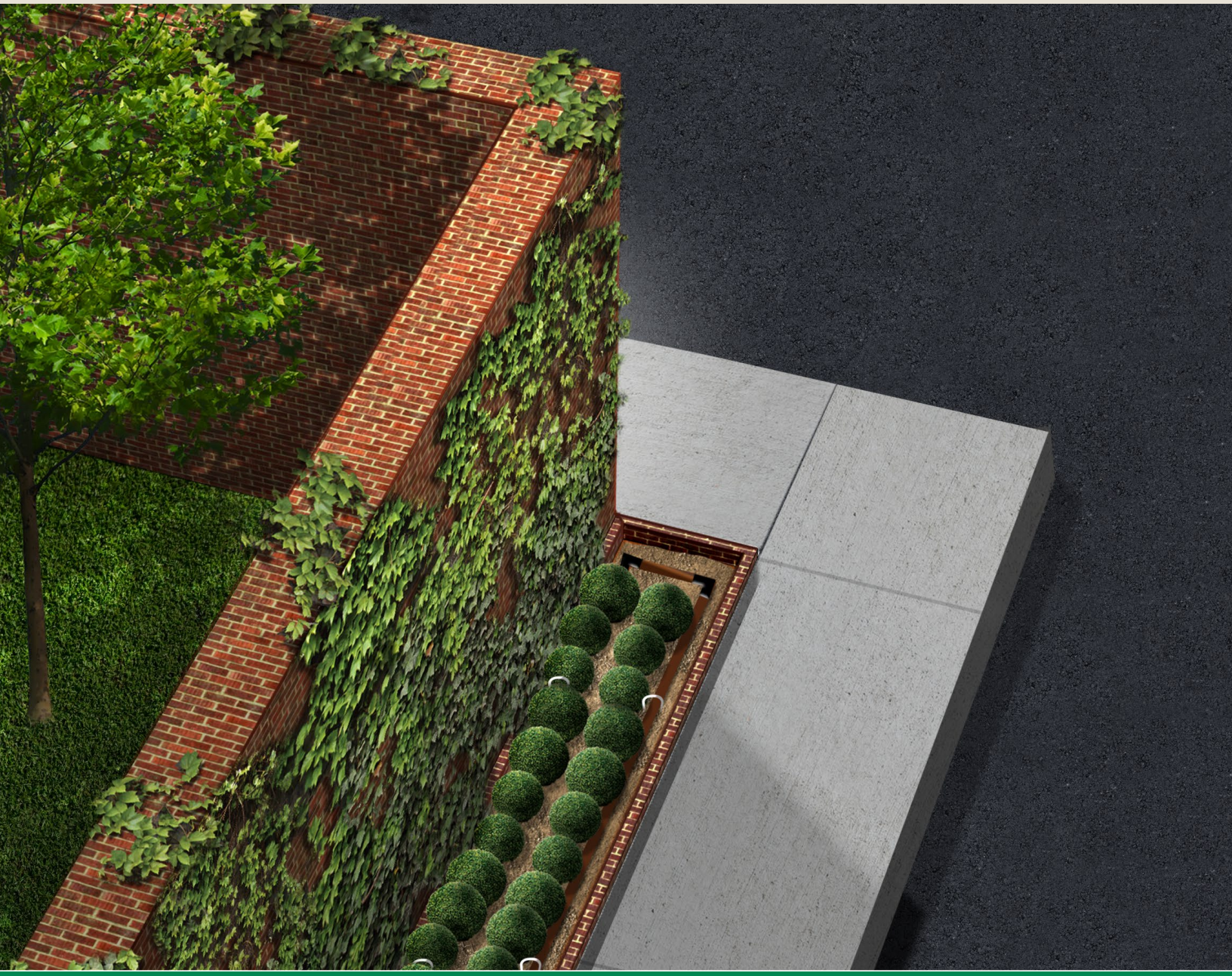
Landscape Drip Application Guide

A Practical Guide for Designing and Installing Drip Irrigation Systems



The Intelligent Use of Water™

The Efficiency of Micro-Irrigation, by Rain Bird®

The Rain Bird's low volume irrigation products were coined with the phrase "Xerigation" in the 1990's and include drip irrigation and low volume spray products. The Rain Bird Xerigation system is the most efficient way to water landscapes.

Over the last fifteen years, Rain Bird has been a leader in innovation advances that customers value. Earlier advances included the Root Watering System designed to provide deep root growth and enhance tree development, and the PR Series Pressure Regulating Filter that combined the regulator and filter into one component reducing the potential for leaks.

Today, Rain Bird continues the tradition of innovation with the SQ Series Nozzle and the XF Series Dripline featured below. With the broadest product line, Rain Bird's Xerigation systems can be designed to meet any site requirement providing unmatched quality, efficient water use, and ease of installation.

Featured Rain Bird® Drip Products

SQ Series Nozzle

For irrigating small areas with dense plantings, the SQ Series Nozzle is the most precise and efficient nozzle available. With built-in pressure compensation and a unique square spraying pattern, the need for overlapping is greatly reduced. This means less overspray, overwatering, and runoff than traditional nozzles. It also means you need less nozzles, dramatically reducing your costs and installation time.

XF Series Dripline (XFD/XFCV/XFS)

The XF Series Dripline is the most flexible, pressure-compensating inline emitter tubing available. Its unique material offers significantly greater flexibility, allowing tighter turns with fewer elbows for easier installation. The dual-layered tubing (brown over black) provides unmatched resistance to chemicals, UV damage and algae growth.

Control Zone Kits

Control your zones with preassembled, compact Rain Bird Control Zone Kits. Two components (valve and pressure regulating filter) are combined to create a shorter kit, when compared with the competition. This allows you to fit more control zone kits in a single valve box without cramping the work space inside the box, saving you time and money.

Benefits of Xerigation®

- **Design flexibility**
- **Elimination of overspray and runoff**
- **High water efficiency**
- **Water is delivered at or near the plant root zone**
- **Plants stay healthier and live longer**

It is Rain Bird's long-standing commitment to engineering and quality excellence that sets our micro-irrigation products apart.

Demonstrated Water Savings

Inland Empire Utilities Agency (IEUA) Building - Chino, CA

Solution: Rain Bird developed a comprehensible irrigation system for the IEUA site, including Xerigation products.

Results: 73% less water used than a comparable facility. First public agency building to ahieve a LEED Platinum Rating.

Table of Contents

Product Guide

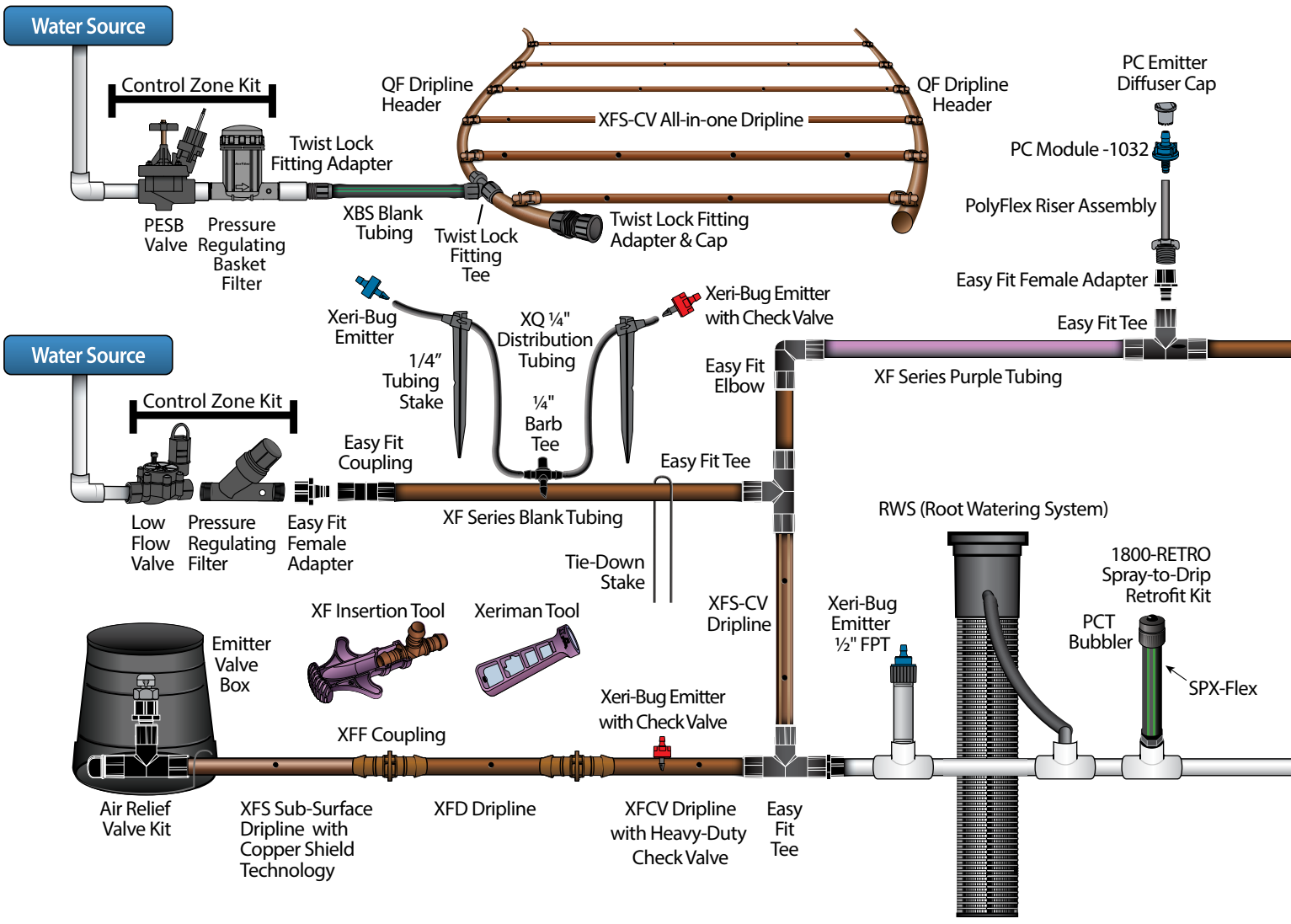
Application Guide

Anatomy of Xerigation®/ Landscape Drip System Overview

Broadest Product Line in the Industry

With over 150 products, Rain Bird has the products needed for your application. Systems can be designed to meet any site requirements and offer many exclusive Rain Bird advances including:

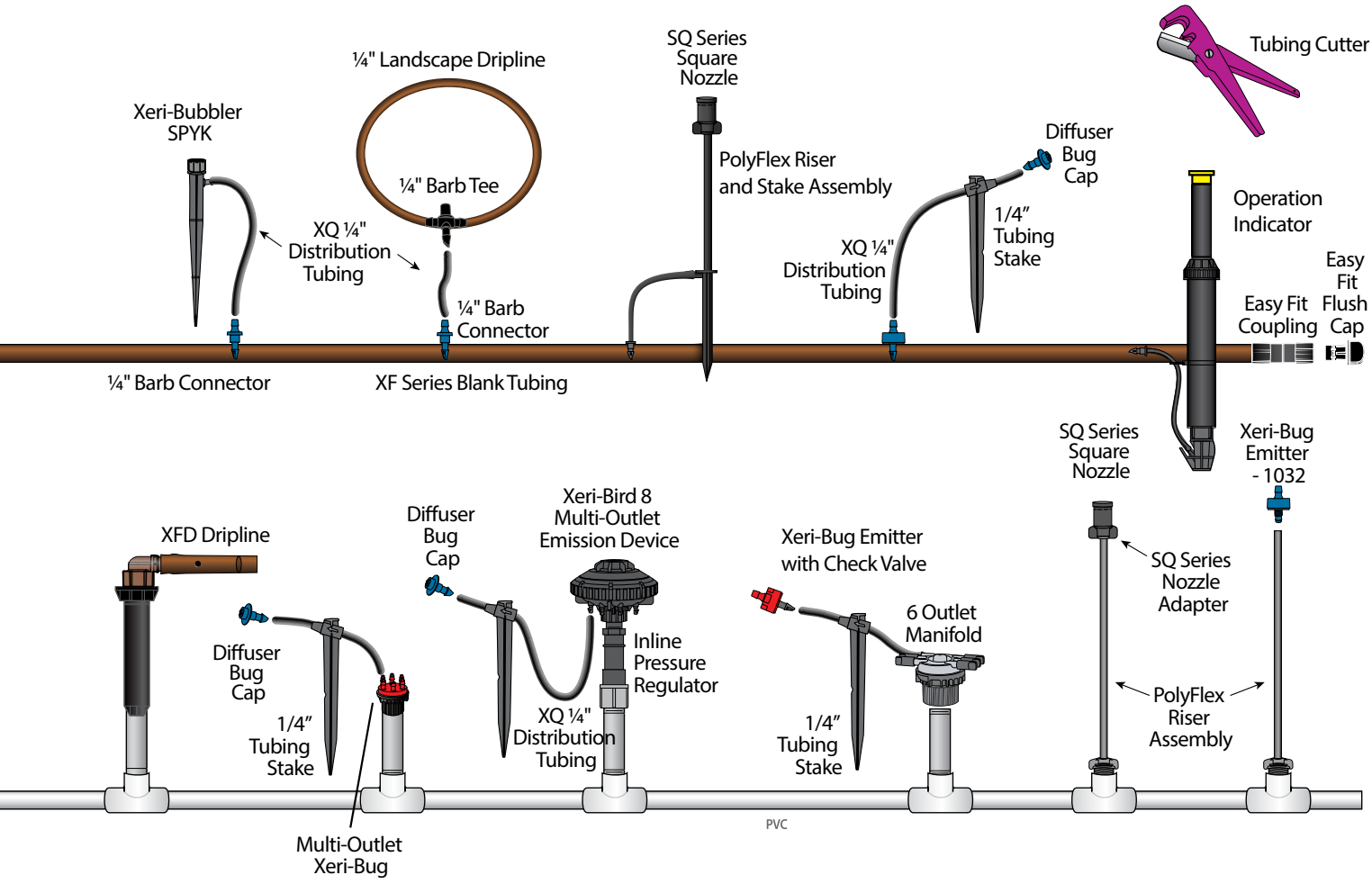
- Flexible XF Series dripline with advanced polymers that provide kink- resistance and reduced coil memory for easier installation
- Compact Control Zones with matched pressure regulator and filter to reduce parts, eliminate potential leak problems, and allow for fitting more Control Zones in a valve box
- Precision low volume SQ spray nozzles that offer a square wetting pattern and adjust to either 2.5' or 4' throw distances
- Point-source emitters that provide pressure compensation with a wide selection of flow rates and three inlet options (Barb, 1032 threaded, and ½" FPT)
- XFS dripline with Copper Shield Technology™ for use in sub-surface applications under turf or shrub and groundcover areas. The copper chip effectively protects the emitter from root intrusion



Targeted Watering with Xerigation® / Landscape Drip

Rain Bird Xerigation/Landscape Drip products are made especially for low-volume irrigation systems. By delivering water at or near the plants' root zones, Rain Bird Xerigation products offer targeted watering with the following advantages:

- Water conservation
- Greater efficiency (target each plant)
- Design flexibility; simple construction and easily expandable
- Healthier plants
- Reduced liability (e.g. no overspray, no runoff)
- Minimization of weed growth
- Cost savings



NOTE: Not all products listed in the Product Guide section are in the diagram above

Landscape Drip Irrigation

A low volume irrigation system typically applies water slowly, at low pressure, at or near the root zones of the plant material. Whether referred to as drip, micro-irrigation, or low volume, these systems feature emission devices that apply water in gallons per hour (GPH) as opposed to the gallons per minute (GPM) of a conventional overhead spray irrigation system.

Design Flexibility - Provides the most versatile design options

- Point-source drip irrigation provides the most design flexibility in any irrigation system
- Many different emitters and sprays provide solutions for different placement and flow
- Multiple ways to install a single product, versatility that can address any of your irrigation projects

Reliability - Market Leadership in low volume irrigation; trusted performance and reliability

- Peace of Mind - Rain Bird is the market leader in landscape drip emitters, specify the most trusted brand
- Performance - Consistent flow rate performance overtime, backed by Rain Bird's 3 year warranty

Water Savings - Provides water saving solutions by targeting watering to where the plant needs it

- Ease of use - Compact profile and color coded by flow rate for easy identification/auditing
- Deliver the water right where the plant needs it instead of saturating the soil. Point source irrigation can provide up to 90% water efficiency
- Versatile many different applications

Considerations for Selecting Emission Devices

Density
In Sparse plantings, Individual plants are generally irrigated by individual emission devices that supply a precise amount of water directly to the plant's root zone. Dense plantings require emission devices that supply a precise and uniform amount of water across the entire area. Add individual emission devices that supply a precise amount of additional water to selected plants

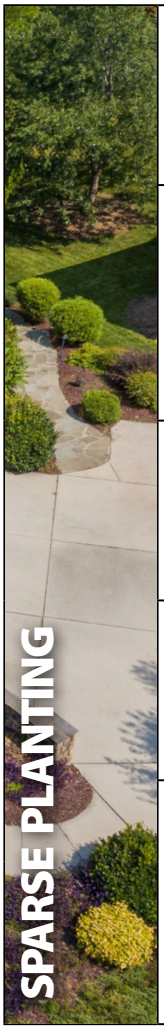
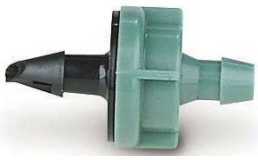
Installation
Emitters can be installed in different ways depending on the inlet. Barb inlets are ideal for installation directly to drip tubing, or with 6mm tubing. Various threaded inlets are used on risers. Threaded installation is more durable for high traffic areas, ideally below grade. Spikes are used for very precise placement, above grade.

Flow
Use 3.8 or 7.6 l/h GPH emitters for most sparse planting schemes, and 1.9 l/h emitters for container plants and very fine soils. For larger shrubs and trees and/or to reduce the total number of emitters required, choose an option that provides higher flows. The type of soil also influences the amount of water needed – with coarse soil needing more water than fine soil.

Pattern & Radius
Match the spray pattern and radius to the location and saturation you need. Consider square patterns for use in boxes or corners, or low radius emitters for inside containers.

Pressure Compensation (PC)
With PC, the emitter will deliver a consistent output at varying water inlet pressures. Use PC emitters to compensate for uneven terrain, length of supply tube and other factors that impact inlet flows.

Check Valve
The check valve feature prevents water from draining out of source tube when there is an elevation change.
This comes in very useful in elevated zones, slopes, and hanging baskets.

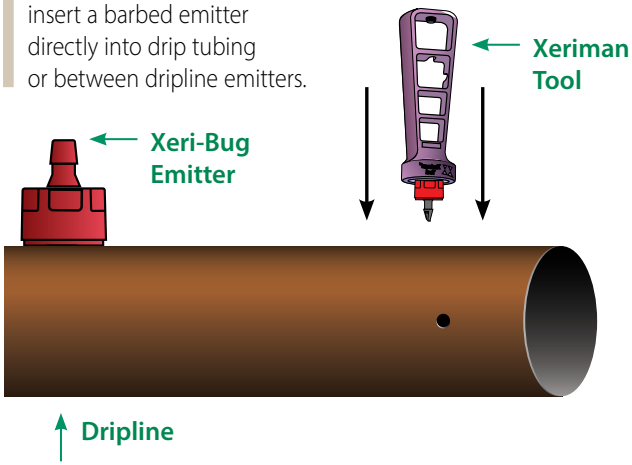
Planting Scheme		Emission Device	Applications	Pressure Compensation	Spray Pattern
		**Xeri Sprays and Misters**	*Ideal for ground cover, mass plantings, annual flower beds*	no	Quarter Circle Stream / Finger
					Half Circle Stream / Finger
					Full Circle Stream / Finger
					Full Circle Mist
		**Xeri 360 True Spray**	*Ideal for ground cover, mass plantings, annual flower beds*	no	Full Circle Fan
		**SQ Series Nozzles**	*Commercial grade Small or defined areas with dense plantings*	yes	Square Pattern - Quarter
					Square Pattern - Half
					Square Pattern - 3 Quater
					Square Pattern - Full
		**Xeri Bug Emitters**	*Low flow emitters for watering the root zones of individual plants, shrubs, and trees*	yes	Drip
		**Xeri Bug Emitters with Check Valve**	*Low flow emitters for watering the root zones of individual plants, shrubs, trees, containers and hanging baskets, especially when elevated or on a slope*	yes	Drip
		**Xeri Bug Multi Outlet**	*Use for watering the root zones of plants and trees and container plants*	yes	Drip
		**PC Modules**	*Watering larger shrubs and trees with higher water requirements:*	yes	Drip
		**Xeri Bubblers**	*Ideal for shrubs, trees, containers and flower beds* *Use anywhere clogging is a concern or there is heavy mineral content in the water*	no	180 stream
					360 stream
					360 umbrella

Radius		Flow Rate		Inlet Options
Imperial	Metric	Imperial	Metric	
0 to 10.6 ft.	0 to 3.2 m	0 to 29 @ 30 psi	0 to 109.8 l/h @ 2.07 psi	10-32
0 to 13.4 ft.	0 to 4.1 m			
0 to 6.7 ft.	0 to 2 m	0 to 17 gph @ 15 psi; 0 to 24.5 gph @ 30 psi	0 to 64 l/h at 100 kPa 0 to 92.7 l/h at 200 kpa	Spike, Barb, or 10-32
Adjustable 2.5' or 4'	Adjustable 0.8 m or 1.2 m	6 gph	22.7 l/h	Thread
		12 gph	45.4 l/h	
		18 gph	68.1 l/h	
		24 gph	90.8 l/h	
Drip	Drip	1 gph, 2gph 0.5 gph, 1 gph, 2gph 0.5 gph, 1 gph, 2gph	3.79 l/h, 7.57 l/h 1.89 l/h, 3.79 l/h, 7.57 l/h 1.89 l/h, 3.79 l/h, 7.57 l/h	1/2" FPT, Barb, or 10-32
Drip	Drip	0.5 gph, 1 gph, 2gph	1.89 l/h, 3.79 l/h, 7.57 l/h	Barb
		0.5 gph, 1 gph, 2gph	1.89 l/h, 3.79 l/h, 7.57 l/h	10-32
Drip	Drip	0.5 gph, 1 gph, 2 gph 0.5 gph, 1 gph, 2 gph	1.89 l/h, 3.79 l/h, 7.57 l/h 1.89 l/h, 3.79 l/h, 7.57 l/h	1/2" FPT or Barb
Drip	Drip	5gph, 7gph, 10gph	18.93 l/h, 26.50 l/h, 37.85 l/h	1/2" FPT
		5gph, 7gph, 10gph, 12gph, 18gph, 24gph	18.93 l/h, 26.50 l/h, 37.85 l/h, 45.42 l/h, 68.13 l/h, 90.84 l/h	Barb
		5gph, 7gph, 10gph	18.93 l/h, 26.50 l/h, 37.85 l/h	10-32
0 - 2.2' radius	0 - 0.67 m radius	0 to 13 gph @ 30 psi 0 to 8.5 gph @ 15 psi	0 to 49.21 l/h at 2.1 bar 0 to 30 l/h at 1 bar	Spike, Barb, or 10-32
0 - 3' diameter	0 - 0.9 m diameter	0 to 13 gph @ 30 psi 0 to 8.5 gph @ 15 psi	0 to 49.21 l/h at 2.1 bar 0 to 30 l/h at 1 bar	Spike, Barb, or 10-32
0 - 2' radius	0 - 0.58 m diameter	0 to 35 gph @ 30 psi 0 to 26 gph @ 15 psi	0 to 132.48 l/h at 2.1 bar 0 to 98 l/h at 1 bar	Spike, Barb, or 10-32

Installation Option: Place a Barbed Emitter Directly Into Drip Tubing

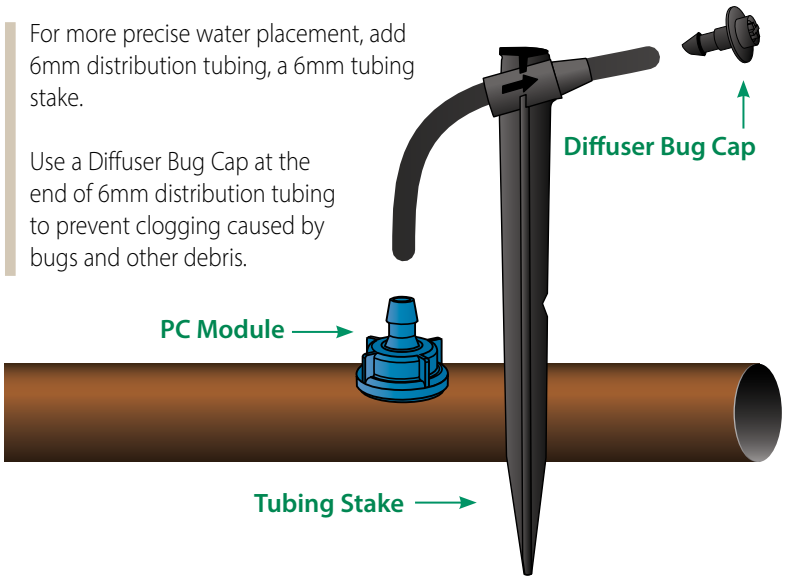
Rain Bird has a variety of emitters, bubblers, sprays, and misters that offer different features and flow rates to help with designing the ideal drip system; below is a sample installation option.

Using a Xeriman™ Tool, insert a barbed emitter directly into drip tubing or between dripline emitters.

