

What is a Recessed Parking Island?

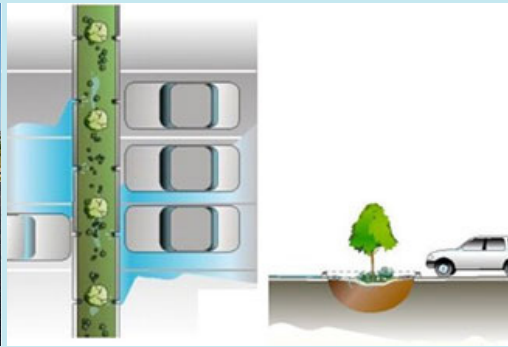
A recessed parking island is a type of Low Impact Development (LID) stormwater management Best Management Practice (BMP)

BMPs can be utilized in residential and commercial settings to reduce the need for stormwater transportation and treatment, reduce flooding and improve water quality!

Recessed parking islands capture stormwater and hold it while it slowly infiltrates into the ground, reducing runoff, replenishing ground water supplies and reducing **nonpoint source pollution**, which provides clean water to local streams, wetlands, and lakes



A recessed island during construction in Wood River, Illinois (William Freeman)



Recessed parking island aerial & side view (AHBL Engineering)



A retrofitted recessed parking island with curb cut (co.stafford.va.us)

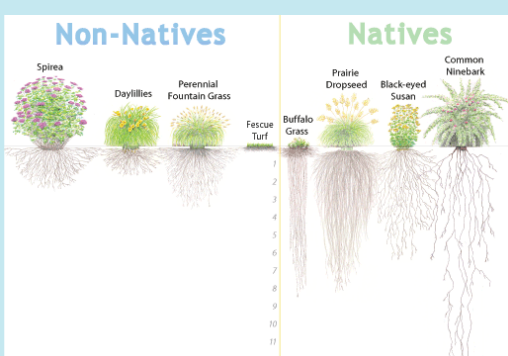
Recessed islands are natural cousins to raised parking lot landscape islands utilized in large retail developments nationwide. They are made up of layers of infiltration material (such as gravel) and planted with native plants

Why native plants? Because they have deep root systems (helping stormwater to get into the ground - deep-rooted trees may even be used), can survive both drought and flooding conditions, and will not become invasive, taking over your yard

Recessed islands can even be used as snow storage areas in winter months!



A recessed island with a curb cut (www.ia.nrcs.usda.gov)



The importance of native plants (Mid-America Regional Council)



A recessed street parking island (www.portland online.org)

Design Considerations of A Recessed Parking Island:

Infiltration & proper parking lot design are the keys to a recessed parking island's success. The parking areas must slope towards the recessed islands at a minimum of 2% and the island must drain all collected water within a 72 hour window. The soil & infiltration layers in a recessed island must drain water at a rate of **0.3 inches per hour** or greater, or it needs to include a perforated subdrain that is connected to a stormwater system (please see the **Massachusetts Low Impact Development Toolkit** for more detailed design guidelines).

Recessed Parking Island Design **DO's**:

DO plant a recessed island with dense vegetation (use salt-tolerant plants for snowy months!)

DO design the island to hold 6-8 inches of ponded water

DO install an overflow outlet above the ponded water depth (to maximize residence time & treatment) that connects to a traditional or non-traditional stormwater system

DO use this BMP to retrofit existing parking islands

DO install a perforated underdrain in areas with less permeable soils

DO plant 1 tree or shrub per 50 square feet of island area

DO utilize filter fabric/material at the bottom of the island to filter out pollutants

