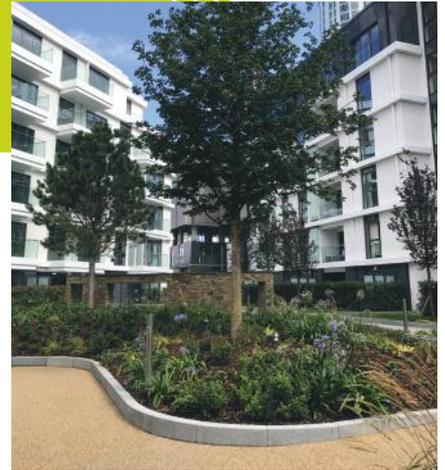




# // specifier.

**Soils and Growing Media**

# Welcome to Green-tech Specifier



The ethos of the team is based on 'solutions'. We are very aware of the complexity of landscape projects in terms of design, construction, access and cost. We work with architect practices and clients to find 'solutions' to their vision. As experienced product champions we are able to adapt, tailor and modify products and designs to bespoke situations. We never believe that 'one-size' fits all.

Green-tech Specifier covers the following areas:

- Soil Specification
- Green Roof Specification
- Urban Tree Planting
- Wildflower Specification

We offer CPD Seminars online via video conferencing or face-to-face (see page 21 for more details) and site visits to discuss your particular project requirements.

**Contact us today:**

**01423 332 114**

**info@gtspecifier.co.uk**

**www.gtspecifier.co.uk**

Green-tech Specifier is the specification arm of the established and experienced landscape supplies company Green-tech Ltd. With over 25 years' experience of working within the landscape, forestry and construction sectors, the team behind Green-tech Specifier has a wealth of knowledge of the landscape environment. Covering a broad spectrum of disciplines including urban greening, woodland management, urban tree planting, ecology, conservation and biodiversity, Green-tech Specifier is accustomed to working with architects and designers on large scale projects that encompass all these areas.

# Contents

Green-tree is the award-winning soils and growing media division of Green-tech. Our range of soils and growing media is one of the most comprehensive in the industry. Our products are all manufactured using organic compost and overburdened sand from quarries; products that would otherwise end up in landfill. Green-tree soils and growing media are heavily used in landscaping and construction projects that are focused on environmental sustainability and maintaining their green credentials.

Compliant to British Standards, Green-tree is recognised for the quality and consistency of year-round supply. We supply nationally from 25 soil production sites throughout the UK. Our range of soils includes:

- Topsoil
- Subsoil
- Amenity Tree Soil
- Roof Garden Substrates
- Bespoke Mixes
- Specialist Mixes

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# Planning Your Order

Once you have established the type of soil and quantity of soil you need for your project, please also consider:

## Site Access Restrictions

When organising your soil delivery, make sure you take site access into consideration. Deliveries can be made in either an articulated truck or a rigid truck, see truck dimensions below. **Please note that the below dimensions are based on a truck approaching site in a straight line if site access is on an angle then more space will be required.**

### Articulated Truck

Gross Weight: 44 tonnes  
Net Weight: 29 tonnes  
Width: 3.2m  
Length: 12.8m  
Height At Rest: 4ms  
Maximum Tip Height: 11m

### Rigid Truck

Gross Weight: 32 tonnes  
Net Weight: 20 tonnes  
Width: 3.2m  
Length: 11.5m  
Height At Rest: 3.7m  
Maximum Tip Height: 6.2m

## Topsoil Calculation

To calculate the cubic meterage of your site, multiply the **width x length x depth**.

Using the answer from the above formula, multiply the volume by the soil bulk density.

For assistance with calculating the amount of soil required for your site, please contact a member of the Green-tree team.

**Moffat, Hi-Ab and Tail-Lift Offload available for all soils, growing media and turfs. Request a quote today.**



Articulated Truck



Rigid Truck

# Topsoil Production



## Ingredients

PAS100 compost and sand is delivered to our production site.



## Mixing

Materials are mixed together to our specified blend which is compliant to BS3882:2015.



## Testing

Each batch will undergo rigorous testing to ensure its consistency and compliancy.



## Loading

Once the topsoil blend has been approved, it is loaded onto the appropriate delivery vehicle in either bulk bags (1m<sup>3</sup>) or loose (tonne).



## Delivery

The order is sent out for delivery via a specialist haulier.

## Freeland Horticulture

Green-tree joined forces with Freeland Horticulture to distribute our award-winning British Standard Topsoil from Freeland's ten production site across the country. The addition of these distribution sites strengthens Green-tree's coverage of Topsoil for landscape projects, green roofs and urban tree planting in the London and the M25 corridor. The collaboration also provides greater coverage for the brand in the West of the country, from Cardiff through to Manchester.



-  Green-tree sites
-  Sites in partnership with Freeland Horticulture

# British Standard Topsoil

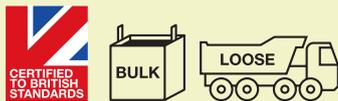
Green-tree Topsoil is manufactured using organic compost and overburdened sand from quarries, all products that could otherwise end up in landfill. Our topsoil is certified to BS3882:2015 standards, requiring no additional fertiliser for the first season. Green-tree Topsoil is perfect for landscaping and construction projects that are focused on environmental sustainability and maintaining their green credentials.

## Typical Analysis of Green-tree Topsoil

<b>pH</b>	7.9	<b>Extractable Phosphorus</b>	83mg/l
<b>Clay Content</b>	7%	<b>Extractable Potassium</b>	1293mg/l
<b>Silt Content</b>	11%	<b>Extractable Magnesium</b>	139mg/l
<b>Sand Content</b>	82%	<b>Organic Matter</b>	5%
<b>Total Nitrogen</b>	0.2%	<b>Carbon: Nitrogen Ratio</b>	13:1

## NBS Clause

Section	Clause	NBS Clause Title
Q28	330	Imported manufactured topsoil/growing medium
45-40-85	340	Special imported topsoil and growing media



## Benefits:

- Complies to BS3882:2015 standards
- High organic matter content and fertility status
- Environmentally sustainable compost blend
- Year-round availability
- Offers good water holding capacity and drought resistance
- Peat free
- Prescription mix available
- Easy to spread on-site
- Light in texture with good water holding capacity

## Applications:

- Housing developments
- Commercial developments
- Public parks and recreation areas
- Structural planting
- Domestic gardens

# Case Study: Secondary School, North East of England



A newly built secondary school in the North East of England has had its sports pitch constructed and grounds landscaped by Brambledown Landscape Services, one of the UK's leading Landscaping, Sports Pitch and Groundwork operations.

