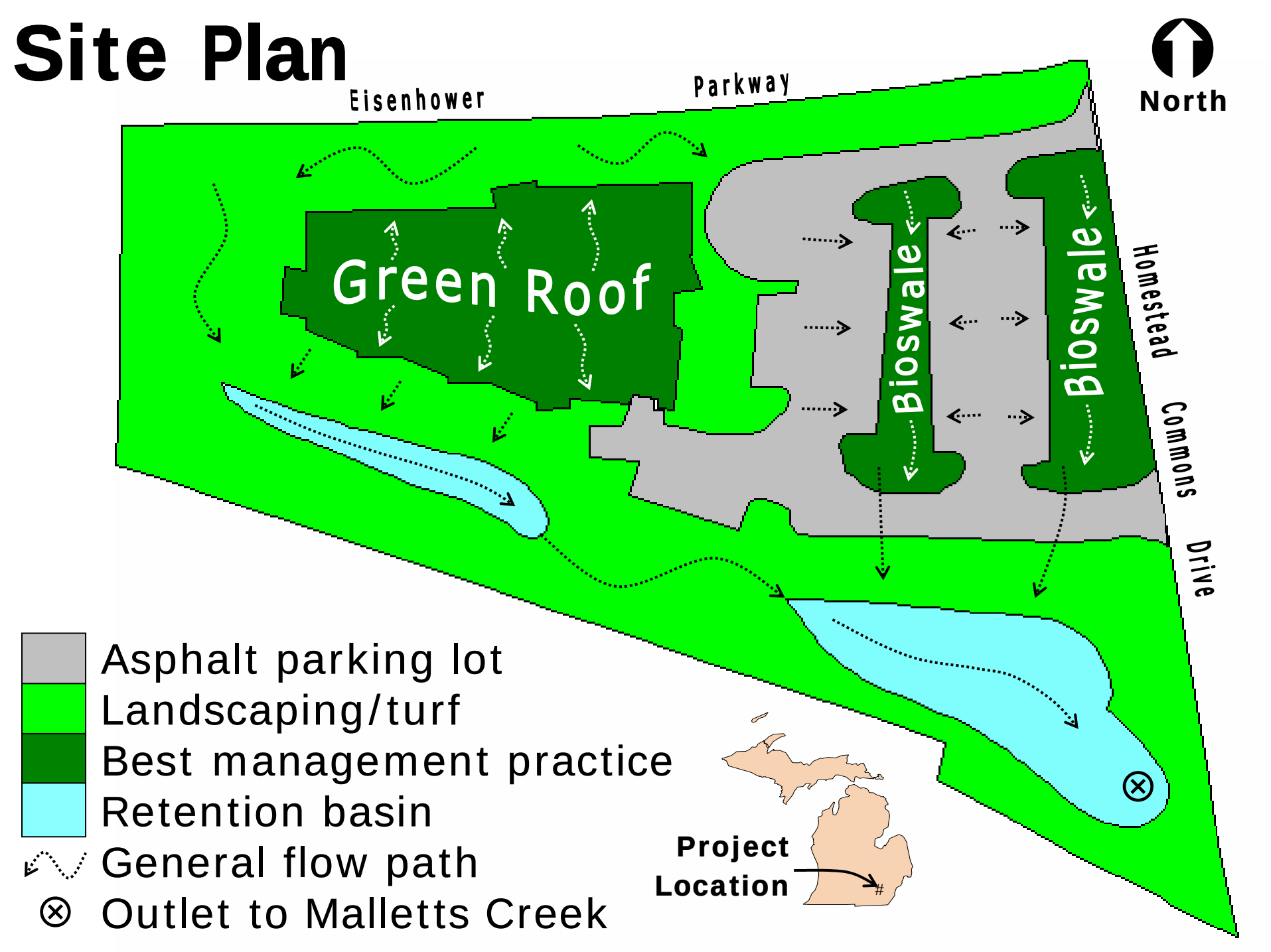
Ann Arbor District Library Green Roof and Infiltration BMPs

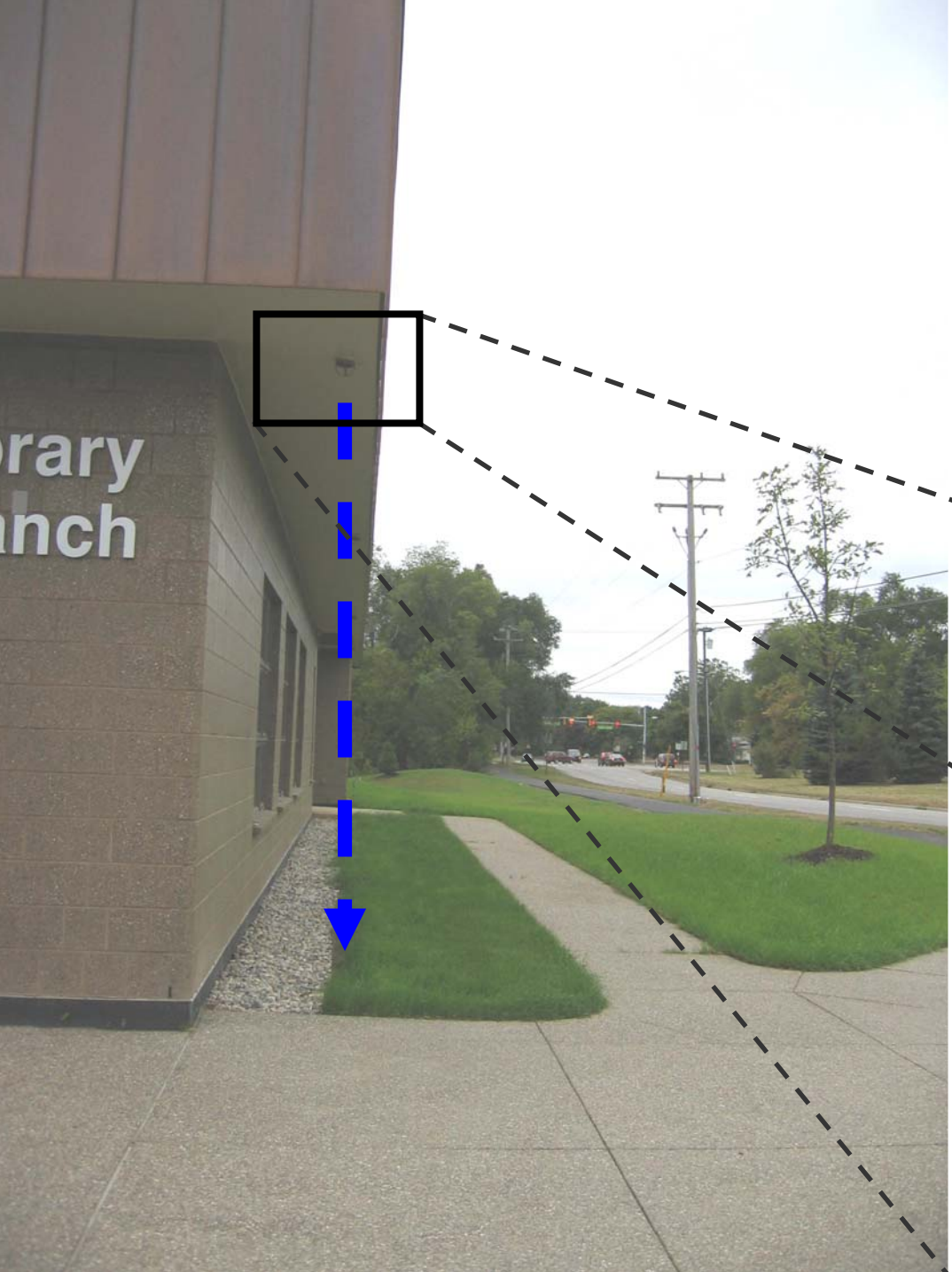
- Current MDEQ nonpoint source (NPS) program priority: innovative, low-impact storm water BMPs
- In August 2003, Library received $236,000 federal Section 319 NPS grant
- First green roof funded by MDEQ NPS program

