

## NDS StormChambers' Design Flexibility Solves Stormwater Issue for High-Density Development

**Project Name:** Mattison Estates

**Location:** Ambler, PA

**Segment:** Commercial >10 Acres

**Products:** StormChamber

**Property Type:** Condo/Townhouse Complex

**Partners:** Bohler Engineering, Designer



### **Challenge: Developer needs 385,000 cubic ft. of stormwater storage capacity in compact community**

Historically part of the Archdiocese of Philadelphia, the newly developed Mattison Estates had a present-day irrigation problem. Back in 2016, the builders called NDS to troubleshoot and propose a solution for stormwater storage. After consulting with the developer and engineer, NDS determined the site would require approximately 385,000 cubic ft. of underground storage volume, but the team was faced with severe space constraints. Since the developer wanted to maximize the use of land space, there was no one area that could accommodate all under surface storage, thus requiring a dispersed system.

### **Solution: NDS' multiple system solution – with single and stacked units – met the required storage**

NDS provided the engineer with a solution that included a total of 9 different retention and detention systems, allowing for 385,000 cubic ft. of storage. The StormChamber units – including SC-34s and SC-44s – were installed throughout the property in both single and double layers with the purpose of moving excess stormwater off the property and through the chambers. The system included more than 40 SedimenTraps, which were designed in the first and last chamber of the inflow row(s) to help capture sediment and provide for quicker, easier and significantly less expensive sediment management than competing systems.

The NDS StormChamber system was able to maximize storage volume in limited footprints due to the product's ability to be installed in multiple layers, as well as multiple types of configurations. Double stacking in some of the locations provided an increased storage capacity per square ft. of available ground surface. The flexible configurations allowed for additional storage capacity in tightly constrained spaces otherwise unattainable by other types of stormwater management systems. The contractor had researched competitive systems but NDS was the best solution for solving all the perceived problems that had to be addressed.

### **Impact: Flexible multi-unit design eliminated storm water issues, saved time and cost**

By providing a multiple system design, the contractor was able to order one system at a time. This was especially important as there was very little staging area to accommodate the large number of chambers required. In addition, NDS StormChamber systems with SedimenTraps are easier to inspect and require less maintenance than other types of systems, ultimately saving the end user time and costs.

*"Representatives from NDS were with us every step of the way. From revisions in the plan to onsite consultation and delivery scheduling being a fluid situation, NDS was willing to do everything they could to make the project work for us."*

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