

# GEOPAVE®

## PERMEABLE AGGREGATE PARKING

### PROJECT TEAM

#### OWNER:

Mercedes-Benz of Brooklyn,  
Brooklyn, NY

#### PROJECT ENGINEER:

DeBruin Engineering,  
Bethpage, NY

#### PROJECT CONTRACTOR:

Eastman Cooke Construction,  
New York, NY

#### PRESTO REPRESENTATIVE:

Ragen Associates,  
Edison, NJ



Water Flow  
↓↓↓



## MERCEDES-BENZ DEALERSHIP

Brooklyn, NY

### GRAVEL PAVERS Meet Requirements for Permeability, Stormwater Retention

Hurricane Sandy devastated the Atlantic coast in 2012—causing significant damage to coastal communities in many Mid-Atlantic States. During the hurricane, wind and water surges breached barrier islands and coastal protection causing unprecedented flooding which destroyed businesses, homes, trees, power lines and pavements.

A luxury car dealership in Brooklyn, NY lost a protective bulkhead and land, sustaining significant damage to their asphalt vehicle parking area from the storm's flooding. Total pavement reconstruction was necessary.

However, stringent new regulations put in place after Hurricane Sandy for flood-prone areas, eliminated a completely asphalted surface as an option. New pavements were required to be designed so that all sheet flow was captured on site utilizing stormwater detention systems.

Presto Geosystems' representative Bill Ragen, Ragen Associates, worked with the dealership's project engineer and contractor to design and construct porous pavements with GEOPAVE aggregate pavers.



*Top Image:* GEOPAVE pavers can be installed around curves and cut to fit specific pavement shapes. A herringbone pattern was used.

*Bottom Image:* Completed aggregate pavement ready for traffic.



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18 inches of aggregate base material was installed for stormwater retention.



Driver utilized to install GEOPAVE U-Clip connectors for interconnected pavement.



Infilled GEOPAVE pavers can be striped to delineate parking stalls.



Specify GEOPAVE

## Regulatory Approvals

Glenn Peden, Project Superintendent with the general contractor, Eastman Cooke Construction, visited a similar site where GEOPAVE pavement had been in use for 4 years with no maintenance. With both the owner and contractor convinced that the GEOPAVE system was the right solution for this site, Glenn worked to obtain the necessary regulatory approvals. The GEOPAVE system met all regulatory requirements and was approved by the NY State Department of Environmental Conservation (DEC).

## Stormwater Infiltration & Retention

A deep base of 18 inches of varying-sized aggregate was designed under the GEOPAVE pavers for maximum stormwater storage. The bottom layer consisted of 12 inches of 3/4 in aggregate, followed by a middle layer of 4 inches of 1/2 in and the top 2 inches was a leveling layer of finer grain stone. Infill in the GEOPAVE units consisted of 0.375 in to 0.5 in aggregate with minimal fine content.



## How GEOPAVE® Pavers Work

GEOPAVE pavers confine open-graded aggregate, delivering high rates of infiltration to minimize stormwater runoff. Water flows through the pavement layer into the stormwater retention base layer for storage and ultimately natural percolation.

The GEOPAVE system's molded mesh bottom keeps aggregate from moving even under high vehicle traffic and offers a stiff resistance to loading stresses.

CONTACT  
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