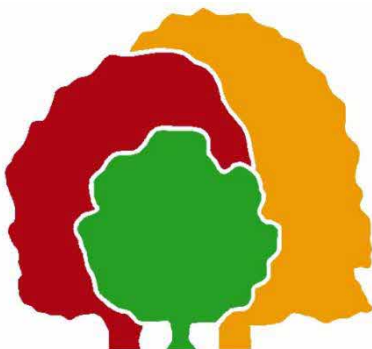


# Full Arboricultural Method Statement – V3<sup>©</sup>

Site: 31 Oxford Road, Woodstock OX20 1UN Date: January 2024

Surveyor: Nick Scally and George Piercey



Heritage Tree Services Ltd

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Henley-on-Thames  
RG9 5RB

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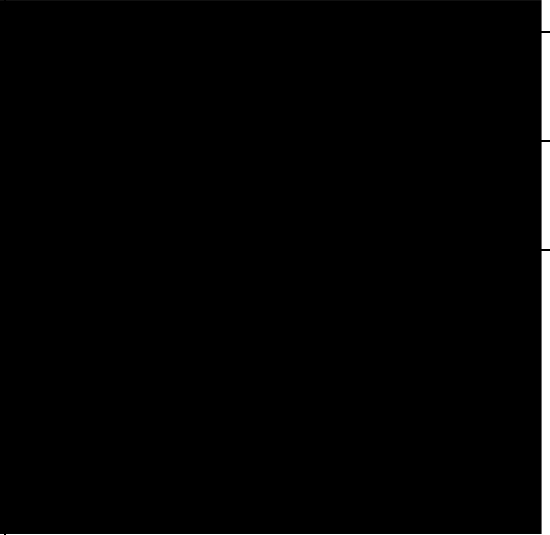
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## 1.0 CONTENTS

1.0	CONTENTS .....	2
2.0	CONTACT DETAILS .....	3
3.0	DOCUMENT DETAILS .....	3
4.0	SITE INTRODUCTION .....	4
5.0	ARBORICULTURAL IMPLICATION ASSESSMENT (AIA) .....	4
6.0	TREES AND THEIR CONSIDERATIONS .....	7
7.0	THE PROCESS AND MONITORING DEVELOPMENT .....	8
8.0	ROOT PROTECTION AREA - RPA .....	9
9.0	RESTRICTIONS WITHIN THE RPA .....	9
10.0	TREE PROTECTION FENCING .....	11
11.0	GROUND PROTECTION BOARDING .....	12
12.0	NO DIG CELLULAR CONFINEMENT CONSTRUCTION AND METHODOLOGY .....	14
13.0	AVOIDING DAMAGE TO BRANCHES AND STEMS .....	17
14.0	RECOMMENDED TREE WORKS .....	17
15.0	REMOVAL OF HARD SURFACING WITHIN THE ROOT PROTECTION AREA .....	18
16.0	ARBORICULTURAL CONCLUSION .....	18
17.0	TREE SURVEY, PHOTOS AND KEY – TREE SURVEY AND PHOTOS DATED JULY 2022 .....	19
18.0	GUIDELINES TO EMPLOYING ARBORICULTURAL CONTRACTORS .....	26

## 2.0 CONTACT DETAILS

Role	Name	Contact Details
Client	Hardip Kaur	---
Architect	JRG Architecture	
Local Authority	West Oxfordshire District Council	
Tree Surveyor / Arborist	Heritage Tree Services Ltd Tree Surveyor/Arborist: Nick Scally and George Piercey Author: George Piercey	

## 3.0 DOCUMENT DETAILS

This Arboricultural Method Statement (AMS) should be read in conjunction with the following information, which are included as separate documents:

Tree Protection Plan (TPP). Drawing no. HTS-TPP-01B

The above documents detail the locations of the existing tree population and essential protection methods for retained trees. It is integral that this information is made available to onsite contractors throughout the development to ensure adherence to these guidelines.

