

New Irrigation Rules & Procedures

Effective January 1, 2009, the City of Haltom City began enforcing the new landscape irrigation rules as revised by TCEQ. This is in accordance with House Bill 1656 which requires all cities with a population over 20,000 to enforce the minimum standards for designing installing, and/or altering a commercial or residential irrigation system.

As such, the city now requires two copies of an irrigation plan be submitted with any irrigation permit request. The plans will then be reviewed for compliance before a permit is issued. Please allow a minimum of ten (10) business days for review. In addition to property owner and site information, all plan submittals must include the following information:

- 1) Irrigator's seal, signature and date of signing
- 2) All major physical features and boundaries of the areas to be watered
- 3) A North arrow
- 4) A legend
- 5) Zone flow measurement for each zone
- 6) Location and type of each:
 - a. Controller
 - b. Rain/freeze sensor (required by City of Haltom Ordinance)
- 7) Location, type and size of each:
 - a. Water source, such as, but not limited to, a water meter and point(s) of connection
 - b. Backflow prevention device
 - c. Water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip or micro-sprayers.
 - d. Valve, including, but not limited to zone valves, master valves and isolation valves
 - e. Pressure regulation component
 - f. Main line and lateral piping
- 8) Scale used
- 9) Design pressure

Final Inspection:

- 1) Copy of the Backflow test report
- 2) Copy of the final walkthrough checklist signed by the irrigator and the property owner
 - a. A sample checklist has been included in this notice.
- 3) An "as-built" plan must be on site at the property.
- 4) 3-4 sample depth openings

The permit is valid for 30 days from the date of issuance. Failure to obtain a final inspection before the permit expires will result in additional permit fees for renewal.

If you have any questions, please contact this office at (817) 222-7734 or (817) 222-7730.

SAMPLE: IRRIGATION MAINTENANCE CHECKLIST INFORMATION

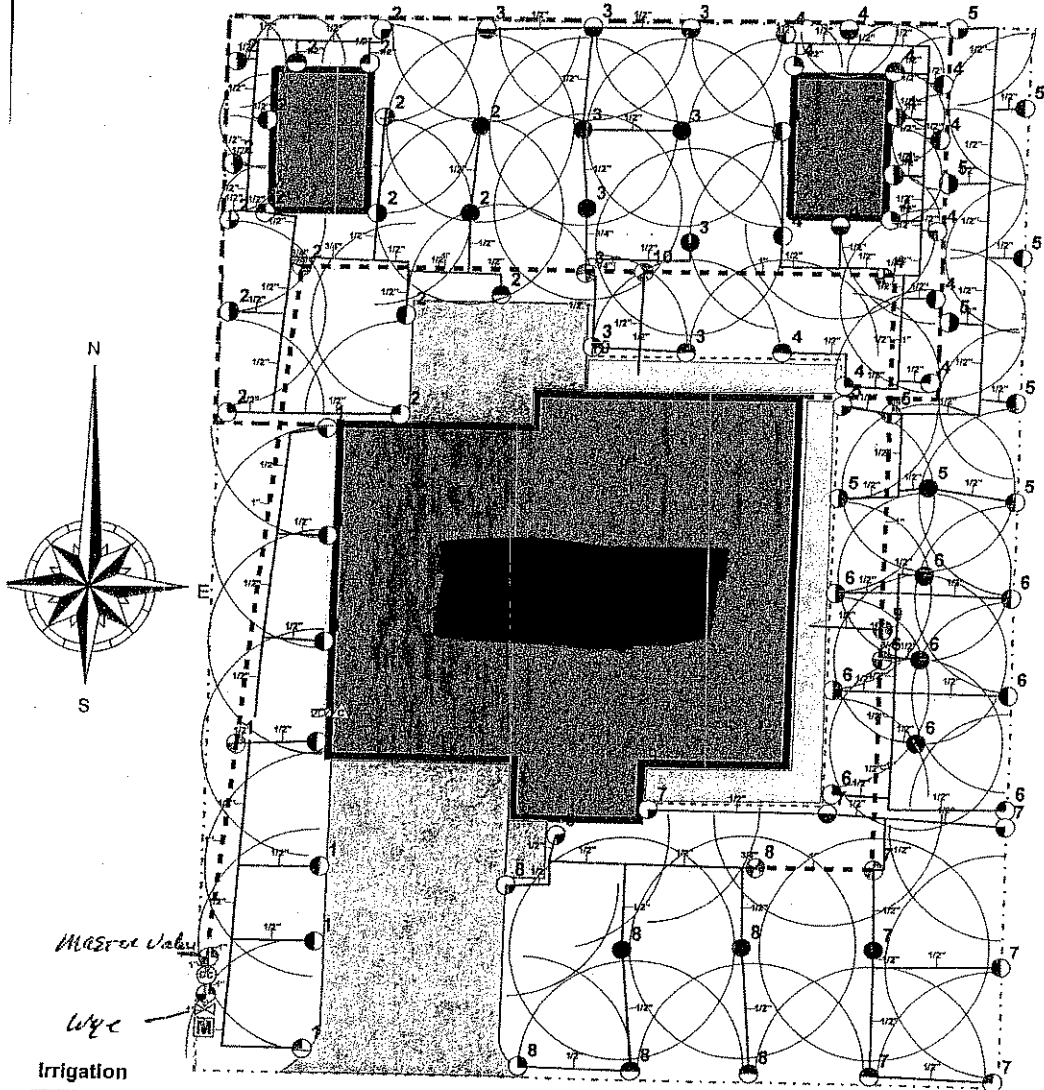
The maintenance checklist on which the irrigator or irrigation technician shall obtain the signature of the irrigation system's owner or owner's representative and shall sign, date, and seal the checklist. If the irrigation system's owner or owner's representative is unwilling or unable to sign the maintenance checklist, the irrigator shall note the time and date of the refusal on the appropriate 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 be limited to:

