

Wastewater Engineering.

NAME = HAMZA KHAN

ID = 7782

SUBMITTED TO = ENGR NADEEM ULLAH.

ASSIGNMENT NO 2

- 1) Soil pipes and anti-siphon pipes?
Q What is a soil pipe?

SOIL PIPES:-

A As already ~~men~~ known that a soil pipe is for soiled water. This type of pipe will carry water and solids into the sewer. While any pipe could physically perform the task, the soil pipe, also known as a soil vent pipe, as installed in most homes has a specific quality. First, it is of a dimension to allow solid waste to pass. Second, it is vented in a very specific way to maintain a safe environment and reduce odours. Soil pipes are vented high at the top or near to top of building.

thanks to soil pipes stacks, to allow gases produced by waste to vent safely into the atmosphere. Such gases can be harmful to health so venting them high keeps them out of the way. This is a vital feature of soil pipes and it forms part of building regulations too. To maintain water seal, it is necessary to maintain equal air pressure on both the toilet room and soil/toilet pipe sides.

ANTI-SYPHON PIPES:-

Therefore an additional pipe called anti siphonage pipe is connected close to toilet seat outlet the other end of which is open to atmosphere. As soon as the air pressure above the fast moving flush water column reduces, the anti-siphonage pipe allows atmospheric air to pressure enter the low pressure zone and equalize the air pressure. This prevent the sucking out of water seal

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from the flushed toilet seat as well as all the toilet seats connected at lower floors.

Q2 Sanitary fixtures and traps?

A2.

SANITARY FIXTURES:-

receptacle for industrial and fecal sewage that is installed in homes and public and industrial buildings.

Sanitary fixtures are attached to the interior system of water pipes and sewerage systems and constitute the main elements of building's sanitary engineering equipment.

Sanitary fixtures are installed in different areas. Bathtubs, washstands, shower sumps, traps and bidets are installed in bathrooms, washrooms and shower rooms. Toilet bowls, lavatory pans and urinals of various types, whether equipped with flush tanks or taps, are installed in lavatories. Washers, sinks and drains are installed in kitchens.

TRAPS:- They are designed to restrict of wastewater contaminants such as sludge, debris, oil, soil, sand or gravel but to allow the free of water itself. A trap has three basic

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parts. First, there is a pipe or drain (or both) that allow water to w into the ~~the~~ tank.

Q3

Cross connection and back siphonage control.

CROSS CONNECTION:-

Any actual or potential connection between the waterworks and any source of pollution, contamination or other material or substance that could change the quality of water in a drinking water supply.

BACK SYPHONGE CONTROL:-

A backflow prevention device is used to protect potable water supplies from contamination or pollution due to backflow. In water distribution systems, water is normally maintained at a significant pressure to enable water to flow from tap, shower or other fixture.