

Basis of Design

This information includes supplementary requirements for waste and drain lines for acidic and chemical wastes.

Design Criteria

- Provide corrosion-resistant material for waste piping and vents servicing laboratories.
- In existing buildings, extend new corrosion-resistant piping to the nearest existing corrosion-resistant waste pipe of adequate size. If no such waste pipe exists, extend waste piping to the nearest existing cast iron waste pipe at least two pipe sizes larger and consult with Campus Engineering.
- Do not connect laboratory waste piping to steel or copper piping.
- In new buildings, do not connect sanitary and acid waste piping systems to each other inside the building. Collect laboratory waste lines independently and carry separately out of the building to a sanitary sewer manhole.
- Radioactive wastes are disposed of by a collection service.

Design Evaluation

The following information is required to evaluate the design:

- Programming Phase: Provide utility connection locations.
- Schematic Design Phase: Provide description of fixture and pipe chases. Preliminary calculations and plumbing legend.
- Design Development Phase: Provide piping plans, design calculations, preliminary inverts and point of connections.
- Construction Document Phase: Provide riser diagrams, pipe sizes, invert elevations of all acid resistant waste drain lines leaving the building, and final calculations.

Construction Submittals

- Provide standard industry submittal requirements.

Related Sections

- Facilities Services Design Guide – Mechanical - General Requirements
- Facilities Services Design Guide – Mechanical - Plumbing
 - Waste and Drains
 - Acid and Laboratory Wastes
 - Plumbing Pressure Testing
- Facilities Services Design Guide – Mechanical - Piping, Valves & Accessories
- Facilities Services Design Guide – Mechanical - Hangers and Supports

- Facilities Services Design Guide – Mechanical - Pumps
- Facilities Services Design Guide – Mechanical - Motors and VFDs
- Facilities Services Design Guide – Mechanical - Metering and Gauges
- Facilities Services Design Guide – Mechanical - Nonstructural Component Seismic Design
- Facilities Services Design Guide – Mechanical - Identification
- Facilities Services Design Guide – Mechanical - Water Treatment and Flushing
- Facilities Services Design Guide – Mechanical - Noise and Vibration Control
- Facilities Services Design Guide – Civil – Earthwork
- Facilities Services Design Guide – Civil – Sanitary Sewer

Products, Material and Equipment

- See Piping, Valves & Accessories.

Installation, Fabrication and Construction

- See Waste and Drains.

END OF DESIGN GUIDE SECTION