

Provision C.3. Unplugged

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3 (or 4) Types SW Controls

- Source Control *all size projects*
- Site Design *all size projects*
- Stormwater Treatment *Group 1-2 projects*
- Flow Duration & Volume Control (*HMP*)

LID to the Rescue

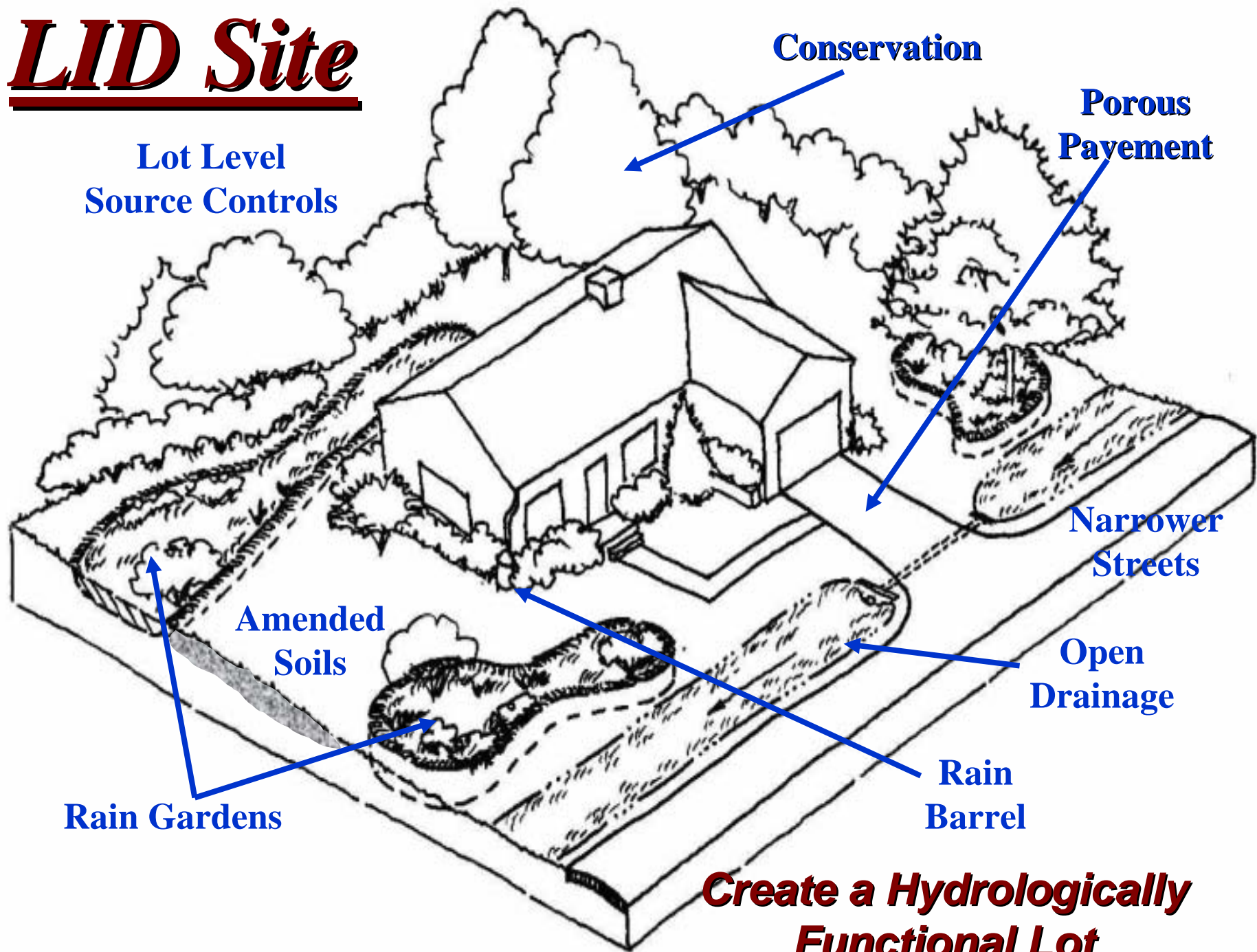
A design strategy that incorporates small-scale control devices across a site to mimic pre-development hydrologic functions