Green Roof and Infiltration BMPs

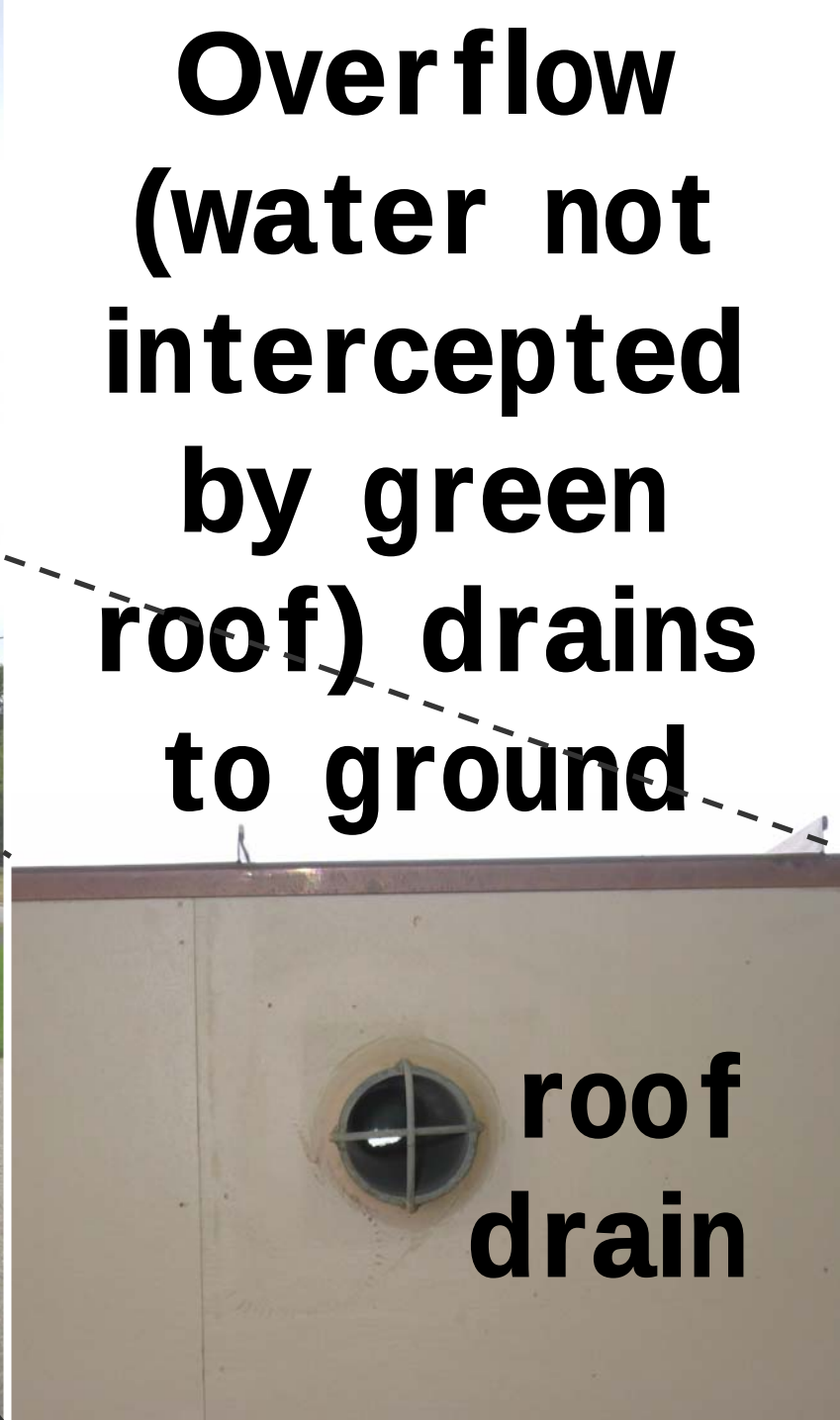
Site Plan


Eisenhower
Parkway
North
Green Roof
Bioswale
Bioswale
Homestead
Commons
Drive
Asphalt parking lot
Landscaping/turf
Best management practice
Retention basin
General flow path
Outlet to Malletts Creek
Project
Location

Green roof planted with sedum, spring 2004; sufficient vegetative cover in ~1 year



