

## Engineering Department

Issue Date:

Reference No. **(Bulletin)****AUTHORITY: GENERAL MANAGER, ENGINEERING****ATTENTION: CAPITAL PROGRAM & LAND DEVELOPMENT CONSULTANTS AND CONTRACTORS****SUBJECT: 2022 ENGINEERING WATER METER AND SERVICE CONNECTION DESIGN CRITERIA INTERIM GUIDELINE**

Some clarifications for the design and installation of water meters and domestic service connections, not including single family dwellings. The clarifications on this bulletin will be interim until the new Water Meter and Service Connection Design Criteria Manual (DCM) is finalized and published, both the current version of the DCM and this Bulletin must be referenced together when designing meters and service connections:

### General Requirements:

- Meter Sizing and Service Connection Sizing calculations must be included on the first submission of all Land Development projects.
- Calculations must be completed using the most up-to-date template as shown here:  
<https://www.surrey.ca/sites/default/files/media/documents/WaterMeterServiceConnectionDCM.pdf>
- Meter location and details are to be included on the first submission for all Land Development projects, as per City of Surrey SSD-WM2.
- Velocity on the domestic service connection is to be maintained at 2.0m/s or less, applicable to the offsite portion, from the split from the fire service connection to the meter. The size of the service connection shall be the minimum available size that meets the velocity requirements.
- All future usage (known or estimated) is to be broken down and included under the overall water meter and domestic service connection fixture value calculation table (Step 1 in the Water Meter Sizing Calculation Sheet).

### Meter Location for Water Meters 50mm or Smaller:

- Meters that are 50mm or smaller are to be located outside in a chamber.
- Meter chambers and other related appurtenances may be allowed to be within the 0.5m SRW with relevant wording added to the SRW document.
- Distance from the meter chamber or other related appurtenances to the property line is to be 0.2m or greater.
- Distance from the meter chamber or other related appurtenances to the building wall is to be 0.5m or greater.
- If the above requirements cannot be met due to site restraints, meters 50mm and smaller may be located inside.
- For inside meters, the meter is to be located within 1.0 m of the building wall (regardless of mechanical room location), 0.5m away the ceiling and 0.5m away the floor.

**Meter and Backflow Preventer Location when Meters are 50mm or Smaller (In Order of Preference) :**

<b>Order of Preference</b>	<b>Domestic Meter</b>	<b>Domestic By-Pass</b>	<b>Domestic Backflow Preventer</b>	<b>Fire Line Backflow Preventer</b>
1	Outside <sup>(1)</sup>			
2	Outside <sup>(1)</sup>		Inside <sup>(2)</sup>	
3	Inside <sup>(2)</sup>			

**Notes:**

<sup>(1)</sup> Outside in a chamber

<sup>(2)</sup> Inside, within 1m from inside building wall (regardless of mechanical room location), before any branching

**Meter Setter**

- Meter setters are allowed for meters 50mm or smaller.
- Check valves are not required on 50mm setters.
- Setters that are 50mm require two full-port valves upstream and downstream of the meter.
- Setters that are 50mm are to be provided with a high bypass.

**The updates shall apply to all Land Development projects, effective January 1, 2022:**

- If Engineering Scoping has not been submitted to the City prior to January 1, 2022; or
- Revisions are submitted/required through the subsequent BP stage for the meter and/or service connection.



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