



EULESS FIRE DEPARTMENT FIRE MARSHAL'S OFFICE

EFD - FMO 16-1

2003 Edition
International Fire and
Building Code as
Amended

Information Line:
***Limited Access Control Gates/Fire Lanes/
And Speed Bump Specifications***
Revised 11/04
Fire Chief Lee Koontz Fire Marshal Paul Smith

This policy outlines the requirements for fire lanes, speed bumps in fire lanes and the erection and maintenance of access control gates across dedicated or designated emergency access easements (fire lanes).

PERMITS:

Prior to the permit issuance and the commencement of any work, including the installation of a fire lane, speed bumps in fire lanes or a gate crossing a fire lane or private street, a minimum of three (3) copies of a site plan and detailed construction plan shall be submitted to the Fire Marshal's Office for review. Such plans shall be of standard blue print quality, drawn to scale, listing all details, specifications or diagrams necessary to provide a description of work to be done and the gate(s) mechanical operation and design if a gate is to be installed. The applicant should allow a minimum of seven (7) business days for the plan review process.

Permits are required prior to the installation of gates or speed bumps in a fire lane or private street. An annual maintenance/use permit is also required for speed bumps and mechanically operated gates in fire lanes or private streets. Upon review the applicant will be issued a comment sheet outlining any corrections or comments as needed. Upon review the applicant will be issued a permit to allow the construction of a limited access gate or speed bumps across an emergency access easement.

A permit is not required to install a fire lane, but plan approval must be issued from the Fire Marshals office approving the design, location and installation prior to construction occurring.

DEFINITIONS:

Approved: Means acceptable to the authority having jurisdiction. In this case "approved" means that which is acceptable to the Fire Chief, Fire Marshal or designated representative.

Dedicated Emergency Access Easement: An access easement that is dedicated by site plan provision and marked as a fire lane for the purpose of allowing emergency equipment and/or the general public to gain access onto and travel within a piece of platted property.

Designated Access: Access ways designated by the Fire Marshal and marked as fire lanes for the purpose of insuring a clear and marked path for the use of emergency apparatus and equipment.

Designated Representative: For the purpose of this policy "designated representative" shall mean a member of the Fire Marshal's Office, Fire Department, Inspection and Development Department or City Engineering Department.

Emergency Services: Shall mean Fire, Police or Medical Services, or other agencies that tend to provide support during emergency situations such as electric service company, gas company, red cross, etc.

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Emergency Vehicle: Shall mean any motorized vehicle or trailer assigned to the Fire or Police Department and used for the purpose of responding to an emergency incident or for providing support services during a fire, police or medical emergency.

Fire Apparatus: A vehicle such as a fire pumper, fire engine, aerial ladder truck, elevated platform, quint, rescue squad, mobile medical care unit or similar firefighting or rescue equipment.

Fire Code Official: Means the organization, office or individual responsible for reviewing and approving an installation or procedure. In this case the "Fire Code Official" shall mean to be the Eules Fire Marshal or his designated representative.

Fire Lanes: That horizontal dimension between markings intended to identify an access way for emergency fire apparatus or other emergency services and labeled with the intent to prohibit the obstruction thereof and including the area to a height of fourteen (14) feet above the pavement.

Fire Zones: An area or section striped with hash marks and labeled with wording to give notice not to obstruct in order to allow for immediate accessibility of emergency services.

Speed Bumps: For purposes of this document the definition of speed bumps shall mean a hump or rise on the roadway surface intended to slow or impede the speed of vehicle traffic within a fire lane.

GENERAL INFORMATION:

- Fire lane guidance is provided by the International Fire Code, 2003 Edition, as amended. This generally requires a fire lane to be installed when any structure or other hazard is located more than one hundred and fifty (150) feet off of a public street or existing approved fire lane. The one hundred and fifty feet (150) referenced herein is generally measured by the route the hose is deployed from the fire apparatus.
- The City of Eules generally requires a dedicated easement for all fire lanes. The easement may be combined with other easements and is commonly referred to as an Emergency Access, Utility and Drainage Easement (E.A.U.D.E.).
- For enforcement purposes, fire lanes that were installed under previous codes and that are marked appropriately for the Code under which they were installed are legal fire lanes and all enforcement provisions included in the 2003 IFC as amended shall apply.

