

## APPENDIX “A”

Authority:

Enacted by Council:

### CITY OF TORONTO

**Bill No.**

**BY-LAW No.**

#### To Amend Chapter 851 of the Municipal Code

WHEREAS Council has the authority to pass this by-law pursuant to subsections 8(1), (2) and (3) of the *City of Toronto Act, 2006*, S.O. 2006, Chapter 11, Schedule A (the “City of Toronto Act, 2006”);

WHEREAS Council may pass by-laws with respect to any service or thing provided or done by or on behalf of the City pursuant to section 8 of the *City of Toronto Act, 2006*;

The Council of the City of Toronto HEREBY ENACTS as follows:

1. Chapter 851, Water Supply, of the City of Toronto Municipal Code is amended as follows:

A. By adding to section § 851-1 the following definition:

“FIRE PROTECTION SYSTEM – an assembly of pipes, valves, appurtenances and fittings that conveys water from the private fire service main to the private fire hydrant(s), the fire sprinkler system or the standpipe and hose system, or any combination of the foregoing.”

B. By deleting clause § 851-2 C in its entirety and substituting it with the following:

“§ 851-2

C. The administration of the installation of new, renovated or altered private water service pipes, private fire service mains, private water systems and appurtenances, backflow prevention devices on private property shall be the responsibility of the CBO under the *Building Code Act* or the General Manager under this chapter.”

C. By deleting clause § 851-4F(2) in its entirety and substituting it with the following:

“§ 851-4F

(2) Where a property contains or is altered to contain two or more dwelling units, each dwelling unit that is in contact with the ground and possesses a footprint on the surface of the ground shall have:

- (a) a separate water service connection;
- (b) a private water service pipe;
- (c) a water meter;
- (d) a conduit for a remote readout unit wire; and
- (e) a wire for the remote readout unit,

except ground floor units of a building where the building contains units that do not have a footprint on the surface of the ground, or condominium properties meeting the exception set out in Section § 851-5 S (1) or second suites and second dwelling units permitted by City of Toronto By-law 493-2000 or its successor.”

D. By deleting clause § 851-4L(3) in its entirety and substituting it with the following:

“§ 851-4L

- (3) In the event that a person installs or permits to be installed, a private water service pipe or private fire service main in a manner not in accordance with this chapter, the General Manager may order the excavation of the private water service pipe or private fire service main or any other action as may be necessary for the purpose of inspection and testing by the City.”

E. By deleting clause § 851-4L(4)(a) in its entirety and substituting it with the following:

“§ 851-4L

- (4) (a) If the General Manager determines, after an inspection and testing or otherwise, that a private water service pipe or private fire service main has not been installed in accordance with § 851-4 L (1), the General Manager may direct the owner to perform whatever remedial work that may be required to comply all at the expense of the owner.”

F. By deleting clause § 851-5I(1) in its entirety and substituting it with the following:

“§ 851-5

- (1) If the General Manager is of the opinion that a water meter cannot be located inside a building or structure in accordance with the standards and specifications or if the distance between the streetline and the location where the water meter would be located inside the building or structure is greater than thirty (30) metres beyond the streetline, the water meter shall be installed in a water meter chamber constructed by the owner in accordance with the standards and specifications, at the owner’s expense.”

G. By deleting clause § 851-5M in its entirety and substituting it with the following:

“§ 851-5

M. Water meter on private fire service main.

Where a property has a new private fire service main the owner shall provide and install at the owner's cost a detector check valve and install a water meter supplied by the City at that main in accordance with the standards and specifications."

H. By deleting clause § 851-7D(1) in its entirety and substituting it with the following:

"§ 851-7D

(1) No person shall change or permit to be changed the location of a water meter at a property once the water meter is installed to the satisfaction of the General Manager, without the prior written consent of the General Manager."

I. By deleting clause § 851-7D(8) in its entirety and substituting it with the following:

"§ 851-7D

(8) Every owner of a property shall permit the General Manager to inspect a private water service pipe and private water system installation prior to any backfilling with concrete taking place."

J. By deleting clause § 851-7D(9) in its entirety and substituting it with the following:

"§ 851-7D

(9) In the event that an owner has placed concrete backfill over the private water service pipe or private water system prior to the inspection by the General Manager under § 851-7D(8), the owner shall remove any concrete which has been placed, at the owner's expense, to permit the inspection."

