

**ORDINANCE NO. 3810**

**AN ORDINANCE OF THE CITY OF RICHARDSON, TEXAS, AMENDING CHAPTER 6 OF THE CODE OF ORDINANCES OF THE CITY OF RICHARDSON, TEXAS, BY ADDING ARTICLE XII REGULATING THE USE OF RAINWATER HARVESTING SYSTEMS; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED THE SUM OF FIVE HUNDRED DOLLARS (\$500.00) FOR EACH OFFENSE; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City Council of Richardson, Texas wishes to amend Chapter 6 of the Code of Ordinances of the City of Richardson, Texas, to add Article XII regulating the use of rainwater harvesting systems; **NOW, THEREFORE**,

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RICHARDSON, TEXAS:**

**SECTION 1.** That Chapter 6 of the Code of Ordinances of the City of Richardson, Texas, is hereby amended to add Article XII, Rainwater Harvesting Systems, to read as follows:

**“ARTICLE XII. RAINWATER HARVESTING SYSTEMS**

**Sec. 6-500. Definitions.**

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Air gap* means a complete physical separation between the free flowing discharge end of a potable water supply pipeline and an open or nonpressure receiving vessel.

*Backflow prevention* means the mechanical prevention of reverse flow, or back siphonage, of nonpotable water from an irrigation system into the potable water source.

*Backflow prevention assembly* means any assembly used to prevent backflow into a potable water system. The type of assembly used is based on the existing or potential degree of health hazard and backflow condition.

*Catchment surface* means the collection surface from which rainfall runs off.

*Debris* means any visible contaminant including leaves and twigs, dust and dirt, bird and animal droppings, insects, and other visible material.

*Debris excluder* means any screening component such as a first-flush diverter, leaf screen, roof washer, or other similar device that is designed to prevent debris and sediment from entering the storage tank of a rainwater harvesting system.

*Nonpotable water* means untreated water that is unsafe for human consumption.

*Potable water* means water that is suitable for human consumption.

*Rainwater harvesting system* means any system used for the capture, storage, and distribution of untreated rainwater from a rooftop catchment surface or from precipitation captured directly from the sky to be used for outdoor landscape irrigation or foundation watering and consisting of the components described in Sec. 6-505(5) herein.

*Reduced pressure principle backflow prevention assembly* means an assembly containing two independently acting, approved check valves together with a hydraulically operating mechanically independent pressure differential relief valve located between the two check valves and below the first check valve.

*Storage tank* means any tank, cistern, rain barrel, or container used to collect harvested rainwater.

#### **Sec. 6-501. Valid License Required.**

- (1) Any person who connects a rainwater harvesting system to the water supply within the city must hold a valid license, as defined by Title 30, Texas Administrative Code, Chapter 30, and required by V.T.C.A., Occupations Code Ch. 1903, or as defined by Chapter 365, Title 22 of the Texas Administrative Code, and required by V.T.C.A., Occupations Code Ch. 1301.
- (2) A property owner is not required to be licensed in accordance with V.T.C.A., Occupations Code, Title 12, § 1903.002(c)(1) if he or she is performing irrigation work in a building or on a premises owned or occupied by the person as the person's home. A home or property owner who installs an irrigation system must meet the standards contained in Title 30, Texas Administrative Code, Chapter 344 regarding spacing, water pressure, spraying water over impervious materials, rain or moisture shut-off devices or other technology, backflow prevention and isolation valves. The city may, at any point, adopt more stringent requirements for a home or property owner who installs an irrigation system. See V.T.C.A., Occupations Code § 1903.002 for other exemptions to the licensing requirement.

#### **Sec. 6-502. Permits Required.**

- (1) Regardless of size, all rainwater harvesting systems are subject to the requirements for storage tank compliance and screening described herein; however, no permit shall be required for a rainwater harvesting system that conveys water to an above ground storage tank, such as a rain barrel, for gravity flow (hose flow) irrigation distribution only, if the

system consists of one or more storage tanks that cumulatively hold 400 gallons or less in volume. Each owner of a rainwater harvesting system that meets these requirements shall register each system with the Chief Building Official.

