

N. All instrumentation that can be damaged from construction dust or smoke must be protected prior to beginning of construction. This includes all Fire & Smoke devices that are a part of the Fire Alarm System.

1.02 Mechanical Systems Selection:

A. Airside – HVAC

1. Provide air handling units configured to serve campus buildings in accordance with these standards as minimum level and consistent with good engineering practice, zoned in a practical manner to facilitate convenient building operation, thermal performance and shutdown. Design HVAC systems with a practical number of air handling units preferably located to a common mechanical room to increase functional space within the building. The exact quantity, location,

6. Provide balancing dampers at supply, return, and general exhaust branches as required to appropriately balance the system.
7. Provide night setback temperature control on classroom/office buildings. Laboratory temperature setback shall be evaluated based on specific environmental requirements of laboratory space.

B. Waterside

1. Chilled Water

- a. Use only 4 pipe Hot/Cold water systems, hot water reheat preferred.
- b. Chilled water design supply water temperature should be 42 °F, with a minimum return water temperature of 58 °F to optimize pipe sizing for water systems. This shall be accomplished without the use of blending stations.
- c. Modulate chilled water pumps with variable frequency drives.
- d. Chilled water pumps shall typically be end suction type with mechanical seals and bronze fitted and connected to campus chilled water loop whenever practical.
- e. Provide building chilled water pumps to handle full building differential pressure. Provide bypass line with check valve and isolation valves around building chilled water pumps.
- f. Provide Isolation valves on Chill Water Pumps for removal.
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7. Provide accessible isolation valves on each floor.

1.03 Mechanical System Warranties

- A. All mechanical systems, components and controls shall be provided with a minimum 12 month warranty initiating upon substantial completion of building. Specific mechanical components may have longer warranty periods. Warranty shall be unconditional and include material, labor and response within 24 hours of notification.

- B. SHSU would like to have available purchase options for extended warranties.

END OF STANDARD