

SECTION 15440

PLUMBING FIXTURES

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes: Plumbing fixtures and trim associated with plumbing systems.

B. Related Sections:

1. Section 12349 – Laboratory Service Fixtures
2. Section 15010 – Basic Mechanical Requirements
3. Section 15050 – Basic Mechanical Materials and Methods
4. Section 15410 – Plumbing Piping
5. Section 15430 – Plumbing Specialties
6. Section 15450 – Plumbing Equipment

1.02 SYSTEM DESCRIPTION

A. Design Requirements:

1. Specify stop valves at all fixtures and equipment and at rough-in locations.
2. Specify all-white fixtures with acid resisting finish.
3. Specify rigid anchors behind walls for all supplies and stops to eliminate push or pull movement.
4. Specify carriers for all wall mounted fixtures. Do not allow wood or metal mounting plates anchored to the wall framing or studs.
5. Laboratory faucets and cocks shall have vacuum breakers, as well as all devices to which hoses can be connected.
6. Specify stainless steel edge protectors for janitor sinks.
7. Tub and tile caulk shall be applied under all self-rimming sinks.
8. Specify 1/2" anchor bolts on all carriers, lavatories, urinals, and closet carriers.
9. All 17 gauge P-traps shall have brass slip nuts

1.03 QUALITY ASSURANCE

A. Specify all installations in accordance with jurisdictional code and health authorities standards, restrictions and recommendations.

B. Specify contractor to provide all fixtures and trim using a single manufacturer where possible. Allow deviation only where specifications indicate otherwise.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. General: Fixtures, manufacturers and catalog numbers specified are shown only to establish type and quality of fixtures required. Other equal products may be selected from the following lists of acceptable manufacturers.

B. Cast iron, and vitreous china (except as noted):

American Standard

Crane

Eljer *

Kohler

Universal-Rundle

Zurn

* (Not approved to supply water closets and urinals to UCCS)

Housing: Toto for water closets and urinals

LEED Wec3: Water Use Reduction and

LEED Wec2: Innovative Wastewater Technologies

Urinals using not more than 1/8 Gallon per flush (Zurn or pre-approved equal)

Waterless urinals, Ceramic, when approved by the University

C. Stainless steel type (302) (304) and (316) 18 gage minimum:

Bradley

Elkay

Just

D. Molded Stone:

Fiat

Florestone

E. Terrazzo:

Bradley

Fiat

Florestone

F. Electric Water Coolers (Drinking Fountains preferred):
(Infrared-sensing actuation is not acceptable.)

Elkay Model EBFSA-8 desired (specify)

Cordley

Halsey Taylor

Haws
Oasis

Drinking Fountains:

Shall have trap outside wall. Trap within wall is too difficult to service

Haws Model 1109 or approved equal

G.

Emergency Showers and Eye/Face Wash Equipment:

Desert Assembly, Inc.

Haws

Sloan

Water-Saver Co.

Additional Manufacturers listed in UCB Standard Section 12349, 2.1 (A) Manufacturers.

H.

Laboratory Faucets and Cocks:

Chicago Faucet Mod. No. 786-GN2BVB-E3-2-369

Zurn (equal to Chicago)

I.

Water Mixing Valves, Thermostatic or Pressure Balanced:

Leonard

Powers (Preferred)

LEED WEC3: Water Use Reduction:

Chicago Faucet Mod. No. 119-NF (Infrared applications.)

J.

Faucets, Two Handle, 4-inch center spacing, with ceramic cartridge:

Chicago 802-CP (802-317CP for ADA) with ceramic cartridge

Zurn (equal to Chicago)

Housing:

Delta model 501 WF 4" cc

Delta model 100 WF 8" cc

LEED WEC3: Water Use Reduction:

Chicago Faucet Mod. No. 650-4CP (infrared, 110V transformer required)

K. Flush Valves: (Shall not exceed 1 gallon per flush for urinals and 1.6 gallons per flush for water closets. In new facilities and remodels, electric flush valves shall be 24 volt with 110 volt transformers for urinal only, 1/8 gallon battery operated flush.

Sloan Regal
Zurn Aqua Vantage
Automatic flushing device: Zurn E-Z Flush CFM

Housing: Toto

**LEED Wec3: Water Use Reduction and Wec2: Innovative Wastewater Technologies:
If the project is pursuing LEED, use lower flow fixtures, or waterless fixtures where
feasible.**

L. Toilet Seats: (All-plastic)(Black).

Bemis
Beneke
Church
Olsonite

M. Shower Equipment: (Shall not exceed 2.5 gallons per minute). Single handle, pressure-compensating:

Delta (Preferred)
Kohler
Leonard

Housing – Delta Pressure balance Monitor R 10,000 UNWS

**LEED Wec3: Water Use Reduction:
If project is pursuing LEED, use a tamper-proof 2.0 gpm flow restrictor where feasible.)**

