Kitchener Utilities
Community-Owned for over 100 Years

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**KITCHENER UTILITIES**

Kitchener Operations Facility
131 Goodrich Drive
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Telephone: 519-741-2600 x4408
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TTY:1-866-969-9994

Website: www.kitchenerutilities.ca

**Fire flow Requirements**

The City of Kitchener Development Manual provides the most up to date information regarding Fire Flow Analysis Development manual - City of Kitchener
The Fire Flow Analysis Report is to demonstrate that the fire load for the development, including existing buildings, will not exceed the water available for fire protection from the municipal distribution system. There needs to be enough water to put out a fire in the building being proposed.
Exemptions are not provided based on the proximity to existing hydrants or if on-site hydrants are not required.
The following is the minimum requirements of the Fire Flow Analysis Report for review by Kitchener Utilities:

- Site plan detailing the water service, nearest municipal hydrants on the street, test hydrants, private hydrants, etc.
- Description of the building construction materials and intended use
- Calucation of the fire load of the entire site development including new and existing buildings (summary only for sprinkler calucations)
- Detials of the hydrant flow test including time and date of test, persons conduction test, residual and pito pressure readings, graph of results (minimum three flow points plus static pressure), clear sketch of flow and residual test hydrant locations
- Use metric units (L/min for flow and kPa for pressure)
- Due to the possibility of discoloured water, notify Kitchener Utiliteis if completing a private flow test. Plot the fire load on the hydrant flow test results graph. For sprinkler systems, provide the envelope of flow and pressure requirements including siultaneous fire departemtn needs at private and municpal hydrants.
- List the application of codes, standards and/or guidelines used in the report preparation. The Fire Underwriters Survey is the City's standard.
- Unless otherwide demanded by the sprinklered system, the fire load must be supplied by the water distribution at a minimum pressure of 140kPa in the main a the fire hydrant (municipal or private) to provide fire protection. The minimum pressure must be available on the day o fhe year with the maximum system demand
- If the fire load is within 70kPa of the water pressure available, the City of Kitchener reserves the right to request additional flow tests, hydraulic calcuations, computer modelling, etc., to ensure that the water distribtuion system can satisfy the fire flow during the maximum day system demand
- Signed by an individual deemed competent to perform fire flow cacluations such as a Professional Engineer. In doing so, this individual is attesting that:
    - The fire flow analysis is representative of the building to be constructed. Subsequent modificatin ofhte building wil require resubmission of the fire flow analysis
    - All codes, standards and guidelines use din the report have been applied appropriately, and

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- If the proposed development is adjacent to a relatively large municipal watermain and the fire load is comparatively small, then the applicant may submit an abbreviated Fire Flow Analysis Report. This condensed report would comply with the above conditions excluding any computer modelling or hydrant flow test requirment, fo rconsideration to waive a full fire flow analysis.

**To check if there is an existing fire flow test available:**
The addresses where we have existing fire flows are shown on the map and/or spreadsheet (items 2 and 3 below). If there is a flow test that you would like, please email angela.mick@kitchener.ca the address. If there isn't a flow test you will need to arrange for your own test. Additional information on scheduling a flow test is available on our website. Unfortunately, we cannot provide the actual tests on the website since they were completed by others.

Use Chrome or Edge
1. Open data flow search.
2. Open data fire hydrant flow tests Excel file.
3. Open data fire hydrant flow tests pdf map.

**To arrange for a hydrant flow test please see our website to fill out a request form**:
https://form.kitchener.ca/INS/SSU/KU-Web-Forms/Fire-Hydrant-Flow-Test-Request
If you require a fire flow test:

- Your contractor must provide all equipment to perform the flow test including dechlorination supplies
- Hydrant socks must be used and supplied by the contractor
- It is the responsibility of the contractor to complete the flow test
- If your contractor does not provide the necessary equipment, we will supply and bill the contractor the fire flow charge fee
- Completed tests must be sent by email

Regards,

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Manager – Quality Management & Water Programs
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