## 4.0 SITE INTRODUCTION

The owners of these premises have applied for permission for:

“Construction of new garage. Previous garage granted consent under planning number: 19/01622/FUL”

The Arborist, Nick Scally and George Piercey, visited the premises in July 2022 to assess trees on site in order to compile an Arboricultural Method Statement to meet the British Standard 5837 (2012) ‘Trees in Relation to Design, Demolition and Construction’. The document herein, must be available for all relevant site personnel and operatives to consult in order to understand that all essential tree protection constraints and safety measures are installed and upheld correctly during the duration of this project.

## 5.0 ARBORICULTURAL IMPLICATION ASSESSMENT (AIA)

- 5.1 Constraints exist in form of retained trees as plotted on the Tree Protection Plan (TPP) showing specific locations and allowing the architect to work with retained trees taking into effect the following criteria:

Root Zone: the enclosed tree survey ([section 17.0](#)) provides sacrosanct Root Protection Areas (RPAs) for existing trees, usually 12x the stem diameter at breast height, as defined by BS5837 (2012). Generally, roots will radiate outwards from the tree stem, seldom symmetrically, in to the surrounding ground. At the discretion of an arboriculturalist, the RPA can be offset if limitations/disturbances to the projected rooting zone exist (for example, from foundations of houses, garages, walls, presence of roads, notable level changes etc.).

Physical Contact of Trees: parts of the tree that may come into contact with buildings, vehicles, walls, street lighting etc. This primarily involves the foliage, branches and stems of trees.

Shading: the sun will rise to approximately 60° at midday in the summer months when trees are in leaf (ratio of approx. 16m vertical height to 10m horizontal distance). During the winter months, when deciduous trees are without leaves, the sun will only reach approx. 12°, therefore reducing shading.

Falling Leaves/Seeds/Detritus: size and dominance of trees are to be considered when planning vision splays from habituated rooms, footpaths etc.

Subsidence/Heave/Root Pressures: to be considered at the planning stages, i.e. retained tree roots absorbing water within banks, slopes, and near proposed foundations, in accordance with suitable soils types. In regards to this project, the soil type of the site is: “Shallow lime-rich soils over chalk or limestone” as listed on the Cranfield Soil and Agrifood Institute – [www.landis.org.uk](http://www.landis.org.uk)

Amenity Value: considerations will be given to the local area’s infrastructure and landscape, including screening provided by trees, hedges and shrubs. Where appropriate, new landscaping proposals may be included.

- 5.2 Tree Protection Action Methodology - in order to protect retained trees on site a pre-works meeting will be required between the project manager and the nominated Arborist. The essential objective is to brief the contractor and ensure understanding of the guidelines provided. The contractor must also understand that failure to comply with tree protection measures is a breach of planning, which can lead to:

Enforcement notice being issued by the local authority, with works being put on hold  
Prosecution for irreversible and/or permanent damage to trees

- 5.3 The proposal has been planned around the retention of the existing tree population. As such, no trees are proposed for removal to facilitate this scheme.
- 5.4 It is worth noting when considering this application, that the applicant has previously received planning consent for a very similar garage and driveway configuration under planning number: 19/01622/FUL. The fundamental difference with this new proposal is that the new garage has been moved approximately 1.0m further north-east, further outside the RPA of T1. Additionally, the proposed garage has moved north-west by approximately 0.5m, away from T2.
- 5.5 The proposed new garage is to be sited on a raft type foundation. This will reduce the impact on the soft ground RPA of T2.
- 5.6 For T1, the calculated generic RPA would be 290m<sup>2</sup>, and for T2, the calculated generic RPA would be 475m<sup>2</sup>. However, the soft ground available for tree roots has been calculated broadly as 107m<sup>2</sup> for T1, and 359m<sup>2</sup> for T2.
- 5.7 Both T1 Copper Beech (B2) and T2 Cedar (B2) are subject to Tree Preservation Orders (TPO). As such, extra care should be taken to ensure these trees are protected during construction.
- 5.8 T3 Hornbeam should undergo light canopy lifting to approximately 5.0m above ground level over the road (south-eastern aspect) to ensure low branches are not accidentally damaged by demolition and construction machinery. Any recommended tree works and facilitation pruning works should be carried out by suitably qualified Arborists, conforming to the guidelines set out in BS3998 (2010) and [section 14.0](#).
- 5.9 Site access for construction of the garage can be via the existing driveway.
- 5.10 Tree protection fencing is to be installed prior to any demolition activities and retained throughout the entire project, as shown on Tree Protection Plan (TPP). This will form construction exclusion zones (CEZ) to the contractors, protecting the RPA of existing trees throughout development. Access to the rear garden should not be required. As such, no tree protection fencing is proposed here. [See section 10.0](#).
- 5.11 Placement of ground protection boards are as shown on TPP. Ground protection boards should be installed prior to commencement of works, and are to be retained for the duration of the project. These boards are to be installed to grant access to the RPA for construction of the garage and driveway. These boards will be used to protect the rooting zone against any potential damages that may occur (e.g. compaction, toxins leeching into soil etc.). [See section 11.0](#).

