

# Element D | Services

Plumbing

## D2010 Plumbing Fixtures

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### PART 1 - GENERAL

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#### 1.01 OVERVIEW

- A. This section addresses plumbing fixtures, trim and associated accessories. Refer to MD Anderson Cancer Center Master Construction Specification Sections for additional requirements.

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### PART 2 - DESIGN CRITERIA

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#### 2.01 GENERAL

- A. Final selection of plumbing fixtures and trim shall be determined by close coordination with MD Anderson Cancer Center user groups and the Owner's Project Manager to determine functionality requirements for selection of appropriate fixture and trim types. Requirements may vary from facility to facility and even from department to department.
- B. A/E shall modify MD Anderson Cancer Center Master Construction Specifications as required to ensure conformity between Drawing schedules and Specifications.
- C. Quantities of plumbing fixtures shall be determined by compliance with the International Building Code requirements for minimum number of facilities. Consult with MDACC users to determine additional fixtures required for particular department needs. Provide fixtures as required by Title 25, Texas Administrative Code, Chapter 133, Hospital Licensing within all patient care areas.
- D. Coordinate location of all plumbing fixtures with structural members, windows, lower-floor ceilings or other building components that may interfere with the installation of code compliant piping. This task shall be accomplished during the schematic design phase of the Project.
- E. Coordinate location of plumbing fixtures on upper levels with spaces below to avoid areas where water leakage would cause major property loss or contamination, including but not limited to computer data centers, MRI rooms, food preparation, food storage, food serving, critical patient care areas, etc. This task shall be accomplished during the schematic design phase of the Project. Refer to Design Guideline Element Z2050 for additional related requirements.
- F. Do not locate plumbing fixtures above electrical or telecommunications rooms.
- G. Fixtures shall be mounted at heights recommended by the manufacturer, as required by accessibility standards, and as required by MD Anderson Cancer Center Users.
- H. Coordinate sink/lavatory types and sizes with other toilet accessories and casework details to insure proper installation of fixtures.
- I. When developing floor plans, the A/E shall coordinate location of plumbing fixtures with lower floor levels to avoid the need to route drainage, waste or sanitary vent piping within the ceilings of or exposed above sensitive equipment or areas where water leakage could cause

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contamination or major property loss. Refer to Element Z2050 for additional related requirements.

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### PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

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#### 3.01 GENERAL

- A. All plumbing fixtures and trim shall be scheduled on the Contract Drawings indicating manufacturer's model numbers and sufficient additional information to allow cross referencing to other acceptable manufacturer's products. Fixtures scheduled on Drawings shall not conflict with specification requirements.
- B. Include a fixture rough in schedule on the Contract Drawings identifying minimum service pipe sizes required by code and as recommended by the manufacturer for all fixtures and trim to be installed within the Project.
- C. Include schedules and/or detail elevations on Contract Drawings identifying required mounting heights for all fixtures and trim to be installed within the Project.
- D. Detail shower floor liner installation on Contract Drawings.

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### PART 4 - PRODUCTS

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#### 4.01 GENERAL

- A. Refer to Owner's Master Construction Specifications. These are available on the Owner's Design Guidelines website: <http://www2.mdanderson.org/depts/cpm/standards/specs.html>
- B. Fixtures and trim specified for renovation of existing facilities shall match existing installation where possible.
- C. Fixtures, trim and accessories shall be new institutional/commercial grade quality.
- D. Fixtures, trim and accessories of any one type shall be by the same manufacturer.
- E. Vitreous china plumbing fixtures shall be white in color with chrome-plated fixture trim and accessories.
- F. Wall mounted fixtures shall be supported with commercial carriers, bolted to the floor. Fixture weight shall not be transmitted to walls or partitions.
- G. Fixtures exposed to the public shall be provided with vandal resistant trim.

#### 4.02 ELECTRONIC SENSOR ACTIVATED FIXTURE TRIM

- A. Electronic faucet and flush valve sensors may be provided with AC or DC power. Selection of power type shall be determined for each project during the Schematic Design Phase and must be approved in writing by the Owner's Project Manager.

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- B. AC powered Electronic faucet and flush valve sensors located within Patient Care areas and critical Research areas shall be connected to the emergency electrical system.
- C. All electronic flush valve sensors shall be provided with a manual override button except when located within specimen collecting toilet rooms.

