CEDAR HILL

WHERE OPPORTUNITIES GROW NATURALLY

Landscape Irrigation Requirements

Effective January 1, 2009

1. The licensed irrigator must make application for an irrigation permit and submit irrigation plans for review. The project may not be started before the completion of plan review and issuance of an irrigation permit.

2. The irrigator must be registered with the City of Cedar Hill in order to install the irrigation system; or, a homeowner wishing to install the irrigation system themselves may do so with the completion of a permit application. The homeowner must live in the house and must homestead the house as their primary residence.

3. All irrigation plans used for construction must be drawn to scale. The maximum scale for residential is 1 inch per 30 feet and the maximum scale for commercial drawings shall be 1 inch per 40 feet.

4. In addition all plans must have:
   - A. The irrigator's seal, signature and date of signing.
   - B. All major physical features and the boundaries of the areas to be watered.
   - C. A north arrow.
   - D. A legend.
   - E. The zone flow measurement of each zone.
   - F. Location and type of each:
     1. Automatic Controller.
     2. Required sensors: (rain, wind, and freeze).
   - G. Location, type, and size of each:
     1. Water source, such as, but not limited to a water meter and point(s) of connection.
     2. Backflow prevention devices.
     3. Water emission device, including but not limited to spray heads, rotary sprinkler heads, quick couplers, bubblers, drip, or micro-spray.
     4. Valves, including, but not limited to, zone valves, master valves, and isolation valves.
     5. Pressure regulation component.
   - H. The scale used.
   - I. The design pressure.
   - J. Water service and lateral line pipe sizes.

5. Effective January 1, 2009 required sensors as listed In 4. F. 2 (rain, wind, and freeze) are to be installed on all existing landscape irrigation systems when the controller is replaced.

6. The permit applicant is responsible for requesting inspections when the system is installed and completed.

Preliminary Inspection-Installation/Rough in

The following items shall apply to the irrigation inspection:

1. All required valve boxes shall be installed, the lid of the valve box shall be left open until approved by the code official.

2. Piping and valves including isolation valves, wye strainers, backflow preventers, and master valves shall be left uncovered from the point of connection to a point of three (3) feet down stream of the master valve and pressurized.

3. All wiring splices shall be left uncovered or if there are no splices wiring may be covered to a point within two (2) feet of any valves (see item 4).

4. All zone valves and master valves shall not be concealed for a space of two (2) feet up and down stream of the valve; including the piping connections to the valve.

5. The last emission device with the greatest developed length from the potable water source shall be left exposed for a distance of two (2) feet for inspection and testing.

6. Plans must be on site during installation and inspections.

7. Purple primer must be used on all PVC joints.

8. An accessible isolation valve must be placed on the irrigation system prior to the backflow prevention assembly and strainer.

9. When using a double check valve backflow preventer below ground:
   A. A "Y" type strainer must be placed before a double check valve.
   B. There must be four (4) inches of gravel at the bottom of the valve box and three (3) inches of clearance from the gravel to the double check valve.
   C. The installer is responsible to ensure that the installation of the double check valve meets manufacture specifications.
   D. The device must be accessible for testing and repair.

10. No space less than forty eight (48) inches wide may be irrigated with above ground heads.

11. Heads must be placed at least four (4) inches from foundations, parking lots, driveways, etc.

Final Irrigation Inspection

The following items shall apply to the final irrigation inspection:

1. A permanent sticker which contains the irrigator's name, license number, company name, telephone number and the dates of the warranty period shall be affixed to each automatic controller installed by the irrigator. The information contained on the sticker must be printed with waterproof ink.

2. Provide the test results of the backflow prevention assembly, showing the assembly is working properly and is registered with the Cedar Hill Department of Public Works.

3. Provide a copy of the maintenance checklist required by TCEQ rules [Section 344.63(2)).

4. The licensed irrigator or his/her designated representative shall conduct an operational demonstration in the presence of the code official. The operational demonstration shall include the operation of all stations contained within the irrigation system.

5. Rain, wind, freeze and sensors must be installed.

6. System must not spray over or onto impervious areas (pavement, building walls, fences, decks, etc.).

7. A drawing showing the actual installation of the system (As Built) is due to each irrigation system owner after all new irrigation system installations.

   Note: During the installation of the irrigation system, variances from the original plan may be authorized by the licensed irrigator if the variance from the plan does not: A. Diminish the operational integrity or the irrigation system.
   B. Violate any requirements of applicable laws, rules or regulations.