- (2) It shall be unlawful for any person to construct or install a rainwater harvesting system without having first obtained a permit from the Building Inspection Department if:
  - (a) The system consists of one or more storage tanks that cumulatively hold 400 gallons or more in volume.
  - (b) The system includes the installation of any devices which would require erecting, installing, repairing, converting or replacing any electrical and/or plumbing system/device.
- (3) Adequate plans and specifications, as determined by the Chief Building Official, must accompany each application for a permit.

#### **Sec. 6-503. Inspection and fee.**

It shall be the duty of the City Building Inspection Department to inspect all rainwater harvesting systems which require a permit to determine that they are in compliance with this ordinance. For such inspection and the issuance of the permit, a fee in the amount as established by resolution by the City Council shall be paid to the Building Inspection Department prior to the issuance of such permit.

#### **Sec. 6-504. Construction and Maintenance Requirements.**

All rainwater harvesting systems shall be constructed and maintained in accordance with the following requirements:

- (1) Compliance with State and Federal Law is the responsibility of the producer, provider, and user of such installations.
- (2) In addition to the requirements of this division, all rainwater harvesting systems must be in compliance with the Richardson Building Code.
- (3) All approved rainwater harvesting systems must be constructed and installed as per the specifications of the manufacturer of that particular system. A copy of these specifications must be submitted to the Building Inspection Department along with the permit application.

## Sec. 6-505. Restrictions and limitations.

All rainwater harvesting systems constructed and maintained under the provisions of this ordinance shall be subject to the following restrictions and limitations:

- (1) *Allowable uses.* Allowable uses of rainwater harvesting systems shall be restricted to nonpotable, outdoor irrigation and foundation watering only.
- (2) *Limited service area.* The rainwater harvesting system shall serve only the lot upon which it is located.
- (3) *Connection to the potable water supply.* Connection of more than one water source to an irrigation system presents the potential for contamination of the potable water supply if backflow occurs. Therefore, connection of any additional water source to an irrigation system that is connected to the potable water supply shall be permitted only if the irrigation system is connected to the potable water supply through a reduced-pressure principle backflow prevention assembly or an air gap.
- (4) *Setbacks.* Rainwater harvesting systems shall meet the following setback requirements:
  - (a) *Front.* No rainwater harvesting system or any component thereof shall be located between any front building wall and the front property line.
  - (b) *Side.* There shall be a setback of seven feet from any side property line for any rainwater harvesting system or any component thereof, except the side setback on a corner lot adjacent to a street shall not be less than 20 feet.
  - (c) *Rear.* There shall be a setback of three feet from any rear property line or any side property line in the rear setback area for any rainwater harvesting system or any component thereof.
- (5) *Components.* Regardless of its complexity, a rainwater harvesting system shall be comprised of the following components:
  - (a) *Catchment surface* from which rainwater is collected. Rooftops are the only allowable catchment surface.
  - (b) *Gutters and downspouts* that channel water from the roof catchment surface to the tank.
  - (c) The rainwater catchment conveyance system shall be equipped with a *debris excluder* or other approved means to prevent the accumulation of leaves, needles, other debris and sediment from entering the storage tank. Devices and methods used to remove debris or sediment shall be

accessible and sized and installed in accordance with manufacturer's installation instructions.

