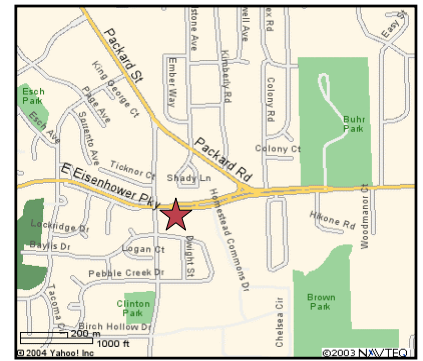


Bioretention Islands

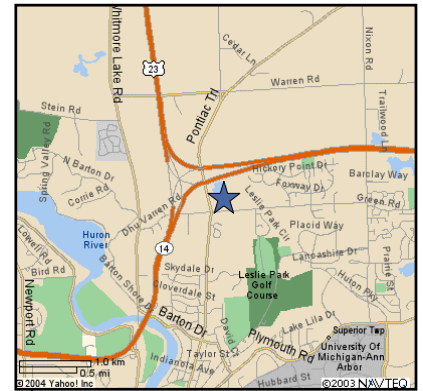
Bioretention islands are designed to use soil and plant material to mimic natural processes. The vegetation, mulch layer, planting bed and drainage materials store, filter and infiltrate storm water. This improves water quality in areas that generate a variety of pollutants, such as parking lots. In contrast to traditional parking lot islands, bioretention islands are recessed. The pavement is graded to these areas, where storm water is captured and treated.

Considerations:

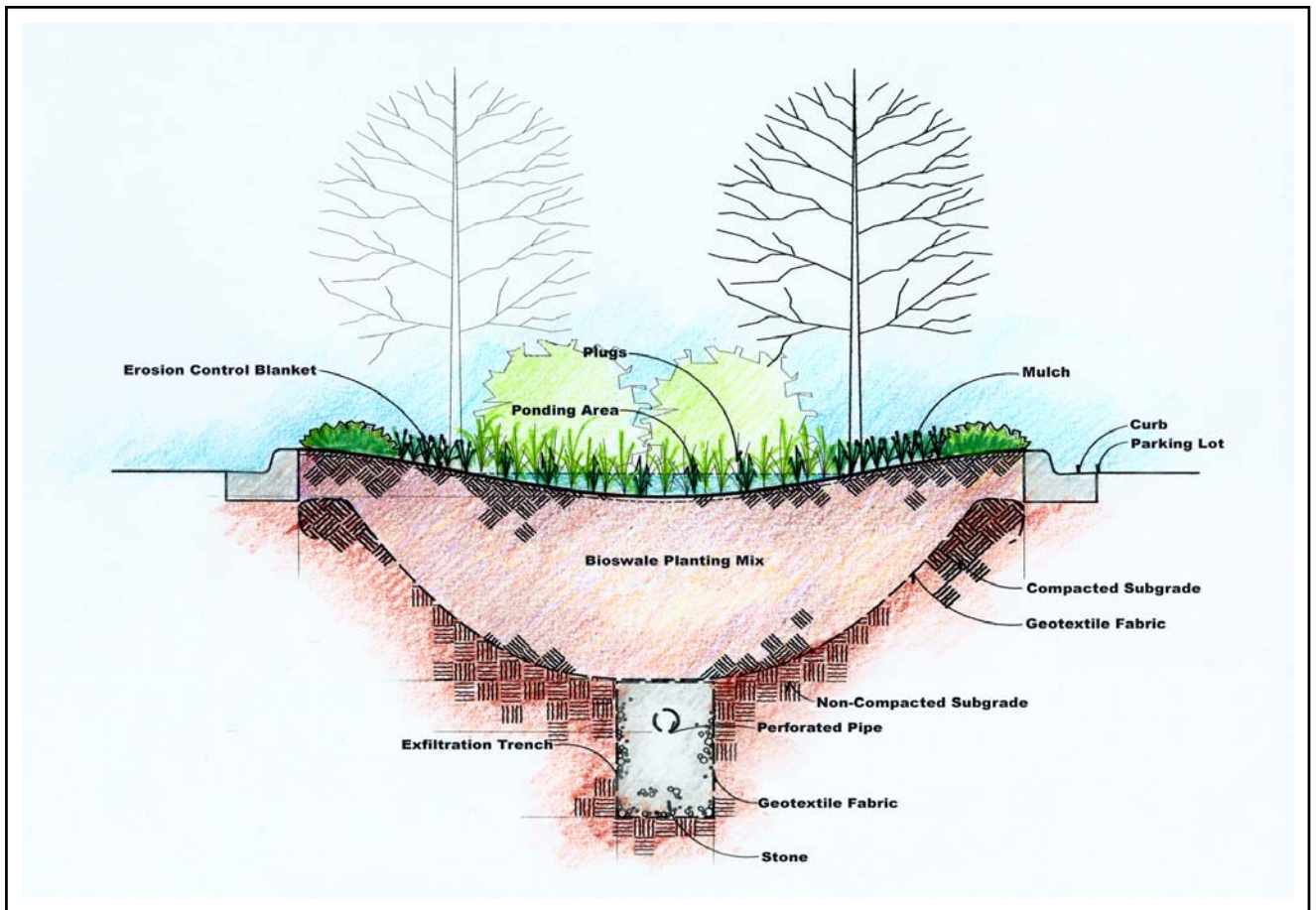
- Suitable for use in sites with drainage areas smaller than 5 acres and preferably less than 1 acre.
- Recommended sizing is 5% of the impervious drainage area.
- An under drain is required in areas where the existing soil has an infiltration rate of < 0.5" per hour.
- During installation, it is critical to stabilize the surrounding site prior to completion of the islands. This minimizes the chance of clogging and failure of the system.