DESIGN CRITERIA:

- Fire lanes must be constructed of concrete meeting the attached design standard and be capable of supporting a minimum 60,000 pound load limit. Existing asphalt fire lanes may remain as asphalt drives until such time as they are replaced or repaired, at which time they must be rebuilt with concrete. (Note: This does not preclude maintenance being performed on asphalt fire lanes. If a section of asphalt pavement fails and must be replaced, it must be replaced with concrete.)
- Fire Lanes must be twenty-four (24) feet wide. Existing fire lanes that are a minimum of twenty (20) feet wide are considered legally non-conforming. However, if an existing twenty (20) foot wide fire lane is rebuilt, every reasonable effort must be made to extend the width of the new fire lane to twenty-four (24) feet.
- Fire lanes must have a minimum vertical clearance of fourteen (14) feet.
- Fire lanes must be designed with a twenty-eight (28) foot inside radius and a fifty two (52) foot outside radius. Every effort must be made to bring existing non-conforming fire lanes in compliance with this standard as the opportunity arises.

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- Approved turnarounds must be installed on any dead end fire lane that exceeds one hundred and fifty (150') feet in length. The radius for a cul-de-sac turnaround shall be not less than fifty (50) feet. An approved turnaround list is included with this document.
- The grade of any fire lane shall not exceed 6%.
- Bridges, if required, shall meet the approval of the Fire Department and Engineering Department and be capable of carrying a load limit of 80,000 pounds.

STRIPING/MARKING:

1. Fire lanes shall be designated by continuous lines a minimum of six (6) inches in width on each side of the dedicated or designated access way, starting at the entrance from a public street and continued as required throughout the property. Such lines shall be bright red in color and the paint shall meet the specifications as described in this policy (See Item #5). The words "NO PARKING" and "FIRE LANE" shall be stenciled in white along the continuous line using one of the acceptable methods outlined in this document.
2. The words "FIRE LANE" shall be painted at the entrance to the fire lane with the lettering to be white in color on asphalt pavement and red in color on concrete pavement. The size of the lettering shall be a minimum of eighteen (18) inches.
3. Fire lanes adjacent to curbs shall have the entire face of curb painted bright red and lettered as specified in item #1 above.
4. Where required by the Fire Marshal "NO PARKING - FIRE LANE" signs shall be erected on buildings, posts or fences.
5. The red paint shall meet the Texas Department of Highways and Public Transportation, (TXDOT), specification number TTP-115, chlorinated rubber paint or approved equal.

TYPICAL ENTRANCE DETAIL FOR TWENTY (20) FOOT FIRE LANES

FIRE LANE

The words "FIRE LANE" shall be painted with letters as minimum height of eighteen (18) inches at the entrance to the access roadway. Letters shall be white in color on asphalt surface and red on a concrete surface.

ALTERNATIVE ENTRANCE DETAIL FOR TWENTY-FOUR (24) FEET OR GREATER IN WIDTH FIRE LANES USING THIRTY SIX INCH OR LARGER LETTERS.

FIRE
LANE

Lettering with a thirty-six (36) inch stroke with the wording "FIRE" and "LANE" horizontally centered one on the top of the other at the entrance of the access roadway.

TYPICAL STRIPING DETAIL

NO PARKING FIRE LANE

NO PARKING FIRE LANE

Lettering shall be white lettering with a minimum four (4) inch stroke on a six (6) inch continuous bright red stripe with the words "FIRE LANE - NO PARKING" or "NO PARKING - FIRE LANE" stenciled every fifteen (15) feet in length within the continuous stripe.

ALTERNATIVE TYPICAL STRIPING DETAIL*

*Note: This striping detail is considered legally nonconforming in the City. As fire lanes are restriped, the typical detail shown above should be used.

FIRE LANE

NO PARKING

White lettering with a minimum four (4) inch stroke on a six (6) inch continuous bright red stripe with the alternating words "FIRE LANE" and "NO PARKING" stenciled every fifteen (15) feet in length.

