

ACO enhances green aspect of leisure landscape

Caravan sales park uses SUDS system to create unique customer environment.



The new eleven acre landscaped extension to Salop Leisure's sales centre in Shrewsbury has exploited the versatility of ACO Water Management's grated drainage channel system, ACO MultiDrain MD, to create a unique SUDS scheme that adds a striking visual aspect to the setting and prevents any risk of flooding.

By using a series of swales, pools and wetlands to receive rainwater collected by interconnected runs of ACO MultiDrain MD installed in key locations across the site, the surface water environment is kept in balance and is entirely self-contained with no additional load imposed on the main sewer network.

Salop Leisure is one of the country's most successful caravan holiday home, touring

caravan and motorhome dealers. Looking to present products in a realistic setting, the company approached Shrewsbury-based chartered architects WDW. The 'Holiday Home Village' WDW has created sites individual display zones in a rolling landscape that includes specially created ponds and wetland areas that enhance its rural character.

Project:

Salop Leisure sales centre, Shrewsbury.

Objective:

Creation of a landscaped sales village with surface water run-off used sustainably to create a series of ponds and wetlands.

Brief:

1. Stand-alone system with no connection to sewer or watercourse.
2. Provide sufficient attenuation to prevent standing water in customer access areas.
3. Visually harmonise with rural landscape setting.

Solution:

Detailed hydraulic analysis of site demonstrated that ACO MultiDrain channel runs interlinked to a network of ponds, wetlands and swales could sustainably manage the run-off from all new areas of hardstanding. Cast iron gratings matched to visual quality of surrounding features.



The use of retention ponds adds a striking visual aspect to Salop Leisure's new 'Holiday Home Village' sales park.

To deal with the rainwater run-off from an extended customer parking area and new roadways around the site, WDW worked with ACO Water Management's Design Services Team to develop a sustainable drainage system that could integrate with the proposed wetlands and complement the visual setting.

"ACO's team was able to develop a complete dynamic model which mapped the hydraulic performance of the proposed system," says Harry Wilson, Partner at WDW Architects. "The analysis proved that the retention and infiltration characteristics of the ponds and wetlands could be coupled with the attenuating capacity of the drainage channel runs to create a fully self-contained and self-balancing sustainable drainage system that would not need to connect to the main sewer network."

A total of eight runs of ACO MultiDrain M100D have been installed at strategic locations across

the site. All are interlinked, carrying run-off to the network of ditches, ponds, wetlands and soakaways that regulate the rate of return to the surrounding groundwater. In the main display area all the runs are curved to match the contours of the landscape and are fitted with cast iron gratings that harmonise with adjacent features.

Attract bird and aquatic life

"The addition of water features at the Salop Leisure site will not only enhance the 'holiday' feel of the site, they will attract bird and aquatic life and help to sustain bio-diversity in the area," says Peter Bembridge of ACO Water Management. "ACO MultiDrain MD itself is environmentally sustainable as it is manufactured from Vienite – a breakthrough recycled and fully recyclable material."

The innovative design of ACO MultiDrain MD gives it the highest strength to weight ratio of

any drainage system in its class. Capable of withstanding loads from Class A through to Load Class D, the lightweight MultiDrain MD not only increases the number of applications that can be covered by a single system it also includes a range of new features that improve on site handling, finish quality and installed performance – it is the first drain in this category to be available with a sloping invert.

Unique internal 'V' profile

Fitted with high strength UltraSTEEL™ edge rails and equipped with ACO's new Drainlock™ bar-less grating locking system, ACO MultiDrain has a unique internal 'V' profile that increases the flow speed of drained water - promoting self-cleaning and extending the intervals required between routine maintenance. The sculpted external profile also improves stability by anchoring the channel more securely into its surrounding substrate.



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The rural setting puts customers in a realistic environment.



Curved channel runs soften the visual quality of the site.

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