Case Study

Cellweb® TRP

Location:
Fountaindale School
Mansfield
NG18 5BA

Client:
Fountaindale School

Project:
Fountaindale School

Contractor:
bam

Arboricultural &
Ecological Advise:
fpcr

Site access was required through an area of protected trees in order to serve the construction of new buildings at Fountaindale Special Educational Needs School. The specialist school is set in a former plantation woodland which offers access through a belt of high quality oak trees located a few miles south of Mansfield.

There was a requirement to provide a separate site access for construction traffic and then access to a new car park in the finished scheme. A separate footpath was also required through the wooded area to provide pedestrian access to the new school from the main road.

Geosynthetics provided a no-dig solution using a 200mm Cellweb® Tree Root Protection (TRP) system for the site access road. Only leaf litter and debris were removed from the surface as the Cellweb® TRP system does not require excavation into the soil, therefore avoiding damage to tree roots. The Treetex® Geotextile was laid directly onto the ground as a separation and filtration layer. Treetex® also acts as a pollution control layer, trapping oil spills within its fibres to protect the soils beneath. A 100mm layer of clean, angular 4/20 stone was laid as a subbase to allow for variable levels and soil conditions within the site. The Cellweb® TRP 200mm was then laid with the same stone as infill and as the finished surface.

A 75mm Cellweb® TRP system with a tarmac surface was also used to create an attractive pedestrian footpath through the woodland. Cellweb® TRP allowed the construction of a stable load bearing surface for heavy construction traffic without compacting the soils or damaging the roots of the protected trees. The system is also permeable, allowing water and air, essential for the trees’ survival, to reach the soils beneath the road.

In using Cellweb® TRP, construction and access to the new school has been achieved while protecting the attractive woodland within the school grounds.

‘The Cellweb® TRP system allowed us to install a new access road through an area of protected trees, this would not have been possible using a traditional road construction’

James Beardmore - Senior Project Surveyor - BAM