- <http://www.lowimpactdevelopment.org/epa03/biospec.htm>
- <http://www.lid-stormwater.net/>

Low Impact Techniques

- Biovention \approx Raingardens
- Grass Swales
- Bio retention Swales
- Filter/Buffer Strips
- Infiltration Trenches
- Cisterns and Rain Barrels

LID Site





“Rain Gardens”











Rain Gardens



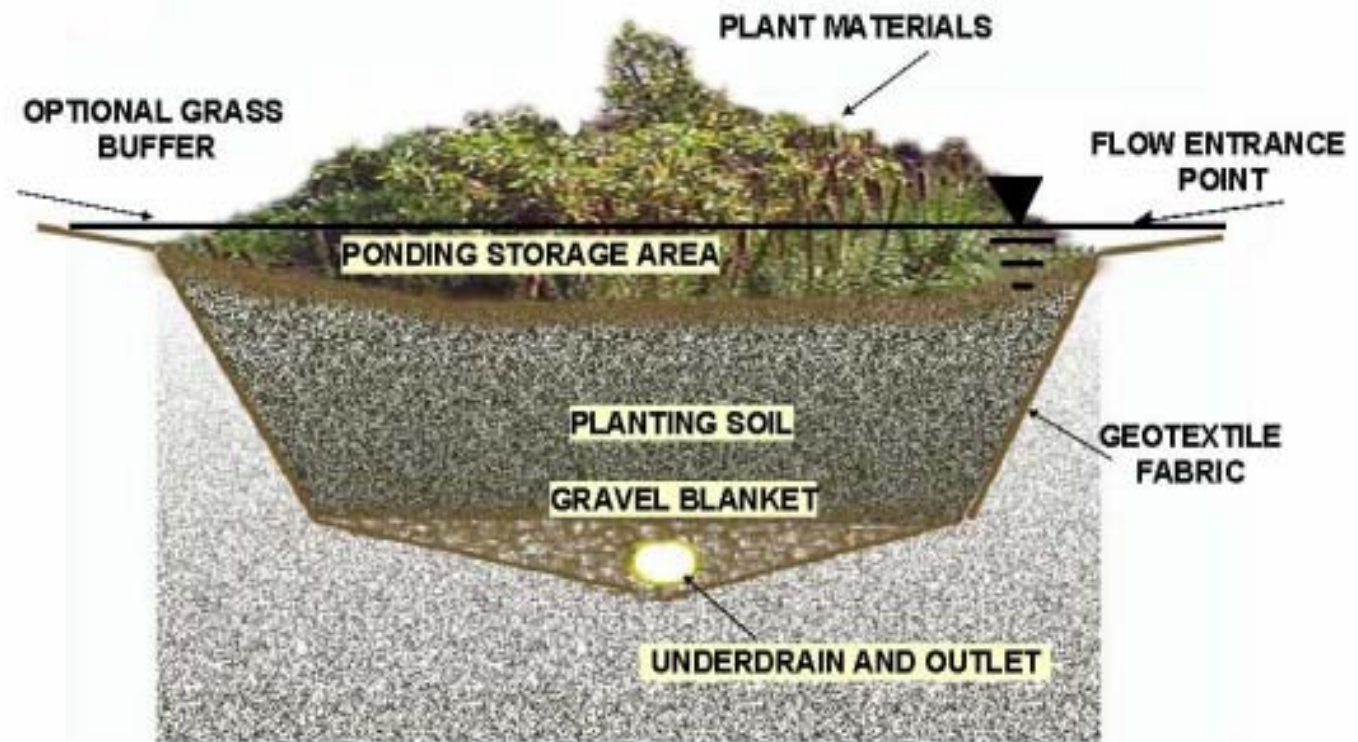
Typical Landscape Maintenance Practices



Rain Garden (in use) located in the entrance median to a town house Project.

