



Residential Fire Access & Water Supply Checklist

The Department of Local Services, Permitting Division requires most residential construction permit applications to meet Fire Access and Water Supply standards. These standards are for life safety needs and follow King County Code (KCC) Title 17 §17.04.370 through §17.04.410 (fire apparatus access) and §17.04.520 through §17.04.572 (automatic sprinkler systems). This checklist only applies to single-family residential construction applications.

Go through **SECTIONS 1-4 and 5** (if needed) to see if the project needs an automatic fire sprinkler system.

SECTION 1 – Project Info			
Project Name:			
Project Address:			
Parcel Number:		Gross square footage:	
Is the proposed work for an agricultural building?			
Are there portions of the structure which will have heating included?			
Does the structure have a total floor area (including the basements) over 10,000 square feet?			
Is there an existing or proposed secured gate across the fire apparatus access road?			
Does the residence currently have an approved fire sprinkler system?			
Has the single-family residence had a 500 square foot (gross calculation) or larger addition and/or remodel for habitable space permitted after the year 2000? <i>Do not include the square footage of this submittal.</i>			
Will the remodel (alteration, addition, or repair) increase the county assessed value by more than 50% within a five-year time period due to the added value of the alteration or repairs?			

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SECTION 2 – Off-Site Fire Access Questions	
Are all roads between the closest fire station and the parcel at least 20 feet wide? This includes private roads and driveways needed to meet the travel distance outlined in Appendix A below.	
Is overhead clearance on all roads between the closest fire station and the parcel at least 13 feet – 6 inches above the roadway?	
Are all portions of the roads between the closest fire station and the parcel at grades of 15% or less?	
Are all portions of the roads and driveways from the closest fire station capable of supporting 75,000 pounds in all weather conditions?	

If an answer to any of the SECTION 2 is “No”, then you need an automatic fire sprinkler system for your residence.

SECTION 3 – On-Site Fire Access Questions	
Does the driveway from the road to the structure extend more than 150 feet?	
<p>If you answered yes to the above question, is a fire apparatus access turnaround provided?</p> <p><i>Note: A dead-end fire apparatus access roadway may not be longer than 150 feet in length unless it has an approved means of turning the fire department equipment around. An approved turnaround must either be a cul-de-sac at least 80 feet in diameter with minimum turning radii of 20 feet inside and 40 feet outside, or an approved “hammerhead” turnaround. Parking is not allowed within fire apparatus access lanes and approved turnarounds. See diagrams in Appendix A below.</i></p>	
<i>Section 3 continued on next page</i>	

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Section 3 continued

Are all parts of the exterior walls of the structure (at grade) within 150 feet of approved fire apparatus access roads?

Note: The distance must be measured along a direct walking path around the building, considering obstructions such as retaining walls, patios, and other obstructions. Requirements apply to all roads and driveways between the nearest fire station and the residence. See diagram below.

The following questions are for areas of the driveway outside of parking areas:

All portions have a width at least 20 feet wide?

All portions have at least 13 feet – 6 inches overhead clearance?

All portions of drive at a grade of 15% or less?

Surface of driveway capable of withstanding a 75,000 pounds in all weather conditions?

If an answer to any of the SECTION 3 is “No”, then you will need an automatic fire sprinkler system for the residence, unless your revised proposed plan for minimum fire access is accepted by us.

For example, a driveway may need to be widened to 20 feet to meet the fire apparatus access roadway requirements.

Note: Any changes to a site plan, such as widening a driveway, may mean additional reviews for drainage, clearing and grading, and/or critical areas will be needed.

SECTION 4 - Water Supply Exemptions

In URBAN zones, is the residence less than 2,500 square feet (including the garage)?

In RURAL zones, is the residence on a lot larger than 35,000 sq. ft. in area AND have a residential use as the primary land use?