NOTE: Fire lanes adjacent to curbs shall have the entire face of the curb painted bright red color. The Fire Marshal may require the entire curb to be painted in red for specific identification purposes. Fire lanes adjacent to buildings, fences or other structures shall have the continuous stripe placed at a range of twelve (12) inches from the building, fence or structure for recognition purposes. If identification of such fire lane marking becomes a policing problem, the Fire Marshal may require signs to be erected and placed along or on the building, fence or structure to assist in making public notification.

TYPICAL PLACEMENT DETAIL OF THE FIRE LANE STRIPE ON CURBS

When a fire lane is located adjacent to a curb, the entire face of the curb shall be painted red and the words "No Parking-Fire Lane" shall be stenciled on the face of the curb as specified for a horizontal fire lane.

FIRE LANE MARKINGS WITH BUILDING ADDRESS

Apartment buildings shall have a supplemental address affixed in the fire lane. The supplemental address shall be installed in conjunction with the fire lane marking and designate the official street address assigned to the building or the building number if a single address has been assigned to the property.

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The address markings shall be affixed in a 12" X 24" red rectangle box. The box shall contain white block style numbers, measuring not less than nine (9) inches in height, readily readable from a moving vehicle.

The red rectangle box shall be located on the edge of the fire lane stripe, on the same side of the building and centered in proportion to the building.

The maintenance of the supplemental address shall be the same as required of the fire lane markings.

See Appendix Sheet B for further information.

FIRE ZONE MARKINGS:

FIRE ZONE MARKINGS SHALL BE AS FOLLOWS:

1. The Fire Marshal has the authority to establish FIRE ZONES. Fire zones are those areas designated or dedicated for the purpose of allowing unobstructed access of fire department personnel and equipment to a place of entry to a building, fire hydrant, fire sprinkler system connection, fire control valve, or other fire protection device or appliance.
2. The owner, occupant and/or representative in charge of any premise where the Fire Marshal or his authorized representative by reason of necessity has designated a fire zone shall be responsible for the fire zone markings and the maintenance thereof;
3. The markings of fire zones shall meet the requirements for fire lane markings or utilize an approved wording as specified herein.
4. Such lines shall be red in color. The words "FIRE ZONE" followed by the most appropriate, "NO PARKING" or "DO NOT OBSTRUCT ACCESS" painted white in color within the cross-sectioned area. The lettering shall be readily visible and correspond with the area involved.

SIGNAGE:

Signs must be installed along fire lanes when required by the code official. Signs, when required, must be placed as indicated by the code official. Signs must be of an approved type, with a minimum 12 x 18 inch sign made of 18 gauge metal. Signs must have a white background with red letters stating "No Parking – Fire Lane" in block letters with a stroke width and size that is easily read.

SPEED BUMPS:

1. PERMIT REQUIRED: No person, firm or corporation shall place, construct, erect or maintain any speed bumps in a marked fire lane or emergency access roadway without first obtaining a permit. The permit is renewable annually.
2. CONSTRUCTION DETAIL: Such speed bumps shall be constructed in a manner as to not exceed the height of four (4) inches from the roadway surface and at a rise ratio of three (3) to one (1). SEE TYPICAL DETAIL CONTAINED WITHIN THIS POLICY STATEMENT.

3. Speed bumps shall be marked or identified over the entire surface with yellow or white paint. Speed bumps located on an asphalt surface shall be white in color and speed bumps on a concrete surface shall be yellow in color.

GATES:

NOTE: Permits are required to install or maintain a gate across a designated fire lane or private street.