- 5.12 The new driveway is to be constructed using a 'no-dig' approach, utilising a cellular confinement system. This will protect the RPA of T1 and T2 by limiting compaction whilst also providing adequate future rooting conditions. This cellular confinement system should be installed at the start of the project. However, where this is not possible and must be installed at a later date, temporary ground protection boarding must be used on areas of exposed soft-ground RPA (e.g. where existing driveway is removed). These boards are then to remain in place until the cellular confinement system is constructed. This new section of cellular confinement driveway will incur approximately 44.8m<sup>2</sup> into the RPA of T2, representing approximately 12.5% of the total unsurfaced RPA of this tree, which is in keeping with the BS5837 (2012) guidelines. [See section 12.0.](#)
- 5.13 Removal of any hard-standing within the RPA of retained trees should follow the guidelines in [section 15.0.](#)
- 5.14 Contractor's parking can be located on the existing driveway, outside of any retained tree RPA or located on areas of existing hard surfacing. When the driveway works are being done, parking will need to be located elsewhere, outside of any soft ground RPA of existing trees. There is potential for some parking on the road outside the property.
- 5.15 Building materials storage can be located as shown on the TPP, outside of any retained tree RPA or located on areas of existing hard surfacing. Under no circumstances should materials be stored anywhere within the exclusion zones created by the tree protection fencing. Further information on restrictions within the RPA can be found within [section 9.0.](#)

## 6.0 TREES AND THEIR CONSIDERATIONS

Trees may possibly outlive construction so it is vital to ensure the proposed development is suitably integrated in harmony with existing trees;

Any conflicting or adverse effects the structural development may impose upon each trees' long term healthy existence;

Healthy trees can be retained for visual screening, wind breaks, defining boundaries, complimenting buildings, future amenity value, and overall benefit to the sites character and enhancement;

Retention of large, mature, veteran trees may suffer trauma or detrimental growth restrictions following developmental construction;

Competition for solar gain and space for physical growth in more densely wooded sites;

Certain healthy arboricultural specimens may be considered worthy of relocating within a design in an attempt to save and prolong life expectancy; the Arboriculturist can advise;

Autumn leaves falling from deciduous species causing problems with guttering, or fruit making pathway surfaces slippery;

The Root Protection Area (RPA) of each tree and its proximity to planned developmental foundations, boundaries, borders, roads and driveways, and future growth towards, or even into, drainage, services or water supplies;

Impaction of soil, encroaching upon healthy root areas, by installation of permanent new surfacing on drives and pathways, e.g. paving slabs or tarmac areas;

The canopy spread of each tree and limb movement throughout high winds; it's future growth potential, taking into consideration any light restriction through windows and glass panels; overhead cabling or lighting schemes and the ease of future pruning;

The effect the development would have on each specimen's ability to gain light or create shade, depending on the individual species and its ideal growing habitat;

Ground level areas to be raised or lowered near to, or within, the protected zones;

Existing relevant features like streams, trenches, boundary fencing and the location of adjacent trees that may have some impact upon the development;

Construction activity, paying attention to site access and nearby trees en route;

Phasing of works;

Future planting schemes to be incorporated;

Wildlife habitat in existing trees

## 7.0 THE PROCESS AND MONITORING DEVELOPMENT

- 7.1 The following implementations are subject to operational constraints, so they are liable to change. The project Arborist must be notified should procedural changes occur and an inspection made to ensure compliance is being met.

