



CHARLESTON FIRE DEPARTMENT



Fire Marshal Division *Information Bulletin* Fire Apparatus Access Roads Gates and Barricades

Access roads designed or required to serve as fire apparatus access roads are an important feature to ensure rapid response by first responders during any emergency. Gates, barricades, and other devices designed to secure a location, or required to protect and maintain an access route, may unintentionally create issues that could delay responders. Each request to utilize gates, barricades, or similar devices must be carefully evaluated and receive the necessary approvals before installation.

The International Fire Code / South Carolina Fire Code has provided requirements since the initial adoption in 2001. The 2021 South Carolina Fire Code requires approval by the fire code official before the installation or modification of gates or barricades across a fire apparatus access road occurs. Security measures must include an approved method of emergency operation and all systems must be maintained to ensure access.

Information contained within this bulletin is intended to provide an overview of the required code sections, the expectations for maintenance, and provide guidance on acceptable methods to achieve emergency access. The bulletin may not be all-inclusive and additional guidance should be obtained before initiating the project.

Code Overview

The following provides a summary of the related 2021 South Carolina Fire Code specifically related to gates and barricades:

105.6.11 Gates and barricades across fire apparatus access roads. A construction permit is required for the installation of or modification to a gate or barricade across a fire apparatus access road.

503.5 Required gates or barricades. The *fire code official* is authorized to require the installation and maintenance of gates or other *approved* barricades across fire apparatus access roads, trails or other accessways, not including public streets, alleys or highways. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

503.5.1 Secured gates and barricades. Where required, gates and barricades shall be secured in an *approved* manner. Roads, trails and other accessways that have been closed and obstructed in the manner prescribed by Section 503.5 shall not be trespassed on or used unless authorized by the *owner* and the *fire code official*. **Exception:** The restriction on use shall not apply to public officers acting within the scope of duty.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be *approved* by the *fire code official*. Where security gates are installed, they shall have an *approved* means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

Emergency Operation – Manual Gates and Barricades

Manual gates and barricades, or non-powered devices, shall utilize a Knox Padlock at a singular locking point per device, that will open the required width. Gates and barricades will be configured so that no additional or secondary locking mechanism or device will override the ability of the Knox Padlock to release the system.

Emergency Operation – Powered Gates and Barricades

Gates and barricades that are operated by power (supplied electricity, stored energy, solar, etc.) shall include not less than two means of release or override.

- Remote Control – Radio Receiver: An approved radio receiver must be installed at gates to allow emergency responders to open the system while approaching to reduce delays. This system utilizes a designated, secured radio frequency from the emergency vehicle. Signage may be required to notify responders of the system.
 - Charleston County Radio Communications currently recognizes the *Click 2 Enter* system. To learn more or to locate an authorized SC vendor, visit <https://www.click2enter.net/>.
 - Systems must be programmed by Charleston County Radio Communications or their approved vendor. Contact Will Hernandez at whernandez@charlestoncounty.org for additional information on the programming or to identify an approved vendor.
- Hardwired Control - Knox Key Switch: A dual Knox Key switch shall be installed near or adjacent to the common control or key pad at each entry gate that is commonly accessible by an approaching driver. One key cylinder will be keyed to the City of Charleston and the second will be keyed to Charleston County to ensure rapid entry by local emergency services. The specific position of the key switch must be identified on the submission for review and approval.

Although gate codes can be entered into our 911 system, this is considered a less than desirable approach as codes may change and prevent access. Codes may be provided as an alternative method of entry but will not replace the two means of release outlined above.

Existing configurations

Previous configurations may have included a variety of methods to provide access to emergency responders. Our primary goal is to focus on the standardization of the requirements for all new systems, modified systems, or upon failure of existing equipment. Previously approved systems that may have been accepted as one of the two means of entry could have included:

- Remote activation – siren controlled through siren or “yelp” of the emergency vehicle.
- Key codes – provided to the dispatch center or stored in a Knox key box.
- Single Knox key switch – a single Knox key switch.

Due to several issues with existing configurations that have the potential to delay emergency operations, we are implementing a plan to improve these configurations by 1/1/2025. Our team will work with existing locations to develop an improvement plan to ensure we maintain emergency access.

Maintenance

Each gate, barricade, and entry device must be maintained in accordance with the manufacturer’s instructions and tested. Test and maintenance records must be maintained on site for review by the fire code official.

Submissions

Requests to install or modify a gate or barricade system shall be submitted to the Charleston Fire Marshal Division for review and approval. The submission packet must demonstrate compliance and include:

- Scaled site plan of the facility, diagram of the installation area that clearly depicts road width and gate openings, and elevation views of the security device(s) and system(s).
- Method of operation and sequence (power operated, manual, how overrides will function, etc.).
- Identify proposed products and equipment and attach the associated specification sheets.
- Additional information may be required to clarify property ownership, easements, right-of-way, approvals by other involved entities, or similar.
- Secondary permits may be required, such as permits from City of Charleston Traffic and Transportation, electrical permits for powered gates, etc., if the installation is approved.