

Houston Fire Department Life Safety Bureau (LSB)



LSB Standard No. 03, Rev. 06

Fire Department Access

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LSB Standards are established in accordance with provisions of the City of Houston *Fire Code*. They are subject to the administrative sections covering alternative materials and methods, modifications, and the Board of Appeals.

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Fire Department Access

Section 3.1 – General

3.1.1 Scope.

This standard provides a method of providing for and maintaining adequate and unobstructed emergency access for fire department apparatuses and personnel to buildings, structures, hazardous occupancies, or other premises, as may be required by the Fire Marshal, the Chief of the Houston Fire Department, and the *Fire Code*.

3.1.2 Purpose.

The purpose shall be to provide clarification of requirements and guidance to person(s) charged with providing and maintaining required fire department access to premises in compliance with the *Fire Code*. The provisions of this standard are general in nature and are not intended to override the specific requirements of the *City Code* or the *Fire Code*.

This standard is subject to periodic review and updates, to accommodate changes in local need or requirements, changes in nationally recognized standards, in related technology, or where required by state or federal regulations.

Section 3.2 – Definitions

3.2.1 Access Control Gate or Barrier.

Any gate or barrier placed across a fire apparatus access road to restrict other vehicles or use. Access control gates and barriers shall be installed in accordance with LSB Standard No. 04, "Access Control Gates."

3.2.2 Cul-de-sac.

Street with only one outlet that terminates in a vehicular turnaround appropriate for the safe and convenient reversal of traffic movement.

3.2.3 Dead End.

Street with only one outlet that terminates without a vehicular turnaround provided.

3.2.4 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.

3.2.5 Fire Lane.

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

3.2.6 Private Drive.

A privately-owned and maintained access way used for vehicular travel that is not a street or private street and that provides an unobstructed connection between one or more

streets or private streets or from a street or private street to any portion of a parking lot, shopping center, institution, commercial area, or industrial development.

A private drive may provide for access by the general public, but the owner of the private drive maintains the right to restrict public access to the private drive.

3.2.7 Private Roadway.

A privately owned and maintained vehicular accessway that provides access to a tract of land.

3.2.8 Private Street or Road.

A privately maintained and owned vehicular accessway that provides access from a public street to one or more multi-family residential buildings.

3.2.9 Public Street.

A public right-of-way, however designated, dedicated, or acquired, that provides access to adjacent property.

Section 3.3 – General Requirements

3.3.1 Where Fire Lanes Are Required.

Fire Lane applications for fire department access shall be submitted when it is required by the fire code official that the owner or manager of a commercial building or buildings provide approved Fire Lanes due to vehicular parking or other obstructions that may restrict access to building entrances or exits, and where the following conditions and occupancies are present:

- 1. Any private drive or private street alongside of or leading to a commercial structure that is over 300 feet long on one side or nearest entrance to the structure is over 150 feet of travel distance from a public street.
- 2. Any private drive or private street alongside of or leading to a hospital, convalescent center, or nursing home.
- 3. Any private drive or private street alongside of or leading to public assembly occupancy that has an occupancy load of 50 or more and has its nearest entrance located over 150 feet of travel distance from a public street.
- 4. Any private drive or private street alongside of or leading to an educational building with an occupancy load of 50 or more persons.
- Any building with a private drive or private street alongside of it, where there is an area that must be kept free of parked cars or other obstruction to provide fire department access.

3.3.2 Permits Required.

A "Fire Code Official Approval" permit is required to install a fire department access road or fire lane. A permit is required to install and maintain a fire apparatus access-control gate on a fire apparatus access road, or a private drive or private street utilized for fire

apparatus access. A permit is also required to install or maintain a Key Box or Fire Depository Box.

3.3.3 Plans.

3.3.3.1 Plans for Access Roads and Control Gates.

Plans for fire apparatus access roads and access control gates shall be submitted to the fire department for review and approval prior to construction.

