



# City of Rowlett

## Official Copy

4000 Main Street  
Rowlett, TX 75088  
www.rowlett.com

Ordinance: ORD-016-21

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**AN ORDINANCE OF THE CITY OF ROWLETT, TEXAS, AMENDING THE CODE OF ORDINANCES, CITY OF ROWLETT, TEXAS, BY ADDING A NEW ARTICLE XIII, TO BE ENTITLED "LAWN IRRIGATION SYSTEMS," TO CHAPTER 78, "BUILDINGS AND BUILDING REGULATIONS," TO ADOPT A COMPREHENSIVE SET OF REGULATIONS PERTAINING TO THE INSTALLATION OF LAWN IRRIGATION SYSTEMS; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS (\$2,000.00); AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the State of Texas has adopted regulations regarding lawn irrigation systems and mandated that cities with a population exceeding 20,000 enforce those regulations; and

**WHEREAS**, the City Council of the City of Rowlett, Texas ("City Council") has investigated and determined that it would be advantageous and beneficial to the citizens of the City of Rowlett, Texas ("Rowlett") to adopt rules regulating lawn irrigation systems, and that such rules and regulations would be in the best interest of the citizens of the City.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ROWLETT, TEXAS:**

**SECTION 1:** That the Code of Ordinances, City of Rowlett, Texas be and is hereby amended by amending Chapter 78, "Buildings and Building Regulations," to adopt a new Article XII, entitled "Lawn Irrigation Systems," to adopt regulations relating to the design and installation of lawn irrigation systems, said Article XIII to read in its entirety as follows:

**"CHAPTER 78  
BUILDINGS AND BUILDING REGULATIONS**

...

**ARTICLE XIII  
LAWN IRRIGATION SYSTEMS**

**Sec. 78-450. Definitions.**

The following words and terms have the following meanings, unless the context clearly indicates otherwise:

*Auxiliary water supply* shall mean any water supply other than the City of Rowlett's approved public water supply, including water from another public water supply or from a natural source including, but not limited to, wells, cisterns, springs, rivers, streams, used waters, or industrial fluids.

*Backflow prevention* shall mean the mechanical prevention of reverse flow, or back siphonage, of non-potable water from an irrigation system into the potable water source.

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*Backflow prevention assembly* shall mean an assembly which, when properly installed between the City water supply system and the terminus or point of ultimate use will prevent backflow. Examples of such include, but are not limited to, reduced pressure backflow assemblies, double check valve assemblies, pressure vacuum breakers, and air gap separation.

*City* shall mean the City of Rowlett, Texas and its duly authorized representatives.

*Commission* shall mean the Texas Commission on Environmental Quality.

*Cross-connection* shall mean a physical connection between a public water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree than approved or auxiliary water supply source in the treatment process.

*Design pressure* shall mean the pressure that is required for an emission device to operate properly. Design pressure is calculated by adding the operating pressure necessary at an emission device to the total of all pressure losses accumulated from an emission device to the water source.

*Emission device* shall mean any device that is contained within an irrigation system and that is used to apply water. Common emission devices in an irrigation system include, but are not limited to, spray and rotary sprinkler heads, and drip irrigation emitters.

*Installer* shall mean a person who actually connects an irrigation system to a private or public raw or potable water supply system or any water supply, who is licensed according to 30 TAC Chapter 30 (relating to occupational licenses and registrations).

*Irrigation plan* shall mean a scaled drawing of a landscape irrigation system which lists required information, the scope of the project, and represents the changes made in the installation of the irrigation system.

*Irrigation services* shall mean selling, designing, installing, maintaining, altering, repairing, servicing, permitting, providing consulting services regarding, or connecting an irrigation system to a water supply.

*Irrigation system* shall mean an assembly of component parts that is permanently installed for the controlled distribution and conservation of water to irrigate any type of landscape vegetation in any location, and/or to reduce dust or control erosion. This term does not include a system that is used on or by an agricultural operation as defined by section 251.002 of the Texas Agricultural Code, as amended.