Julian
McEneaney Assoc.
REALTORS

Biodetention Diagram



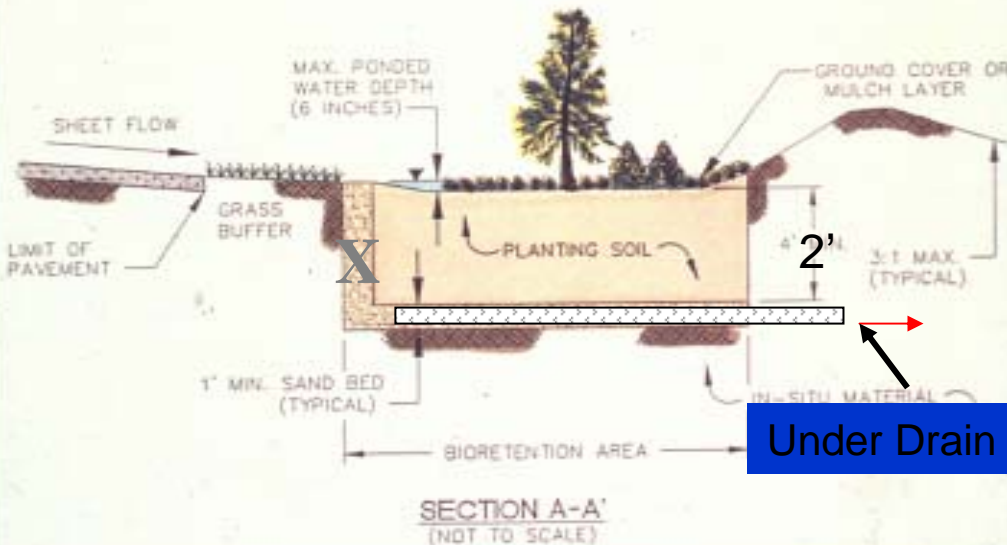
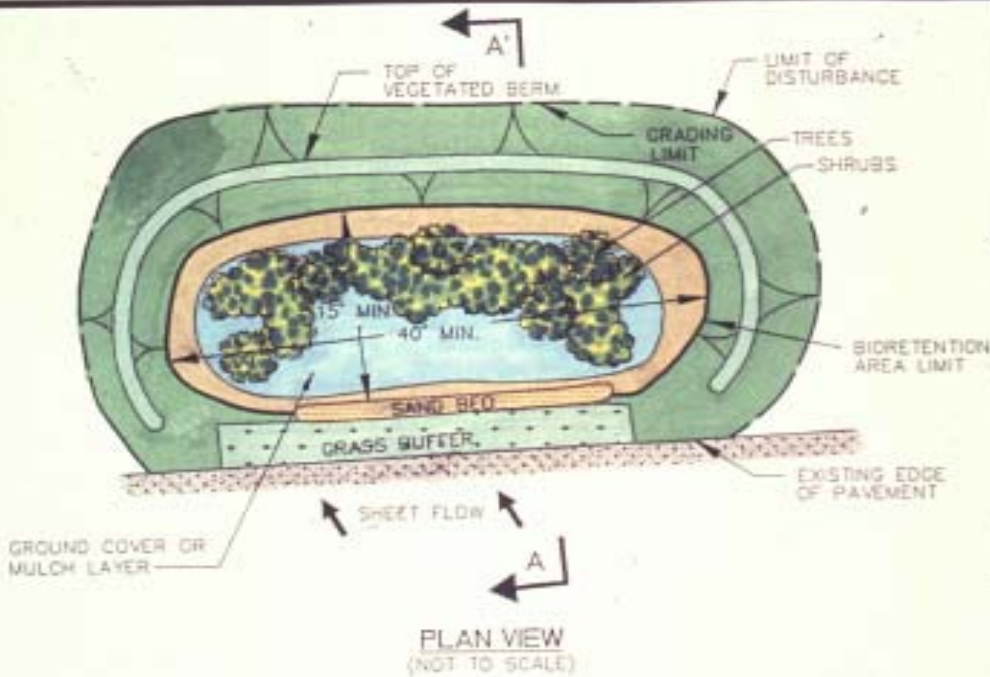
Biodetention Unit