Brambledown Landscape Services turned to Green-tree to supply premium grade topsoil, specifically manufactured for high quality sports pitch application.

Green-tree advisers met with Brambledown Landscape Services and a soil consultant early in the supply chain process as the required material needed to meet stringent requirements for agronomic make up and drainage. It was agreed that the end product would be manufactured using Green Pas100 compost and selected sands.

The requirement was for over 2000 tonnes of topsoil to be supplied in a very narrow time frame. The Green-tree team pulled together a comprehensive schedule to ensure that the topsoil was manufactured and stockpiled in a quarantined area; ready for the pre-validation testing that was required before input could commence. Once the data came back as suitable and the soil was signed off, Green-tree organised haulage to fulfil the challenging schedule.

Our team worked closely with Brambledown to ensure that the deliveries were timely and kept pace with the gang placing and spreading the topsoil; ready for the drainage and turfing to be laid.

“ We were really pleased with the high level of service we received from Green-tree. They were able to meet the rigorous demands of the design specification and supply parameters whilst maintaining the product quality and consistency that we needed for a high-quality sports pitch. We worked closely with them, and all stakeholders involved, to manage the supply chain requirements from start to finish. We were delighted with the quality of the product and the advice and service we received. Our client is thrilled with the finished multi sports pitch.

**Paul Curry, Director,  
Brambledown Landscape Services**

# British Standard Subsoil

Green-tree Subsoil is used to build up levels and construct any specific landscaping contouring requirements. Subsoil is an essential component of most soil profiles as it provides storage or moisture, transmits rainfall to deeper layers or watercourses and enables deep rooting by trees, grasses and other plants.

Green-tree Subsoil conforms to BS8601:2013 which specifies requirements for the classification, composition and use of subsoils that are moved or traded for creating soil profiles intended to support plant growth. We work closely with suppliers throughout the country to source high quality, clean and consistent materials to supply into your project offering traceability throughout the supply chain.

## Typical Analysis of Green-tree Subsoil

<b>pH</b>	8.2	<b>Sand Content</b>	80%
<b>Clay Content</b>	8%	<b>Organic Matter</b>	0.6%
<b>Silt Content</b>	12%		

## NBS Clause

Section	Clause	NBS Clause Title
Q28	330	Imported manufactured topsoil/growing medium

## Benefits:

- Complies to BS8601:2013 standards
- Used for building up levels and constructing any specific landscape contouring requirements
- Subsoil is featured in the Clean Cover System\* in conjunction with Green-tree Topsoil for construction and landscaping sites prior to finishing soils and media

## Applications:

- Raise levels on-site
- Create landscape contours
- General on-site infill

\* For more information on the Clean Cover System, see page 10.



# Case Study: Teesside Retail Park, Stockton-on-Tees



One of the UK's busiest retail sites, Teesside Park in Stockton-on-Tees, underwent its biggest overhaul for 30 years. Owner, leading UK property company British Land undertook a £30m programme of enhancements, of which £1.6m was allocated to new landscaping, over a period of 18 months and 12 phases.

The majority of the landscaping centred around the new car parking layout, which was totally re-designed to improve accessibility, traffic flow and reduce 'conflict'. It was carried out by Gavin Jones Limited who provide professional landscape management services across the UK.

Two key pedestrian routes were added as well as an open-air courtyard, featuring seating and corten-style planters.

As part of the first three phases, in excess of 1,500 tonnes of Green-tree soil was

supplied, including Amenity Tree Soil, sand and pea gravel for the tree pits; along with Green-tree Subsoil and Topsoil for the ornamental herbaceous planters.

The landscape architects, MacGregor Smith, requested a specific planting specification, and Green-tree was able to produce a bespoke topsoil mix to satisfy these demands.

The soil was supplied from one of Green-tree's soil manufacturing sites in Yorkshire, just 3 miles away from the final site. All deliveries were timed to hit pre-9am timed deliveries; the smaller batches ensuring that all soil was fresh and easy to handle.

In addition, Green-tech's Mona Relief irrigation systems and tree anchors were supplied, to ensure all the trees and shrubs have the best possible chance of establishment in their new environment.

“ On a project of this scale, logistics and delivery deadlines are critical. Having worked with Green-tree previously, we were confident that everything would run to plan, and it did. Everything was supplied when and where it was needed with no fuss.

**Ricky Whiteman,**  
**Head of Estimating North,**  
**Gavin Jones Ltd**

“ To supply soil for such a major project with tight specification and deadlines is something we thrive on. We have worked with both Gavin Jones Ltd and Macgregor Smith on several projects and it is a pleasure to deliver products at a competitive price.

**Richard Wexham,**  
**Product Specification Manager,**  
**Green-tech Specifier**

# Clean Cover System



The Green-tree Clean Cover System offers a remedial and effective solution for the development of brown-field sites.