★ Ann Arbor District Library Malletts Creek Branch



★ Olson Park



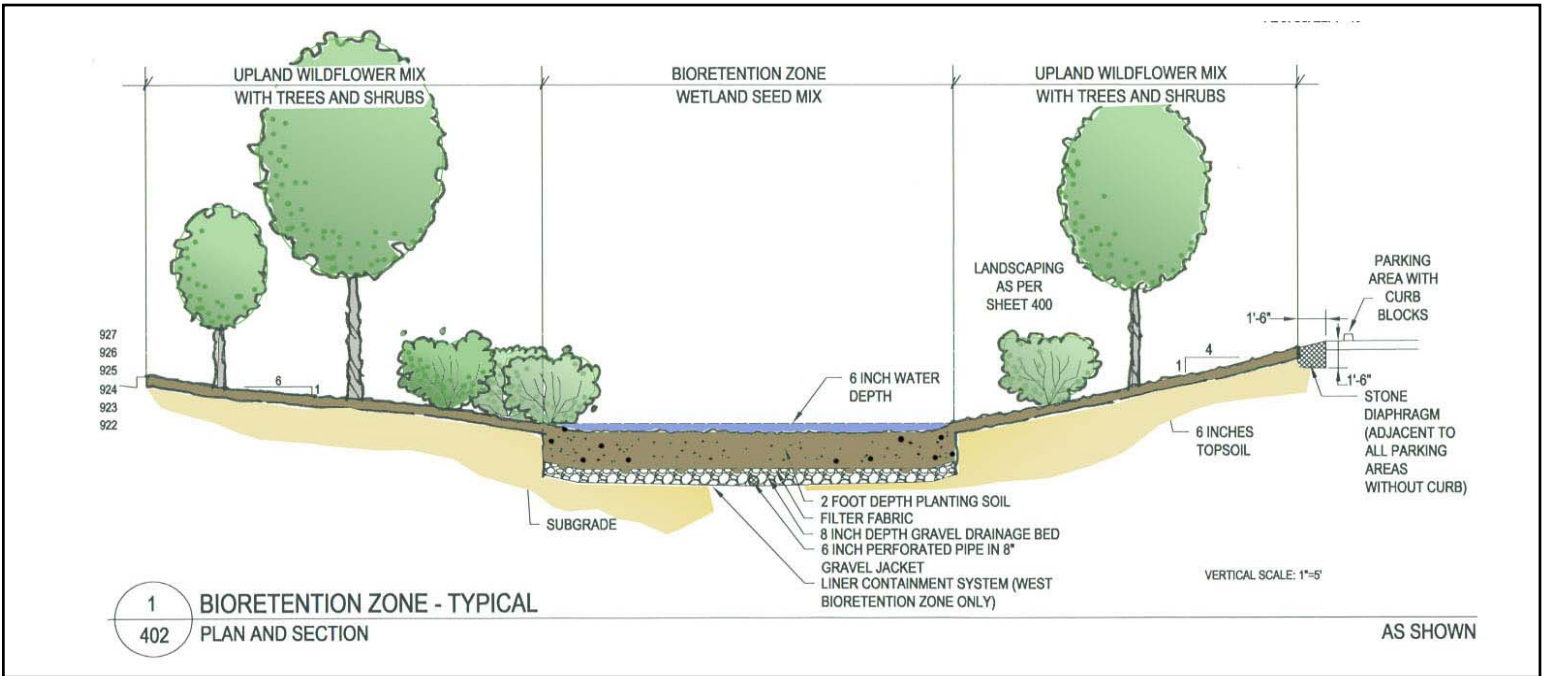
Ann Arbor District Library Malletts Creek Branch

Office of the Washtenaw County Drain Commissioner, Janis Bobrin. Funded by the United States Environmental Protection Agency; administered by the Michigan Department of Environmental Quality.

For more information, contact Harry Sheehan at (734)222-6851
www.ewashtenaw.org/government/drain_commissioner/dc_lid.html



Olson Park



Ann Arbor District Library Malletts Creek Branch

Location: 3090 East Eisenhower Pkwy.
Ann Arbor

Landscape Architect: InSite Design Studio, Inc.

Size: 4100 SF

Installation Date: 2003-04

Olson Park

Location: Pontiac Trail & Dhu Varren Rd.
Ann Arbor

Landscape Architect: Tilton & Associates, Inc.

Engineer: Ayers, Lewis, Norris & May, Inc.

Size: 6400 SF

Installation Date: 2003-04

Bioretention Island Costs

Bioretention islands can range in cost from \$6 -\$12/SF depending on existing soil structure, soil amendment depth, size of contributing watershed relative to the size of the island, location of the island relative to circulation, and choice of plant material. Properly designed bioretention takes advantage of overland flow to reduce storm water piping, and contributes to storm water storage requirements.

Other local project featuring bioretention islands:

University of Michigan Varsity Tennis Center
2250 South State Street, Ann Arbor

Washtenaw County West Service Center
705 N. Zeeb Road, Ann Arbor

Resources

For more information about bioretention cells:

Low Impact Development Center

www.lowimpactdevelopment.org/lid%20articles/brochure2.pdf

www.lid-stormwater.net/bioretention/bio_benefits.htm

Center For Watershed Protection

www.cwp.org
www.stormwatercenter.net

Center For Water and Watershed Studies

www.depts.washington.edu/cwws/

Prince George's County, Maryland

www.goprincegeorgescounty.com/Government/AgencyIndex/DER/PPD/LID/bioretention.asp?h=20&s=&n=50&n

USEPA Storm Water Management Fact Sheet

www.epa.gov/npdes/pubs/biortn.pdf

Pollutant Removal*

Phosphorus	70-83%
TSS	90%

* USEPA Storm Water Technology Fact Sheet: Bioretention