

TD Tree & Land Services Ltd Platform 1 Station Road Industrial Estate Duns Berwickshire TD11 3HS WWW.TDTrees.co.uk

# Arboricultural Method Statement and Tree Protection Plan

#### For Dingleton

September 2023

By Patrick Rechberger

Change log

Date	Comments
07/09/2023	Original, 1 <sup>st</sup> version
29/09/2023	Change of design: Garage removed, 2 more
	trees retained

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#### Summary

This Arboricultural Method Statement (AMS) with the Tree Protection Plan (TPP) has been created to support the Arboricultural Impact Assessment (AIA) for Land North Of Ivanhoe, Dingleton Road, Melrose, Scottish Borders and must be read in conjunction with the document 'Dingleton\_AIA\_Full'.

The initial survey was conducted on 26<sup>th</sup> July 2023 by Toby Wingham, suitably qualified Arboriculturist on behalf of TD Trees. The findings of this survey are summarised in the document 'Dingleton\_AIA\_Full'.

## **Tree Protection Plan**

The Tree Protection Plan as outlined in this document will be followed, any alterations will need the approval of the appointed Arboriculturist and the LPA.

## Sequence of Events

Events to be agreed at a pre-commencement meeting; these recommended events may be subject to change. Any change to this sequence that may directly or indirectly impact the retained trees must be approved by the appointed arboriculturist.

#### Pre-development Stage

- Ecological impact assessments are undertaken to ensure no protected species or habitat is affected by tree removal, specifically bat activity surveys and nesting bird surveys 48h before removal and other tree works.
- Removal of trees in conflict with the design as per the Arboricultural Impact Assessment (AIA).
- Tree protection measures installed to protect retained trees (protective fencing, ground protection) as per Tree Protection Plan (TPP).
- Site to be inspected by the appointed arboriculturist and works approved in writing.

#### Development Stage

- This stage is subject to site monitoring visits by the appointed arboriculturist at intervals as agreed at the pre-commencement site meeting. These visits are to ensure that the agreed protection measures are functional and correctly achieving their purpose.
- The appointed arboriculturist will act under the authority of the Site Manager and, under that authority, can request cessation and or alternative working methods.
- Site is accessible to construction traffic.

- Arboricultural supervision is to be conducted at all crucial stages throughout the development process to ensure detailed tasks are conducted as per the approved methodology and at any incursion into RPA for whatever reason.
- This supervision will require the arboriculturist to be present throughout the tasks, to ensure all the Arboricultural objectives are met.
- Supervision may be reduced to telephone contact between the site Project Manager and the arboriculturist by mutual agreement.
- The Local Planning Authority (LPA) arboriculturist will have access to the site and pass any recommendations direct to the developer's arboriculturist.
- Any alterations to the protective fencing should be approved in writing by the developer's arboriculturist and communicated to the LPA arboriculturist.

#### Post-development Stage

- Removal of protective fencing as agreed by the appointed arboriculturist.
- Landscape operatives to be briefed by appointed arboriculturist.
- Regular annual condition surveys will be commissioned to ensure that retained tree has not been adversely affected by the process outlined in the tree protection plan for a period of 3 years.

## Root Protection Areas (RPAs)

The RPAs detailed in the maps of this document are designed to protect <u>at least a functional mini-</u> <u>mum of tree root mass</u> to ensure that the trees survive the construction process.

The RPAs of the retained tree must be protected via protective fencing as detailed below, being erected and in place prior to construction plant entering site.

It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

## **Restrictions within Tree Protection Areas**

The exclusion area of the protective fencing follows the drawing in the Tree Protection Plan within this document in Drawing 3 - A3 Tree Protection in Appendix 1. Within this fenced zone the following applies:

- No mechanical excavation without Arboricultural site supervision
- No excavation by any other means without Arboricultural site supervision
- No hand digging without a written method statement having first been approved in writing by the developer's arboriculturist

- No ground level changes
- No storage of plant or materials
- No storage or handling of any chemicals
- No vehicular access

# Avoiding Crown and Stem Damage

Under no circumstances shall construction personnel undertake any tree pruning operations.

