

SuDS Permeable Paving

Crane Hardstandings, Truckcell 80, Denbrook Wind Farm, Devon, UK



CASE STUDY

Project Description

The Denbrook Windfarm site in North Tawton, Devon, has nine 120m high turbines which have an installed capacity of 18 megawatts, or enough to power approximately 9,000 homes. These large turbines are installed using a 750 tonne capacity crane, so the design and installation of the lifting pads and the infrastructure for access by large and heavy vehicles was critical to the project's success.

The Challenge

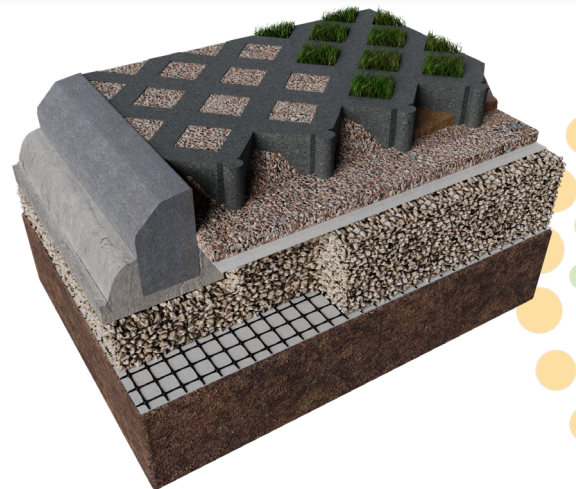
The scheme was subject to a number of legal challenges before finally being granted planning permission by the High Court in 2009. The wind farm was to be located in a picturesque and environmentally sensitive area and stringent planning conditions were imposed. Amongst these was that, wherever possible, a "green" appearance must be maintained. This applied to each of the 40m x 20m hardstandings, which would be subject to loading by the 750 tonne crane involved in assembling the wind turbines. Modifications to the surrounding road network would also be required in order to facilitate transport to site of components.

The challenge was to identify a surfacing solution that was manufactured from environmentally friendly materials, was able to cope with trafficking by 750 tonne cranes, facilitated a sustainable drainage solution and could provide a grassed finish to the crane hardstandings post construction.

Project Information

| | |
|-------------------|--------------------------|
| Client | R.E.S. |
| Contractor | Forkers Renewable Energy |
| Consultant | JNP Group |
| Products | Truckcell 80 |
| Quantity | 7,300 m ² |

- Benefits**
- Manufactured from 100% recycled and recyclable plastic
 - Ease of handling
 - Stormwater returned to the natural water table
 - Promotes grass cover



ABG LTD

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The Solution

Having successfully used the system on other wind farms, Forkers Renewable Energy and their designer again turned to the Truckcell porous plastic paving system, supported by a free draining subbase, to surface the crane hardstandings. Truckcell's ease of handling, rapid installation and ability to successfully promote grass establishment enabled Forkers to provide their client with a cost effective solution that met with the stringent environmental conditions attached to planning permission. Truckcell was also used with gravel infill to improve the road network at various locations en route to the wind farm, This allowed the large blades to be delivered by the large HGVs.

The ABG Service

ABG provided site specific input to the design and installation of each area. ABG also met a tight delivery schedule to minimise storage requirements on site, without delaying construction works.



Truckcell provides a robust surface for lifting pads as well as running surfaces



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