

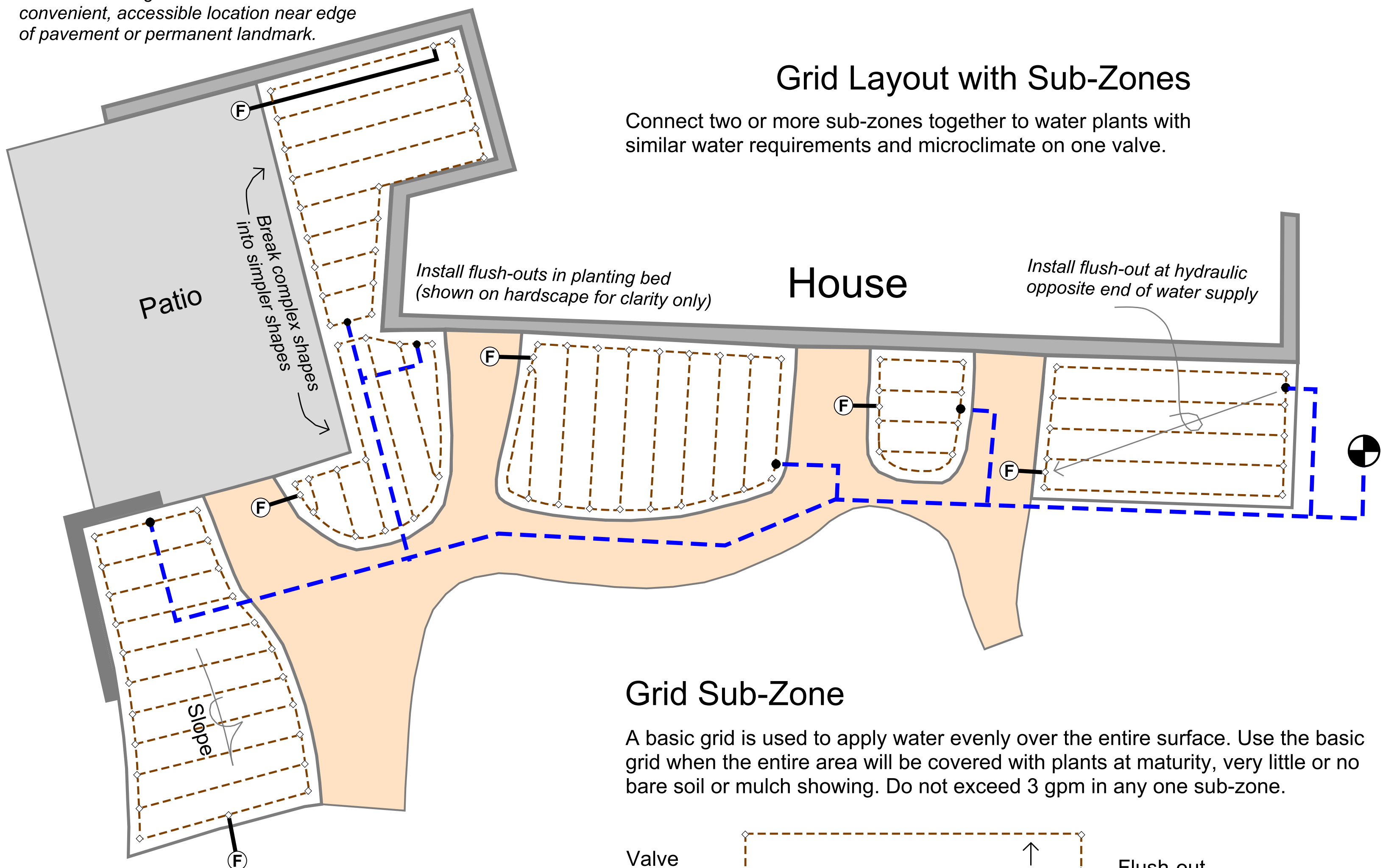
Grid, Snake, and Ring Drip Layouts

For durable, low maintenance, easy-to-manage drip irrigation

Use blank tubing to extend flush out to convenient, accessible location near edge of pavement or permanent landmark.