### 4.03 LAVATORIES AND SINKS

- A. Stainless steel sinks shall be 18 gauge Type 304 stainless steel with insulation undercoating. Fixture trim and accessories shall be heavily chrome-plated.
- B. Provide faucets with laminar flow outlets. Aerators will not be acceptable.
- C. All lavatories and sinks within patient care areas shall be provided with a spout having outlet a minimum of five inches above the flood level rim of the fixture. EXCEPTION: All lavatory faucets within public toilets shall have low-profile (non-gooseneck) spouts.
- D. Lavatories shall be provided with grid strainer drain. Drain stoppers or mechanical (pop-up) waste fittings will not be acceptable.
- E. All sinks primarily used for hand washing shall be provided with grid strainer drain. Drain stoppers or crumb-cup strainers will not be acceptable.
- F. Lavatories located in public and staff washrooms shall be provide with electronic sensor activated faucets.
- G. Lavatories faucets located in specimen collecting toilet rooms shall be provided with AC powered electronic sensors. The electrical power shall be controlled by a wall switch located outside of the toilet room to allow nursing staff to prevent use of faucet during collection of specimen. Coordinate with Owner's staff for exact location of wall switch.
- H. Sinks and lavatories primarily used for hand washing in nurse stations, examination and treatment rooms shall be provided with electronic sensor activated faucets.
- I. Sinks and lavatories used for procedural hand/arm scrubbing shall be trimmed with foot, knee or electronic sensor controls.
- J. Each lab room shall be provided with at least one hand washing sink having electronic sensor activated faucet and hot and cold water.
- K. Sinks located in BL-2 or higher tissue culture rooms shall be provided with foot pedal or electronic sensor activated faucets.
- L. Faucets used by medical and nursing staff for cleanup or general use shall be trimmed with valves that can be manually operated without the use of hands. Wrist blade handles are acceptable for this purpose and shall be four inches in length, (including, nurse lounge, nourishment station, soiled utility, clean utility, film processing, etc.).
- M. Lavatories located in patient room toilets shall be provided with manually operated four-inch wrist blade handles and gooseneck spouts.

- N. Clinical sinks used for bedpan cleansing shall be provided with manually operated faucets having six-inch elbow blade handles and manually operated flush valves having integral bedpan washer.
- O. Lab sinks used for general research shall be provided with manually operated faucets served with hot and cold water.
- P. Housekeeping mop sink faucets shall not be provided with mixing faucets. . Three hose bibs supplied by a cold water service that is protected by a reduced pressure backflow preventer shall be provided as illustrated by MD Anderson Installation Detail PL-224000-01.

#### 4.04 WATER CLOSETS

- A. Toilets shall be wall mounted vitreous china with elongated bowl, siphon jet flushing action and one and one half inch top inlet spud.
- B. Toilet bowls within patient rooms shall be provided with integral bedpan lugs.
- C. Seats shall have open front and stainless steel self-sustaining check hinges.
- D. Flush valves shall be chrome plated brass exposed type. Flush valves shall be manually or electronic sensor operated except in patient room toilets. Flush valves in patient room toilets shall be manually operated.
- E. Flush valves in non-ambulatory patient toilet rooms shall be manually operated and have integral bedpan washer.
- F. Coordinate flush valve height with grab bar locations to avoid interference.
- G. Flush valves located in specimen collecting toilet rooms shall be provided with AC powered electronic sensors. The electrical power shall be controlled by a wall switch located outside of the toilet room to allow nursing staff to prevent use of faucet during collection of specimen. Coordinate with Owner's staff for exact location of wall switch.

#### 4.05 URINALS

- A. Urinals shall be wall mounted vitreous china with elongated bowl (14 inch minimum), washout flushing action and  $\frac{3}{4}$  inch top inlet spud.
- B. Urinal flush valves shall be electronic sensor operated, chrome plated brass exposed type.

#### 4.06 BATHING SHOWERS AND BATHTUBS

- A. Shower and bathtub mixing valves shall be combination thermostatic and pressure-balancing type with water temperature limit stops set at 110 degrees F. Mixing valves shall have integral check stops accessible for servicing.
- B. Non-monolithic shower floors shall be provided with code compliant drain pan attached to floor drain in accordance with the latest edition of the Uniform Plumbing Code.
- C. Shower finished floor and bathtub bottom shall be slip resistant.

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- D. Bathtubs shall be enameled cast iron or high strength composite material with porcelain finish. Enameled steel bathtubs are not acceptable.

### PART 5 - DOCUMENT REVISION HISTORY

Issue	Date	Revision Description	Reviser
	01-01-07	Initial Adoption of Element	
Rev. 1	12-18-07	Changed urinal flushing action from siphon jet to washout. (4.05, A.)	DOS
Rev. 2	07-31-08	Deleted reference to quiet action diaphragm and filtered bypass type flush valve (4.04, D. & 4.05, B.); Added word "non-ambulatory" (4.04, E.).	DOS
Rev. 3	07-08-10	4.03 P. ; Added requirement that housekeeping mop sinks shall be provided with RPZ backflow preventer protected hose bibs in lieu of the "standard" mixing faucet.	DOS
Rev. 4	06-05-14	Added requirement that hot and cold water be provided for laboratory sink faucets. Paragraph 4.03 O.	DOS
Rev. 5			

**END OF ELEMENT D2010**