### Pre-development stage:

- On-site meeting between client, Local Authority, Project Manager and Arborist
- Tree removal and pruning of trees directly impacted by development (where specified)
- Tree removal and pruning of trees indirectly impacted by development (where specified)
- Installation of tree protection fencing
- Installation of ground protection boarding
- Installation of 'no-dig' cellular confinement

### Development stage:

- Site safely compounded and signage in place
- Ensure site access available to construction traffic
- Storage area for building materials, skips, etc. allocated, as shown on Tree Protection Plan (TPP)
- Demolition, if required
- Installation of services and ground works
- Development of project
- Completion and Arborist's inspection

### Post-development stage:

- Removal of tree protection fencing
- Removal of ground protection boarding
- Hard and soft landscaping (where applicable)

- 7.2 Site visits will be made by the Arborist to observe the constraints procedures are being upheld. Compliance forms will be completed by the Arborist and signed-off with the Project Manager and Local Authority where necessary.
- 7.3 The Arborists visit ensures continual protection, but should any remedial changes be required, advice can be speedily given to all parties and recorded in the comments for the Local Authority to view.
- 7.4 Supervision can be given by the Arborist at crucial stages of development, to oversee approved methodology is adhered to and to ensure arboricultural objectives are met.
- 7.5 If the task is prolonged and the Arborist is satisfied that criteria is being met, telephone supervision between the Project Manager and the Arborist may suffice. The Local Authority is to have free access to the site and may pass recommendations directly to the Arborist.
- 7.6 Remedial tree works and any site clearance should be carried out prior to installation of tree protection fencing. However, it may be helpful to mark out where the protective fencing is to be erected (e.g. with tape or spray-paint), in order to assist with site clearance and vegetation trimming.
- 7.7 Removal of hard surfacing, may require adjustments to the protective fencing. This must be discussed with, and approved by, the Local Authority prior to any alterations commencing.



## 8.0 ROOT PROTECTION AREA - RPA

- 8.1 Data is collected by the Arborist and recorded in the Tree Survey, which, in accordance with BS5837 (2012), gives us the calculations to determine the Root Protection Area (RPA). This measurement is designed to protect the minimal root mass in order to ensure trees survive the construction process.
- 8.2 All parties must respect the RPA and observe necessary precautions within and adjacent to them, noting all considerations as itemised in section 6.0 and restrictions listed in section 9.0.

## 9.0 RESTRICTIONS WITHIN THE RPA

- 9.1 The area inside the tree protection fencing is called the Construction Exclusion Zone (CEZ) where:

- No mechanical excavation is permitted
- No excavation allowed by any means without Arborist supervision
- No hand-digging without approved Method Statement from Arborist
- No lowering of ground levels (except to cut-back tall grasses with hand-tools)
- No storage of plant, machinery, tools or materials
- No dumping of waste materials including mortar washings
- No bonfires or fire lighting allowed
- No parking of any vehicle

- 9.2 In addition, the following exclusions apply outside the Construction Exclusion Zone:

To prevent harmful toxins accessing tree roots, no fuel, oil, bitumen, mortar washings or other chemicals are to be tipped within a further 10m from the tree protection fencing. This area is not to be used for storage of ballast, builder's sand or concrete.

No fires are to be lit within a 20m radius of the tree since heat could damage limbs and cause die-back of bark, ultimately leading to tree death.

**The use of properly positioned protective fencing can prevent tree deaths occurring.**

Damage to major limbs must be avoided: Ragged wounds speed infection

Parking of heavy vehicles and cars must not be allowed near the root area. Compaction and oil contamination result.