3.3.3.2 Plans for Private Fire Hydrant Systems.

Plans and specifications for private fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.

3.3.3.3 Timing of Installation.

When fire protection, including fire apparatus access roads and water systems for fire protection, is required, such protection shall be installed and made serviceable prior to and during construction.

3.3.3.4 Access to Building Openings.

Required access to building openings shall be in accordance with the *Fire Code* and the *Construction Code*.

For Key Boxes refer to the *Fire Code* and LSB Standard No. 05, "Key Boxes." For Fire Depository Boxes refer to LSB Standard No. 06, "Fire Depository Boxes."

3.3.3.5 High-Piled Storage Facilities.

Access to high-piled combustible storage facilities shall be in accordance with high-piled storage provisions of the *Fire Code*.

3.3.4 Required Marking of Fire Apparatus Access Roads, Fire Lanes, Addresses, and Fire-Protection Equipment.

3.3.4.1 General.

Marking of building or facility addresses and fire-protection equipment shall be in accordance with the *Fire Code*. Marking of Fire Lanes shall be in accordance with the *Fire Code* and this standard.

3.3.4.2 Signs and Notices.

When required by the fire code official, property owner or owner's agent shall provide and maintain approved signs or other approved notices for fire apparatus access roads and lanes to identify such roads and prohibit obstruction thereof or both, in accordance with this standard.

3.3.4.3 Marking of Fire-Protection Equipment and Fire Hydrants.

Fire protection equipment and fire hydrants shall be clearly identified in an approved manner to prevent obstruction by parking and other obstructions.

Fire hydrant locations shall be identified by installation of reflective markers in accordance with LSB Standard No. 09, "Marking of Fire Hydrant Locations."

3.3.4.4 Removal of Required Signs, Gates, or Barriers.

Locks, gates, doors, barricades, chains, signs, tags, or seals that have been installed by the fire department or by its order or are under its control shall not be removed, unlocked, destroyed, tampered with, or otherwise molested in any manner.

Section 3.4 – Fire Apparatus Access Roads and Fire Lanes

3.4.1 New Facilities.

Fire apparatus access roads shall be provided by the owner or property manager for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction of the City of Houston, when any portion of an exterior wall of the first story of the building is located more than 150 feet from fire apparatus access as measured by an approved route around the exterior of the building or facility or where required by Section 3.1 of this standard. In addition to an fire apparatus access road the fire code official may require an unobstructed 5 feet wide by 10 feet high minimum clearance along the perimeter of any building, structure, or appurtenance. The clearance shall allow adequate access and coverage during emergency operations for firefighters to deploy and advance fire hose lines.

Exceptions:

- 1. In buildings that are completely protected with an approved automatic fire sprinkler system, the fire code official is authorized to modify requirements, not to exceed 300 feet.
- When access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the fire code official is authorized to require additional fire protection measures.
- 3. Group R-2 occupancies when in accordance with Chapter 42 of the *City Code*.
- When there are not more than two Group R-2 (residential) or Group U (utility) occupancies, the fire code official is authorized to modify requirements.

3.4.2 Existing Facilities.

For existing buildings and facilities, the fire code official may require the establishment of fire apparatus access roads or fire lanes in accordance with this standard.

3.4.3 Additional Access.

The fire code official is authored 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.

3.4.4 Access to Fire Department Connections and Fire Hydrants.

Fire department connections and fire hydrants shall be accessible to fire department apparatus by roads or lanes meeting the requirements of Section 3.6.

3.4.5 Access During Construction, Alteration, or Demolition of a Building.

Fire department access roads shall be established and maintained in accordance with the *Fire Code* and this standard during construction, alteration, or demolition of a building.

3.4.6 General Specifications.

3.4.6.1 Dimensions.

Fire apparatus access roads and fire lanes shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches. Vertical clearances or width shall be increased, when in the opinion of the fire code official, vertical clearance or widths are not adequate to provide fire apparatus access.

