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283110 - Fire Alarm Systems

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SECTION 21 5000 - FIRE PROTECTION

1.1 SUMMARY

A. The design of the fire protection work for all projects performed for the University shall be prepared in accordance with the latest University Planning, Design, and Construction Guidelines.

B. Design documents shall be prepared by an entity offering professional design services under a current Certificate of Authority issued by the State of New Hampshire Joint Board of Licensure and Certification.

C. All Fire Protection documents shall be prepared under the supervision of an employee acting as the responsible engineer for the entity and eligible to be listed on the Certificate of Authority.

D. All construction work shall be provided utilizing licensed installers in accordance with the State of New Hampshire Fire Code.

E. The University is the utility for the water supply to the project location.

F. The State of New Hampshire shall be the Authority having Jurisdiction for all fire protection/suppression systems.

G. No construction work shall proceed without the required appropriate permits being obtained.

H. Design documents shall conform to the most current State of New Hampshire Fire Code.

I. All drains and test connections for new installations shall be piped to allow full flow.

1.2 QUALITY ASSURANCE

A. All new installations and retrofits shall be inspected by the current University Sprinkler System Inspection Contractor during the warrantee period to verify compliance with NFPA Standard No.13 and Durham Fire Department Standards including Appendix A. NFPA 13R shall not be considered for use as an acceptable Design Standard for design of construction for University Projects.

B. At the completion of the project and/or final acceptance testing of the sprinkler system a copy of the Contractor’s Certificate showing how the system functioned during the trip test and verifying that the air loss is less than one/half per pound day shall be supplied.
1.3 RELATED SECTIONS ELSEWHERE

A. See Chapter 5, Division 01, Section 017700.1.1.B.1.i Closeout Procedures - Project Record Documents for equipment list requirements for all equipment provided in this section.

1.4 SYSTEM TYPES

A. Dry Systems shall be avoided whenever possible. Where used, there shall be less than a one/half pound air loss per day. All such systems shall have a minimum of 1 – 5 gallon condensate collection tank at engineered intervals of dry pipe and pitched to drain. Tanks shall be located in a heated space and provided with ready access to the drain valve.

B. Steel pipe shall be used in all piping systems. Materials shall be schedule 40 black steel. Any dissimilar piping materials shall be separated by a dielectric coupling. Plastic pipe shall not be included as an acceptable material for any sprinkler systems.

C. Air compressors shall not include an air dryer.

D. Victaulic/grooved joints, or Viega Mega Press are shall be used on all types of systems. Threaded connections may be considered with the prior written approval of University Facilities.

E. Flexible heads may be used with Facilities approval. Flexible heads must be installed per manufacturer standards, and careful attention must be paid to bend radius. Where dissimilar metals are used in piping, dielectric couplings shall be used.

PART 2 – PRODUCTS

A. Flexible Heads shall be braided.

B. The Following Manufacturers are acceptable:
   a. Victaulic
   b. Tyco

PART 3 – EXECUTION

A. NOT USED

END OF SECTION 21 5000