Overflow (water not intercepted by green roof) drains to ground



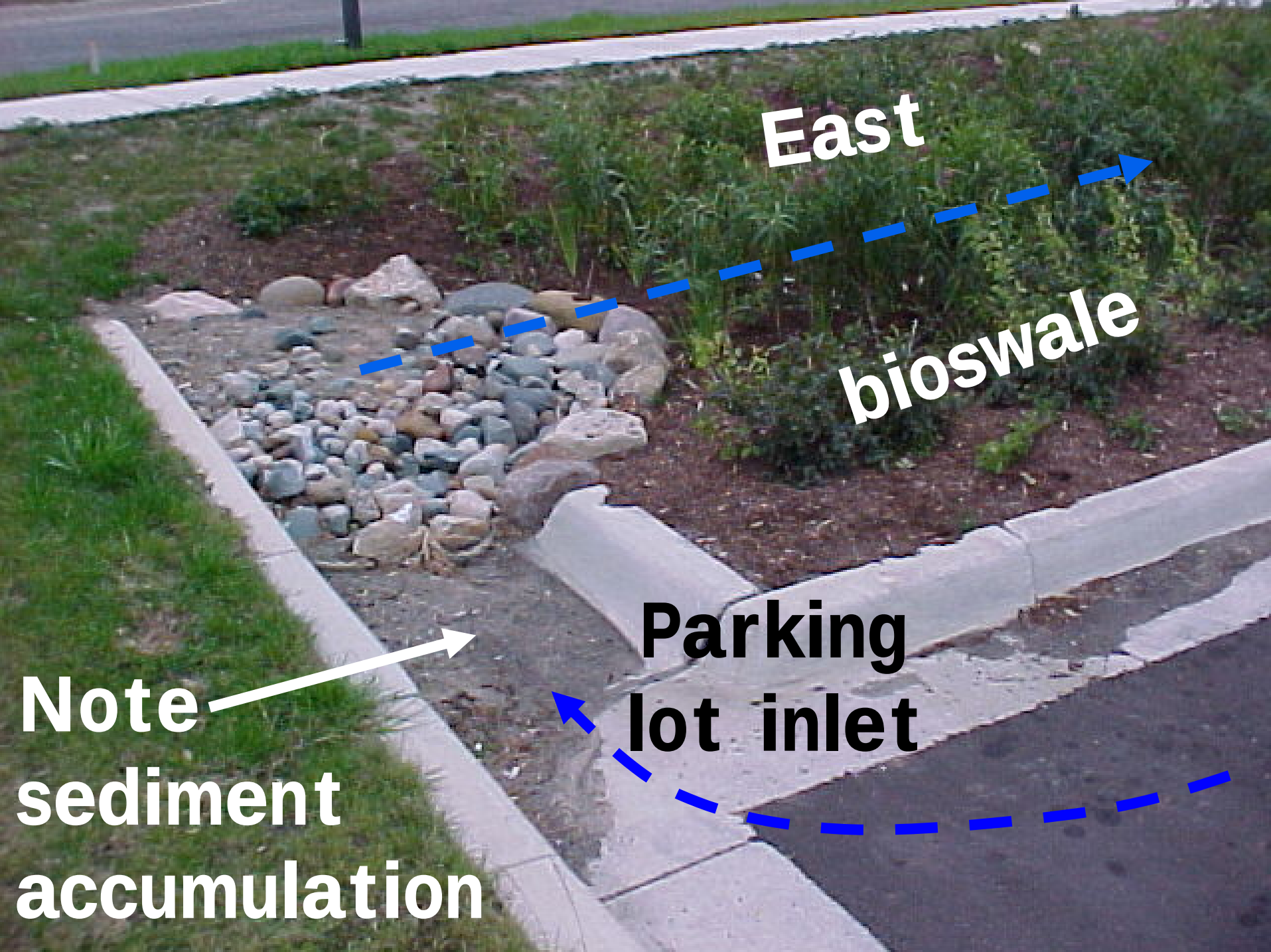
roof drain

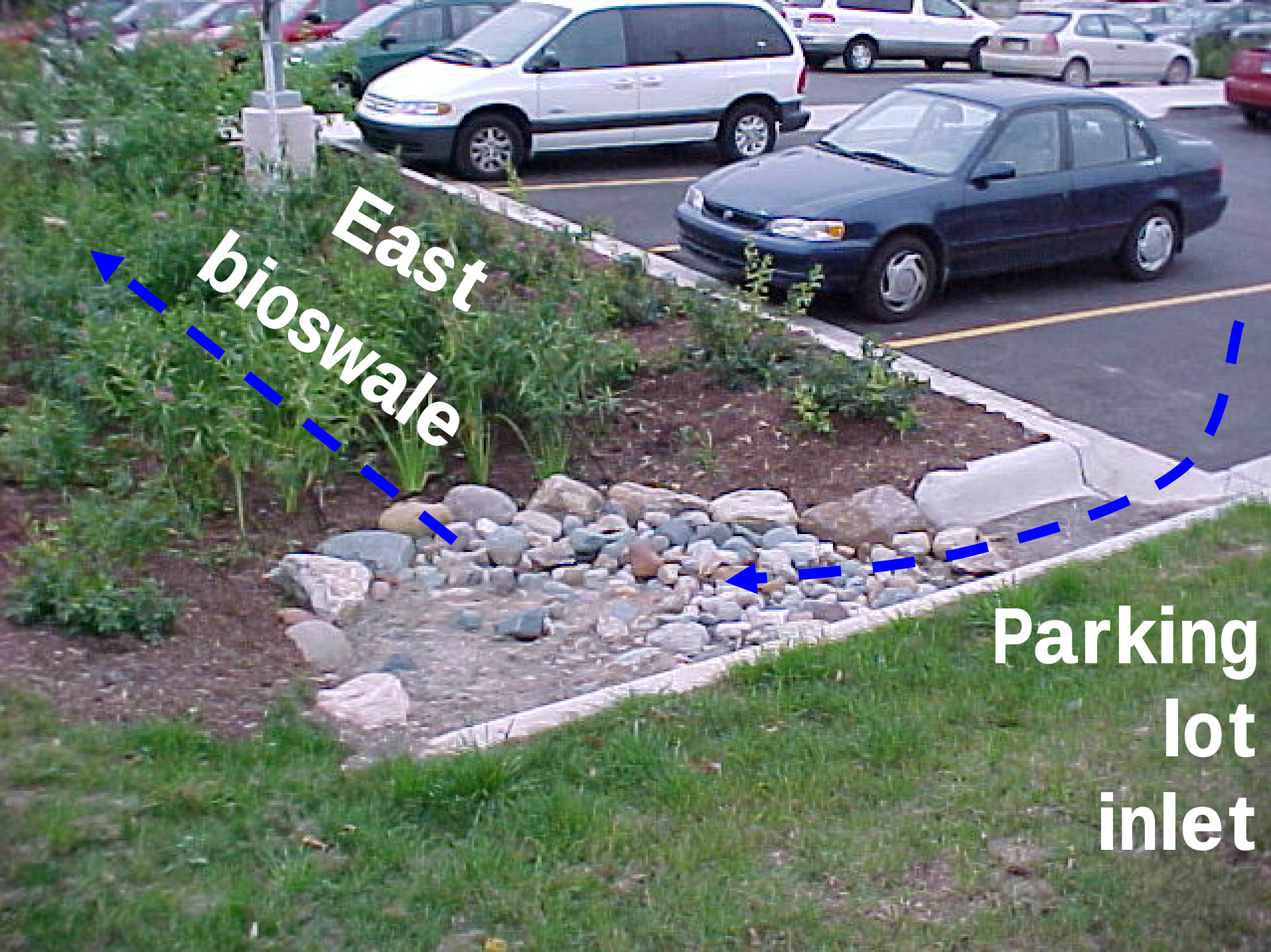
Overflow (water not intercepted by green roof) drains to ground