Fires should not be lit in the vicinity of trees. Burning by flames causes dieback and disease

Attachment of signs, fences, cables and winches to a tree causes direct damage and promotes decay

Protective fencing must be erected at the recommended distance

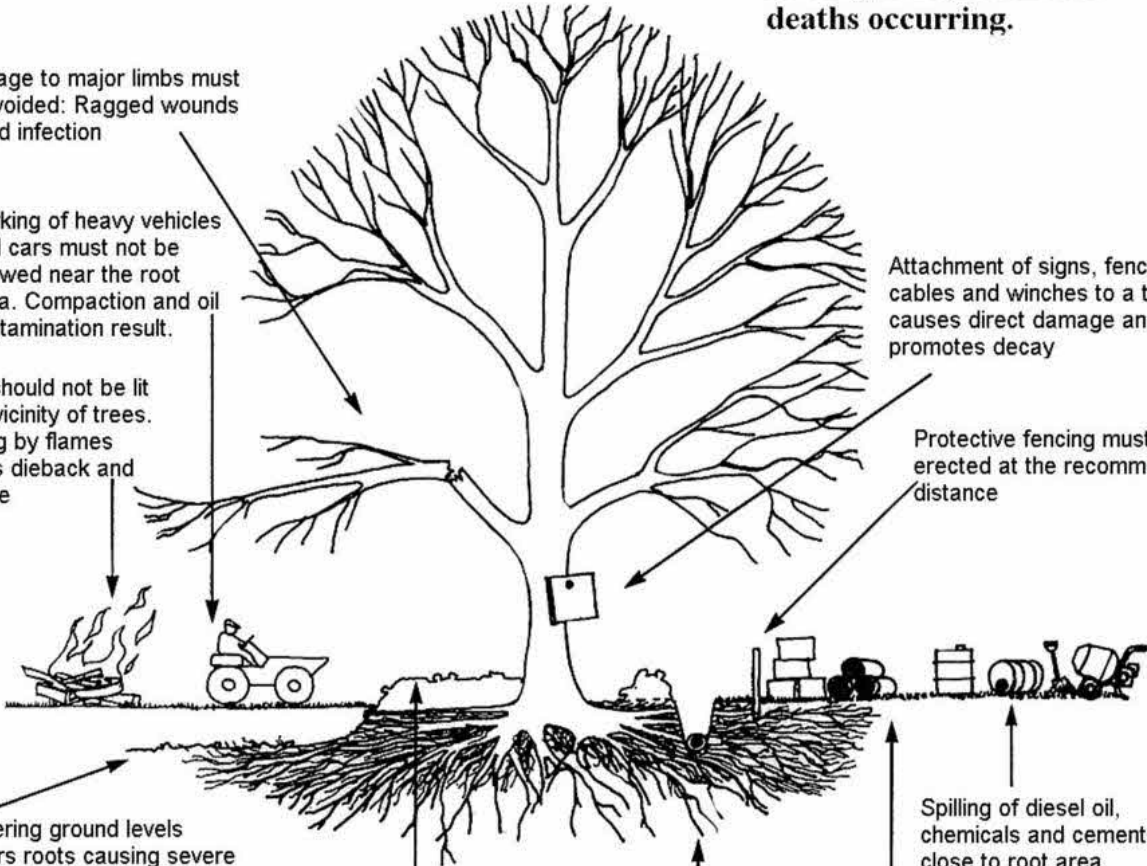
Lowering ground levels severs roots causing severe dieback

Spilling of diesel oil, chemicals and cement close to root area causes root death

Raising ground levels even for only a few weeks and by only several centimetres can suffocate roots, causing severe dieback

Trenches dug within root area sever roots, causing instability and crown dieback

Storage of materials within root area causes compaction and root suffocation



## 10.0 TREE PROTECTION FENCING

10.1 The Tree Protection Plan (TPP) shows the correct positioning of Tree Protection Fencing, which must be installed as instructed prior to any of the following:

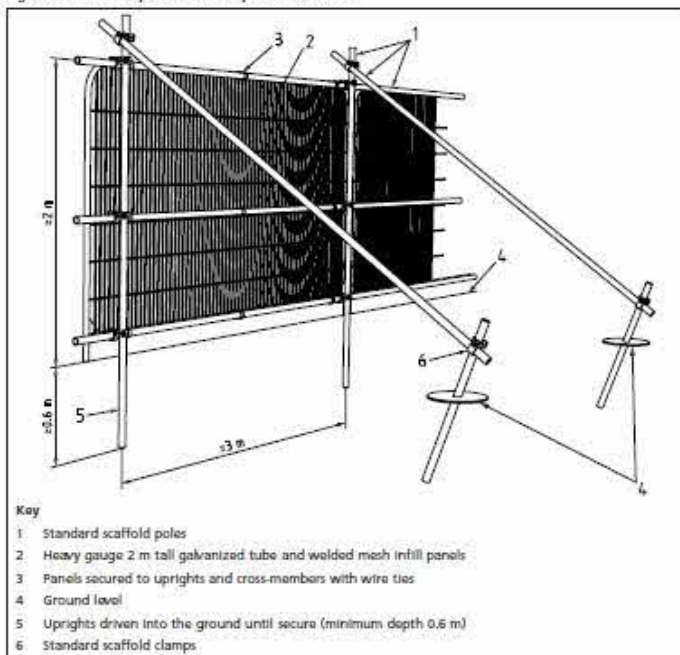
- Plant machinery delivery
- Building materials delivery
- Demolition
- Soil stripping
- Construction works
- Landscaping

10.2 Once erected, it is imperative that all Tree Protection Fencing will not be altered or moved without prior consent from the nominated Arborist with approval from the Local Authority.

10.3 The Tree Protection Fencing will be constructed using 'Heras' welded mesh panels set onto a scaffolding framework, which is then braced and firmly secured into the ground to resist impact. Rubber feet or concrete blocks are not acceptable as the fencing panels are easily moved. Should alternative Protective Fencing be required, suitability and efficiency must be discussed with the Arborist and consent given by the Local Authority.

10.4 The all-weather signage (see below example) must be attached to the fencing for public display and not attached directly to the tree stems. Once the Construction Exclusion Zone (CEZ) is clearly defined by the Tree Protection Fencing, construction can commence.

Figure 2 Default specification for protective barrier



## 11.0 GROUND PROTECTION BOARDING

- 11.1 Any ground protection required, as shown on the Tree Protection Plan (TPP), must be capable of supporting loads evenly without causing ruts, divots or soil compaction, which will inhibit the uptake of vital nutrients and moisture by tree roots.
- 11.2 To protect the ground from pedestrian loads when working within the Root Protection Area (RPA), the following method is advised, as it will continue to provide oxygen and moisture to reach roots:

Install a Geotextile membrane over the area  
Top with a layer of bark chippings  
Place scaffold boards on top of chippings, ensuring boards are firmly butted up close to one another  
Further scaffolding levels will give the construction team access to higher levels if needed