Great care must be exercised when working close to retained trees. Plant and machinery with booms should be controlled by a banksman to maintain adequate clearance.

The necessary tree works outlined below will be reviewed by the appointed arboriculturist and approved by the LPA Arboriculturist in writing.

# Tree Works

- To facilitate the proposed development, eleven trees require removal and one hedgerow requires partial removal. Please refer to Table 1 Tree removals in the document Dingleton\_AIA\_Full, TD Trees 2023 for guidance on these removals.
- All removals and site clearance should be undertaken outside of the nesting season to reduce the ecological impact. If this can't be avoided, the site will be surveyed for nesting birds 48h before any tree works commence. This can be commissioned by TD Tree and Land Services Ltd.
- All tree work operations must be in accordance with BS 3998: 2010 Tree Work Recommendations.
- This work is to be conducted by a suitably qualified Tree Surgeon (ideally chosen from the Arboricultural Association's Approved Contractors list). Proof of experience and insurance provisions will be required.
- All tree works will follow the recommendations and instruction of the Arboricultural Impact Assessment (AIA), Arboricultural Method Statement (AMS), and Tree Protection Plan (TPP).
- All operations shall be carefully conducted to avoid damage to the trees being retained.
- No trees to be retained will be used for anchorage or winching purposes.

## **Tree Protective Fencing**

The protective fencing will be erected before any materials or machinery are brought onto site and before any development commences. Clear instructions of the installation are in Appendix 2.

Once the construction exclusion zone has been protected by the barriers, construction can commence. Signs will be fixed to the fencing panels with the words: "Construction Exclusion Zone – No Access" or similar, a suitable template for this is found in Appendix 2.

## Excavations within the RPA

For all excavations within root protection areas required, the following applies:

- The appointed Arboriculturist will be on site to supervise any excavations within Root Protection Areas (RPAs).
- The marked area (see Tree Protection Plan) will be excavated by hand. Air spading, if employed by appropriately trained personnel, is a viable alternative for this task.
- Manually break up and remove debris from the RPA using appropriate tools (e.g., pneumatic breaker, crowbar, sledgehammer, pick, shovel, spade, trowel, fork).
- Remove debris from the RPA without disturbing the adjacent rooting environment, e.g., lifting out with a machine located outside the RPA or manually carry out over ground protection.
- Any small roots with a diameter <25mm damaged, will be pruned back using handsaw or bypass secateurs.
- Any roots larger than 25mm will not be moved without consultation of the appointed Arboricultural Consultant.
- The use of machines with long reach may be appropriate in areas where they can work from outside RPAs, or from protected areas within RPAs without encroaching onto unprotected soil. (see Appendices Removal of Hard Standing)
- Where appropriate, leave below ground structures in place if their removal will cause excessive RPA disturbance.

## **Temporary Ground Protection**

Construction related traffic will require access to the RPA of retained trees along the entrance road.

- Where the existing road will not be re-furbished, the existing hard standing is sufficient for footfall and small plant and machinery up to 2t.
- Should HGVs require access, the existing road will be enforced with suitable interlinked ground protection mats, eg. of the type 'MultiTrack' by Ground Guards Ltd.