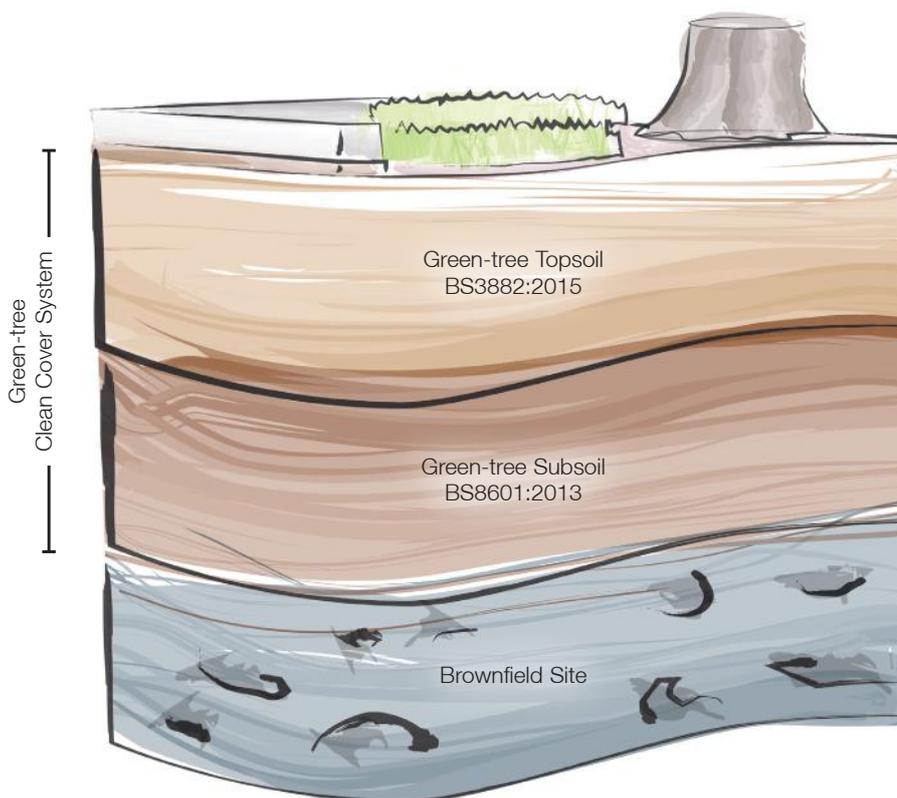
By incorporating the Green-tree Clean Cover System into initial plans, the project can progress with reduced excavation works yet provide a suitable long-term solution for the development.

Utilising a cover system will reduce the hazard to human health or the environment from potential contaminants found on brown-field sites, providing a suitable growing medium for plant and tree growth.

The Green-tree Clean Cover System is a combination of manufactured British Standard Topsoil and Subsoil which are both chemically clean. This provides a growing medium that is tested to CLEA requirements, with very low-level chemical, metal and metalloid content and clear of asbestos content.

## Applications:

- Contaminated land
- Regeneration projects
- Brown-field sites



# Loksand Rootzone

A soil and sand-based substrate reinforced with polypropylene fibres. Green-tree Loksand Rootzone is an advanced substrate that is stable and free-draining. It provides excellent structural strength enabling it to be used for a variety of applications that are frequently trafficked. During the mixing process of Green-tree Loksand Rootzone, crimped polypropylene fibres are entwined with the substrate increasing its overall strength and resistance.

## Typical Analysis of Green-tree Loksand Rootzone

<b>pH</b>	7.1
<b>Silt and Clay Content</b>	3.9%
<b>Sand Content</b>	96.1%
<b>Organic Matter</b>	0.6%
<b>Saturation and Hydraulic Conductivity</b>	228mm/hr
<b>Total Porosity</b>	41.0% v/v

## NBS Clause

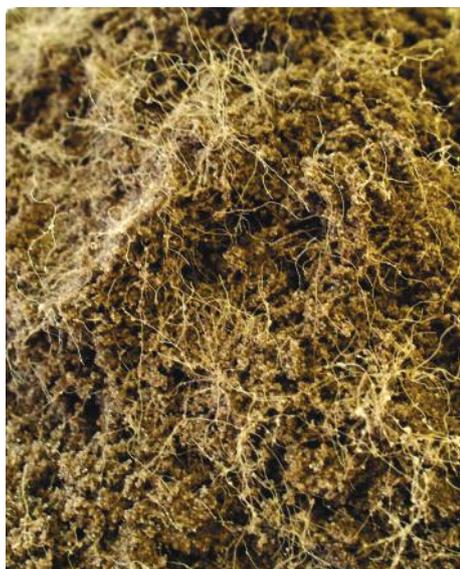
Section	Clause	NBS Clause Title
Q30	361	Reinforced grass system
45-40-85	330	Manufactured growing medium

### Benefits:

- Provides stability, resistance and structural strength to your project where areas are subject to heavy trafficking
- Reduces compaction, ensuring air is present in the pores of the soil
- Free-draining, allowing moisture and rain to soak through rapidly all year round

### Applications:

- Emergency and access roads
- Overspill car parks
- Golf course buggy routes
- Public recreation areas
- Verges and pedestrian walkways



# Case Study: Sustainable-living Neighbourhood, Cambridge

Eddington is Cambridge's newest neighbourhood with something for everyone. It is promoted as 'a whole new area of Cambridge, designed for twenty-first century sustainable living'.

This long-term project commenced in 2015 and is known as the NW Cambridge Development Project. A University of Cambridge development planning for the future growth of the University by building over 1,500 homes for University and College staff, accommodation for 2,000 postgraduates, 100,000m<sup>2</sup> of academic and research and development space, community facilities such as a primary school, community centre, health centre, supermarket, local shops, and a hotel. The site is being built in eight phases stretching over 10 years with open public spaces featuring high in the University's plans.

Six times BALI Grand Award Winner Willerby Landscapes, a leading commercial landscaping company is involved with the development and selected Green-tree as one of their soil suppliers for this high profile and prestigious project.

The site is so large that it has been split into five regions - Landscape Central, North, East, South and West. Phase one included informal open land in the western edge of the development, representing a major piece of the new parkland. Over 2,400 trees were planted by the time the first phase of the development was completed in 2017. There are over 24 hectares of open space in Phase 1, and over 65 hectares in the entire development.

Based in Kent, Willerby Landscapes specialise in all disciplines associated with the installation and on-going maintenance of hard and soft landscape schemes, water features and specialist planters.





Green-tech provided key materials as part of Willerby's established, valued and trusted supply chain. As well as tree planting materials we supplied more than 500 tonnes of Green-tree Amenity Tree Soil; a load-bearing, fertile soil which is designed especially for use in urban environments. 100 tonnes of Loksand Rootzone was supplied to reduce compaction and improve stability of sports pitches and grassed areas that will be subject to heavy trafficking.