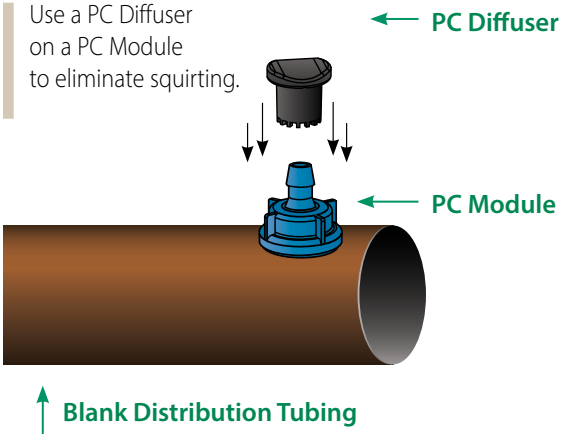


For more precise water placement, add 6mm distribution tubing, a 6mm tubing stake.

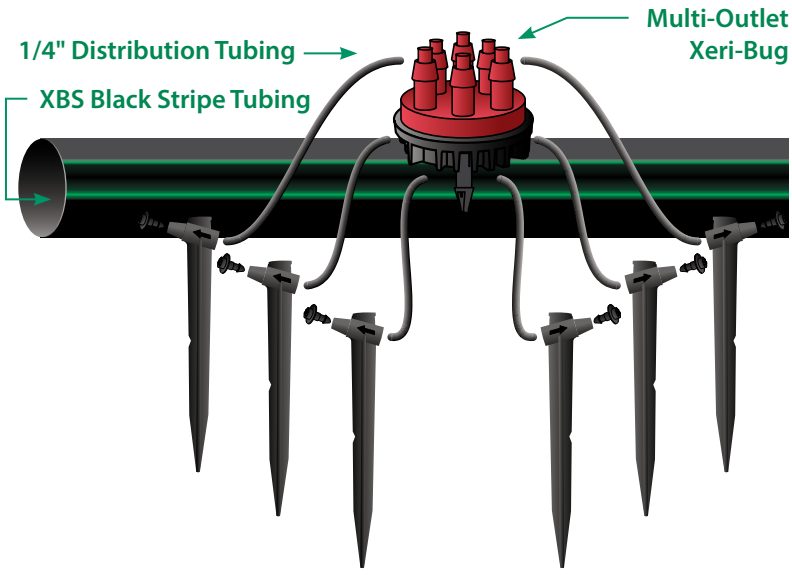
Use a Diffuser Bug Cap at the end of 6mm distribution tubing to prevent clogging caused by bugs and other debris.



Use a PC Diffuser on a PC Module to eliminate squirting.



The Multi-Outlet Xeri-Bug provides centralized water distribution for up to six plants. All six outlets have the same flow rate. Connect the ¼" distribution tubing to one of the outlets on the Multi-Outlet Xeri-Bug. Use a ¼" tubing stake to ensure precise water placement. Insert a bug cap at the end of the tubing.



Rain Bird's Xeriman™ Tool:

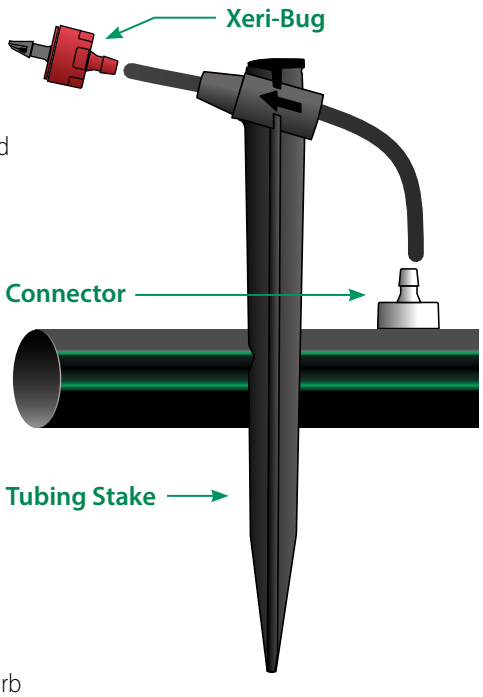
- Provides fast, easy, one-step installation of Xeri-Bug™ emitters and PC Modules directly into 1/2" or 3/4" drip tubing, XF Dripline or Landscape Dripline
- Cuts emitter installation time
- All-in-one tool inserts emitters, removes emitters, inserts 1/4" barbed fittings and installs goof plugs

Installation Option: Connect to Drip Tubing Using a Barbed Fitting or Stake

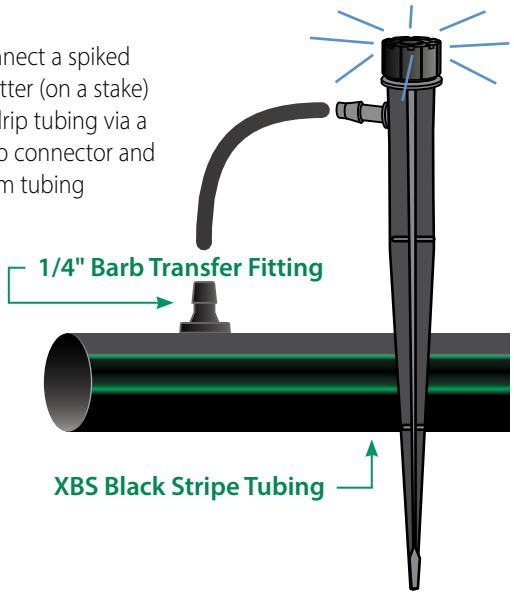
Rain Bird has a variety of emitters, bubblers, sprays, and misters that offer different features and flow rates to help with designing the ideal drip system; below is a sample installation option.

A barbed connector can be punched into distribution tubing.

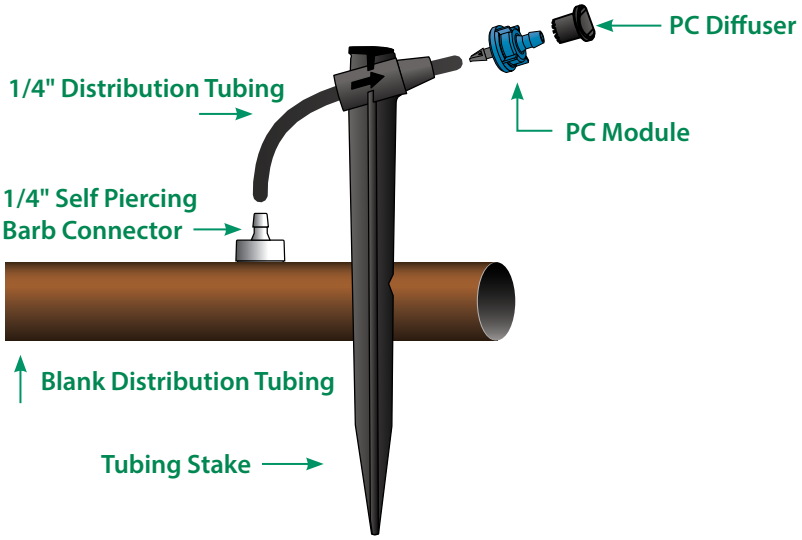
The emitter is then placed at the end of the 6mm distribution tubing.



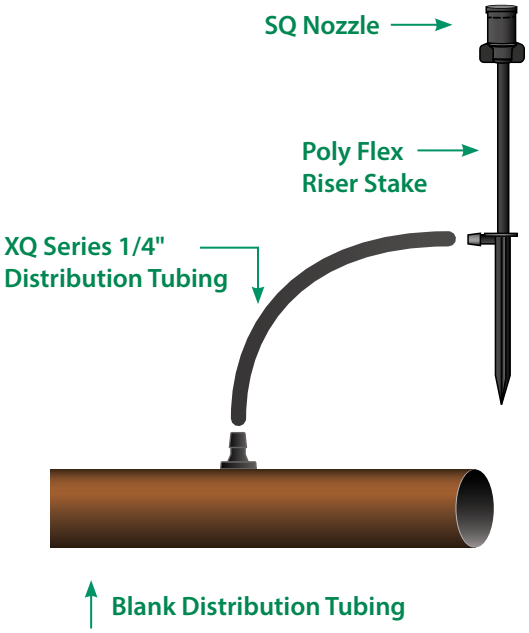
Connect a spiked emitter (on a stake) to drip tubing via a barb connector and 6mm tubing



Use a 1/4" Self-Piercing Barb Connector to transfer water to a PC Module. Add a PC Diffuser to eliminate squirting.



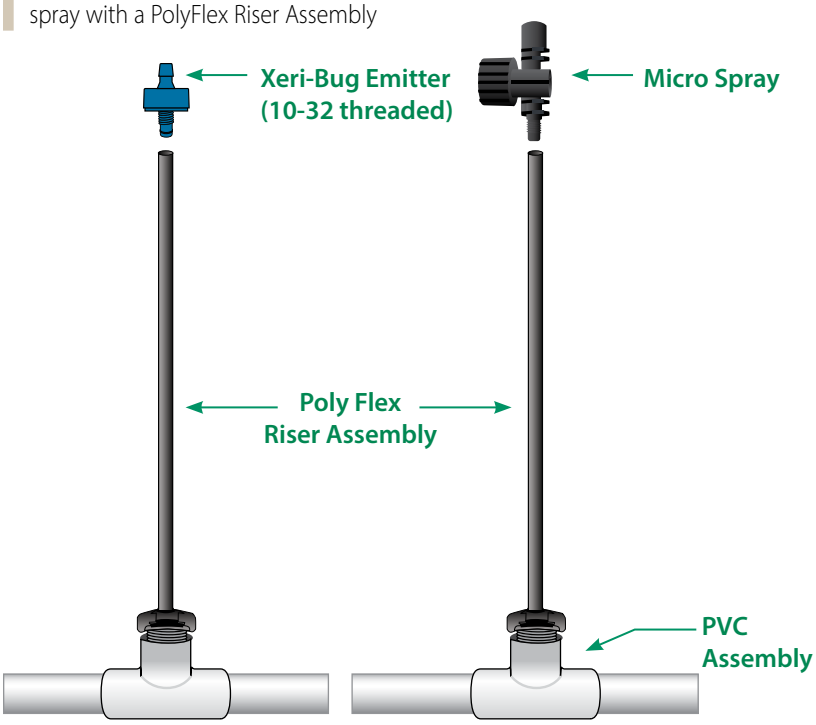
The SQ series nozzle or any 1032 Thread emitter can be placed on a PolyFlex Riser Stake and connected to drip tubing.



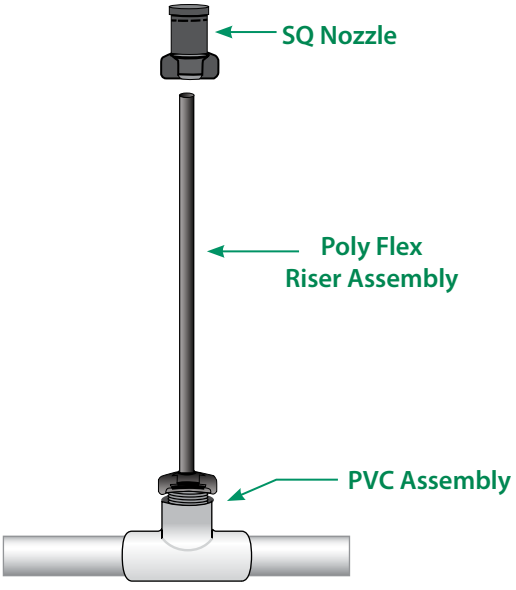
Installation Option: Connect to PVC or Drip Tubing with Polyflex Riser Assembly

Rain Bird has a variety of emitters, bubblers, sprays, and misters that offer different features and flow rates to help with designing the ideal drip system; below is a sample installation option.

Use a 10-32 threaded emitter or micro spray with a PolyFlex Riser Assembly

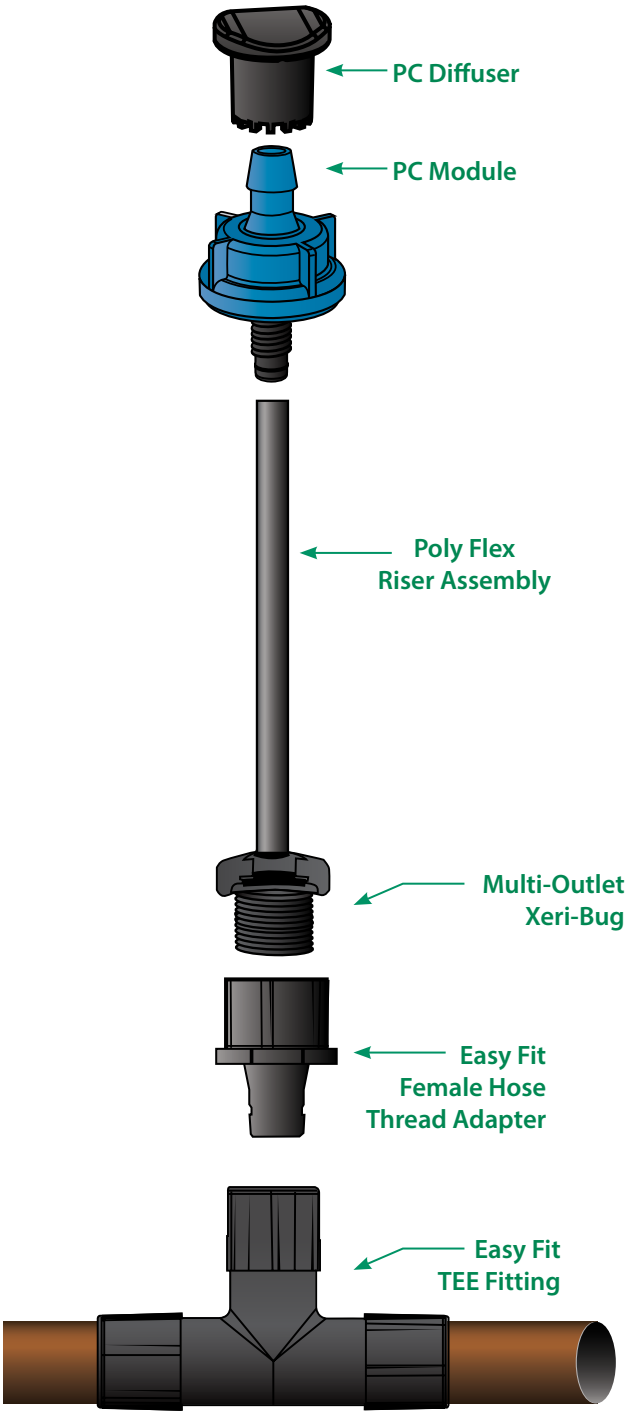


The SQ can be connected to PE or PVC via a PolyFlex Riser Assembly with an SQ ADP adapter.



Use an Easy Fit Tee and Female Adapter, to attach a PolyFlex riser with 10-32 thread emitter to drip tubing.

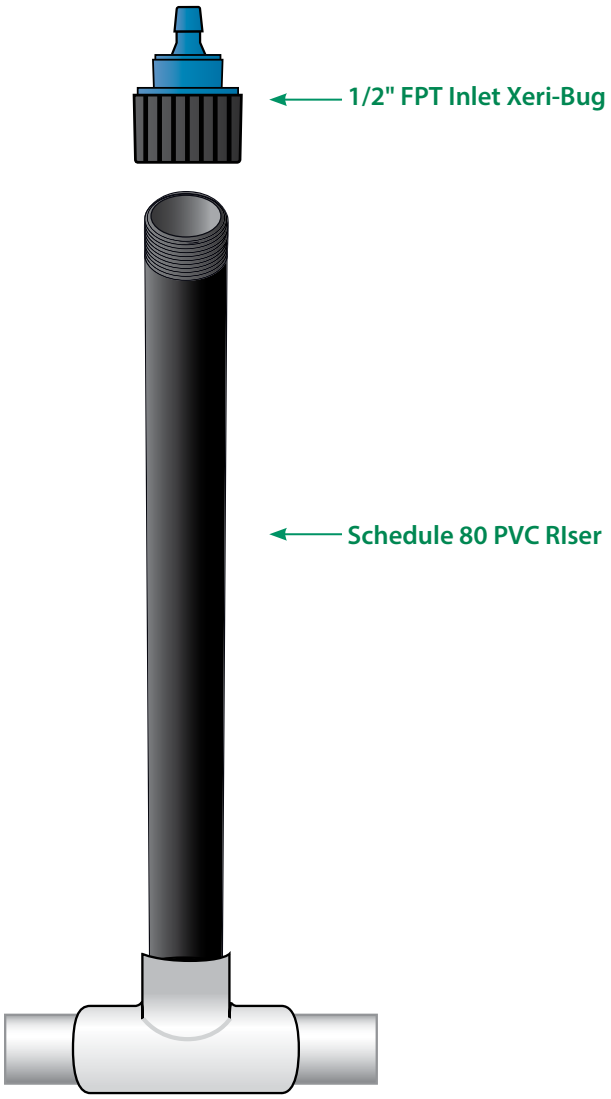
Add a PC Diffuser Cap to eliminate squirting as needed.



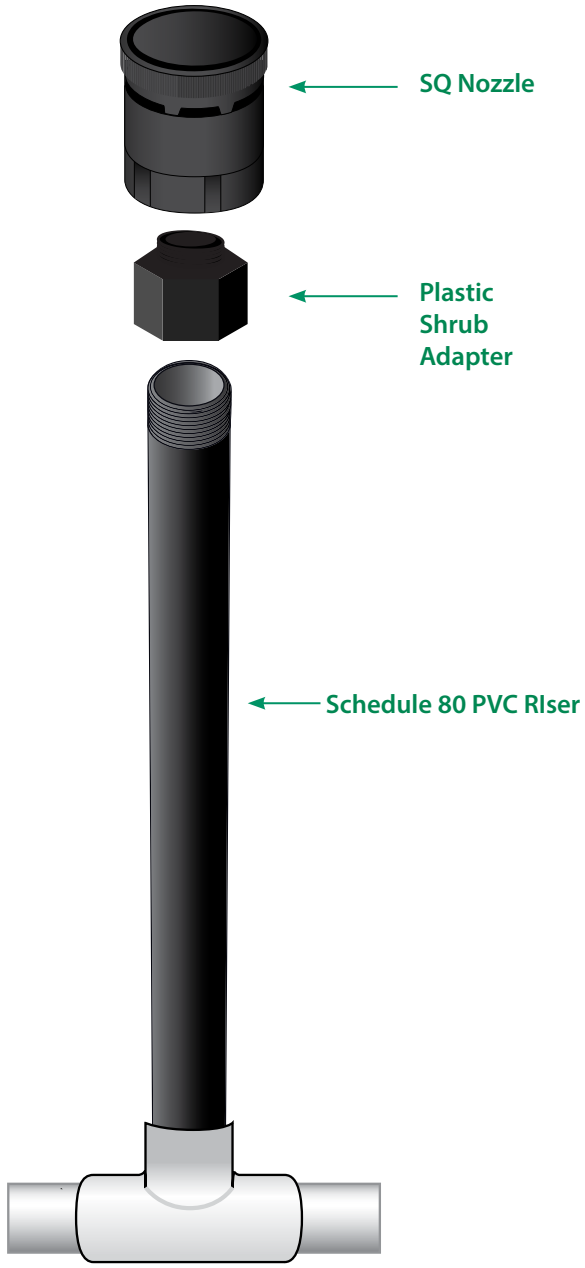
Installation Option: Install Atop a ½" Schedule 80 PVC riser

Rain Bird has a variety of emitters, bubblers, sprays, and misters that offer different features and flow rates to help with designing the ideal drip system; below is a sample installation option.

Use the ½" FPT inlet Xeri-bug Drip Emitter connected to a PVC schedule 80 riser.



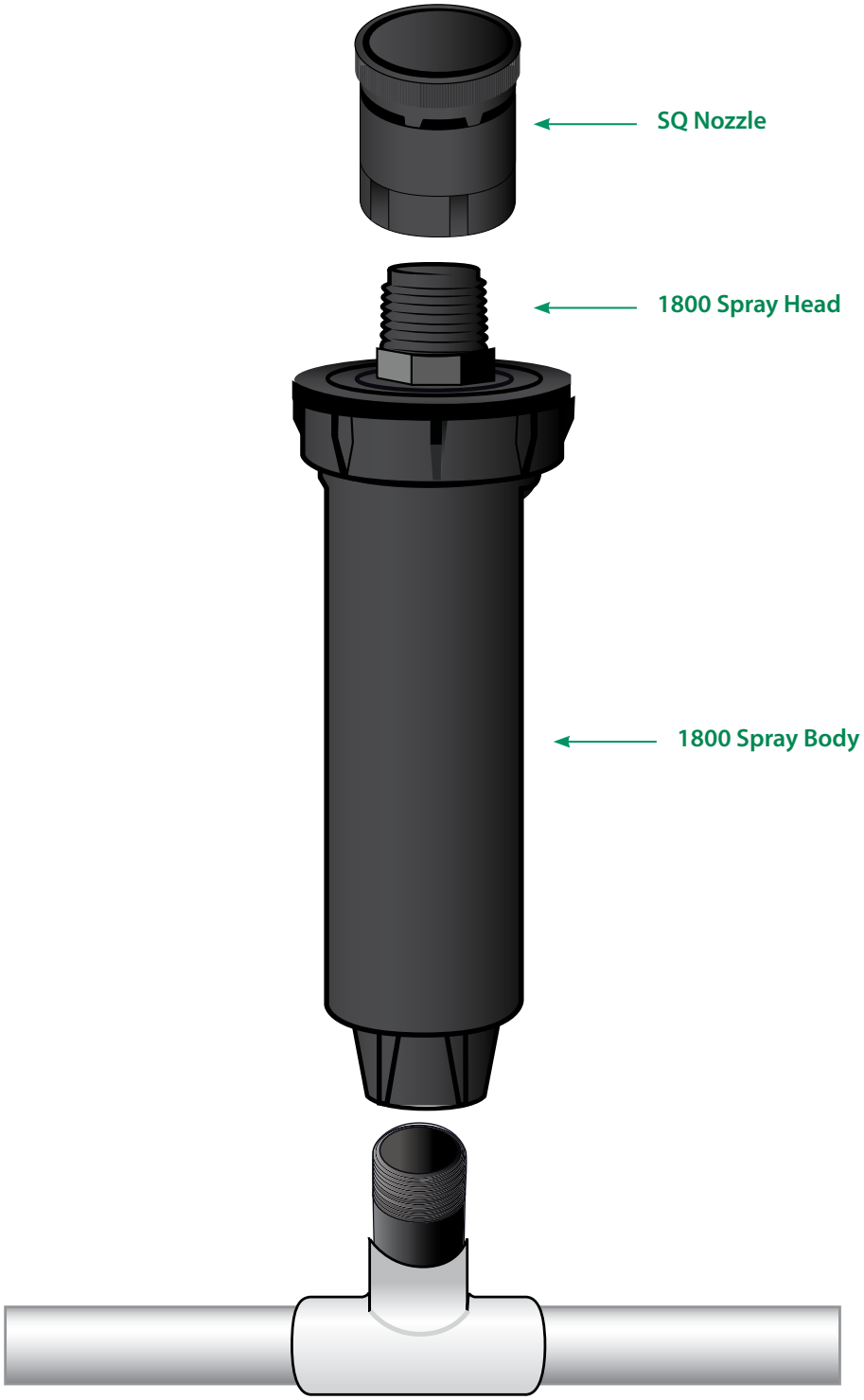
The SQ can be attached to a schedule 80 PVC riser using a PA-8S Plastic Shrub Adapter.



Installation Option: Install Nozzle on a 1800 Spray Head

Rain Bird has a variety of emitters, bubblers, sprays, and misters that offer different features and flow rates to help with designing the ideal drip system; below is a sample installation option.

The SQ Nozzle can be installed on a Rain Bird 1800 Series Spray Head

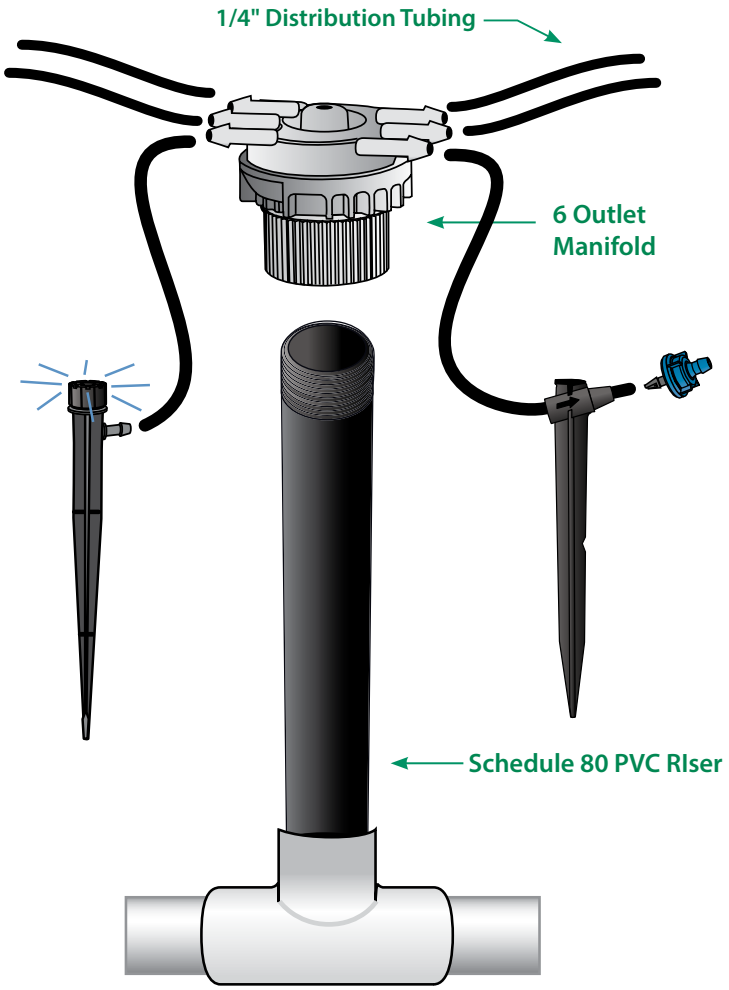


Installation Option: Use a Centralized Distribution Connection / Manifold

Rain Bird has a variety of emitters, bubblers, sprays, and misters that offer different features and flow rates to help with designing the ideal drip system; below is a sample installation option.