# Construction within the RPA

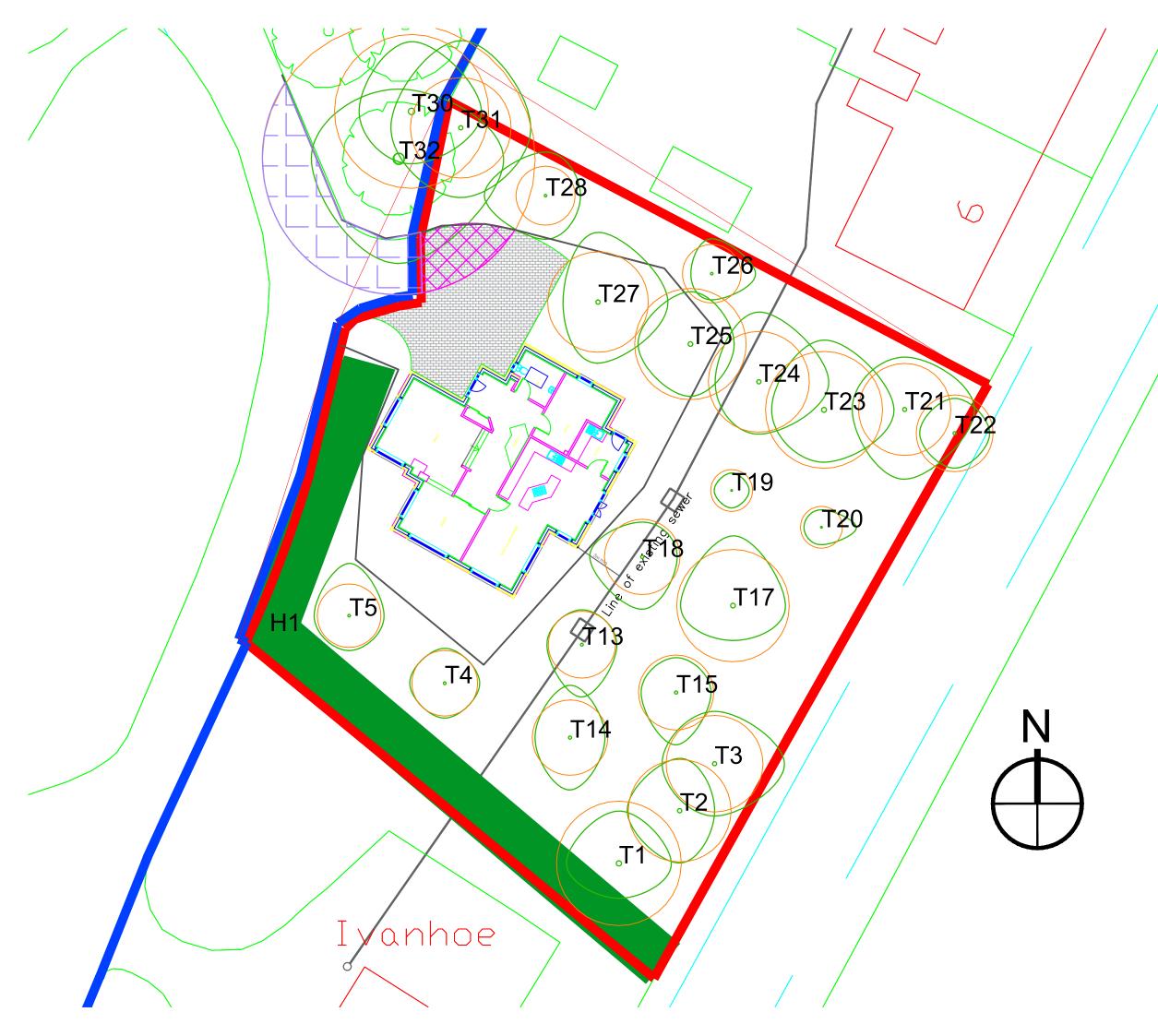
The access road and entrance to the site, encroaching into the RPA of retained trees will be formed with geo-cellular confinement system.

• A geo-cellular confinement system will be installed, to minimise the risk of compaction of the soil within the RPAs. For detailed instructions, see Appendix 4.

# Appendices

- Appendix 1 Tree Protection Plan
- Appendix 2 Tree Protective Fencing
- Appendix 3 Cellular Confinement Ground Protection

Appendix 1 – Tree Protection Plan



KEY [This drawing must be reproduced in colour]





Tree Protective Fencing (c. 81m) (Must be installed prior to commencement of works)

Ground protection (c. 44m<sup>2</sup>) (Must be installed prior to commencement of works)

Special Mitigation (Requires Arboricultural Method Statement)



Site Dingleton				
Title Drawing 3: Tree Protection Plan				
Drawing No. 230929003	Scale	1:200@ A3	Date 29/09/2023	
Drawn PMR	Checked P	CL	Approved PMR	

Appendix 2 – Tree Protective Fencing

Arboricultural Method statement protective tree fencing

#### **General conditions**

The Tree Protection Plan (Appendix 3) will be followed, any alterations will need the approval of the appointed Arboriculturalist and the LPA.

Under no circumstances shall construction personnel undertake any tree pruning operations.