In excess of 500 Mona irrigation systems with accompanying Aria inlets, Mona Relief Vente and Piazza inlets were supplied to deliver water directly to tree and shrub roots at a consistent level.

Unique measures are integrated in every aspect of Eddington to encourage residents and visitors to lead more sustainable lives. Biodiversity across the development was high on the list of design priorities. Open spaces help creatures flourish and include enhancements for birds, bats, amphibians as well as wildflower meadows and wetlands. In the region of 800kg of bespoke John Chambers grass seed and John Chambers Wildflower Seed was supplied for the green spaces and to create the stunning displays which will also provide a habitat for wildlife and encourage biodiversity.

# Amenity Tree Soil

A load bearing, fertile planting medium designed for use in urban environments, Green-tree Amenity Tree Soil allows the development of tree root infrastructure under hard surfaces such as pavements and car parking areas. It has a naturally open structure that is load bearing, providing solid structure and aeration to the root system.

## Typical Analysis of Green-tree Amenity Tree Soil

<b>pH Value</b>	7.8
<b>Particle Shape</b>	Sub Rounded
<b>Percolation Rate (at 40cm tension)</b>	53mm/hour
<b>Loose Bulk Density (1.85 compacted)</b>	1.7 tonne/m <sup>3</sup>

## NBS Clause

Section	Clause	NBS Clause Title
Q28	145	Plant pit backfilling soil system
Q28	330	Imported manufactured topsoil/growing medium
Q31	505	Tree pits
45-40-85	340	Special imported topsoil and growing media



## Benefits:

- Combats problems of poor root structure and subsequent poor growth
- Allows compaction whilst providing aeration to soil and gives oxygen and water access to the root system
- Compaction testing kits available
- Regular testing to maintain quality

## Applications:

This product should only be used in situations where a compact soil structure is absolutely unavoidable. In order for the rootzone to be successfully implemented, adequate drainage is a must. Green-tree Amenity Tree Soil should be used in conjunction with the Mona Landscape Irrigation range for the future irrigation of the urban tree planting.

Consideration must be given to positive drainage to ensure water can move away successfully from the soil profile. Please refer to drainage engineer for design of drainage.

# Amenity Tree Soil Installation



Amenity Tree Soil is a structural and load bearing soil suitable for all tree planting applications in hard landscaped areas. This product should only be installed in situations where a compact soil structure is absolutely unavoidable.

## Installation:

- Backfill 200mm of washed sharp sand into the tree pit, compact with 3 passes of a vibro-tamper
- Backfill the top 600mm of the tree pit with Amenity Tree Soil in 175mm layers
- Each layer should be compacted with 3 passes of a vibro-tamper
- Be careful not to over compact as this may lead to particle inter-packing, poor aeration, slow drainage and restricted root growth



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# Case Study: Bristo Square, McEwan Hall, Edinburgh

Bristo Square sits on part of the estate of The University of Edinburgh, nestled against the southerly edge of Edinburgh's old town.

Officially opened in 1983, and bordered by the famous McEwan Hall, Reid Concert Hall and the Teviot Building, Bristo Square soon established itself as a communal place where all aspects of Edinburgh society could meet, making it amongst other things, an epicentre for the Edinburgh street skating scene.

A £33m redevelopment project was undertaken to include a major refurbishment and expansion of McEwan Hall and also Bristo Square to the front, with the external works and landscaping to make it more accessible and safer, designed by Landscape Architects Ironside Farrar Ltd.

A completely new outdoor festival arena was unveiled, in keeping with Edinburgh's reputation as a festival city. Bristo Square is now a customary location for sections of the Edinburgh International Fringe Festival. As part of the design, artist Susan Collis was commissioned to create a meandering sculpture of bronze drips running 68m across the square.

Works in Bristo Square included tree planting, creation of more social spaces and improved accessibility. It was designed to give a light, open space, with tiered seating steps around the central events area. Bordering this paved pedestrian area are ten semi-mature trees set in hard landscaping. These trees help to soften the cityscape and provide much needed shade during the summer months.

In order to protect the tree pit soil from compaction, Ironside Farrar specified Green-tree's Geocellular Raft System which is widely used across the country in urban tree planting projects. The Geocellular Raft System combines nutrient-rich Geocellular Soil with exceptionally strong Geocellular units. Together they create a healthy growing space for trees in areas subject to vehicle loadings and trafficking. Individual Geocellular units are locked together to form a raft system that sits within the tree pit. The system works by spreading the load of any vehicle movements around the tree's rooting area which eliminates soil compaction within the pit and helps to create the ideal growing environment for the trees to establish and mature.

In conjunction with Landscaping and Forestry Contractors M W Groundworks, Green-tree supplied over 200 tonnes of Green-tree Subsoil and Geocellular Soil. Both of these manufactured soils meet British Standards and are regularly tested to ensure quality of composition and consistency across deliveries.

Green-tech Sleeper and Kerbstone tree anchoring systems, along with gt RootBarrier and Mona Relief tree irrigation pipes was also supplied.

The gtSleeper and Kerbstone Anchoring system utilises heavy objects such as sleepers and kerbstones to weigh down the tree and act as anchor points. Well compacted subsoil is then placed over the

sleepers and kerbstones to provide added weight and security for the tree. This is a well tried and tested system that has been incorporated into many rail, utilities and urban projects throughout the UK.

