

CASE STUDY

StormTech® System Provides Stormwater Storage, Infiltration Merritt Island, FL

DESIGN-BUILD FIRM

Haskell, Jacksonville, FL

SUB CONTRACTOR

Mack Contracting, Orlando, FL

INSTALLATION DATE

April 2024

PRODUCTS

660' (201 m) of 15" (375 mm) HP Storm

380' (116 m) of 24" (600 mm) HP Storm

260' (79 m) of 30" (750 mm) HP Storm

310 SC-310 StormTech chambers

90 SC-310 StormTech end caps

DESCRIPTION

A multi-million dollar 56,000 square feet (5,202 square meters) expansion needed to take place for a space and defense satellite factory. The factory makes a new military constellation of optically interconnected satellites to be used in low-Earth orbit at NASA's Kennedy Space Center.

In order to expand the facility, a new parking lot had to be built over an existing dry retention pond, thus requiring stormwater to be stored under the lot. Florida's quantity control requirements state stormwater must be retained on the facility's site. StormTech SC-310 stormwater chambers provided the perfect onsite storage for the satellite factory. HP Storm pipe, manufactured from polypropylene, completed the high-performance stormwater system solution and provided conveyance to the StormTech chambers.

The pipe and chamber system was designed to handle every day stormwater volume. Once the rainwater reaches the StormTech system it percolates back into the ground quickly enough that



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the chamber system is ready for the next rain event.

In the case of a heavy rain event the system may not be able to handle, the rainwater will disperse to an existing wetlands bypass near the facility.

Haskell and Mack Contracting each had prior experience using a StormTech system. Haskell knew StormTech would be able to meet the space constraints and quantity control requirements. StormTech was chosen because of its durability, long lifespan, load bearing and history of use.

The installation for Mack Contracting went smoothly and ADS was available if questions arose. The StormTech system and HP Storm pipe allow for easy installation, site storage and delivery. The StormTech chambers are stacked for delivery purposes, while the HP Storm pipe can be nested within larger diameters. This allows for fewer trucks entering the job site and reduces the site's storage footprint.

HP Storm polypropylene pipe provides superior pipe stiffness, longer bells and spigots and a premium joint performance for a longer service life. The smooth interior wall offers additional strength and high flow capacity. HP Storm pipe, available in diameters from 12"-60" (300-1500 mm), meets or exceeds the standards specified in ASTM F2881 and AASHTO M330 and the extended bell and spigot meets ASTM D3212. Polypropylene is resistant to the effects of chemicals, abrasion, hot soils and effluent.

StormTech chambers are designed to save valuable land, reduce flooding risks and protect water resources. The chambers provide a durable structural system and are designed in accordance with AASHTO LRFD Bridge Design specification for HS-20 live loads. StormTech chambers are available in a variety of sizes to meet any project need and are injection molded for uniform wall thickness. StormTech end caps can be either pre-cut or cut in the field to fit the manifolds, which saves installation time. The end caps also add to the structural integrity of the system and provide storage capacity.



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