

SECTION 15450 – PLUMBING FIXTURES

PART 1 – GENERAL

1.1 WORK INCLUDED

- A. Fixtures and equipment shall be supported and fastened in a satisfactory manner. Where wall hung fixtures are secured to masonry walls or partitions, they shall be fastened with 1/4" through bolts provided with nuts and washers at back. Bolt heads and nuts shall be hexagon, and exposed bolts, nuts, washers, and screws shall be chromium plated brass.

1.2 RELATED SECTIONS

- A. Examine drawings and criteria sheets and other Sections of the specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section.
 - 1. Section 15050 – Basic Mechanical Materials and Methods
 - 2. Section 15410 – Plumbing Valves
 - 3. Section 15420 – Plumbing Distribution Piping
 - 4. Section 15430 – Drainage and Vent Piping
 - 5. Section 15440 – Plumbing Specialties
 - 6. Section 15460 – Plumbing Equipment
 - 7. Section 15480 – Medical Plumbing Systems

1.3 TOILET ACCESSORIES

- A. Attention is directed to Section 10800 of the General Specifications. Toilet room accessories, including grab bars, shall be furnished under Section 10800 of the Specifications. The labor for installing toilet room accessories and all back-up material of wood, fasteners, hangers, brackets, etc. shall be by the Contractor. Reference shall be made to Architectural Specifications and drawings for exact quantity, type and locations of toilet accessories. Accessories must be properly fastened with special attention given handicapped persons grab bars which must be anchored in accordance with manufacturers instructions. Store accessories until required on job.

1.4 SUBMITTALS

- A. Refer to Section 01330 – SUBMITTAL PROCEDURES.
- B. Prepare and submit shop drawings in accordance with the requirements of the General Conditions and Supplementary Conditions and in the manner described therein, modified as noted hereinafter.

C. Submittals – The following documents shall be provided:

1. Plumbing fixtures and trim.

1.5 QUALITY ASSURANCE

A. Refer to Section 01400 – QUALITY REQUIREMENTS.

PART 2 – PRODUCTS

2.1 FIXTURES AND TRIM

A. Acceptable Manufacturers: Submit manufacturers not listed below for review and approval as specified for substitutions in Section "Quality Assurance" in this specification.

B. Fixture Trim and Accessories: Provide fixtures complete with fixture carrier, faucet, drain outlet, tailpiece, P-trap, and stops and supplies.

1. Finish: All trim exposed to view shall be polished chrome plated.
2. P-Traps: Cast brass adjustable P-trap with cleanout plug, ground joint and 17 gauge minimum weight extension with escutcheon. Provide Chicago or McGuire #8090 1 1/4" by 1 1/2" on lavatories and #8098 1 1/2" by 1 1/2" on sinks.
3. Drain Outlets: Provide drain outlet of the same manufacturer as the fixture or faucet trim with chrome plated cast brass plug with 17 gauge minimum weight tailpiece. Provide 1 1/4" tailpiece on lavatories and 1 1/2" on sinks.
4. Stops and Supplies: Chrome plated, brass with stop, Chicago or McGuire #170-LK, escutcheon flexible riser. Refer to other Sections herein for information on transition between materials.
5. Joints between wall mounted fixtures and wall shall be sealed with caulk to match fixture color.
6. All faucets, water coolers and drinking fountains shall be constructed of a lead free brass alloy and where applicable, shall be certified to comply with NSF 61 Section 9 Drinking Water Standard.

C. Water Conservation: Provide water conserving fixtures and trim compliance with the following maximum water use requirements. Provide variable pressure flow controls on showers, sinks and lavatory faucets.

- | | |
|----------------------------------|---------|
| 1. Public Lavatories: | 0.5 gpm |
| 2. Sinks: | 1.5 gpm |
| 3. Showers: | 2 gpm |
| 4. Water Closets without Bedpan: | 1.6 gpf |
| 5. Water Closets with Bedpan: | 3.5 gpf |
| 6. Urinals: | 1 gpf |
| 7. Clinic Sinks: | 3.5 gpf |

D. Fixture Supports

1. Acceptable Manufacturers: J.R. Smith, Zurn, Wade, or Josam
2. Provide floor mounted fixture support carriers for wall mounted fixtures including, but not limited to, water closets, lavatories, scrub sinks and clinical sinks. Fixture support shall support at least 250 lbs. for (5) minutes. Furnish complete with foot piece, all necessary bolts, nuts, washers and gaskets. The adjustable nipple for the water closets between the cast iron fitting and closet bowl shall be threaded cast iron. Secure all foot pieces to floor slab using four bolts per foot.
3. Close coordination is required between the plumber and tile subcontractor in closet installation. Maintain 1/16" clearance between finished wall and back of closet and follow manufacturer's details in installing couplings to ensure tight seal at closet outlet. Closet hanging templates must be used.
 - a. Water Closets: Zurn ZR-1204, J.R. Smith 230
 - b. Lavatories: Zurn ZR-1231, J.R. Smith 700
 - c. Clinical Sinks: Zurn Z-1218, J.R. Smith 914
 - d. Urinals: Zurn Z-1222, J.R. Smith 637