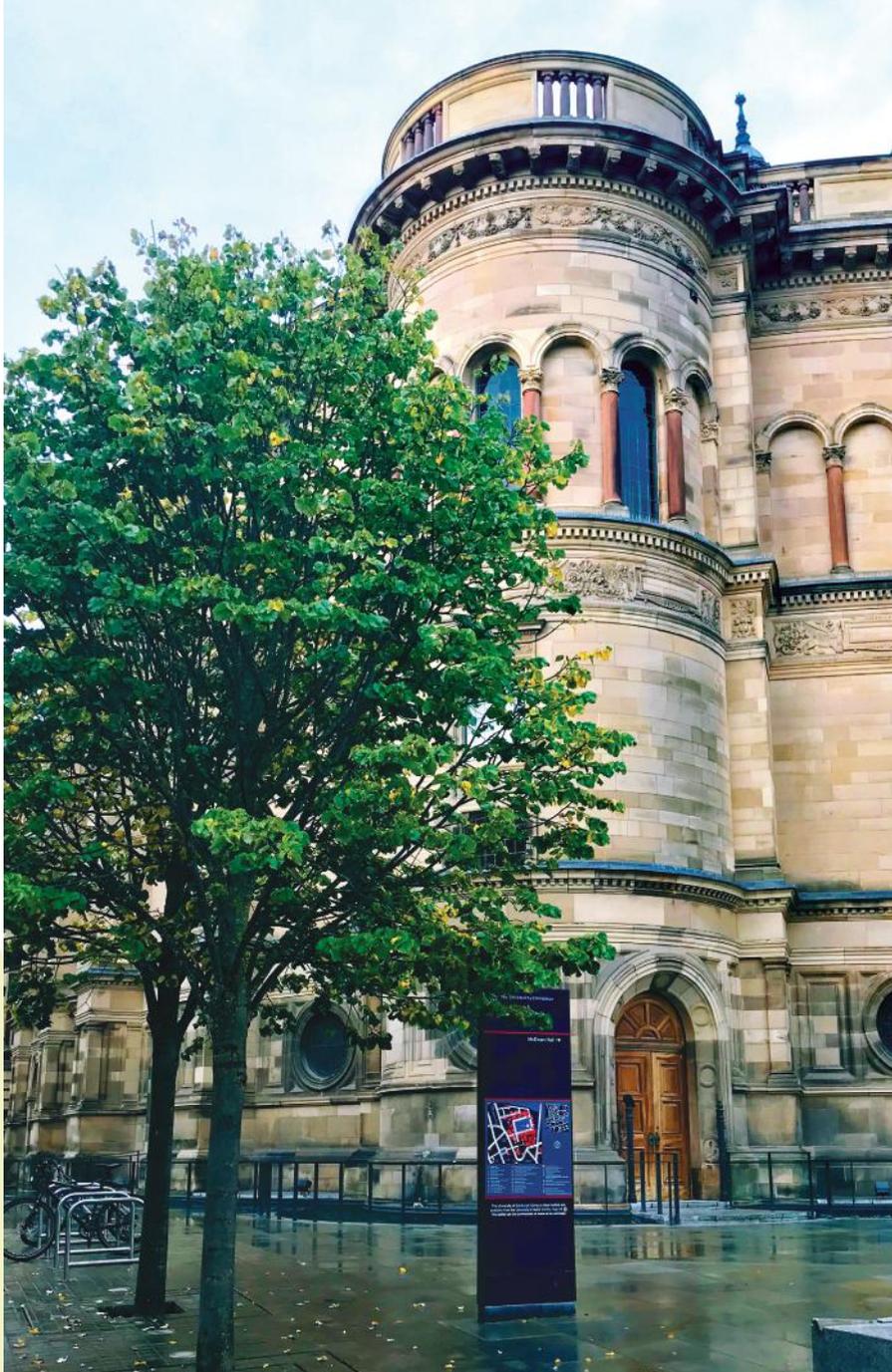
gt RootBarrier was supplied to control and protect the tree roots, as well as protecting structures from the root system. This helps the tree to establish quickly and keep it healthy, especially in the first five years of life.

Lack of water at the tree's rootball can be detrimental to the lifespan and survival of the tree so the Green-tech Mona Relief irrigation system was supplied. Installed with a perforated pipe that surrounds the tree's rootball, the Mona Relief system delivers water straight to the tree roots at a consistent level.

Each tree pit was given a contemporary finish with the inclusion of Green-tech's Fortress tree grilles installed into the surrounding paved surface. These heavy-duty urban grilles enable paving to be laid almost up to the tree trunk, protecting the tree roots, whilst at the same time, allowing rainwater to percolate through. The Mona irrigation pipes are finished off with the aluminium Piazza filler cap, to match the Fortress grilles.

A visit to McEwan Hall showed that the tree pits are doing their job well, and the trees are thriving.

## Soils and Growing Media

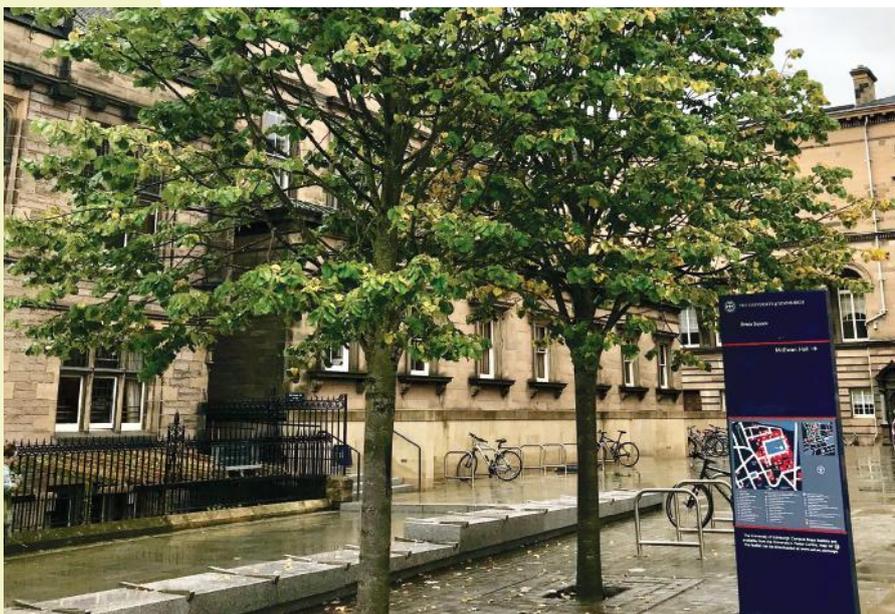


“ It is always good to work on a project that seamlessly links historic buildings to the client’s needs of today. The Geocellular Raft System does the job perfectly, allowing more rooting volume for the tree; and we were very pleased how the Fortress grilles blended in with the surrounding paving.

