

Provide a hose bib in all mechanical rooms and in shower / locker rooms.

22 10 00 – PLUMBING PIPING

SANITARY & STORM SEWER

- * Interior clean-out caps and plugs will be located such that they can be utilized without damaging the floor or floor covering. Provide cleanouts at the base of all sanitary and storm stacks.
- * Exterior grade cleanouts shall be set in a 12" x 12" x 8" concrete collar. Riser to grade shall be cast iron with a concrete base under riser wye. Exterior cleanout to include a substantial steel or brass lid.
- * Clean-outs shall be located so that long lines can be entered from both ends. Plugs shall be lubricated prior to installation.
- * Provide floor drains in all restrooms and mechanical rooms.
- * Interior below grade sanitary and storm sewer lines shall be service weight cast iron with cast iron fittings to a point 5'-0" outside of the building. Joints shall be hub and spigot with neoprene gaskets.

- * Provide type "L" for all water distribution inside building, with wrought copper fittings and couplings. Copper lines installed below grade shall be type "K" with brazed joints.
 - * Viega Pro-press acceptable alternative.
- * Shock absorbers shall be placed in water lines to equipment or fixtures having quick closing or flush valves and any equipment that might produce water hammer.
- * Cold water freeze proof hose bibs shall be provided at outside locations around the building for cleaning and grounds maintenance. Provide with separate shut-off valve.
- * Approved manufacturers: Woodford

Process Piping Materials

- * Vacuum piping – Copper with soldered joints
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- * All water closets shall be specified as wall hung.
- * Provide fixture supplies and stops on every individual fixture or appliance
- * All plumbing fixtures and trim shall be low flow type. Specific flow rates to be determined by Owner.
- * Stops shall be compression by compression types, with handles and flexible tube risers.
- * Shower control valves to have integral screw driver stops.
- * Flush valves, supplies and stops shall be anchored rigidly behind walls
- * All wall and floor mounted fixtures shall be caulked with non-hardening white adhesive elastomeric sealant
- * Pumps for water circulation shall be lead free.
- * Provide a tempered emergency eye / body wash unit in mechanical rooms containing chemical feed or water treatment equipment.
- * Provide a hose bib in all mechanical rooms and near all cooling towers.
 - * Consider hose bib near all DX cooling equipment or common area if used.
 - * Hose bibs at each level of roof with equipment
- * Approved manufacturers for various fixtures:
 - * Enameled steel, cast iron, vitreous china: Kohler - American Standard – Eljer - Crane
 - * Electric Water Coolers: Elkay - Haws
 - * Flush Valves: Sloan Royal – Zurn
 - * Flush valves (electronic): Hydrotech Autoflush toilet flushometer valve, 1.6 GPF
 - * Faucets (lavatory electronic sensing): Toto – **Zurn**;
 - * Faucets (std. two handle): Delta - American Standard – **Symmons** – Chicago Faucets

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