

Infrastructure

Wind farm floating access road design and construction, UK

Floating access road

- **Project name**
Windy Standard III Wind Farm, UK
- **Client**
Fred. Olsen Renewables Limited, UK
- **Designer/Consultant**
Tony Gee and Partners LLP, UK
- **Contractor**
Jones Bros Ruthin (Civil Engineering) Limited, UK
- **Installer**
Jones Bros Ruthin (Civil Engineering) Limited, UK
- **Product**
Combigrid® 40/40 Q1 GRK 4 C





Fig. 1: Naue Combigrid® creates a strong, rigid floating access road



Fig. 2: The area has large expanses of soft, peat ground

Windy Standard III is part of the Windy Standard Wind Farm in Carsphairn Forest, Dumfries & Galloway, Scotland, which has been in operation for 25 years. Once complete, the 20-turbine site will have a combined total capacity of just under 88MW, powering the equivalent of 131,286 UK homes per year with clean, green energy.

Challenging, unstable ground conditions

Before groundworks could begin, 10km of new access roads had to be built and existing routes upgraded, including approx. 2km of floating access road. Jones Bros asked Naue to design a floating access road to bear the stress and weight of construction traffic and turbine deliveries over a weak peat sub-base. Naue worked with Tony Gee and Partners LLP on a solution.

Naue geogrids take the strain

We recommended Combigrid® to reinforce the granular base course and build a strong floating access road with high load-bearing capacity and reduced deformation. The specification was for 100,000 axial passes over a 8t load and 100,000 axial passes over a 20t load, with a target rut depth of 75mm.

Jones Bros Ruthin, wanted to use Naue Geogrids, having used Combigrid® and Secugrid® in landfill, waste remediation, coastal defence and wind farm projects. They were confident about the cost-effectiveness and reliability of Combigrid® 40/40 Q1 GRK 4 C.

Benefits of Naue Combigrid®:

- Sustainable, eco-friendly solution preserves and protects natural areas of peat
- Tough and hard-wearing, designed to withstand heavy machinery
- Takes the strain of wind turbines arriving on site
- Filtration and separation qualities
- Uses less aggregate for construction
- Reduced build costs (resources, labor, machinery, time).

Fast installation, long-term performance

Construction of the floating access road began in July 2025, using 21,850m² of Combigrid® 40/40 Q1 GRK 4 C. It took less than two months from start to finish allowing civil engineering works to begin in August. Turbine construction is planned for spring and full commissioning by December 2026.

The client says...

Protecting sensitive peat bog areas was a key requirement. We worked with the designers to specify a floating access road to meet our objectives and those of the turbine supplier. Naue's design team was efficient, responsive, flexible with design changes and consistently met deadlines. Their free design service is invaluable when working within tight budgets.

Naue geosynthetics are high-quality and our preferred solution for construction on soft ground. We have trialed lower-cost alternatives and are yet to see the same quality or performance. Naue Combigrid® provided excellent strength, drainage and separation between the road structure and underlying peat, creating savings in time, material and resources compared to traditional excavation. The design exceeded our specification - the floating access road will outlast the project lifecycle and continue serving the wind farm for up to 30 years.

(Elliot Bidmead, Project Manager, Jones Bros)