Building Division

No. B6



Planning and Public Works

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Visit our office: Tues. – Thurs. 9am – 12pm

Contact us: Permit Center permits@cityoflakewood.us

Rental Housing Safety Program <u>rentals@cityoflakewood.us</u>

Business Licensing businesslicensing@ <u>cityoflakewood.us</u>

Engineering publicworksengineering@ <u>cityoflakewood.us</u>

Planning planning@cityoflakewood.us

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Fire Flow Requirements

Code References:

- International Building Code 107
- International Residential Code 106
- International Fire Code Chapter 5, section 507
- Washington Administrative Code (WAC) 246-293
- Lakewood Municipal Code (LMC) 15.05.020

What is fire flow?

Fire flow is the term used to describe the flow rate of water supply and is measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for firefighting.

When is a verification fire flow letter required from the water purveyor?

Fire flow is required if one or more of the following occurs:

• A division of land

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- Your house is 5,000 square feet or more
 - An accessory building is more than 3,600 square feet
 - A residential addition adds more than 50% of the original square footage and fails to meet required fire flow and/or hydrant distances
- If the distance from the structure to the fire nearest fire hydrant exceeds 350ft

How much fire flow is needed?

When required for residential dwelling, 1,000 gallons per minute (g.p.m.) for a minimum of one hour is needed for one- and two-family homes here in the City of Lakewood. To provide fire flow, at least one fire hydrant must be within 350 feet of the dwelling and shall be capable of supplying 1,000 g.p.m.

Contact the <u>West Pierce Fire and Rescue</u> for determination.

When can I use Fire Flow Table IFC B105.1(1)?

If reduced Fire Flows are proposed Appendix B of the IFC is the regulations that identifies actions that must be taken to account for reduced -fire flow. Reduced residential fire flow of 500 g.p.m. for 3 minutes requires a residential fire sprinkler system.

For residential construction the use of a residential sprinkler system is allowed in lieu of fire flow and emergency vehicle access.

How is square footage calculated for fire flow?

To calculate the square footage of your house for fire flow take the:

Total square footage within exterior walls

- + (add) square footage of roof overhangs and/or eaves.
- + (add) square footage of any area used for storage (i.e. attic/crawl spaces).
- + (add) square footage of any covered decks or porches.

+ (add) square footage of any areas below elevated decks that may be used for storage.

= (equals) Total Fire Flow Square Footage