TYPES OF GREEN INFRASTRUCTURE

Bioswales:

Bioswales are vegetated shallow depressions that slow stormwater, allowing it to infiltrate into the ground where pollutants are filtered. These aesthetically pleasing landscaped features are a green alternative to traditional ditches or other hardscaped structures. Bioswales are ideal for collecting and slowing stormwater in parking lots and street side.

Green Roofs:

Green roofs incorporate a layer of soil and vegetation on any flat or slightly sloped roof in order to capture rainwater before it enters a downspout or hits any other impervious surface. These roofs have the ability to lessen costs of traditional (grey) stormwater management, and the energy costs of heating and cooling a building. They are particularly cost effective in urban areas where reducing stormwater runoff can be critical to reduce flooding.

Green Parking, Street, and Alleys:

Parking lots, streets, and other urban constructs could become host to a variety of green infrastructure methods, whether at the initial design phase or as a retrofit. Green infrastructure methods can help to reduce stormwater and flooding, carbon footprints, and the heat island effect, which are all aspects of built, urban, and city spaces.

Permeable Pavements:

These permeable surfaces capture a portion precipitation and stormwater runoff right at the source. Permeable pavement options, such as interlocking pavers, can be used for driveways, parking lots, and other spaces where concrete or asphalt might normally be used. Permeable surfaces help to promote the infiltration of rainwater, allowing it to be filtered and stored in the soils below.

Photo by Pinehurst Seattle

Philadelphia Water Dept. Philly Watersheds, Planter Box at Columbus Square

Green Roof at Ohio State University

Photo by Kim Cella, Rain Garden St. Louis City

Photo by EPA

Photo by Ygrene

Photo by City of Bellingham

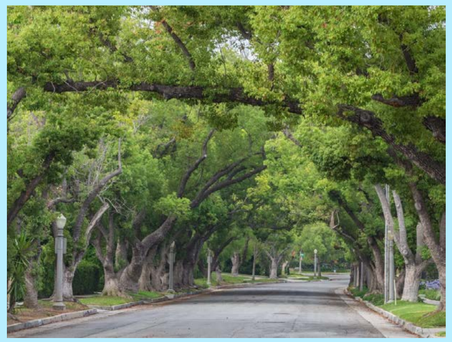

Photo by Earth.com

Planter Boxes:

Planter boxes are specialized features commonly used in urbanized areas, or in places where space may be limited for other forms of green infrastructure. Designed in many sizes and shapes, with open or closed bottoms, these boxes collect, retain, and filter runoff from sidewalks, streets, and parking lots.

Rain Gardens:

These shallow vegetated basins collect runoff from roofs, sidewalks, streets. Also known as bioretention or bio infiltration, these basins mimic natural hydrology practices, filtering stormwater runoff through evaporation and transpiration. They can be installed in any unpaved space and can be as aesthetically pleasing as they are efficient.

Rainwater Harvesting:

Rainwater harvesting is the practice of collecting rainwater, typically from an impermeable surface, before it can become storm water pollution or run-off, and either holding it for eventual release or using it as a water source for gardens or other vegetated spaces. There are multiple techniques of harvesting rainwater, some more elaborate than others, such as rain barrels or cisterns.

Urban Tree Canopy:

Trees have many positive benefits to offer. Trees absorb water into leaves and branches, their roots help to hold soil in place and retain rainwater, they help to reduce the carbon footprint and also reduce the heat island effect. Planting trees, especially in an urban or city environments can offer these benefits plus help limit stormwater run-off.

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