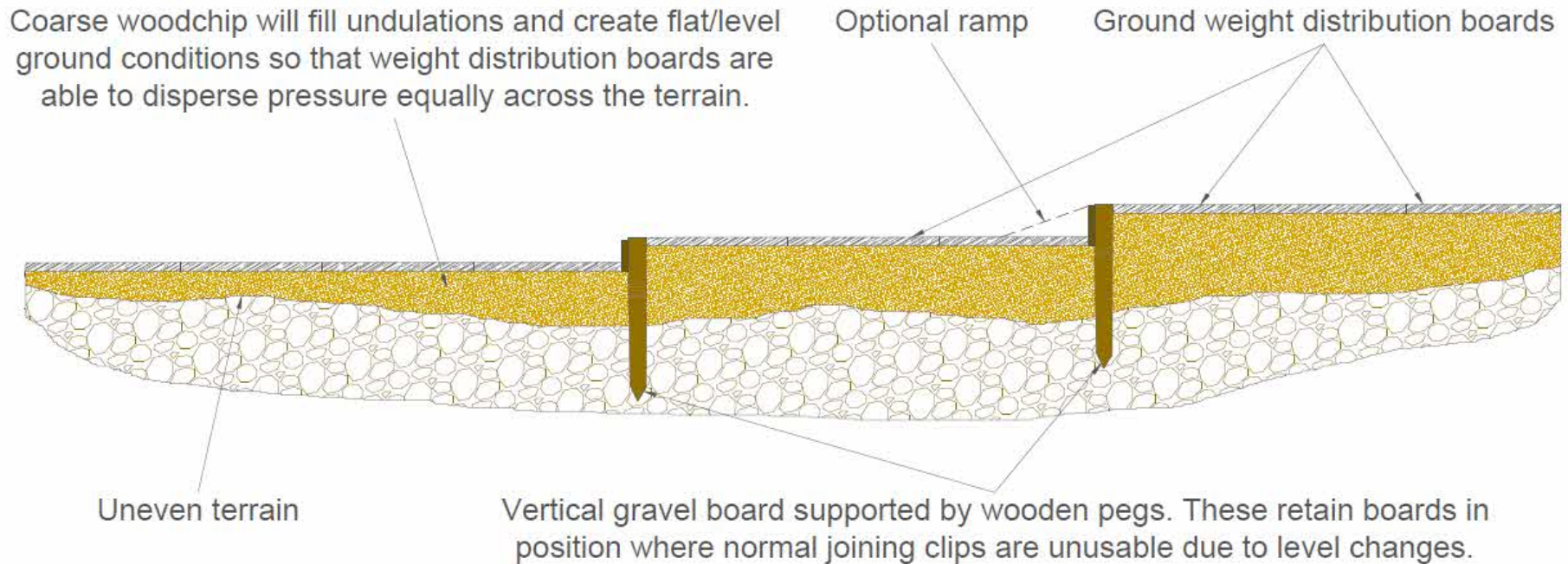
- 11.3 The ground protection must remain in place until completion of construction.
- 11.4 Should wheeled or tracked machinery be required within the RPAs of retained trees, Temporary Track Road Systems or Ground Protection Boards are required. These comprise of interlocking solid polythene sheets measuring 244cm x 122cm (made from 90% recycled materials) capable of effectively dispersing weight. These boards are lifted and taken away upon completion of the project. See further information here: MultiTrack Ground Protection Guards (<https://www.greentech.co.uk/ground-reinforcement/ground-guards/multitrack-ground-protection-guards>)





Generic example of how to install ground weight distribution boards on uneven ground within a Root Protection Area (RPA) - Cross-sectional view

(Please refer to Section 10 of the Arboricultural Method Statement)



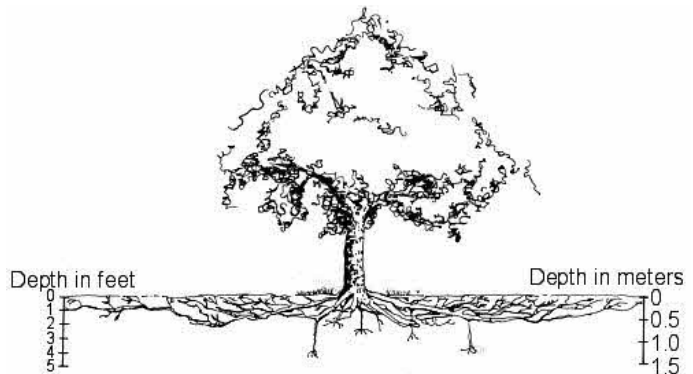
## 12.0 NO DIG CELLULAR CONFINEMENT CONSTRUCTION AND METHODOLOGY

In order to avoid damage to tree roots within in the Root Protection Areas (RPA) of retained trees, the new surface area (i.e. driveway/pathway) will be constructed using a “No-Dig” cellular confinement methodology. Principles set out in APN 12 Through the Trees to Development, Tree Advice Trust, Patch and Holding will apply. This is in accordance to the BS5837 (2012) ‘Trees in Relation to Design, Demolition and Construction’.

### HOW DO TREE ROOTS GROW?

Roots are largest near the trunk, getting thinner and slightly deeper as they taper further away  
Roots spread horizontally in all directions in a distance that is broadly proportional to the tree’s stem diameter

Roots spread almost parallel with the soil surface, rather than finding depth, so that they readily receive oxygen, nutrients and water. Most roots thrive within the first metre depth of soil. Without these essential ingredients, roots are unable to function or grow properly and will die.



### THIS IS WHAT WE MUST AVOID



Protection during construction –  
In order to retain healthy, functioning roots, there must be no excavation, soil stripping, raising or lowering of soil levels or site grading within the sacrosanct Root Protection Area.