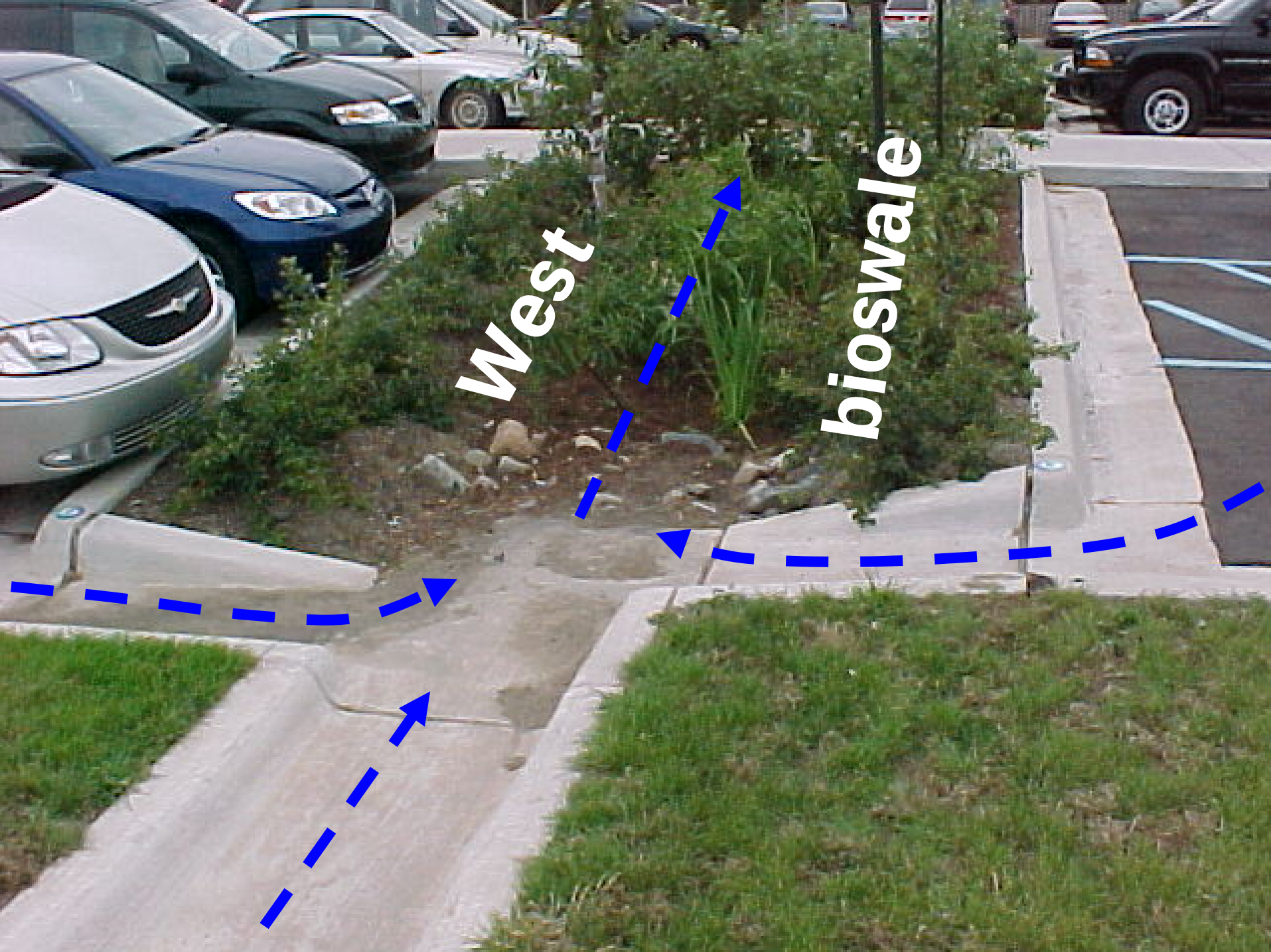
Runoff from asphalt parking lot drains to…

…Bioswales, planted with goldenrod, blazing star, dogbane, iris, etc., to provide infiltration

