CONSULTANT PROCEDURES & DESIGN GUIDELINES

331219   Water Utilities Distribution Fire Hydrants

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MU CAMPUS ONLY

GENERAL:

The scope of this document is to provide instruction for the installation and testing of a fire hydrant installed at the University of Missouri - Columbia.

DESIGN GUIDELINES:

1. Materials
   1.1. University fire hydrants shall be lead free Super Centurion Fire Hydrants, Model 250, Number A-423, as manufactured by Mueller Water Products, Decatur IL. No substitutions will be allowed.
   1.2. Fire hydrants shall be painted in the following manner using Sign Painters' 1 Shot Lettering Enamel or approved equal:
       1.2.2. City water, University maintained fire system: Barrel - Metallic Gold, Caps Blue, Bonnet - Blue.
       1.2.3. MU may modify final hydrant bonnet color based on measured flow.
   1.3. Tracer Wire
       1.3.1. Tracer wire shall be #14 AWG Solid, steel core soft drawn high strength tracer wire, 250# average tensile break load, 30 mil high molecular weight-high density blue polyethylene jacket complying with ASTM-D-1248, 30 volt rating. No THHN insulated wire shall be allowed. Tracer wire shall be Copperhead Industries HS-CCS or approved equal.
       1.3.2. Tracer wire shall have moisture resistant splices for direct bury applications. Splices shall be Copperhead Industries Snakebite or 3M DBR or approved equal.
       1.3.3. Tracer wire test stations shall be designed to be easily detected by magnetic and electronic locators. A magnet shall be securely attached at the top of the upper tube of the box for locating purposes. Lid shall be blue and have a brass terminal for attaching locating equipment and a brass 5 sided nut for removing cap. Tracer wire test station shall be Copperhead Industries Snake Pit or approved equal.

2. Installation
   2.1. The location of new fire hydrants shall be determined by a collaboration of system owner, City of Columbia Fire Department and the design engineers.
   2.2. Installation of fire hydrants maintained by the University shall be installed per “Fire Hydrant Detail” and in strict accordance with manufacturer’s written instructions.
   2.3. Installation of fire hydrants maintained by the City of Columbia shall be in strict accordance with Columbia Water and Light Specifications as last revised.
   2.4. The pumper nozzle shall be installed pointing to the street and/or away from the building.
3. Testing
3.1. Newly installed fire hydrants shall be cleaned and pressure tested in accordance with standards set forth in section 331300 - Disinfecting of Water Utility Distribution, and will be flow tested by system owner.

4. COMMISSIONING
4.1. Water will be turned on to the hydrant by Campus Facilities - Energy Management Utility Distribution personnel.
4.2. Hydrant will be flow tested by owner.

REFERENCES

331219 Detail – Fire Hydrant.dwg
Section 331300 - Disinfecting of Water Utility Distribution.