Texas Commission on Environmental Quality
Contact Information

Irrigation Rules/Other---------- ------Candy Garrett----------(512)239-1451
Complaints/Enforcement----------Richard Allen---------- (512)239-6956
CEU's ----------Tiffany Shelly---------- (512)239-6334
Irrigation Program Manager----------Andy Gardner-------- --------- (512)239-1452
New Irrigator License----------Wanda Kuurio---------- (512)239-2191
Renewal of License----------Ruby Herber--- ---------- (512)239-6719
Training----------Linda Saladino---------- (512)239-0178

Information on the web:

TCEQ:
www.tcegirrigator.info

TCEQ Licensing Database:
http://www5.tceq.state.tx.us/oce/olwe/

TCEQ Complaint Database:
http://www5.tceq.state.tx.us/oce/waci/

House Bill4:
http://www.capitol.state.tx.us/BillLoo up/Text.aspx?LegSess=80R&Bili=HB4

Senate Bill 3:
http://www.capitol.state.tx.us/BillLookup/Text.aspx?LegSess=80R&Bill=SB3

House Billl656:
http://www.capitol.state.tx.us/Bi11Lookup/Text.aspx?LegSess=80R&Bill=HB1656

Sample Maintenance Information for Irrigation System Owners

During daylight hours, monthly (while the system is in operation) check each zone of your irrigation system to make sure the system is operating correctly to conserve water and to keep your plants healthy. You might wish to contact a licensed irrigator to perform these tasks for you.

Irrigation System

- ☐ Winterization - plan to perform this around:_____ (Drain the irrigation system, reprogram automatic controller)
- ☐ Return to normal service – plan to perform this around:_____(Check to make sure there has been no damage to the system, reprogram automatic controller.)

Sprinkler Heads

- ☐ Missing or broken heads? (Replace heads with the same type of head)
- ☐ Heads clogged? (Remove the head and clean the filter or replace with the same type of head)
- ☐ Heads tilted, spraying in the wrong director, or too far in or above the ground? (Adjust or replace)
- ☐ Leaking water? (Replace a leaky valve in the valve box or check for a drainage problem)
- ☐ Misdirected or blocked spray pattern? (Remove vegetation (trim grass, trees or shrubs) or other obstructions or consider raising the heads)
- ☐ Spraying sideVfalk, deck, building, driveway or street? (Adjust the heads to stay within the planting area)

Controller

- ☐ Is the cabinet or space holding the controller clean? (Clean out cobwebs, dirt, debris, or ants)
- ☐ Is a new battery needed? (Consider replacing seasonally)
- ☐ Is time/day showing correctly? (Reprogram)
- ☐ Is the controller programmed for the appropriate season? (Generally, plants need less water in the winter and mature plants need less water than newly installed plants. Refer to the seasonal watering schedule provided by your Irrigator)
- ☐ Is the controller programmed for any water conservation measures that may be in effect from your water purveyor? (Adjust program if needed)

TCEQ recommends contacting a licensed to irrigator to perform these tasks:

Sprinkler Heads

- Fine mist? (There may be excessive pressure on the spray zones. Possible fixes: install a pressure regulator after the water meter; install pressure regulating sprinkler heads or valves.)
- Is the area being irrigated covered uniformly? (Possible causes; low or high water pressure, poor design, scheduling or poor installation techniques.)

Controller

- Wires loose or worn? (May be 110 volt.) (Tighten or replace.)
- Is rain or moisture sensor (or other technology) connected to the controller or ground wire?

Valves

- Replace broken or missing valve covers and valve boxes.
- Wire connections are intact and enclosed in appropriate moisture resistant connectors.

Backflow Prevention Devices

Note: you must be licensed to install, test or repair a backflow prevention device. Irrigation system owners should file a copy of any backflow test report with their irrigation system document. If you have a double check valve backflow prevention device, there is a "y" strainer in the water line. The strainer will need be checked periodically. Water that is discharged from a reduced pressure principle backflow prevention assembly should be directed to sanitary or storm drains. The backflow prevention device(s) should be protected from freezing, Irrigation system owners should have the backflow prevention device retested if above normal water velocities (such as a water system main break) occur. The backflow prevention device stops water from the irrigation system from entering into the water system.

Drip/Micro Irrigation

- Emitters connected to flex line.
- Flex line connected to riser.
- Micro adjustment nozzle connected to flex line and nozzle intact.
- Service filter strainer periodically.
- Ensure proper operation of automatic flush valves.
- Confirm operational pressures.