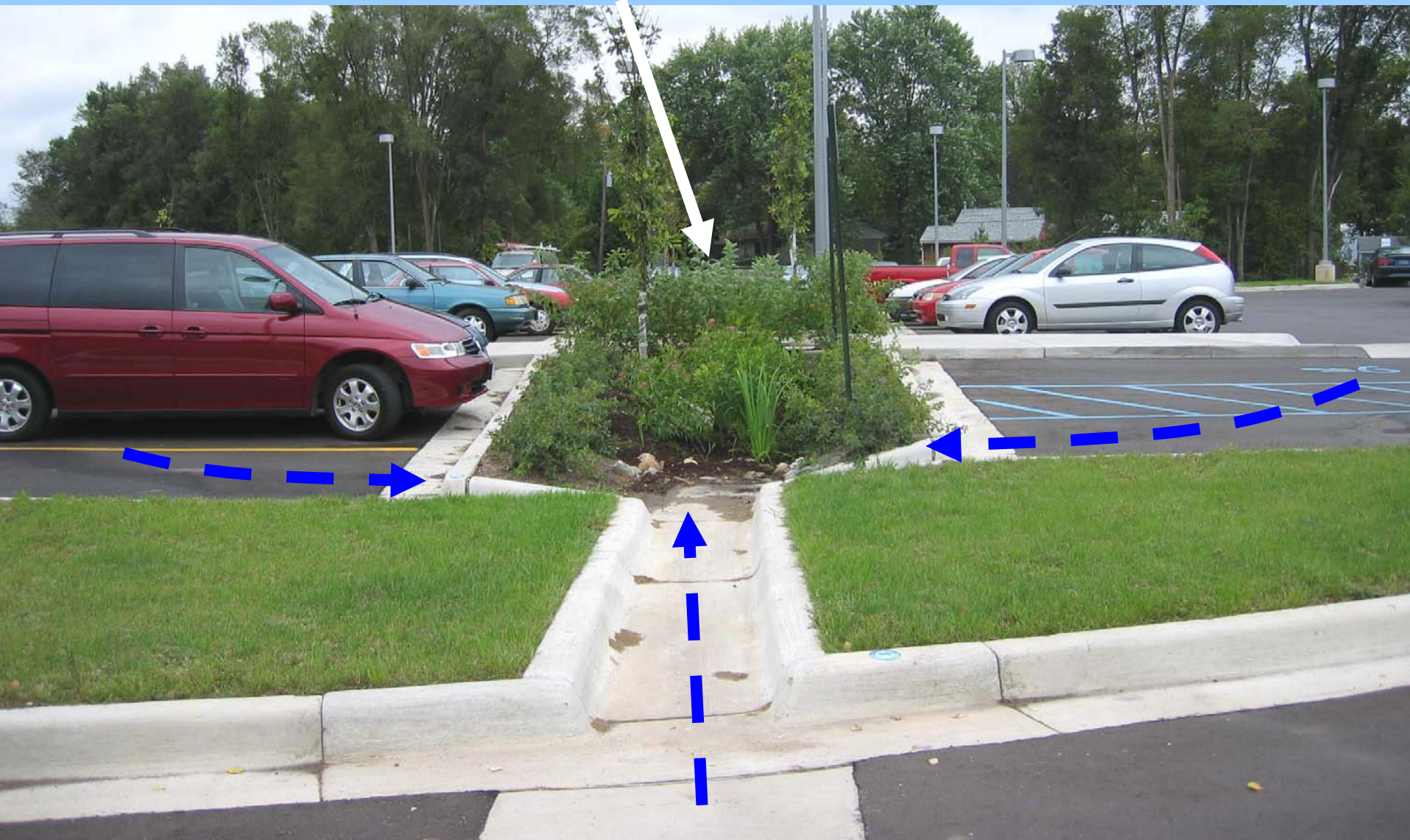
Bioswale inlet lined with gravel to slow water velocity