All gates within a public access way or emergency access easement (fire lane) shall comply with the following:

1. All primary access gates shall be located on private property a minimum of thirty (30) feet from the property line being crossed by the access drive or forty (40) feet from the nearest edge of the roadway, whichever is greater, or as approved by the Fire Marshal. Gate designs may incorporate one or two gate sections to meet the required minimum gate width of twenty-four (24) feet. If the entrance incorporates a median or other feature that necessitates a divided gate arrangement, the gate widths may be reduced if approved by the fire code authority, but in no case shall any single gate or street pavement be reduced to a clear opening of less than twenty (20) feet.
2. If a gate incorporates an overhead obstruction, said obstruction must be a minimum of fourteen (14) feet above the finished road surface.
3. Approach and departure areas on both sides of a gated entrance must provide adequate set backs and proper alignment to allow free and unimpeded passage of emergency vehicles through the entrance area.
4. Any electronic gate that has no Opticom like device to exit shall have a sensor in the ground at least six feet back from the gate that will cause the gate to open when a vehicle approaches.
5. Access gates on perimeter fencing. Gated communities that have security fencing around the perimeter of the property shall have and be provided with access gates positioned at intervals as may be required by the fire code official. Such gates are to provide police and fire access during an emergency. The gate shall be designed to provide a minimum opening width of forty-eight (48) inches and designed to accommodate a Knox pad lock or approved alternative locking device. These gates are NOT vehicle access gates.
6. All gates shall be designed and constructed in a workman-like manner. The authority having jurisdiction shall approve gate materials.
7. All primary emergency access points shall be equipped to operate with the Opticom type device gate opening system and the Knox key switch. The opening shall incorporate a fail-safe manual backup or automatic release in the event of a failure of the electrical or mechanical system. The Knox key switch shall be located on a keypad pedestal or call box as approved by the Fire Marshal.
8. All secondary emergency access points shall be equipped with a manual disconnect to allow manual opening of the gate by emergency service personnel. Such system may be a Knox pad lock or other device as approved by the Fire Marshal.
9. Required gates shall be designed, constructed and maintained to open fully to the required width when activated by the Opticom type device or Knox key switch system or when manually opened as may be appropriate. Horizontal swing gates shall open towards the direction of intended travel and shall not interfere with the design of traffic flow. The gate must be equipped with a device to maintain the gate in an open position when activated by an Opticom Emitter.
10. Electrical and or hydraulic gate devices shall be designed in a manner that provides for an alternate method of operation during a power or mechanical failure. **All gates installed or**

replaced after October 1, 2004 shall be equipped with an emergency power system designed to either a) operate the gate normally for 24 hours without primary power or b) to open the gate and secure it in a fully open position until power is restored.

11. Secondary emergency access gates shall be secured with a Knox padlock or Knox key switch device.
12. Provisions shall be made to accommodate other services including but not limited to public works, sanitation services, utility services, and postal service. Only emergency Fire, Police and Ambulance vehicles are equipped with Opticom opening devices.

APPLICATION FOR KNOX COMPANY KEY BOX, KEY SWITCH, OR PAD LOCK:

The Knox order form is available from the Fire Marshal's Office.

Complete the order form, include payment and forward all paper work to the Fire Marshal's Office. Upon review and placement of the authorization stamp the application will then be forwarded to the Knox Company. Delivery is usually 4 to 6 weeks. Check or money order is to be made out to the Knox Company, not the City of Eules. The application can be faxed if a credit card is used. The Knox Company will not process an order without the authorization stamp. This is to protect the security of the system. Any questions regarding the ordering information should be directed to the Knox Company or the Eules Fire Department at 817-685-1600.

TEMPORARY FIRE LANES:

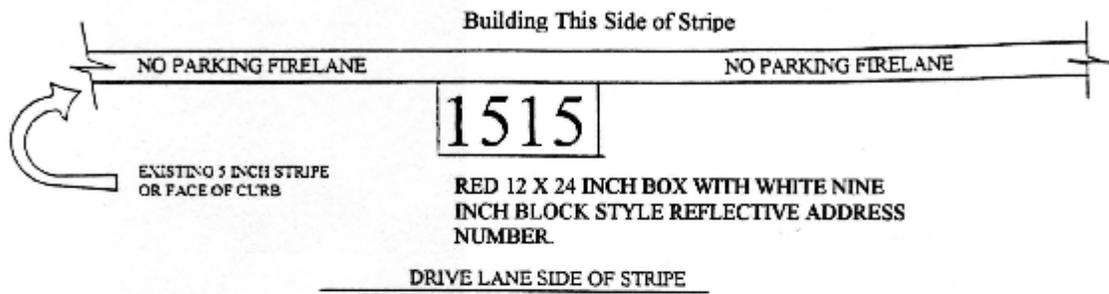
TEMPORARY FIRE LANE IDENTIFICATION SHALL BE AS FOLLOWS. ANY EXCEPTION OR ALTERNATE METHOD TO BE USED TO IDENTIFY A TEMPORARY FIRE LANE MUST BE FIRST APPROVED BY THE FIRE MARSHAL.