- (d) One or more approved *storage tanks*.
  - (e) A *delivery system*, either gravity fed or pumped to the end use.
- (6) *Storage tanks*. Regardless of the size or complexity of storage tanks, the following provisions are required to prevent public health hazards and nuisances:
- (a) Storage tanks must be opaque.
  - (b) Storage tanks must never have been used to store hazardous materials.
  - (c) Storage tanks must be covered and vents screened to prevent mosquito breeding.
  - (d) Storage tanks must be accessible for cleaning and repair
  - (e) Storage tank access openings exceeding 12 inches (305 mm) in diameter shall be secured to prevent tampering and unintended entry by either a lockable device or other approved method.
  - (f) Storage tanks are required to have an overflow port.
  - (g) Storage tanks should be placed on a stable, level surface and it must be capable of holding the maximum possible weight when full.
  - (h) Underground storage tanks must observe a 1:1 setback ratio from the bottom of the house foundation.
  - (i) Above ground storage tanks shall be no more than 8 feet in height.
- (7) *Rainwater identification*. Storage tanks must be labeled "RAINWATER – DO NOT DRINK", "NONPOTABLE WATER – DO NOT DRINK", or with a similar phrase that clearly indicates that the water contained within is not suitable for human consumption.
- (8) *Screening*. A rainwater harvesting system may be installed in the side or rear yard of any property zoned R-2000-M, R-1800-M, R-1500-M, R-1250-M, R-1100-M, R-1000-M, R-950-M, R-850-F, R-850-M, RP-1500-M, D-3000-M, D-2400-M or D-1400-M if the storage tank(s) are screened from view of the adjacent public or private street by a wood fence at least six feet in height or the height of the storage tank(s), whichever is greater, or by a landscaping screen wall consisting of shrubs a minimum of three feet in height when measured immediately after planting and five gallons in size selected from the city-approved plant list that will

provide a continuous unbroken solid visual screen which at maturity will reach a height of six feet or the height of the storage tank(s), whichever is greater.

- (9) *Maintenance.* Any rainwater harvesting system, permitted or unpermitted shall:
- (a) Not remain in a condition so as to create a public health hazard or a nuisance to the general public;
  - (b) Be maintained as required to keep the system functioning as designed;
  - (c) Be maintained so as to prevent the accumulation of unwholesome, stagnant, or offensive water;
  - (d) Be maintained so as to prevent the attraction or breeding of mosquitoes or other undesirable pests;
  - (e) Not be used for the storage of anything other than water or for anything other than its intended purpose as a rainwater harvesting system;
  - (f) Remain in compliance with the provisions listed within this ordinance or be appropriately abandoned in an approved manner.
- (10) *Abandonment.* When a rainwater system is to be abandoned, all re-piping necessary to supply the irrigation with another water source will require applicable permits along with a set of plans to be approved by the Building Department.
- (11) *Exceptions.* No deviation from the height, setback or screening requirements specified herein shall be permitted unless allowed by Special Exception of the Zoning Board of Adjustment.
- (12) *Special Permit Required.* No system that is supplied or supplemented by a water source not specified herein or used for any purpose other than irrigation shall be allowed except by the approval of a Special Permit through the zoning process.”

**SECTION 2.** That all provisions of the ordinances of the City of Richardson in conflict with the provisions of this ordinance be, and the same are hereby, repealed, and all other provisions of the ordinances of the City of Richardson 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 thereof other than the part so decided to be invalid, illegal or unconstitutional, and shall not affect the validity of the Code of Ordinances as a whole.

**SECTION 4.** That an offense committed before the effective date of this ordinance is governed by prior law and the provisions of the Code of Ordinances, as amended, in effect when the offense was committed and the former law is continued in effect for this purpose.

**SECTION 5.** 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 Richardson, as heretofore amended, and upon conviction shall be punished by a fine not to exceed the sum of Five Hundred Dollars (\$500.00) for each offense; and each and every day such violation shall continue shall be deemed to constitute a separate offense.

**SECTION 6.** This Ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law and charter in such cases provide.

**DULY PASSED** by the City Council of the City of Richardson, Texas, on the \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

APPROVED:

\_\_\_\_\_  
MAYOR

APPROVED AS TO FORM:

CORRECTLY ENROLLED:

\_\_\_\_\_  
CITY ATTORNEY  
(PGS:01-04-11:46823)

\_\_\_\_\_  
CITY SECRETARY