

Storming success for Wootton Community centre

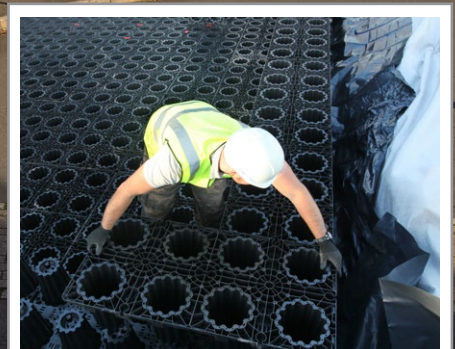
Adopted ACO StormBrixx Geocellular solution



When a Northamptonshire community sports centre began to suffer from the effects of flash flooding, the local water company, Anglian Water, took urgent action to implement a proactive stormwater mitigation strategy. To provide a fast, effective and long-lasting solution, they turned to ACO Water Management.

Wootton Community & Sports Centre and the surrounding housing estate had been plagued by surface water issues following bouts of heavy rainfall for a number of years. In particular, visitors to the centre and local residents found integral pavements and roads blocked by floodwater, causing great inconvenience.

With a view to providing a permanent solution to alleviate flooding in the area, Anglian Water (Thorpe Wood, Peterborough) identified the need for a system that would create storage at source for excess run-off. It also needed to be easily adopted and maintained, in line with the stringent maintenance and inspection policies water companies must adhere to. Crucially, the completed system needed to be strong enough to cope with heavy loading forces, both during and post-construction.



Project:

Wootton Community & Sports Centre, Northampton

Objective:

Resolve flooding issues affecting the community centre and affecting nearby residential areas with an adoptable and maintainable solution

Solution:

ACO StormBrixx HD geocellular stormwater Management System with three dedicated man access chambers for easy inspection and maintenance



Narrow ACO StormBrixx configuration at the end of playing fields with man access cover

STORM-PROOF SOLUTION

After meeting with engineers from ACO Water Management in October 2017, Anglian Water made the decision to install ACO's StormBrixx HD geocellular storage tank system, complete with three dedicated man access chambers for easy inspection and maintenance.

ACO's StormBrixx HD is a patented plastic geocellular stormwater management system with a high void ratio of 95 per cent thanks to its unique pillar configuration. This minimises the excavation required to achieve a specified storage capacity, reduces the aggregate needed for backfilling, and improves the flow characteristics of run-off through the installed tank. What's more, the system's unique brick-bonding and cross-bonding feature provides a strong, long term installation and helps to improve the construction speed of the tank.

FAST AND FLEXIBLE INSTALLATION AND ACO TRAINING SUPPORT

In total 428m³ of the StormBrixx system was installed at the bottom of one of the Community Centre's playing fields, with a narrow profile to minimise disruption. The installation featured three man access chambers, including one with a sump for ease of silt collection, as well as a man-made weir to trap any extra silt before the stormwater entered the system.

In addition the contractors, Barhale PLC, received a 'Toolbox Talk' training session on the StormBrixx HD system from ACO, which supported a smooth, speedy installation of the geocellular unit during May 2018.

The system's stackable 'nested' design also simplified delivery, site logistics and installation. For each delivery of StormBrixx, up to four loads of competitor product may be required, making StormBrixx approximately 75 per cent more efficient in delivery.

MAINTENANCE MATTERS

As the finished installation was to be adopted and maintained by Anglian Water, ease of access to provide regular inspection, cleaning and maintenance in between significant rainfall was a key remit the ACO system needed to meet. This was achieved thanks to the three reinforced concrete man access chambers, which allowed the completed installation to be conveniently inspected and cleaned. The gaps between the regular-spaced pillars which form the heart of the StormBrixx system also provided a straightforward route for both inspection cameras and jet-cleaning equipment.

Anglian Water's Design Engineer, Alec Newson, commented "The use of ACO's StormBrixx HD system as a design solution, together with ACO's technical assistance and on-site service, gave us a scheme which could be easily and quickly installed. It also provided us with the ability to inspect and maintain the tank to ensure its continued success in alleviating flooding in the vicinity of the Community Centre and surrounding residential areas."



Man access

Jon Williamson, ACO's Business Development Manager, added: "The man access Chambers make all the difference when looking at inspection and maintenance and were the main reason we were able to provide a successful and accepted solution for Anglian Water."

For more information on ACO's StormBrixx stormwater management system, including the new ACO StormBrixx SD please visit: www.aco.co.uk.



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