Infiltration Rain Garden, LID Swale, or Stormwater Planter BMP

Reduce Runoff from Landscape and Hardscape Areas

Overview

Ways to manage runoff in depressions in the ground.

Rain Garden: gentle side slopes, any shape, installed on flat ground, has a single area where water is ponded before it infiltrates or, in large storms, overflows.

LID Swale: gentle side slopes, linear in shape, installed on sloping areas, using check dams that allow water to back up.

Storm Water Planter: in or above ground, vertical sides created by deep curbs, can be any shape.

LID Swale (Below)

- Gentle side slopes and may be linear shape
- Is installed on sloping areas, using check dams that allow water to back up
- Centerline of LID swale should slope 1% or less

Rain Garden (Below)

- Has gentle side slopes and may be any shape
- Should be installed on flat ground
- Has a single area where water is ponded before it infiltrates or, in large storms, overflows

Stormwater Planter (Right)

- May be in or above ground
- Has vertical sides created by deep curves
- Can be any shape
- May only be installed in flat areas

Cost

Rain Gardens – The main cost is purchasing initial plants. Maintenance consists of basic landscaping.

LID Swale and Stormwater Planter – Up front construction costs increase with compost amendment, area drains and piping, walls, curbs, and can skyrocket when a lined filtration facility is placed next to a building due to the need for careful waterproofing efforts. Generally, in ground facility costs can range from $5 per square foot for the simple infiltration facilities, to $45 per square foot for stormwater planters that import soil.

Each additional structural component (pipe, area drain, wall, curb, ect) adds to the maintenance expense.