**Ian Dooner,**  
**Associate Project Manager,**  
**Ironside Farrar**

“ This was a great project demonstrating the perfect tree pits. From the Geocellular Soil, giving the trees the best chance of establishment, strong Geocellular units, Mona irrigation, anchors and grilles; all coming together to form one simple yet stylish solution.

**Mark Browne,**  
**Key Account Manager,**  
**Green-tech**



# Rain Garden Filter Medium

A bespoke engineered soil for use in Rain Garden applications, careful consideration has been given to the design of the filter medium to ensure an effective permeability rate and porosity levels are achieved; whilst providing the correct horticultural requirements to engage with the finished planting scheme. The soil has been designed with the requirements of a Rain Garden with Grey Water management in mind.

## Typical Analysis of Green-tree Rain Garden Filter Medium

<b>pH</b>	8.4	<b>Extractable Phosphorus</b>	33mg/l
<b>Clay Content</b>	7%	<b>Extractable Potassium</b>	833mg/l
<b>Silt Content</b>	6%	<b>Extractable Magnesium</b>	153mg/l
<b>Sand Content</b>	87%	<b>Organic Matter</b>	3.9%
<b>Total Nitrogen</b>	0.17%	<b>Carbon: Nitrogen Ratio</b>	13:1

## NBS Clause

Section	Clause	NBS Clause Title
Q28	330	Imported manufactured topsoil/growing medium
45-40-85	340	Special imported topsoil and growing media

## Benefits:

- Designed with CIRIA Guidelines
- Good water holding properties
- Contains high organic content
- Excellent aeration properties

## Applications:

- Rain gardens
- Grey water management schemes
- Flood management schemes



# Case Study: Nexus Building, University of Leeds



Nexus Building was a one-off collaboration, setting up a “community of innovators”, as well as becoming a home for the University of Leeds Design and Innovation Centre. With an impressive entrance on Woodhouse Lane, Nexus forms a striking gateway between the city and the southern corner of the campus.

The University of Leeds wanted their landscape strategy to create a vision for the development of the campus – with inspiring, memorable and unique spaces – complementing the built landscape.

They specified that the landscape development is to be an exemplar of urban biodiversity, creating a biodiverse environment and providing ecological corridors within the city. They wanted the campus landscape to encourage innovation, live research, learning and discovery. Invigorated, high-quality public spaces should form a network of hubs across the campus encouraging diversity of activity.

The external landscaping provides a relaxed, aesthetically pleasing setting, featuring breakout areas, a sustainable garden, and a biodiverse rain garden, all which contribute to the project’s “BREEAM: Excellent” rating.

Landscape architects, AHR specified a rain garden which acts as a visually appealing, low maintenance and biodiverse friendly, sustainable drainage system.

The team advised and supplied specially formulated Green-tree Rain Garden Filter Medium, manufactured from PAS100 green organic matter, screened silica sand, and blown clay particles. This growing medium provides nutrition elements for healthy growth, while simultaneously acting as a filter for both rainfall and runoff from hard landscaping.

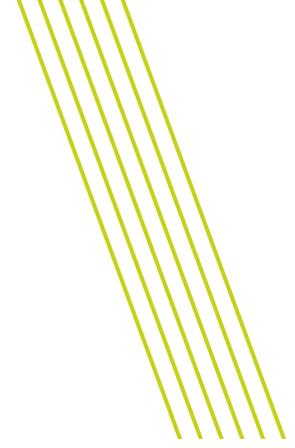
Working in tandem with the landscape contractors, Gavin Jones Ltd, we produced a specialist mix of Green-tree Rain Garden Filter Medium to satisfy the particular demands of a rain garden, and deliver to site within a critical delivery window.

“ We know from past experience that Green-tree soils are of a consistent, high quality, which is so important when working on niche projects such as this. Yet again, the service and support from Green-tech was first class.

**Ricky Whiteman,**  
**Head of Estimating North,**  
**Gavin Jones Ltd**

“ We have worked with Gavin Jones Ltd on several high-profile projects now, and it is always good to see the finished result and to know that we all did our part in bringing more green to our urban landscape.

**Jordan Webster,**  
**Key Account Manager,**  
**Green-tech**



# Roof Garden Mediums

## Green-tree Roof Garden Substrate Intensive

Intensive roofs are heavier and deeper green roofs and their growing media ranges in thickness from 20cm to 100cm. This deeper soil allows intensive roofs to accommodate large plants and plant groupings. Green-tree Roof Garden Intensive Substrate is an established growing media within the Green-tree family of products. A blend of lightweight aggregate and the award-winning Green-tree Topsoil, the intensive roof garden growing media is ideal for green roof construction projects and particularly containerised planting. Lightweight in texture with good water holding capacity, Green-tree Roof Garden Intensive ensures healthy plants and trees in a roof garden environment.

**Bulk Density:** Typical bulk density at saturation point 1.22 tonne/m<sup>3</sup>\*

### Benefits:

- Good levels of fertility
- Good water holding properties
- Excellent aeration properties
- Lightweight compared to standard soils
- A typical pH of 8.4 making it ideal for a wide range of planting

## Green-tree Roof Garden Substrate Extensive

Extensive roofs are thin lightweight roof systems that typically have a planting media measuring 6cm to 20cm deep. Green-tree Roof Garden Extensive Substrate is ideal for incorporation into expansive green roof projects that require very little maintenance, such as sedum roofs. A proven growing media, that is lightweight in texture and manufactured from the award-winning Green-tree Topsoil. Green-tree Roof Garden Extensive Substrate is rich in nutrients which ensures quick plant establishment of thin lightweight green roof projects.

**Bulk Density:** Typical bulk density at saturation point 1.03 tonne/m<sup>3</sup>

### Benefits:

- Lightweight and simple to work with
- Controlled fertility levels
- Good aeration and water holding properties
- Guaranteed consistency throughout the green roof installation

## Green-tree Roof Garden Subsoil

Green-tree Roof Garden Subsoil is a specially designed blend to complement and work in conjunction with our Intensive and Podium Deck Roof Garden Substrates. The product is a blend of lightweight aggregate and specially selected washed silica sand, the sand has been specifically sourced to give the substrate optimum drainage properties to work hand in hand with the finished soil profile's drainage needs and offers good levels of aeration.