Great care must be exercised when working close to retained trees. Plant and machinery with booms should be controlled by a banksman to maintain adequate clearance.

All removals and site clearance should be undertaken outside of the nesting season to reduce the ecological impact.

All tree work operations must be in accordance with BS 3998: 2010 Tree Work Recommenda-tions.

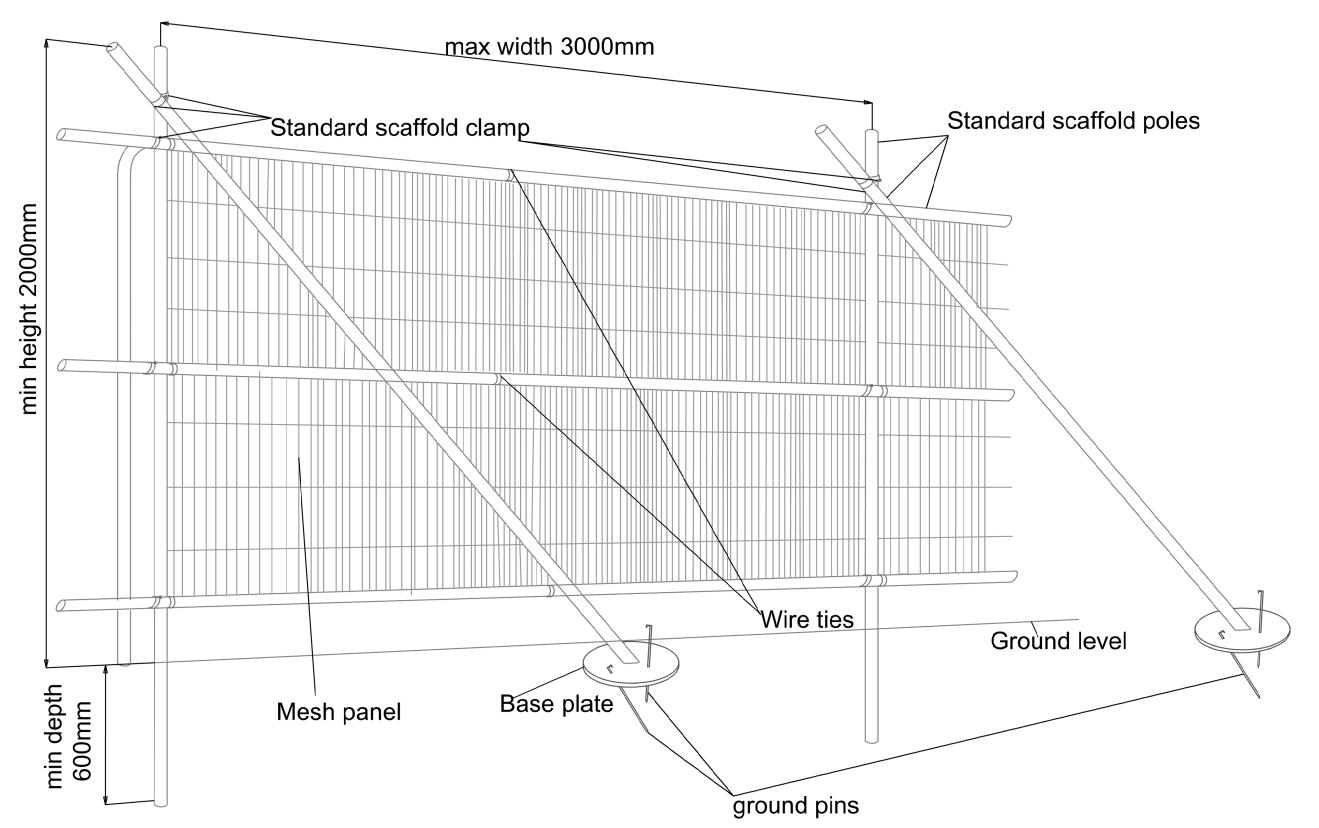
This work is to be conducted by a suitably qualified Tree Surgeon (ideally chosen from the Arboricultural Association's Approved Contractors list).

Title

The protective fencing will be erected before any materials or machinery are brought onto site and before any development commences.