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*Irrigation technician* shall mean a person who works under the supervision of a licensed irrigator to install, maintain, alter, repair, service or supervise installation of an irrigation system, including the connection of such system in or to a private or public, raw or potable water supply system or any water supply, and who is required to be licensed under 30 TAC Chapter 30 (relating to occupational licenses and registrations).

*Irrigation zone* shall mean a subdivision of an irrigation system with a matched precipitation rate based on plant material type (such as turf, shrubs, or trees), microclimate factors (such as sun/shade ratio), topographic features (such as slope) and soil conditions (such as sand, loam, clay, or combination) or for hydrological control.

*Irrigator* shall mean a person who sells, designs, offers consultations regarding, installs, maintains, alters, repairs, services or supervises the installation of an irrigation system, including the connection of such system to a private or public, raw or potable water supply system or any water supply, and who is required to be licensed under 30 TAC Chapter 30.

*Mainline* shall mean a pipe within an irrigation system that delivers water from the water source to the individual zone valves.

*Maintenance checklist* shall mean a document made available to the irrigation system's owner or owner's representative that contains information regarding the operation and maintenance of the irrigation system, including, but not limited to: checking and repairing the irrigation system, setting the automatic controller, checking the rain or moisture sensor, cleaning filters, pruning grass and plants away from irrigation emitters, using and operating the irrigation system, the precipitation rates of each irrigation zone within the system, any water conservation measures currently in effect from the water purveyor, the name of the water purveyor, a suggested seasonal or monthly watering schedule based on current evapotranspiration data for the geographic region, and the minimum water requirements for the plant material in each zone based on the soil type and plant material where the system is installed.

*Major maintenance, alteration, repair, or service* shall mean any activity that involves opening to the atmosphere the irrigation mainline at any point prior to the discharge side of any irrigation zone control valve. This includes, but is not limited to, repairing or connecting into a main supply pipe, replacing a zone control valve, or repairing a zone control valve in a manner that opens the system to the atmosphere.

*Master valve* shall mean a remote control valve located after the backflow prevention device that controls the flow of water to the irrigation system mainline.

*Matched precipitation rate* shall mean the condition in which all sprinkler heads within an irrigation zone apply water at the same rate.

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*New installation* shall mean an irrigation system installed at a location where one did not previously exist or the replacement of all or substantially all of an existing system.

*Non-potable water* shall mean a water supply, which has not been approved for human consumption by the commission.

*Potable water* shall mean any public water supply which has been investigated and approved by the commission as satisfactory for drinking, culinary and domestic purposes.

*Pressure vacuum breaker* shall mean an assembly which contains an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve, with properly located resilient-seated test cocks and tightly closing resilient-seated shutoff valves attached at each end of the assembly. Pressure vacuum breakers shall not be subjected to back pressure situations.

*Reclaimed water* shall mean the domestic or municipal wastewater which has been treated to a quality suitable for beneficial use, such as landscape irrigation.

*Records of landscape irrigation activities* shall mean the irrigation plans, contracts, warranty information, invoices, copies of permits, and other documents that relate to the installation, maintenance, alteration, repair, or service of a landscape irrigation system.

*Zone flow* shall mean a measurement, in gallons per minute or gallons per hour, of the actual flow of water through a zone valve, calculated by individually opening each zone valve and obtaining a valid reading after the pressure has stabilized. For design purposes, the zone flow is the total flow of all nozzles in the zone at a specific pressure.

*Zone valve* shall mean an automatic valve that controls a single zone of a landscape irrigation system.

**Sec. 78-451. Valid license required.**

Any person who connects an irrigation system to the water supply within the city must hold a valid state irrigation license or plumbing license, unless exempt by law.

**Sec. 78-452. Permit required.**

It shall be unlawful for any person to install or cause to be installed, or to permit any person to install an irrigation system, or to make any alterations, additions or changes to an irrigation system, without first having procured a permit to do so from the building official. Any plan approved for a permit must be in compliance with the requirements of this article. All

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irrigation systems must be installed in compliance with the cross connection control and prevention requirements of Chapter 70 of the Code of Ordinances.

