



Stafford County Fire and Rescue Department Office of the Fire Marshal

1225 Courthouse Road, PO BOX 339, Stafford, VA 22555
(540) 658-8648 · www.staffordfirerescue.com/fm



Guidelines and Specifications For:

High-Rise Buildings

Applicable Codes and Standards:

VSFPC - Virginia Statewide Fire Prevention Code (2018)

VCC – Virginia Construction Code (2018)

NFPA 14 – Standard for the Installation of Standpipes and Hose Systems (2016)

Fire and Life Safety Design and Commissioning	Code Section
The design team for a high-rise building shall include a licensed fire protection engineer (FPE) to coordinate the design and integration/commissioning of all life safety and fire protection features within the building in accordance with current NFPA 3&4 standards.	VCC 111.1
The FPE of record shall coordinate all required fire control room requirements, equipment and documents. They shall also develop the site-specific fire safety during construction plan as well as the building's final fire safety and evacuation plan.	VCC 911.1 VSFPC 403.10.2 VSFPC 3308.2

Fire Control Room Layout, Building Access and Communication	Code Section
The fire control room shall have door directly from the lobby of the main entrance and, where possible, an exterior access door. The size of the room should be between 96 and 200 square feet with adequate space for all items noted in VCC 911.1.5, be properly conditioned and not contain any unnecessary equipment, piping, wiring, storage, etc. Components should include maps/information displayed on electronic display (touch) screens as well as hard copy documents. Access to building automation systems, public address systems and video camera systems should be provided for real-time situational awareness. At least 5 sets of building keys shall be secured within this room for emergency use only.	VCC 911.1
A Knox Box shall be provided on the exterior of the building at the main entrance, at the exterior fire pump and sprinkler room door, and at the exterior fire control room door if provided away from the main entrance. These key boxes are in addition to any elevator lobby Knox Boxes and key sets required in the fire control room.	VSFPC 506
Each floor shall have a designated floor warden staging area equipped with evacuation plan components and two-way communication with the fire control room. This area is typically located in the elevator lobby utilizing the required elevator lobby two-way communication system but should not be located in the stairwell unless otherwise approved.	VCC 1007.8 VSFPC 403.10.2
Complete emergency responder radio coverage shall be provided throughout the entire building in accordance with the International Fire Code. Such system shall be reviewed, tested and approved by the Stafford County 911 Emergency Communications Center.	VCC 403.4.5

Fire Protection Systems	Code Section
Two separate automatic water supplies from two separate water mains/sources and at least two fire department connections shall be provided to the fire pump(s) and fire protection systems.	VCC 403.3.2
All electric fire pumps shall be provided with secondary emergency power.	VCC 403.4.9.1
An automatic, combination standpipe and sprinkler system supported by the fire pump shall be provided in ALL high-rise buildings. At least two separate water supply risers shall be interconnected to the sprinklers on each floor with stairwell floor control valves designed such that the sprinkler and hose allowance calculations are adequate when only one riser is available. Signs indicating that there are multiple sprinkler control valves for each floor are required at each floor control valve assembly. Where authorized and provided, any standpipe hose valve PRV settings must be tested and documented for approval by the Fire Marshal's Office.	VCC 403.4.3 NFPA 14, 5.4.1.2 VCC 903.4.3