

## **Water Metering Specifications**

Version 2.0 – July 28, 2025 Effective – August 01, 2025

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See the <u>Utilities Kingston website</u> for the latest revisions. Comments on this document can be emailed to <u>Info@UtilitiesKingston.com</u>, or mailed to Measurement and Communications at P.O. Box 790, Kingston, ON, K7L 4X7. These specifications are for use by customers within the Utilities Kingston service territory. This document does not replace notification and communication requirements for servicing.



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#### **Preface**

This specification prescribes the requirements for water metering equipment installations within the City of Kingston service territory. It is the Customer's and/or their Plumber/Contractor's responsibility to familiarize themselves with these specifications referenced in the By-law to Provide for the Regulation of Water Supply for the City of Kingston No. 2006-122 as amended, the Appliance Rate by-law 2012-22 as amended, and Water and Waste Water Rates by-law 2011-24 as amended.

All water drawn from the water distribution systems, except water used for fire fighting purposes or water use authorized by the Operating Authority, shall pass through the water meter supplied by the City for use.

No person shall connect, cause to be connected or allow to remain connected to the plumbing system, within a building or water distribution system, any piping, fixtures, fitting container, or appliance in a manner which under any circumstances may allow water, wastewater, non-potable water, or any other liquid chemical or substance to enter the plumbing system within a building or water distribution system. The means for protection from contamination shall be in accordance with the requirements of the Ontario Building Code Act, 1992, CSA B64.10 and City of Kingston By-law 2006-122 as amended from time to time.

In all cases, the Customer/Consumer shall consult with Utilities Kingston **prior** to the start of work to determine specific water metering requirements. Water meters will not be installed and/or the service will be isolated unless all applicable requirements have been met. The location of service entrance and water meter locations must be determined in consultation with Utilities Kingston and to the satisfaction of Utilities Kingston.



#### 1.0 Responsibilities

#### 1.1 Utilities Kingston

Utilities Kingston shall supply, maintain, repair, or replace water meters and other related equipment for metering water, in a timely manner and in compliance with applicable legislation, Utilities Kingston's Metering Specifications, City of Kingston bylaws and Utilities Kingston's Terms of Service.

#### 1.2 The Customer/Contractor

- 1.2.1 The Customer/Contractor shall comply with these specifications for each type of water service listed, Utilities Kingston's Terms of Service, and all applicable legislation.
- 1.2.2 Prior to issuing a service order to have the water metering equipment installed and the service turned on, the Customer/Contractor must complete an application to set up a billing account if an account is not already set up, by contacting Utilities Kingston Customer Service at 613-546-1181 or by visiting the <u>Utilities Kingston website</u>.
- 1.2.3 The Customer/Contractor must ensure that civic addressing is in accordance with the City of Kingston's Addressing and Road Naming By-law 2005-98, as amended from time to time, prior to the release of a new water meter. The City of Kingston email contact is <a href="mailto:CivicAddressing@CityofKingston.ca">CityofKingston.ca</a> and further information can be found on the <a href="mailto:CityofKingston.website">CityofKingston.ca</a> and further</a>
- 1.2.4 The Customer/Contractor shall pay for a new meter in the case of a damaged meter prior to the new water meter being released.
- 1.2.5 The Customer/Contractor shall be responsible for the care and safekeeping of the water meter(s) and equipment on the customer's premises. If any water meter equipment on the customer's premises is damaged, destroyed, or lost, other than by ordinary wear and tear, or during all phases of construction around



a water meter installation, the Customer/Contractor will be held responsible. The Customer/Contractor shall ensure that the water meter is suitably protected while work is being done adjacent to the water meter. The Customer/Contractor shall be entirely responsible/liable for all costs incurred relating to materials and labour for repairing or replacing a damaged water meter or water metering equipment that has been damaged through the Customer/Contractor's action, inaction, or neglect.

1.2.6 The Customer/Contractor is responsible for the installation of the water meter within ten business days of pickup. When the water meter is released to the Customer/Contractor, a follow up appointment with Utilities Kingston staff or with a Utilities Kingston designate, will be confirmed with for an on-site visit. Upon that site visit if, in the sole opinion of Utilities Kingston, it is determined that the installation is **not** satisfactory; the Utilities Kingston staff, or Utilities Kingston designate, will ensure that water service remains off to the meter at that time. Note that no other person shall initialize the water prior to this site visit. Failure to meet the specification for installation could result in the water remaining isolated to the service until such time as the stated deficiencies are corrected to the satisfaction of Utilities Kingston. If the service requires it, testing of the backflow prevention is to take place after the service activation in accordance with Section 3 of the 2006 -122 City of Kingston Water By-Law.



