

TOWN OF CEDAR POINT AND TOWN OF CAPE CARTERET

Stormwater Solutions: Planter Boxes



What is a Planter Box?

Planter boxes use high flow rate soil filtration media to control and treat runoff from small parking lots or roadways. Runoff flows through the sandy soil mix, which traps solids and pollutants. As their name suggests, planter boxes also use vegetation to help absorb the water trapped by the soil. In addition, the plants also create a mini living ecosystem within the soil, fostering healthy microbes which aid in breaking down oil and grease.

Did you Know?

- Planter Boxes can be integrated into the existing storm drainage system with minimal disturbance, making them an excellent retrofit
- Planter boxes are a great LID solution. They provide treatment at the source in a small footprint.

Benefits

- More trees, flowers, and shrubs
- Reduced runoff volume and pollution
- Small footprint needs almost no land
- Great for retrofits

Helpful Hints

- Think about using the planter box upstream of any underground stormwater device– the water that gets into the underground device will be cleaner, and the cistern won't need as much maintenance
- Holes can be installed in the bottom of the box to encourage additional infiltration if the soil is suitable



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Where to start

Location

- Site the planter box in the curb line, immediately upstream of catch basin or inlet
- Typical boxes are 3' deep – make sure there is a suitable outfall to drain the box between storms
- Box should be oriented so flow comes across inlet throat, not directly at inlet opening
- Use plants that are native to coastal NC

Sizing

- The soil media should be at least 3' deep
- Minimum soil infiltration rate should be 10" per hour or greater.

Planter Box Size	Max Impervious Area (acres)	Max Impervious SF
4' x 6'	.14	6,000
4' x 8'	.19	8,200
4' x 12'	.28	12,000
6' x 6'	.21	9,100
6' x 8'	.28	12,000
6' x 10'	.35	15,000
6' x 12'	.42	18,000
7' x 13'	.54	23,500



Filterra planter box system, Wilmington



Filterra planter box system, Swansboro

Installation

- Contractor assistance will be required
- Many manufactured systems are available, contact a manufacturer for specific installation guidelines

References and Resources

- Portland, Oregon: www.portlandonline.com; click on /living/sustainable city/yard & garden / outdoor
- Low Impact Development Center: www.lowimpactdevelopment.org; search planter box



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