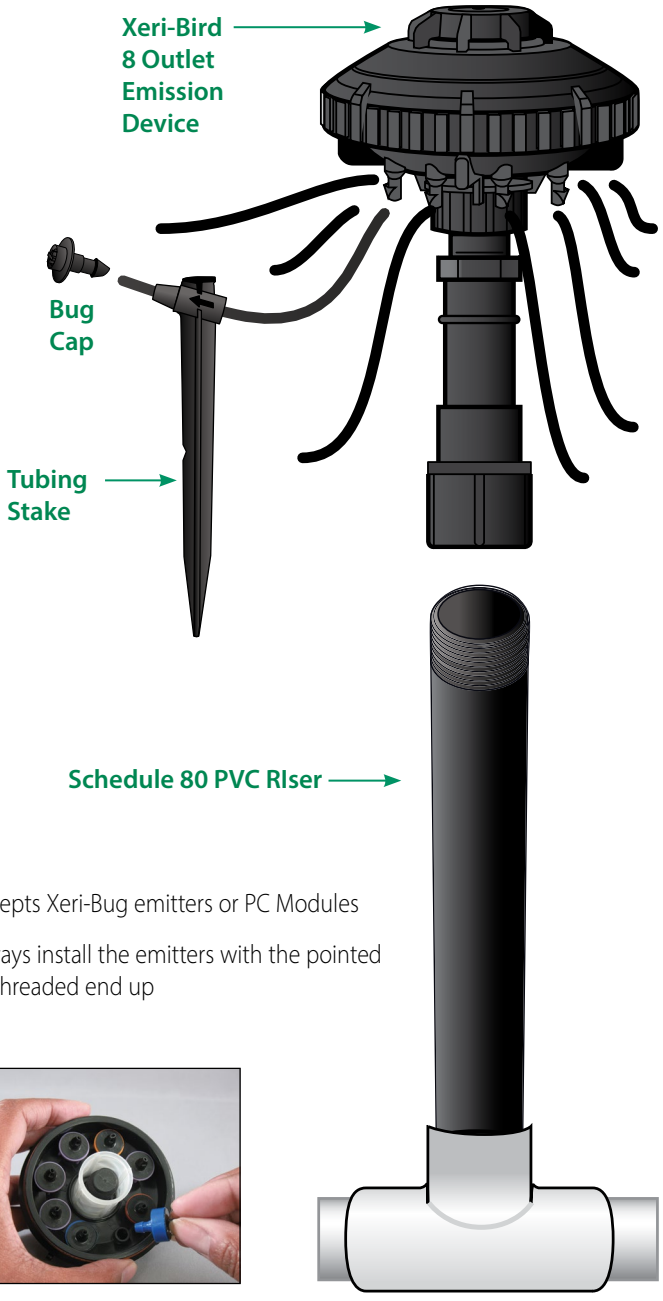
The 6 Outlet Manihfold provices a centralized water distribution connection for up to six different emission devices.

The emitter is placed on the end of the 6mm distribution tubing to regulate the water flow



The Xeri-Bird 8 Outlet Emission Device provides a centralized location for up to eight emitters. Use a mix of emitters to provide the flow rates needed for different plants. Tentacles of 6mm distribution tubing, 6mm tubing stakes, and bug caps allow for precise water placement.

Use inline pressure regulator to prevent blowout in event of surge.



- Accepts Xeri-Bug emitters or PC Modules
- Always install the emitters with the pointed or threaded end up

Rain Bird Control Zone Kits

Reduced Material and Labor Costs

- Typically lower cost thatn individual components
- Compact size requires fewer and smaller valve boxes
- Preassembled models or prepackaged components provide time savings on installation

Convenience

- Convenient choices of models to meet the needs of diverse zones
- Be ready at installation with prepackaged and/or preassembled components
- Fewer parts and fewer threaded connections means less chance of leaking/maintenance calls

Reliability

- Performance you can count on for a long lasting drip zone: on/off control, pressure regulation and filtration
- Be confident knowing you have the highest quality components from Rain Bird that have been tested for reliable performance
- 3 year warranty

Control Zone Kit Selection Guide

RESIDENTIAL CONTROL ZONE KITS

Residential Low Flow: 0.2 - 10 gpm

XACZ-075-PRF
FLOW: 0.2 - 5 gpm

XCZ-075-PRF
FLOW: 0.2 - 5 gpm

XCZLF-100-PRF
FLOW: 0.2 - 10 gpm

Residential Medium Flow: 3 - 15 gpm

XACZ-100-PRF
FLOW: 3 - 15 gpm

XCZ-100-PRF
FLOW: 3 - 15 gpm

XCZPGA-100-PRF
FLOW: 3 - 15 gpm

COMMERCIAL CONTROL ZONE KITS

Commercial Wide Flow: 0.3 - 20 gpm

XCZ-100-PRB-LC
FLOW: 0.3 - 20 gpm

XCZ-100-PRB-COM
FLOW: 0.3 - 20 gpm

XCZ-100-PRB-R
FLOW: 0.3 - 20 gpm

XCZ-100-FLOW
FLOW: 0.3 - 20 gpm

XCZ-100-IVMQ
FLOW: 0.3 - 20 gpm

Commercial High Flow: 15 - 62 gpm

XCZ-150-LCS
FLOW: 15 - 62 gpm

XCZ-150-LCDR
FLOW: 15 - 62 gpm

Flower Bed

Combination Applications

Solution

- *XF Series Dripline Grid with Xeri-Bug Emitters*

Advantages

- Up to 60% water savings
- No unsightly run off in high visibility areas
- No damage to walls, entry way or cart paths from overspray
- XF Dripline is easy to install, resulting in labor savings

Installation

XFD-06-12	XF Series Dripline .6 gph @ 12" Spacing
XCZ-075-PRF	3/4" Xeri Control Zone Kit
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XFF Dripline 17mm Insert Fittings
ARV050	1/2" Air Relief Valve
TDS-050-30	Tie Down Stake
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
XQ-100	1/4" Distribution Tubing
TDS-6050	Galvanized Tie Down Stake
DCB-025	Diffuser Bug Cap

XFD

XM TOOL

XB XX

* Select appropriate emitter flow rate

TO DO LIST :

- ❑ Assemble Control Zone Kit and connect to water source.
- ❑ Cut lengths of XF Series Dripline to build grid in planting area.
- ❑ Connect lengths of XF Series Dripline to Easy Fit Fittings to create grid, add 1/2" Air Relief Valve.
- ❑ Connect Easy Fit Adapter to Easy Fit Tee for connection to Control Zone Kit.
- ❑ Stake XF Series Dripline grid in place.
- ❑ Punch self-piercing barb inlet of Xeri-Bug Emitters into XF Series Dripline, connect 1/4" tubing to barb outlet and run 1/4" tubing to larger plant.
- ❑ Stake tubing in place and attach Diffuser Bug Cap on the end.
- ❑ Flush system until clean water flows.
- ❑ Install planting material.

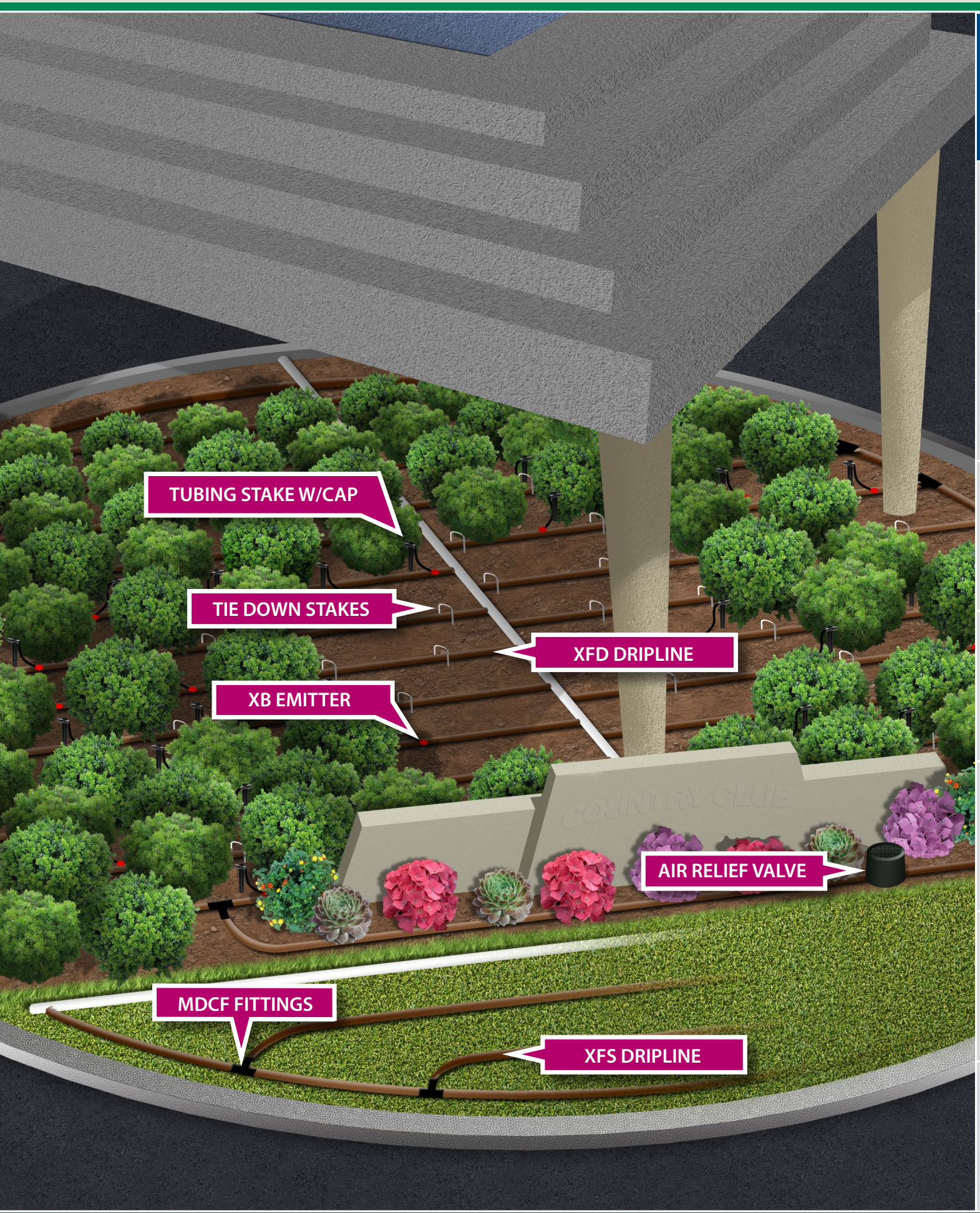
TIME: *(approx.)*

1 hr
10 min/50'
20 min/50'
5 min
5 min/10'
8 min/Emitter

3 min/Stake
2 min

INSTALLATION AND MAINTENANCE TIPS :

- Supplemental Xeri-Bug Emitters are placed next to larger plants with higher water requirements.
- Flush the zone upon installation and 2-4 times per year.
- Install Xeri-Bug Emitters with the Xeriman Tool (XM Tool) for 50% faster installation.
- Leave XF Series Dripline coil in the sun while preparing for installation.


TUBING STAKE W/CAP
TIE DOWN STAKES
XFD DRIPLINE
XB EMITTER
AIR RELIEF VALVE
MDCF FITTINGS
XFS DRIPLINE

Landscaped Areas on the Course adjacent to Tee Box, Fairways or Greens

Solution

Pressure Compensating Multi-Outlet Xeri-Bug Device on a PVC Lateral

Advantages

- Up to 60% water savings
- Durable installation in high maintenance areas
- Targeted watering reduces weed growth and extends life of mulch
- Native plant life helps reduce water usage

Installation

XBT-10-6	1.0 GPH Multi-Outlet Xeri-Bug Manifold
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
1/2" Riser	Sch-80 Riser 1/2" MPT
DCB-025	Diffuser Bug Cap
PVC Misc.	PVC Laterals, Fittings, Glue
SEB7X	Emitter Box (optional)

XBT-10-6

TS-025

TO DO LIST :

- ❑ Trench, cut and glue PVC laterals.
- ❑ Assemble Control Zone Kit and position in valve box.
- ❑ Connect Control Zone to water source and laterals.
- ❑ Thread 1/2" riser into PVC and thread 1.0 GPH Multi-Outlet Xeri-Bug Manifold onto riser.
- ❑ Connect 1/4" lines to manifold outlets and run to sparse plantings.
- ❑ Stake in place and add Diffuser Bug Cap to end of lines.
- ❑ Flush system until clean water flows.
- ❑ Add planting material and mulch.

TIME: *(approx.)*

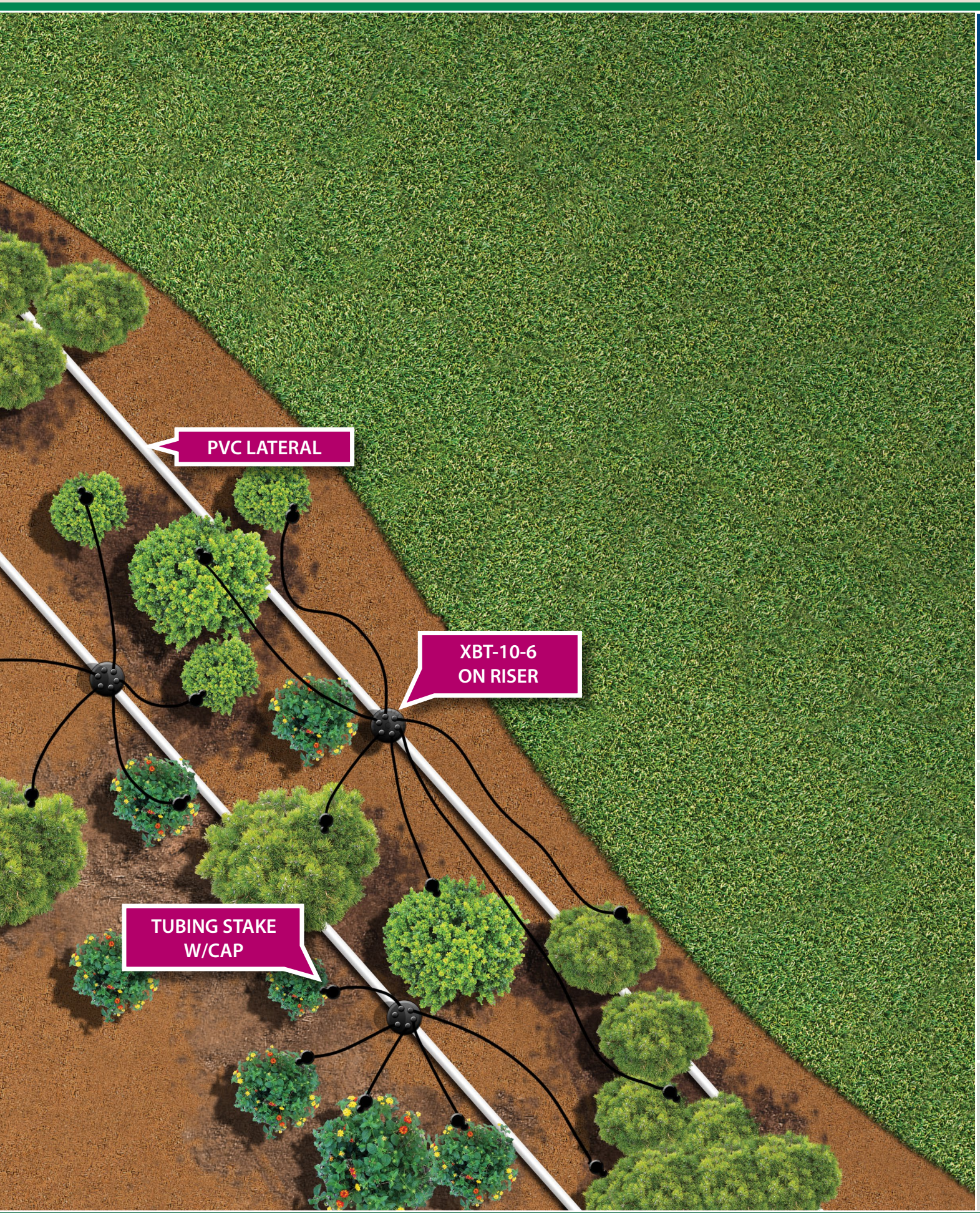
1 hr/20'
20 min
1 hr
5 min/Assembly
5 min/Line
3 min/Stake
2 min

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Do not run 1/4" lines more than 5'-8' from water source for optimal performance.
- Adjust watering time as seasons/weather changes.

Drip Tip

Use an SEB7X Emitter Box for added protection of the XBT-10-6 (optional).


PVC LATERAL
XBT-10-6
ON RISER
TUBING STAKE
W/CAP

Narrow Beds

Raised Beds

Solution

XFCV Dripline Grid

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XFCV Dripline is easy to install, resulting in labor savings

Installation

XFCV-06-12	XFCV Dripline .6 gph @ 12" spacing
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XFF Dripline 17mm Insert Fittings
TDS-050 BEND	Tie Down Stake

XFF FITTINGS

XFCV Dripline

TO DO LIST :

- ❑ Assemble Control Zone Kit and connect to water source.
- ❑ Cut lengths of XFCV Dripline to build grid in crib wall.
- ❑ Connect lengths of XF Series Dripline to Easy Fit Fittings (or XFF Dripline fittings) to create grid. Connect to Control Zone Kit.
- ❑ Stake XF Series Dripline grid in place and flush until clean water flows.
- ❑ Install planting material.

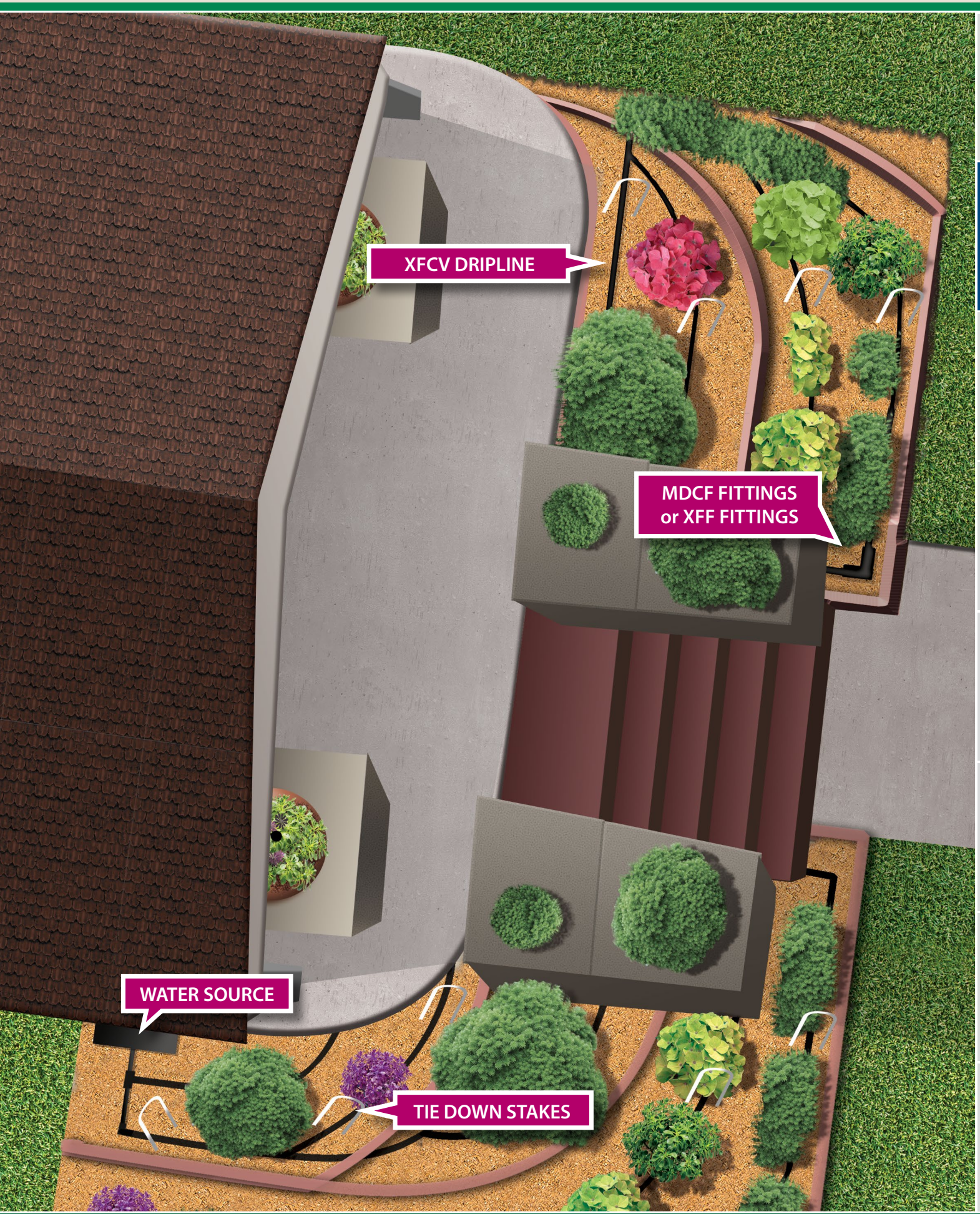
TIME: *(approx.)*

1 hr
10 min/50'
30 min/50'

5 min/10'

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Leave XFCV Dripline coil in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.


XFCV DRIPLINE
MDCF FITTINGS
or XFF FITTINGS
WATER SOURCE
TIE DOWN STAKES

Narrow Planting Bed Next to Clubhouse or Cart Path

Sparse Application

Solution

Xeri-Bird 8 & Xeri-Bug Emitters on a PVC Lateral

Advantages

- Up to 60% water savings
- Xeri-Bird 8 Manifold with PRS offers pressure regulation, filtration and controlled watering to multiple plants
- Manifold allows for increase/decrease in future plant water demands

Installation

XBD-80	Xeri-Bird 8 Outlet Manifold
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
PRS-050-30	In-stem 30 psi Pressure Regulator
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
DCB-025	Diffuser Bug Caps
PVC Misc.	PVC Laterals, Fittings, Glue
SEB7X	Emitter Box

* Select appropriate emitter flow rate and barbed or threaded connection

XBD-80

PRS-050-30

XB XX

TO DO LIST :

- ❑ Trench, cut and glue PVC laterals.
- ❑ Connect lines to water source.
- ❑ Thread Xeri-Bird 8 Outlet Manifold onto in-stem 30 psi Pressure Regulator, then connect to PVC tee.
- ❑ Attach 1/4" distribution tubing to outlets on Xeri-Bird 8 Outlet Manifold.
- ❑ Run 1/4" lines to plants, stake in place with a Diffuser Bug Cap on the end.
- ❑ Install the desired Xeri-Bug Emitter inside Xeri-Bird 8 Outlet Manifold.
- ❑ Use an SEB7X Emitter Box for added protection of the Xeri-Bird 8. (optional)

TIME: *(approx.)*

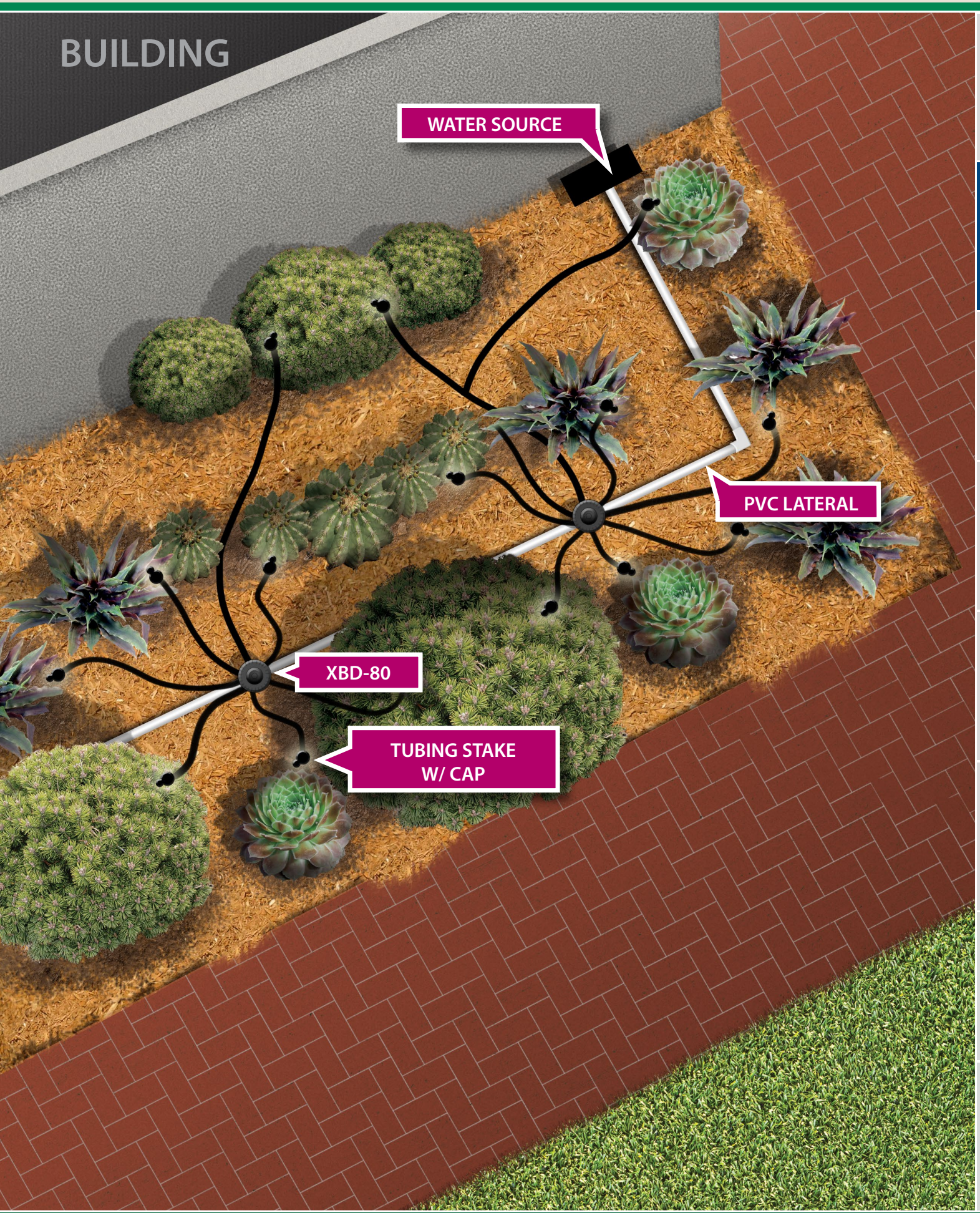
1 hr/20'
1 hr
8 min/Assembly

5 min/XBD-80
8 min/Stake
3 min/XBD-80

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Install Xeri-Bug Emitters in Xeri-Bird 8 Outlet Manifold with self-piercing barb end up.
- Leave 6" slack in 1/4" tubing next to manifold in case of unexpected maintenance.