To determine if you are in an urban or rural zone, use [iMap](#) to obtain zoning classification on the property. Below is snippet of the zoning classifications:

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From [KCC Title 21 §21A.04.010](#):

ZONING CLASSIFICATIONS	MAP SYMBOL
Agricultural	A (10 -or 35 acre minimum lot size)
Forest	F
Mineral	M
Rural Area	RA (2.5-acre, 5-acre, 10-acre or 20-acre minimum lot size)
Urban Reserve	UR
Urban Residential	R (base density in dwellings per acre)

If the answer to any of the SECTION 4 questions above is “Yes”, you do not need to complete the SECTION 5 below. Automatic fire sprinklers will only be needed if you cannot provide adequate access per SECTIONS 2 AND 3.

SECTION 5 - Water Supply Questions	
Is there a fire hydrant within 600 feet (vehicular travel distance) of the residence? Vehicular travel distance is measured from the hydrant to the property fire access point ¹ .	
A Water Availability Certificate (see under W) is required to confirm minimum fire flow, at the hydrant, availability of 1,000 gallons per minute (gpm) at 20 pounds per square inch (psi) residual pressure for at least 2 hours. Is the flow on the water verification form marked as 1,000 gpm or more?	

If the answer to either of the SECTION 5 questions is “No”, then the installation of an automatic fire sprinkler system will be required.

Site Plan

All information on this form must be shown on the site plan you submit. If you change driveways, easements, or other access outside of the county road to remove the fire sprinkler requirement, include this in the Drainage and Critical Areas plans and reviews.

Any changes to a site plan, like widening a driveway, might need extra reviews for drainage, clearing and grading, and/or critical areas.

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¹ Fire access point is the closest location to the structure designated for access by fire equipment.

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Reviews and Timing

Adding a fire sprinkler system to your project will not delay the review and/or issuance of your building permit. Fire sprinkler permits are separate permits and can be listed as a deferred submittal on your project.

Questions?

If you have further questions on your project, please submit a site plan along with your questions to fmo.dper@kingcounty.gov.

Additional Resources

King County Department [Department of Local Services, Permitting Division](#)

[Fire Permit: Sprinkler, Residential Information](#)

[Residential Site Plan Requirements](#)

[Water Availability Certificate \(see under W\)](#)

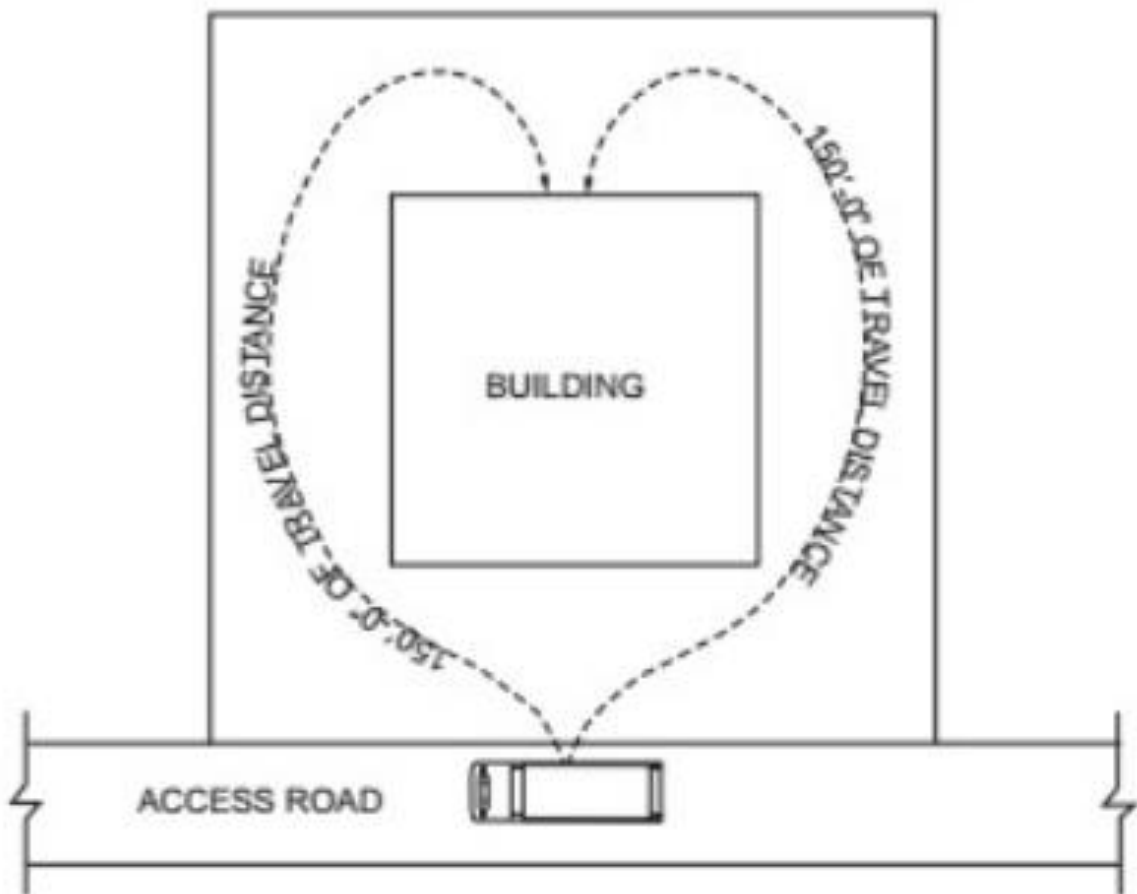
[King County iMap](#) (for zoning information) and [Property Research Video](#)

