

**22 00 00: GENERAL**

1.01 General Requirements

- A. Building utilities are required to be metered & compatible with current SHSU BAS System including but not limited to domestic water and gas. Locate metering equipment inside a mechanical room.

**22 05 00: COMMON WORK RESULTS FOR PLUMBING**

1.01 Requirements:

A. Valves:

1. Full throat ball valves only
2. Provide valves with extended stems to be accessible on outside of insulation. Valve body and stem shall be insulated.
3. Provide means of access where valves are not exposed.
4. Provide valve vaults or boxes, as conditions demand, to provide access to valves installed below grade. PIPE DRAIN TO STORM SEWER IF APPLICABLE
5. Valves applied to cold water and piping systems with fluids typically less than ambient

**22 07 00: PLUMBING INSULATION**

1.01 Requirements:

- A. Provide pipe insulation continuous through walls, partitions, ceiling openings and sleeves. For penetrations that require link seal insulation no insulation shall be installed in the seal area.
- B. Provide aluminum jackets for exterior & interior pipe and equipment insulation covers, as well as for exposed piping in mechanical rooms subject to wear or abuse. Locate seams on bottom side of horizontal pipe
- C. Provide insulation protection shields fabricated from galvanized steel at all pipe hangers. All insulation at the shields shall be high density appropriate for the load.
- D. Insulate valves, fittings and similar items in each piping system with equivalent thickness and composition of insulation as applied to adjoining pipe run. Install factory molded, precut units.
- E. All equipment requiring insulation, the insulation jacket shall be designed to be removable and reused.

**22 10 00 PLUMBING PIPING**

1.01 Requirements:

- A. Provide sectional valves on each branch and riser, close to main, where branch or riser serves 2 or more plumbing fixtures or equipment connections.
- B. Provide shutoff valves installed on inlet of each plumbing equipment item and on inlet of each plumbing fixture. Residence Life Buildings requires ¼ turn stops McGuire BV2166
- C. Provide drain valves at equipment, bases of risers, and low points in system to completely drain potable water system including
- D. Recommend in-line circulating pumps or close-coupled end suction pumps for low flow circulating systems. Tacureofryaacureofrh Lieul &

- C. Pipe sizes 3” to 6” shall be Type K copper with soldered silver phosphate connections. Copper piping 4” and larger may be joined using roll grooved fittings or Pro Press. 2 ½”, 3 ½ & 5” Pipe NOT ALLOWED
  
- D. Piping larger than 6” shall be ASTM A53 galvanized steel pipe, schedule 40, with rolled grooved ends and mechanical couplings.
  
- E.



- B. Floor Cleanouts: EXTERIOR ONLY - Cast-iron body and frame, with cleanout plug and adjustable round nickel bronze top. Do not utilize floor cleanouts on interior of buildings without prior approval from SHSU Plant Operations.
- C. Wall Cleanouts: Cast-iron body adaptable to pipe with cast-bronze or brass cleanout plug; stainless steel cover including screws.

#### 2.04 Floor Drains

- A. Floor drains shall be provided with deep seal “P” traps at all floor drains.
- B.. There shall be adequate floor drains to provide drain for all equipment requiring same; one per piece of equipment, to eliminate excessive drain piping across floors.
- C. Floor Drain (corridors): Stainless steel body with flashing collar, ty-seal or caulked outlet and adjustable strainer head, stainless steel round strainer with satin finish.
- D. Floor Drain (mechanical rooms, storage rooms and other remote areas) shall be provided with a central piped primer system which automatically primes traps building wide using a single timed valve for one minute every 24 hours (adjustable).

##### 1. TRAP GUARDS ARE ACCEPTABLE WHEN APPLICABLE IN RESI LIFE

1. Manufacturers: Where applicable, provide products by the following:
  - a. Water Closet (3-bolt) Blowout Action: Crane Water Closet (4-bolt) Siphon Jet Action: Kohler, Toto, Crane, Gerber, American Standard, Sloan and Eljer.
  - b. RLM requires American Standard, Toto
  - c. Flush Valve FV-2 Piston type (Automatic with sensor) 1.28 GPF: Auto Sloan Optima.
  - d. Flush Valve FV-2 Diaphragm type, (Automatic with sensor) 1.28 GPF: Auto Sloan Optima
2. Toilet Seat: Solid-plastic, water-closet seat with bumpers and hardware, compatible with water closet and as follows:
  - a. Color: White.
  - b. Class: Commercial, Standard.
  - c. Size: Elongated/round
  - d. Pattern: Open front without cover or same as existing.  
RLM requires closed front with lid
  - e. Hinge Type: Check (CK).
  - f. Provide with anti-microbial agent formed into the plastic.
3. Electric Water Cooler Wall Mounted ADA (ADA Compliant): With Hydration stations
4. Hose Bibs Toilet Rooms (HB-1): No hose bibs in toilet rooms
5. Wash Down Hose Station (WS-1): For Hot and cold water service, thermostatically controlled mixing valve with dial-xingal

