

RESIDENTIAL LAWN IRRIGATION

- This handout is intended only as a guide. It shall not be considered a complete set of requirements.
- Materials and installation must comply with the current Minnesota State Plumbing Code and the manufacturers' installation specifications for each product.
- A plumbing permit is required for the installation of a lawn irrigation system. Residential lawn irrigation permits are issued over-the-counter at the municipality office. COMMERCIAL irrigation projects must be submitted for plan review.
- Each address requires a separate permit.

PERMIT CARD (throughout the project) shall be:

POSTED prior to start of work - **VISIBLE** from street or driveway - **ACCESSIBLE** to the inspector.

INSPECTION REQUIREMENTS:

Inspections **MUST** be scheduled during office hours **AT LEAST** one business day prior to inspection. If a specific date and time is required, additional notice may be needed. Failure to cancel a scheduled inspection may result in a reinspection fee.

- **Office Hours:** Monday - Friday • 8:00 a.m. - 4:30 p.m.
- **Phone:** (952) 442-7520 or (888) 446-1801

Inspections:

- **Someone 18 years or older must be present at the time of the inspection.**
- **See Project Checklist in this handout for additional requirements.**
- **Final:** After the installation is complete, the Inspector will verify the installation of the backflow prevention device, piping, and the automatic rain sensor.

NOTICE: Construction or work for which a permit is required shall be subject to inspection by the Building Official, and such **construction or work shall remain accessible and exposed for inspection purposes until approved.** It is the responsibility of the permit applicant to be in attendance on site and provide access to the Building Official for all required inspections. If work is concealed and/or work is not complete at time of inspection, an additional inspection is required and a **reinspection fee may apply.**

Note: The State of Minnesota requires all residential building contractors, remodelers, roofers, plumbers, and electricians to obtain a state license, unless they qualify for a specific exemption. Any person claiming an exemption must provide a copy of a Certificate of Exemption from the Department of Labor & Industry to the Municipality before a permit will be issued.

Note: To determine contractor requirements, or to check the licensing status of a contractor, please call the Minnesota Department of Labor & Industry at 651-284-5065 or toll free 1-800-342-5354.

Note: For specific code requirements, contact the Building Inspection Department at 952-442-7520 or 888-446-1801 or e-mail: infoMN@safebuilt.com.

PROJECT CHECKLIST:

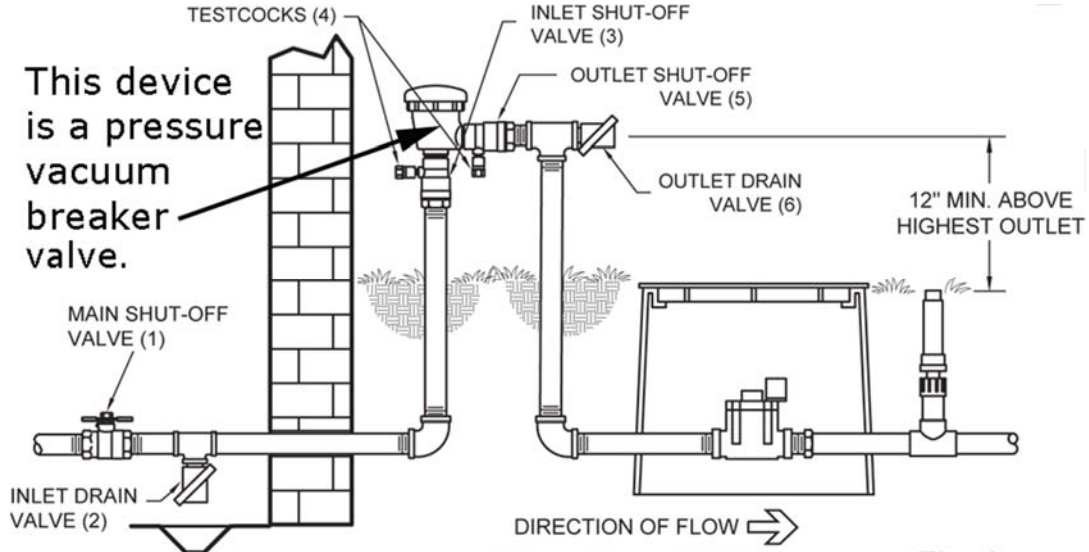
The following is a guideline to assist in compliance with the requirements of the MN State Building Code.