3.4.6.2 Surface.

Fire apparatus access roads shall be designed and constructed to support the minimum imposed load by fire apparatus and shall be provided with a surface so that it permits all-weather driving capabilities.

3.4.6.3 Turning Radius.

The turning radius of a fire apparatus access road shall be as approved by the fire code official.

3.4.6.4 Dead-Ends.

Dead-end fire apparatus roads in excess of 150 feet in length shall meet the requirements of Appendix C for turning around fire apparatus.

3.4.6.5 Bridges and Below-Grade Structures.

Where fire apparatus must cross over a bridge or below-grade structure as part of a fire apparatus access road or fire lane, the bridge or below-grade structure shall be designed and constructed in accordance with nationally recognized standards. The bridge or below-grade structure shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.

3.4.6.6 Posting of Load Limit Signs.

The property owner shall post vehicle load limit signs at both entrances to bridges or road accesses over a below-grade structure as required by the fire code official. Load limit signs shall be posted in conspicuous locations and shall be readily readable.

3.4.6.7 Grade.

The slope or grade for a fire apparatus access road shall not exceed the maximum approved.

3.4.7 Obstruction of Access Roads.

3.4.7.1 Maintain Access Roads Unobstructed.

The required width of a fire apparatus access road, private drive, private street, or private access easement utilized for fire apparatus access shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under Section 3.6 shall be maintained at all times.

Exception: Access control gates-barriers installed in accordance with LSB Standard No. 04, "Access Control Gates."

Entrances to roads, trails, or other access ways which have been closed with gates/barriers in accordance with this standard, or LSB Standard No. 04, shall not be obstructed by parked vehicles or other obstructions.

3.4.7.2 Removal of Vehicles and Obstructions.

Fire department access roads and fire lanes are tow-away zones; therefore vehicles parked and obstructions placed in violation of the *Fire Code* may be issued citations and removed at the vehicle owner's expense, by or at the direction of the fire code official, fire department incident commander, any peace officer, or the property owner in accordance with applicable provisions of the *City Code* and state law.

Entrances to roads, trails, or other access ways that have been closed with gates/barriers in accordance with this standard or LSB Standard No. 04, shall not be obstructed by parked vehicles.

3.4.7.3 Closure of Access Ways.

The closure of access ways where required by the fire code official shall be accomplished in accordance with the *Fire Code*.

3.4.7.4 Removal of Fire Department Access Road.

A fire department access road or fire lane shall not be altered, modified, removed, or placed out of service without prior written approval from the fire code official.

3.4.8 Marking of Fire Lanes.

3.4.8.1 General.

Fire lanes shall be marked in accordance with this standard.

3.4.8.2 When Required.

When required by the fire code official, approved signs or other approved notices shall be provided and maintained so as to identify such roads as fire lanes and tow-away zones and prohibit the obstruction thereof or both.

3.4.8.3 Removal, Alteration, Defacing of Signs Unlawful.

A person commits an offense, if the person intentionally alters, defaces, injures, knocks down, removes, or attempts to do so, any sign required under terms of this standard of the *Fire Code*.

3.4.8.4 Signs.

Fire lane signs and accompanying tow-away zone signs shall be in accordance with the guidelines set forth in Appendix B.

Premises with an existing approved fire lane marked with approved signs may retain these signs until the signs need to be replaced due to weathering, fading, damage, or loss. All new or replacement signs shall be in accordance with this standard.

Section 3.5 – Approval of Fire Lanes

3.5.1 Permit Required.

To install and maintain an approved fire lane, a permit is required.

Permit Office contact information for Fire Lane approvals is as follows:

The Houston Permitting Center 1002 Washington Avenue Houston, Texas 77002

Hours of operation: 8:00am to 3:30pm (CST)

Monday through Friday Office phone: (832) 394-8811

To E-mail Customer Service Questions: hfd.permitoffice@houstontx.gov

Link to City Wide Fee Schedule: www.houstoncityfees.org

3.5.2 Procedures for Obtaining Approvals.

Fire Lane approvals shall be obtained in accordance with procedures set forth in Appendix A of this standard. Approvals shall be obtained prior to any actual installation or marking of a Fire Lane. A "Fire Code Official Approval" shall be issued at the successful completion of all requirements for an approved Fire Lane as set forth in this standard.