Once erected these barriers will be regarded as permanent and will not be removed or altered without prior agreement of the appointed arboriculturist and written approval of the LPA.

Tree protective fencing will be fit for the purpose of excluding construction activity. Regular checks must be made of the fencing to ensure its stability and structure. Scheduled site visits of the appointed arboriculturist or the LPA will record these checks. Once the construction exclusion zone has been protected by the barriers, construction can commence. Signs should be fixed to the fencing panels with the words: "Construction Exclusion Zone – No Access" or similar.





The tree protective fencing consists of a vertical and horizontal, reinforced scaffold framework and heavy gauge 2 m tall, galvanized tube and welded mesh infill panels.

#### Installation

- Secure the framework well with standard scaffold clamps.
- Drive the verticals securely into the ground to a minimum depth of 600mm. Proceed with care when locating the vertical poles to avoid underground services and contact with structural roots. The intervall between the vertical tubes will be no wider than 3 m.
- Support the framework with stabilizer struts on the inside. These will be attached to a base plate secured with ground pins.
- Fix the welded mesh panels securely onto the framework, using wire ties and standard scaffolding clamps, as suitable.

# ATTENTION TREE PROTECTION AREA **KEEP OUT**





THIS IS A CONSTRUCTION EXCLUSIVE ZONE

NO ACCESS PERMITTED

NO STORAGE WITHIN THIS AREA

DO NOT MOVE OR DAMAGE THIS **PROTECTIVE FENCING** 

FOR ACCESS TO THE TREE PROTECTION AREA, ASK SITE MANAGER TO CONTACT A QUALIFIED ARBORICULTURAL CONSULTANT



Appendix 3 – Cellular Confinement Ground Protection

Title

# Arboricultural Method Statement for ground protection

#### **General Terms**

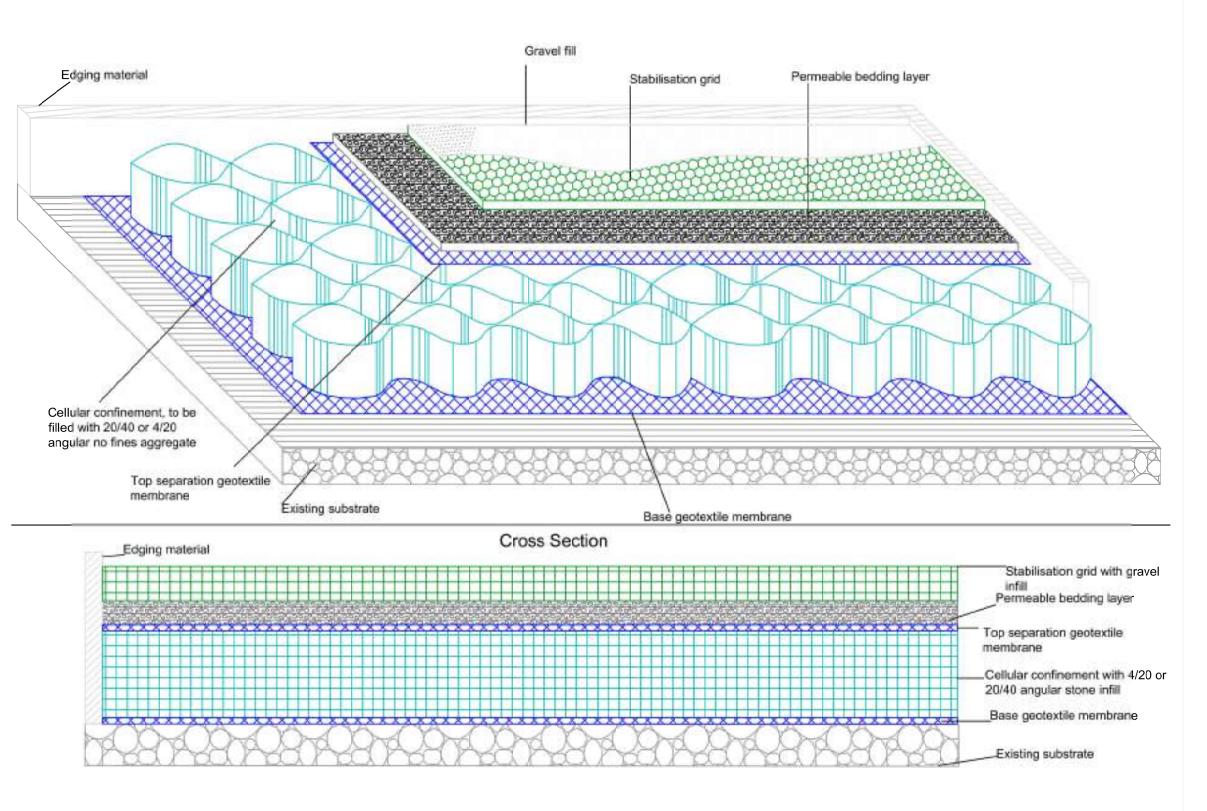
The ground protection as set out in this method statement is suitable for cars, vans, 4-wheel drive etc. up to approx. 7t. No HGV shall drive onto this ground protection.