N. Garbage Disposers:

Insinkerator
Pro SS (Preferred)
Waste King

O. Traps, Stops (all metal), Supplies, Airgaps, Drains:

American Standard
Brasscraft
Eljer
Kohler

Housing – Stops to be Aquaflo V-101-A an LPS Company

P. Chair Carriers (4-Bolt):

Josam

J. R. Smith
Wade
Zurn

Q. Faucets, Two-Handle, lever style:

Chicago
Zurn

Housing – Delta model 501 WF 4”cc
Delta model 100 WF 8”cc

R. Kitchen Faucet and Trim:

Kitchen: Chicago Faucet Mod. 1100-317CP

Housing: Delta, with Single Handle (long) Mod. 100-WFELHHDF

2.02 WATER CLOSETS

A. Wall Hung, Siphon Jet, Valve Operated, Water Saver, 5" rough with open front seat and no lid. Shall be certified by an approved agency for operation not exceeding 1.6 gallons per flush. Manual flush valves. Womens manual dual flush valve

Plane Code:	WC-1	WC-2 (Handicapped)
Make:	Kohler/Cran	Kohler/Crane
Model:	e K-4330/3-446E	K-4330/3-446E
Color:	White	White
Set Floor To Rim:	15"	18"
Flush Valve Make:	Sloan	Sloan
Style:	Regal	Regal
Model:	110-YB	110-YB
Chair Carrier:		
Make:	Josam	Josam
Series:	12000	12000
Nipple:	Cast Iron	Cast Iron
Supply Pipe	-6	-6
Support:		
Vandal Proof Trim:	-4	-4

LEED Wec3: Water Use Reduction and Wec2: Innovative Wastewater Technologies:
For projects pursuing LEED, use reduced gpf flush valves where feasible. Discuss this option with University Facilities Maintenance.

B. Equals by American Standard, Universal-Rundle

C. For Housing: Toto

2.03 URINALS

A. White, vitreous china blow-out urinal with flushing rim, trap and 1 ¼" top spud inlet, 2" outlet and wall hangers. Shall be certified by an approved agency for operation not exceeding 1 gallon per flush. Battery operated 1/8 gallon sensor flush.

Plane Code: U-1 & U-2

Make: Kohler

Model: K4972-T

Style: 1-1/4" Top Spud

Set Floor To Rim

(STD): U-1 24"

(Handicapped): U-2 17"

Flush Valve Make: Sloan

Style: Regal

Model: 180

Supply: 1"

Carrier Make: Josam

Model: 17810

**LEED Wec3: Water Use Reduction and Wec2: Innovative Wastewater Technologies:
For projects pursuing LEED, use reduced gpf flush valves or waterless urinals where
feasible. Discuss this option with University Facilities Maintenance.**

B. Equals by American Standard, Crane, Universal-Rundle

C. For housing: Toto

2.04 LAVATORIES

A. White, cast iron, self rimming countertop, 19" round lavatory. C.P. all brass 1-1/4" trap, supply and waste fitting, vandal resistant aerator to limit flow to 0.5 GPM. Provide closed-cell pipe insulation on the waste pipes and hot water pipes below each lavatory for the handicapped. Hardwire automatic sensors.

Plane Code: L-1

Make: American Standard Model 3301-025

Style: Self Rimming

Size: 19" Dia.

Trap: 1-1/4"

Faucets: See 2.01J

**LEED Wec3: Water Use reduction:
For projects Pursuing LEED certification, use infrared faucets as listed in 2.01J.**

Set the run-time to 5 seconds.

Design Note: Where tempered water is used, tempered water must be present within 5 cycles of lavatory use.

- B. Equals by Kohler, Crane, Universal-Rundle

2.05 MOP SERVICE BASIN

- A. Pre-cast terrazzo, stainless-steel drain, stainless-steel caps on all curbs.

2.06 COFFEE-BAR SINKS

- A. Stainless-steel sink with drainboard (Elkay ILRG-4322 or equal). Single-handle faucet with goose-neck spout (Delta 711HDF).

PART 3 – EXECUTION

3.01 INSTALLATION

- A. In general, for project specifications, remove "Design Requirements" in Part 1, Paragraph A, Paragraph 1.02, "System Description" of this Design Guide and use list to expand on specific requirements of installation for each fixture specified.
- B. Drinking Fountains and Water Coolers: 36" max. installation height to spout.
- C. Urinals - To meet ADA requirements, set one urinal per restroom with a rim height of 17" and the flushometer handle to 44". The tailpiece can be cut to meet this requirement.
- D. Water closets and urinals: Do not caulk any wall-mounted fixtures (need to remove often due to blockages).
- E. Emergency Showers and Eye/Face Wash Equipment
 - 1. Installation shall meet ANSI Z358.1 and UCB Standard Section 12349.

END OF SECTION