#### 2.0 General

This section refers to the general metering requirements applicable in most service applications. Please see the 2006 -122 City of Kingston Water By-Law for further information to the requirements below.

#### 2.1 Installation Requirements

- 2.1.1 Utilities Kingston shall have access to Customer/Contractor property to install, maintain, repair, read, or replace metering equipment as per the 2006 -122 City of Kingston Water By-Law Part 4.
- 2.1.2 The Customer/Contractor must provide, or arrange free, safe, and unobstructed access to an authorized representative of Utilities Kingston for the purpose of: water meter reading, water meter changing, and/or water meter inspection. Where the premises are closed during Utilities Kingston's normal business hours, the Customer/Contractor must, on reasonable notice, arrange such access at a mutually convenient time.
- 2.1.3 In the event of a water meter center/room, the Customer/Contractor shall be responsible for supplying a key to Utilities Kingston. Utilities Kingston may request that the lock be keyed as per Utilities Kingston's instructions.
- 2.1.4 No person, except those authorized by Utilities Kingston, may remove, connect, or otherwise interfere with water meters. The Customer/Contractor will be responsible for the care and safekeeping of the water meters on the Customer's premises. For deliberate damage to or negligence of water meter equipment, other than by ordinary wear and tear; the Customer/Contractor will be liable to pay Utilities Kingston the value of such equipment, or at the option of Utilities Kingston, the cost of repairing the same.

Note: As per by-law 2006-122 Part 6 Section 6.5 customers are responsible to ensure all water service and meter(s) are properly protected from frost (i.e. protect from freezing a water meter).



- 2.1.5 Piping material must conform to building and plumbing codes and water meter manufacturer installation specifications. Only flat faced flanges are permitted on installations greater than 1" (25mm) (Note: Victaulic flanges are not acceptable).
- 2.1.6 It is the Customer/Contractor's responsibility to ensure all necessary plumbing is completed before the water meter is to be installed.
- 2.1.7 Water meters shall be installed in a clean, dry, heated space that is accessible and clear of any obstructions. Water metering equipment will **not** be in a space that is, or could become, a confined space as determined at the sole discretion of Utilities Kingston.
- 2.1.8 Water meters shall be installed horizontally, plumb, with the register facing upwards, within three feet (3') (1000mm) of the service connection entrance into the building, with a minimum distance of 12" (305mm) above finished floor and a maximum 30" (760mm) above finished floor.
- 2.1.9 Waer meters shall <u>not</u> be installed under stairways or landings, within two feet (2') (610mm) of furnaces or hot water tanks, in a crawl space with less than five feet (5') (1525mm) in height, in cold rooms or bathrooms and in any cabinet (kitchen, vanity, or otherwise) as decided by the sole discretion of Utilities Kingston.
- 2.1.10 Installation of water meters 1" (25mm) or smaller are required to maintain a space clear of obstructions for 16" (410mm) around the water meter to allow for access for servicing or inspection, with shut off valves on either side of the water meter. Installation of water meters 1 ½" (38mm) to 2" (50mm) are required to maintain a space clear of obstructions for 24" (610mm) around the water meter.
- 2.1.11 When backflow prevention is required the meter must be installed upstream of the backflow preventer unless prior authorization has been given by Utilities Kingston (see drawing WMS-03 for further information). The Customer/Contractor must request that authorization to Utilities Kingston prior to



any works being performed on site in addition to meeting all Ontario Building Code and City bylaw requirements.

2.1.12 For installations of water meters 1 ½" or greater, a bypass is required; refer to Drawings WMS-04 and WMS-05. Valves shall be installed in a manner that will maintain constant flow of water throughout a meter change. Bypass valves shall have provisions for sealing (being locked in an off position). Utilities Kingston must be informed if the customer intends to operate the bypass valves by calling Customer Service at 613-546-1181. Utilities Kingston will designate a staff to go and operate the bypass valve for the customer; at no other time is anyone to operate the bypass valve. If Utilities Kingston are notified of the bypass, there will be no charges or repercussions for the action. If the bypass valve is deemed to be operated without the supply authority consent, in the opinion of Utilities Kingston, then the water service may be isolated to the property in line with 2006-122 City of Kingston Water By-Law Sections 9 and 10.

