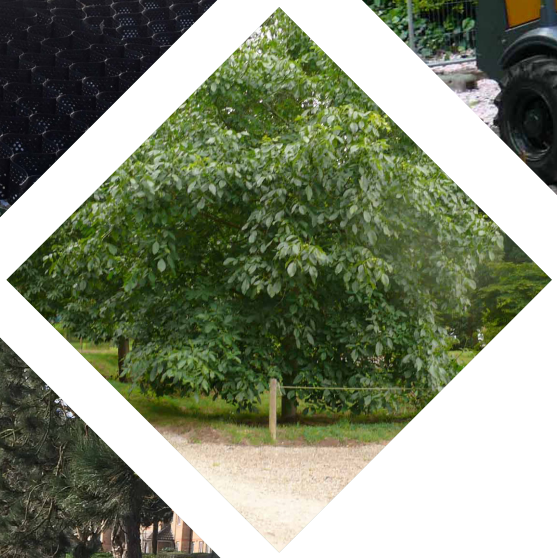
www.geosyn.co.uk



Geosynthetics

Cellweb® TRP

Technical Support Package

"Creating Innovative Solutions with Outstanding Products"

What is Cellweb® TRP

What is Cellweb® TRP?

Cellweb® TRP is a cellular confinement system specifically designed for tree root protection. The system creates a stable, load bearing surface for traffic or footfall whilst eliminating damage to roots through compaction and desiccation of the soil.

The Cellweb® TRP system comprises of three specific elements; Cellweb®, Treetex™ pollution control geotextile and an infill of clean angular stone. The system has been designed combining the best possible products to create an unparalleled solution for tree root protection applications.

Cellweb® TRP is a no dig solution that ensures that the load placed upon it is laterally dissipated rather than transferring to the soil and roots below. The use of Treetex™ pollution control geotextile allows for drainage and separation whilst preventing contaminants from reaching the roots.

The walls of the cells are perforated and when combined with an infill of clean angular stone this enables free movement of water and oxygen ensuring that supplies to the tree roots are maintained.

What makes Cellweb® TRP different?

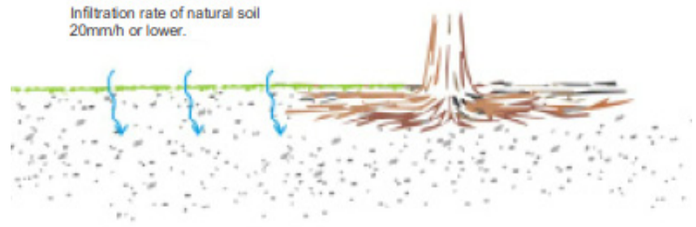
From the drawing board to installation, we are here to help.

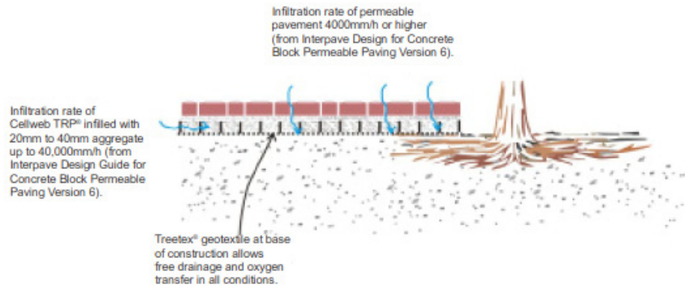
We have been supplying the Cellweb® TRP system since 1998 and our technical team have vast experience with tree root protection and the associated legislation.

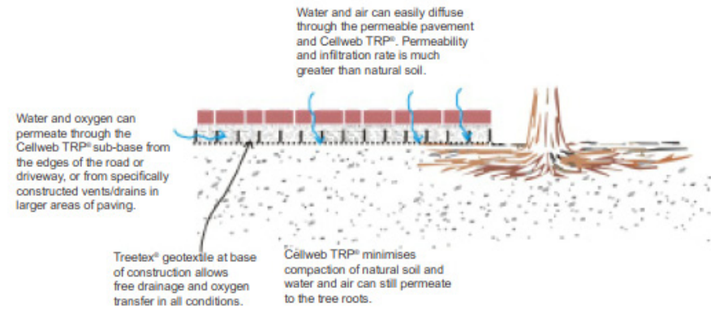
Delivering complete peace of mind to customers is our number one priority. As part of this customer care package we offer free on site consultations, technical recommendations and on site installation guidance on all projects.