Under no circumstances shall construction personnel undertake any tree pruning operations.

Plant and machinery with booms should be controlled by a banksman to maintain adequate clearance to trees.

No digging works of any kind within the RPA will take place without supervision of the LPA and/or the appointed Arboriculturist.

It is recommended that surrounding trees are reinspected annually by a suitably qualified arboriculturist. These re-inspections may take place up to 8 years after construction works have finished.





#### Installation of ground protection

- Carefully remove the surface vegetation.
- Any hollows within the installation zone will be filled with no fines 4/40 clean angular stone.
- Place geotextile membrane (300g/m2) over the installation zones. If several sections are needed, overlap them by a minimum of 300mm.
- Secure the membrane with pins (e.g., steel staking pins) every 500mm along the edging. These pins are ideally 3 times the height of the cellular confinement)
- Place the cellular confinement (100mm depth for cars and vans) on top of the membrane, securing it with the same pins. Where necessary, the cellular confinement can be cut or clipped together.
- Fill the cells of the confinement system with clean, no fines angular stone 20/40 or 4/20. If excavators are used to fill in the aggregate, these will be positioned outside the root protection area. Once the first cells have been filled, the excavator may drive on to these to continue introducing the infill. Drop height is limited to below 1000mm. Ensure all cells are filled even across the whole width before allowing vehicles onto the surface. To allow the stones to settle in the cells, overfill by approximately 25mm.
- Apply light vibrant compaction to help the aggregate settle in the cells.
- Place suitable edging (e.g., kerbstones on top of cellular confinement edges: the edges of the confinement system may in this case be filled with concrete)
- Place a second membrane (100-300g/m2). If several sections are needed, overlap them by a minimum of 300mm.
- Place a 20mm high permeable bedding layer of 2-6mm agricultural grit. Slightly compact by foot, tramping lightly.
- Lay top stabilisation grid (e.g. Core Commercial pavers) and fill with 6-10mm of decorative stone.

# Arboricultural method statement for cellular confinement system

#### **General Terms**

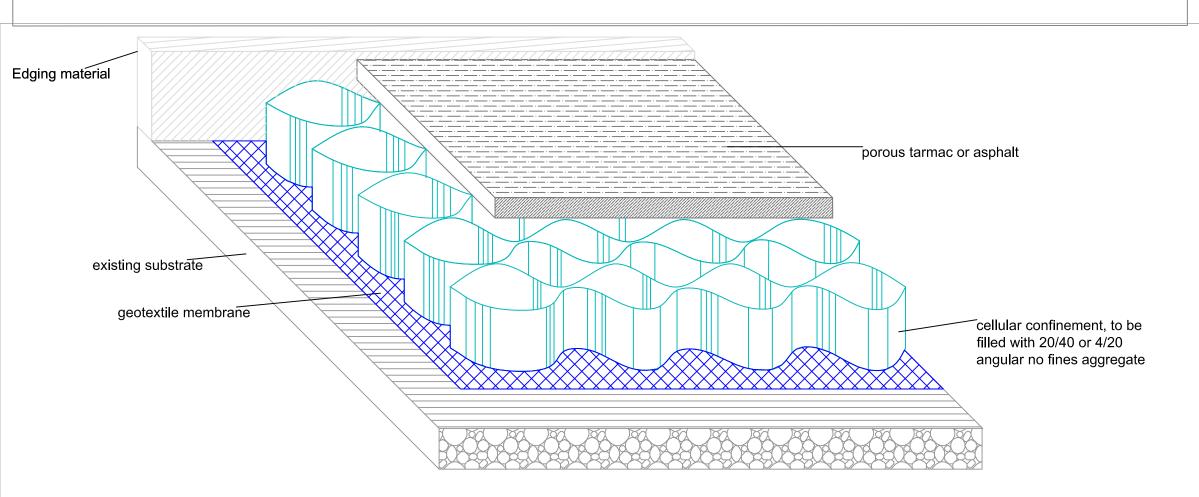
The ground protection as set out in this method statement is suitable for cars, vans, 4-wheel drive etc. up to approx. 7t. No HGV shall drive onto these ground protections.