Grid Layout with Sub-Zones

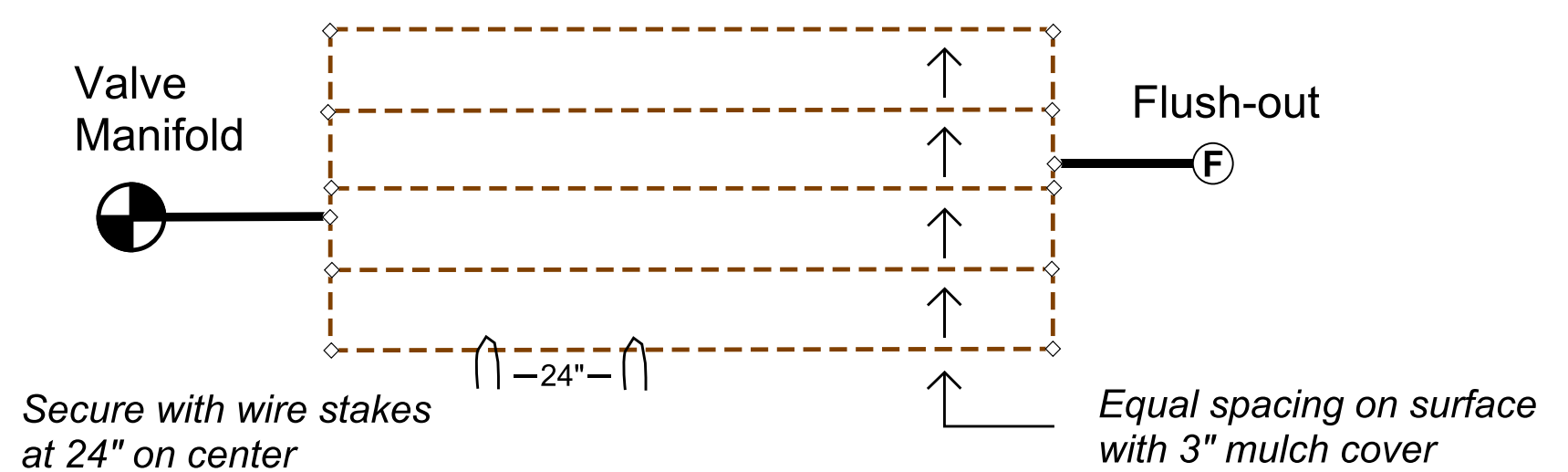
Connect two or more sub-zones together to water plants with similar water requirements and microclimate on one valve.



Always install tubing perpendicular to slope

Grid Sub-Zone

A basic grid is used to apply water evenly over the entire surface. Use the basic grid when the entire area will be covered with plants at maturity, very little or no bare soil or mulch showing. Do not exceed 3 gpm in any one sub-zone.



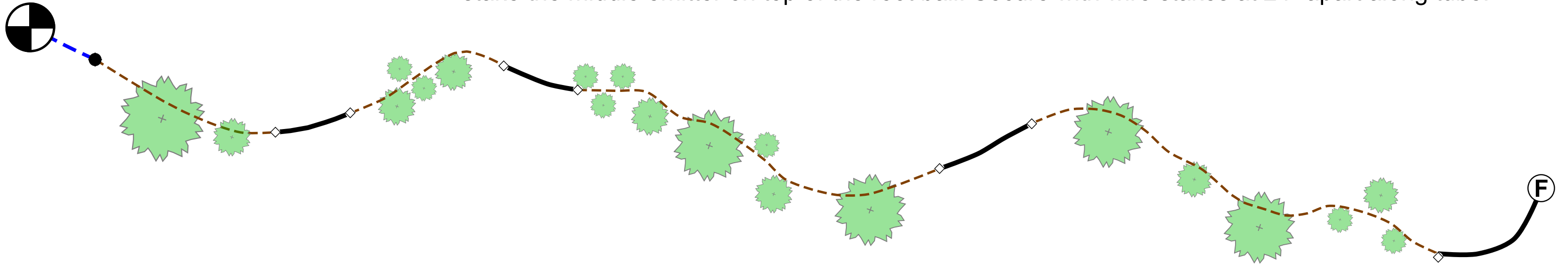
KEY

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|---|--------------------------------------|--|--|
| | <u>Valve Manifold (Water Supply)</u> | | <u>Blank Drip Tubing</u> |
| | <u>PVC Lateral</u> | | <u>Drip Tubing Fitting</u> |
| | <u>In-line Drip Tubing</u> | | <u>PVC Lateral to In-Line Drip Tubing Connection</u> |
| * See flip side for detailed description of parts | | | <u>Flush-out</u> |

Snake and Ring Drip Layouts

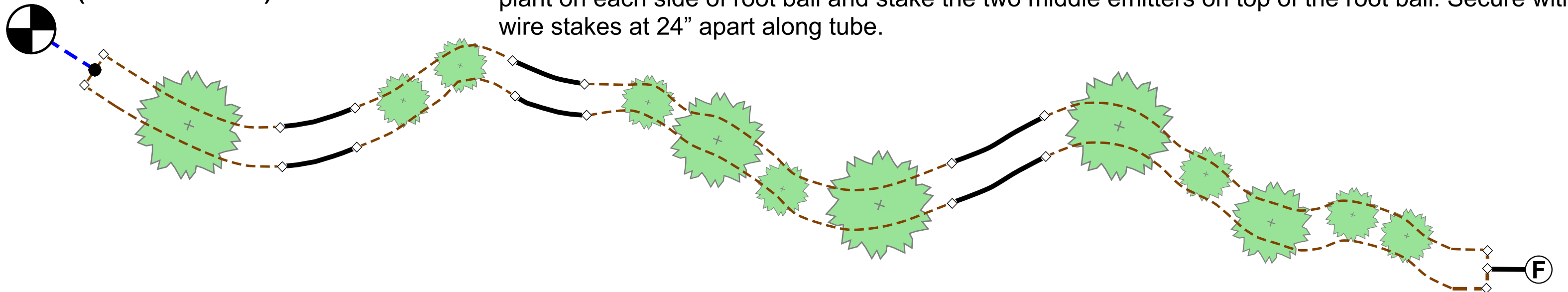
Snake Layout (single-line)

Install a single row of drip tubing for small plants, mature size less than 30" diameter. Insert blank tubing if there are gaps in the planting row where no water is needed. Install at least 3 emitters per plant and stake the middle emitter on top of the root ball. Secure with wire stakes at 24" apart along tube.