Our in house Engineering Team provide site specific recommendations to ensure the solution used is cost effective and environmentally sound.

For more information on Cellweb® TRP or Geosynthetics Limited please contact our sales office on 01455 617139 or visit www.geosyn.co.uk.

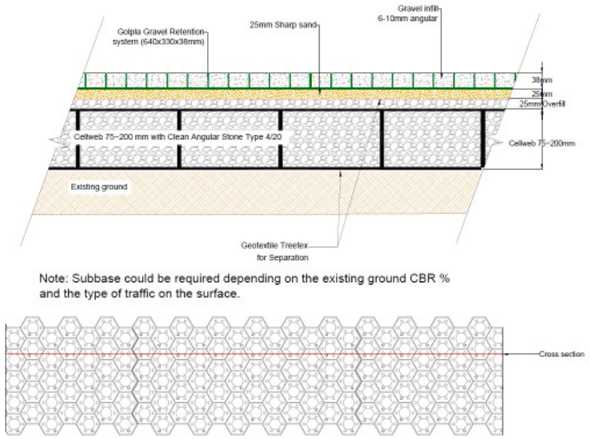




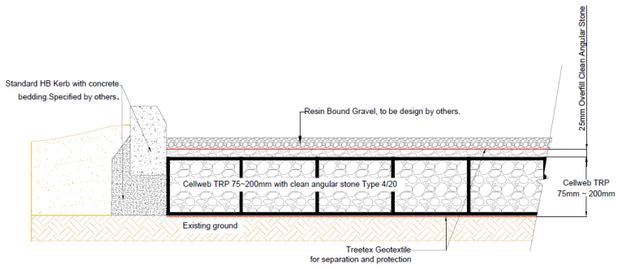


Surfacing Options

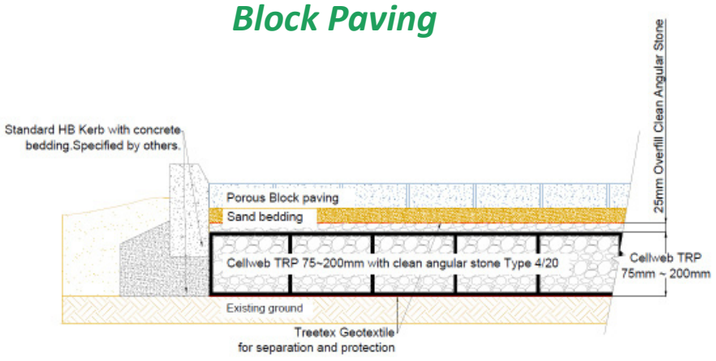
