



## TECHNICAL BULLETIN

### Community Development & Planning, Building Inspections

#### Minimum Requirements for Lawn Irrigation Permits & Inspections For Homeowners January 1, 2009

Effective January 1, 2009, the City of Arlington will implement the requirements of HB 1656 which requires the regulation of the installation of irrigation systems within the city limits and the extraterritorial jurisdictions.

This **Technical Bulletin** provides information for a property owner that is performing irrigation work in a building or on a premise owned or occupied by the person as the person's home. Such a person is exempt from the licensing requirements and is also not required to submit a plan for permit. The City does recommend that all homeowners either prepare an irrigation plan using some type of self help tool; or, have an irrigator design a system that will meet the standards. The City also recommends that the homeowner have that design reviewed prior to permit issuance and installation. At the time of inspection, the homeowner is required to install the irrigation system according to the following minimum standards (details outlined on page 2):

- A. Spacing standards,
- B. Water pressure standards
- C. Must not spray water over impervious materials,
- D. Provide rain and freeze Shut-off Devices and an automatic controller, and
- E. Install an Isolation Valve.

If a homeowner chooses to install a new irrigation system, the homeowner must also secure a **Plumbing Permit** for the installation of the double check backflow prevention device. See **Technical Bulletin** entitled "Requirements for Double Check Backflow Installation with Irrigation Systems" for details.

Upon issuance of the permit and completion of the installation of the system, the homeowner must request two inspections in sequential order. A copy of the approved landscape irrigation plans (if available) must be on the job at the time of any inspection.

1. **Irrigation Underground Inspection** after all of the ditches are dug, the pipes, valves, heads, wiring, etc are installed but the system is not backfilled. (Note: portions of the installation may be backfilled as long as the general area of the joints, valves and heads are left exposed.)
2. **Irrigation Final Inspection** when the system installation is ready for operation. At the time of the inspection, the following must be provided and/or made available to the inspector for viewing:
  1. the automatic rain and freeze sensor(s),
  2. the completed Backflow Prevention Assembly Test certificate that has been completed by a certified Backflow Prevention Assembly Tester that is registered with the City of Arlington,
  3. visual inspection of the installed backflow prevention device and verification of a plumbing permit for the installation of the backflow prevention device
  4. visual inspection of the connection to the potable water system

## **Minimum design and installation requirements for Homeowner installed systems**

### **A. Spacing.**

1. The maximum spacing between emission devices must not exceed the manufacturer's published radius or spacing of the device(s). The radius or spacing is determined by referring to the manufacturer's published specifications for a specific emission device at a specific operating pressure.
2. New irrigation systems shall not utilize above-ground spray emission devices in landscapes that are less than 60 inches not including the impervious surfaces in either length or width and which contain impervious pedestrian or vehicular traffic surfaces along two or more perimeters. Qualifying areas less than 60 inches may be irrigated utilizing subsurface or drip irrigation, pressure compensating tubing, or be designed without irrigation. If pop-up sprays or rotary sprinkler heads are used in a new irrigation system, the sprinkler heads must direct flow away from any adjacent surface and shall not be installed closer than four inches from a hardscape, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers, or stones set with mortar.

**B. Water Pressure.** Emission devices must be installed to operate at the minimum and not above the maximum sprinkler head pressure as published by the manufacturer for the nozzle and head spacing that is used. Methods to achieve the water pressure requirements include, but are not limited to, flow control valves, a pressure regulator, or pressure compensating spray heads.

**C. Operational Rain or Moisture and Freeze Shut-off Devices or Other Technology.** All new automatically controlled irrigation systems must include operational sensors or other technology designed to inhibit or interrupt operation of the irrigation system during periods of freezing weather and moisture or rainfall. Freeze and rain or moisture shut-off technology must be installed according to the manufacturer's published recommendations. Rain or moisture and freeze shut-off devices installed must be of a type established and published by the Regulatory Authority.

**D. Isolation Valve.** All new irrigation systems must include an isolation valve between the water meter and the backflow prevention device.

Listed below are two sources of irrigation design assistance for homeowners. Please note that this list is not intended to be all inclusive and the City does not make any representation for the services offered.

From Rain Bird:

<http://www.rainbird.com/diy/design/index.htm>

From Toro Company:

<http://www.torodesign.com/iguide2/intro.html>