

32 South Maple Stormwater Detention Case Study



The Midwest's Most Trusted Site Solutions Provider

Project: 32 South Maple

Market Sector: Municipal

Location:
City of Webster Groves, Missouri

Salesperson: Mark Stirnaman &
Guy Litteken

Application/Solution:

Engineer: Oats and Associates

Stormwater Management using integrated design with Atlantis underground detention and permeable concrete pavers.

Contractor: General - Piffel Excavating,
Hardscape - Conoyer Bros

Installed: July 2012

case study

Challenge

The issue at this home was a combination of combined sewer overflows and localized flooding. The flooding was a function of the front and side yards draining towards the back yard, as well as the driveway. There was not a clear, easy path for the water to leave the back yard which caused the flooding.

Solutions

The combined sewer overflow was somewhat easy to fix. The sewer and stormwater were not meant to be combined. At some point a solid grate covering a clean out was replaced with an open grate in hopes to mitigate the flooding. That grate was replaced with another solid grate and the attention went to managing the stormwater. Ultimately, Atlantis Rain Tanks were used along with permeable concrete pavers to capture the water. There was an issue with the grade of the yard in relation to a box culvert at the back of the yard. The water could drain to the culvert only during low flows. During a high flow event the water would back up into the pipe and ultimately the back yard. This problem was solved by using the Atlantis and creating roughly 3,200 cubic feet of storage.

Results

The system performed as designed. The water entered the Atlantis Rain Tanks by way of permeable pavers and a small grated inlet. The permeable pavers and the clean rock below acted as a filter and provided water quality. The Atlantis Rain Tanks allowed for storage and gave the water a place to go to avoid the high peak flows and allowed the system to drain over a period of time.



1 Atlantis Rain Tanks being installed.



2 Atlantis Rain Tanks completed and connected to outlet pipe.

32 South Maple Stormwater Detention Case Study continued



Products

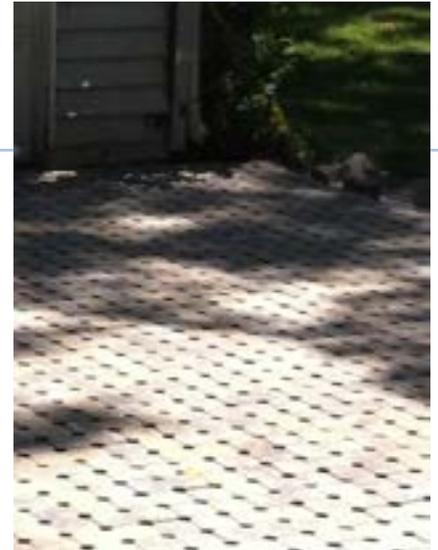
Manufacturers included in solutions and product:

Product: Atlantis Rain Tanks
Manufacturer: Atlantis

Product: InfiltraStone Permeable Pavers
Manufacturer: Pavestone



3 Installing the permeable pavers over the clean stone.



4 Completed permeable pavers.



5 Close up view of how water gets through the joints of the permeable pavers.



Company Information

ASP Enterprises, Inc. and Quick Supply Co. For more than three decades, A.S.P. Enterprises and Quick Supply Co. has served the erosion control industry with integrity and expertise. We provide engineers and landscape contractors the exceptional value for their money and have grown to become the Midwest's full-line distributor of erosion-control, geosynthetics, storm water management products, wall block, landscape pavers, and drainage products.

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