

ACCESS TO BUILDINGS

Ensuring that fire fighters can quickly access the facility completes one step in the response. To complete the response, access must be gained into the building. The IFC requires that exterior doors or openings required by the IBC be maintained accessible for use by emergency responders. [Ref. 504.1]

The owner or occupants will have concerns over the safety and security of the individuals who use and occupy the building and its contents. Sometimes the level of security can conflict with the needs of emergency responders to access the structure and its occupants. One method that is generally regarded as a reasonable means of ensuring that the building's security is maintained while allowing for rapid fire-fighter access is the installation of a fire department key box (Figure 5-5).



FIGURE 5-5 Fire department key box

The key box can only be opened by a master key that is carried by the company officer or can only be accessed when permission is electronically granted by the fire department's communication center. Many of the key box manufacturers have their equipment evaluated by a nationally recognized testing laboratory to demonstrate that it is resistant to burglars. The location of the key box, the required number of keys and the manufacturer of the key box must be approved by the fire code official. [Ref. 506.1]

The IBC requires that one of the building stairways has a means of accessing the roof when the building height is four or more stories above the grade plane. Roof access is not required when the roof is pitched and the slope is greater than 4 units vertical in 12 units horizontal, which equals an 18.3-degree slope. Roof access is provided because it can be used as a location to deploy fire streams to protect the structure from an exposure building fire. When access is provided, it can be through a penthouse or through a roof hatch. The stairway must be marked to indicate that it has roof access (Figure 5-6). [Ref. 504.3]

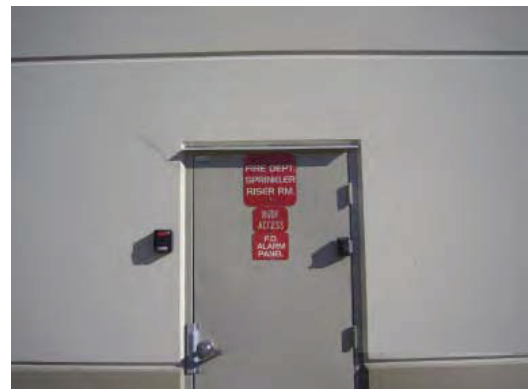


FIGURE 5-6 The doorway is identified to indicate it serves a stairway with roof access. Note that the exterior doorway is accessible by using the fire department key box.

continued

Certain equipment and devices in the building need to be identified for operation during fire-fighting. Rooms containing the fire sprinkler system riser and control valves, fire alarm control panel and smoke control system panel must be identified for ready access in the event of an emergency (Figure 5-7). Typical fire department operations will also consist of shutting off the electric and fuel sources in a building involved in fire. The fire code official can require that electric meters, gas shutoff valves and solar photovoltaic switches are identified so these items can be located and turned off. [Ref. 509.1, 509.1.1, 605.11]

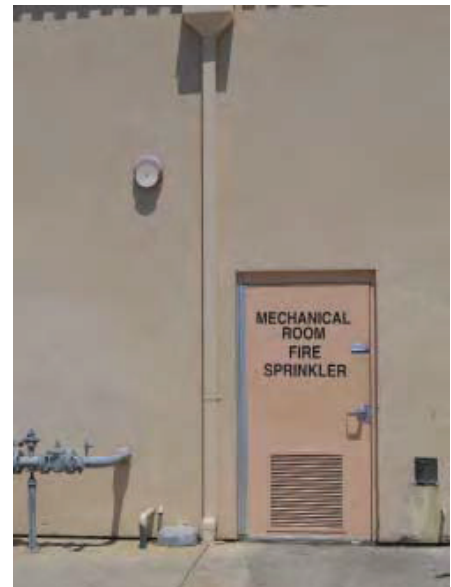
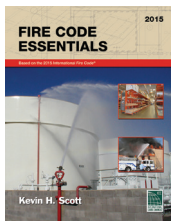


FIGURE 5-7 Fire sprinkler riser room



This excerpt is taken from ICC's *Fire Code Essentials: Based on the 2015 International Fire Code®*.

The I-Code Essentials series uses a straightforward, focused approach to explore code requirements with non-code language, allowing readers to gain confidence in their understanding of the material. Each book is an invaluable companion guide to the 2015 IBC, IRC, IFC or IECC for both new and experienced code users.