



RainXchange™ System—Permeable Patio and Fountain

St. Charles, IL

Installed by Aquascape, Inc. on July 16, 2008

Create a sustainable outdoor living space where all of the rainwater that falls on the patio is reused to irrigate the plants surrounding the patio. This is a great way for an existing business/building to do their part in protecting our most precious resource ... water.

The RainXchange™ System is an ideal solution for your next green building project. Most residential and commercial developments require some degree of an effective stormwater management strategy. This creates an amazing opportunity to not only store excess water, but to cherish its presence by understanding it and turning it into an asset of the design, as opposed to an afterthought. The water feature then becomes a destination point for employees, family or an outdoor classroom for children.

Project Design Goal: Capture and reuse the rainwater that falls on a 2,500 sq.ft. patio for irrigation. An air conditioning condensation line discharges into the storage system providing an additional reusable water supply.

Project Design Solution: A 3,000 gallon RainXchange™ System was used in combination with a permeable paver patio. A fountain stone was incorporated into the design for filtration and aeration while adding a decorative element to the landscape design. A ½ HP booster pump provides water from the storage chamber to the sites irrigation system.



Excavation of site. RainXchange™ modular storage basin will be placed underneath permeable patio.



The entire base of the patio is lined with an impermeable membrane to capture the water and direct it towards the water storage basin. 96 AquaBlox® Water Matrix tanks are positioned inside a 9 ft. x 11 ft. x 6 ft. deep basin creating 3,000 gallons of water storage capacity.



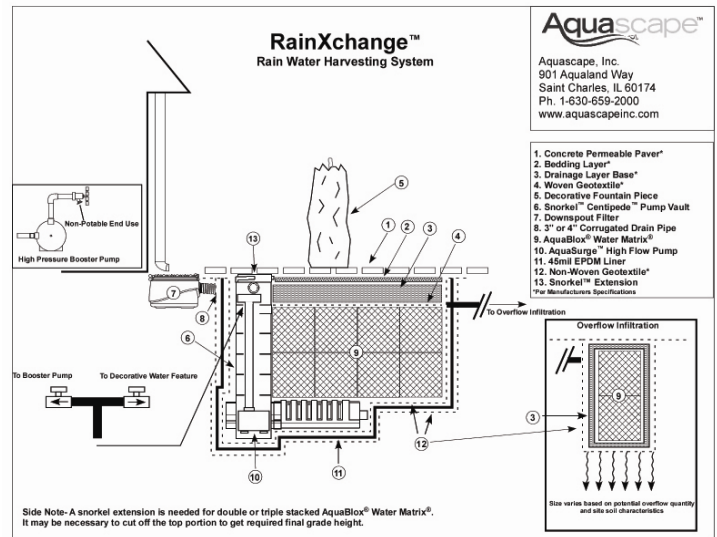
A water permeable woven geotextile fabric covers the top of the AquaBlox® Water Matrix tanks providing a permeable base for the gravel and screening to be spread over the storage system.



The gravel and screening base is leveled and compacted.



Permeable pavers are laid in place.



Overhead view of the completed project. Note the fountain rock positioned directly above the AquaBlox® area.



The permeable patio and fountain rock provide a relaxing, aesthetic and eco-friendly outdoor living space.