CASE STUDY

EnviroFil brownfield application: Wissington Lorry Park

Background

Anticipated increases in sugar product movements from British Sugar's Wissington Sugar Factory, near King's Lynn in West Norfolk necessitated the development of a new concrete lorry park with integral LGV washing facilities.

The project was planned and tendered for during spring 2006 and the design was initially based on the construction of the concrete pavement on a granular sub-base above a geo-textile membrane.

Groundwork commenced in the summer, but the peaty nature of the soil demanded a rapid change in construction to counter the likely settlement of the pavement in service.

Application

1. Placement of EnviroFil

The peaty soil was removed to a typical depth of 900mm to the underlying clay. A starter layer of coarse stone rejects was laid to a depth of 400mm and was then overlain with 300 to 400mm of EnviroFil. The EnviroFil was placed in 150mm layers and compacted using 4 - 6 passes of a 3 tonne self-propelled vibratory roller.



2. Compaction of EnviroFil

The fine nature of EnviroFil ensured that levelling and profiling was straightforward. The immediate strength of EnviroFil meant that the shallow trenches necessary for drainage and utilities were easily dug and self-supporting with little break-over.



EnviroFil

3. Application of crushed granite

The EnviroFil was finished with a 50mm compacted layer of crushed granite to minimise drying and dusting.



4. Construction of the pad

Reinforced concrete was then laid at a depth of 225mm in 5 x 25 bays.



5. Lorry park in use

Since completion in September 2006 the lorry park has been subject to intensive trafficking without problems. British Sugar plan to repeat the use of EnviroFil as a pavement foundation material in future site projects following this successful product application.



CARBON TRUST

CO2 MEASURED

9kg CO_2 e/t

Customer service

0800 090 2376