- 1) The manufacturer's manual for the automatic controller, if the system is automatic.
- 2) A seasonal watering schedule based on either current/real time evapotranspiration (ET) or monthly historical reference 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."

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.

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

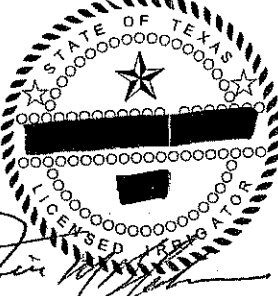
SAMPLE



Irrigation

Symbol	Description	Pressure	Flow	Radius
●	Rain Bird 10F - 1804	30 psi	1.58 gpm	10 ft
●	Rain Bird 10H - 1804	30 psi	0.79 gpm	10 ft
●	Rain Bird 10Q - 1804	30 psi	0.39 gpm	10 ft
●	Rain Bird 12F - 1804	30 psi	2.6 gpm	12 ft
●	Rain Bird 12H - 1804	30 psi	1.3 gpm	12 ft
●	Rain Bird 12Q - 1804	30 psi	0.65 gpm	12 ft
●	Rain Bird 5H - 1804	30 psi	0.2 gpm	5 ft
●	Rain Bird 5Q - 1804	30 psi	0.1 gpm	5 ft

- Water Source**
- 5/8 inch meter
- Backflow Devices**
- Febco 850 - 1"
- Control Valves**
- Rain Bird 100-DV
 - Rain Bird RBY-100 100 Mesh
- Irrigation Accessories**
- Nibco 1" isolation valve
 - Orbit Rain Freeze Sensor
 - Rain Bird ESP-4MI
- Lateral Line Pipe**
- Class 315 1/2"
 - Class 200 3/4"
- Mainline Pipe**
- Schedule 40 1"
 - Class 200 1"
- Drip Tubing**
- Netafim TLCV9-12



Water Source #1

Meter Size	5/8 inch meter
Static Pressure	50 psi
Elevation Change	0 ft

Service Line Information

Pipe Category	Type K Copper
Pipe Size	Type K Copper 1"
Length	10 ft
Velocity	5 fps

Recommendations

Maximum Recommended Flow	11 gpm
Available Working Pressure	44.68 psi

Run Set: 10

Water Source #1

Type	Meter
Static Pressure	50 psi
Service Line	0.008 psi
Meter Loss	0.232 psi

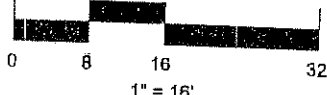
Mainline Components

Backflow Loss	3.619 psi
Master Valve Loss	2.2 psi
Filter Loss	0 psi

Zone 10 @ 1.319 gpm

Mainline Loss	0.04 psi
Valve Loss	2.2 psi
Lateral Loss	0 psi
Fittings Loss	0.004 psi
Elevation	0 psi
Sprinkler Requirement	15 psi
Total Design Pressure	23.298 psi
Residual Pressure	26.702 psi

OK/KC



DATE: _____ DRAWN BY: _____ CHECKED BY: _____ DESIGNED BY: _____	PROJECT: _____ SHEET DESCRIPTION: _____ Irrigation Design	
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Run Set: 1