East
bioswale
Parking
lot inlet
Note
sediment
accumulation

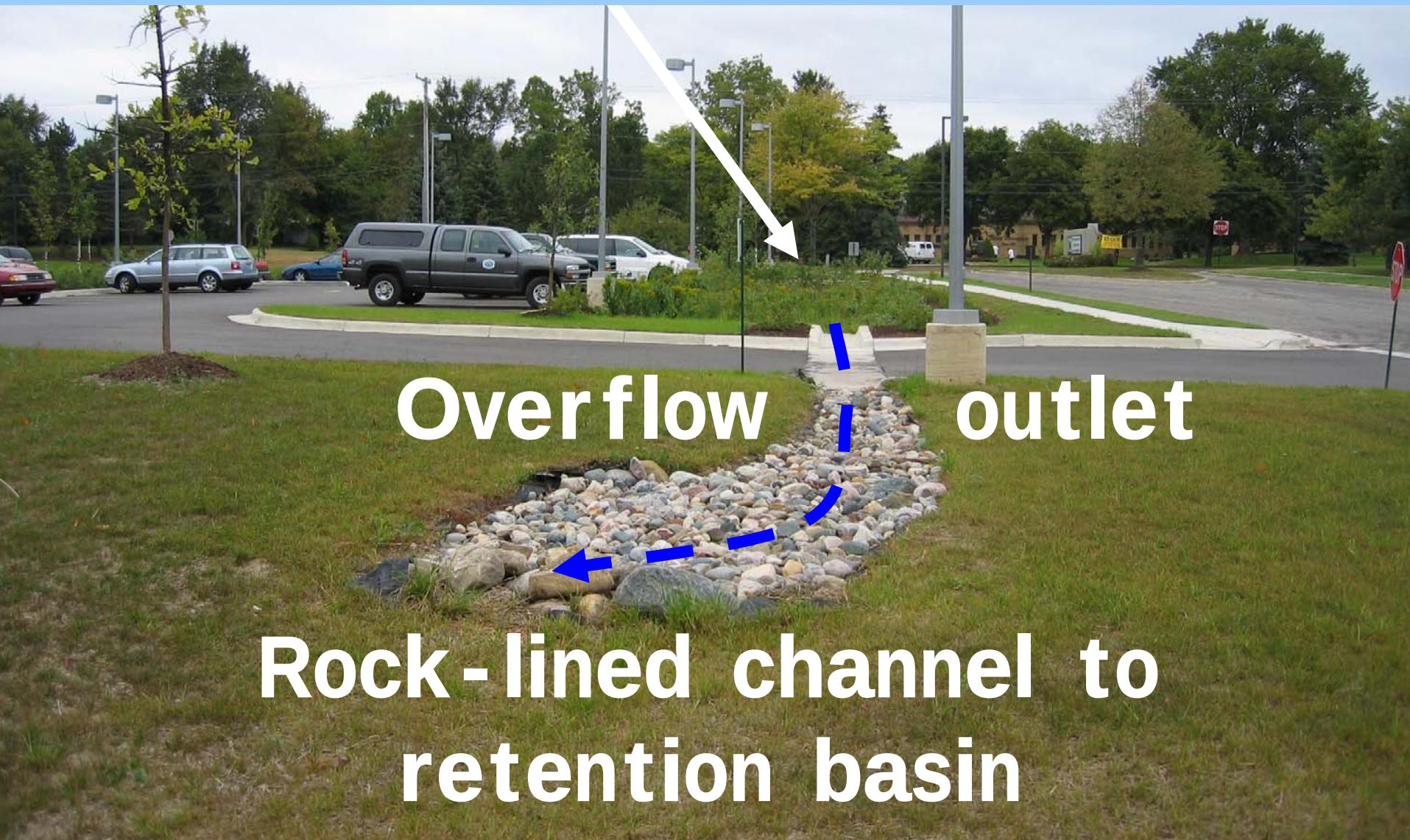

East
bioswale
Parking
lot
inlet

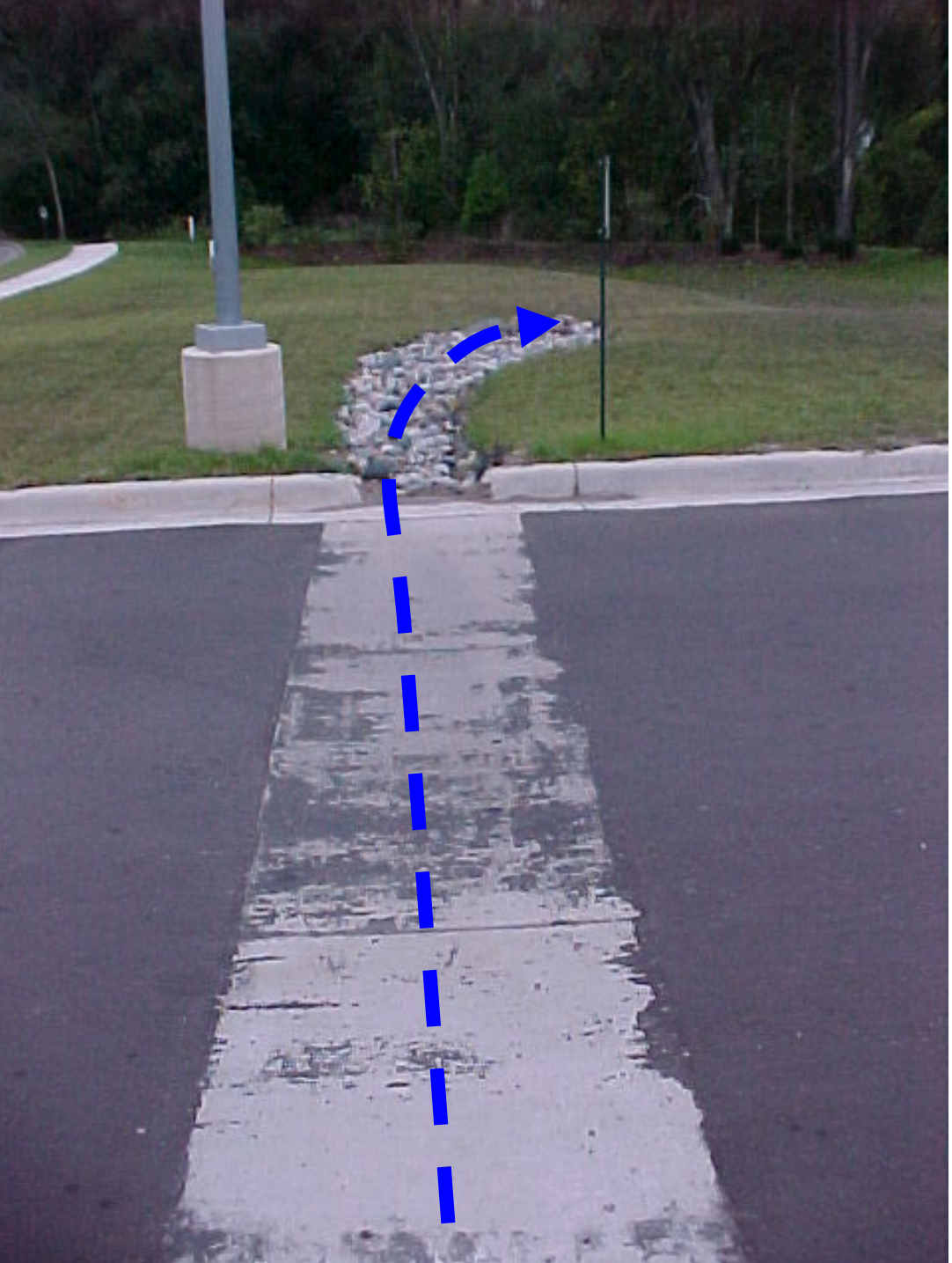

West
bioswale

West bioswale

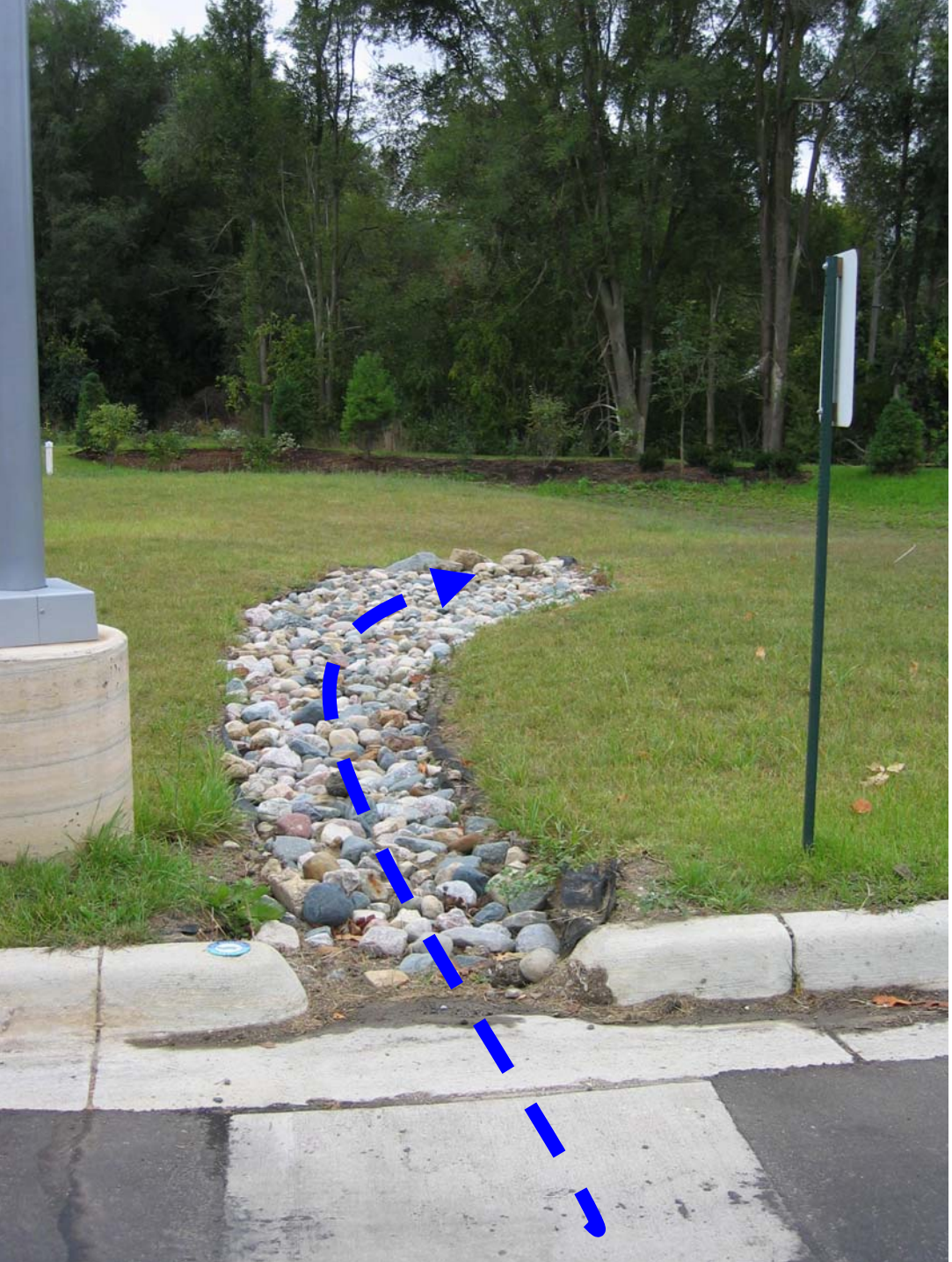


East bioswale