# 2.2 Customer Water Meter Isolation, Building Control, Unit Control, and Bypass Valves

- 2.3.1 Customers are responsible for maintaining all valves in good working order on the inlet, outlet, and/or valves used as part of a bypass configuration for the water meter(s) on the Customer property.
- 2.3.2 Installations of water meters sized 2" (50mm) or less require ball valves to be installed. Refer to WMS-04 drawing below.
- 2.3.3 Stop and waste valves are not permitted for use on the inlet of a water metering configuration.

#### 2.3 Service Identification

2.3.1 Customers shall permanently and legibly identify all water metered services with respect to unit number and/or civic address. For multiple water meter configurations, customer piping shall be labelled, see WMS-03 drawing below for



further information. For all installations, Customers must also provide City of Kingston Unit Numbering approval to Utilities Kingston prior to meter installation. The City of Kingston email contact is <a href="mailto:CivicAddressing@CityofKingston.ca">CivicAddressing@CityofKingston.ca</a> and further information can be found on the <a href="mailto:CityofKingston website">City of Kingston website</a>.

2.3.2 The Customer must inform Utilities Kingston in writing if changes are made to unit numbering, along with approval from the City of Kingston of the Unit Numbering and will be liable to pay any incurred costs because of unit renumbering incurred by Utilities Kingston.

#### 2.4 Other Installation Types and Requirements

- 2.4.1 Seasonal water meters must only be used from May 1 to September 30.
  Customers/Contractors will be subject to an installation and a removal fee.
  Approval for seasonal water meters will be given by the Supervisor, Metering Operations at Utilities Kingston.
- 2.4.2 Irrigation meters must only by used from May 1 to September 30 for irrigation purposes only. Customers/Contractors can obtain irrigation water meters with the approval of the Manager, Utilities Engineering, of the Utilities Kingston Engineering department. Sewer exemptions will be looked at on a case-by-case basis.
- 2.4.3 Temporary Construction water is available with the installation of adequate backflow prevention and metering in place. The Customer/Contractor will be responsible for service charges and consumption of water until permanent meters are in place. Arrangements for temporary construction water can be arranged through the Utilities Kingston website under Water Meter Sizing.
- 2.4.4 A multi-unit complex can be metered with either a bulk water meter or individual water meters all located in one room at the service entrance. If individually metered, each water meter shall have its own shut off valve on both sides of the water meter and be labelled accordingly (see WMS-03).



Note: Remote disconnect may be required at the discretion of Utilities Kingston.

- 2.4.5 Water meters 3" (76mm) and above will require the provision, in addition to the items in WMS-05, to include a dedicated 15A-120V hard-wired power connection with a location approved by Utilities Kingston, located within 6' (1830mm) of the water meter, where the Contractor/Customer is responsible for making all connections and terminations required.
- 2.4.6 Water meters 3" (76mm) and above will require the provision of space for a 75mm test port located after the meter, which may be installed later if required and as directed by Utilities Kingston.



#### 3.0 Additional Requirements

- 3.1.1 When backflow prevention is required, the Customer/Contractor will follow all requirements of the Ontario Building Code and City of Kingston By-law 2006-122, specifically Part 3, and the Customer/Contractor will submit any required documentation to the 'Cross Connection Control Program Coordinator' at Utilities Kingston.
- 3.1.2 Water metering sizing shall be determined by Utilities Kingston Metering Department. The water meter sizing form shall be completed before a water meter is provided to the customer, and the form can be submitted via <u>Utilities</u> <u>Kingston's webpage</u> under 'Water Meter Sizing.' It is the responsibility of the Customer/Contractor to submit accurate information; Utilities Kingston accepts no liability for improper meter sizing.



## **Drawing Table of Contents:**

WMS-01	Water Meter Arrangement for Services 25mm (1") and Smaller
WMS-02	Water Meter/Backflow Preventer Arrangement for Commercial Service 25mm (1")
WMS-03	Multi-Meter Manifold
WMS-04	Water Meter/Backflow Preventer Arrangement for Services 38mm ( $1\frac{1}{2}$ ") to 50mm (2")
WMS-05	Water Meter/Backflow Preventer Arrangement for Services Larger than 76mm (3")