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.222 psi
Meter Loss	2.2 psi

Mainline Components	
Backflow Loss	5.84 psi
Master Valve Loss	2.568 psi
Filter Loss	0 psi

Zone 1 @ 7.8 gpm	
Mainline Loss	0.32 psi
Valve Loss	2.568 psi
Lateral Loss	0.447 psi
Fittings Loss	0.077 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	44.167 psi
Residual Pressure	5.833 psi

Run Set: 2

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.331 psi
Meter Loss	3.436 psi

Mainline Components	
Backflow Loss	6.401 psi
Master Valve Loss	2.68 psi
Filter Loss	0 psi

Zone 2 @ 9.67 gpm	
Mainline Loss	1.11 psi
Valve Loss	2.68 psi
Lateral Loss	0.183 psi
Fittings Loss	0.129 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	46.822 psi
Residual Pressure	3.178 psi

Run Set: 3

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.344 psi
Meter Loss	3.596 psi

Mainline Components	
Backflow Loss	6.461 psi
Master Valve Loss	2.692 psi
Filter Loss	0 psi

Zone 3 @ 9.87 gpm	
Mainline Loss	1.54 psi
Valve Loss	2.692 psi
Lateral Loss	0.734 psi
Fittings Loss	0.227 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	48.057 psi
Residual Pressure	1.943 psi

Run Set: 4

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.178 psi
Meter Loss	1.755 psi

Mainline Components	
Backflow Loss	5.573 psi
Master Valve Loss	2.515 psi
Filter Loss	0 psi

Zone 4 @ 6.91 gpm	
Mainline Loss	1 psi
Valve Loss	2.515 psi
Lateral Loss	0.215 psi
Fittings Loss	0.122 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	43.752 psi
Residual Pressure	6.248 psi

Run Set: 5

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.227 psi
Meter Loss	2.245 psi

Mainline Components	
Backflow Loss	5.867 psi
Master Valve Loss	2.573 psi
Filter Loss	0 psi

Zone 5 @ 7.89 gpm	
Mainline Loss	1.42 psi
Valve Loss	2.573 psi
Lateral Loss	0.714 psi
Fittings Loss	0.213 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	45.616 psi
Residual Pressure	4.384 psi

Run Set: 6

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.271 psi
Meter Loss	2.708 psi

Mainline Components	
Backflow Loss	6.104 psi
Master Valve Loss	2.621 psi
Filter Loss	0 psi

Zone 6 @ 8.68 gpm	
Mainline Loss	1.95 psi
Valve Loss	2.621 psi
Lateral Loss	0.211 psi
Fittings Loss	0.217 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	46.49 psi
Residual Pressure	3.51 psi

Run Set: 7

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.258 psi
Meter Loss	2.57 psi

Mainline Components	
Backflow Loss	6.035 psi
Master Valve Loss	2.607 psi
Filter Loss	0 psi

Zone 7 @ 6.45 gpm	
Mainline Loss	2.07 psi
Valve Loss	2.607 psi
Lateral Loss	0.628 psi
Fittings Loss	0.27 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	46.776 psi
Residual Pressure	3.224 psi

Run Set: 8

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.336 psi
Meter Loss	3.5 psi

Mainline Components	
Backflow Loss	6.425 psi
Master Valve Loss	2.685 psi
Filter Loss	0 psi

Zone 8 @ 9.75 gpm	
Mainline Loss	2.85 psi
Valve Loss	2.685 psi
Lateral Loss	1.211 psi
Fittings Loss	0.408 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	49.695 psi
Residual Pressure	0.305 psi

Run Set: 9

Water Source #1	
Type	Meter
Static Pressure	50 psi
Service Line	0.031 psi
Meter Loss	0.47 psi

Mainline Components	
Backflow Loss	4.126 psi
Master Valve Loss	2.2 psi
Filter Loss	0 psi

Zone 9 @ 2.668 gpm	
Mainline Loss	0.22 psi
Valve Loss	2.2 psi
Lateral Loss	0 psi
Fittings Loss	0.022 psi
Elevation	0 psi
Sprinkler Requirement	15 psi
Total Design Pressure	24.242 psi
Residual Pressure	25.758 psi

DATE	
REVISION	
NO.	
DESCRIPTION	
BY	
CHECKED	
APPROVED	
SCALE	
TITLE	

PROJECT:

[REDACTED]

SHEET DESCRIPTION:

Hydraulics

[REDACTED]