K. By deleting clause § 851-7D(11) in its entirety and substituting it with the following:

"§ 851-7D

(11) (a) If an owner fails to relocate a water meter, private water service pipe or private water system in accordance with the standards and specifications and this chapter, the General Manager may order the owner:

- [1] To supply and install a new or replacement water meter by-pass pipe or valves;
- [2] To remove any defective pipe or valves and install new pipe or valves; and
- [3] To repair and maintain the water meter by-pass pipe or valves,

in accordance with the standards and specifications, at the owner's expense."

L. By deleting clause § 851-8A(4) in its entirety and substituting it with the following:

"§ 851-8A

(4) No owner or occupant shall perform or permit the performance of any installation, renovation or alteration of private water service pipes, private fire service mains, private fire hydrants, private water systems and appurtenances, backflow prevention devices and all related items on that owner's or occupier's property until a building permit has been issued for the work by the CBO, where required under the *Building Code Act*, and all requirements of this chapter and standards and specifications have been met."

M. By deleting clause § 851-8D(4) in its entirety and substituting it with the following:

"§ 851-8D(4)

Unless otherwise required by § 851-8C or § 851-8D, every owner of a new or existing industrial, commercial, or institutional property or of any other building, structure or property that contains a hazard resulting in a risk of contamination of the waterworks as identified in Schedule 5 of this chapter, shall install, at the owner's expense, premise isolation backflow prevention device(s) in accordance with the standards and specifications, and by the installation date identified in Schedule 5 or upon an order under § 851-8D.

N. By deleting clause § 851-8D(5) in its entirety and substituting it with the following:

"§ 851-8D(5)

Owners shall design, construct, install and maintain a premise isolation system for each water service connection and private fire service main so that the system is in compliance with all applicable law, including this chapter and the *Building Code Act*, and CSA – B64 Series Standards."

O. By deleting clause § 851-8D(6)(d) in its entirety and substituting it with the following:

"§ 851-8D(6)

(d) Every owner required to install a premise isolation backflow prevention device shall install the device downstream of the water meter and prior to any tapping, or where circumstances require, in an alternate location authorized by the General Manager."

P. By adding the following to § 851-8D(6):

"§ 851-8D(6).

(e) Every owner required to install a premise isolation backflow prevention device shall ensure that it is in proper working order at all times and that all piping between the water meter and the backflow prevention device is clearly labeled "no connection permitted.

- (f) Notwithstanding § 851-5M, a premise isolation backflow prevention device, approved by the General Manager, may be installed with a detector assembly, in lieu of a detector check valve on new systems.”

Q. By adding the following to § 851-8D(7):

“§ 851-8D(7).

- (d) In addition to any other provision of this Schedule, the General Manager may at any time order an owner to conduct tests, provide reports, and undertake any other measures required for the purpose of ensuring the prevention of backflow to the waterworks if the General Manager determines that a contravention of §851-8C may exist at a property.”

R. By adding the following to § 851-8D:

“§ 851-8D

- 19. (a) A property owner may apply in writing on the form prescribed by the General Manager for approval to submit and implement a proposed compliance program setting out remedial compliance activities to be undertaken by the owner in lieu of compliance dates set out in Schedule 5 under this chapter.
- (b) Every proposed compliance program shall set out a specified schedule with dates of commencement and completion of each activity, and the final activity completion date shall not be later than the final compliance date in the compliance program.
- (c) Where the General Manager determines, in that person’s sole discretion, that the application and proposed compliance program submitted in accordance with § 851-8D(19)(a) and (b), are in accordance with risk management guidelines adopted by the City, amended from time to time, as required to address hazard levels for industry sectors set out in Schedule 5 of this chapter, the General Manager may issue an approval for the compliance program for the property owner.
- (d) The property owner to whom a compliance program has been approved shall submit a progress report to the General Manager within 7 days after the scheduled completion date of each activity listed in the compliance program.
- (e) The General Manager may terminate an approved compliance program by written notice at any time to the property owner in the event that the property owner fails or neglects to carry out or diligently pursue the activities and obligations required of him under the approved compliance program and § 851-8D(19).

S. By deleting clause § 851-8E(2) in its entirety and substituting it with the following:

“§ 851-8E

- (2) The General Manager may, at reasonable times or in the case of an emergency, at any time, enter a property for the purpose of inspecting or testing a private water service pipe, private water system, a private fire service main, a backflow prevention device.