BUILDING



Narrow Planting Bed Next to a Structure

Sparse Applications

Solution

Xeri-Bird 8 & Xeri-Bug Emitters on a PVC Lateral

Advantages

- Up to 60% water savings
- No overspray damage to structures, fences or windows
- Targeted watering reduces weed growth
- Manifold design allows for increase/decrease in future plant water demands

Installation

XBD-80	Xeri-Bird 8 Outlet Manifold
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
PRS-050-30	In-stem 30 psi Pressure Regulator
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
PVC Misc	PVC Laterals, Fittings, Glue
DBC-025	Diffuser Bug Cap
SEB7X	Emitter Box (optional)

* Select appropriate emitter flow

XBD-80

PRS-050-30

XB XX

TO DO LIST :

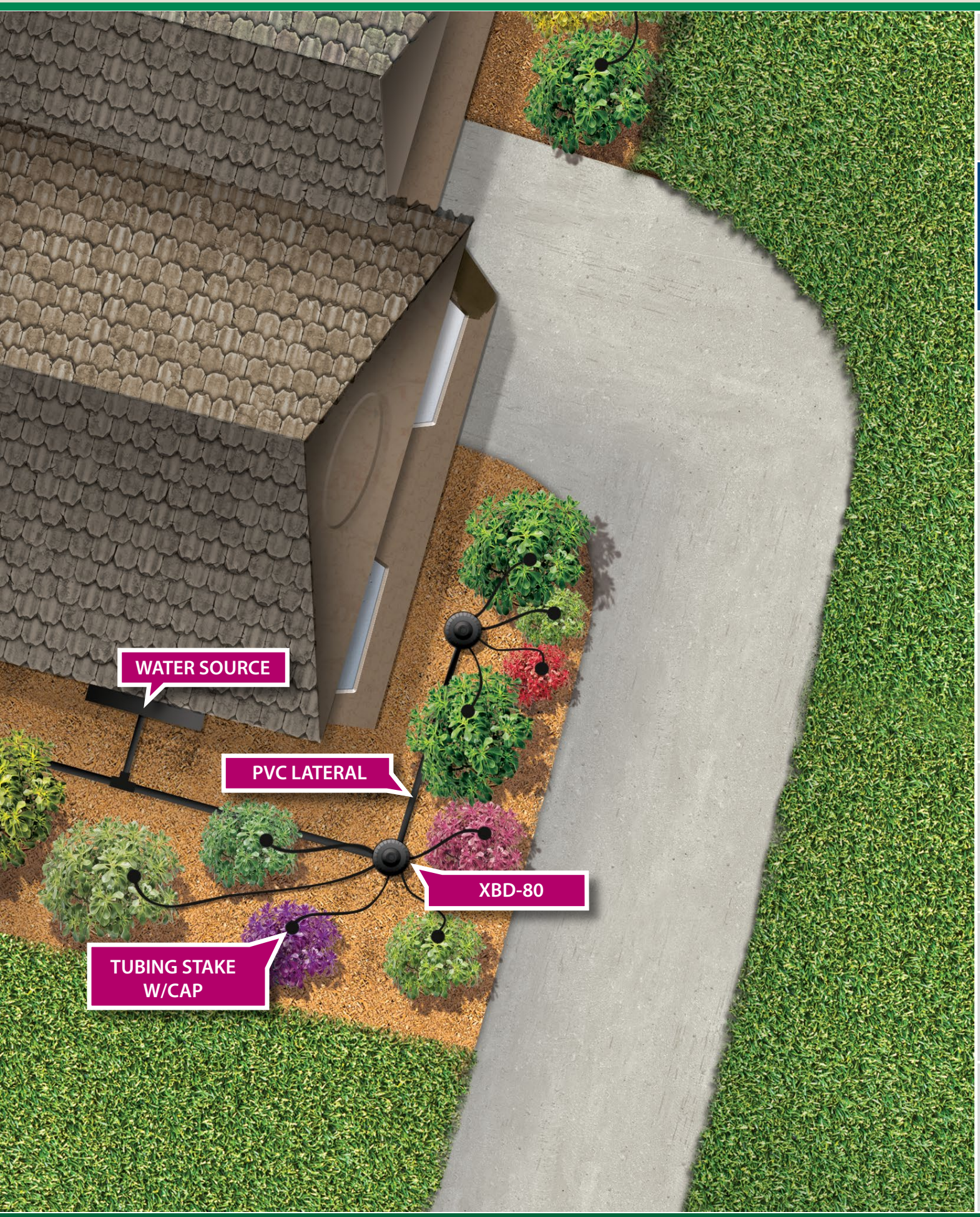
- ❑ Trench, cut and glue PVC laterals.
- ❑ Connect lines to water source.
- ❑ Thread Xeri-Bird 8 Outlet Manifold onto in-stem 30 psi Pressure Regulator, then connect to PVC tee.
- ❑ Attach 1/4" distribution tubing to outlets on Xeri-Bird 8 Outlet Manifold.
- ❑ Run 1/4" lines to sparse plantings, stake in place with a Diffuser Bug Cap on the end.
- ❑ Install the desired Xeri-Bug Emitter inside Xeri-Bird 8 Outlet Manifold.
- ❑ Use an SEB7X Emitter Box as added protection for the Xeri-Bird 8. (optional)

TIME: *(approx.)*

1 hr/20'
1 hr
5 min/Assembly
3 min/Xeri-Bird 8
8 min/Stake
2 min

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Install XB Emitters in Xeri-Bird 8 Outlet Manifold with self-piercing barb or 1032 thread end up.
- Adjust watering time as seasons/weather changes.
- Leave 6" slack in 1/4" tubing in case of unexpected maintenance.


WATER SOURCE
PVC LATERAL
XBD-80
TUBING STAKE W/CAP

Narrow Planting Bed Next to a Structure

Dense Applications

Solution

XFD Dripline Grid

Advantages

- Up to 60% water savings due to zero wind loss
- No runoff = reduced liability in high traffic areas
- No overspray damage to structures, fences or windows
- XFD Dripline is easy to install, resulting in labor savings

Installation

XFD-06-12	XFD Dripline .6 gph @ 12" Spacing
XCZ-100-PRF	1" Xeri Control Zone Kit
ARV050	½" Air Relief Valve
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XFF Dripline 17mm Insert Fittings
TDS-050	Tie Down Stake

1/2"AIR RELIEF VALVE KIT

XFF FITTINGS

TO DO LIST :

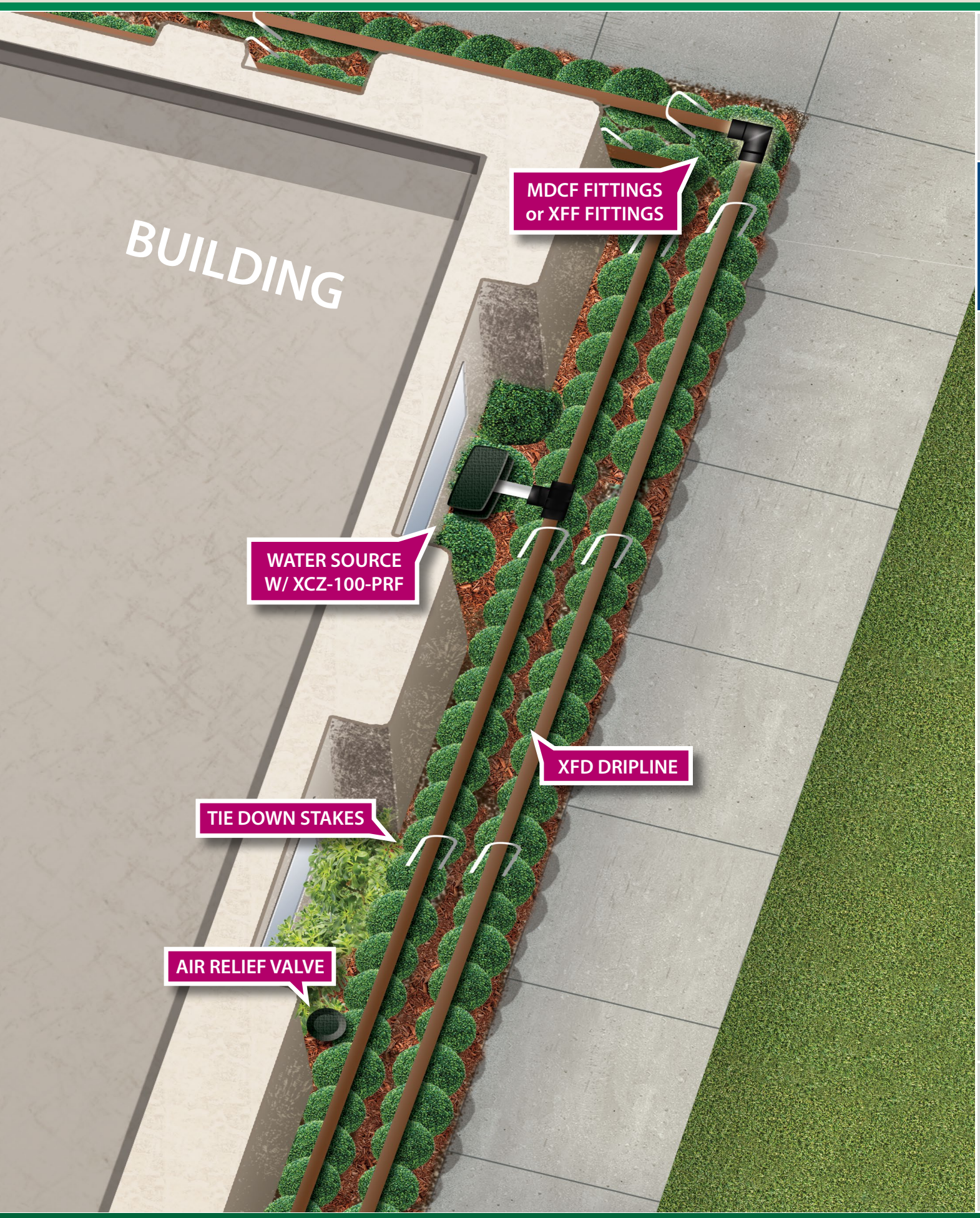
- ❑ Assemble Control Zone Kit and connect to water source.
- ❑ Cut lengths of XF Dripline to build grid in planting area.
- ❑ Connect lengths of XF Dripline to Easy Fit Fittings (or XFF Dripline Fittings) to create grid. Add 1/2" Air Relief Valve kit to the zone.
- ❑ Connect Easy Fit Adapter to Easy Fit Tee for connection to Control Zone Kit.
- ❑ Stake XF Dripline grid in place and flush until clean water flows.
- ❑ Install planting material.

TIME: *(approx.)*

1hr
10min/50'
25 min/50'
5 min
5 min/50'

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Install Air Relief Valve Kit at high point in the system.
- Leave XFD Dripline coil in the sun while preparing for installation.


BUILDING
MDCF FITTINGS
or XFF FITTINGS
WATER SOURCE
W/ XCZ-100-PRF
XFD DRIPLINE
TIE DOWN STAKES
AIR RELIEF VALVE

Narrow Planting Bed Next to a Structure

Dense Applications

Solution

SQ Series Nozzle

Advantages

- Precise square wetting pattern – reducing overspray, overwatering, and runoff
- Up to 65% water savings due to efficient control of water placement with pressure compensation
- Adjustable radius or throw in one unit makes design and installation simple
- Highest distribution uniformity in the industry for short radius nozzles

Installation

SQ–XXX*	SQ Series Nozzles
PA-8S **OR** **SQ ADP**	Plastic Shrub Adapter for use with Schedule 80 Risers SQ PolyFlex Riser Adapter for use with PFR-FRA PolyFlex Risers
PFR-FRA	12" PolyFlex Riser with ½" Male Threaded Base Adapter
PVC Misc	PVC Laterals, Fittings, Glue

* Half, full, or quarter nozzles as needed for planting bed

SQ NOZZLES

TO DO LIST :

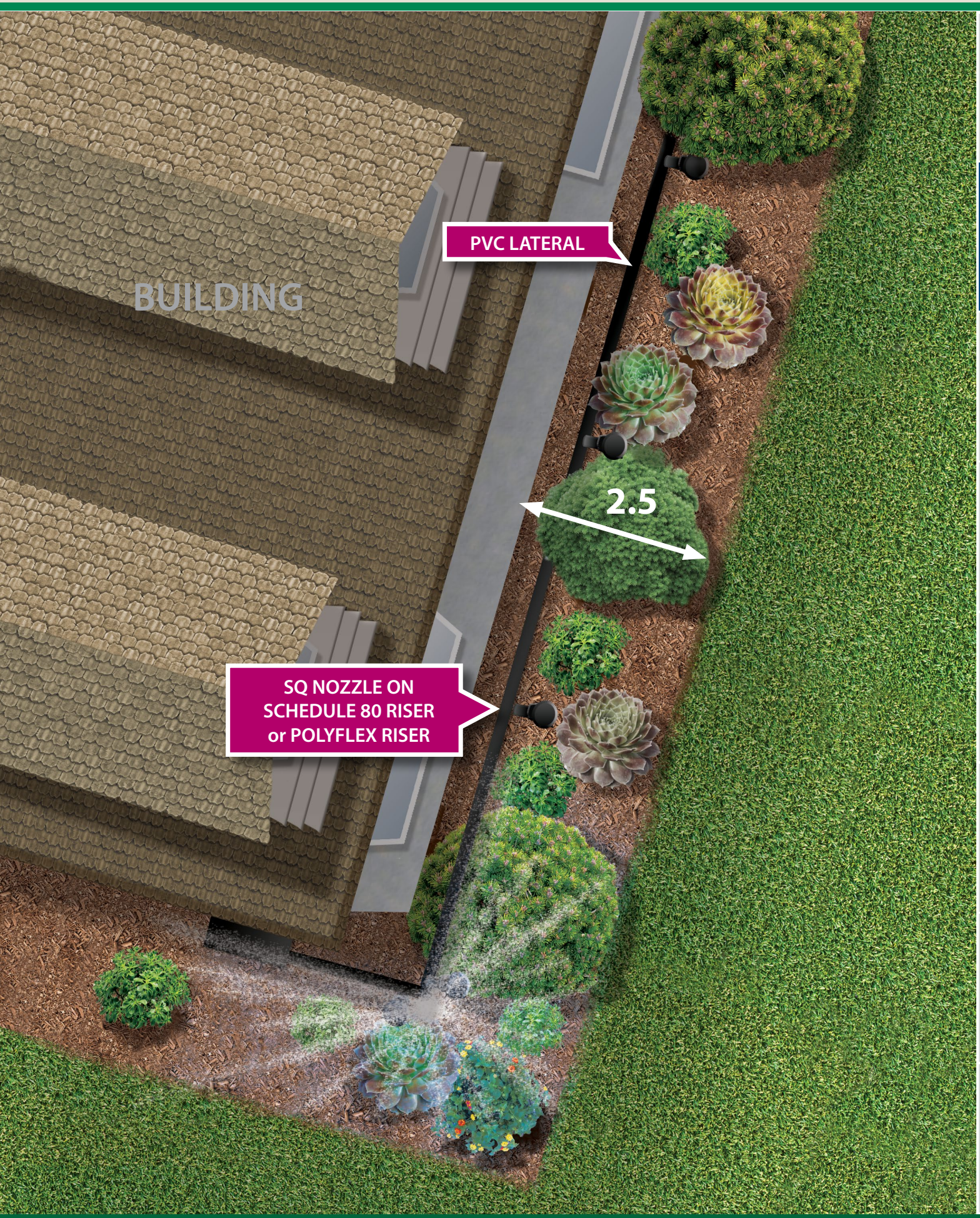
	TIME: *(approx.)*
❑ Trench, cut and glue PVC laterals.	1 hr / 20'
❑ Connect lines to water source.	1 hr
❑ Thread in Schedule 80 riser, attach PA-8S Adapter and SQ Series Nozzle.	5 min / Assembly
OR	
❑ Thread in PFR-FRA 12" PolyFlex Riser into PVC tee, attach SQ ADP Adapater and SQ Series nozzle.	5 min / Assembly

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Adjust watering time as seasons/weather changes.
- Ensure that all SQ Series Nozzles are adjusted to the appropriate throw distance.

Drip Tip

All SQ Series Nozzles in the same zone should be adjusted to either 2.5' or 4' throw. DO NOT mix throw settings in the same zone.


PVC LATERAL
BUILDING
2.5
SQ NOZZLE ON
SCHEDULE 80 RISER
or POLYFLEX RISER

Narrow Planting Bed Next to a Structure

Combination Applications

Solution

XFD Dripline Grid with Xeri-Bug Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- XFD Dripline is easy to install for labor savings
- No overspray damage to structures, fences or windows

Installation

XFD-06-12	XFD Dripline .6 gph @ 12" Spacing
XCZ-075-PRF	3/4" Xeri Control Zone Kit
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XFF Dripline 17mm Insert Fittings
TDS-050 BEND	Tie Down Stake
ARV050	1/2" Air Relief Valve
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
DT-025	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
DCB-025	Diffuser Bug Cap

XFD

TS-025

XB XX

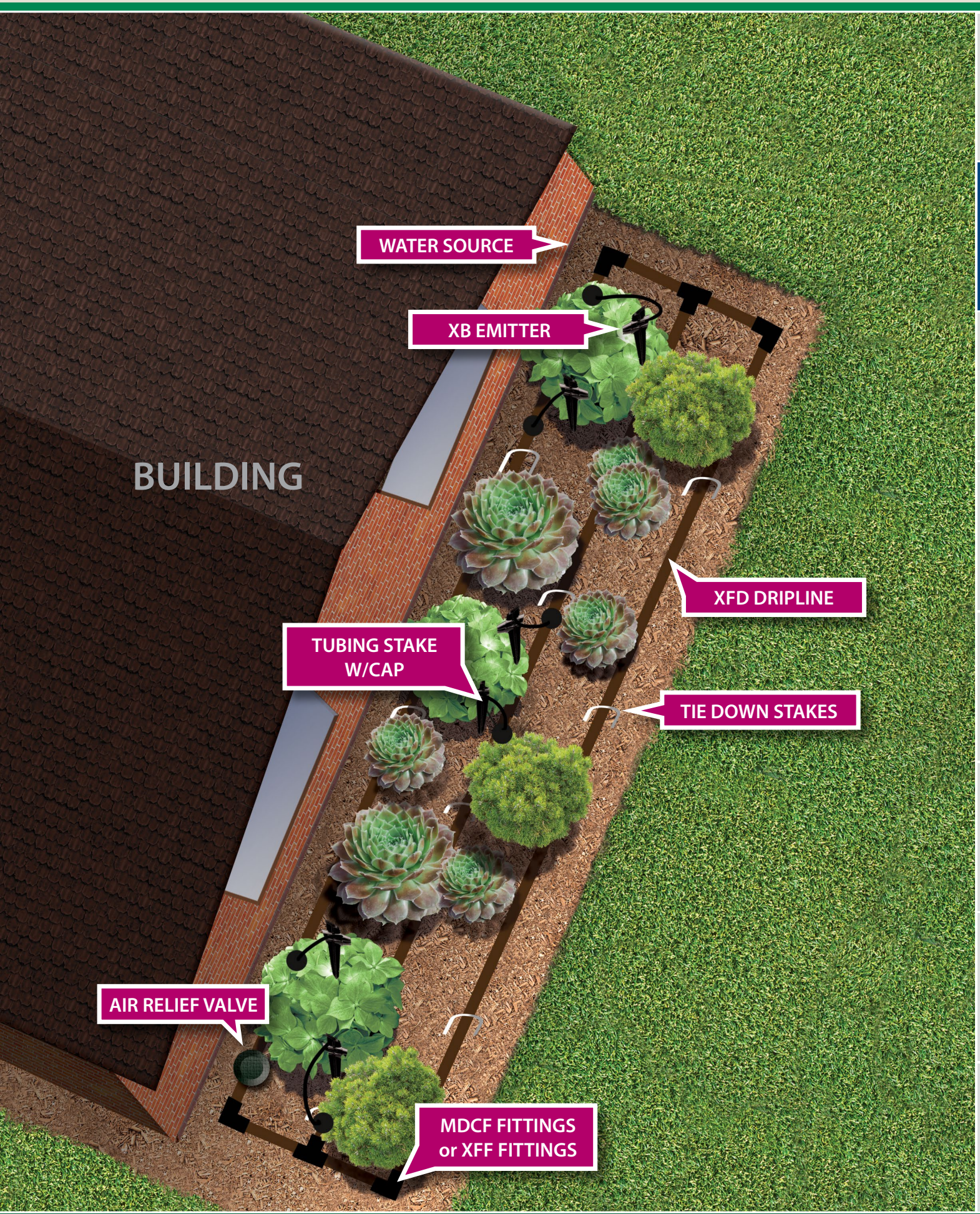
* Select appropriate emitter flow rate

TO DO LIST :

	TIME: *(approx.)*
❑ Assemble Control Zone Kit and connect to water source.	1 hr
❑ Cut lengths of XFD Dripline to build grid in planting area.	10 min/50'
❑ Connect lengths of XF Series Dripline to Easy Fit Fittings (or XFF Dripline fittings) to create grid, add Air Relief Valve	20 min/50'
❑ Connect Easy Fit Adapter to Easy Fit Tee for connection to Control Zone Kit.	5 min
❑ Stake XF Series Dripline grid in place.	5 min/10'
❑ Punch self-piercing barb inlet of Xeri-Bug Emitters into XF Series Dripline, connect 1/4" tubing to barb outlet and run 1/4" tubing to larger plant.	8 min/Emitter
❑ Stake tubing in place and attach Diffuser Bug Cap on the end.	3 min/Stake
❑ Flush system until clean water flows.	2 min
❑ Install planting material.	

INSTALLATION AND MAINTENANCE TIPS :

- Supplemental Xeri-Bug Emitters are placed next to larger plants with higher water requirements.
- Flush the zone upon installation and 2-4 times per year.
- Install Xeri-Bug Emitters with the Xeriman Tool (XM Tool) for 50% faster installation.
- Leave XF Series Dripline coil in the sun while preparing for installation.


WATER SOURCE
XB EMITTER
BUILDING
XFD DRIPLINE
TUBING STAKE W/CAP
TIE DOWN STAKES
AIR RELIEF VALVE
MDCF FITTINGS or XFF FITTINGS

Walls

Retaining Walls

Solution

XF Series Dripline

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

XFD-06-12	XF Series Dripline .6 gph @ 12" Spacing
XCZ-100-PRF	1" Xeri Control Zone Kit
ARV 050	1/2" Air Relief Valve
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XFF Dripline 17mm Insert Fittings
TDS-6050	Tie Down Stake (50 pack)

XFD

XFF FITTINGS

TO DO LIST :

- ❑ Assemble Control Zone Kit and connect to water source.
- ❑ Cut lengths of XF Series Dripline to lay laterally below retaining wall.
- ❑ Connect lengths of XF Series Dripline to Easy Fit Fittings, add 1/2" Air Relief Valve and add Flush Cap to end. Connect to Control Zone Kit.
- ❑ Stake XF Series Dripline in place and flush until clean water flows.
- ❑ Install planting material.