**Bulk Density:** Typical bulk density at saturation point 1.3 tonne/m<sup>3</sup>

### Benefits:

- Lightweight
- High quality products within the blend
- UK manufactured
- Nationwide availability

## Green-tree Podium Roof Garden Substrate

Ideal for roof gardens where weight isn't the biggest issue, designed primarily to be a nutrient rich substrate. This sand rich substrate demonstrates a good level of drainage for water management needs. Consistent in its make up, the product has a high level of fertility and is ideal for supporting the growth of turf, small shrubs and small trees, grass seed and requires no additional feed on application.

**Bulk Density:** Typical bulk density at saturation point 1.67 tonne/m<sup>3</sup>

### Benefits:

- Good drainage for water management
- High fertility
- Supports the growth of turf, plants and trees

## NBS Clause

Section	Clause	NBS Clause Title
Q28	330	Imported manufactured topsoil/growing medium
45-40-85	340	Special imported topsoil and growing media



\*Data supplied is current at time of printing, for up to date analysis and results please contact your Technical Sales Advisor.

# Case Study: Four Pancras Square, King's Cross, London



Green-tree's Intensive Roof Garden Substrate and gtRoofdrain has been installed in the prestigious London development on Pancras Square. Four Pancras Square is a Grade A office building located to the North of the existing King's Cross railway station, on the new Pancras Square. The 170,000 sq ft ten floor building is part of a two million sq ft cluster of nine office buildings south of Regent's Canal.

Landscape contractor, Willerby Landscapes Ltd contacted Green-tree to discuss the requirements of the project to find the best products for the job.

Green-tree supplied 136m<sup>3</sup> of Green-tree Roof Garden Intensive Substrate for the roof top containerised planting scheme. The substrate was perfect for the project due to its lightweight texture and good water-holding capacity which ensures healthy plant establishment in harsh rooftop environments.

460m<sup>3</sup> of 25mm gt Roofdrain was also incorporated into the project. The gt Roofdrain forms a lightweight high-performance drainage layer, allowing collection and storage of water to irrigate plants during drier periods.

Deliveries were undertaken on flatbed lorries with moffat offload to suit the inner-city restrictions of the site.

“ Green-tree Green Roof Substrates are the go-to products for roof garden projects due to the lightweight and workable properties of the product along with Green-tree's ability to deliver to more challenging city locations. Green-tree Roof Garden Substrates have been used on a number of high-profile projects across the country and have received great praise from architects and contractors.

**Richard Gill,**  
**Sales Director,**  
**Green-tech**

# Green-tree Rootzones

A mix of high quality, free draining sand with organic compost designed to create the optimum conditions required for healthy grasses. Our Green-tree team can source any combination of rootzone required alongside our standard soil mixes.

## Applications

- High specification sports applications
- Golf course construction and green finishing
- Used in conjunction with GRB Plus ground reinforcement system

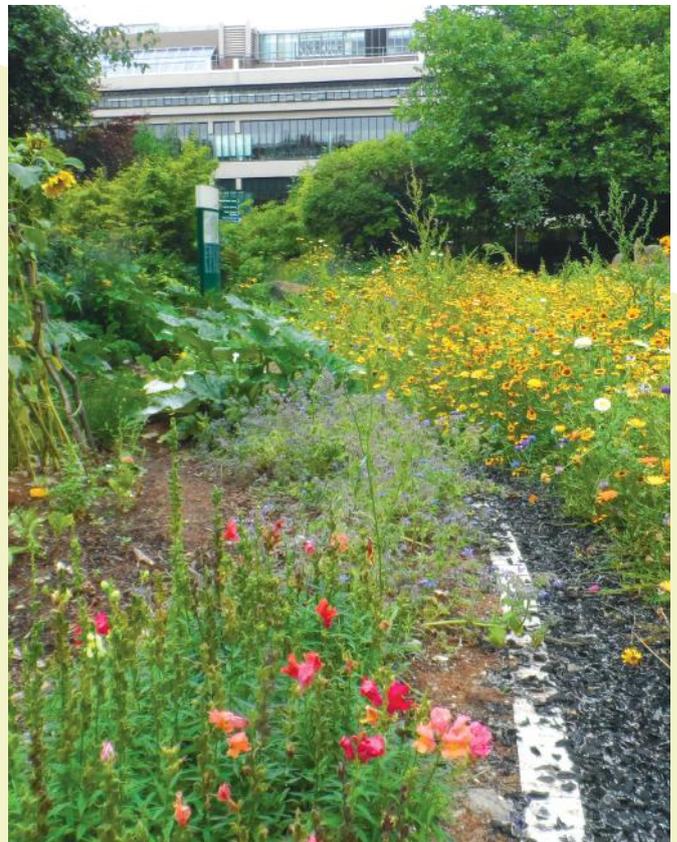


# Low Fertility Soil

A mix designed to limit the nutrient level of the soil in order to let certain planting schemes, such as wildflowers, establish and thrive. The controlled level of nutrients within this soil prevents grasses for example, becoming too vigorous and dominating other types of plants. Designed to meet the requirements of BS3882:2015, our Low Fertility Soil can be supplied in bulk trippers or in bulk bags from our in-house bagging facility in Yorkshire. It is ideal when supplied alongside our John Chambers wildflower range of seed.

## Applications

- Roof gardens
- Wildflower planting schemes
- Difficult access areas



# CPD Seminars

### The Green-tree Guide to Good Soils

Understand the difference between natural, screened and manufactured soil. Explore the different soil types within the UK and discover how not all topsoils are created equal.