Section 3.6 - Appendix A - Guide for Fire Lane Approval

3.6.1 Fire Code Official Approval Permit.

An application for a "Fire Code Official's Approval" permit for a Fire Lane shall be made as required in Sections 3.3.1 and 3.3.2 of this standard.

3.6.2 Property Plot Plan Required.

3.6.2.1 Submission of Plot Plan.

An application for approval of a fire lane permit shall be accompanied by four (4) copies of a Plot Plan for the premises, to the Houston Fire Department Permit Section (See Section 3.5.2). The Plot Plan shall be large enough to provide readily readable detail (preferably of "Blue Print" size) and shall indicate on the plan the following items:

- 1. Location of building or buildings.
- 2. Building exits and entrances.
- 3. Street locations.
- 4. Private drives and any gates or barriers to traffic.
- 5. Sidewalks and parking rows.
- 6. Fire Department Connections and fire hydrants on private property.
- 7. Exiting fire department access roads, fire lanes, and sign locations.
- 8. Any overhead structural extensions or obstructions that could affect Fire Lane placement.
- Sizes and relative separation distances for all of the above features shall be indicated upon the Plot Plan. When the Plot Plan is designed by an Architect or Engineer, or when required by the *Construction Code*, the plan shall have the appropriate seal affixed.

3.6.2.2 Marking of Plot Plan.

The Plot Plan shall indicate locations of any existing Fire Lanes and Fire Lane signs; however, locations for the applied-for Fire Lane and its signs shall not be marked on the Plot Plan. The inspecting fire prevention officer shall mark all three sets of plans with **red** ink to indicate where the lanes and signs are required.

The Fire Lane signs and accompanying tow-away zone signs shall be placed on the property by the owner or owner's agent as indicated by the inspector on the Plot Plan.

3.6.3 Fire Lane Specifications.

1. The minimum width of any Fire Lane shall be not less than 20 feet (unless it is physically impossible), and the minimum unobstructed overhead clearance shall be not less than 13 feet, 6 inches. See Section 3.4.1 of this standard for exceptions. A fire apparatus access road shall lead from a public street to at least one side of the building where an entrance to the building is located.

- 2. Any access drive or private street serving as a fire apparatus road that leads to a Fire Lane shall be maintained to allow for fire department apparatus access and may be designated as a Fire Lane.
- 3. Where there is a Fire Lane along at least one side of an access road and parking of vehicles along the road reduces the width of the road to less than the required 20 feet, then both sides of the road shall be included in the fire lane.
- 4. A fire apparatus access road that is at least 20 feet but not more than 26 feet wide shall be posted on both sides as a Fire Lane.
- 5. A fire apparatus access road that are more than 26 feet wide but not more than 32 feet wide shall be posted on one side of the road as a Fire Lane.
- 6. Where a Fire Lane is required alongside of a building that is bordered by a continuous sidewalk connecting its exit doors, not less than one Fire Lane shall be provided for each 300 feet of building frontage or fraction thereof. Such Fire Lane, where possible, shall be positioned in front of the building's main entrance. In no case shall the Fire Lane be less than 30 feet long or extend less than 20 feet perpendicularly from the curb or road edge. If the building's side is less than 30 feet in length, then the entire side shall be designated as a Fire Lane.
- 7. Where the building does not have a continuous sidewalk connecting its exit doors, a Fire Lane linking all its entrances may be required around the building. In no case shall the Fire Lane be less than 20 feet wide, measured perpendicularly from the edge of the pavement alongside the building where vehicular traffic is allowed.
- 8. Where there is a danger that a required exit door of any building may be blocked by vehicles parking on a private drive or private street or lot, a Fire Lane extending not less than 5 feet on either side of the exit and not less than 20 feet measured perpendicularly from the building may be required to allow egress from the building in an emergency.
- 9. In occupancies where Fire Lanes are required and the building faces more than one private street or private drive, at least one Fire Lane 30 feet long shall be provided on each side of the building facing the private street or drive and as near as possible to the building entrance.