T. By deleting clause § 851-8F(1) in its entirety and substituting it with the following:

“§ 851-8

- (1) (a) The person holds a valid and current Certificate of Achievement in Cross Connection Control endorsed by the Ontario Water Works Association; or
- (b) The person has completed a Cross Connection Control Specialist (CCCS) course:
- [1] delivered by a school or institution with the plumbing laboratory certified by the Ontario Water Works Association (OWWA); and
  - [2] the instructor teaching the course is certified by OWWA; and
  - [3] the course is delivered using the “AWWA Canadian Cross Connection Control Manual”, current version; and
  - [4] the person passes the CCCS certification test.

U. By deleting clause § 851-9B(1) in its entirety and substituting it with the following:

“§ 851-9B

- (1) A person who applies for a construction water permit shall, at the time of making the application, pay to the City all applicable amounts as specified in § 851-9B(4) and § 851-9B(2) for that permit and water service connection.”

V. By deleting clause § 851-9B(3) in its entirety and substituting it with the following:

“§ 851-9 B

- (3) (a) The commencement date for the construction water permit shall be the date water is first supplied to the property.
- (b) An applicant shall pay for a three-month supply of water, calculated in accordance with § 851-9B(4), no later than thirty (30) days prior to the date water is first supplied to the property.

W. By deleting clause § 851-9I in its entirety and substituting it with the following:

“§ 851-9

- I. The owner shall ensure that the installation of the temporary or permanent private water service pipe complies with the requirements of the *Building Code Act*, this chapter and the standards and specifications.”

X. By deleting clause § 851-12A(1)(a) in its entirety and substituting it with the following:

“§ 851-12

A. Fire hydrant flow test.

(1) (a) A person may submit an application on the prescribed City form to the General Manager to conduct a fire hydrant flow test to determine the characteristics of the local waterworks system.”

Y. By deleting clause § 851-16A in its entirety and substituting it with the following:

“§ 851-16

A. No person shall deny access to the General Manager or CFO to a property for any purpose as provided for in this chapter.”

Z. By deleting clause § 851-16C in its entirety and substituting it with the following:

“§ 851-16

C. The General Manager or CFO may, in accordance with the requirements of this chapter, enter upon a property to which water is supplied by the City:

- (1) To inspect, repair, alter or disconnect the service pipe or wire, machinery, equipment and other works used to supply water;
- (2) To read, inspect, install, repair, replace, maintain or alter a water meter;
- (3) To inspect a backflow prevention device; or
- (4) To shut off or reduce the supply of water.”

AA. By deleting clause § 851-17A in its entirety and substituting it with the following:

“§ 851-17

A. Despite any other provision in this chapter, the General Manager may enter on a property at any reasonable time for the purpose of carrying out an inspection to determine compliance with this chapter or an order or direction issued in accordance with this chapter.”

BB. By deleting § 851, Schedule 5 entitled “Backflow Prevention Device For Premise Isolation Installation Dates Based on Industry Sector” in its entirety and substituting it with the attachment hereto marked as “Schedule 5” and entitled “Backflow Prevention Device For Premise Isolation Installation Dates Based on Industry Sector”.

CC. By deleting § 851, Schedule 6 entitled “Authorized Function List”, in its entirety and substituting it with the attachment hereto marked as “Schedule 6” and entitled “Authorized Function List”.

2. This by-law comes into force upon enactment.

ENACTED AND PASSED this                    day of                    , A.D. 2008.

DAVID R. MILLER,

Mayor  
(Corporate Seal)

ULLI S. WATKISS,

City Clerk

**CHAPTER 851, SCHEDULE 5  
BACKFLOW PREVENTION DEVICE FOR PREMISE ISOLATION  
INSTALLATION DATES BASED ON INDUSTRY SECTOR**

