

FIRE LANE REQUIREMENTS

DEFINITIONS

FIRE LANE. A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from the 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.

APPROVED PADLOCK. A Knox padlock which has been dual keyed for the Kennedale fire and police departments.

LIGHT DUTY METAL CHAIN. A chain with metal links no larger than one-quarter inch in diameter. This term does not include high test proof coil chains or other heat tempered chains of any size.

MAIN GATE. A security gate located on public or private property where more than one security gate exists and which has been designated in writing by the owner to the police department, fire department and code enforcement as the main access to the property.

OWNER. A natural person, corporation, partnership, association or any other similar entity who has care, custody or control of the premises.

SECURITY GATE. A device located on public or private property which controls or restricts access by motor vehicles or persons or both. The term includes, but is not limited to, metal or wooden swing railings, metal or wooden rolling or sliding railings and drop arm type railings extending across public or private streets or fire lanes whether manually operated or motorized.

OWNER. A natural person, corporation, partnership, association or any other similar entity who has care, custody or control of the premises.

SECTION 503 FIRE APPARATUS ACCESS ROADS

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3.



503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility

Exception: The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur:

1. The building is equipped throughout with an approved automatic sprinkler system installed.
2. Fire apparatus access roads cannot be installed due to location on property, topography, waterways, non-negotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
3. There are not more than two Group R-3 or Group U occupancies.
4. Any fire lane that has been established prior to the adoption of this code, or that was established by separate ordinance or approval of a fire lane site plan, is a fire lane for all intents and purposes and shall be maintained as required by this code, whether or not it meets the minimum requirements of a fire lane. In addition, the chief may designate a fire lane when the ingress or egress of a new or existing piece of property is not adequate for fire department apparatus.

503.1.2 Additional access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

503.1.3 High-piled storage. Fire department vehicle access to buildings used for high-piled combustible storage shall comply with the applicable provisions.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8 and Appendix D.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet (7315 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 14 feet (4267 mm).



503.2.2 Authority. The fire code official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations.

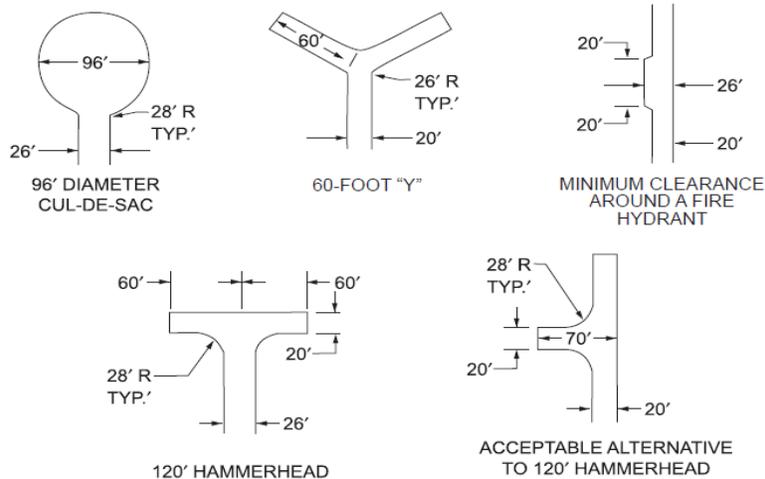
503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

503.2.4 Turning radius. The required turning radius of fire apparatus access road shall be determined by the fire code official.

503.2.5 Dead ends. Dead-end fire apparatus access roads excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus.

**REQUIREMENTS FOR DEAD-END
FIRE APPARATUS ACCESS ROADS**

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
501-750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
Over 750		Special approval required



503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO Standard Specification for Highway Bridges. Bridges and elevated surfaces



shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances bridges when required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the fire code official.

503.2.7 Grade. The grade of the fire apparatus access road shall be within the limits established by the fire code official based on the fire department's apparatus.

503.2.8 Angle of approach and departure. The angles of approach and departure for fire apparatus access roads shall be within the limits established by the fire code official based on the fire department's apparatus.

503.3 Marking. Approved striping or when allowed by the fire code official, signs, or both, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs and striping shall be maintained in a clean and legible condition at all times and shall be replaced or repaired when necessary to provide adequate visibility.

1. Striping – Fire apparatus access roads shall be marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.



2. Signs – shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be twelve inches (12") wide and eighteen inches (18") high. Signs shall be painted on a white background with letters and borders in red, using not less than two inch lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart. Signs may be installed on permanent buildings or walls or as approved by the fire code official.



503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

Exception: An approved security gate meeting all the requirements of all applicable city codes. It is unlawful for any person to park, stop, or leave standing any non-emergency vehicle within any area specifically designated as a fire apparatus access road.

The owner or person in control of the property upon which a fire apparatus access road exists shall cause any motor vehicle, other than an authorized emergency vehicle, that is parked in the fire lane to be removed in compliance with applicable laws.

It is an affirmative defense to this section that written approval has been obtained from the fire department for closure of one-half the width of the fire apparatus access road while repairing the surface of the road.

503.5 Required gates or barricades. The fire code official authorized to require the installation and maintenance of gates or other approved barricades across fire apparatus access roads, trails or other access ways, not including public streets, alleys or highways.

503.5.1 Secured gates and barricades. When required, gates and barricades shall be secured in an approved manner. Roads, trails, and other access ways 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 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. 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 F 2200.

APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION D101 GENERAL 101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the International Fire Code.

SECTION D102 REQUIRED ACCESS D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus byway of an approved fire apparatus access road with an asphalt, concrete, or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

SECTION D103 MINIMUM SPECIFICATIONS D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm). See Figure D103.1.

D103.2 Grade. Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as approved by the fire chief.

D103.3 Turning radius. The minimum turning radius shall be determined by the fire code official.

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

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.
7. Locking device specifications shall be submitted for approval by the fire code official.

D103.6 Signs. Where required by the fire code official, fire apparatus access roads shall be marked with permanent NO PARKING—FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305mm) wide by 18 inches (457mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.

D103.6.1 Roads 20 to 26 feet in width. Fire apparatus access roads 20 to 26 feet wide (6096 to 7925 mm) shall be posted on both sides as a fire lane.

D103.6.2 Roads more than 26 feet in width. Fire apparatus access roads more than 26 feet wide (7925 mm) to 32 feet wide (9754 mm) shall be posted on one side of the road as a fire lane.

SECTION D104 COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

D104.1 Buildings exceeding three stories or 30 feet in height. Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have at least three means of fire apparatus access for each structure.

D104.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m²) shall be provided with two separate and approved fire apparatus access roads.

Exception: Projects having a gross building area of up to 124,000 square feet (11 520 m²) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

D104.3 Remoteness. Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.



SECTION D105 AERIAL FIRE APPARATUS ACCESS ROADS

D105.1 Where required. Buildings or portions of buildings or facilities exceeding 30 feet (9144 mm) in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway.

D105.2 Width. Fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm) in the immediate vicinity of any building or portion of building more than 30 feet (9144 mm) in height.

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building. SECTION D106 MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

D106.1 Projects having more than 100 dwelling units. Multiple- family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the International Fire Code.

D106.2 Projects having more than 200 dwelling units. Multiple- family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

SECTION D107 ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS

D107.1 One- or two-family dwelling residential developments. Developments of one- or two family dwellings where the number of dwelling units exceeds 30 shall be provided with separate and approved fire apparatus access roads, and shall meet the requirements of Section D104.3.



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Exceptions:

1. Where there are 30 or fewer dwelling units on a single public or private access way and all dwelling units are protected by approved residential sprinkler systems, access from two directions shall not be required.
2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.