Grass Paver System

Overview

- Grass paver systems are concrete or plastic grids that lay on top of soil and gravel. The grid spaces are filled with soil and planted with grass seed.
- Grass pavers form a durable surface for parking vehicles or even driving. Meanwhile the root systems of the grasses are protected by the pavers and can grow naturally.
- Grass paver systems reduce stormwater runoff, pooling, and flood risk by allowing rain and snowmelt to infiltrate through the pavers and into the soil and root systems.
- Grass pavers filter pollutants from stormwater, reducing the quantity of pollutants that flow to nearby water bodies.
- Grass paver systems are a green alternative to concrete or asphalt driveways, sidewalks, or parking lots.
- Depending on the grass paver system product, the driveway or roadway can be made to look like a normal lawn or pavers can create an aesthetically pleasing pattern.
- Design engineers and contractors should be contacted to properly complete the pavement design and construction to ensure maximum stormwater reduction benefits.

Design Considerations:

- Pervious pavements should not be installed in the following areas:
  - Areas with hazardous material loading, unloading or storage
  - Areas with high sediment loading
  - Areas experiencing extreme weight loads
  - Sandy, coastal areas
- Sand cannot be used for snow and/or ice treatment. Plowed snow piles should not be stored on permeable pavements.



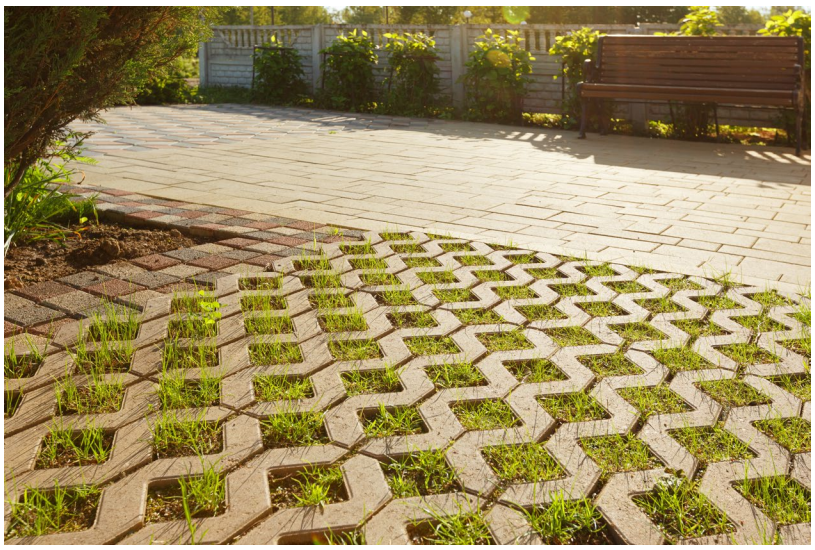
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Key Takeaways

During storm events, impervious surfaces such as driveways, sidewalks, parking lots, and roads can experience flooding.

Flooding on impervious surfaces can lead to excessive stormwater runoff which can cause extensive damage to property.

To help avoid excessive stormwater runoff and associated flood damage costs, grass paver systems can be installed to replace traditional pavement on driveways, sidewalks, etc.





I-ADAPT

Yard Adaptation

Grass Paver System

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Estimated Costs/Benefits

*U.S. dollars (2022), estimates are subject to change

Potential Costs		Potential Benefits		
Item	*Estimate*	*Post-Flood Recovery Actions*	*Estimate*	
Grass paver system materials and installation	$9.50-$11.50 per square foot	Flood damage recovery (professional clean-up, mold removal, replacement/ repair of flood damaged items)	1 inch water ↓ 1 foot water	$10,800-$53,500+ ↓ $29,400-$143,500+
Remove current pavement on driveway/sidewalk (if necessary)	$1-$5 per square foot	Remove standing water from yard	$1,300-$13,500	
ESTIMATED TOTAL COST **500 sq ft driveway**	**$4,750-$8,250**	**ESTIMATED TOTAL SAVINGS**	**$12,100-$157,000+**	

Additional Actions

- Remove current pavement on your driveway or sidewalk.

Additional Resources

- EPA: What is Green Infrastructure?
- UD: Permeable vs. Impermeable Surfaces

Resources can also be found at https://de.gov/iadapt

Potential Funding Sources

- Delaware Water Pollution Control Revolving Fund
- Building Resilient Infrastructure and Communities (BRIC)

Expected Maintenance

- Mow over the pavers as you would with a regular lawn.
- Weeding and fertilization as needed.
- Remove excess sediment build-up as needed.
- Periodically ensure none of the pavers have broken or come loose.

Permitting Agencies

Contacts for permitting requirements include but are not limited to the following:

- Your city and/or county government for local flood ordinances or regulations
- Your city and/or county government for building permits

Who to Contact

- 811 Call Before You Dig
- Green infrastructure contractor

Technical definitions and more information are located on the I-ADAPT website: https://de.gov/iadapt.

This information is intended to be used for planning purposes. It is not intended to substitute or take precedence over the guidance of design engineers, contractors, utility companies or regulatory agencies.

For more information, contact DNREC's Division of Climate, Coastal and Energy at DNREC_IADAPT@Delaware.gov