Golpla® Grass & Gravel Pavers



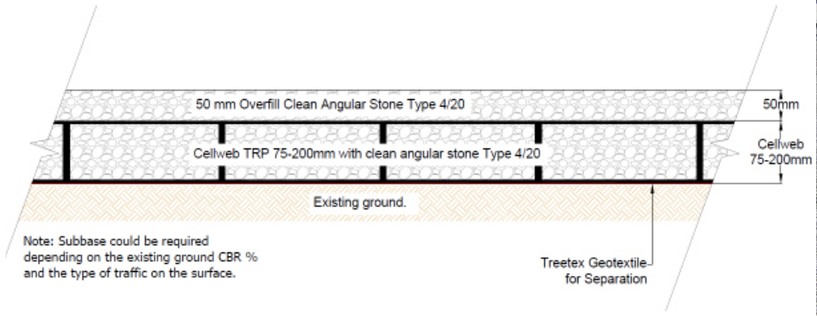
Resin Bound Gravel



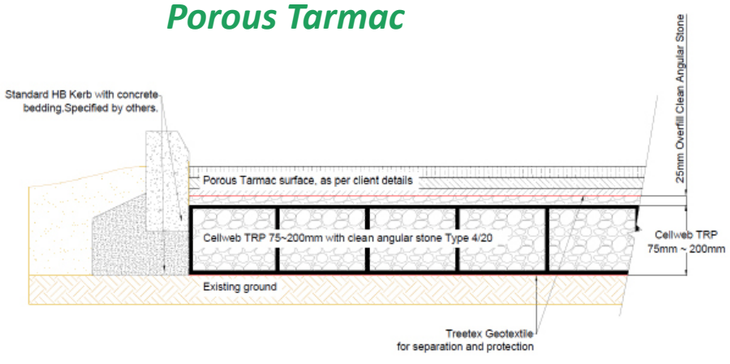
Block Paving



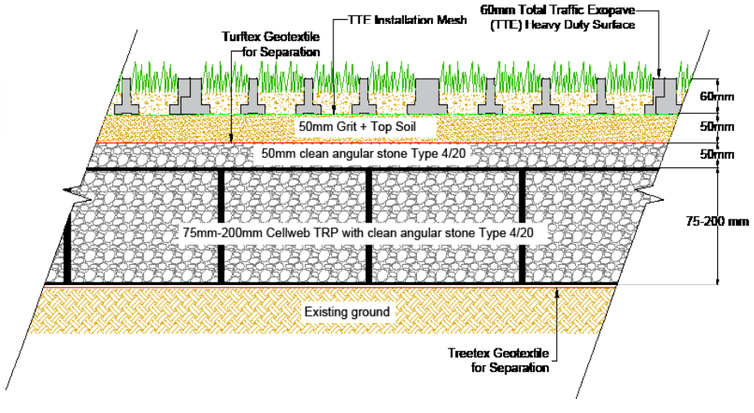
Gravel



Porous Tarmac

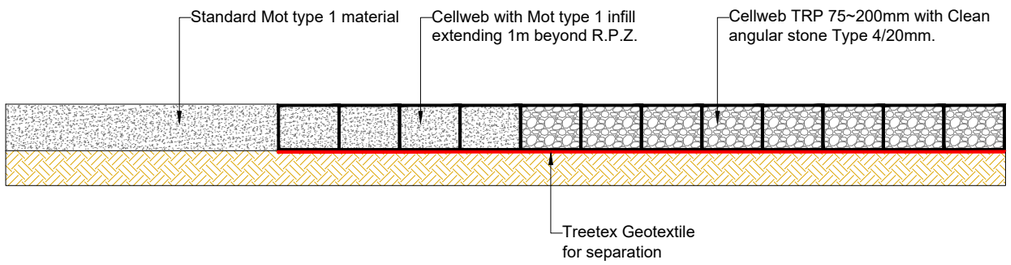


TTE® Heavy Duty Pavers

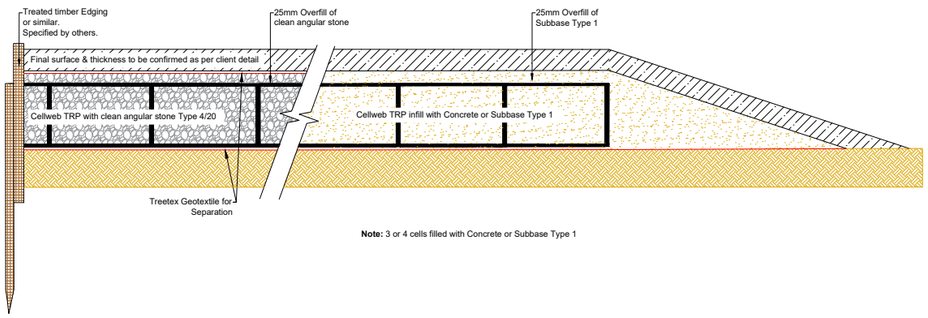


Edging and Transition Details

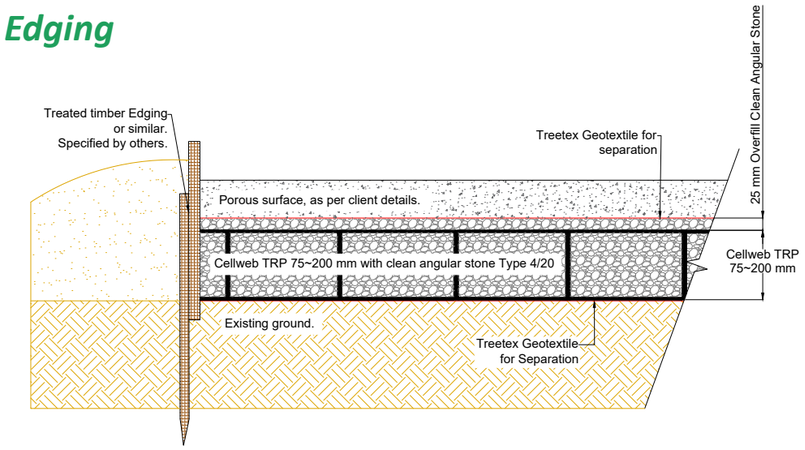
Transition Detail (Flat)



