satin finish bowl and sound dampened exterior. Sink shall be similar to Elkay BLR15 (1 hole), faucet Chicago #350, Delta #70415 ABS plastic grid strainer. (Note Texas only, replace Chicago faucet #350 with Sloan model ETF-77).
  - J. Lounge sink "P-5" shall be a custom fabricated (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl (or equal) to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Sink shall be furnished complete with American Standard 4205.000 single lever faucet with swing spout and aerator, ABS strainer drain (color: white) and off-set tail piece. Tailpiece and exposed piping shall be covered with plastic laminate panel to meet ADA standards and shall have smooth finish.
    1. Alternate sink for plastic laminate countertop installations: Lounge sink "P-5L" shall be single compartment counter top sink 25 x 22 inch nominal size, single bowl, self-rimming sink with satin finish interior and sound deadening exterior application. Sink shall be similar to Elkay GEGR-2521-R 4 holes with American Standard 4205.000 single lever faucet and ABS strainer drain (Plumbest #B02004 - color: Bone) and off-set tailpiece. Tailpiece and exposed piping shall be covered with plastic laminate panel to meet ADA standards and shall have smooth finish.
  - K. Refrigerator ice box connection "P-5A" Guy Gray Bim 875.
  - L. Exam lavatory "P-6" shall be Corian #804 (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl (or equal) to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Faucet American Standard 6530.170 with 372H wrist blade handles and Delta #70415 ABS plastic grid strainer.

1. Alternate sink for plastic laminate countertop installations: Exam lavatory "P-6L" shall be 19 x 18 inch self-rimming stainless steel with soft satin finish bowl, back ledge and sound dampened exterior. Sink shall be similar to Elkay LR1918 3 hole. Faucet American Standard 6530.170 with 372H wrist blade handles and Delta #70415 ABS plastic grid strainer.
- M. Laundry tub "P-7" shall be a 24 x 24 inch deep nominal size molded stone laundry tray with fiberglass legs, swing spout mixing faucet and perforated grid strainer. Sink shall be similar to Fiat model FL-1, with A.S. 7490.000, faucet and 172 H wrist blade handles.
- N. Mop sink "P-8" shall be a 24 x 24 inch cast stone floor model mop sink with 3" outlet stainless steel rim guard and combination supply faucet with integral stops and vacuum breaker hose connection, fixture shall be similar to Fiat MSB2424 with Crane 830AA faucet and 832AA hose kit.
- O. Eye and face shower "P-9" shall be equal to Encon model #01-0502-16. A pressure reducing valve shall be installed for adjusting flow to 25 gallons per minute.
- P. CAPD/Home Hemo clean sink "P-10" shall be Corian #804 (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl (or equal) to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Faucet American Standard 6530.170 with 372H wrist blade handles and Delta #70415 ABS plastic grid strainer.
  1. Alternate sink for plastic laminate countertop installations: CAPD/Home Hemo clean sink "P-10L" shall be 15 x 17 inch self-rimming stainless steel with soft satin finish bowl. Back ledge and sound dampened exterior. Sink shall be similar to Elkay LR1517 (3 hole). Faucet American Standard 6530.170 with 372H wrist blade handles and Delta #70415 ABS plastic grid strainer.
- Q. CAPD/Home Hemo clean sink "P-11" shall be Corian #804 (17 1/2" x 17 1/2" x 8 3/4" nominal dimension; 15 3/4" x 15 3/4" x 8 1/8" inside dimension) solid surfacing sink bowl (or equal) to be fabricated integrally as part of the Work of Section 06402. Sink color to be Corian "Bone" or equal. Faucet Chicago 335-E12 (cold water) "Tip-Tap" slow metering and Delta #70415 ABS plastic grid strainer.
  1. CAPD/Home Hemo dirty sink "P-11L" shall be 15 x 15 inch self rimming stainless steel, satin finish bowl and sound dampened exterior. Sink shall be similar to Elkay BLR 15 (1 hole). Faucet Chicago 335-E12 (cold water) "Tip-Tap" slow metering, and Delta #70415 ABS plastic grid strainer.
- R. Mop sink "P-12" (bicarb mixer) shall be a 24x24 inch cast stone floor model mop sink with 3" outlet similar to Fiat MSB2424 with Crane 830AA faucet and optional hose kit #832-AA.

- S. Soiled utility lavatory "P-13" shall be a 20"x18" white vitreous china with front overflow and concealed wall hanger. Sink shall be similar to American Standard 0194.076 with faucet 6832.000 and 372H wrist blade handles.
- T. Clinical service sink "P-14"
  - 1. For Massachusetts only shall be vitreous china, wall mounted blow out flushing action, flushing rim, 1 1/2" jet spud, A.S. 9512.013 with Sloan royal 117H flush valve. A.S. 7582.067 bedpan washer and J.R. Smith wall hanger Mod. #629.
  - 2. All other states shall be vitreous china, floor mounted, water saver, coupled tank type with elongated siphon action reverse trap bowl, white solid plastic open front seat and china bolt covers.  
  