3.6.4 Fire Lane – Tow-Away Zone Signs.

An approved Tow-Away Zone sign shall accompany all Fire Lane signs. Specifications for both signs shall be as set forth in Appendix B of this standard. Signs may be combined as one sign, provided each of the requirements of the individual signs is met.

3.6.5 Placement of Fire Lane Signs.

3.6.5.1 Placement Height.

The Fire Lane signs and accompanying tow-away zone signs shall be placed on the property by the owner or owner's agent as indicated by the inspector on the Plot Plan. Fire Lane signs shall be placed no lower than 6 feet and no higher than 7 feet above the ground, as measured from the bottom edge of the access road sign.

3.6.5.2 Angle of Attachment.

A Fire Lane/Tow-Away Zone sign shall be placed on a post or column with the face at a 20-degree angle from parallel to the driveway area so that it faces oncoming traffic.

3.6.5.3 Placement Location.

3.6.5.3.1 Maximum Distance.

Fire Lane/Tow-Away Zone signs shall not be located more than 100 feet apart.

3.6.5.3.2 Minimum Number of Signs.

No less than two Fire Lane/Tow-Away Zone signs, with arrows pointing toward each other, shall be used to indicate the limits of any Fire Lanes on any one side of a building or access road.

3.6.5.3.3 Intermediate Signs.

Intermediate Fire Lane/Tow-Away Zone signs shall be provided for fire department access roads over 100 feet long and for every 100 feet or fraction thereof. These signs shall have arrows pointing in both directions. (See Enclosure No. 3)

3.6.5.3.4 Parking Rows.

Fire Lane/Tow-Away Zone signs, pavement striping, or painted wheel stops shall be placed at the end of any parking row that extends into, or within 5 feet of, an approved access road.

3.6.5.3.5 Fire Hydrants and Fire Department Connections (FDC).

Where required by the fire code official, fire hydrants and fire department connections not located within a Fire Lane shall be provided with Fire Lane/Tow-Away Zone signs. Such signs shall be provided at the beginning or end of the fire lane, at the hydrant or FDC, and not less than 30 feet apart between these locations when the hydrant or FDC is located outside the fire lane.

3.6.5.3.6 Marking of Curbs.

Curbs located between approved Fire Lane/Tow-Away Zone signs shall be painted RED; where there is no curb between approved Fire Lane/Tow-Away Zone signs, a RED stripe shall be placed along the pavement. The curbs shall also be conspicuously and legibly marked with the warning "FIRE LANE – TOW-AWAY ZONE" in WHITE letters at least three (3) inches in height, at intervals not exceeding fifty (50) feet.

Any color <u>other than red</u> may be used in "**NO PARKING**" areas that are not approved Fire Lanes. RED colored curbs, pavement striping, or wheel stops shall be used only to designate approved Fire Lanes except where authorized by the fire code official.

3.6.5.3.7 Excluded Areas.

"Loading Zones" or "Package Pick-Up," "Patient Drop-Off," or other such areas that invite illegal parking in Fire Lanes shall not be included within the Fire Lane boundaries. Such areas shall be excluded from the Fire Lane by the posting of Fire Lane/Tow-Away Zone signs that point away from that area.

Any "No Parking" or other signs erected that are not approved Fire Lane/Tow-Away Zone signs may be in any color but RED.

3.6.5.3.8 Removal of Unapproved Signs.

The fire code official is authorized to remove or require or provide for the removal of any unapproved Fire Lane sign or marking.