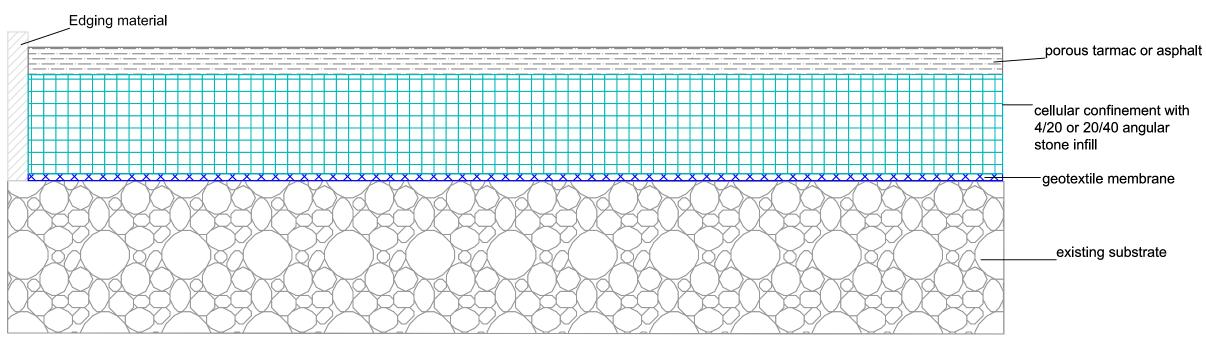
Under no circumstances shall construction personnel undertake any tree pruning operations.

Plant and machinery with booms should be controlled by a banksman to maintain adequate clearance to trees.

No digging works of any kind within the RPA will take place without supervision of the LPA and/or the appointed Arboriculturist.

It is recommended that surrounding trees are reinspected annually by a suitably qualified arboriculturist. These re-inspections may take place up to 8 years after construction works have finished.





#### **Cross Section**



Inst •	tallation of ground protection Carefully remove all debris and areas of hard surfacing and reduce site levels by max. 5cm to meet final levels. Any hollows within the installation zone will be filled with no fines 4/40 clean angular stone.
•	Place geotextile membrane (300g/m2) over the installation zones. If several sections are needed, overlap them by a minimum of 300mm. Secure the membrane with pins (e.g., steel staking pins) every 500mm along the edging. These pins are ideally 3 times the height of the cellular confinement) Place the cellular confinement (100mm depth for cars and vans) on top of the membrane, securing it with the same pins. Where necessary, the cellular confinement can be cut or clipped together.
•	Fill the cells of the confinement system with clean, no fines angular stone 20/40 or 4/20. If excavators are used to fill in the aggregate, these will be positioned outside the root protection area. Once the first cells have been filled, the excavator may drive on to these to continue introducing the infill. Drop height is limited to below 1000mm. Ensure all cells are filled even across the whole width before allowing vehicles onto the surface. To allow the stones to settle in the cells, overfill by approximately 25mm.
•	Apply light vibrant compaction to help the aggregate settle in the cells. Place suitable edging (e.g., kerbstones on top of cellular confinement edges: the edges of the confinement system may in this case be filled with concrete) Place suitable porous asphalt wearing course to engineer's specification on top.