

Description:

The purpose of the section is to highlight the current applicable UMCP Design Standards for the design implementation of sewer and water supply utilities.

Related Sections:

- TBD

Effective Date:

July 10, 2009

Applicable Standards:

- Washington Suburban Sanitary Commission (WSSC)

General Requirements:

- Buildings shall typically be designed to permit gravity flow of sanitary and storm drainage. Where sewage ejectors or sump pumps are required, they shall be:
 - Located to have sufficient headroom to pull the pump shaft straight up through the floor plate.
 - Provided with lifting eyes or trolley beams to facilitate the removal of the equipment.
 - Provided with emergency power if failure of the pump should flood electrical or mechanical equipment.
 - Provided with a high level alarm that is interfaced to the building's CCMS.
- Pipes penetrating exterior walls below grade must be installed properly to prevent breakage due to building settlement or expansive soil.
- Inverts shall be shown on all drawings.
- All connections to campus distribution systems or public utilities shall be precisely located by dimensions or coordinates.
- Depth of piping shall be shown and installed below all freeze lines (minimum) and inverts shall be shown at manholes and other critical points.
- Access shall be provided to all working parts of plumbing devices. Do not permanently seal in wall any plumbing items requiring periodic maintenance.
- Cleanouts shall be located at each 90 degree bend and every 100 feet in straight runs of 3" or larger piping.
- Plumbing riser diagrams must be drawn in isometric form and there must be one for each riser on the project. Risers must be shown on all plans.
- All domestic water applications shall be separated from non-potable connections via a back flow preventer (PRZ); acceptable manufacturers/series include: Watts 909 Series, FEBCO 800 Series, and Wilkens (Zurn) 500 Series. PRZ installations shall be installed per plumbing code in the horizontal run at a height of 4 feet.
- Sanitary sewer and water lines shall be designed in accordance with WSSC guidelines.