

Description:

The purpose of the section is to highlight the current applicable UMCP Design Standards for the design and installation of sprinkler systems.

Related Sections:

- TBD

Effective Date:

- July 10, 2009

Applicable Standards:

- TBD

General Requirements:

Sprinkler Systems Costs

- **Sprinkler System in New Construction**

In cases of new construction, the life safety code mandates sprinklers, so there is no cost premium.

- Sprinkler System premium cost issue arises in the case of considering sprinkler systems in the smaller renovation projects - where the renovation cost is less than the cost of a new building - i.e. the codes do not mandate sprinklers and the University is free to use a minimal compliance to codes strategy in the (understandable) pursuit of lowest cost construction.
- To summarize - sprinkler systems, even where not specifically required by code, can sometime avoid the cost of other, often costly, architectural modifications to meet code in renovation projects.

- **Sprinkler System Challenges**

By way of illustration, it is not unusual for a renovation project to pose the following design (and cost) dilemma:

- Double loaded corridors requiring a fire rating of the corridor walls
- Non-rated doors opening to the corridor
- A required retrofit to rated corridor doors, with door closers to establish and maintain the fire rating
 - If doors are left open, then fire rated doors are no longer considered fire rated
- A programmatic requirement to keep the fire rated corridor doors open, begetting:
 - A need for electric door hold-open devices, tied into the fire detection/alarm system is expensive and a tripping hazard

- **Sprinkler System in Building Renovation**

- In similar cases on campus, installing a sprinkler system has been shown to cost the same, or less, than making all the required architectural modifications for code and program compliance.
- Furthermore, in the stairwells of many older campus buildings, there will already exist a (university installed) fire standpipe. This amounts to a head start on the cost of a sprinkler system installation.
- Thus, before opting for no sprinklers to control cost, UMCP will exercise and require the A/E to exercise due diligence to examine the total cost of code compliance.
- The adjusted differential cost even, if a premium, may be tolerable in light of the other life safety advantages afforded by sprinklers.