



Rev. 5-14-07

Knox County Fire Prevention Bureau

Fire Apparatus Access Road Security Gates

Building Permit Required

THE FOLLOWING SECTIONS OF THE INTERNATIONAL FIRE CODE SHALL GOVERN THE INSTALLATION OF SECURITY GATES ACROSS FIRE APPARATUS ACCESS ROADS.

FIRE APPARATUS ACCESS ROAD DEFINED-IFC 502.1

FIRE APPARATUS ACCESS ROAD-a road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot lane and access roadway.

503.6 SECURITY GATES.

The installation of security gates across a fire apparatus access road shall be approved by the fire chief. 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.

506.1.1 LOCKS.

An approved lock shall be installed on gates or similar barriers when required by the fire code official.

D103.5 FIRE APPARATUS ACCESS ROAD GATES.

Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. The minimum gate width shall be 20 feet (6096 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.
4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Manual opening gates shall not be locked with a padlock or chain and padlock unless they are capable of being opened by means of forcible entry tools or when a key box containing the key(s) to the lock is installed at the gate location.
7. Locking device specifications shall be submitted for approval by the fire code official.

Residential fire department access road widths must meet the requirements of the "Knoxville-Knox County Minimum Subdivision Regulations."

Commercial fire department access road widths must meet the requirements of the International Fire Code Section 503 and Appendix D.

POLICIES AND PROCEDURE

- A. Plans and specification submittal and approval. Two copies must be submitted to the Knox County Code Administration (215-2325) for a permit and must include the following:
 - 1. Site plan showing gates in relation to fire department access road, vehicle stacking area from the intersecting road, nearby fire hydrants, and fire department connections.
 - 2. Gate construction details and identification of types of materials to be used.
 - 3. Gate and fire department access road dimensions.
 - 4. Electronic access and locking device details to include Knox key switch location, automatic exit loop details, loss of power operation details or manual override devices.

- B. Requirements for access gates:
 - 1. When a single road is provided for ingress and egress the minimum clear open gate width shall be 20 feet. (See figure A)
 - 2. When a boulevard entrance/exit is used (one road used for ingress and one road used for egress) each gate shall have a minimum clear open width of 18 feet. (See figure B)
 - 3. Electrically operated gates shall be equipped with a Knox key switch mounted in an approved location.
 - 4. An automatic exit loop shall be provided for the egress side of the gate.
 - 5. Provisions shall be made to prevent the gate from closing on a vehicle or person inadvertently.
 - 6. Manual gates may be locked with a padlock or a Knox padlock. Gates locked with a padlock shall be provided with a Knox key box located in a approved location with the padlock keys inside the box.
 - 7. Gates (both ingress and egress sides) shall be equipped with battery back up or an approved alternative. In the event of battery back up failure, the gate shall open and remain open until power is restored.
 - 8. Entry gates shall be situated to provide a minimum of 40 feet vehicle stacking from the intersecting road.
 - 9. All gate components shall be tested upon completion of the installation and on an annual basis. The Knox County fire inspector must witness an acceptance test after installation is complete. A record of all tests must be maintained and must be made available to the fire inspector upon request.
 - 10. All gate components shall be maintained in an operable condition at all times and shall be replaced or repaired when defective.
 - 11. Overhead vertical clearance above the gate shall be a minimum of 13 feet 6 inches.

Note: Knox Key entry system product order instructions available at www.knoxcounty.org/fire "handouts and documents.

