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Section

A

Subject

Waste water engineering

Assignment No

02

Soil pipes A soil pipe is designed to carry soiled water from the toilet, urinal or bidet to the sewer. A soil ~~water~~ pipe convey sewage or waste water from toilet or sink.

- Soil pipe is made of copper plastic polyvinyl chloride (PVC) or acrylonitrile butadiene styrene (ABS)
- Weight of soil pipe is about ten pound per foot and almost four inches inside diameter.
- Soil pipes are relatively straightforward.
- Main purpose of soil pipe is to transfer waste from your bathrooms.

Anti-Syphon pipe :-

An extra pipe connected to the outlets of toilet seats of all the floors the other end of which is exposed to atmosphere is called anti-syphonage pipe. This difference of air pressure causes the water seal in the toilet seat to get sucked out into the pipe.

- It allows atmospheric air to enter the low air pressure zone and equalize the air pressure.

Sanitary fixture. A receptacle for industrial and fecal sewage that are installed in home and public and industrial building. Mostly fitted in washstands, bathrooms, shower room etc.

① Wash basin:-

Wash basin usually made of pottery or porcelain. War and porcelain enamelled cast iron. it have different shape and size

2) Sinks

- Sink is used in kitchen or laboratory.
- Made of glazed fire clay, steel, metal etc
- They have different shape and size.

3) Bath tubs

- Made of Iron, or steel, or plastic material
- Length Range from 1.7 to 1.85 meter.
- Used for bathing in washroom

④ Water closet

it is designed to receive and discharge human excreta directly from person using it.

⑤ Flushing cistern

it is used for flushing out water closet and urinals.

⑥ Shower

- ⑤ Division plates
- s) Water heater.

Traps:

Traps is define as fittings at the ends of soil pipe of wastewater pipe to prevent foul gases coming out of soil pipe/waste pipe

Types of Trap

According to shape

- ① P Trap
- ② Q Trap
- ③ S Trap

According to use

- ① Floor traps
- ② Gully traps
- ③ Intercepting traps
- ④ Grease traps

①

Cross Connection:-

A cross connection is any arrangement of pipe fixture or fitting that directly or indirectly connects a not potable water source (hazardous pollutants) to drinking water.

Example:-

• A garden hose connected to an outside faucet attached to a garden sprayer.

• A hose connected to a siphon sink

Back siphonage:-

Back siphonage is the reversal of normal flow in a system by negative pressure (vacuum or partial vacuum) in the supply piping.

Back siphonage can be created where there is stoppage of the water due to nearby fire fitting repairs or breaks in city main etc.