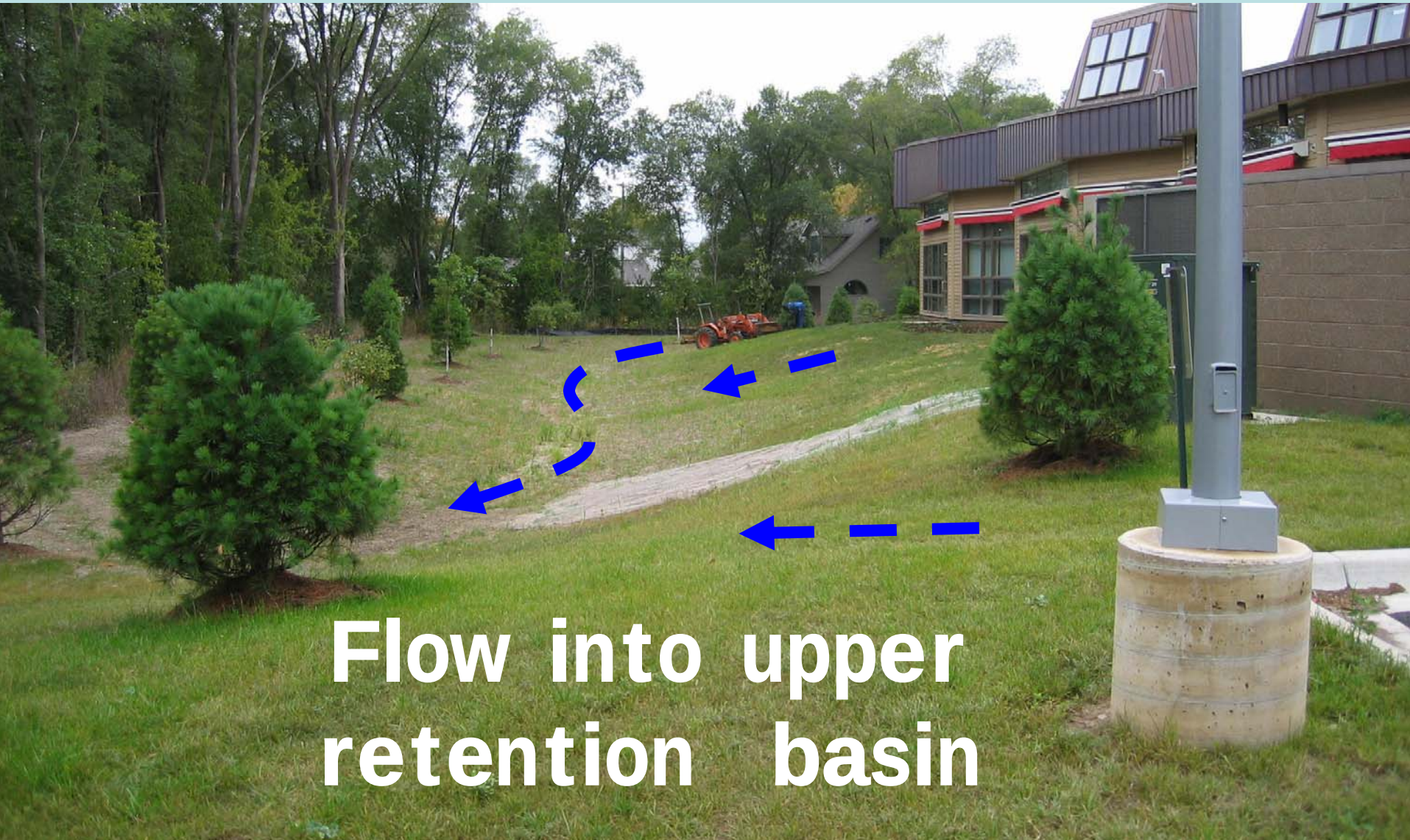


Parking lot outlet to retention basin via rock-lined channel

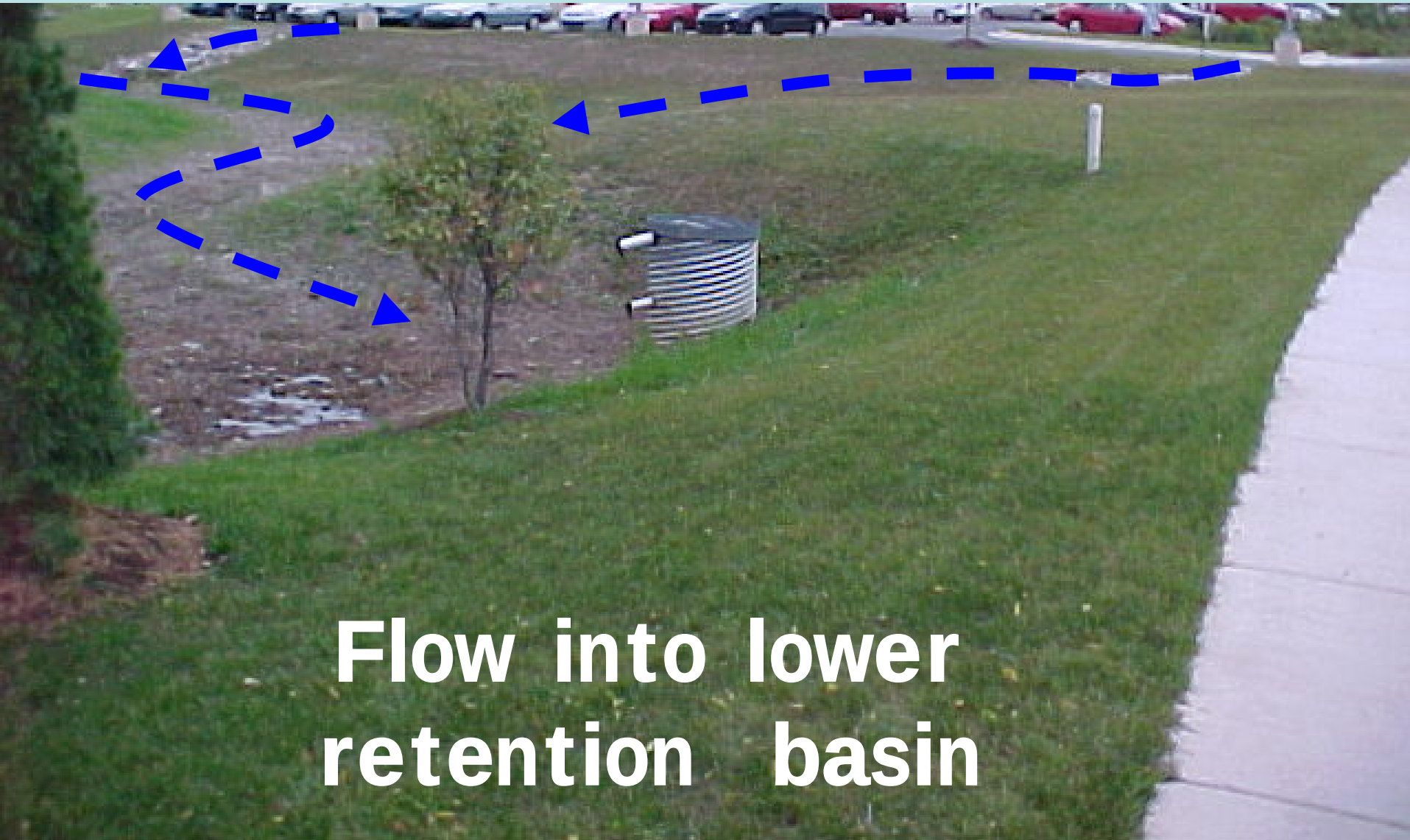


Parking lot outlet to retention basin via rock-lined channel

Retention basin—final BMP in storm water treatment train



