## 21 12 00 FIRE\_SUPPRESSION STANDPIPE

#### **PART 1 PRODUCTS**

- 1.01 Drains and Test Piping
  - A. Drains must be plumbed to the exterior of the building.
- 1.02 Standpipe Systems
  - A Provide galvanized pipe, fittings, and hangers for all dry standpipe systems.
    - A. Perform acceptance tests according to NFPA 13 and SHSU Third Party Testing Guidelines that apply to fire sprinkler system testing with a representative of SHSU Fire Prevention Services and FSSS (Fire Safety System Specialist) present. Prior to acceptance, accurate red-lines must be submitted and required training for SHSU personnel completed. Provide copies of test reports to the SHSU AHJ and FSSS, as tests are completed. Provide a complete set of all test results to the University at the completion of the project and a copy in each O&M Manual.

# 21 13 00 FIRE SUPPRESSION SPRINKLER SYSTEM

#### **PART 1 GENERAL**

1.01 Related Work:

A. Sprinkler pipes & sprinkler heads shall not pass through or be installed in an Electrical or Data closet

#### **PART 2 PRODUCTS**

- 2.01 Pipe
  - A. Aboveground Pipe
    - 1. All wet sprinkler system piping shall be a minimum of schedule 40 black steel. All dry and pre-action system piping and fittings are required to be externally and internally galvanized. Spears CPVC piping

### B. Underground Pipe:

- 1. Tracer wire shall be installed with all underground piping
  - 2. No underground pipe shall be covered until a joint inspection SHSU Plumbing and SHSU FSSS

### 2.02 Mechanical Grooved Couplings

A. When grooved couplings are used, rolled-grooved joints are required with fittings and couplings designed for a working pressure of 300 psi. Malleable iron housing clamps: ASTM A47; UL labeled; engage and lock, designed to permit some angular deflection, contraction, and expansion (Firelock fittings not acceptable).

#### 2.03 Valves

- A. All valves in the sprinkler system shall be UL listed and/or FM approved butterfly type indicating valves except for the following, which shall be O.S. & Y:
  - 1. All indicating valves on the suction side of a fire pump.
  - 2. Where indicated on the contract drawings.
- B. All butterfly valves shall have a built in tamper resistant switch for supervision of the open position. The switch shall be contained within a NEMA Type 1, general purpose indoor rated housing. Either unauthorized removal of the switch housing (when the valve is open) or closing the valve, shall cause the switch contacts to change position. The switch shall have four conductors to accommodate connections to signaling line circuit devices.
- C. Where OS&Y indicating valves are installed, the following shall apply:
  - 1. Valves 2-1/2 inches and larger shall be iron body with brass seats, discs, and stems. Include tamper switches listed for use with OS&Y valves.
  - 2. Valves 2 inches and smaller shall be brass body, stem, and seat. Include tamper switches listed for use with OS&Y valves.
- D. Check valves shall comply with the following:
  - 1. Check valves 2-1/2 inches and larger shall be iron body swing check with cast brass hinge, rod, and brass faced discs.
  - 2. Check valves 2 inches and smaller shall be UL listed brass body and all brass fitted.
- E. Ball valves shall be constructed of forged brass with Teflon seats and shall be provided with a vinyl-covered handle.

# SAM HOUSTON STATE UNIVERSITY DIVISION 21 FIRE SUPPRESSION DESIGN AND CONSTRUCTION STANDARDS

21 00 00 FIRE SUPPRESSION February 2017

F. Post Indicator Valve

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