

Builder Tip

Issue No: 108 May 2023

Protection from Backflow

ONTARIO BUILDING CODE ACT

Role of chief building officials

- (6) It is the role of a chief building official,
 - (a) to establish operational policies for the enforcement of this Act and the building code within the applicable jurisdiction;

Role of builders

- (3) It is the role of a builder,
 - (a) to ensure that construction does not proceed unless any permit required under this Act has been issued by the chief building official;
 - (b) to construct the building in accordance with the permit;
 - (c) to use appropriate building techniques to achieve compliance with this Act and the building code; and
 - (d) when site conditions affect compliance with the building code, to notify the designer and an inspector or the registered code agency, as appropriate.

ONTARIO BUILDING CODE

7.4.6.4. Protection from Backflow

- (1) Except as permitted in Sentence (2) a backwater valve that would prevent free circulation of air shall not be installed in a building drain or in a building sewer
- (2) A backwater valve may be installed in a building drain provided that,
- (a) it is a "normally open" design conforming to.
- (i) CAN/CSA-B70 "Cast Iron Soil Pipe, Fittings, and Means of Joining"
- (ii) CAN/CSA-B181.1," ABS Drain, Waste, and Vent Pipe Fittings"

- (iii) CAN/CSA-B181.2, PVC and CPVC Drain, Waste and pipe fittings" or
- (iv) CAN/CSA-B182.1, Plastic Drain and Sewer Pipe and Pipe Fittings" and
- (b) it does not serve more than one dwelling unit.
- (3) Except as provided in Sentences (4) and (5), where a building drain or a branch may be subject to backflow,
- (a) a backwater valve shall be installed on every fixture drain connected to it when the fixture is located below the level of the adjoining street, or
- (b) a backwater valve shall be installed to protect fixtures which are below the upstream sanitary manhole cover when a residential building is served by a public sewer.
- (4) Where more than one fixture is located on a story and all are connected to the same branch, the backwater valve may be installed on the branch.
- (5) A subsoil drainage pipe that drains into a sanitary drainage system that is subject to surcharge shall be connected in such a manner that sewage cannot back up into the subsoil drainage pipe.

Objective of this Builders Tip

To limit the probability that, as a result of its design or construction, a building will be exposed to unacceptable risk of damage due to leakage of service water or sewage.

Provide guidance to property owners, designers and constructors of building plumbing services to complete their projects in accordance with the Ontario Building Code.

This builder tip is applicable to a maximum of two dwelling units in a house.



Builder Tip

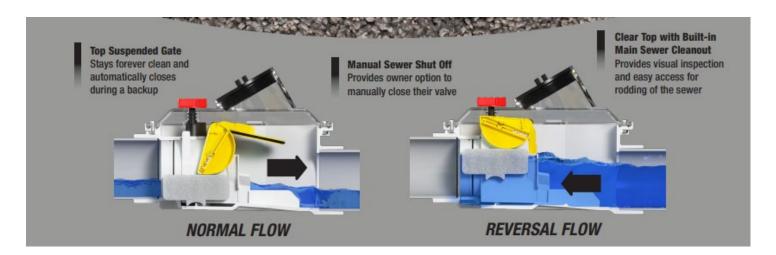
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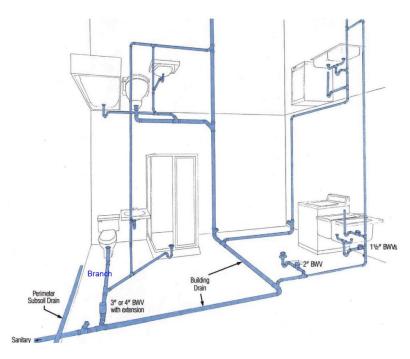
When Are Backwater Valves Required?

In flood prone zones for:

- (i) New houses.
- (ii) Houses undergoing renovations adversely affecting the plumbing.
- (iii) Creation of additional dwellings in basements.



Main Drain Backwater Valve



Branch Drain Backwater Valves - Multi Dwelling

The Building Standards Department issues BUILDER TIPS as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at (905) 475-4850