The following are exempt from the provisions of this section:

1. An irrigation system that is a component of an aerobic-based on-site sewage facility;
2. An irrigation system used on or by an agricultural operation as defined by section 251.002, Texas Agriculture Code, as amended.;  
or
3. An irrigation system connected to a groundwater well used by the property owner for domestic use.

**Sec. 78-453. Water conservation.**

All irrigation systems shall be designed, installed, maintained, altered, repaired, serviced, and operated in a manner that will promote water conservation.

**Sec. 78-454. - Irrigation plan design: Minimum standards.**

a. An irrigator shall prepare an irrigation plan for each site where a new irrigation system will be installed. A paper or electronic copy of the irrigation plan must be on the job site at all times during the installation of the irrigation system. A drawing showing the actual installation of the system shall be provided to each irrigation system owner after all new irrigation system installations. During the installation of the irrigation system, variations from the original plan may be authorized by the licensed irrigator if the variation from the plan does not:

1. Diminish the operational integrity of the irrigation system;
2. Violate any requirements of this article; and
3. Go unnoted in red on the irrigation plan.

b. The irrigation plan should include complete coverage of the area to be irrigated. If a system does not provide complete coverage of the area to be irrigated, it must be noted on the irrigation plan.

c. All irrigation plans used for new irrigation systems must be drawn to scale. The plan must include, at a minimum, the following information:

1. The irrigator's seal, signature, and date of signing;
  2. All major physical features and the boundaries of the areas to be watered;
  3. A North arrow;
  4. A legend;
  5. The zone flow measurement for each zone;
  6. Location and type of controller and sensor (for example, but not limited to, rain, moisture, wind, flow, or freeze);
  7. Location, type, and size of each:
    - A. Water source, such as, but not limited to a water meter and point(s) of connection;
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- B. Backflow prevention assembly;
  - C. Water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip, or micro-sprays;
  - D. Valves, including but not limited to, zone valves, master valves, and isolation valves;
  - E. Pressure regulation component; and
  - F. Main line and lateral piping.
- 8. The scale used; and
  - 9. The design pressure.

**Sec. 78-455. Design and installation: Minimum requirements.**

a. No irrigation design or installation shall require the use of any component, including the water meter, in a way which exceeds the manufacturer's performance limitations for the component.

b. Spacing.

1. The maximum spacing between emission devices must not exceed the manufacturer's radius or spacing of the device(s). The radius or spacing is determined by referring to the manufacturer's 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 forty-eight (48) inches (not including the impervious surfaces) in either length or width and which contain impervious pedestrian or vehicular traffic surfaces along two (2) or more perimeters. 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 impervious surface and shall not be installed closer than four (4) inches from a hardscape, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers, or stones set with mortar.

3. Narrow paved walkways, jogging paths, golf cart paths or other small areas located in cemeteries, parks, golf courses or other public areas may be exempted from this requirement if the runoff drains into a landscaped area.

c. Water pressure. Emission devices must be installed to operate at the minimum and not above the maximum sprinkler head pressure as specified 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.

d. Piping. Piping in irrigation systems must be designed and installed so that the flow of water in the pipe will not exceed a velocity of five (5) feet per second for polyvinyl chloride (PVC) pipe.

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e. Irrigation zones. Irrigation systems shall have separate zones based on plant material type, microclimate factors, topographic features, soil conditions, and hydrological requirements.

f. Matched precipitation rate. Zones must be designed and installed so that all of the emission devices in that zone irrigate at the same precipitation rate.

g. Irrigation systems shall not spray water over surfaces made of concrete, asphalt, brick, wood, stones set with mortar, or any other impervious material, such as, but not limited to, walls, fences, sidewalks, and streets.

h. Master valve. When provided, a master valve shall be installed on the discharge side of the backflow prevention device on all new installations.

i. PVC pipe primer solvent. All new irrigation systems that are installed using PVC pipe and fittings shall be primed with a colored primer prior to applying the PVC cement in accordance with the International Plumbing Code as adopted by the City.