Figure A

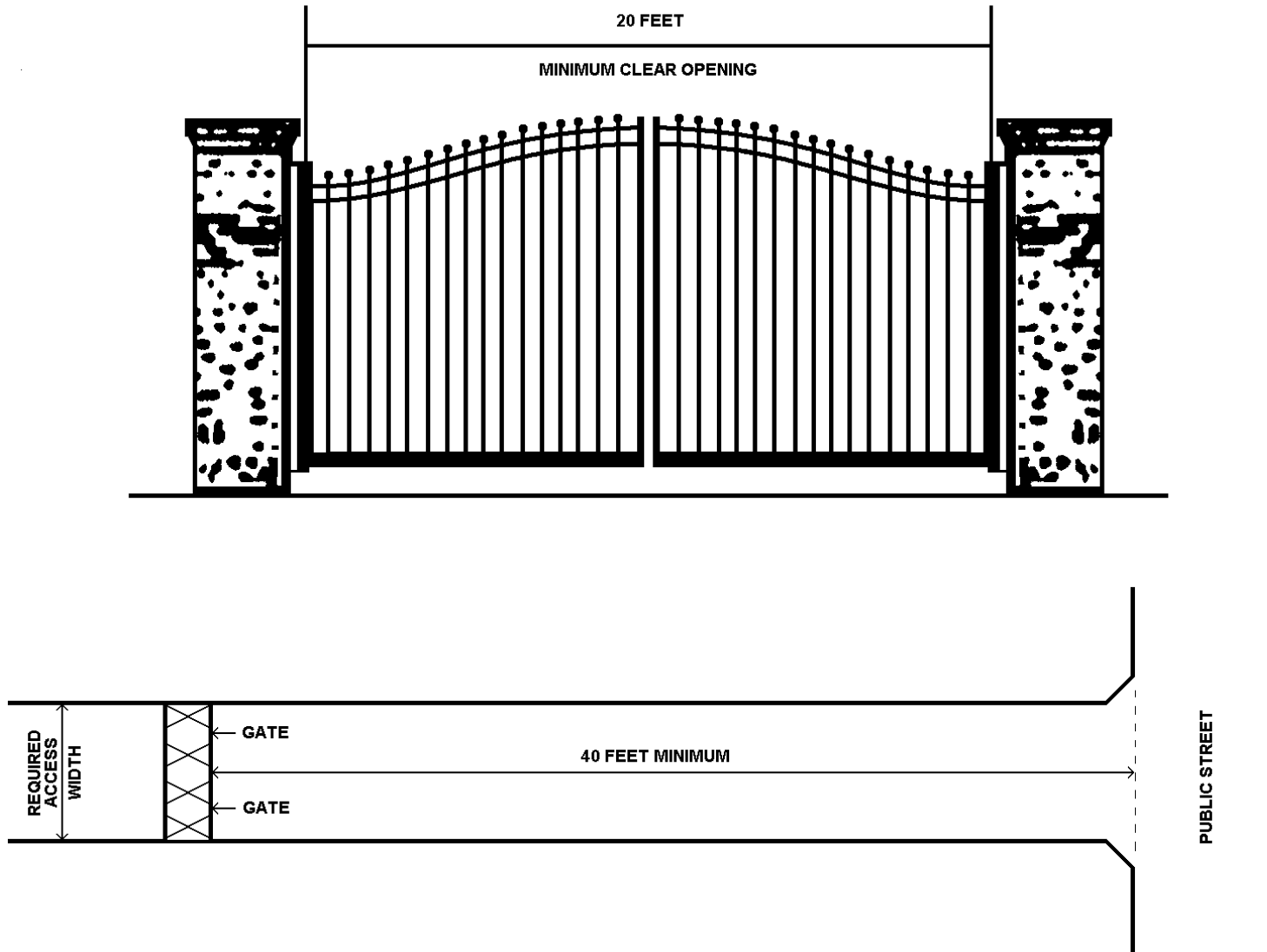
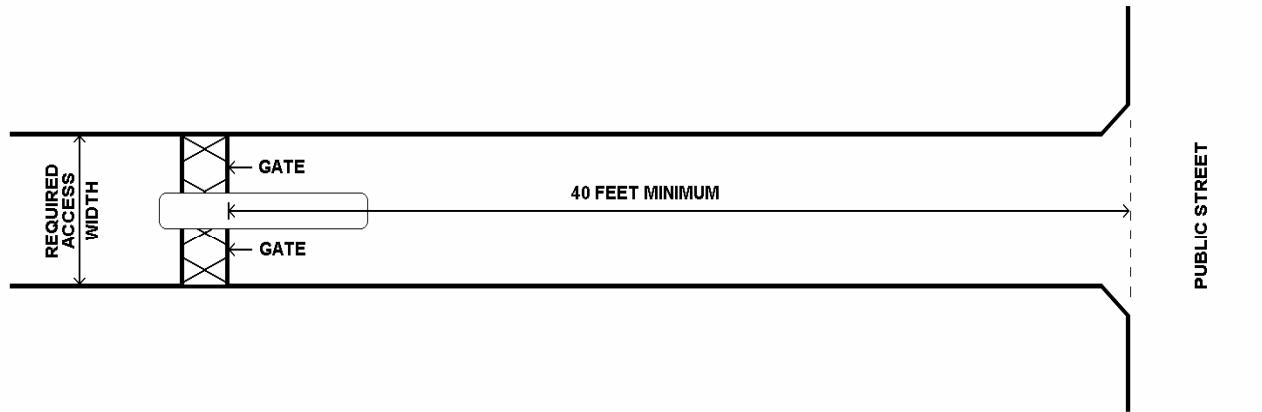
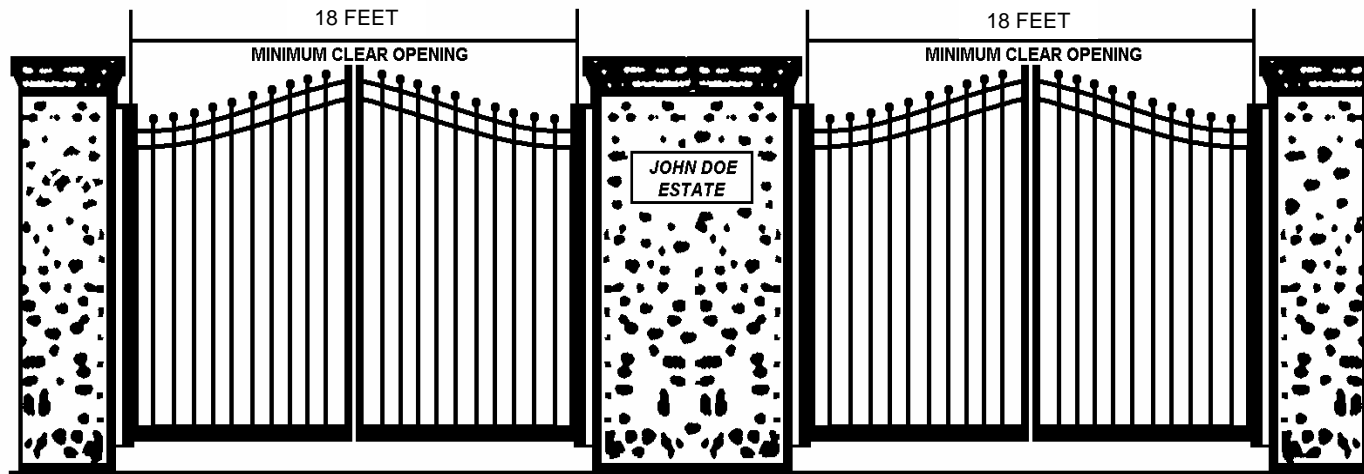


Figure B



This handout is intended as a guide. It is by no means all-inclusive or has all code related sections listed. If you have questions regarding this information please contact the Knox Co. Fire Prevention Bureau at 215-4660.