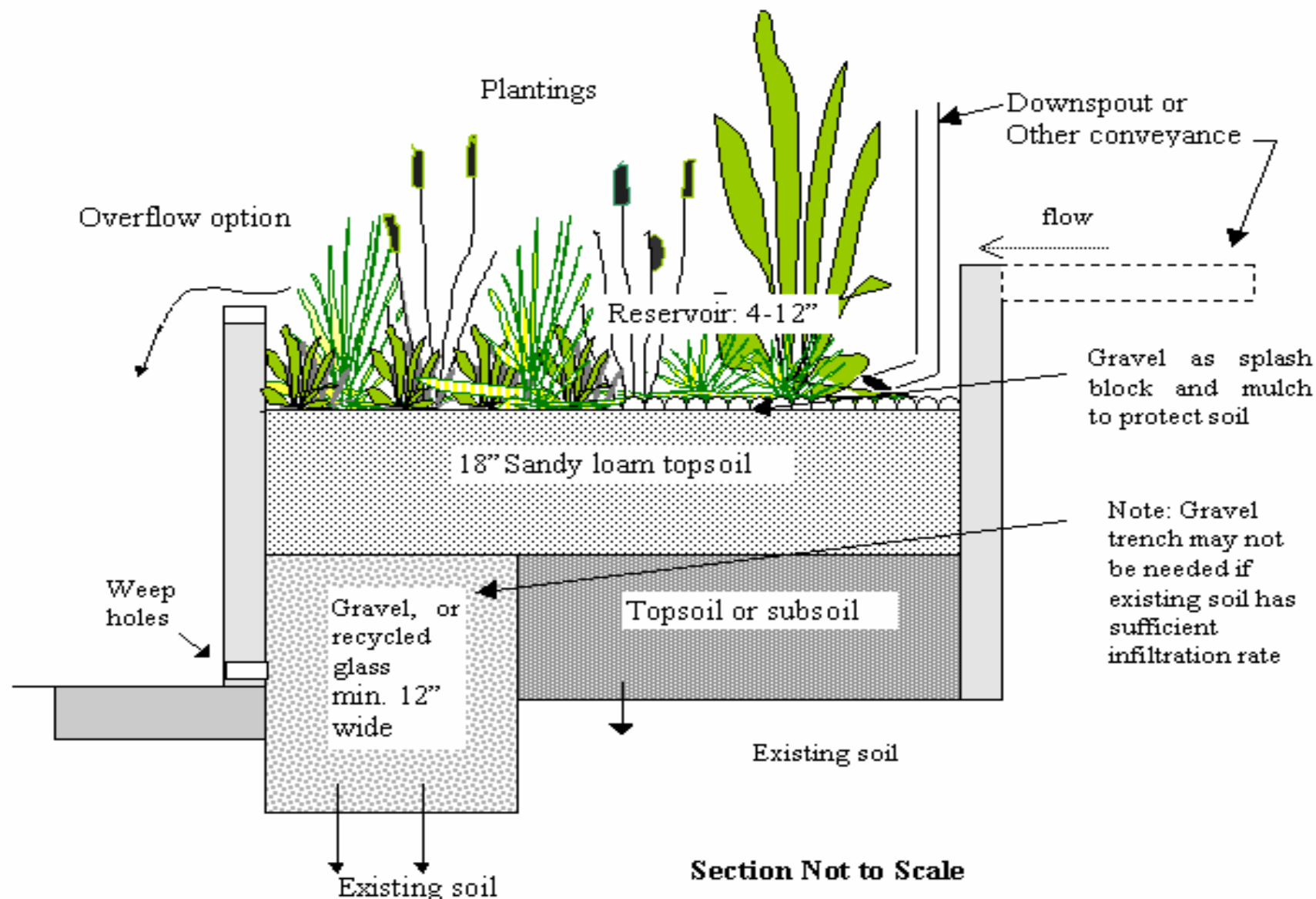
Bioretention

- Shallow Ponding 4 - 6 in.
- Mulch 3 in.
- Soil Depth 2-2.5 ft.
- Sandy Top Soil
 - 65% Sand
 - 20% Sandy Loam
 - 15% Compost
- Under Drain System
- Plants