j. Rain, moisture, and freeze shut-off devices or other technology. All new automatically controlled irrigation systems must include sensors or other technology designed to inhibit or interrupt operation of the irrigation system during periods of moisture, rainfall, and freezing temperatures. Rain, moisture, and freeze shut-off technology must be installed according to the manufacturer's recommendations. Repairs to existing automatic irrigation systems that require replacement of an existing controller must include a sensor or other technology designed to inhibit or interrupt operation of the irrigation system during periods of moisture, rainfall, and freezing temperatures.

k. Isolation valve. All new irrigation systems must include an isolation valve between the water meter and the backflow prevention assembly.

l. Depth coverage of piping. Piping in all irrigation systems must be installed according to the manufacturer's specifications for depth coverage of piping.

1. If the manufacturer has not promulgated specifications for depth coverage of piping, the piping must be installed to provide minimum depth coverage of six (6) inches of select backfill, between the top of the pipe and the natural grade of the topsoil. All portions of the irrigation system that fail to meet this standard must be noted on the irrigation plan. If the area being irrigated has rock at a depth of six (6) inches or less, select backfill may be mounded over the pipe. Mounding must be noted on the irrigation plan and discussed with the irrigation system owner or owner's representative to address any safety issues.

2. If a utility, man-made structure or roots create an unavoidable obstacle that makes the six-inch depth coverage

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requirement impractical, the piping shall be installed to provide a minimum of two (2) inches of select backfill between the top of the pipe and the natural grade of the topsoil.

3. All trenches and holes created during installation of an irrigation system must be backfilled and compacted to the original grade.

m. Wiring irrigation systems.

1. Underground electrical wiring used to connect an automatic controller to any electrical component of the irrigation system must be listed by Underwriters Laboratories as acceptable for burial underground or must be in compliance with the then-most current edition of the National Electrical Code as adopted by the City.

2. Electrical wiring that connects any electrical components of an irrigation system must be sized according to the manufacturer's recommendation.

3. Electrical wire splices which may be exposed to moisture must be waterproof.

4. Underground electrical wiring that connects an automatic controller to any electrical component of the irrigation system must be buried with a minimum of six (6) inches of select backfill.

n. Water contained within the piping of an irrigation system is deemed to be non-potable. No drinking or domestic water usage, including but not limited to filling swimming pools or decorative fountains, shall be connected to an irrigation system. If a hose bib (an outdoor water faucet that has hose threads on the spout) is connected to an irrigation system for the purpose of providing supplemental water to an area, the hose bib must be installed using a quick coupler key on a quick coupler installed in a covered purple valve box and the hose bib and any hoses connected to the bib must be labeled "non-potable, not safe for drinking." An isolation valve must be installed upstream of a quick coupler connecting a hose bib to an irrigation system.

o. Either a licensed irrigator or a licensed irrigation technician shall be on-site at all times while the landscape irrigation system is being installed. When an irrigator is not onsite, the irrigator shall be responsible for ensuring that a licensed irrigation technician is on-site to supervise the installation of the irrigation system.

**Sec. 78-456. Completion of irrigation system installation.**

Upon completion of the irrigation system, the irrigator or irrigation technician who provided supervision for the on-site installation shall be required to complete the following four (4) items:

a. A final "walk through" with the irrigation system's owner or the owner's representative to explain the operation of the system;

b. The maintenance checklist on which the irrigator or irrigation technician shall obtain the signature of the irrigation system's owner or

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owner's representative and shall sign, date, and seal the checklist. If the irrigation system's owner or owner's representative is unwilling or unable to sign the maintenance checklist, the irrigator shall note the time and date of the refusal on the irrigation system's owner or owner's representative's signature line. The irrigation system owner or owner's representative will be given the original maintenance checklist and a duplicate copy of the maintenance checklist shall be maintained by the irrigator. The items on the maintenance checklist shall include but are not limited to:

1. The manufacturer's manual for the automatic controller, if the system is automatic;
2. A seasonal (spring, summer, fall, winter) watering schedule based on either current/real time evapotranspiration or monthly historical reference evapotranspiration (historical ET) data, monthly effective rainfall estimates, plant landscape coefficient factors, and site factors;
3. A list of components, such as the nozzle, or pump filters, and other such components; that require maintenance and the recommended frequency for the service; and
4. The statement, "This irrigation system has been installed in accordance with all applicable state and local laws, ordinances, rules, regulations or orders. I have tested the system and determined that it has been installed according to the Irrigation Plan and is properly adjusted for the most efficient application of water at this time."

c. 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 or irrigation technician. If the irrigation system is manual, the sticker shall be affixed to the original maintenance checklist. The information contained on the sticker must be printed with waterproof ink.

d. The irrigation plan indicating the actual installation of the system must be provided to the irrigation system's owner or owner representative.

**Sec. 78-457. Maintenance, alteration, repair, or service of irrigation systems.**

a. The licensed irrigator is responsible for all work that the irrigator performed during the maintenance, alteration, repair, or service of an irrigation system during the warranty period. The irrigator or business owner is not responsible for the professional negligence of any other irrigator who subsequently conducts any irrigation service on the same irrigation system.

b. All trenches and holes created during the maintenance, alteration, repair, or service of an irrigation system must be returned to the original grade with compacted select backfill.

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c. Colored PVC pipe primer solvent must be used on all pipes and fittings used in the maintenance, alteration, repair, or service of an irrigation system in accordance with the then most recent edition of the International Plumbing Code as adopted by the City.

d. When maintenance, alteration, repair or service of an irrigation system involves excavation work at the water meter or backflow prevention device, an isolation valve shall be installed if an isolation valve is not present.

**Sec. 78-458. Reclaimed water.**

Reclaimed water may be utilized in landscape irrigation systems if:

a. There is no direct contact with edible crops, unless the crop is pasteurized before consumption;

b. The irrigation system does not spray water across property lines that are not all owned by the irrigation system's owner;

c. The irrigation system is installed using purple components;

d. The domestic potable water line is connected using an air gap or a reduced pressure principle backflow prevention device;

e. A minimum of an eight-inch by eight-inch (8" X 8") sign, in English and Spanish, is prominently posted on/in the area that is being irrigated, that reads, "RECLAIMED WATER - DO NOT DRINK" and "AGUA DE RECUPERACIÓN - NO BEBER"; and

f. Backflow prevention on the reclaimed water supply line shall be in accordance with the regulations of the City and the City's water provider.

**Sec. 78-459. Fees.**

Prior to issuance of a permit the applicant shall pay a permit fee in accordance with the City of Rowlett building inspections fee schedule as adopted by the city council, as it exists or may be amended."

**SECTION 2:** That all ordinances of the City of Rowlett, Texas, in conflict with the provisions of this ordinance be and the same are hereby repealed and all other ordinances of the City of Rowlett not in conflict with the provisions of this ordinance shall remain in full force and effect.

**SECTION 3:** That should any sentence, paragraph, subdivision, clause, phrase or section of this ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole, or any part or provision hereof other than the part so decided to be invalid, illegal or

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unconstitutional, and shall not affect the validity of the Code of Ordinances as a whole.

**SECTION 4:** That any person, firm or corporation violating any of the provisions or terms of this ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Rowlett, as heretofore amended, and upon conviction shall be punished by a fine not to exceed the sum of two thousand dollars (\$2,000.00) for each offense.

**SECTION 5:** That this Ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law and Charter in such case provide.

At a meeting of the City Council on March 16, 2021 this Resolution be adopted. The motion carried by the following vote:

**Ayes: 6** Mayor Dana-Bashian, Deputy Mayor Pro Tem Bell, Councilmember Margolis, Councilmember Sherrill, Councilmember Laning and Councilmember Brown

**Absent: 1** Mayor Pro Tem Grubisich

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Approved by Tommy Davis - Bassman Date March 16, 2021  
Mayor

Approved to form by [Signature] Date March 16, 2021  
City Attorney

Certified by Laura Hallmark Date March 16, 2021  
City Secretary