The Fire Marshal or his authorized representative may authorize and/or require temporary fire lane identification during but not limited to the following conditions or situations.

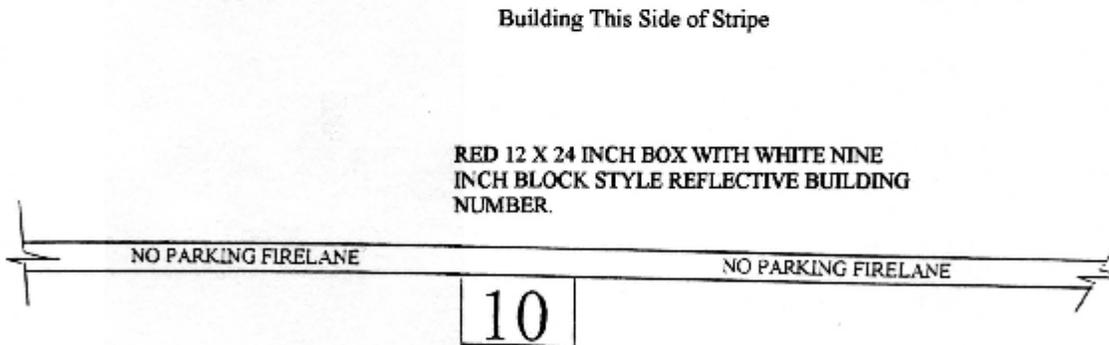
- At construction sites during building construction phases;
- At special events or large gatherings where emergency equipment access may be necessary or required by the nature of the event or gathering;
- During the maintenance of existing worn or faded fire lanes;
- When roadway repairs are being conducted and additional means of continued access needs to be identified;
- When in the Fire Marshal's professional opinion conditions warrant such special identification.

APPENDIX B
TYPICAL FIRE LANE LAYOUT
WITH MULTI-FAMILY ADDRESSING

BUILDING ADDRESS:

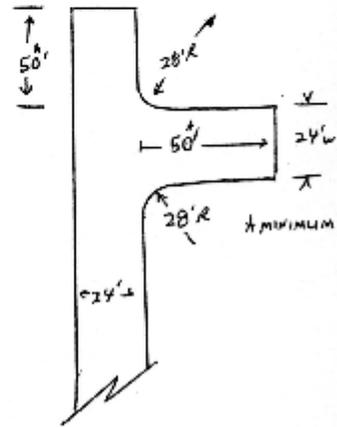
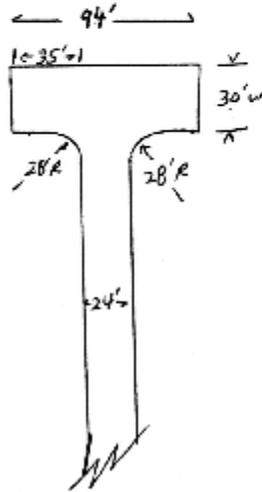
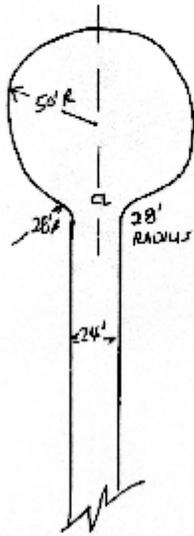


BUILDING NUMBER:



APPENDIX A
FIRE LANE AND SPEED BUMPS

APPROVED TURNAROUNDS



TYPICAL SPEED BUMP DETAIL

