



Bishop Wilton community centre, Yorkshire

ACO GroundGuard creates sensitive parking environment in scenic Yorkshire.



The village of Bishop Wilton, on the edge of the beautiful Yorkshire Wolds, is the setting for a new 1,100sqm car park that has a surface structure created entirely from ACO Water Management's award winning ground reinforcement system, ACO GroundGuard. By exploiting the system's unique open-cell design, which has been back-filled with soil and sown with grass, the car park has a porous, high load bearing finished surface that not only blends perfectly with the surroundings but also does not require any additional drainage infrastructure to manage any of its surface water run off.

The car park serves a new £500k community centre that now occupies the site of the village's old cricket pavilion. A much needed resource for the area, the new 350sqm centre is multi-functional providing pre-school nursery, sports and social facilities. The project has been part-funded by the National Lottery, the Bishop Wilton Village Hall Association and WREN (Waste Recycling Environmental Limited) - a not-for-profit business that awards grants for environmental, heritage and community projects.

The challenge facing the centre's designers was to realise a scheme that would meet the demanding environmental brief. "As the comparatively large car parking area sits on the boundary of the village conservation area we needed a cost-effective solution that could meet the planning requirements, blend with the rural setting, be sustainable and, ultimately, be capable of handling a wide range of passenger and commercial vehicles," explains Peter Goodrick, Senior Project Manager at Turner & Townsend, construction management consultants for the project.

community centre.

Objective:

Create a stable surface structure with high load bearing capacity which blends perfectly with its surrounding environment.

- 1. Provide a cost-effective solution that could meet the planning requirements.
- 2. Provide a sustainable solution with minimal environmental impact.

Solution:

ACO GroundGuard ground reinforcement system.

"I was familiar with ACO GroundGuard from a recent successful university project where we had used a grass back-fill. Here, by matching the seed variety to that of the adjacent fields, we have created a durable, high performance surface that is indistinguishable from its surroundings."

ACO GroundGuard is manufactured from 100% recycled polyethylene in lightweight tiles 38mm deep, 585mm long and 385mm wide. Installation requires a well compacted angular gravel sub-base topped with sand which provides a good root bed for the seeded grass. Once the groundworks are complete, individual GroundGuard tiles are simply clipped together and outer edges cut or trimmed to the required finished shape.

Easy to handle, lay and cut

North Yorkshire-based contractor, Dobsons Civil Engineering & Construction, completed the car park phase. "This was the first time we had worked with any ground stabilisation system on this scale," says Sam Dobson, Contracts Director.

"Finding the GroundGuard tiles easy to handle, lay and cut we were soon achieving installation rates in excess of expectations. We completed the area ahead of schedule, creating valuable additional vehicle space for the site which suffered from restricted access and very limited on-street parking."

Supports loads of up to 250 tonnes

Recognised by the Association of Professional Landscapers, ACO GroundGuard's 'honeycomb' structure is capable of supporting loads of up to 250 tonnes per square metre, making it ideal for many applications, including caravan parks, golf courses, stable blocks, helipads, access routes and driveways. It is also used extensively to create pedestrian pathways and wheelchair accesses compliant with Part M of the Building Regulations.

Managing rainwater is also simplified as the open structure allows water to quickly penetrate through the honeycomb to the underlying top soil. This eliminates the expense of having to install a supplementary drainage system, reduces the risk

of flooding and is more environmentally sustainable – a significant benefit which, in certain situations, can avoid the cost and delays of having to apply for planning permission.



ACO GroundGuard installation.



New visitor car park at Bishop Wilton community centre.

ACO Water Management

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