Case Study

Cellweb® Tree Root Protection

**Location:**
Gibside, Burnopfield Gateshead

**Client:**
National Trust

**Project:**
Car Park

The National Trust’s site at Gibside are Georgian landscape gardens and a vibrant nature haven on a grand scale. After centuries of decline Gibside has been restored to increase visitor numbers especially families. Large quantities of additional parking would be required to cope with the increase in vehicle numbers.

An area of the grounds were identified as a suitable site to house the new car park, however the area was filled with trees and in addition the ground conditions were very poor. The trees were removed to allow the engineers to carry out CBR tests to determine the bulk density of the existing soils.

To create a traditional car park would not have been in keeping with the rural environment also there would have been high costs associated with traditional types of construction on very weak soils.

A solution was needed to provide a free draining, shallow depth construction and to give it the stability required to take vehicular traffic.

We designed a Cellweb®TRP system 150mm in depth. This was infilled with a clean angular 20/4mm stone. Cellweb®TRP is a cellular confinement system that increases the shear strength of infill. This allows a minimal thickness of sub base materials to be used to provide load bearing surfaces.

The Cellweb®TRP was positioned and infilled with the granular material and then topped with a decorative gravel. Cellweb®TRP provided a cost effective solution, sympathetic to its surroundings and allowed reduced construction thicknesses.

The car park has now opened and is taking up to 200 cars per day during the summer opening times.

“We selected the Cellweb® TRP system due to its history of use and performance capabilities. The system was clearly the best solution of its type on the market.”

Lee Buchannan – Owen Pugh.
Alert® 
Contamination Indicator

AquaBlock® 
Water Containment Liners

Bentotex® GCL 
Geosynthetic Clay Liner

Cellweb® TRP 
Tree Root Protection

DuoDrain® 
Composite Drainage Product

East Coast 
Biodegradable Erosion Control

Ekotex® 
Non Woven Geotextile

Fiberforce® 
Equestrian Geotextile

Fibertex 
Non Woven Geotextile

Flexitex 
Textile Shuttering

Gas Membrane 
Radon, CO2, Methane, Hydrocarbon Control

Geoglas® 
Asphalt Reinforcement

Geomembrane 
Impermeable Membrane

Golpla 
Grass & Gravel Paving System

Golpla Pregrown 
Ready To Lay Paving System

Interlock 
Extruded HDPE Geogrids

Knotblock® 
Japanese Knotweed Barrier

Landlok 
Turf Reinforcement Mat

Nicospan 
Erosion Control

Rhyno® 
Woven Geotextile

RockBox 
Gabion Mattresses

RootBlock 
Root Barrier

RoofCell 
Sub Surface Drainage And Water Storage

Stratagrid 
Soil Reinforcement Geogrid

Strataweb 
Slope Stabilisation

T-Block 
Modular Retaining System

Telegrid 
Woven Polyester Geogrid

Teleev 
High Strength Woven Geotextile

Tenax 
Soil Reinforcement Solutions

Total Traffic Exopave 
Heavy Duty Paver

Trinter 
Erosion Control Mat

Turfmesh 
Grass Reinforcement

Alert® Contamination Indicator

2 in1 Landscaping Fabric