Components Requiring Maintenance-Example for Irrigators

Irrigation System

- Winterization
- Return to normal service

Sprinkler Heads

- Are any heads missing?
- Are any heads broken?
- Are any heads clogged?
- Are any heads tilted, spraying in the wrong direction, or too far in or above the ground?
- Is water constantly seeping from a head?
- Is water spraying in a fine mist?
- Does the sprinkler cover the entire area uniformly?
- Is the spray pattern blocked or misdirected?
- Is the system spraying onto sidewalks, decks, buildings, driveways or the street?

Controller

- Is the cabinet or space holding the controller clean?
- Are any wires loose? (Take care with wires of 110 volt).
- Have any wires become worn? (Take care with wires of 110 volt}.
- Is a new battery needed?
- Is the time and day showing correct?
- Is the rain or moisture sensor (or other technology) connected to the controller or ground wire?
- Is the controller programmed for the appropriate season?
- Is the controller programmed for any water conservation measures that may be in effect from your water purveyor?

Valves

- Inspect valve covers and valve boxes.
- Inspect valve electrical connections.

Back Flow Prevention Device

- Is tested, as needed or required.

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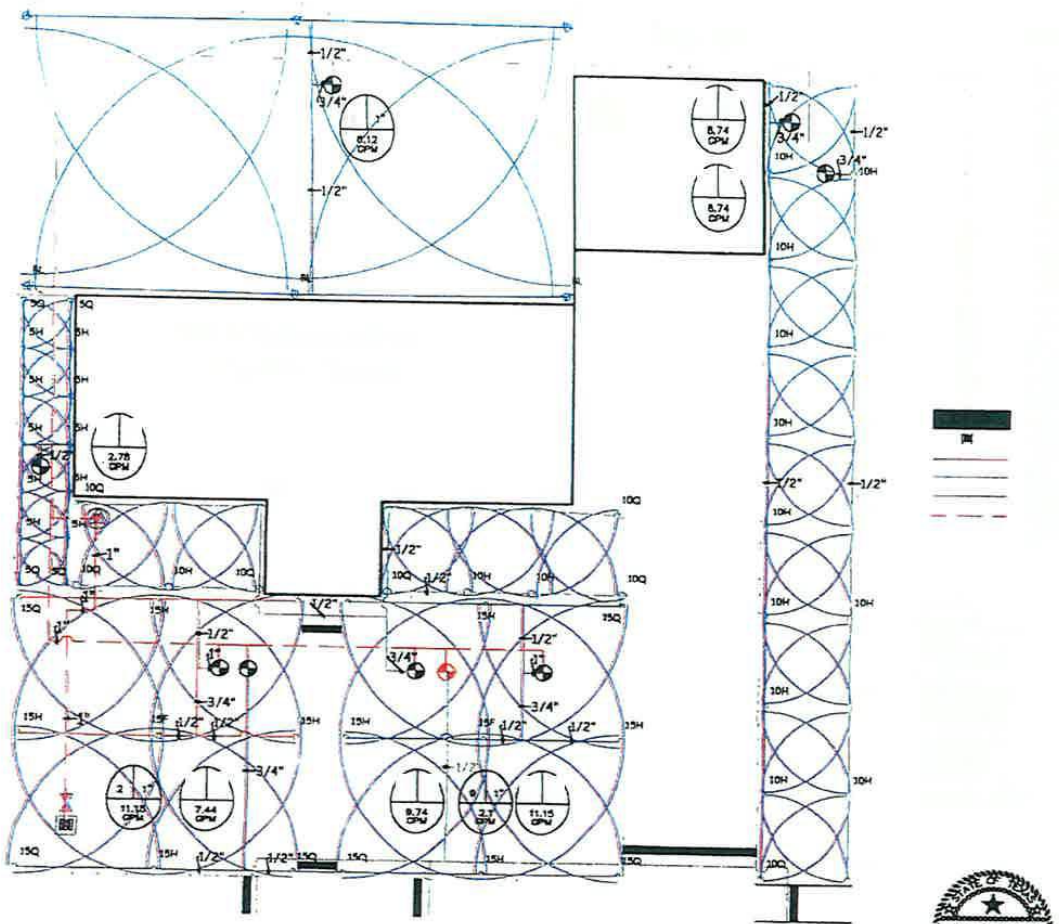

Water Meter Information
Meter Size

Connection Information
Pipe Category

Recommendations

Joe Irrigator
Irrigator