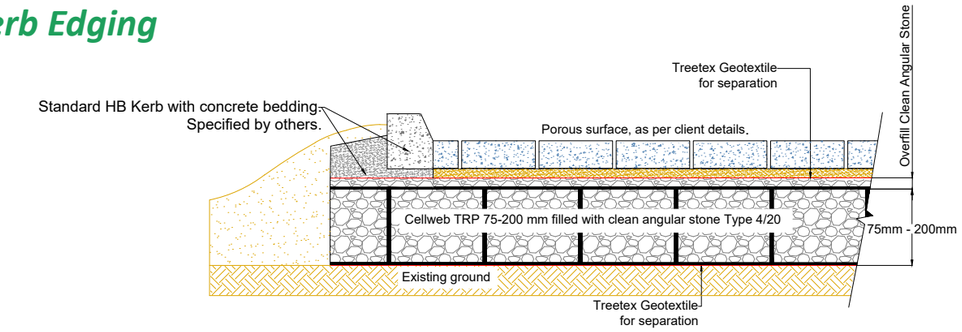
Transition Detail (Ramp)



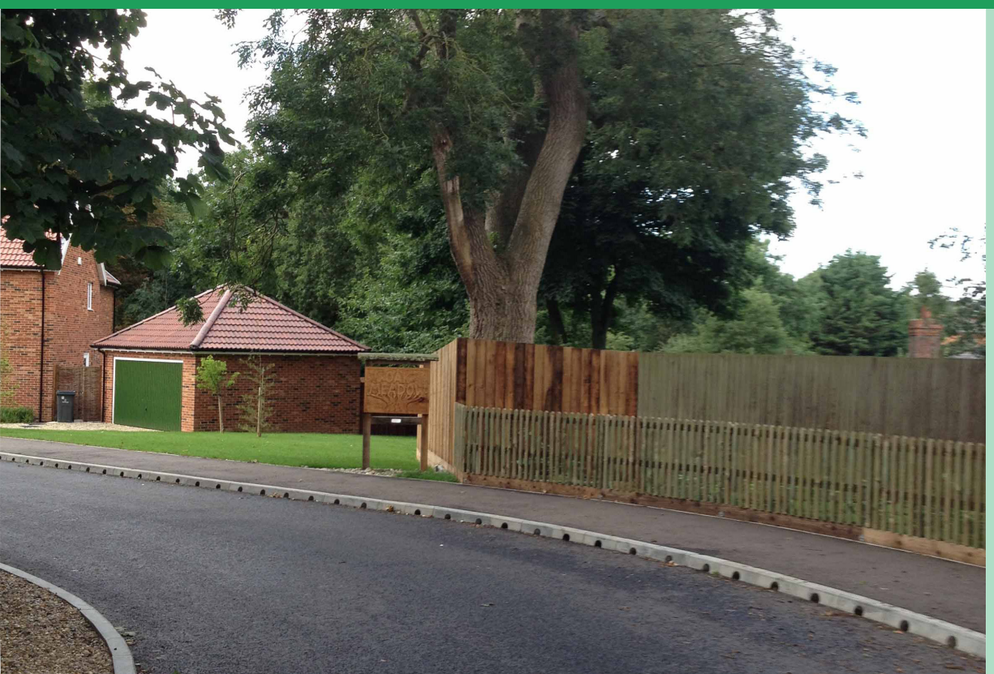
Timber Edging



Kerb Edging



Adopted Roads and Footpaths



Cellweb® Tree Root protection is the UK's market leading tree root protection system and is widely specified for the construction of new hard surfaces within root protection areas in accordance with BS5837.

Difficulties when specifying the system often occur for the construction of public roads, footpaths and carparks where there is a requirement for the local authority to take responsibility for the maintenance of the new structure and formally adopt it.

The following page shows examples of where new hard surfaces constructed using the Cellweb® TRP system have been adopted by local authorities. This document is designed to provide examples to specifiers of the system and local authorities.

This document is designed to be used in conjunction with technical advice and site specific recommendations which are also available free of charge from Geosynthetics Limited.