<b>Industry Sector</b>	<b>Hazard Level</b>	<b>Installed By</b>
Aircraft Manufacturing	Severe	December 31, 2008
All Printing Industry (excluding dry digital printing)	Severe	December 31, 2008
Automobile Manufacturing	Severe	December 31, 2008
Beverage Manufacturing	Severe	December 31, 2008
Breweries	Severe	December 31, 2008
Car Washes	Severe	December 31, 2008
Chemical Manufacturing	Severe	December 31, 2008
Cosmetic Product Manufacturing	Severe	December 31, 2008
Distilleries	Severe	December 31, 2008
Dry Cleaners	Severe	December 31, 2008
Dye & Pigment Manufacturing	Severe	December 31, 2008
Electroplating, Plating, Polishing, Anodizing, & Colouring	Severe	December 31, 2008
Food Processing	Severe	December 31, 2008
Industrial Laundries	Severe	December 31, 2008
Lubricating Oil & Grease Manufacturing	Severe	December 31, 2008
Machine Tool Manufacturing	Severe	December 31, 2008
Machine Tool Operations	Severe	December 31, 2008
Meat Processing & Packaging	Severe	December 31, 2008
Medical Laboratories	Severe	December 31, 2008
Metal Can Manufacturing	Severe	December 31, 2008
Metal Coating, Engraving	Severe	December 31, 2008
Metal Fabrication	Severe	December 31, 2008
Metal Window & Door Manufacturing	Severe	December 31, 2008
Mortuary or Morgue	Severe	December 31, 2008
Nonferrous Metal Manufacturing	Severe	December 31, 2008
Other Metal Container Manufacturing	Severe	December 31, 2008
Paint & Coating Manufacturing	Severe	December 31, 2008
Paper & Pulp Processing Plants	Severe	December 31, 2008
Personal Care Products Manufacturing	Severe	December 31, 2008
Petrochemical Manufacturing	Severe	December 31, 2008
Petroleum Bulk Storage Facilities	Severe	December 31, 2008
Petroleum Refining	Severe	December 31, 2008
Pharmaceutical Manufacturing	Severe	December 31, 2008
Photographic Film Manufacturing	Severe	December 31, 2008
Photographic Plate / Paper Manufacturing	Severe	December 31, 2008
Plastic Manufacturing	Severe	December 31, 2008
Plastic Material & Resin Manufacturing	Severe	December 31, 2008
Printed Circuit Board Manufacturing	Severe	December 31, 2008
Rubber Manufacturing	Severe	December 31, 2008
Soap & Detergent Manufacturing	Severe	December 31, 2008
Textile Manufacturing/ Processing	Severe	December 31, 2008
Veterinary Hospital	Severe	December 31, 2008
Wastewater Treatment Plants & Facilities	Severe	December 31, 2008
Water Treatment Plants	Severe	December 31, 2008

<b>Industry Sector</b>	<b>Hazard Level</b>	<b>Installed By</b>
Agricultural/Landscaping Applications	Severe	March 31, 2009
Allied Services to Manufacturing	Severe	March 31, 2009
Analytical Laboratories	Severe	March 31, 2009
Asphalt Paving Mixture & Block Manufacturing	Severe	March 31, 2009
Autobody Refinishing	Severe	March 31, 2009
Automotive Repairs & Maintenance	Severe	March 31, 2009
Carpet Cleaners	Severe	March 31, 2009
Clinical Laboratories	Severe	March 31, 2009
Death Care Services	Severe	March 31, 2009
Dental Surgery Facility	Severe	March 31, 2009
Gas Stations	Severe	March 31, 2009
Greenhouses	Severe	March 31, 2009
Hospitals	Severe	March 31, 2009
Milk/Dairy Product Processing	Severe	March 31, 2009
Photo Finishing	Severe	March 31, 2009
Research Buildings & Laboratories	Severe	March 31, 2009
Wineries	Severe	March 31, 2009

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<b>Industry Sector</b>	<b>Hazard Level</b>	<b>Installed By</b>
Blood Clinic	Severe	June 30, 2009
Commercial Laundry (without dry cleaning)	Severe	June 30, 2009
Dock & Marine Facility	Severe	June 30, 2009
Exhibition Grounds	Severe	June 30, 2009
Fire Protection Systems with antifreeze, foam injection, and/or other chemical additives	Severe	June 30, 2009
Fire Protection Systems inter-connected with Private water system	Severe	June 30, 2009
Irrigation Systems (with chemical addition)	Severe	June 30, 2009
Medical Clinic (surgical)	Severe	June 30, 2009
Motorcycle Repairs & Maintenance	Severe	June 30, 2009
Plant Using Radioactive Materials	Severe	June 30, 2009
Power Generating Facility	Severe	June 30, 2009
Premises Where Access Is Prohibited	Severe	June 30, 2009
Radiator Shop	Severe	June 30, 2009
Recycling Facility	Severe	June 30, 2009
Rendering Facility	Severe	June 30, 2009
Single Residential Dwelling (with private water system connected to city water supply)	Severe	June 30, 2009
Slaughter House	Severe	June 30, 2009
Waste/Garbage Transfer Station & Disposal Plant	Severe	June 30, 2009
Wastewater Pumping Stations	Severe	June 30, 2009
Water Filling Station	Severe	June 30, 2009
Water Pumping Stations	Severe	June 30, 2009
Zoo	Severe	June 30, 2009