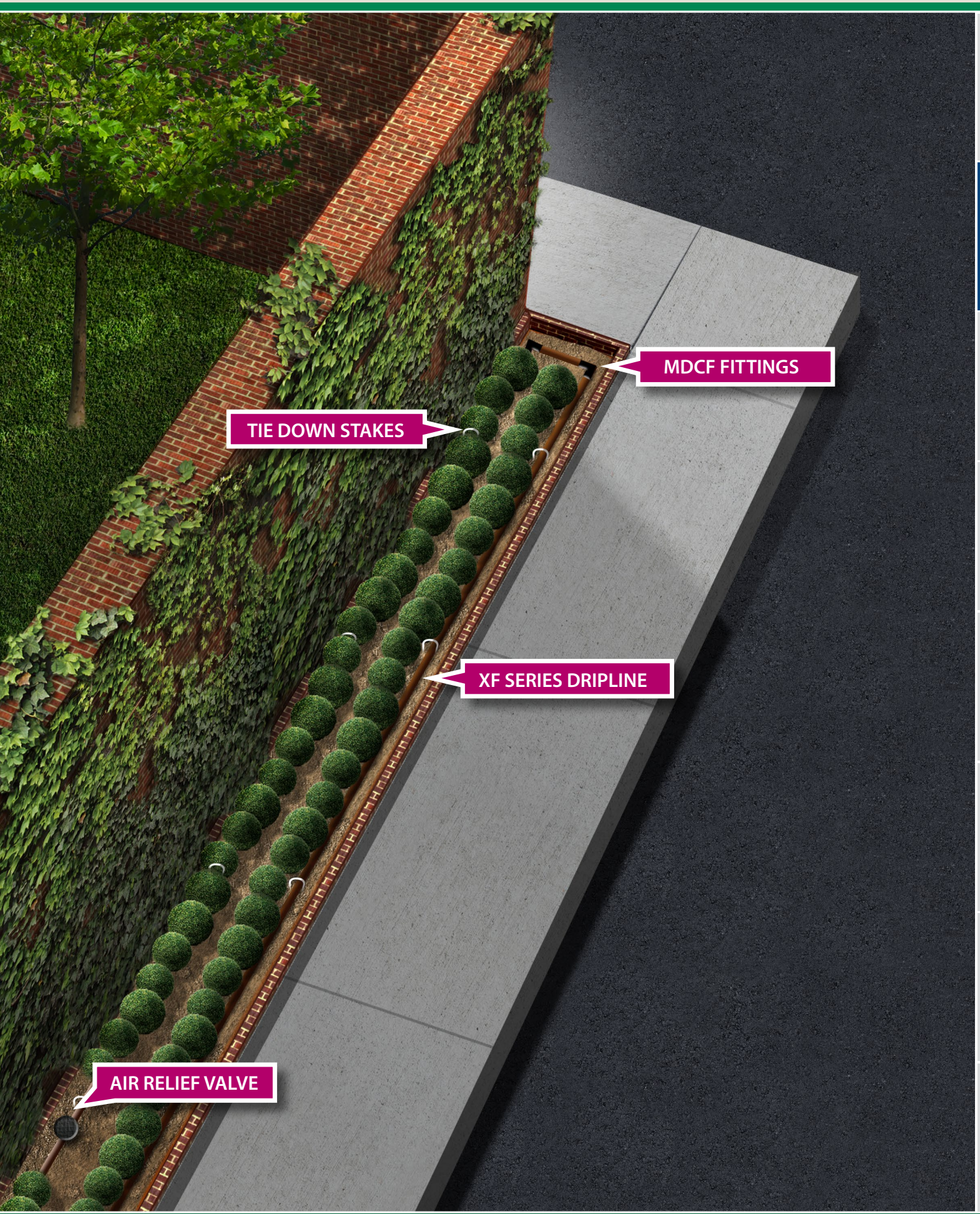
TIME: *(approx.)*

1 hr
10 min/50'
30 min/50'

5 min/10'

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Leave XF Series Dripline coil in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.
- Use XFS Series Dripline to protect against root intrusion


MDCF FITTINGS
TIE DOWN STAKES
XF SERIES DRIPLINE
AIR RELIEF VALVE

Median or Divider

Sparse Applications

Solution

PolyFlex Riser/Adapter with Xeri-Bug 10-32 Drip Emitters on a PVC Lateral

Advantages

- Up to 60% water savings
- No overspray damage to vehicles or parking lot
- Targeted watering reduces weed growth
- No runoff = reduced liability in high traffic areas

Installation

PFR/FRA	PolyFlex Riser/Adapter
XB XX* 10-32	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph) w/ 10-32 Thread
PVC Misc.	PVC Laterals, Fittings, Glue
XCZ-075-PRF	3/4" Xeri Control Zone Kit

* Select appropriate emitter flow rate

XB XX 10-32

PFR-FRA

TO DO LIST :

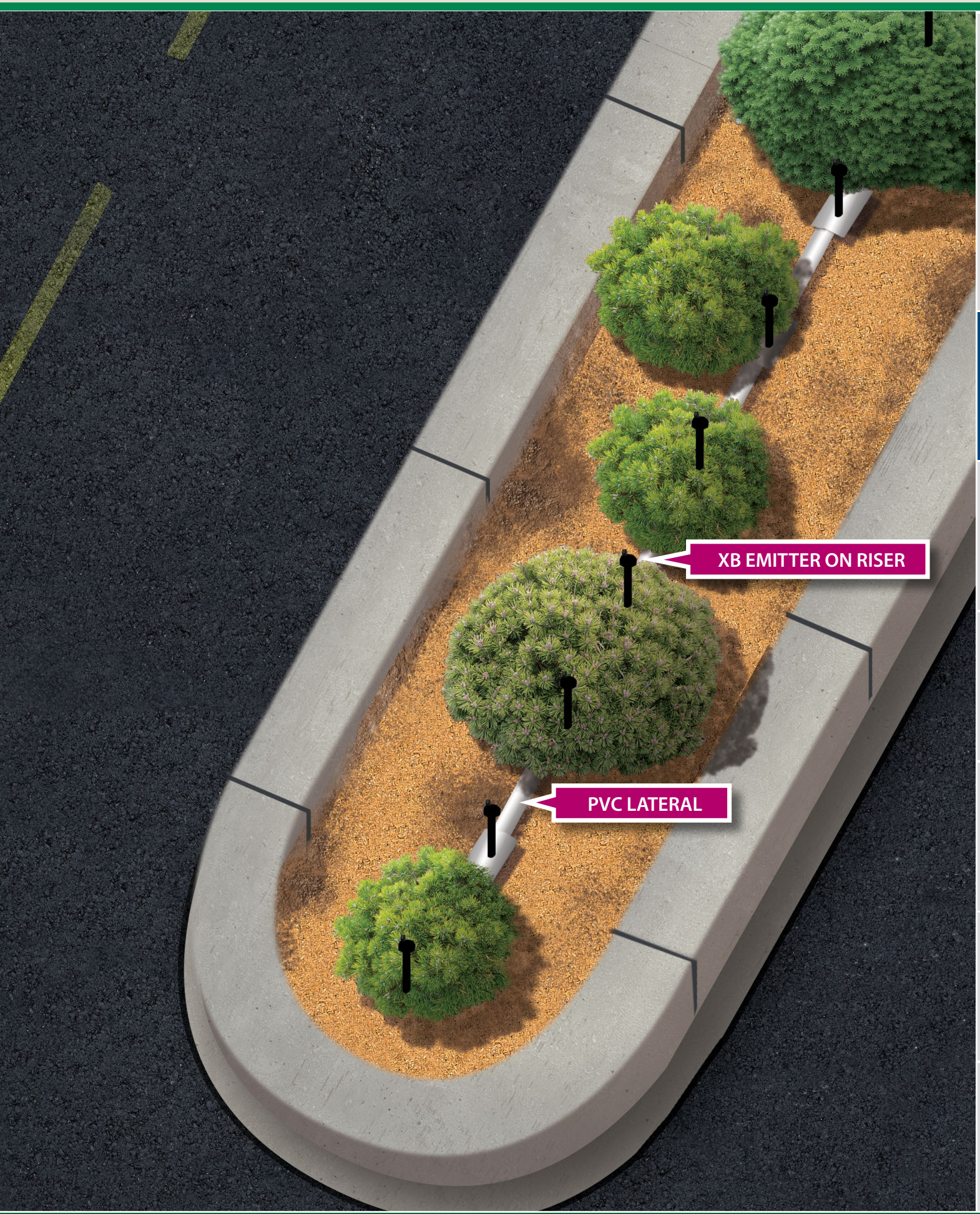
- ❑ Trench, cut and glue PVC laterals.
- ❑ Assemble Control Zone Kit and position in valve box.
- ❑ Connect Control Zone to water source and laterals.
- ❑ Thread PolyFlex Riser/Adapter into PVC tees.
- ❑ Thread Xeri-Bug Emitter into PolyFlex Riser.
- ❑ Flush system until clean water flows.
- ❑ Add planting material and mulch.

TIME: *(approx.)*

1 hr/20'
1 hr
1 hr
5 min/Tee
5 min/PFR
2 min

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- For larger trees use higher flow PC Modules and Diffuser caps to avoid wash out.
- Adjust watering time as seasons/weather changes.
- Cut PolyFlex Risers slightly above grade (before installing the Xeri-Bug Emitters) for an "invisible" installation.
- The PolyFlex Riser Adapter (FRA) is made of Marlex®, so no Teflon® tape is needed.


XB EMITTER ON RISER
PVC LATERAL

Street Medians

Dense Applications

Solution

XF Series Dripline Grid

Advantages

- Up to 60% water savings due to zero wind loss
- No overspray damage to roadways and vehicles
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

XFD-06-12	XF Series Dripline .6 gph @ 12" Spacing
XCZ-100-PRF	1" Xeri Control Zone Kit
ARV050	1/2" Air Relief Valve Kit
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XFF Dripline 17mm Insert Fittings
TDS-050 BEND	Tie Down Stake
PVC Misc.	PVC Laterals and Fittings
XP600X	Xeri-Pop (optional)
SQ QTR	SQ Series Nozzle (optional)

XFD

XFF FITTINGS

TO DO LIST :

- ❑ Assemble Control Zone Kit and connect to water source.
- ❑ Cut lengths of XF Series Dripline to build grid in planting area.
- ❑ Connect lengths of XF Series Dripline to Easy Fit Fittings (or XF Dripline 17mm fittings) to create grid (add Air Relief Valve Kit to the zone and connect to Control Zone Kit).
- ❑ Stake XF Series Dripline grid in place and flush until clean water flows.
- ❑ Install planting material.

TIME: *(approx.)*

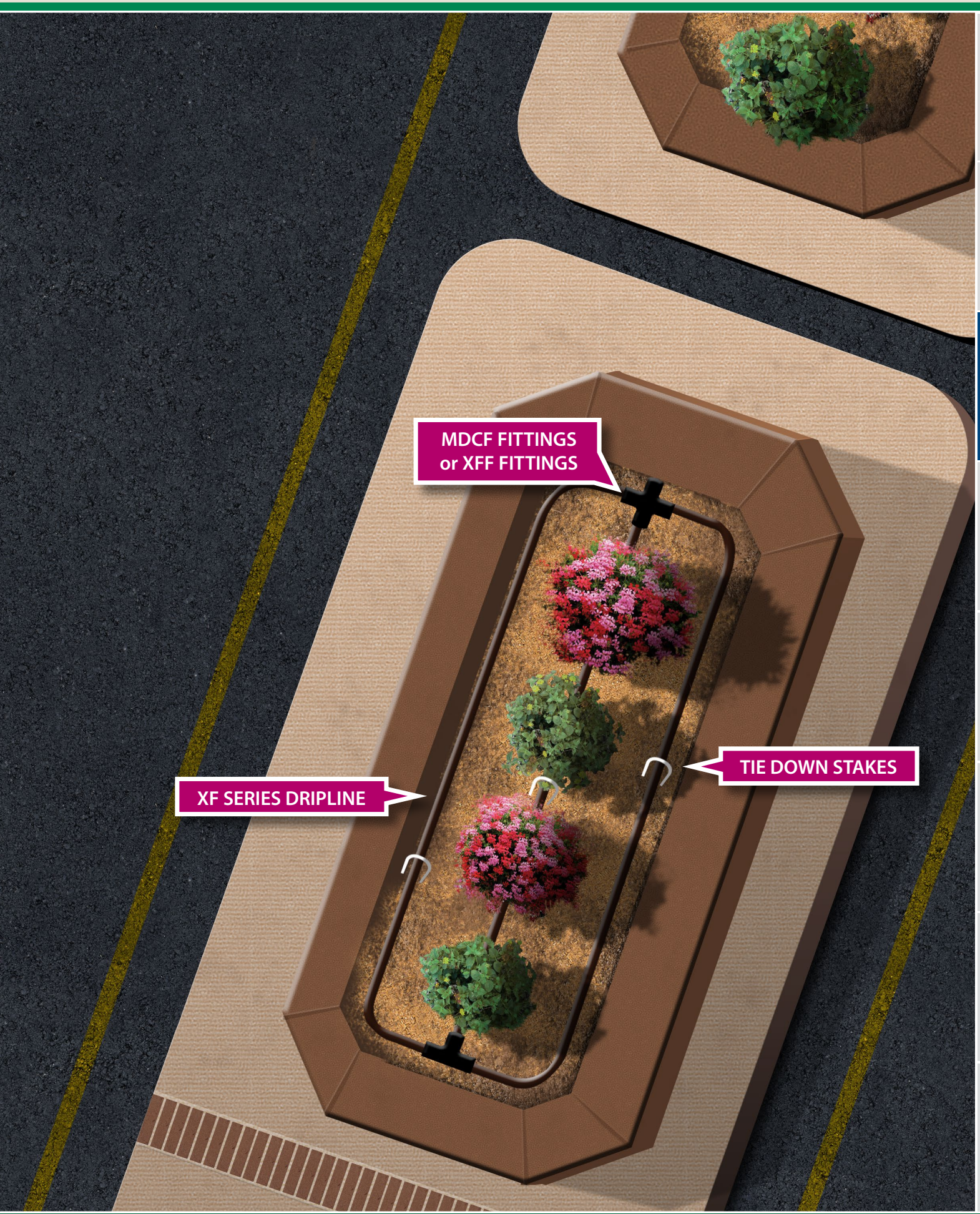
1 hr
10 min/50'
25 min/50'
5 min/10'

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Leave XF Series Dripline coil in the sun while preparing for installation.
- Use XFS Series Dripline to protect against root intrusion

Drip Tip

Add a Xeri-Bubbler Xeri-Pop with an XPCN Series Nozzle to the line nearest Control Zone/Valve box as an indicator for maintenance crews.


MDCF FITTINGS
or XFF FITTINGS
XF SERIES DRIPLINE
TIE DOWN STAKES

Median or Divider

Dense & Combination Applications

Solution (Combination)

SQ Series Nozzle on 1800 Spray Heads with Swing Assembly on PVC Lateral

Advantages

- Precise square wetting pattern reduces overspray, overwatering, and runoff = up to 65% water saving
- Adjustable radius in one unit makes design and installation simple
- Highest distribution uniformity in the industry for short radius nozzles

Installation

SQ–XXX*	SQ Series Nozzles
180X	1800 Series Spray Head with Desired Pop-up Height
SA-XXX	SA Series Swing Assembly
PVC Misc	PVC Laterals, Fittings, Glue

* Half, full, or quarter nozzles as needed for planting bed

TO DO LIST :

- ❑ Trench, cut and glue PVC laterals. (1 hr/20')
- ❑ Connect lines to water source. (1 hr)
- ❑ Thread 1800 Series Spray Head onto swing assembly then thread the swing assembly into the Slip x Slip x Threaded Tee PVC fitting. (5 min/Assembly)
- ❑ Cut PVC laterals and glue in Slip x Slip x Threaded Tee assembly. (5 min/Tee)
- ❑ Flush system until water flows clear. (As needed)
- ❑ Install SQ Series nozzles on 1800 Spray Heads. (2 min/Nozzle)

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Adjust watering time as seasons/weather changes.
- Ensure that all SQ Series nozzles are adjusted to the appropriate throw distance.

Solution #2

SQ Series Nozzle on 1800 Spray Heads with Swing Assembly on PVC Lateral

Advantages

- Precise square wetting pattern reduces overspray, overwatering, and runoff
- Up to 65% water savings due to efficient control of water placement with pressure compensation
- Adjustable radius in one unit makes design and installation simple
- Highest distribution uniformity in the industry for short radius nozzles

Installation

SQ–XXX*	SQ Series Nozzles
18XX	1800 Series Spray Head with Desired Pop-up Height
SA-XXX	SA Series Swing Assembly
PVC Misc	PVC Laterals, Fittings, Glue

* Half, full, or quarter nozzles as needed for planting bed

TO DO LIST :

- ❑ Trench, cut, and glue PVC laterals.
- ❑ Connect lines to water source.
- ❑ Thread 1800 Series Spray Head onto swing assembly then thread the swing assembly into the Slip x Slip x Threaded Tee PVC fitting.
- ❑ Cut PVC laterals and glue in Slip x Slip x Threaded Tee assembly.
- ❑ Flush system until water flows clear.
- ❑ Install SQ Series nozzles on 1800 Spray Heads.

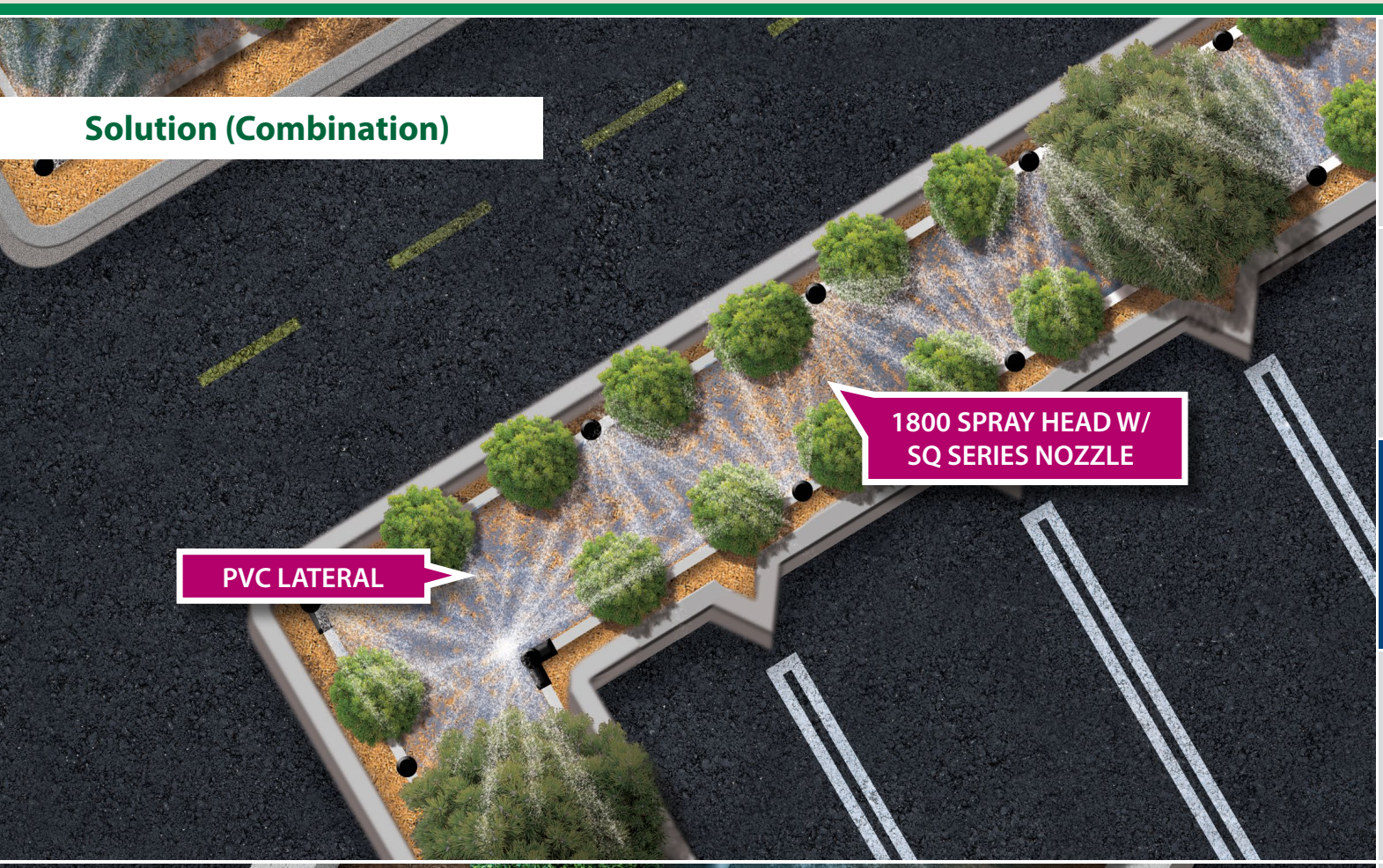
INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Adjust watering time as seasons/weather changes.
- Ensure that all SQ Series Nozzles are adjusted to the appropriate throw distance.

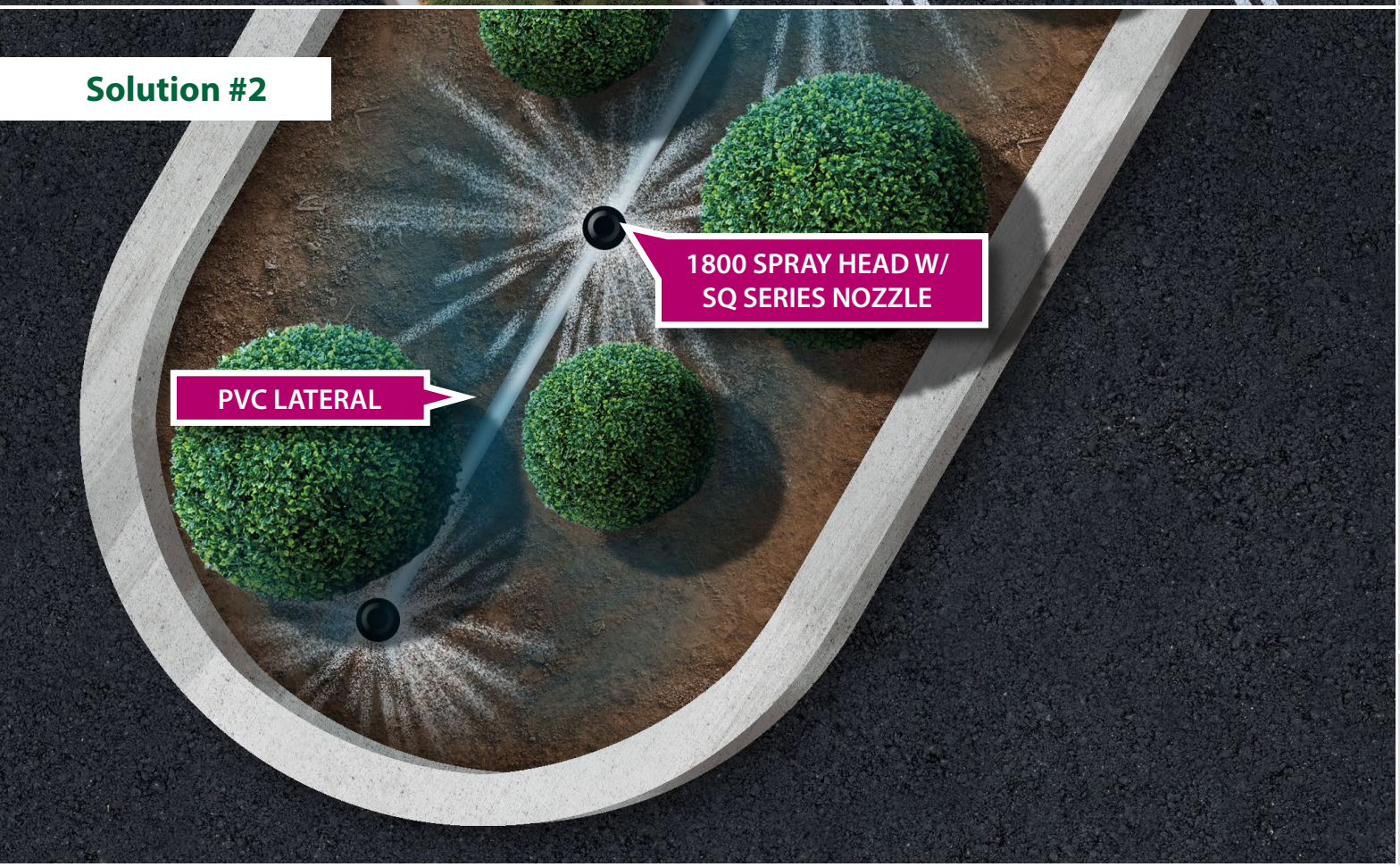
Drip Tip

With a simple turn of the nozzle to the next preset stop, the SQ Series Nozzle adjusts from a 2.5' throw to a 4' throw. All nozzles in the same zone must be adjusted to the same throw.