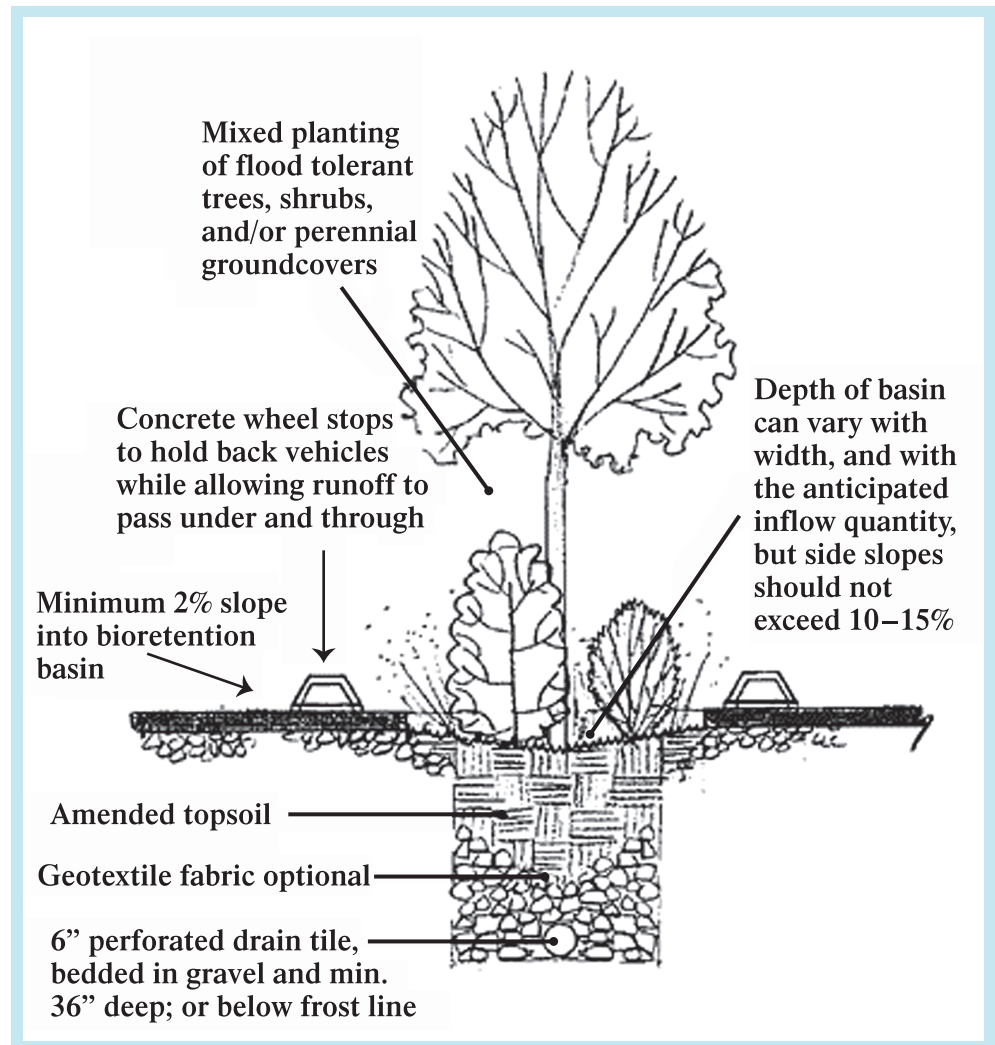
Recessed Parking Island

DON'T's:

DON'T forget to provide 3" of freeboard above ponding depth to prevent flooding

DON'T allow rain water to pool for more than 72 hours

DON'T allow the soil in the island to become compacted during construction



A cross-section of a typical recessed parking island (urbanext.illinois.edu)

Resources & References:

- ◆ Massachusetts Low Impact Development Toolkit (www.mapc.org/regional_planning/LID/PDF's/Bioretenion)
- ◆ Urban Design Tools: Low Impact Development (www.lid-stormwater.net/bio_benefits)
- ◆ www.lowimpactdevelopment.org/quapp/lid_design/bioretenion/bio_sizing
- ◆ Center For Neighborhood Technology (www.cnt.org/bout)

For more information, please contact the Southwestern Illinois Resource Conservation & Development, 406 East Main Street, Mascoutah, Illinois 62258, (618) 566-4451, www.swircd.org