

Arboricultural Method Statement

Installation of Cellweb® TRP for Tree Root Protection



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Cellweb® TRP is a 3D cellular confinement tree root protection system.

The system provides a 'no dig' solution for the construction of new hard surfaces within root protection areas (RPAs).

Cellweb® TRP has been designed and independently tested to comply with recommendations made in Arboricultural Practice Note 12 and **BS 5837 2012 – Trees** in relation to design, demolition and construction.

Key Functions

- Cellweb® is a 'no dig' solution which is constructed directly on the existing ground surface. This eliminates the requirement for excavation, preventing root severance.
- Cellweb® is a completely porous system allowing continued water permeation and gas exchange between the rooting environment and atmosphere.
- Cellweb® spreads point loads, minimising increases in soil compaction within the rooting environment. This maintains an open graded soil structure allowing continued root growth, water, gas and nutrient migration.

The Cellweb® TRP system comprises the following three components

Treetex Geotextile – Following minimal ground preparation the Treetex geotextile is laid onto the existing ground and top soil. This acts as a separation layer, separating the system above from the soil and rooting environment below. Treetex performs as a hydrocarbon pollution control measure in accordance with BS5837, holding 1.7lt of oil per square meter.

Cellweb® 3D Cellular Confinement – The Cellweb® is installed on top of the Treetex layer. This is fixed to the ground using ten steel J pins per panel. The panels can be cut to the required shape and adjoining panels can be connected using Cell Ties.

4-20mm Clean Angular Stone – The expanded Cellweb® is infilled with a 4-20mm clean angular stone. The confined angular stone locks together to produce a rigid stone mattress, while maintaining air pockets for continued water permeation and gas exchange. The low fines content of the stone prevents the Treetex layer from becoming blocked over time.

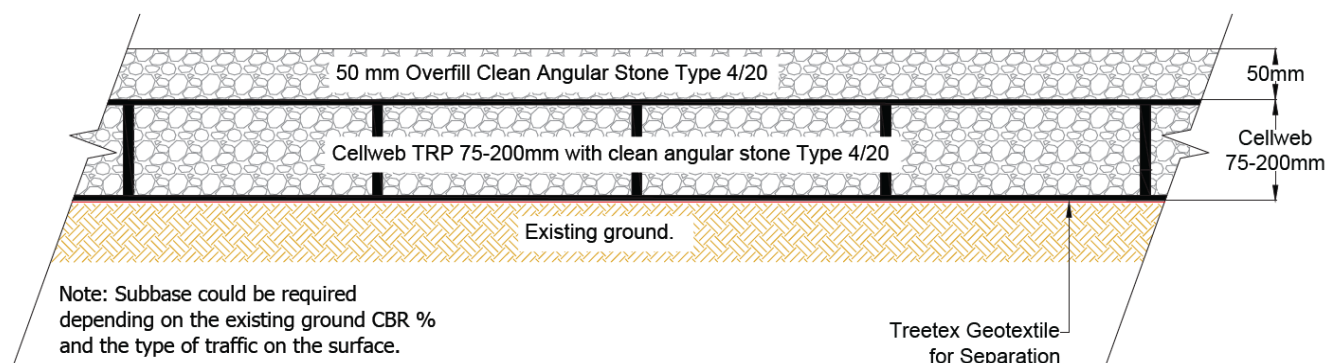
Which depth of Cellweb® TRP?

The Cellweb® System is provided in four different depths; 200mm, 150mm, 100mm and 75mm. The depth required is determined by the proposed traffic loadings and the site ground conditions. Geosynthetics in house engineering department can provide a free site specific technical recommendation.

For free technical and engineering support please contact Geosynthetics Ltd 01455 617139 or the full installation guide can be found on our website

www.geosyn.co.uk.

Indicative Cellweb® with overfill



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Purpose

To provide a safe, compliant, and effective method for installing Cellweb® TRP within Root Protection Areas (RPAs) during construction projects.

Scope

This method applies to all works involving the installation of Cellweb® TRP systems for tree root protection in accordance with BS 5837:2012 and Arboricultural Practice Note 12.

References

- BS 5837:2012 – Trees in relation to design, demolition and construction
- Arboricultural Practice Note 12
- Geosynthetics Ltd Installation Guide

Materials & Equipment

Materials:

- Cellweb® TRP panels (75mm, 100mm, 150mm, or 200mm depth)
- Treetex Geotextile
- Clean angular stone (4–20mm)
- Steel J-pins
- Cell Ties (joining system)

Equipment:

- Hand tools
- Light compaction plate
- PPE (gloves, boots, hi-vis, eye protection)

Step-by-Step Installation Method

1. Site Preparation: Protect RPAs and ensure minimal ground disturbance.
2. Lay Treetex Geotextile: Place directly on existing ground/topsoil as a separation and pollution control layer.
3. Install Cellweb® TRP Panels: Expand panels and position over Treetex.
4. Secure Panels: Fix using 10 steel J-pins per panel. Connect adjoining panels with Cell Ties.
5. Infill: Fill cells with 4–20mm clean angular stone, ensuring full confinement.
6. Overfill: Apply 25mm clean angular stone over the filled cells.
7. Surface Finish: Complete as per project specification (e.g., gravel, asphalt, block paving).

Health, Safety & Environmental Considerations

- Maintain 'no dig' principle to prevent root severance.
- Ensure PPE is worn at all times.
- Avoid contamination of RPAs; Treetex provides hydrocarbon pollution control (1.7L oil/m²).
- Monitor weather conditions to prevent waterlogging during installation.

CBR Testing and Sub-base Requirements

Before installation, a California Bearing Ratio (CBR) test must be carried out on the existing ground to determine its strength. CBR values are critical for ensuring both tree safety and the stability of the new hardstanding. The sub-base requirements depend on the CBR results.

Compliance Checklist

Requirement	Check
BS 5837:2012 adhered to	☐
No dig principle maintained	☐
Treetex installed correctly	☐
Cellweb® depth matches traffic loading	☐
Stone infill clean and angular	☐
Panels secured with J-pins and Cell Ties	☐
Pollution control measures in place	☐
CBR test completed and sub-base applied if required	☐

About Geosynthetics

About Us

Not just a product supplier, Geosynthetics Limited promotes and leads innovation throughout the UK to deliver sustainable geosynthetic solutions for an improved environment.

Using extensive knowledge of product and applications the company have an enviable reputation for technical excellence and customer service, offering next day delivery and free engineering support to achieve the desired objectives, save time, reduce carbon and cost wherever possible.



Our Best Service



Next Day Delivery

Our fully stocked distribution center established in the East Midlands makes UK direct to site next day deliveries possible.



Free Engineering Service

Our Engineering Department (Staffed by fully qualified civil engineers) has been created to give you free technical support and to provide solutions involving our range of products.



Large Stock Holding

We hold over £2m worth of stock in our East Midlands distribution centre allowing us to enable quick order turnarounds.



Site Visits

Our team includes industry experts offering you support & advice throughout your order process. This enables us to offer services such as site visits to assist you with choosing the best solution for your project.

Get in touch



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