3.6.5.4 On Site Review of Fire Lanes.

The inspecting fire prevention officer ("inspector") shall meet on-site with a property representative to deliver and review a copy of marked Plot Plan. The inspector shall provide the property representative with a properly marked copy of the Plot Plan. The inspector shall review the site with the property representative and indicate to the property representative the actual limits and location for the Fire Lane/Tow-Away Zone and access road sign according to the inspector's premarked copies of the Plot Plan.

The inspector shall then establish a re-inspection time frame or date to check the completed work prior to giving final approval to the property's Fire Lanes.

3.6.5.5 Approved Plot Plan.

After the inspector completes an on-site final approval of the Fire Lane and access road sign, the inspector shall provide a copy of the final approved Plot Plan, indicating the approved access roads, signs, and markings, to the property representative, along with the "Fire Code Official Approval" permit for the site.

The inspector shall forward a copy of the final approved Plot Plan to the Fire Code Official's office to be added to an approved updated "Fire Code Official's Official Fire Lane List." The Fire Code Official's office shall forward an updated copy of the approved Fire Lane list to the City of Houston Municipal Court. The remaining copy of the approved Plot Plan shall be kept in the inspector's inspection files.

Appendix B – Fire Lane and Tow-Away Zone Sign Requirements

3.7.1 Fire Department Access Road (Fire Lane) Signs.

Fire Lane signs shall be in accordance with Enclosure No. 1 of this appendix.

3.7.2 Tow-Away Zone Signs.

Tow-Away Zone signs shall be provided along with all approved Fire Lane signs and shall be in accordance with Enclosure No. 2 of this appendix.

3.7.3 Combining of Signs.

Signs may be combined as one sign provided the requirements for the individual signs are met.

3.7.4 Construction of Signs.

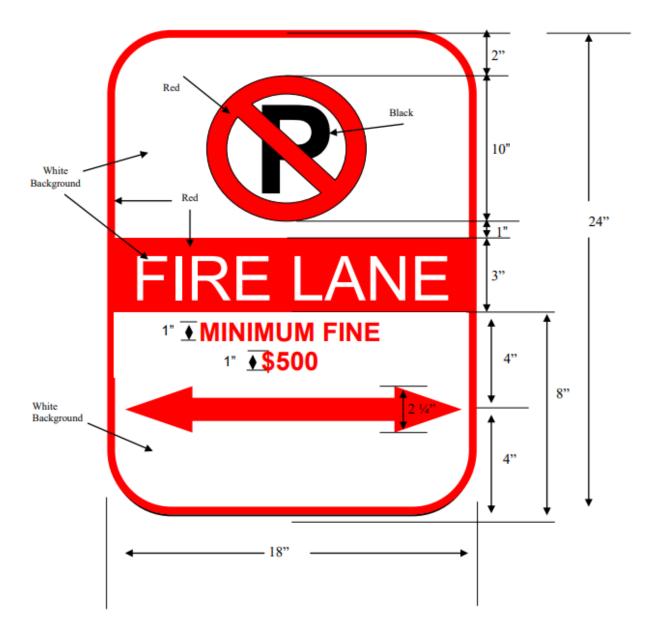
Signs shall be constructed of durable, weather-resistive materials and paints.

3.7.5 Positioning of Signs.

Where Fire Lane signs are required, an approved Tow-Away Zone sign shall be attached to the same pole or column, immediately below and at the same angle of attachment as the Fire Lane sign.

Height of the signs shall be not less than 6 feet or more than 7 feet above the ground, as measured from the bottom edge of the lower sign.

Enclosure 1 – Fire Lane Sign



Note: Drawing <u>NOT</u> to scale. All graphics and lettering shall be center justified. Use "Arial" font.

Specifications:

- 1. Size of sign: Standard 18 inches in width, 24 inches in height.
- 2. Colors:

White – Outer border, background, and **FIRE LANE** letters.

Red – Inner border, "prohibited" symbol, and arrow.

