



Artful Rainwater Design

Landscape Architects are helping to think “outside of the box”, especially when dealing with issues as pragmatic as stormwater management. Concepts including “artful rainwater design”, rain gardens, green roofs, and bio-retention are gaining recognition as effective ways to control the quantity and quality of stormwater runoff, while adding amenities to development projects.

These designs result in greater user satisfaction and perceived value - i.e. design that not only addresses stormwater management in better ways, but also transforms these management systems into stormwater-based amenities. Here is a brief description of a few of these concepts...

“Artful rainwater design” or ARD, is based on the idea that new stormwater management techniques focusing on water quality and erosion mitigation can be used to create new site amenities. An “amenity” is a space that intrigues, engages, and even educates the visitor about rainwater - creating a landscape that encourages the visitor to explore what the water is doing, discover how it is being managed on site, and learn about its environmental importance. Elements may include seasonal waterfalls, water sculptures, rills, sluiceways, dry ponds, recirculating systems and the re-use of rainwater for irrigation systems.

Rain gardens are planted depressions that are designed to absorb rainwater runoff from impervious urban areas like roofs, driveways, walkways, and compacted lawn areas. They are a form of “bio-retention” that reduces rain runoff by allowing stormwater to soak into the ground (as opposed to flowing into storm drains and surface waters which causes erosion, water pollution, flooding, and diminished groundwater). Native plants are recommended for rain gardens because they generally don’t require fertilizer and are more tolerant of the local climate, soil, and water conditions. The plants — a selection of wetland edge vegetation, such as wildflowers, sedges, rushes, ferns, shrubs and small trees — take up excess water flowing into the rain garden. Water filters through soil layers before entering the groundwater system.

Green roofs are rooftop gardens, planted over new or existing roof structures to help reduce building temperatures, filter pollution, lessen pressure on sewer systems, and reduce the “heat island effect” - the tendency of metropolitan areas to be significantly warmer than their surroundings. Green roofs are partially or completely covered with vegetation and soil, or a growing medium, planted over a waterproofing membrane. Stormwater runoff can be harvested, filtered and used to irrigate roof top gardens or provide decorative ponds. The modern green roof is still evolving, but sod roofs in Scandinavia have been around for centuries.



RDA Landscape Architects strives to work with Clients and municipalities to include these and many other “green” concepts into our designs. Contact us to learn more about we can incorporate artful rainwater design elements into your project.

Retnauer Design Associates, LLC

Landscape Architects & Site Planners

173 Seventh Street • St. James, NY 11780

Tel: (631) 979-5600 • Fax: (631) 979-8590

Website: www.retnauer-design.com • Email: info@retnauer-design.com