

LAWN SPRINKLERS

Section 890.1140D

Any lawn sprinkler system connected to a potable water supply shall be equipped with a reduced pressure principle backflow preventer assembly (RPZ). The RPZ may be located outside provided it conforms with Section 890.1130 (g) (1) of the Illinois State Plumbing Code.

BACKFLOW

The water distribution system shall be protected against back-siphonage and backflow. Each water outlet shall be protected from backflow and/or back-siphonage, preferably by having the outlet end from which the water flows spaced a distance above the flood-level rim of the receptacle into which the water flows sufficient to provide a "minimum fixed air gap". Where it is not possible to provide a minimum fixed air gap, the water outlet shall be equipped with an accessibly located backflow/back-siphonage preventer complying with applicable standards.

BACKFLOW PREVENTERS

ANSI

OTHER

Vacuum Breakers, Anti-Siphon	A112.1.1 (1980)	ASSE 1001 (1970)
Vacuum Breakers, Hose Connection		ASSE 1011 (1970)
Double Check with Atmospheric Vent		AASE 1012 (1978)
Reduced Pressure Zone Device		AASE 1013 (1980)
Double Check Valve Assembly		AWWA C506 (1983)
		ASSE 1015 (1980)
		AWWA C506 (1983)
Dual Check Valve		ASSE 1024 (1980)
Anti-Siphon Self-Draining Frost Proof Sillcocks		ASSE 1019 (1977)
Vacuum Breakers, Pressure Type		ASSE 1020 (1974)

FIRE SAFETY SYSTEM

The installation of a fire safety system involving the potable water supply system shall be in accordance with NFPA Standard No. 13 (1975), and the potable water supply system shall be protected against backflow or back-siphonage by a minimum of a double check valve backflow assembly approved under NFPA No. 13. If a fire department connection is part of the fire safety system, the potable water supply system must be protected by an approved backflow device (See Section 890.1540 (c) (1)). The installation of any fire safety system involving the potable water supply system shall be protected against backflow or back siphonage as follows:

- A. A fire sprinkler system that does not have a fire department hose connection, no method of supplying additives to the system, piping material that conforms with Section 890, Table D of this part for potable water distribution, less than five (5) sprinkler heads and a return line connection the fire system with the potable water distribution system does require a double check valve backflow preventer assembly.
- B. A fire sprinkler system that does not have a fire department hose connection, no method of supplying additives to the system, piping material that conforms with Section 890, Table D of the Plumbing Code for potable water distribution, and five or more sprinkler heads shall have a double check valve backflow preventer between the

potable water supply and the sprinkler system. The fire system shall be cleaned and chlorinated before use and the fire system shall be drained and flushed at least every twelve months in the presence of a licensed plumbing inspector. The fire system shall be kept free from accumulations of sand, silt, and stagnant water which would nullify the action of chlorine content of the potable water supply.

- C. A sprinkler system or standpipe system of piping material not conforming with Section 890, Table D of the Plumbing Code for potable water distribution and does not have a fire department hose connection shall have a double check valve assembly (DCV) listed by and bearing a label or seal of a testing laboratory as listed in Section 890.154 (c) (1), of the Plumbing Code.
- D. A reduced pressure backflow preventer (RP-BFP) listed by and bearing a label or seal of a nationally recognized testing laboratory as listed in Section 890.154 (c) (1), of the Plumbing Code shall isolate the potable water system from all fire safety systems, sprinkler, or standpipe when the fire system contains anti-freeze, water is pumped into the system from another source, or there is a hose connection whereby another source can be connected to the sprinkler system.

DEVICES FOR THE PROTECTION OF THE POTABLE WATER SUPPLY

Approved backflow preventers or vacuum breakers shall be installed with all plumbing fixtures and equipment, the potable water supply outlet of which may be submerged and which is not protected by a minimum fixed air gap. Connection to the potable water supply system, for the following fixtures of equipment, shall be protected against backflow with any one or more of the devices as indicated below:

- 1. Low inlet to receptacles containing toxic substances (vats, storage containers, plumbing fixtures):
 - A. An approved fixed air gap fitting
 - B. Reduced pressure unit
 - C. Pressure vacuum breaker unit
 - D. Atmospheric vacuum breaker unit
- 2. Low inlet to receptacles containing non-toxic substances (steam, air food, beverages, etc.):
 - A. An approved fixed air gap fitting
 - B. Reduced pressure unit
 - C. Pressure vacuum breaker unit
 - D. Atmospheric vacuum breaker unit
 - E. Approved double-check valve assembly
 - F. Double-check with atmospheric vent
- 3. Outlets with hose attachments which may constitute a cross connection:
 - A. An approved fixed air gap fitting
 - B. Reduced pressure unit

- C. Pressure vacuum breaker unit
 - D. Atmospheric vacuum breaker unit
4. Coils or jackets used as heat exchangers in compressors, degreasers, and other such equipment involving toxic substances:
- A. An approved fixed air gap fitting
 - B. Reduced pressure unit
 - C. Pressure vacuum breaker unit
5. Direct connections – subject to back-pressure:
- A. Non-toxic substances
 - i. An approved fixed air gap fitting
 - ii. Reduced pressure unit
 - iii. Approved double-check valve assembly
 - iv. Double-check with atmospheric vent
 - B. Toxic substances
 - i. An approved air gap fitting
 - ii. Reduced pressure unit
 - C. Sewage and lethal substances
 - i. An approved fixed air gap fitting

LOCATION OF LAWN SPRINKLER HEADS

Should the owner of the property or the owners agent locate lawn sprinkler heads in the public right of way, the Village will hold no responsibility for them should they become damaged for any reason.

BUILDING PERMIT APPLICATION

To apply for the building permit, the following items shall be submitted to the Building Department.

- 1. Complete permit application
- 2. Plat of survey showing proposed location of all heads and control box location
- 3. The type of backflow protection
- 4. A signed contract
- 5. Tax index number

BUILDING PERMIT FEE

The building permit fee is based on the value of the proposed work in accordance with fee schedule B.B.C. 9-3-7.

Lawn Sprinkler Letter of Release

I (we) will not hold the Village of Bartlett responsible for any damage done to any sprinkler heads in the parkway or easements.

Address

Signature

Print Name

Signature

Print Name



**Village of Bartlett
Building Department**

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