Black – Letter "P"

3. Letter sizes:

"**P**" − 6 inches

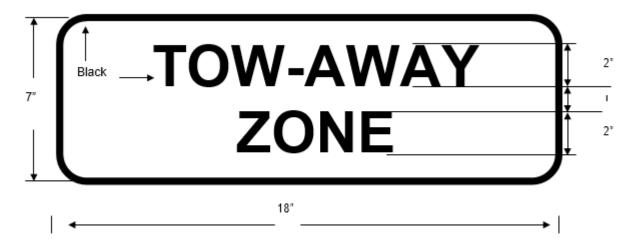
FIRE LANE - 2 inches

- 4. "Prohibited" symbol: 10-inch o.d.
- 5. Background for FIRE LANE: 3 inches in height
- 6. Arrow:

Head: 21/4 inches in height

Shaft: 1 inch in width, 14 inches in length.

Enclosure 2 - Tow-Away Zone Signs



Note: Drawing <u>NOT</u> to scale. All graphics and lettering shall be center justified. Use "Arial" font.

Specifications:

- 1. Size: 18 inches in width, 7 inches in height.
- 2. Colors:

White – Outer border and background.

Black – Inner border and TOW-AWAY ZONE.

3. Letters: 2 inches in height.

Enclosure 3 – Plotting Fire Lane Signs

The direction the Fire Lane Signs are to point and the distance required between the signs shall be shown on the Plot Plans in the following manner:



Note: Drawing NOT to scale.

Appendix C – Requirements for Dead-End Fire Apparatus Access Roads 3.8.1 Dead-Ends.

Dead-end fire apparatus access roads in excess of 150 feet shall meet the width and turnaround requirements set forth in Table C-1.

Table C-1 – Requirements for Dead-End Fire Apparatus Access Roads

Length (feet)	Minimum Width (feet)	Turnarounds Required
0-150	20	None Required
> 150-500	20	120 ft. Hammerhead, 60 ft. "Y", or 96 ft. Diameter Cul-De-Sac
> 500-750	26	120 ft. Hammerhead, 60 ft. "Y", or 96 ft. Diameter Cul-De-Sac
Over 750	Special Approval Required	

3.8.2 Approved Turnarounds.

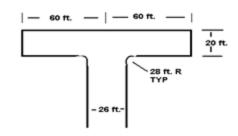
The following figures show approved methods of providing required turnarounds:

Figure No. 1

96 ft. — 28 ft. R TYP

96 ft. DIAMETER CUL-DE-SAC

Figure No. 2



120 ft. HAMMERHEAD

Figure No. 3

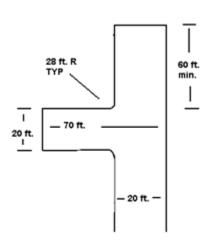
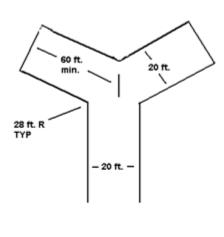


Figure No. 4

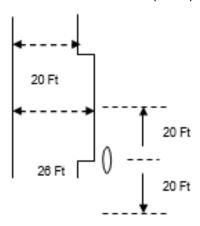


ACCEPTABLE ALTERNATIVE TO 120 ft. HAMMERHEAD

ACCEPTABLE ALTERNATIVE TO 120 ft. HAMMERHEAD

3.8.3 Clearance Around a Fire Hydrant or Fire Department Connections.

The following figure shows required minimum clearance around a fire hydrant or fire department connections (FDC):



References

- 1. City of Houston Fire Code.
- 2. City of Houston *Building Code*.
- 3. City of Houston Code of Ordinances, Section 42.
- 4. Texas Manual on Uniform Traffic Control Devices (State Department of Highways and Public Transportation).
- 5. Texas Traffic Laws Texas Transportation Code, Subchapter B: Unauthorized Vehicles (§684.011 and §684.012).

All reference materials used under this Life Safety Bureau standard shall be in accordance with the most current adopted City of Houston *Construction Code*.