Solution (Combination)

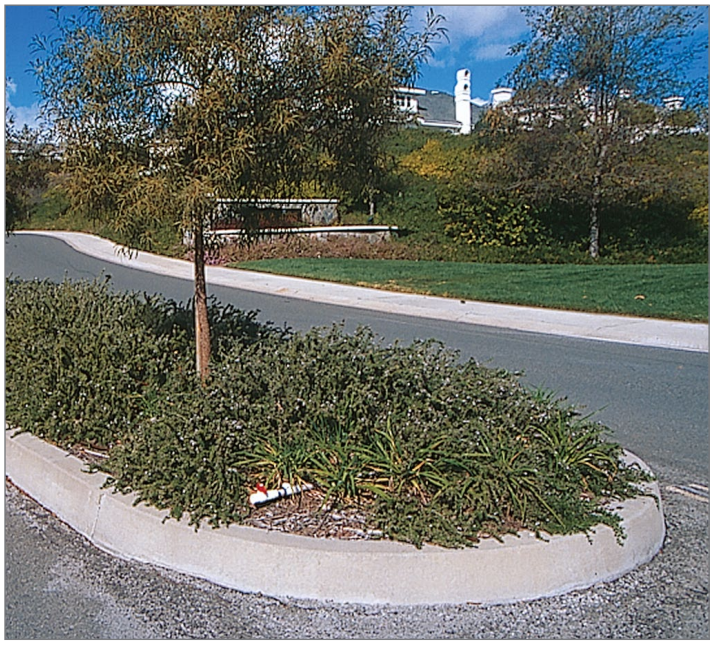


Solution #2



Median or Divider

Combination Applications



Solution

XF Series Dripline Grid with Xeri-Bug Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- No overspray damage to roadways and vehicles
- No runoff = reduced liability in high traffic areas
- Low maintenance results in labor savings
- XF Dripline is easy to install, resulting in labor savings

Installation

XFD-06-12	XF Series Dripline .6 gph @ 12" Spacing
XCZ-100-PRF	1" Xeri Control Zone Kit
ARV050	1/2" Air Relief Valve
XFF Series	XF Dripline 17mm Insert Fittings
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
TDS-050	Tie Down Stake
DCB-025	Diffuser Bug Cap

* Select appropriate emitter flow rate

TS-025

XFD

XB XX

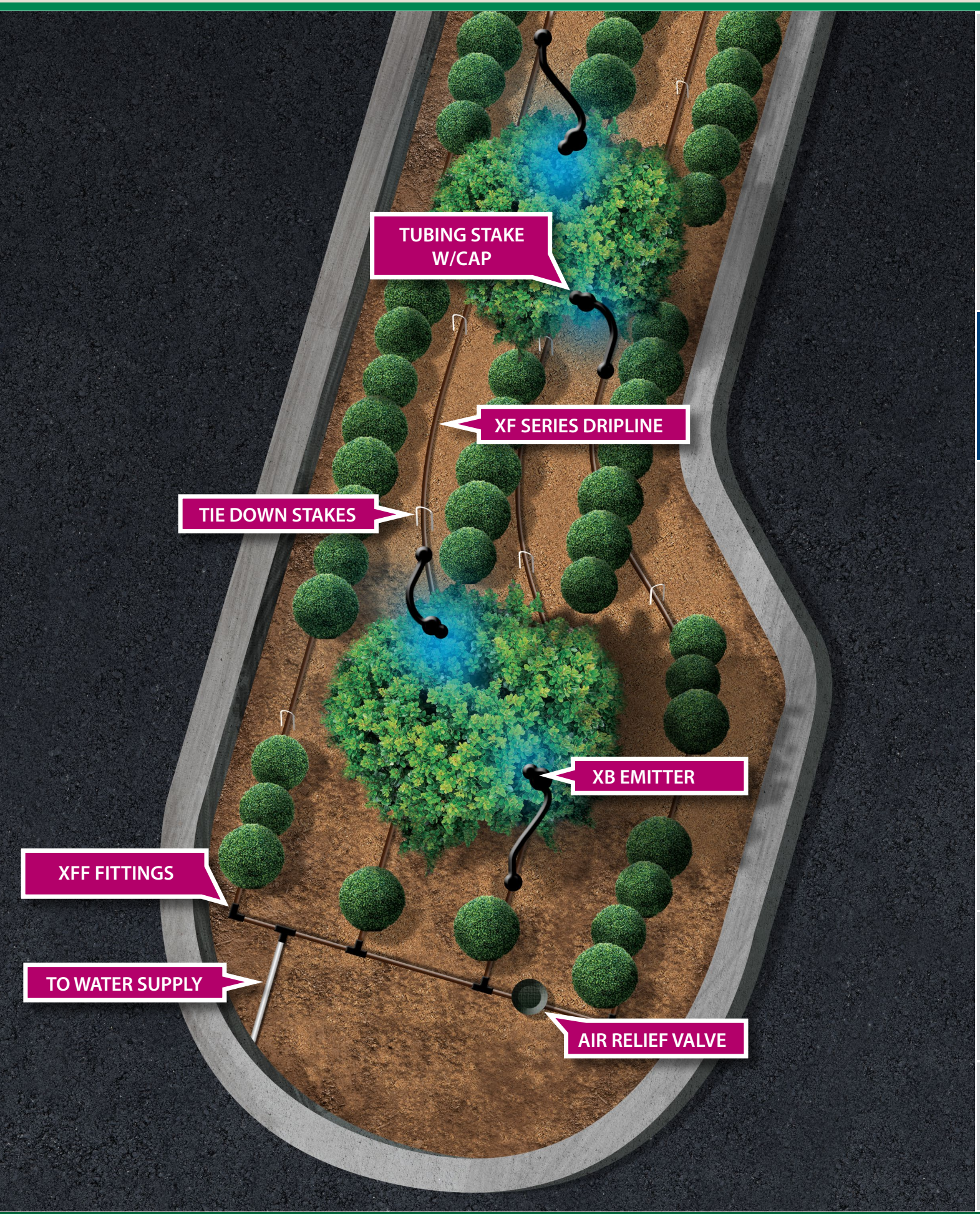
½" Air Relief Valve

TO DO LIST :

	TIME: *(approx.)*
❑ Assemble Control Zone Kit and connect to water source.	1 hr
❑ Connect Easy Fit series for connection to Control Zone Kit.	5 min
❑ Cut lengths of XF Series Dripline to assemble grid in planting area.	10 min/50'
❑ Use Easy Fit Compression Fittings (or XFF Dripline fittings) to create XF Series Dripline grid. Add 1/2" Air Relief Valve Kit and stake grid in place. Insert Xeri-Bug Emitters into XF Series Dripline for supplemental watering.	1 hr 30 min
❑ Connect 1/4" tubing to Xeri-Bug Emitters, run lines and stake next to larger plants.	8 min/Stake
❑ Flush zones until clean water flows.	2 min
❑ Install planting material.	

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Leave XF Series Dripline coil in the sun while preparing for installation.
- Supplemental Xeri-Bug Emitters or Pressure Compensating Modules are placed next to larger plants with higher water requirements.


TUBING STAKE W/CAP
XF SERIES DRIPLINE
TIE DOWN STAKES
XB EMITTER
XFF FITTINGS
TO WATER SUPPLY
AIR RELIEF VALVE

Slopes

Dense or Combination Applications

Solution

XF Series Dripline Grid with Xeri-Bug Emitters with Check Valve (XXBCV)

Advantages

- Up to 60% water savings due to zero wind loss
- Low maintenance results in labor savings
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings
- Both XFCV Dripline and XBCV Emitters feature built-in check valves which eliminates low point drainage and runoff by holding back water up to 10 ft. when system is off

Installation

XFCV-06-12	XFCV Dripline w/Heavy-Duty Check Valve (.6 gph @ 12" Spacing)
XCZ-100-PRF	1" Xeri Control Zone Kit
MDCF Series	Easy Fit Compression Fittings/Adapters
OR	
XFF Series	XF Dripline 17mm Insert Fittings
XBCV-****	Xeri-Bug Emitters with Check Valve (0.5 to 2.0 gph)
TS-025	1/4" Tubing Stake
TDS-6050	Tie Down Stake
XM Tool	Xeriman Installation Tool
DCB-025	Diffuser Bug Cap

* Select appropriate emitter flow rate

XBCV EMITTERS

XFF FITTINGS

TO DO LIST :

- ❑ Assemble Control Zone Kit and connect to water source.
- ❑ Connect Easy Fit Adapter to Easy Fit Tee for connection to Control Zone Kit.
- ❑ Cut lengths of XFCV Dripline Tubing to assemble grid on a slope up to 10ft on each grid segment.
- ❑ Connect lengths of XFCV Dripline Tubing to XF Dripline fittings to create grid.
- ❑ Insert Xeri-Bug Emitters directly into XFCV Dripline Tubing to provide supplemental water for areas where plants will be placed.
- ❑ Stake the tubing grid in place and flush until clean water flows.
- ❑ Install planting material.

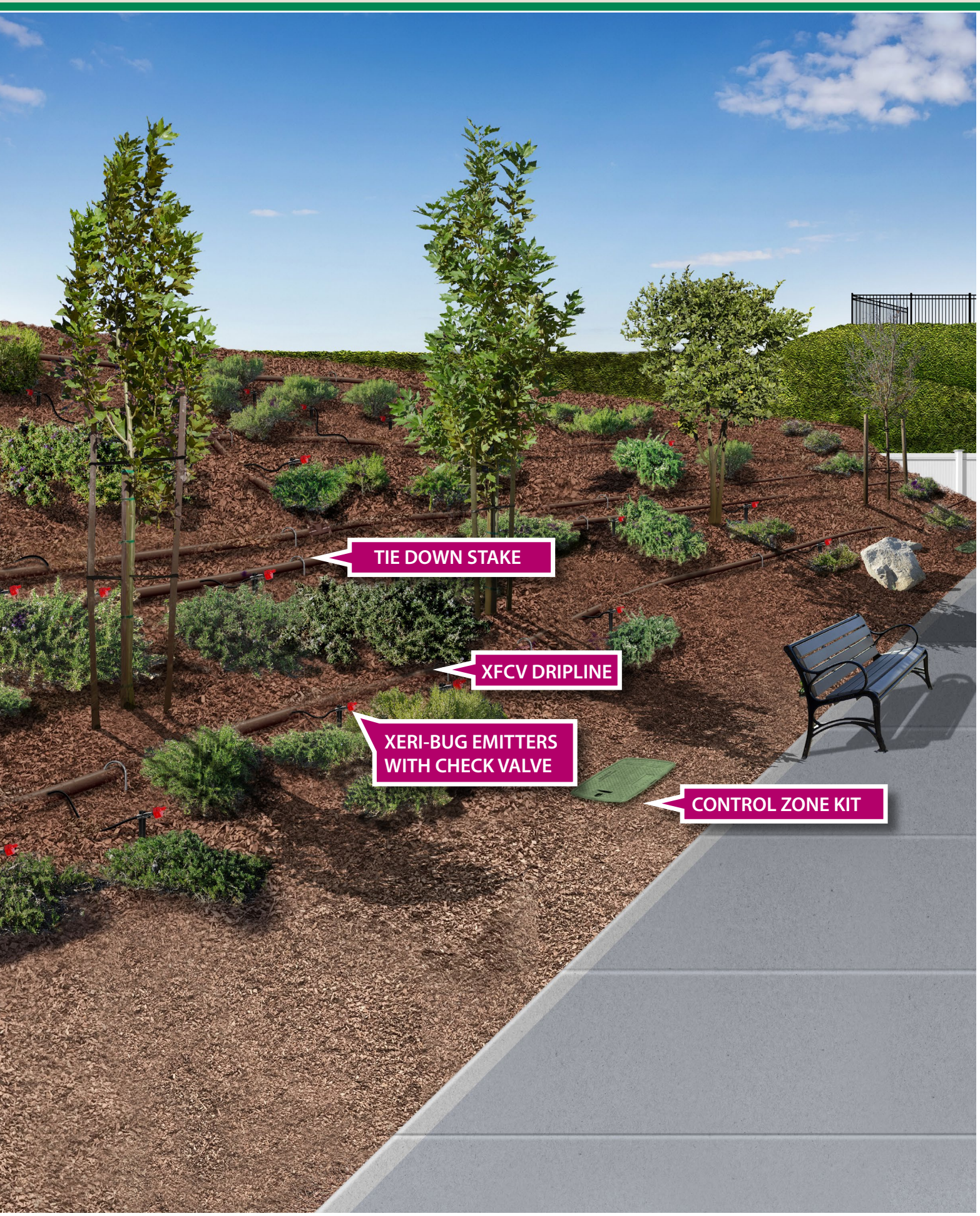
TIME: *(approx.)*

1 hr
5 min
10 min/50'
25 min/50'

3 min/Emitter
5 min/10'

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Leave Tubing coil in the sun while preparing for installation.
- Use the Xeriman Tool to install the emitters into XF Series Dripline.


TIE DOWN STAKE
XFCV DRIPLINE
XERI-BUG EMITTERS WITH CHECK VALVE
CONTROL ZONE KIT

Slopes

Combination Applications

Solution

XFCV Dripline Grid with Xeri-Bug Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- Low maintenance results in labor savings
- XF Dripline is easy to install, resulting in labor savings

Installation

XFCV-06-12	XF Series Dripline .6 gph @ 12" Spacing
XCZ-100-PRF	1" Xeri Control Zone Kit
MDCF Series **OR** **XFF Series**	Easy Fit Compression Fittings/Adapters XFF Dripline 17mm Insert Fittings
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
TDS-050	Tie Down Stake
DCB-025	Diffuser Bug Cap

XFCV

MDCF FITTINGS

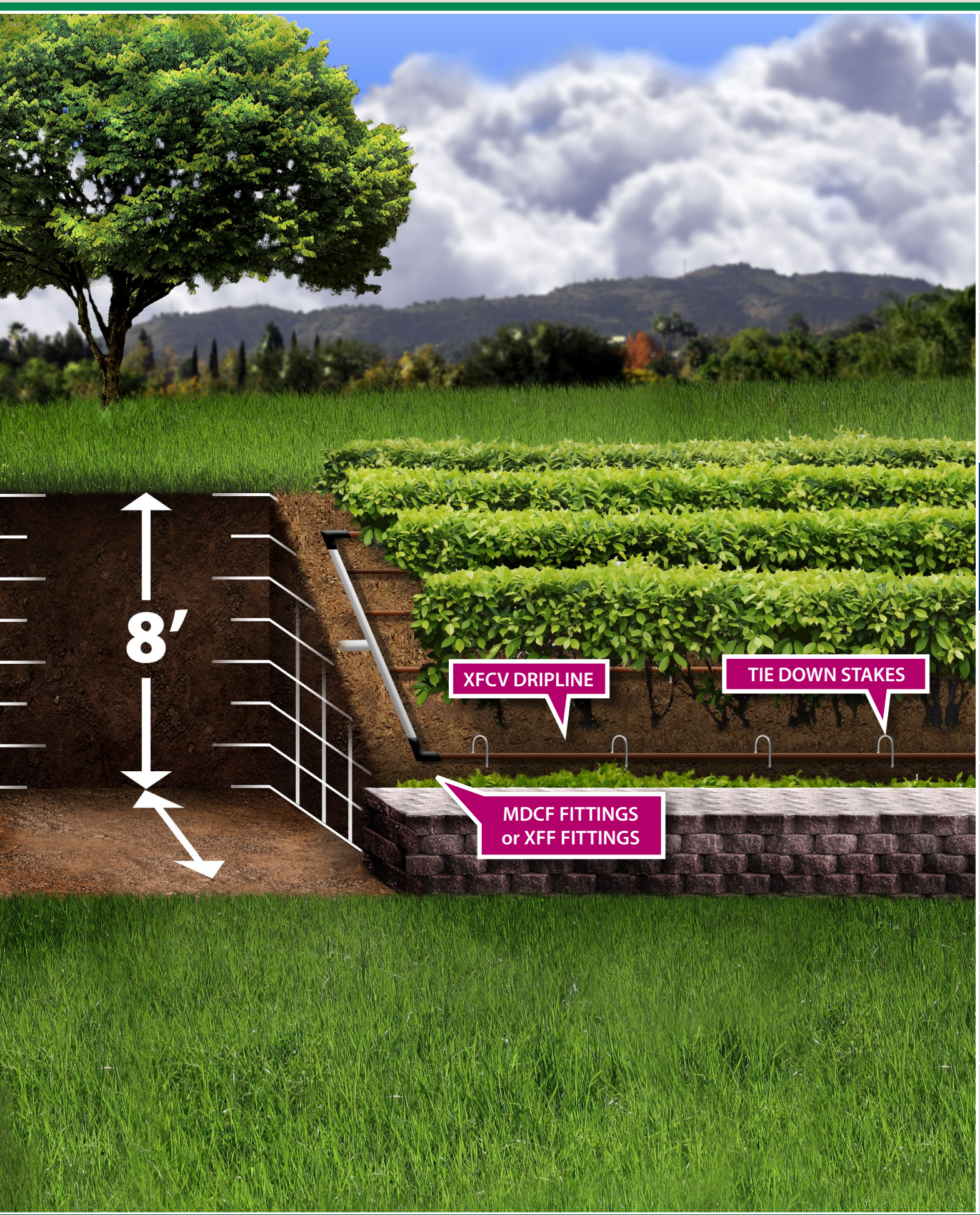
* Select appropriate emitter flow rate

TO DO LIST :

	TIME: *(approx.)*
❑ Assemble Control Zone Kit and connect to water source.	1 hr
❑ Connect Easy Fit adapter to Easy Fit Tee for connection to Control Zone Kit.	5 min/XCZ
❑ Cut lengths of XF Series Dripline to assemble grid in planting area.	10 min/50'
❑ Use MDCF Fittings (or XFF Dripline fittings) to create grid and stake in place. Insert Xeri-Bug Emitters into XF Series Dripline for supplemental watering.	1 hr 30 min
❑ Connect 1/4" tubing to Xeri-Bug Emitters, run lines and stake next to larger plants.	8 min/Stake
❑ Flush zones until clean water flows.	2 min
❑ Install planting material.	

INSTALLATION AND MAINTENANCE TIPS :

- Supplemental Xeri-Bug Emitters or Pressure Compensating Modules can be placed next to larger plants with higher water requirements.
- Flush the zone upon installation and 2-4 times per year.
- Leave XF Series Dripline coil in the sun while preparing for installation.


8’
XFCV DRIPLINE
TIE DOWN STAKES
MDCF FITTINGS
or XFF FITTINGS

Patio Pots on Separate Zone

Pots will need different amounts of water based off pot size and plant material. (1 of 3)

Solution

OPTION A: PVC Tubing with Xeri-Bird 8 & Xeri-Bug Emitters
OPTION B: PVC Tubing with 6 Outlet Manifold & 1/4" Landscape Dripline Loop

Advantages

- Up to 60% water savings
- Xeri-Bird 8 Manifold with PRS offers pressure regulation, filtration and controlled watering to multiple pots
- Manifold allows for increase/decrease in future plant requirements

Installation

Option A

XBD-80	Xeri-Bird 8 Outlet Manifold
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
PRS-050	In-stem 30 psi Pressure Regulator
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
DCB-025	Diffuser Bug Cap
PVC Misc.	PVC Laterals, Fittings, Glue

* Select appropriate emitter flow rate

TO-DO LIST:	TIME A:
❑ Trench (as needed), cut and glue PVC laterals.	1 hr/20'
❑ Connect lines to water source.	1 hr
❑ Thread Xeri-Bird 8 Outlet Manifold onto in-stem 30 psi Pressure Regulator and connect to PVC tee.	5 min
❑ Attach 1/4" distribution tubing to outlets on manifold.	2 min/ XBD-80
❑ Run 1/4" lines to Pots, stake in place with a bug cap on the end.	8 min/ Pot
❑ Install the desired Drip Emitter inside manifold.*	2 min

* Emitter varies by location (0.5 to 2.0 gph)

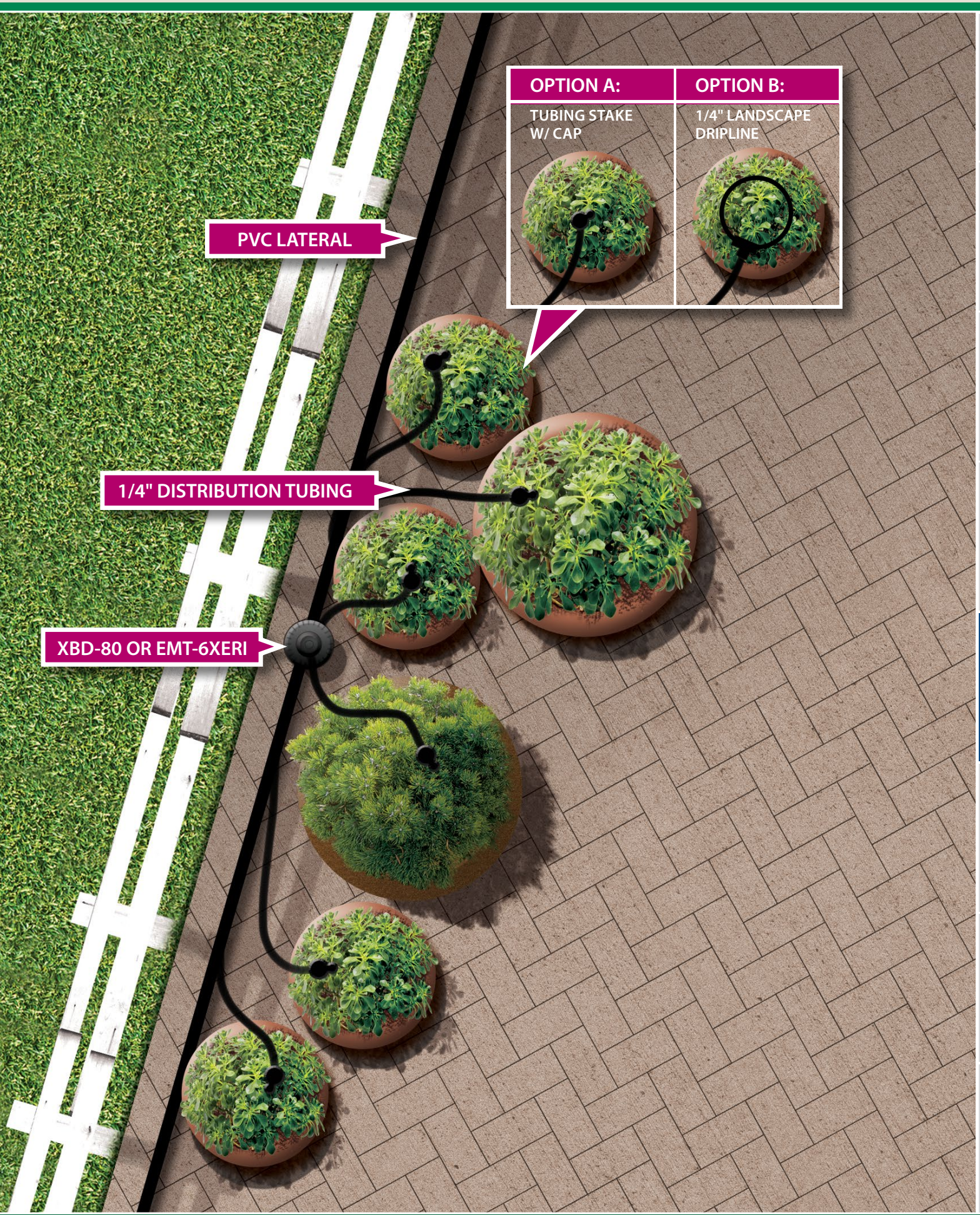
Option B

EMT-6XERI	6 Outlet Manifold
XQ-100	1/4" Distribution Tubing
XBF-3TEE	1/4" Barb Tee
LDQ-08-06-100	1/4" Landscape Dripline
PVC Misc.	PVC Laterals, Fittings, Glue

TO-DO LIST:	TIME B:
❑ Trench (as needed), cut and glue PVC laterals.	1 hr/20'
❑ Connect lines to water source.	1 hr
❑ Thread 6 Outlet Manifold onto riser, then connect to PVC tee.	2 min/ EMT-6Xeri
❑ Attach 1/4" distribution tubing to outlets on manifold.	2 min
❑ Run 1/4" lines to pots and connect tubing to barb tee. Then run 1/4" Landscape Dripline in a circle inside the pot and connect both ends to the barb tee.	8 min/Pot

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Adjust watering time as seasons/weather changes.


OPTION A:
TUBING STAKE W/ CAP
OPTION B:
1/4" LANDSCAPE DRIPLINE
PVC LATERAL
1/4" DISTRIBUTION TUBING
XBD-80 OR EMT-6XERI

Patio Pots on Separate Zone

Pots will need different amounts of water based off pot size and plant material. (2 of 3)

Solution

Poly Tubing Lateral with Multi-Outlet Xeri-Bug

Advantages

- Up to 60% water savings
- Poly tubing flexible for odd shaped areas
- Multi-Outlet Xeri-Bug ensures even watering to multiple pots

Installation

XCZ-075-PRF	3/4" Xeri Control Zone Kit
XB-XX-6*	Multi-Outlet Xeri-Bug (6 Outlet PC Manifold w/ Barb Inlet)
XBS	Xeri Black Stripe Poly Tubing
XQ-100	1/4" Distribution Tubing
TS-025	1/4" Tubing Stake
DCB-025	Diffuser Bug Cap

* Select appropriate emitter flow rate

TS-025

XB-XX-6

XBS

TO DO LIST :

- ❑ Cut and lay out poly lines.
- ❑ Assemble Control Zone Kit and connect to water source and poly lines.
- ❑ Punch hole in poly tubing and insert XB-XX-6 manifold.
- ❑ Connect 1/4" tubing to XB-XX-6 barb outlets and run tubing to pots.
- ❑ Stake in place with a bug cap on the end.

