



FIRE DEPARTMENT ACCESS ROADS

Fire lane (fire apparatus access road) shall be designed and installed in accordance with the 2015 IFC Fire Code and the requirements of the City of Tukwila.

Access is in accordance with Chapter 5 and appendix "D" of the 2015 International Fire Code.

- **The applicant may propose a fire apparatus access road of a more narrow width, however additional approved fire protection features will be implemented if the code alternate is granted.**
- **All applications for a reduction in the fire apparatus access required width shall be in the form of a letter signed and dated by the applicant and property owner.**
- **Steep grades always require a wider road.**

Width:

- Commercial fire access roads and lanes shall conform to Appendix "D" of the International Fire Code.
- One and two-family fire access roads and lanes shall be no less than those widths (20-feet of approved paved surface) required in Appendix "D" of the 2015 International Fire Code. 26-feet paved roadway width is required at fire hydrants, 20 feet on each side from the center of the hydrant.

Exception: *When no more than two one or two-family homes are served by a single fire lane, the*

width may be reduced if the buildings are protected with additional fire protection features as required by the Building Official. A reduction of to no less than 16-feet may be approved as a code alternate provided that approved additional fire protection features are added.

- **Fire apparatus access includes private roads, drives, parking areas and drive-ways. It is not just for fire engines, and includes medic units, police vehicles and other rescue or emergency vehicles.**

Load Capability:

- The roadway, fire lane, driveway or fire apparatus access road shall be capable of bearing the weight of (GVWR) 48,000.
- Where required aerial ladder truck imposed load capacity shall be no less than 78,000 GVRW. Special provisions are required for the placement of "downrigger" and "jack" stabilization pads of the aerial ladder truck.
- Bridges, culverts etc. shall be designed to hold the imposed load of the vehicle most likely to respond to that type of structure. Signs shall be placed at each end of the bridge indicating the load capability.

Turning radius:

- Fire lanes and fire roads shall be designed to allow the inside turning radius of 28 feet and an outside turning radius of no less than 45 feet.
- Fire lanes and roads that will be used by aerial ladder apparatus shall be designed to allow the inside and outside turning radius of that particular three axle vehicle.

Grades:

- Grades shall conform to the requirements of Appendix "D" of the International Fire Code, most recent edition.
- Currently a 10 % grade is allowed without the addition of fire sprinklers.
- Grades may never exceed 20% without additional fire protection features.
- Fire apparatus access that is greater in grade than 20% must be approved with written request and permission from the Fire Chief.

Surface:

- The surface shall be of an approved type of pavement. >15% grade brushed concrete is required due the traction requirements of the fire apparatus.
- All surfaces shall be "all weather design".

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.

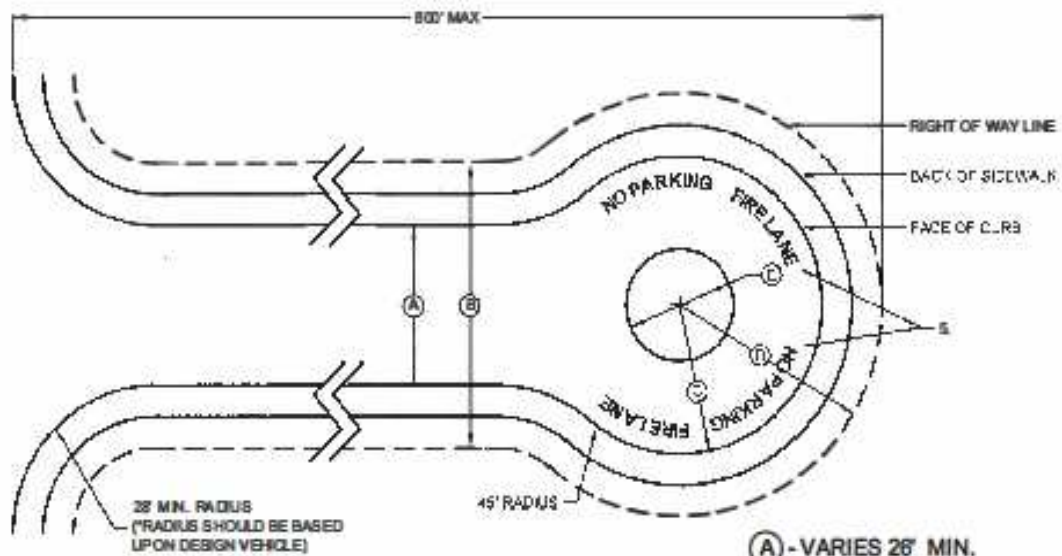
- The security gates and the emergency operation shall be maintained operational at all times.
- Submit plans and the specifications of the gate and its mechanism.
- Knox key switch is required.
www.knoxbox.com ; An approved know key safe may also be required for certain properties.

Dead ends:

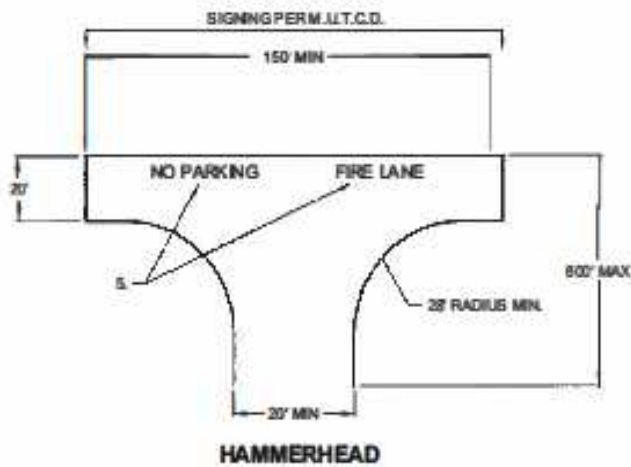
- Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus. Please refer to Appendix "D" of the International Fire Code.
- A 96-foot cul-de-sac or an approved 60-foot "T" hammerhead is required.
- If an approved emergency vehicle turn around cannot be provided you may apply for a code alternate.

Marking:

- Fire Lanes" shall be identified by painting the curb yellow and a four inch wide line and block letters 18 inches high, painted in the lane, at fifty foot intervals, stating, "FIRE LANE NO PARKING", color to be bright yellow, or by the posting of signs stating, "FIRE LANE NO PARKING", and painting the curb. Signs shall be posted on or immediately next to the curb line or on the building. Signs shall be twelve inches by eighteen inches and shall have letters and background of contrasting color, readily readable from at least a fifty foot distance. Signs shall be spaced not further than fifty feet apart nor shall they be more than four feet from the
- Marking shall be as determined by the Appendix "D" section of the IFC and or City standards and requirements.



CUL-DE-SAC



HAMMERHEAD

NOTES:

1. A CUL-DE-SAC IS REQUIRED FOR ALL DEAD END STREETS LONGER THAN 150' IN LENGTH.

2. CUL-DE-SAC LANDSCAPE ISLAND TO BE MAINTAINED BY PROPERTY OWNERS.

3. ALL SIGNS SHALL MEET CURRENT WSDOT/APWA "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", AND CURRENT MUTCD.

4. A HAMMERHEAD REQUIRES PRIOR APPROVAL BY THE FIRE DEPARTMENT AND CITY ENGINEER.

5. NO PARKING STENCILS

NOT TO SCALE



*City of
Tukwila*

TURN AROUND

CUL DE SAC & HAMMERHEAD

SHEET:

RS-02

REVISION #1: 08.03

LAST REVISION: 04.08

APPROVAL: BOB GIBERSON, CITY ENGINEER