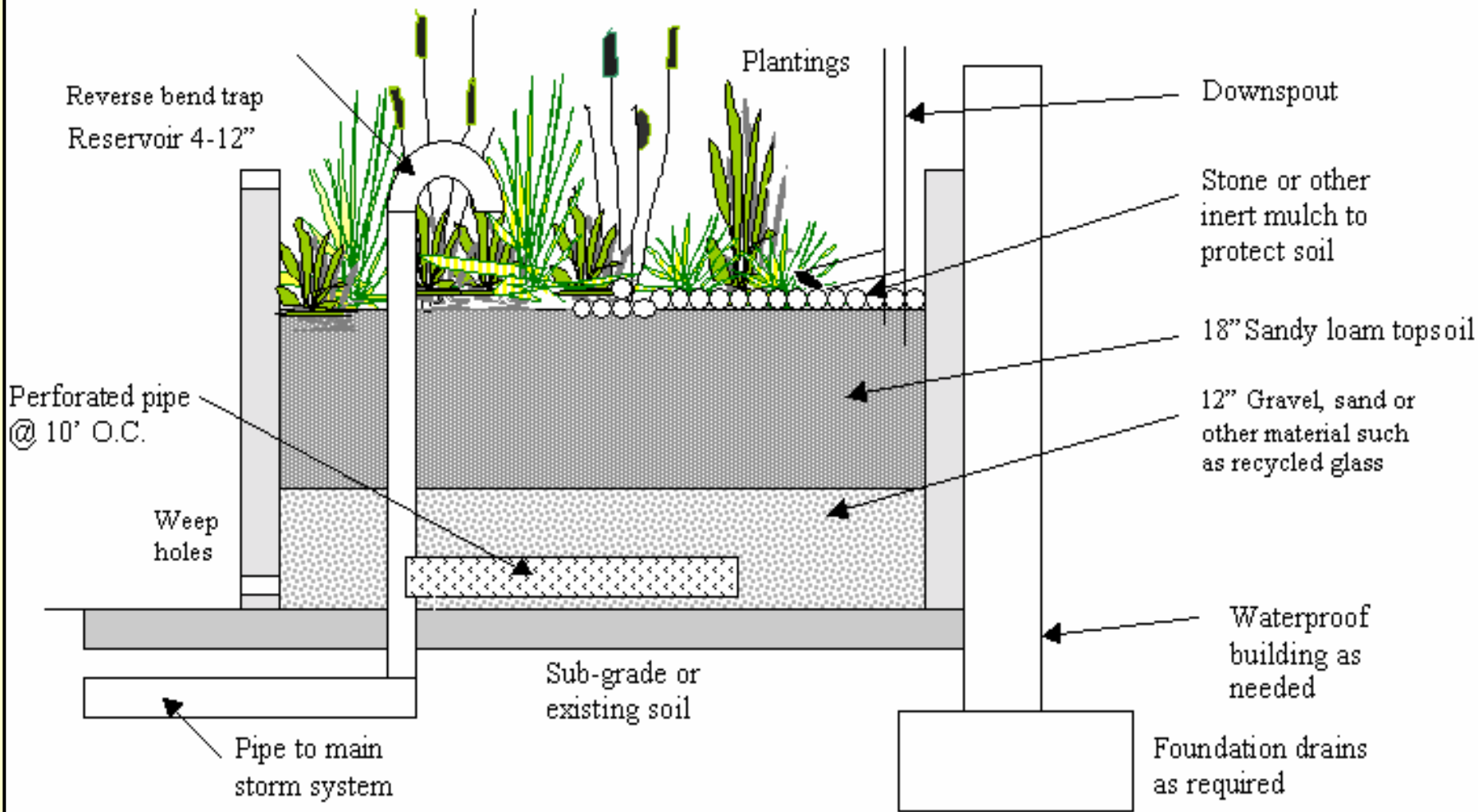


PARKING EDGE AND PERIMETER WITHOUT CURB

Stormwater Planter AB



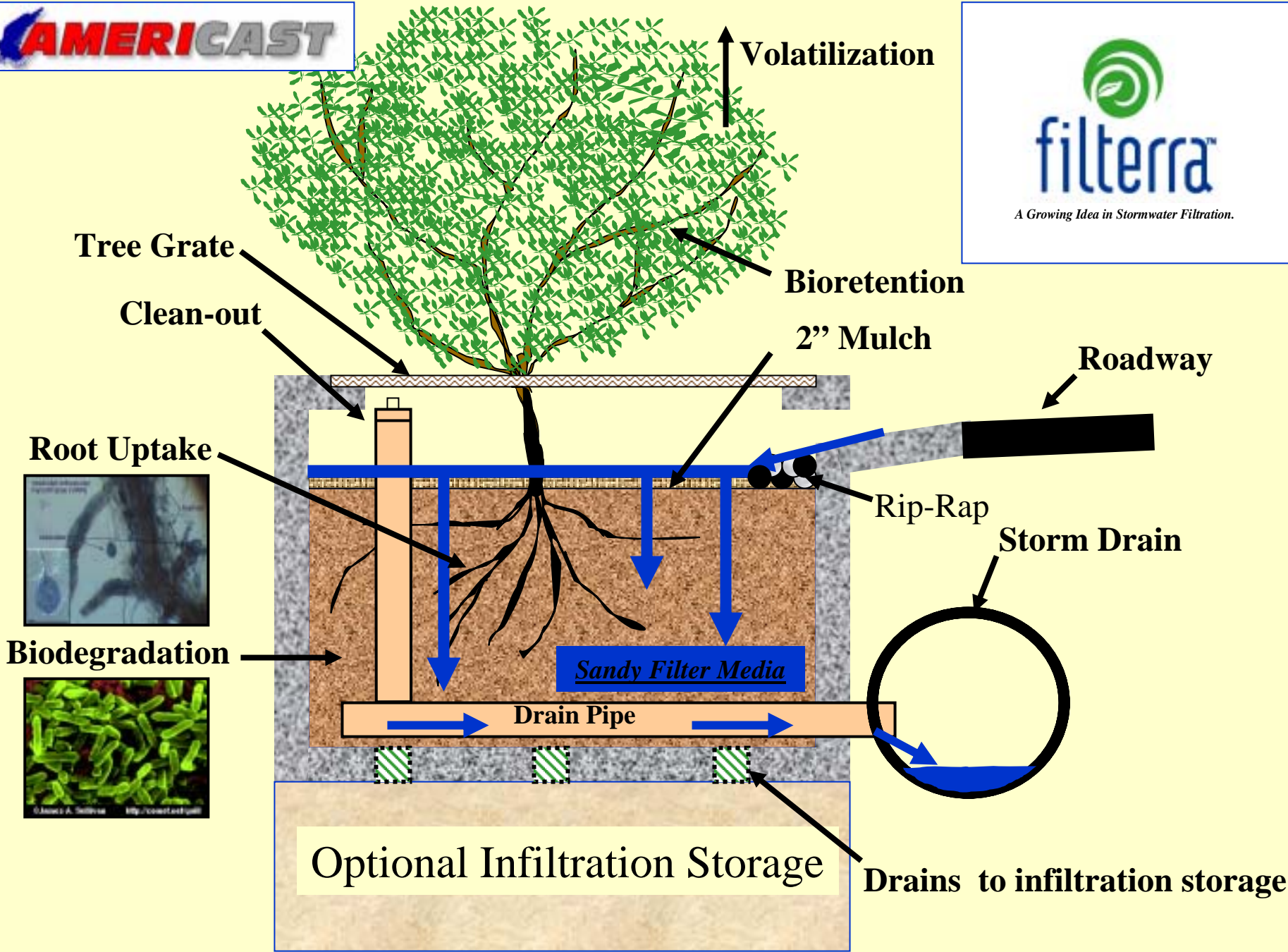
Stormwater Planter CD



Section Not to Scale



MAY 14 2001
Ritzdorf Stormwater Flow Through Planter







Reining in the Rain: Parking Lot Rain Garden

Bellingham City Hall

Costs:

Asphalt \$1,056

Concrete \$ 800

Gravel \$ 12

Labor \$1,690

Equipment \$ 942

Total Costs \$4,500

http://www.psat.wa.gov/Publications/LID_studies/amended_soils.htm

Benefits of LID

-credit to Riverlink corp.

- Effective
- Economical
- Flexible
- Adds value to landscape
- Achieves multiple objectives
- Follows systems approach
- Makes sense