(Fixture shall be similar to American Standard 2998.012 flush lever to be on open side. Open front seat Church 9500C.)
- U. Blood lab sink "P-15" shall be 25 X 22 inch self rimming acid-resisting enameled steel and white color. Sink shall be similar to A.S. 7143.803 (3 hole). Faucet American Standard 6530.170 with 372H wrist blade handles and Delta #70415 ABS plastic grid strainer.
- V. Bed pan washer for use in patient toilet room shall be A.S. 7582.067 bed pan washer and J.R. Smith hanger model #629.
- W. Water Cooler shall be Elkay model #EBFATL8C, two station barrier-free, wall mounted, electric refrigerated type.
- X. Approved Manufacturers: Plumbing Fixtures and Brass: American Standard, Crane, Kohler, Elkay, Just, Fiat, and Williams.

## 2.02 DOMESTIC WATER AND PROCESS HEATERS

- A. Domestic water heater shall be AGA approved glass lined, steel tank, gas fired units as scheduled. Units shall be complete with fiberglass insulation, protective sheet metal jacket with baked enamel finish, cast iron or stainless steel gas burner for use with natural gas, 100% safety pilot, adjustable thermostat control, automatic main gas valve, manual main and pilot gas valves, pressure regulator, backdraft diverter and magnesium anode. Heater tank shall be fabricated so that the water will not come in contact with any ferrous metals. Tank shall have a minimum guarantee of 100% replacement for the first two years. Reference drawing for sizing.
- B. Approved Manufacturers: Rheem, Rudd, A.O. Smith, Payne, / State Stove, P.V.I., and Lochinvar.
- C. Expansion Blator Tank

- D. See section 15400 2.02 E for process H.W.H.

## 2.03 GAS VENTING SYSTEM

- A. Gas venting system shall be a double wall, insulated gas vent pipe from the downdraft diverter to the point of termination above the roof including flue cap. Vent system shall include draft hood connectors, roof flashing, storm collars and vertically louvered non-directional, bird-proof, rain-proof galvanized steel or aluminum flue caps and shall be listed by National Fire Protection Association. Install within minimum clearances to combustible materials in accordance with UL listings and local building codes.
- B. Outer walls shall be constructed of galvanized steel or aluminum with both walls seamed together in an integral unit with ends die formed for mating, alignment and locking for a gas tight installation.
- C. Where roofs are bonded, roof flashing shall conform with bonding company's requirements. A square curb base shall be furnished for flat tar and gravel roofs or roofs where curbed openings are provided by the General Contractor.
- D. Approved Manufacturers: Ammervent, Dura-Vent, and Metalbestos. See Section 07800 Roof Penetrations.

## 2.04 DRAINS AND CLEANOUTS

- A. All drains and cleanouts shall be provided and installed as required and as shown. Drains shall have cast iron bodies with screwed or caulked connections of the sized and types shown and specified. Provide deep seal cast iron "P" traps on all floor drains connected to the sanitary sewer.
- B. Manufacturer's figure numbers are specified to indicate type, quality and construction. Similar and equal products of approved manufacturers may be substituted for those specified numbers shown.
- C. Floor drains "P-16" for use in dialysis area shall be similar Josam Series 30000-E1 cast iron floor drain with double drainage flange, weep holes, bottom outlet, flashing-clamping device and nickel chrome adjustable strainer. Where drains are used to receive indirect wastes they shall be furnished with 6" funnels, model F-6 cast brass finished to match the grate, or partial type grates all factory fabricated by the drain manufacturer and completely finished to match the grate (mount rim  $\frac{3}{4}$ " AFF on first floor, mount rim flush on 2<sup>nd</sup> floor applications.)
- D. Floor sinks "P-18" shall be 12" square 6" deep, PVC sink with 4" hub bottom outlet, PVC internal dome strainer and removable grate. Grate shall be full or partial as necessary to fit specific installation requirements. Unit shall be similar to Plastic Odities Manufacturing Company Mod. #PFS-400H.

- E. Floor cleanouts shall be cast iron floor cleanouts with scoriated cut-off section, bronze internal plug and brass scoriated coverplate secured to plug by countersunk screw, similar to Josam Series 57000.
- F. Wall cleanouts, masonry wall, shall be cast iron caulking ferrule bronze plug and brass round access coverplate secured to plug by countersunk screw similar to Josam 58710.
- G. Wall cleanouts (except as specified above) shall be cast iron caulking ferrule with bronze plug and brass coverplate and frame, similar to J Hosam 58700.
- H. Approved Manufacturers: Josam, Jones Co., J.R. Smith, Wade or Zurn.
- I. Dialysis counter top clean out shall be Zurn model CO-2401-PVC and adapter for 2" PVC pipe.

#### 2.05 PRESSURE BOOSTER PUMP "P-1"

- A. The pressure booster pump unit shall be a single pump water pressure booster pump system consisting of pump, controls and surge tank.

System shall be capable of automatically providing constant system pressure while supplying the scheduled flow rate. The system shall automatically provide complete pump shutdown during low-flow conditions while maintaining constant system pressure.

If building voltage is different than pump voltage rating then P.C. shall furnish a buck boost transformer to be installed and wired by electrical contractor.

- B. The system shall be the unit scheduled on the construction drawing.

### **PART 3 - EXECUTION**

#### 3.01 INSTALLATION OF EQUIPMENT

- A. All plumbing equipment shall be set in place, leveled and connected as indicated on the drawings. All equipment shall be properly protected from damage during storage and construction and shall be thoroughly cleaned and factory applied paint touched up where scratched or otherwise damaged, prior to final acceptance.
- B. Installation procedures shall be in strict accordance with manufacturer's published instructions and the contract documents as herein before specified. Contractor shall furnish all required valves, unions, supports, and other required miscellaneous devices.

**END OF SECTION**