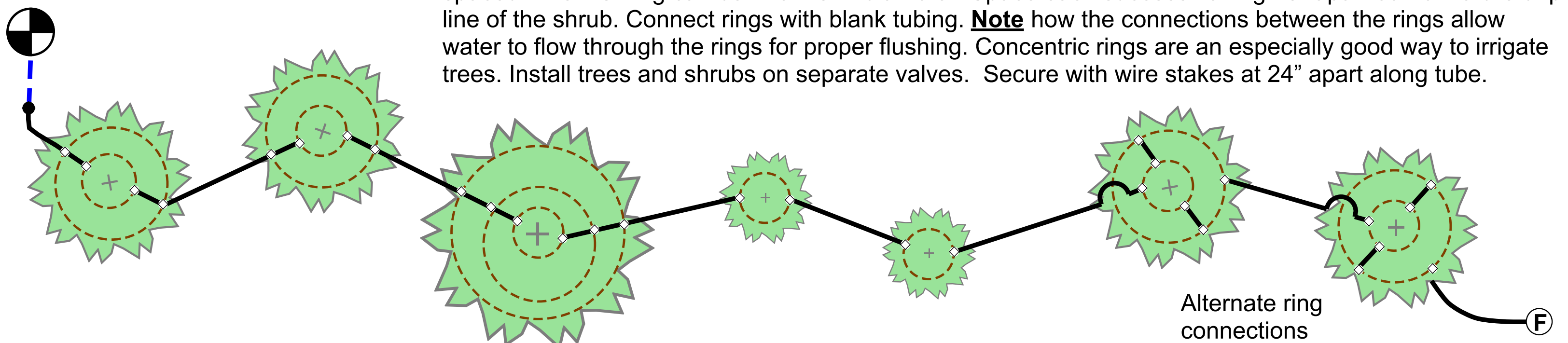
Snake Layout (double-line)

Install a double row of drip tubing for medium sized plants, mature size 24"- 48" diameter. Insert blank tubing if there are gaps in the planting row where no water is needed. Install at least 3 emitters per plant on each side of root ball and stake the two middle emitters on top of the root ball. Secure with wire stakes at 24" apart along tube.



Ring Layout

Install one or more concentric rings of drip tubing around medium and large-sized shrubs that are widely spaced. The first ring can be 2 to 2.5 ft. diameter. Space each successive ring 18" apart out to mature drip line of the shrub. Connect rings with blank tubing. **Note** how the connections between the rings allow water to flow through the rings for proper flushing. Concentric rings are an especially good way to irrigate trees. Install trees and shrubs on separate valves. Secure with wire stakes at 24" apart along tube.



KEY



Valve Manifold (Water Supply): Valve manifold includes valve, pressure regulator and filter. Refer to manufacturer catalog for appropriate filter and pressure regulator.



PVC Lateral: PVC lateral may be installed new or re-used from existing sprinkler system conversion. PVC lateral connects valve manifold to one or more sub-zones.



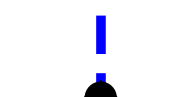
In-line Drip Tubing: Is 1/2 inch diameter drip tubing (not 1/4") sold with reliable, high quality, pressure-compensating emitters pre-installed inside the tube at 12" or 18" on center. Install tubing neatly in parallel, equally-spaced rows and secured to soil surface with wire stakes at each fitting and 24 inches apart along tubing. Refer to manufacturer's catalog for appropriate emitter flow rate based on soil type and use 12" emitter spacing for shallow-rooted plants and 18" emitter spacing for deeper-rooted plants. Irrigate shallow-rooted and deeper-rooted plants independently using separate valve manifolds.



Blank Drip Tubing: Use blank and in-line tubing from same manufacturer. Blank tubing is the same tubing without emitters. Use blank tubing where you don't need or want water between plants or to locate a flush-out at an accessible location where it won't get lost in the middle of a planting bed.



Drip Tubing Fitting: Elbow, tee, cross, or other as required. Use fittings and tubing from same manufacturer



PVC Lateral to in-line drip tubing connection: Use connection adapter fitting and tubing from same manufacturer.



Flush-out: Install a flush-out at the hydraulic opposite point on the grid from where the valve manifold is connected to the grid. Recommend installing flush-out in an 8" diameter valve box. Flush-out can be a ball valve or screw cap fitting. Recommend using flexible Cobra connector between ball valve and grid.