TIME: *(approx.)*

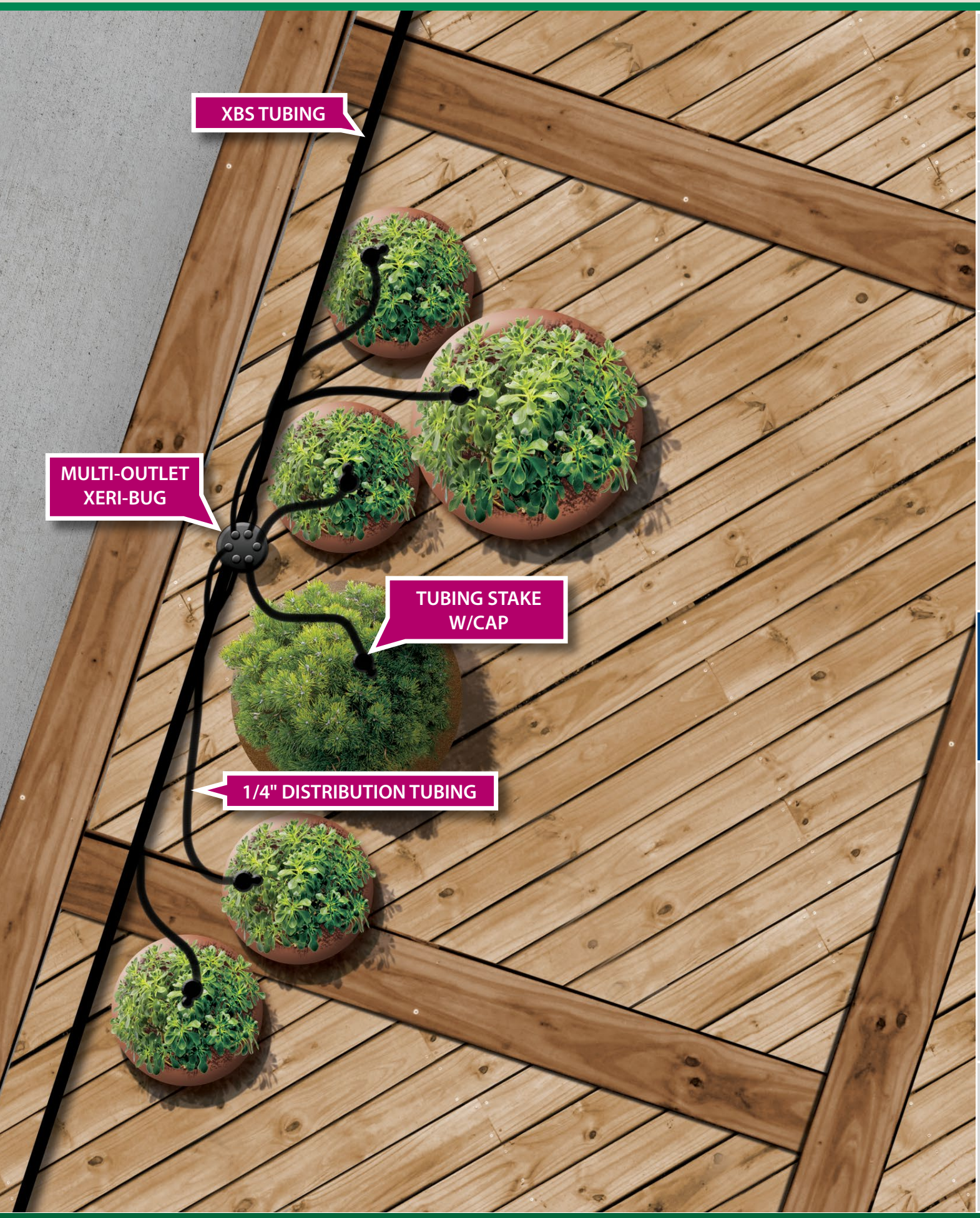
30 min/50'
1 hr 15 min
3 min/XB-XX-6
8 min/Pot
3 min/Pot

INSTALLATION AND MAINTENANCE TIPS :

- For invisible installation, run 1/4" tubing through the drain hole in the bottom of the pot prior to adding plant material.

Drip Tip

Do not run 1/4" tubing more than 5'-8' from the XB emitter device.


XBS TUBING
MULTI-OUTLET XERI-BUG
TUBING STAKE W/CAP
1/4" DISTRIBUTION TUBING

Patio Pots on Separate Zone

Pots will need different amounts of water based off pot size and plant material. (3 of 3)

Solution

OPTION A: Poly Tubing Lateral with Xeri-Bug Barb Emitters

OPTION B: Poly Tubing Lateral with 1/4" Landscape Dripline Loop

Advantages

- Up to 60% water savings
- Poly tubing flexible for odd shaped areas
- Xeri-Bug Emitters can accommodate the watering needs of a variety of potted plants

Installation

Option A

XCZ-075-PRF	3/4" Xeri Control Zone Kit
XBS	Xeri Black Stripe Poly Tubing
XQ-100	1/4" Distribution Tubing
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
TS-025	1/4" Tubing Stake
DCB-025	Diffuser Bug Cap

* Select appropriate emitter flow rate

TO-DO LIST:	**TIME A:**
❑ Cut and lay out poly lines.	30 min/50'
❑ Assemble Control Zone Kit and connect to water source and poly lines.	1 hr 15 min
❑ Use Xeri-Bug Emitters' self-piercing barb to connect poly lateral tubing with 1/4" distribution tubes. Run 1/4" distribution tubes to pots.	8 min/Pot
❑ Connect distribution tubes to Tubing Stake with a bug cap on the end.	3 min/Pot

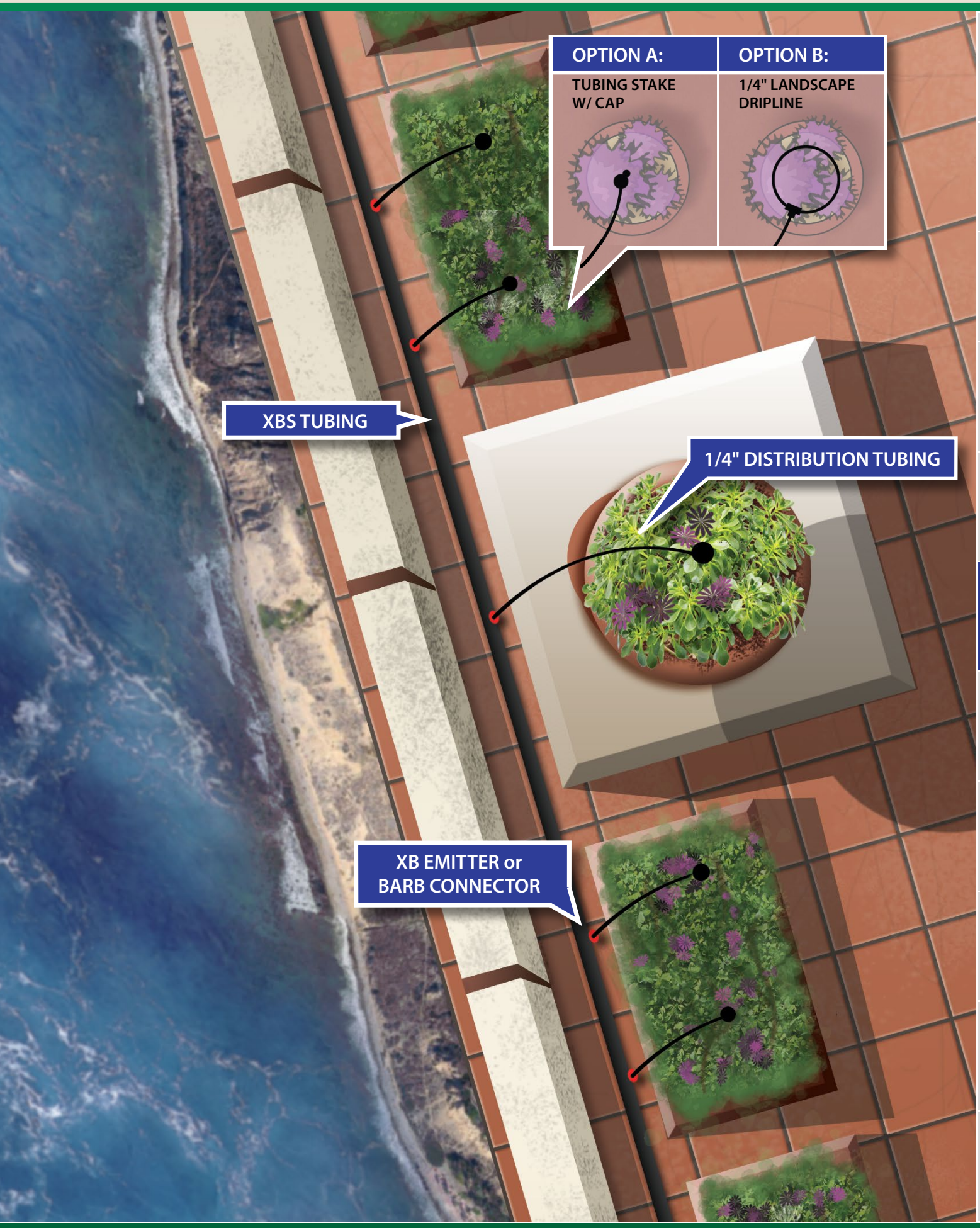
Option B

XCZ-075-PRF	3/4" Xeri Control Zone Kit
XBS	Xeri Black Stripe Poly Tubing
XQ-100	1/4" Distribution Tubing
XBF1CONN	1/4" Barb Connector
XBF 3TEE	1/4" Barb Tee
LDQ-08-06-050	1/4" Landscape Dripline

TO-DO LIST:	**TIME B:**
❑ Cut and lay out poly lines.	30 min/50'
❑ Assemble Control Zone Kit and connect to water source and poly lines.	1 hr 15 min
❑ Insert 1/4" barb connector into poly line, connect 1/4" distribution tubing to barb connector, run 1/4" lines to pots and connect tubing to barb tee. Then create loop by running 1/4" Landscape Dripline in a circle inside the pot and connect both ends to the barb tee.	8 min/Pot

INSTALLATION AND MAINTENANCE TIPS :

- Do not run 1/4" tubing more than 5'-8' from the XB emitter device.


OPTION A:
TUBING STAKE W/ CAP
OPTION B:
1/4" LANDSCAPE DRIPLINE
XBS TUBING
1/4" DISTRIBUTION TUBING
XB EMITTER or BARB CONNECTOR

Hanging Baskets

Solution

OPTION A: *Poly Tubing Lateral with Xeri-Bug Emitters*
OPTION B: *Poly Tubing Lateral with 1/4" Landscape Dripline Loop*

Advantages

- Up to 60% water savings
- Targeted watering in baskets
- Eliminates hand watering
- Connect to irrigation controller for consistent automatic watering
- XBCV Emitters feature built-in check valves which eliminates low point drainage and runoff by holding back water up to 10 ft. when system is off

Installation

OPTION A

XCZ-075-PRF	3/4" Control Zone with 40 psi Pressure Regulator
XBS	Xeri Black Stripe Poly Tubing
XBCV-XXPC	Xeri-Bug Emitters with Check Valve (0.5 to 2.0 gph)
XQ-100	1/4" Distribution Tubing
XM Tool	XM Installation Tool
Electrical Staples	1/2" Metal Staples
TS-025	1/4" Tubing Stake

* Select appropriate emitter flow rate and barbed connection

TO-DO LIST:	TIME A:
❑ Assemble Control Zone Kit at water source and connect poly tube laterals to edge of structure.	1 hr
❑ Elbow poly lateral in vertical line up structure to eaves Staple poly lateral to structure.	40 min/50'
❑ Staple poly lateral along underside of eaves.	5 min
❑ Use XM tool to punch 1/4" barb connector into poly Lateral above baskets.	1 min/Basket
❑ Insert 1/4" barb connector into the poly line, Connect short length of 1/4" tubing to the barb connector.	1 min/Basket
❑ Insert Xeri-Bug w/ Check Valve emitter at the other end of the 1/4" tubing Stake tubing in basket.	1 min/Basket

OPTION B

XCZ-075-PRF	3/4" Xeri Control Zone Kit
XBS	Xeri Black Stripe Poly Tubing
XQ-100	1/4" Distribution Tubing
XBF1CONN	1/4" Barb Connector
XBF 3TEE	1/4" Barb Tee
LDQ-08-06-100	1/4" Landscape Dripline

TO-DO LIST:	TIME B:
❑ Assemble Control Zone Kit at water source and connect poly tube laterals to edge of structure.	1 hr
❑ Use XM Tool to punch 1/4" barb connector into poly lateral alongside potted plant.	1 min
❑ Connect a length of 1/4" Distribution tubing into a drilled hole at the bottom of the pot.	5 min
❑ Using 1/4" dripline, form a circular ring and connect to distribution tubing using a 1/4" barb tee.	5 min

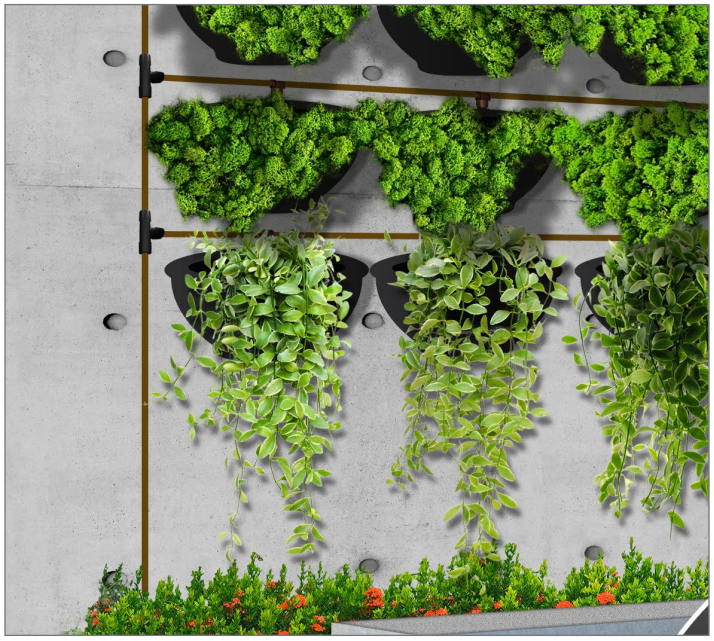
INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Use XM Tool for faster installation of Xeri-Bug Emitters and 1/4" barb connectors.
- Break up watering cycles to avoid excess drainage.


XBS TUBING
XBS TO WATER SOURCE
XQ SERIES 1/4" DISTRIBUTION TUBING
OPTION A:
TUBING STAKE WITH XBCV EMITTERS
OPTION B:
1/4" LANDSCAPE DRIPLINE
CONTROL ZONE

Green Walls

Half Moon Pots



Solution

XF Series Blank Dripline with Misters and Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

XFD100	XF Series Blank Tubing (100 ft. Coil)
XQ100	XQ Series 1/4" Distribution Tubing (100ft.)
XCZ-100-PRF	1" Medium Flow Control Zone Kit
X360ADJMIST	Xeri-Spray - Full-Circle Adjustable Mister
SPB025	Barb Transfer Fitting
***XBCV-05PC**	Xeri-Bug 0.5 GPH with a Check Valve
TS025WCAP	1/4 in. Drip Tubing Stake with Bug Cap
MDCF Series	Easy Fit Compression Fittings/Adapters
XFFTFA050	Low Profile XF Tee Female Adapter Fitting
PFRFRA	12 in. Polyflex Riser & Adapter Assembly
ARV 050	1/2" Air Relief Valve
MDCF-COUP + MDCFCAP	Easy Fit Fitting with Flush Cap

XF SERIES BLANK TUBING

MDCF FITTINGS

AIR RELIEF VALVE

FULL CIRCLE MISTER

XERI-BUG EMITTER

FLUSH CAP

* Select appropriate emitter flow rate and barbed or threaded connection

TO DO LIST :

- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Cut lengths of XF Series Blank Tubing to form grid on wall.
- ❑ 3. Connect lengths of XF Series Blank Tubing to Easy Fit Fittings, add 1/2" Air Relief Valve and add Flush Cap to end. Connect to Control Zone Kit.
- ❑ 4. Make Mister assemblies for top row: XFFTFA050 ➔PFRFRA➔X360ADJMIST
- ❑ 5. Make Drip Emitter assemblies for bottom rows: SPB025 ➔XQ-100➔TS025WCAP➔XBCV-05PC
- ❑ 6. Install planting material.

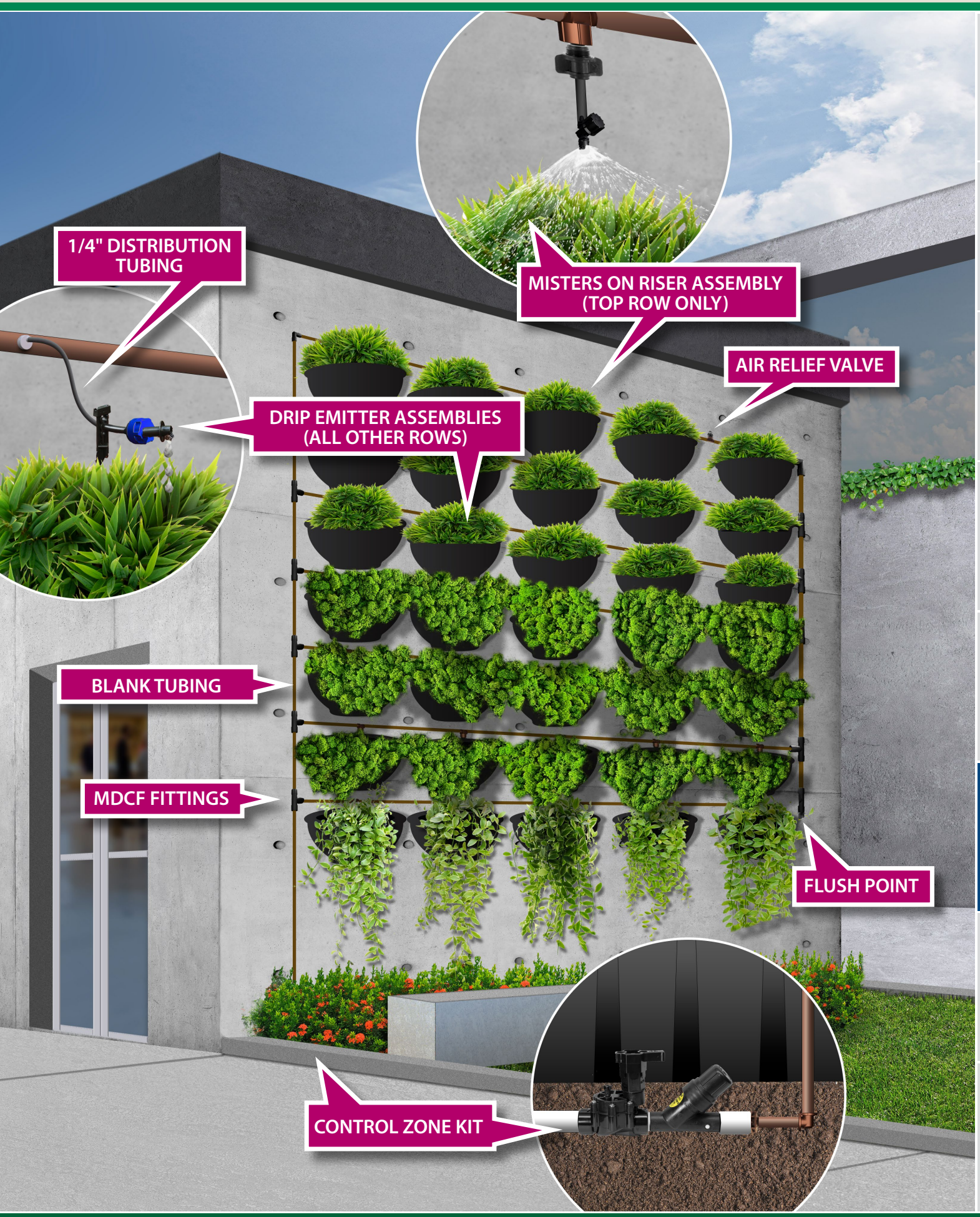
TIME: *(approx.)*

1. 1 hr
2. 10 min/50'
3. 30 min/50'

4. 15 min/5 Assemblies
5. 60 min/30 Assemblies
6. Variable

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Leave XF Series Blank Tubing coil in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.


1/4" DISTRIBUTION TUBING
MISTERS ON RISER ASSEMBLY (TOP ROW ONLY)
AIR RELIEF VALVE
DRIP EMITTER ASSEMBLIES (ALL OTHER ROWS)
BLANK TUBING
MDCF FITTINGS
FLUSH POINT
CONTROL ZONE KIT

Green Walls

Wall Garden Grow Bag

Solution

XF Series Dripline and Misters

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

***XFCV061200**	XFCV Dripline with Heavy-Duty Check Valve
XFD100	XF Series Blank Tubing (100 ft. Coil)
XCZ-100-PRF	1" Medium Flow Control Zone Kit
X360ADJMIST	Xeri-Spray - Full-Circle Adjustable Mister
MDCF Series	Easy Fit Compression Fittings/Adapters
XFFTFA050	Low Profile XF Tee Female Adapter Fitting
PFRFRA	12 in. Polyflex Riser & Adapter Assembly
MDCF-COUP + MDCFCAP	Easy Fit Fitting with Flush Cap
ARV-050	1/2" Air Relief Valve

* Select appropriate dripline model based off emitter flow rate (0.6 or 0.9 gph) and emitter distance (12" or 18")

XF SERIES BLANK TUBING

XFCV DRIPLINE

FULL CIRCLE MISTER

MDCF FITTINGS

TO DO LIST :

- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Cut lengths of XF Series Blank Tubing and Dripline to form grid on wall.
- ❑ 3. Connect lengths of XF Series Blank Tubing and Dripline to Easy Fit Fittings, and add 1/2" Air Relief Valve and Flush Cap to end. Connect to Control Zone Kit.
- ❑ 4. Make Mister assemblies for top row: XFFTFA050 ➔PFRFRA➔X360ADJMIST
- ❑ 5. Install planting material.

TIME: *(approx.)*

1. 1 hr
2. 10 min/50'
3. 30 min/50'
4. 15 min/5 Assemblies
5. Variable

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Leave XF Series Blank Tubing and Dripline coils in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.


MISTERS ON RISER ASSEMBLY (TOP ROW ONLY)
AIR RELIEF VALVE
MDCF FITTINGS
XFCV DRIPLINE
BLANK TUBING
FLUSH POINT
GROW BAGS
CONTROL ZONE KIT

Green Walls

Trough Shelves

Solution

1/4" Dripline and Misters

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

XFD100	XF Series Blank Tubing (100 ft. Coil)
***LDQ0812100**	1/4" Landscape Dripline, (0.8 gph)
SPB025	Barb Transfer Fitting
XCZ-100-PRF	1" Medium Flow Control Zone Kit
X360ADJMIST	Xeri-Spray - Full-Circle Adjustable Mister
MDCF Series	Easy Fit Compression Fittings/Adapters
XFFTFA050	Low Profile XF Tee Female Adapter
PFRFRA	12 in. Polyflex Riser & Adapter Assembly
MDCF-COUP + MDCFCAP	Easy Fit Fitting with Flush Cap
ARV-050	1/2" Air Relief Valve

* Select appropriate 1/4" dripline model based off of emitter distance (6" or 12")

XF SERIES BLANK TUBING

1/4" LANDSCAPE DRIPLINE

AIR RELIEF VALVE

FULL CIRCLE MISTER

MDCF FITTINGS

FLUSH CAP

TO DO LIST :

- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Cut lengths of XF Series Blank Tubing and 1/4" Dripline to form grid on wall.
- ❑ 3. Connect lengths of XF Series Blank Tubing and 1/4" Dripline to Easy Fit Fittings, barb trasfer fittings, connect Air Relief Valve, and add Flush Cap to end. Connect to Control Zone Kit.
- ❑ 4. Make Mister assemblies for top row: XFFTFA050 ➔PFRFRA➔X360ADJMIST
- ❑ 5. Install planting material.