Learn about all the various soil types and how they benefit urban areas and encourage biodiversity. We cover:

- Comparisons between 'manufactured' and 'as dug' soil
- Nutrients within soils and drainage
- The Pas100 compost process
- Applications of specific soil types
- Green Roof substrates
- Samples
- Q&A session



**CPD Seminars are available online via video conference or face-to-face. Book your CPD online today at [www.gtspecifier.co.uk](http://www.gtspecifier.co.uk) or contact us on 01423 332 114**

### Other available CPD Seminars:

#### // Green Roof Systems

Learn why green roofs are widely recognised as one of the most effective methods of urban greening, and how they can reduce a project's ecological impact.

#### // Urban Tree Planting System

Provides cost effective support and protection for the pavement above, and guards against soil compaction. Understand how the TreeParker System allows the tree to establish natural, healthy growth in the upper, aerobic soil area, whilst protecting the hard landscaping above.

#### // Effective Tree and Plant Irrigation

Considerations to make when installing an irrigation system. Discover a simple, efficient and cost-effective way to give your trees and shrubs the best start, whilst reducing on-going maintenance costs.

#### // Tree Anchoring Systems

The benefits of tree anchoring systems and effective installation. How to anchor trees safely and securely without the need for unsightly systems or damaging tree stakes.

#### // A Resin-bound Tree Pit Installation

Providing a low maintenance, permeable finish to your project. See how the right treatment can add an aesthetically pleasing, sturdy and permeable surface finish to your tree pits.

#### // John Chambers Wildflower Seed

Understand the benefits of using wildflower seed in projects, and the factors to consider when choosing a wildflower mix. We'll take you through the considerations surrounding soil type and environment; conservation and the impact on biodiversity.

# Turf and Grass Seed



## Green-tree Contract Turf

Green-tree Contract Grade Turf contains perennial rye grass and fescues and is widely used in commercial and urban landscapes and residential lawns. Green-tree Contract Turf is a popular choice for landscape architects and contractors, due to its consistency of quality, reliable structure and its ability to create impact on any project.

### Properties

- Outstanding appearance and strong green colour
- Hardwearing and dense
- Easy to maintain

## Green-tree Formal Turf

A fine-leaved grade containing a blend of fescues that create the perfect playing surface for golf courses, bowling greens and ornamental landscapes. A high quality turf used by leading green keepers across the UK.

### Properties

- Contains the outstanding fine-leaved ryegrass Bargold, which can withstand mowing down to 5-6mm and heavy wear
- Highly rated for fineness of leaf, shoot density and resistance to red thread

## Green-tree Wildflower Matting

Wildflower Matting is a balanced mixture of wildflowers and grasses growing in a moisture retentive biodegradable felt to provide an instant wildflower meadow.

### Properties

- Established plants are grown in a felt base which acts as a weed barrier
- The 50% wildflower and 50% grass seed mix is pre-planted at the correct density to give optimum conditions for establishment
- Low maintenance requirement – usually one cut per year
- Attracts wildlife such as butterflies, insects and other invertebrates, birds and mammals
- A prolonged flowering period providing aesthetic pleasure throughout the year

## Green-tree Grass Seed

Green-tree's established range of grass seed is available for various landscaping projects. Our grass seed is suitable for general purpose/amenity projects.

Please contact us for more information on our grass seed range.

# Ornamental Barks and Mulches

Our Melcourt range of barks and mulches offers the designer and landscape contractor the widest choice available in terms of product type, quality, performance and durability. The range is based on sustainability produced bark, wood and sand which all conform to the specifications set out in BS EN 1176 and 1177.

## Coverage Chart

Depth of bark	Coverage /m <sup>3</sup>	Coverage /70L bag
25mm	40.00m <sup>2</sup>	2.8m <sup>2</sup>
50mm	20.00m <sup>2</sup>	1.4m <sup>2</sup>
75mm	13.33m <sup>2</sup>	0.93m <sup>2</sup>
100mm	10.00m <sup>2</sup>	0.7m <sup>2</sup>
125mm	8.00m <sup>2</sup>	0.56m <sup>2</sup>
150mm	6.66m <sup>2</sup>	0.46m <sup>2</sup>
300mm	3.33m <sup>2</sup>	0.23m <sup>2</sup>

- Bagged and loose bark are available on next day delivery
- Loose bark available in up to 80m<sup>3</sup> loads dependent on the time of year
- Samples are available on request

**Loose impact play surfaces are recommended to be installed at a depth of no less than 300mm. All products from the Melcourt range are available including walk surfaces, bio mulches and woodfibre. For further details please contact the office.**

## Melcourt Mulches



**Melcourt Ornamental Bark Mulch™**  
(5 – 35mm). Deluxe grade – available in polybags, bulk bags or loose bulk.



**Spruce Ornamental Bark Mulch™**  
(5 – 35mm). Contract grade – available in polybags, bulk bags or loose bulk.



**Contract Bark Mulch™**  
(1 – 65mm). Economy grade – available in loose bulk.

## Melcourt Play Products



**Melcourt Playbark 8/25®**  
(8 – 25mm). Deluxe grade – available in polybags, bulk bags or loose bulk. Suitable for children under the age of 6 years.



**Melcourt Playbark 10/50®**  
(10 – 50mm). Deluxe grade – available in polybags, bulk bags or loose bulk. Suitable for children over the age of 6 years.



**Melcourt Kushyfall®**  
(3 – 30mm). Contract grade – available in loose bulk only. Ideal for wheelchair users.



**Melcourt Softwood Playchips®**  
(5 – 40mm). Deluxe grade – available in polybags, bulk bags or loose bulk.

**Green-tech Specifier** is the Specification arm of leading landscape supplier Green-tech Ltd. Our team have a wealth of experience developing landscape solutions for urban developments and projects. Working with landscape architects, landscape contractors, garden designers and nurseries from across the UK, Green-tech Specifier has created a portfolio of systems and solutions designed to protect, enhance and improve trees in the urban environment.

- Urban Tree Planting
- Root Protection
- Ground Stabilisation and Support
- Tree Irrigation
- Soft Landscaping
- Roof Gardens
- Street Furniture
- Soils and Growing Media
- Wildflowers

**For more information and guidance on the Green-tech Specifier product range and the solutions the team can offer, log onto [www.gtspecifier.co.uk](http://www.gtspecifier.co.uk)**



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**Landscape Institute**  
Inspiring great places

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