E. Water Closets

1. Refer to schedule on drawings for fixture types and model numbers.
 - a. Water closets shall be elongated, wall hung vitreous china, 1.6 gpf siphon jet with 1-1/2" top spud equal to Kohler, American Standard or Eljer or Crane.
 - b. Flushometer valve shall be exposed chrome plated, 1" I.P.S. screwdriver angle stop, protective cap with set screw, adjustable tailpiece, vacuum breaker and spud coupling, set screw escutcheon at wall equal to Sloan, Zurn or Delany.
 - c. Seats shall be heavy duty, institutional, solid plastic seat for elongated bowl, open front less cover with self-sustaining check hinge equal to Kohler, Bemis or Olsonite.
 - d. Fixtures designated for handicapped use shall be installed in accordance with the Americans with Disabilities Act as well as state and local codes.

F. Urinals

1. Refer to schedule on drawings for fixture types and model numbers.
 - a. Urinals shall be wall hung, vitreous china, 1.0 gpf siphon jet with 3/4" top spud equal to Kohler, American Standard, Eljer or Crane.
 - b. Flushometer valves shall be exposed, chrome plated, 3/4" I.P.S. screwdriver angle stop, protective cap with set screw, adjustable tailpiece, vacuum breaker and spud coupling, set screw escutcheon at wall equal to Sloan, Zurn or Delany.
 - c. Fixtures designated for handicapped use shall be installed in accordance with the Americans with Disabilities Act as well as state and local codes.

G. Lavatories

1. Refer to schedule on drawings for fixture types and model numbers.
 - a. Lavatories shall be vitreous china, self-rimming or wall hung with 2" chrome plated escutcheons as required and 8" faucet centers. Equal to Kohler, American Standard, Eljer or Crane.
 - b. The faucets shall be chrome plated, combination faucet with convertible gooseneck spout, 4" wrist blade handles, aerator and ceramic operating cartridges. Equal to Chicago, Symmons or Water Saver.
 - c. Drains shall be chrome plated, cast brass grid drain. Equal to manufacturer of supplied fixture.
 - d. Fixtures designated for handicapped use shall be installed in accordance with the Americans with Disabilities Act as well as state and local codes.

H. Sinks

1. Refer to schedule on drawings for fixture types and model numbers.
 - a. Sinks shall be Type 304, 18 gauge stainless steel, with sound deadening undercoating. Equal to Elkay, Acorn or Just.
 - b. The faucets shall be chrome plated, combination faucet with convertible gooseneck spout, 4" wrist blade handles, aerator and ceramic operating cartridges. Equal to Chicago, Symmons or Water Saver.
 - c. Drains shall be chrome plated, cast brass grid drain. Equal to manufacturer of supplied fixture.
 - d. Fixtures designated for handicapped use shall be installed in accordance with the Americans with Disabilities Act as well as state and local codes.

PART 3 – EXECUTION

3.1 CONNECTIONS TO EQUIPMENT

- A. Furnish and install waste and vents, traps, cold water, hot water, non-domestic cold and hot water, medical gases, piping, shutoffs, backflow preventers, pressure reducing valves, vacuum breakers, shock absorbers, regulators and flexible tubing for all final connections to kitchen, medical and laboratory equipment, headwalls, casework and sinks provided under other Sections. Roughing for this equipment shall be as indicated on the drawings.
- B. Obtain exact roughing in dimensions from manufacturers of all service locations before connecting to or roughing for equipment. Provide shutoff valves at each piece of equipment.

- C. Owner provided equipment shall be furnished and set under other Sections. Roughing for and final connections to including piping shall be provided by this Contractor. Equipment included shall be:
 - 1. Kitchen equipment (dishwasher, ice maker)
 - 2. Prefabricated medical gas headwalls
 - 3. Preformed sink tops
 - 4. Scrub stations
 - 5. Sterilizers, glasswashers

3.2 FIXTURE ROUGHINGS

- A. Install rough plumbing, including fixture carriers and supports, valves and water hammer arrestors within chase tolerances. Supply roughing through finish walls and at hose bibbs and shower heads shall be secure and free of movement. Locate valves and water hammer arrestors within 12" of approved access panel location.
- B. Align exposed waste and supply pipe roughings with fixture connections within 1" tolerance. Provide flush valves in alignment with the fixture, without vertical or horizontal offsets. Obtain fixture manufacturer roughing data sheets for recommended roughing dimensions.
- C. Provide fixture templates for casework Contractor for counter mounted sinks and lavatories.
- D. Secure fixture supports to floor slab construction with lag bolts and metal expansion shields to support at least 250 lbs. for (5) minutes.
- E. Provide fixture rough-in piping connection sizes in accordance with the drawing schedule.

END OF SECTION