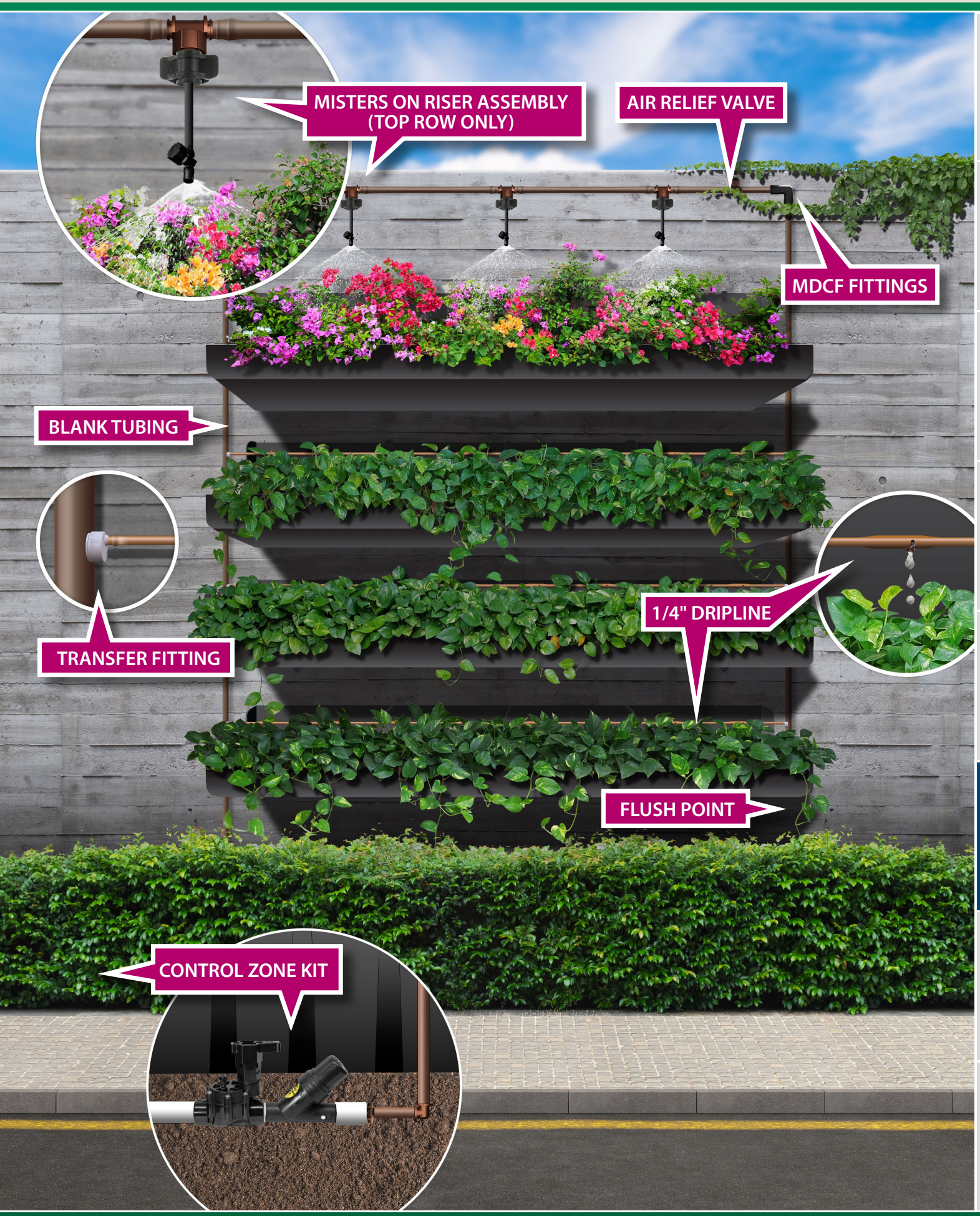
TIME: *(approx.)*

1. 1 hr
2. 10 min/50'
3. 30 min/50'

4. 15 min/5 Assemblies
5. Variable

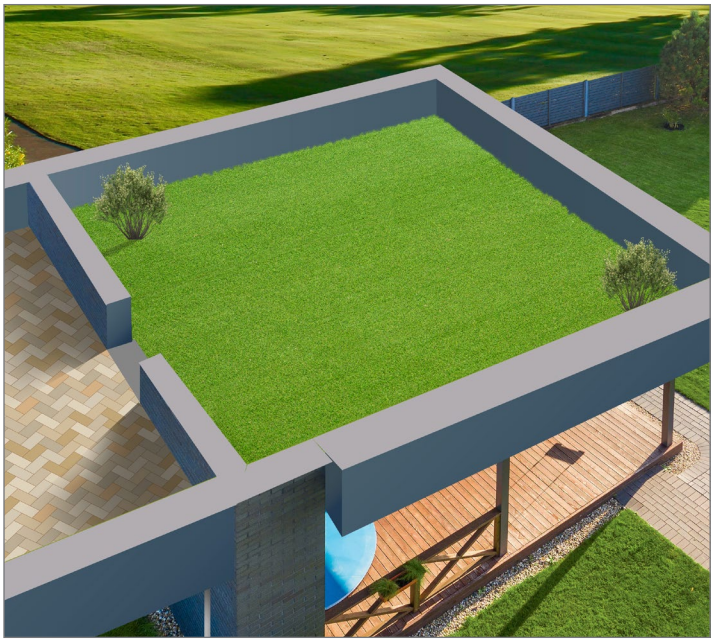
INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Leave XF Series Blank Tubing and 1/4" Dripline coils in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.


MISTERS ON RISER ASSEMBLY (TOP ROW ONLY)
AIR RELIEF VALVE
MDCF FITTINGS
BLANK TUBING
TRANSFER FITTING
1/4" DRIPLINE
FLUSH POINT
CONTROL ZONE KIT

Green Roof

Turf and Small Trees



Solution

XF Series Dripline and Xeri-Bug Emitters

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

***XFS-CV-06-12-500**	XFS-CV Dripline With Copper Shield™ Technology and Heavy-Duty Check Valve
****XBCV-20PC**	Xeri-Bug Emitterwith Check Valve
XQ100	XQ Series 1/4" Distribution Tubing (100ft.)
XBF1CONN	**1/4" Barb Transfer Fittings**
XCZ-100-PRF	1" Medium Flow Control Zone Kit
MDCF Series	Easy Fit Compression Fittings/Adapters
MDCF-COUP + MDCFCAP	Easy Fit Fitting with Flush Cap
TDS-6050	Tie Down Stake (50 pack)
XFFTFA050	Low Profile XF Tee Female Adapter
ARV-050	1/2" Air Relief Valve

* Select appropriate dripline model based off emitter flow rate (0.4, 0.6, or 0.9 gph) and emitter distance (12" or 18")

* Select Xeri-Bug Emitter based off flow rate (0.5, 1.0, or 2.0 GPH)

XFS-CV DRIPLINE

XERI-BUG EMITTER

AIR RELIEF VALVE

MDCF FITTINGS

FLUSH CAP

TO DO LIST :

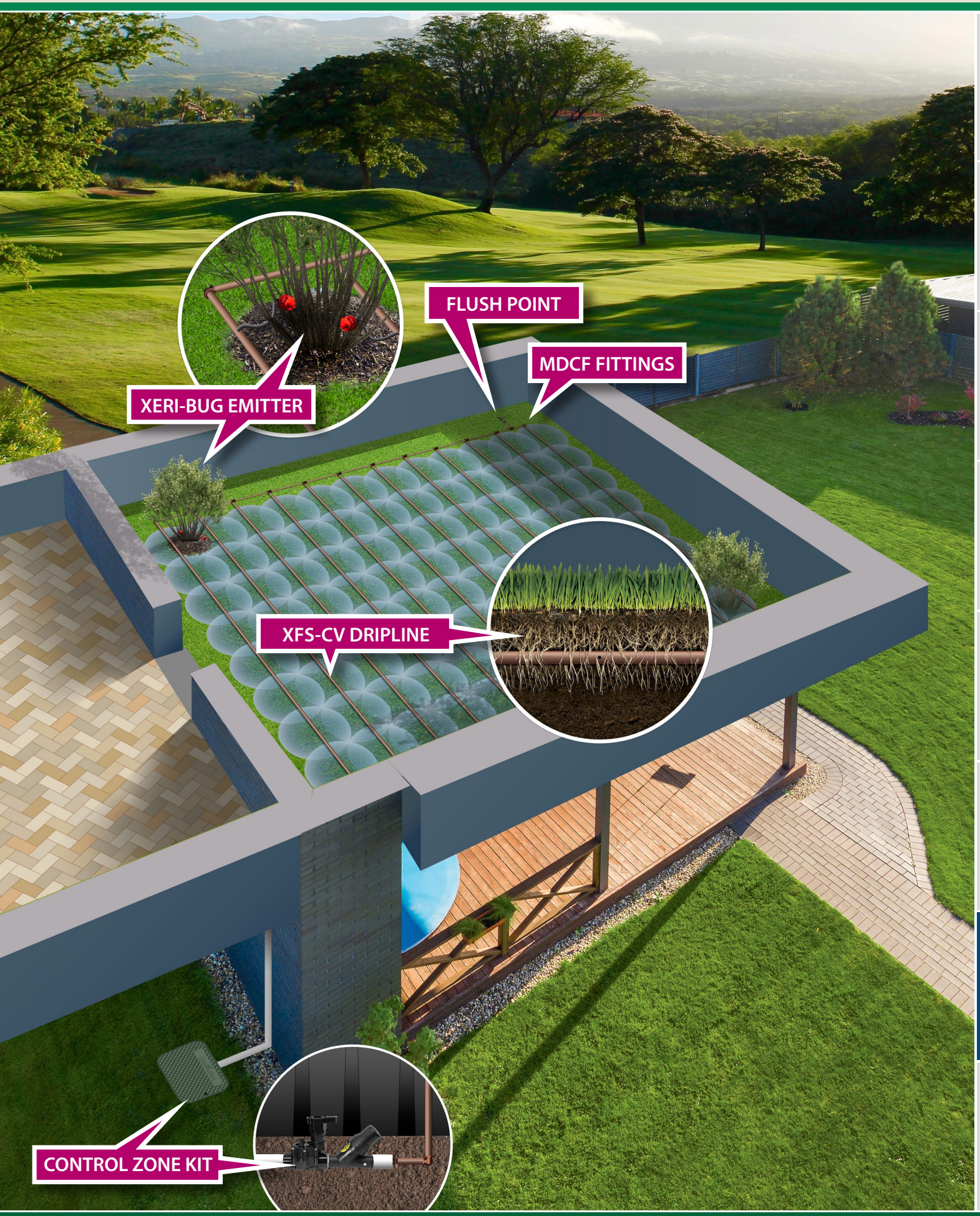
- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Cut lengths of XFS-CV Dripline to form subsurface grid.
- ❑ 3. Connect rows of XFS-CV Dripline to Easy Fit Fittings, barb trasfer fittings, and add Flush Cap to end. Connect to Control Zone Kit.
- ❑ 4. Install turf above dripline grid

TIME: *(approx.)*

1. 1 hr
2. 10 min/50'
3. 30 min/50'
4. 10 min/50'

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Leave XF Series Dripline coil in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.
- Use XFS-CV Series Dripline to protect against root intrusion


FLUSH POINT
MDCF FITTINGS
XERI-BUG EMITTER
XFS-CV DRIPLINE
CONTROL ZONE KIT

Roof Garden

Shrubs and Plants

Solution

XBS Blank Tubing, Xeri-Bug Emitters, and Xeri-Spray

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas

Installation

XBS700G100	XBS 700 - 1/2" XBS Black Stripe Blank Tubing
***XBCV-20PC**	Xeri-Bug Emitter with Check Valve
SXB-360	Full-circle Bubbler, 8streams,10-32thread
XQ100	XQ Series 1/4" Distribution Tubing (100ft.)
TLF FITTINGS	600 Series for 1/2" tubing
TDS-6050	Tie Down Stake (50 pack)
XCZ-100-PRF	1" Medium Flow Control Zone Kit
MDCF-COUP + MDCFCAP	Easy Fit Fitting with Flush Cap
XFFTFA050	Low Profile XF Tee Female Adapter
ARV-050	1/2" Air Relief Valve

* Select Xeri-Bug Emitter based off flow rate (0.5, 1.0, or 2.0 GPH)

XBS TUBING

XERI-BUG EMITTER

FULL CIRCLE BUBBLER

TLF FITTINGS

TO DO LIST :

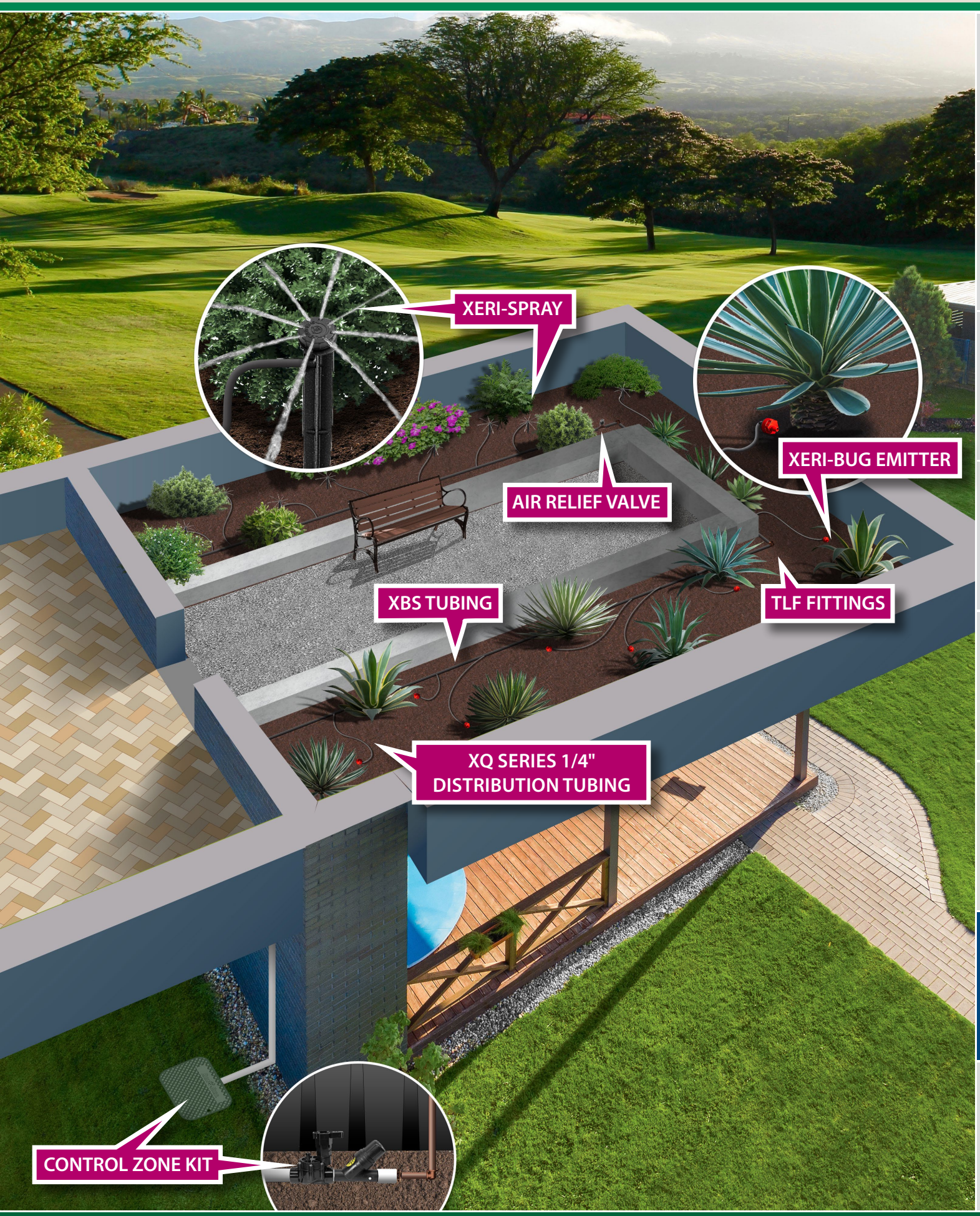
- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Connect rows of XBS Black Stripe Tubing to TLF Fittings, add air relief valve, and add Flush Cap to end. Connect to Control Zone Kit.
- ❑ 3. Connect Sprays and Xeri-Bug Emitters to XBS Tubing with XQ Series 1/4" Distribution Tubing.
- ❑ 4. Install planting material.

TIME: *(approx.)*

1. 1 hr
2. 30 min / 50'
3. 2 min. / plant
4. Variable

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Leave XBS coil in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.


XERI-SPRAY
XERI-BUG EMITTER
AIR RELIEF VALVE
XBS TUBING
TLF FITTINGS
XQ SERIES 1/4" DISTRIBUTION TUBING
CONTROL ZONE KIT

Trees

Small to Large Trees

Solution

SQ Nozzles

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas

Installation

3QTR	SQ Series Square Pattern Nozzles - 3 Quarter Spray Pattern
1806	1800 Series Spray Heads
RISER	2" Riser
XCZ-100-PRF	1" Medium Flow Control Zone Kit

SQ NOZZLES

RISER

1800 SPRAY BODY

TO DO LIST :

- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Connect PVC Assembly and install below grade.
- ❑ 3. Connect Risers to PVC Assemblies.
- ❑ 4. Connect SQ Nozzles to 1800 Spray Bodies and connect to Risers
- ❑ 5. Adjust SQ Nozzles for 2.5 ft. or 5 ft. throw distance

TIME: *(approx.)*

1. 1 hr
2. 1 hr
3. 5 min.
4. 10 min.
5. 5 min.

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Break up watering cycles to avoid run off or pooling of water in blocks.


SQ NOZZLE
3 QUARTER SPRAY
SQ NOZZLES
CAN BE ADJUSTED
TO THROW WATER
2.5 FT OR 4 FT. FOR
LARGER TREES
PVC ASSEMBLY
CONTROL ZONE KIT
SQ NOZZLES ON
1800 SPRAY BODY

Trees

Tree Rings

Solution

XF Series Dripline

Advantages

- Up to 60% water savings due to zero wind loss
- Targeted watering helps reduce erosion of wall
- No runoff = reduced liability in high traffic areas
- XF Dripline is easy to install, resulting in labor savings

Installation

XFS-CV-06-12-250	XFS-CV Dripline (250 ft. Coil)
XFF-TEE	17mm Barb x Barb x Barb Tee
XFD-CROSS	Barb cross 17mm x 17mm x 17mm x 17mm
XFF-MA-075	17mm Barb x 3/4" MPT Male Adapter
TDS-6050	Tie Down Stake (50 pack)
ARV 050	1/2" Air Relief Valve
XFF-TFA-050	Barb tee female adapter 17mm x 1/2" FPT x 17mm
MDCF-COUP + MDCFCAP	Easy Fit Fitting with Flush Cap
XCZ-100-PRF	1" Medium Flow Control Zone Kit

* Select appropriate dripline model based off emitter flow rate (0.4, 0.6, or 0.9 gph) and emitter distance (12" or 18")

XFS-CV DRIPLINE

XF ADAPTER FITTING

XFD CROSS FITTING

XFF TEE FITTING

TO DO LIST :

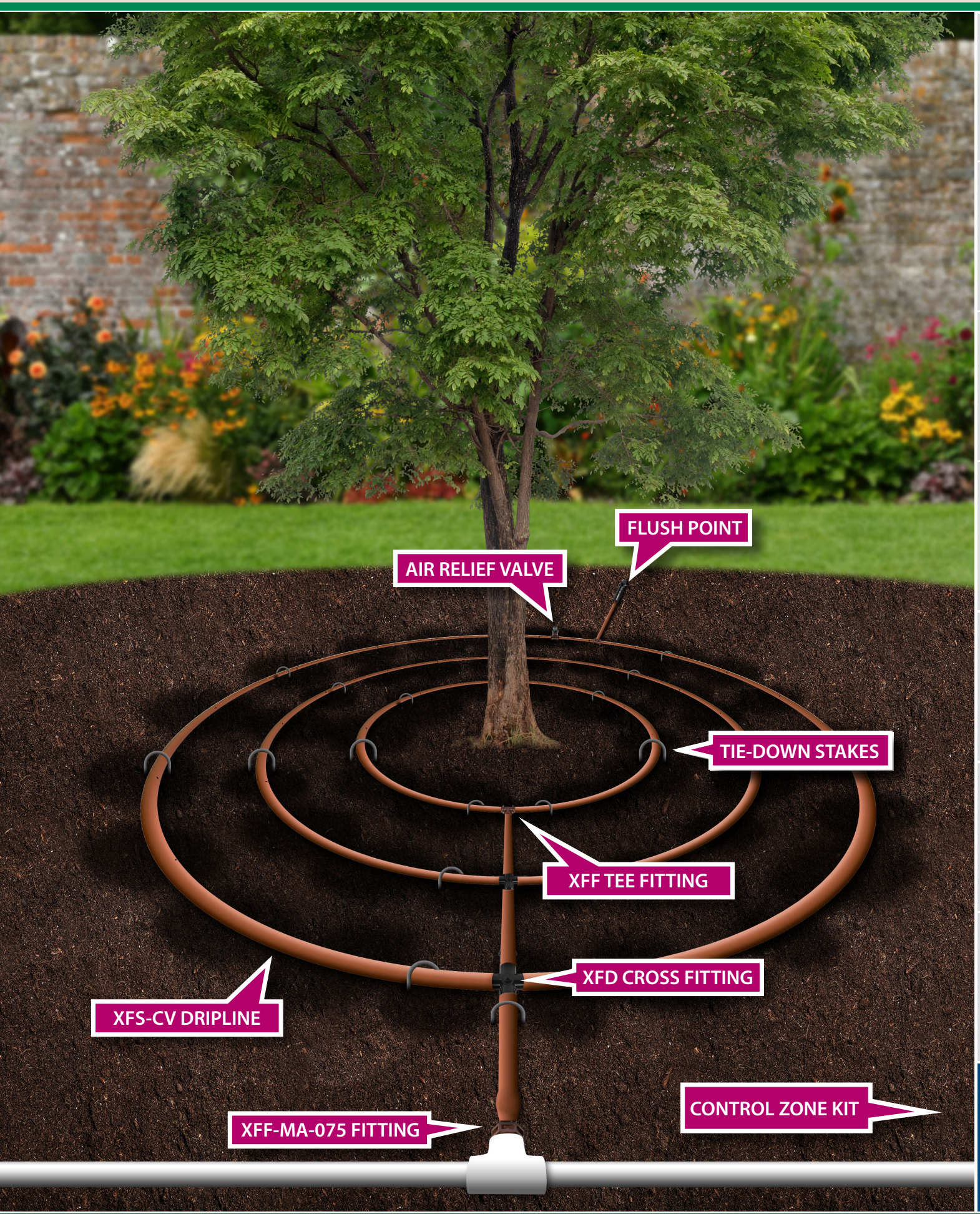
- ❑ 1. Assemble Control Zone Kit and connect to water source.
- ❑ 2. Cut lengths of XF Series Dripline and connect into circular grid with fittings and tie down stakes. Connect to Control Zone Kit.
- ❑ 3. Assemble and install Air Relief Valve: XFF-TFA-050 ➔ARV050 (1/2" Air Relief Valve)
- ❑ 4. Assemble and install Flush Point: MDCF-COUP ➔MDCF-CAP (Flush Cap)
- ❑ 5. Install planting material.

TIME: *(approx.)*

1. 1 hr
2. 10 min/50'
3. 5 min
4. 5 min
5. Variable

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone upon installation and 2-4 times per year.
- Install 1/2" Air Relief Valve Kit at high point in the system.
- Leave dripline coil in the sun while preparing for installation.
- Break up watering cycles to avoid run off or pooling of water in blocks.


FLUSH POINT
AIR RELIEF VALVE
TIE-DOWN STAKES
XFF TEE FITTING
XFD CROSS FITTING
XFS-CV DRIPLINE
CONTROL ZONE KIT
XFF-MA-075 FITTING

Trees

Combination Applications

Solution

Root Watering Series with XF Series Dripline Blank Tubing

Advantages

- Helps prevent damage to hardscapes from tree roots
- Promotes health in trees and shrubs
- Vandal resistant

Installation

XCZ-100-PRF	1" Control Zone Kit
RWS or RWS-M	RWS Root Watering Series
XFD-XXX	XF Series Blank Tubing
SPB-025	1/4" Self Piercing Barb Connector
XQ-100	1/4" Distribution Tubing
XB XX*	Xeri-Bug Pressure Compensating Drip Emitters (0.5 to 2.0 gph)
OR	
PC-XX	Pressure Compensating Module (be sure to use a PC Diffuser Cap)

Add other drip products as needed (optional)

* Select appropriate emitter flow rate

XFD

RWS

TO DO LIST :

	TIME: *(approx.)*
❑ Assemble Control Zone Kit and connect to water source.	1 hr
❑ Connect lengths of XF Blank Tubing and insert two to four 1/4" Self Piercing Barb Connectors for each tree. Attach length of 1/4" distribution tubing to each barb connector.	10 min/50'
❑ Connect Blank Tubing to RWS Root Watering Series unit, secure the 1/4" distribution tubing in the 1/4" tubing support brackets at the top of the RWS and install the appropriate Xeri-Bug or PC Module with Diffuser Cap emitter at the end of the tubing.	10 min/RWS
❑ Install additional drip products as needed for other plant material (optional).	
❑ Flush system until water runs clear.	as needed

INSTALLATION AND MAINTENANCE TIPS :

- Flush the zone after installation and 2-4 times per year.
- Leave XF Series Dripline Blank Tubing coils in the sun while preparing for installation.
- Install emitters and 1/4" Self Piercing Barbs with a Xeriman Tool (XM Tool) for 50% faster installation.

Drip Tip

Use two RWS for young/newly planted trees.
Use three to four RWS for older/more mature trees.

Evenly space units around root ball with top even with ground surface.

The Intelligent Use of Water.™

LEADERSHIP • EDUCATION • PARTNERSHIPS • PRODUCTS

At Rain Bird, we believe it is our responsibility to develop products and technologies that use water efficiently. Our commitment also extends to education, training and services for our industry and our communities.

The need to conserve water has never been greater. We want to do even more, and with your help, we can. Visit www.rainbird.com for more information about The Intelligent Use of Water. ™

Rain Bird Corporation
Landscape Drip Division
970 West Sierra Madre Avenue
Azusa, CA 91702
(800) 812-3400
www.rainbird.com

The Intelligrent Use of Water™

Visit www.rainbird.com to learn about our efforts.

® *Registered Trademark of Rain Bird Corporation*
© 2022 Rain Bird Corporation 09/22

D39634D