Adopted Roads and Footpaths

Castle Gardens, Leicester

Location:	Castle Gardens Castle view Leicester
Project details:	This project was undertaken by Leicester City Council in 2015. The aim of the project was to create a new access and footpath from St Nicholas Circle in the centre of Leicester down into the Castle Gardens. This would create improved access to the Castle Gardens and enable the public to pass through the gardens to access other parts of the city. The project required thoughtful design to overcome significant changes in levels within the root protection areas of several mature trees and utilise Cellweb® TRP as a no dig solution. A full case study is available on this project.
Architect:	Levitate Architecture and Design Studio
Council:	Leicester City Council

Stoke Road, Norfolk

Location:	Stoke Road Poringland Norfolk NR14 7JL
Project details:	This no dig access road has be approved for formal adoption by Norfolk County Council. The road currently provides access to a newly constructed doctor's surgery, but will ultimately become the access to approximately 100 new homes to be built by developers David Wilson Homes. The road will be formally adopted on completion of the development.
Architect:	Plandescil Consulting Engineers
Council:	Norfolk County Council

Stanford in the Vale

Location:	Stanford in the Vale Faringdon Oxfordshire
Project details:	This footpath which runs adjacent to the railings was constructed on a David Wilson Homes development, to protect the roots and rooting environment of the Willow seen in the photograph. Both the Cellweb® TRP footpath and the road are surfaced with permeable blocks and has been adopted under a section 38 agreement by Oxfordshire County Council.
Architect:	Infrastruct CS Ltd
Council:	Oxfordshire County Council

Case Study

Cellweb®TRP

Helping to Protect Ancient Trees

Location:

Calke Abbey
Ticknall
Derby
Derbyshire
DE73 7LE

Project Description:

Provide a solution to prevent further die back of 'The Old Man of Calke' at Calke Abbey

Technical Requirements:

- Solution to alleviate existing soil compaction and encourage decomposers
- To minimise further soil compaction

Installer:

Geosynthetics Limited
National Trust

'The Old Man of Calke' is Calke Abbey's oldest tree and is thought to be up to 1200 years old. With the average age of large oak trees in Britain being 200 years it certainly is the 'Old Man' of oak trees. Put into context, this means that this tree would have been 200 years old when William the Conqueror arrived in Britain.

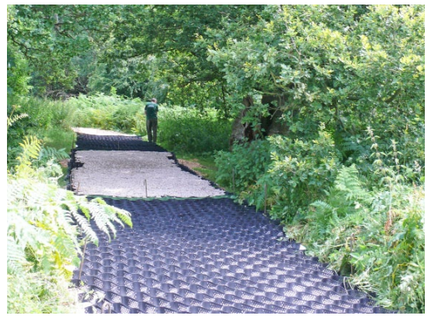
Many years of heavy footfall had caused a significant increase in soil compaction beneath one side of the tree. This had resulted in reduced water and oxygen availability to roots beneath this compacted ground. This was reflected in the crown, which was displaying accelerated and significant die back on the footpath side. A solution needed to be found to alleviate the existing soil compaction and minimize further future compaction, ultimately preventing further die back.

Geosynthetics' engineeering team and in house arboriculturalist worked with Brian Muelaner, the ancient tree advisor at the National Trust, to provide a solution to prevent the further decline of this ancient tree.

A 90mm layer of mulched wood chip was applied to the existing ground surface before the installation of the Cellweb®TRP system. This was used to encourage decomposers such as earth worms to help alleviate the ground compaction and aerate the soil.

A layer of Treetex geotextile was then laid on top, acting as a separation layer and pollution control measure. Panels of Cellweb®TRP were then laid on top of the Treetex and infilled with a clean angular stone. The Cellweb®TRP would minimise any further compaction within the rooting environment, while decomposers would naturally aerate the ground, reducing soil bulk density. The use of Cellweb®TRP infilled with clean angular stone would also allow the continued permeation of water and gas exchange between rooting environment and atmosphere.

This whole project was designed, supplied and installed courtesy of Geosynthetics. The Geosynthetics Tree Root Protection Team donated their time, knowledge and products to ensure that this tree will survive for generations to come.



Geosynthetics
Engineered Solutions
Fleming Road
Harrowbrook Industrial Estate
Hinckley
LE10 3DU
Tel. 01455 617 139
sales@geosyn.co.uk
www.geosyn.co.uk

"This is an exciting new development in how to reduce compaction damage from vehicles and footfall to an ancient tree's roots, made possible by the generous donation by Geosynthetics in time, expertise and materials."

Brian Muelaner - Ancient Tree Advisor - National Trust