Retention basin—final BMP in storm water treatment train



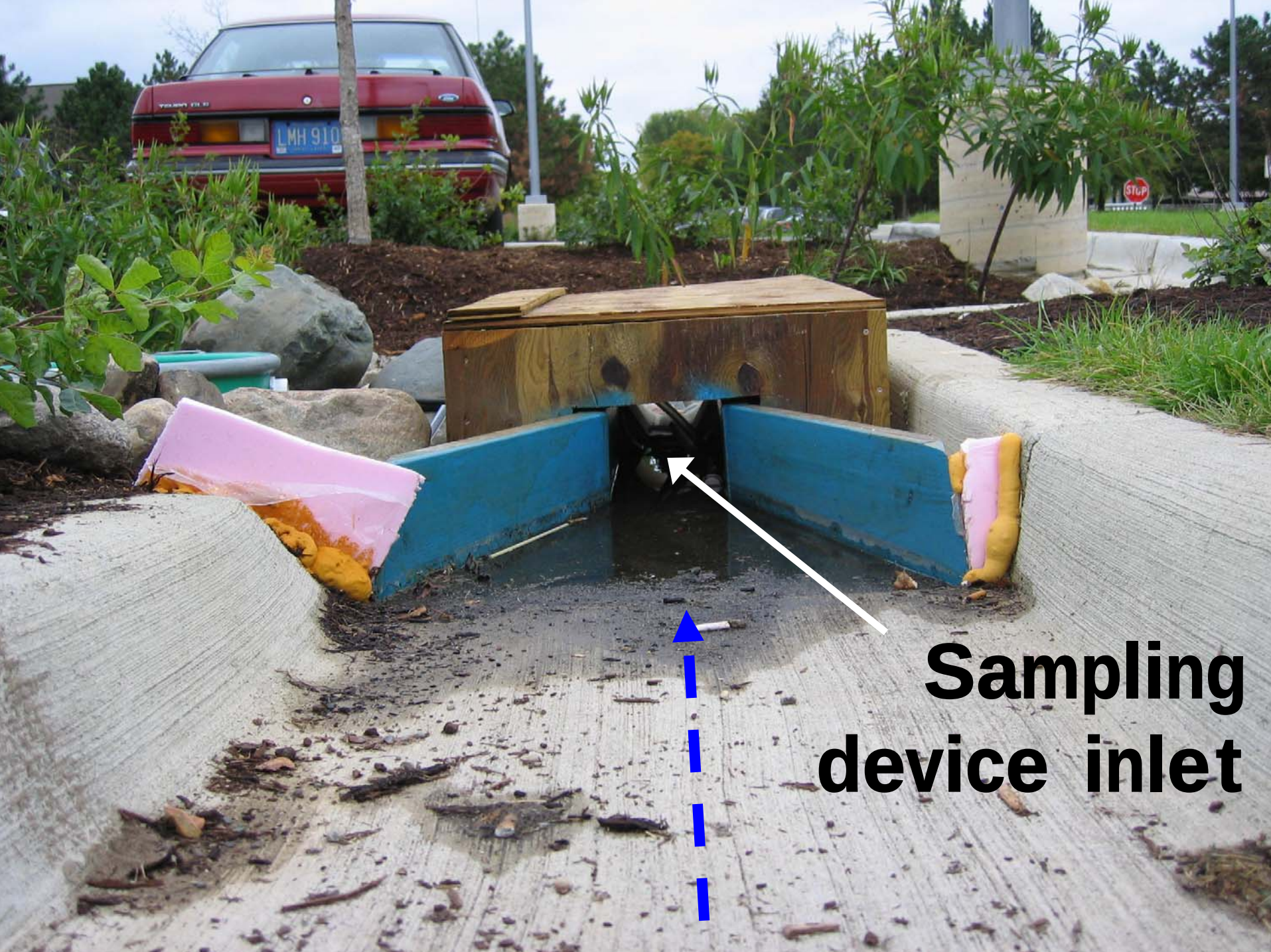
Retention basin—final BMP in storm water treatment train

Curb markers

Curb markers

Curb markers


Sampling to determine pollutant removal


Sampling
device inlet