CITY OF SAN ANTONIO

PLANNING AND DEVELOPMENT SERVICES DEPARTMENT

TO: All Planning and Development Services Department Customers

SUBJECT: **INFORMATION BULLETIN 183**
Landscape Irrigation System Requirements

DATE: May 25, 2010

This Information Bulletin is intended to be used as a guide to assist Irrigation Contractors working in San Antonio and its extra territorial jurisdiction (ETJ) area with their irrigation system installations.

The requirements listed below will also be addressed during the inspection process of all irrigation projects.

- A permit from the City of San Antonio (COSA) Planning & Development Services Department (PDSD) is required for all underground lawn irrigation installations and additions to existing underground lawn irrigation systems within the COSA.

- A permit from the PDSD is required for lawn irrigation installations in COSA's ETJ (5 miles outside the city limits in unincorporated land, also refer to **Information Bulletins 180** and **159**).

- The proper backflow prevention assembly is required on irrigation systems. These assemblies are to be installed correctly with the water pressure turned on; test cock plugs in place with proper assembly clearances. The Test & Maintenance (T & M) report form for the backflow prevention assembly is to be place in a waterproof plastic bag inside the valve box of the backflow prevention assembly or attached to the assembly on all irrigation systems. If the backflow assembly is above grade, it must be properly supported and insulated. The inspector will also need access the backflow assembly identification to verify serial, model and assembly I.D. numbers.

- A letter of compliance is required for all new installation and additions to irrigation systems and shall be placed inside the aforementioned waterproof plastic bag with the T & M report form of the backflow prevention assembly. Exception: a Letter of Compliance is not required when there is a Master Letter of Compliance on file with PDSD.

- A Double Check Assembly (DCA) backflow preventer installed below grade shall have a wye strainer installed upstream of the DCA with an isolation valve before the wye strainer. The wye strainer is properly installed when the retainer cap is installed in the down position for both commercial and residential applications.

- The inspection of an underground lawn irrigation system upon completion includes the connection at the water meter and up to the master valve. All heads along impervious surfaces (sidewalks, driveway, street, parking lots, curbs, etc.) shall remain uncovered for inspection.

- Also included is the inspection of the rain shut-off device location (not obstructed from rain) attached to a permanent structure (fence, house eaves, etc.) and verification that the backflow assembly has been tested, as well as the other elements on this list.

- A plan of the irrigation system shall be on site during the installation for commercial and residential systems as per Texas Administrative Code, Title 30 § 344.61, 344.62.

- All head spacing shall not to exceed 50% of the throw diameter (head to head spacing). Bed / shrub areas are to be separated from turf areas for new installations and revamps as per the Unified Development Code.

- Due the large size of some commercial Irrigation system projects, partial inspections are encouraged prior to backfilling. The depth of the trench for pressure lines shall be installed per the city reviewed plans but in no case less then 12".

- The residential and commercial tie ins at the water meter to the master valve shall have 12" of cover and remain exposed for inspection and be a minimum of SCH. 40 PVC piping from the point of connection to the master valve. After the master valve the remaining piping must have 6" of cover. If possible have the manufactures pipe markings visible for inspection.

- Irrigation systems using PVC piping are required to use purple primer on the PVC solvent cement joints.

- Low voltage wire used in automatic irrigation systems shall be direct burial (UL listed) and properly sized. All splices and connections shall be made with manufactured waterproof wire connections.

- Sprinkler heads along the border of impervious surfaces shall be uncovered and no closer than 4" to impervious surfaces. Also, swing joints or flex pipe is required on all heads.

- All electric valves in the irrigation system including the master valve must have flow control.

- A rain shut-off device is required on all irrigation systems. If along TX DOT right-of-way a freeze sensor is also required. A rain shutoff device underground wire (if wired) shall be in a conduit extended up 12" above grade and attached to a permanent structure (fence, house eaves, etc.).

- No heads are allowed in areas less then 5' in width or length and 2 or more sides are impervious surface with vehicular or pedestrian traffic. Drip irrigation is allowed. Also, bubblers on stationary risers are allowed for individual shrubs.

- Proper electrical connections are required for exterior mounted irrigation controllers.

- If the water purveyor's supply pressure is over 80 psi a pressure regulating device shall be required.

- If there is a high hazard or sewage septic system or a spray aerobic sewage septic system on site, a Reduced Pressure Assembly (R/P) shall be required to be installed for backflow protection on the irrigation system at 12" minimum height above grade measured from the bottom of the assembly vent opening.

- To request and schedule an inspection, call **207-1111**. The inspection will be scheduled for the next business day. There is a $3.00 charge for the phone call service. No fee is charged for online scheduling. A failed inspection is automatically assessed a reinspection fee of $ 51.50.

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- **A preconstruction meeting with PDSD's Plumbing Inspections Branch is highly recommended (SAWS inspectors should be present as well) on all sites involving recycled/reclaimed water irrigation installations, If possible have the general contractor or his representative present as well. As per 2009 IPC, City Amendments Appendix C and SAWS recycled / reclaimed regulations.**

Should you have any questions or concerns regarding this information bulletin, please feel free to contact David Rohde, Plumbing Inspections Supervisor (210) 207-8279; John Long, Senior Plumbing Inspector (210) 260-3684; or Ted Morales, Development Services Inspector (210) 260-5912.