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Appendix A – Access Requirements

To measure the access requirements, start at the closest road that is at least 20 feet wide. Measure along the outside of the footprint of the residence, excluding obstructions such as air conditioning units, retaining walls, fences, patios, or other obstructions that may hinder access around the structure for a firefighter in the middle of the night during an incident.

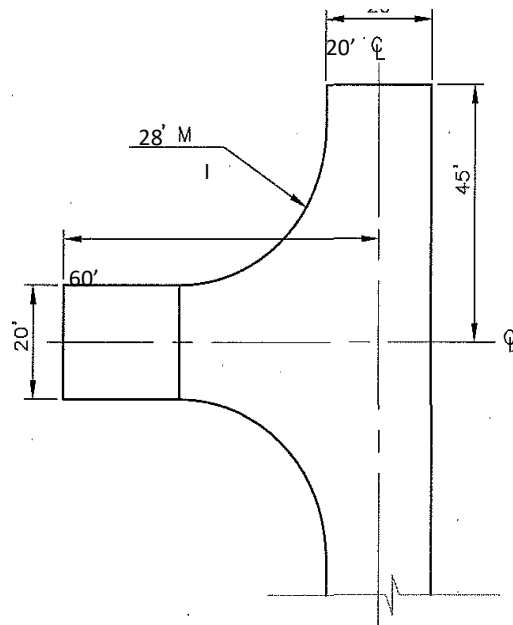
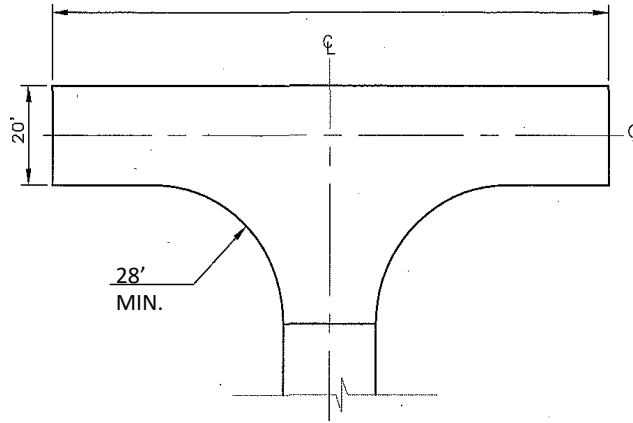


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HAMMERHEAD TURNAROUND

90' — 120'



OFFSET HAMMERHEAD

NOTES:

1. HAMMERHEAD WIDTH RANGES BETWEEN 90' TO 120', DEPENDENT UPON ROADWAY LENGTH. SIDEWALKS AND UTILITIES MAY BE LOCATED WITHIN PUBLIC EASEMENTS.
2. ALTERNATIVE DESIGNS BY APPROVAL OF THE COUNTY ROAD ENGINEER AND FIRE MARSHAL.
3. TURNAROUND FACILITIES CANNOT BE LOCATED ON DRIVEWAYS.
4. ALL STREET ENDS SHALL BE SIGNED PER THE MUTCD.