

PLUMBING SANITARY WASTE, VENT AND STORM PIPING

DESIGN GUIDELINES

1. General

a. Above grade Sanitary piping

- Cast Iron pipe with No-Hub fittings (no Sanitary Cross Tee or Double Combo fittings allowed)
- No hub band fittings shall be stainless steel, wide shield with 4 bands, heavy duty Husky SD-4000, no equal.
- PVC solid wall schedule 40 allowed in non-return air plenum locations.
- PVC pipe is not allowed in mechanical rooms.
- PVC pipe is not allowed for high temperature waste water removal, over 120°F.

b. Below grade Sanitary piping

- Cast Iron pipe with extra heavy Hub and Spigot fittings with compression gasket joints (no Sanitary Cross Tee or Double Combo fittings allowed)
- PVC solid wall schedule 40 pipe with glued fittings (no Sanitary Cross Tee or Double Combo fittings allowed or foam cell pipe)
- PVC pipe is not allowed in mechanical rooms.
- PVC pipe is not allowed for high temperature waste water removal, over 120°F.

c. Cast iron piping and fittings shall be:

- Provided for all mechanical rooms.

d. Glass piping is prohibited and shall be replaced via an Alternate.

e. Pipe shall be sized to meet the design.

f. Clean outs shall be:

- Provided at every plumbing fixture.
 1. Wall cleanout 6" above flood rim of every fixture or 48" max above finished floor.
 2. Cleanouts to be accessible above the flood rim of the highest fixture.
 3. Not be located in the bottom of exposed fixture p-trap unless it is not integral to fixture itself.
- Provided at the base of sanitary and storm risers and offsets.
- Installed a maximum 36" above finished floor.
- Cleanout tees to match pipe manufacture.
- Wall cleanouts at change in direction and every 50 ft. for 4" and less, every 100 ft .for greater than 4".

- Not be located in the ceiling space.
 - Cleanout covers shall be installed at all cleanouts, match pipe size up to 4".
 - Cleanout covers shall be chrome or stainless steel with stainless steel vandal-proof center screw.
- g. Sanitary T's are not allowed. Back to back sinks shall not be connected with a tee fitting or sanitary cross or double combo fittings.
- h. Non-lab sanitary waste is prohibited from being combined with lab waste.
- i. Indirect drains
- Drain piping shall not tie into sink tail piece.
 - Shall discharge into a floor drain or dedicated drain receptor.
- j. Venting
- Do not install vent through roofs upwind of mechanical fresh air intake equipment.
 - Vent air intake valves are prohibited and will only be allowed on a case by case basis with WUSM Engineering approval.
- k. All piping located above any IT, Electrical rooms, computer equipment rooms, electrical type rooms, etc. is prohibited.
- l. Insulation
- Provide insulation on all (horizontal and vertical) storm piping and roof drain bodies.
 - Provide insulation on drains where condensation could occur, for example, ice maker drains and drains for AHU condensate.
- m. Foundation Drain
- Provide perforated PVC pipe wrapped in filter fabric for subsoil and foundation perimeter drain pipe.
- n. Provide pipe labels on all pipes, for every system installed.
2. Clearances
- a. Pipe shall be designed such that there is adequate clearance to remove or repair.
 - b. Drawings shall indicate and illustrate clearances.
3. Demolition
- a. Demolish pipe to nearest active main and cap. Do not abandon piping.
 - b. Water piping to have valve installed where capped.
4. New Buildings
- a. All locations of vents through roof shall be analyzed for wind route. Terminate vents in locations coordinated with outside air intakes to eliminate potential for vent gases to be drawn back into an intake.

- b. MSD sanitary lines are to be trapped.
5. Related Sections
 - a. Lab Piping Design for gases, Lab waste/waste/vent, etc

PRODUCT REQUIREMENTS

1. Pipe and Fittings:
 - a. Manufactured in America.
 - b. Approved Manufacturers: (in order of preference)
 - c. Cast Iron
 - Charlotte
 - ABI
 - Wade/Tyler
 - d. Construction to comply with CIPI Standards.
 - e. PVC
 - Charlotte
 - North American pipe
 - Spears

END OF SECTION

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