- The home address must be visible from the street.
- One of the following approved backflow prevention devices is required on all systems:
 - Pressure Vacuum Breaker (PVB) (A.S.S.E. 1020)
 - Atmospheric Vacuum Breaker (AVB) (A.S.S.E. 1001)
 - Reduced Pressure Zone (RPZ) (A.S.S.E. 1013)
- An automatic rain sensor is required on any newly installed system.
- Check with the municipality regarding separate water meter options and requirements.

PRESSURE VACUUM BREAKER (PVB)

A PVB is the most common type of backflow preventer used for lawn sprinklers. The requirements for a PVB are:

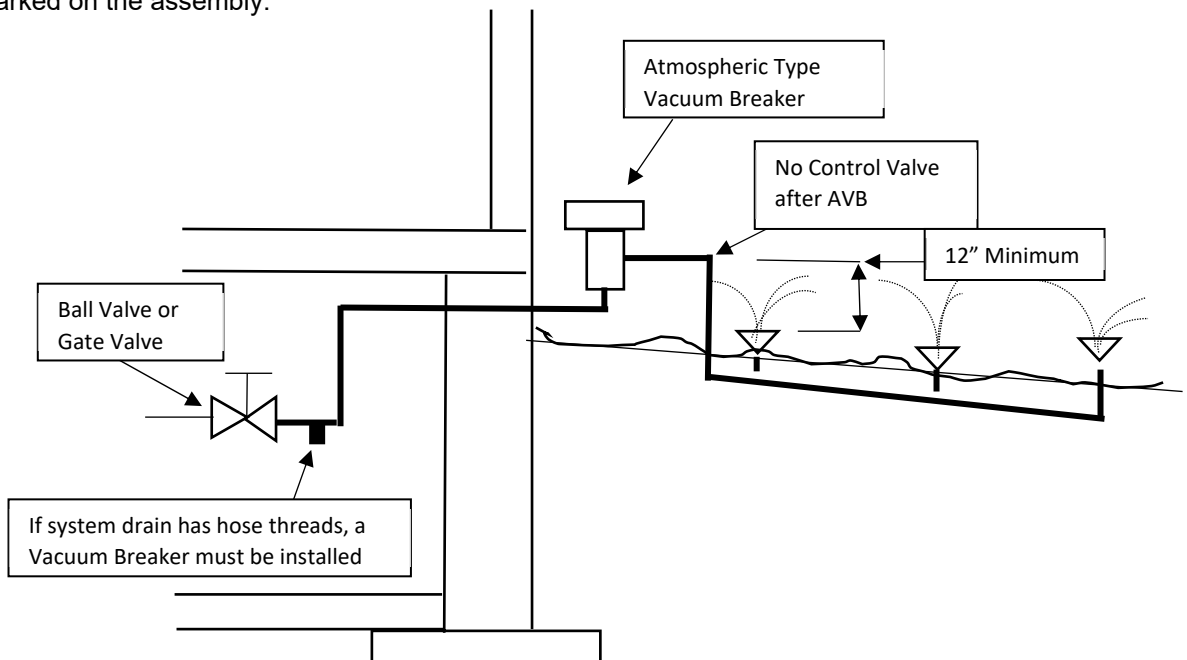
- Must be installed at least 12" above highest sprinkler head or discharge outlet.
- No possibility of back pressure permitted.
- Continuous line pressure permitted.
- If a hose bib is installed ahead of the PVB and used for the purpose of drainage, a hose connection vacuum breaker must be installed.
- PVB must be installed in a vertical position.



ATMOSPHERIC VACUUM BREAKER (AVB)

Few system designs will accommodate an AVB backflow preventer. It can be used for lawn sprinklers if the device is properly installed. The requirements are:

- The device must be installed at least 12" above the highest sprinkler outlet on the non-pressure side of the last control valve.
- There shall be no control valves downstream from the backflow.
- No possibility of back pressure permitted.
- No more than 8 hours of continuous line pressure permitted.
- One AVB required for each irrigation zone.
- Some AVBs have an electronic solenoid valve built into the assembly. The A.S.S.E. 1001 number must be factory marked on the assembly.



REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER

A Reduced Pressure Zone type backflow preventer must be installed on lawn sprinkler systems when any sprinkler outlet is higher than the backflow preventer. (May be subject to constant static pressure, back pressure, and back siphonage.) Use RPZ as last resort backflow preventer if AVB-PVB will not work. An RPZ must be tested upon installation and yearly thereafter, and must be rebuilt every 5 years. Generally, an RPZ must be installed in conditioned space or removed after every season to protect from freezing.

