Oldcastle Infrastructure™
A CRH COMPANY

QUANTICO NATIONAL CEMETERY

Gets U.S.-Made StormCapture® Detention System

Triangle, VA

Quantico National Cemetery's new administration building expansion, just inside the cemetery's main gate on Joplin Road, includes about 4,500 square feet of office and administrative space and a covered portico of about 2,500 square feet.

For civil designer AMEC Foster Wheeler in Kennesaw, Georgia, key concerns were to control runoff from newly constructed impervious surfaces preventing storm drain overloading as well as other downstream issues such as flooding and erosion, and to achieve this with minimal footprint on the compact project site. AMEC specified the StormCapture® stormwater detention system to manage the post-construction rainwater runoff.

Oldcastle Infrastructure provided the StormCapture system as the ideal solution for the underground stormwater detention system at the new administration building site at Quantico National Cemetery. Quantico National Cemetery is a military cemetery for veterans of the United States Armed Forces and was established in 1983 adjacent to the Marine Corps Base Quantico.

CONSTRUCTION CHALLENGE

The StormCapture detention system was selected because of its unique ability to handle large volumes of water in a restricted footprint as well as its traffic-loading capabilities. In addition, the owners wanted a precast concrete system due to its durability and longevity.

DESIGN & CONSTRUCTION TEAM

Client
W.C. Spratt
Fredericksburg, VA

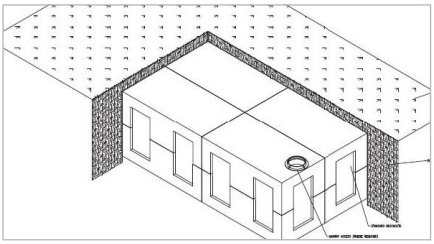
Civil Designer
AMEC Foster Wheeler
Kennesaw, GA

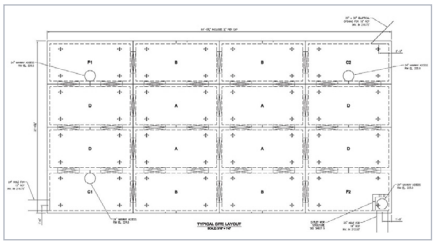
General Contractor
Leebcor Services LLC
Williamsburg, VA

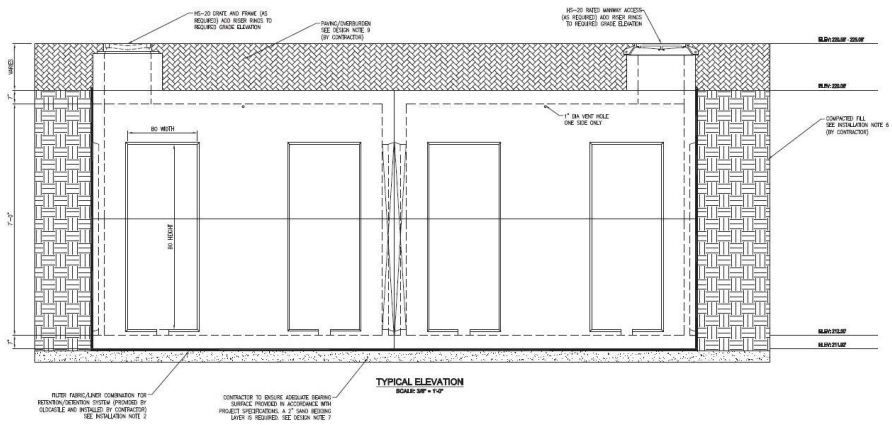
Manufacturing Facility
Oldcastle Infrastructure
Fredericksburg, VA

PRECAST SOLUTION

The precast concrete stormwater detention structure included 16 7-foot by 15-foot by 7-foot tall modules and an integrated outlet control structure. The underground, high-strength structural concrete storage modules, which were installed in the early fall of 2013, provided 12,336 cubic feet of underground detention, and the outlet control structure provided controlled discharge and overflow capabilities. The StormCapture modules incorporated several inlet pipes, as well as four manway access points to allow maintenance access into the stormwater management system. An impermeable, polyethylene membrane was then used to wrap the entire StormCapture system.







SCOPE OF WORK

Deliverables

DESIGN	Structural design
DRAWINGS	Detailed drawings
SYSTEM	12,336 cubic foot detention system
DELIVERY	Triangle, Virginia

System Details

PRECAST UNITS	7′ by 15′ by 7′ modules (16 total)
FOOTPRINT	Approximately 2,048 square feet
SPECIAL	Integrated outlet control structure Manway access points (4) Impermeable polyethylene membrane

About Oldcastle Infrastructure

Oldcastle Infrastructure, A CRH Company, is the leading provider of building materials, products and services for infrastructure projects to several market sectors nationwide, including: Building Structures, Communications, Energy, Transportation and Water.

For More Information Contact:

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