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<b>Industry Sector</b>	<b>Hazard Level</b>	<b>Installed By</b>
<b>Industry Sector</b>	<b>Hazard Level</b>	<b>Installed By</b>
Apartment Buildings (five units or more, with shared single-service connection)	Moderate	June 30, 2009
Commercial Premises (excluding dry retail operations)	Moderate	June 30, 2009
Fire Stations	Moderate to Severe	June 30, 2009
Funeral Homes/Cemetery	Moderate to Severe	June 30, 2009
Golf Courses	Moderate to Severe	June 30, 2009
Hotel & Motel	Moderate	June 30, 2009
Schools (elementary, junior high, senior high)	Moderate	June 30, 2009
Swimming Pools (private with direct connection)	Moderate	June 30, 2009
Swimming Pools (public)	Moderate	June 30, 2009
Technical Institutes	Moderate	June 30, 2009
Universities & Colleges	Moderate	June 30, 2009
Veterinary Clinic	Moderate	June 30, 2009

<b>Industry Sector</b>	<b>Hazard Level</b>	<b>Installed By</b>
Airports	Moderate	December 31, 2009
Animal Shelter	Moderate	December 31, 2009
Auto Dealership	Moderate	December 31, 2009
Campsite	Moderate	December 31, 2009
Commercial Coin Operated Laundry	Moderate	December 31, 2009
Dental Office (Non-surgical)	Moderate	December 31, 2009
Grocery Store	Moderate	December 31, 2009
Hair Salon	Moderate	December 31, 2009
Irrigation System (without chemical addition)	Moderate	December 31, 2009
Kennel	Moderate	December 31, 2009
Marina & Yacht Club (pleasure-boat)	Moderate	December 31, 2009
Medical Clinic (non-surgical)	Moderate	December 31, 2009
Mobile Home Park	Moderate	December 31, 2009
Nursing Home	Moderate	December 31, 2009
Penitentiary	Moderate	December 31, 2009
Restaurant (including bar, coffee shop, food courts, lounge, etc.)	Moderate	December 31, 2009
Sauna & Massage Centre	Moderate	December 31, 2009
Townhouse (five units or more, with shared single-service connection)	Moderate	December 31, 2009
Water Park	Moderate	December 31, 2009

**CHAPTER 851, SCHEDULE 6  
AUTHORIZED FUNCTIONS LIST**

Item	Function	Professional Engineer with CCCS Certification	Certified Engineering Technologist with CCCS Certification *	Licensed Master Plumber with contractor's licence and with CCCS Certification	Journeyman Plumber with CCCS Certification †	Apprentice plumber with CCCS Certification ‡	Fire system sprinkler fitter with CCCS Certification	Industrial Millwright with CCCS Certification	Irrigation System Installer with CCCS Certification
1	Carry out cross-connection / backflow prevention device survey	v	v	v	v				
2	Install, relocate, or replace backflow prevention device			v	v	v			
3	Repair backflow prevention device	v	v	v	v	v			
4	Test backflow prevention device	v	v	v	v	v	v	v	v
5	Complete Items 1, 2, 3, and 4 in relation to fire protection systems	v	v	v	v	v	v		
6	Complete Items 3 and 4 in relation to lawn sprinkler systems	v	v	v	v	v			

v	<i>Authorized to perform function.</i>
*	<i>Required to be under the direction of a Professional Engineer</i>
†	<i>Required to be employed by a licensed plumbing contractor</i>
‡	<i>Required to be employed by a licensed plumbing contractor and under the direct supervision of a journeyman plumber or master plumber</i>
CCCS	<b>Cross Connection Control Specialist, Note: Please refer to § 851-8.F for the criteria for acceptable CCCS Certification</b>