Damage from mechanical diggers (shown in the picture) is prohibited and may incur legal action.



Ideally, these works should be carried out between May and October.

The initial surface is to be cleared of vegetation (this can be done with an herbicide, e.g. Glyphosate) and levelled to a maximum of 20mm in depth. Stumps should be ground out rather than excavated. Any hollows are to be filled with sharp sand or 4/20mm clean angular stone. No soil stripping, site grading, raising or lowering of soil levels or excavation machinery is to be used within the RPA for this purpose. An Arboriculturist will be present during hand/breaker excavation in order to prevent any accidental damage or severing of roots of retained trees. All arisings to be removed via wheel barrows on boarded walkways.

Once the area has been prepared, protective Heras panels will be placed at the extremities of the no-dig area prior to the construction process and remain in-situ until completion of the project.

A three-dimensional Cellular Confinement System, such as Cellweb or Terram, will be used as an integral component of the sub-base. The cells act as a suspension layer into which recommended materials are retained.

A Permatex 300 Separation geo-textile layer is installed on the ground beneath the cells to prevent retained materials mixing or being pressed into the ground.

Support edges for the sides of the cellular confinement system must be permeable in nature to allow gaseous exchange. These edges are to be laid by hand.

Using wheelbarrows along boarded walkways, fill the geo-textile layer to a minimum of 100mm depth with 'no fines' washed aggregates. Mesh filled with 4/20mm clean angular stone to BS EN 13242 and 12620, creating a positive interlock within the cellular confinement system is acceptable. Type 1 roadstone is not to be used.

Compact the sub-base to ensure binding with the geogrid and minimise future rutting.

The final porous surface is placed on top, e.g. washed gravel, un-grouted permeable block paving (i.e. between gate and kerb) or porous asphalt.

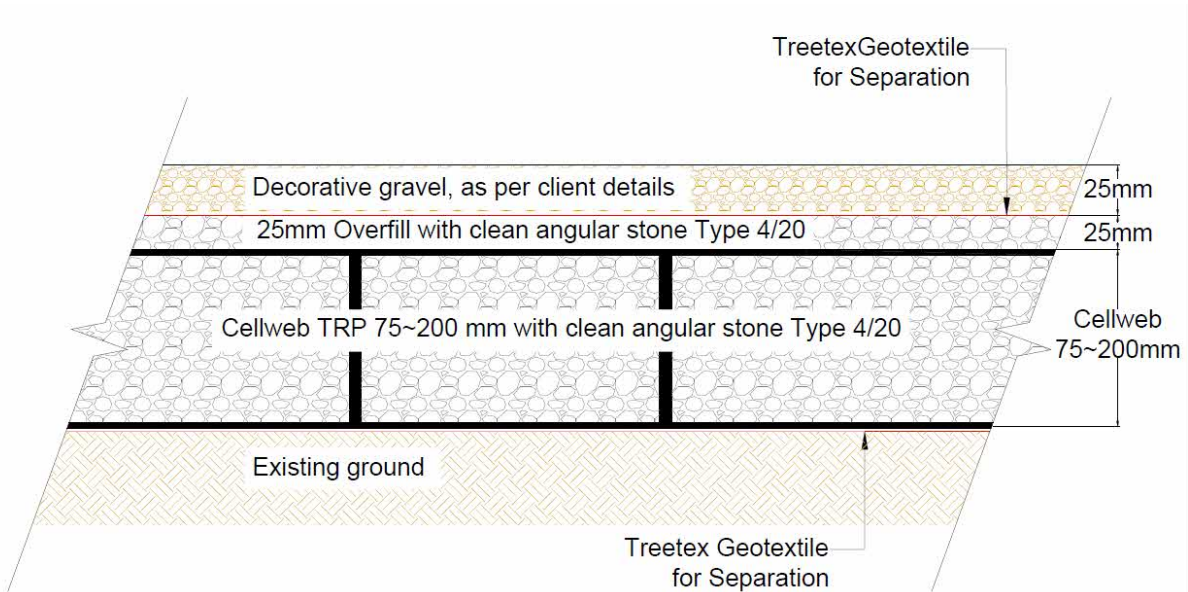
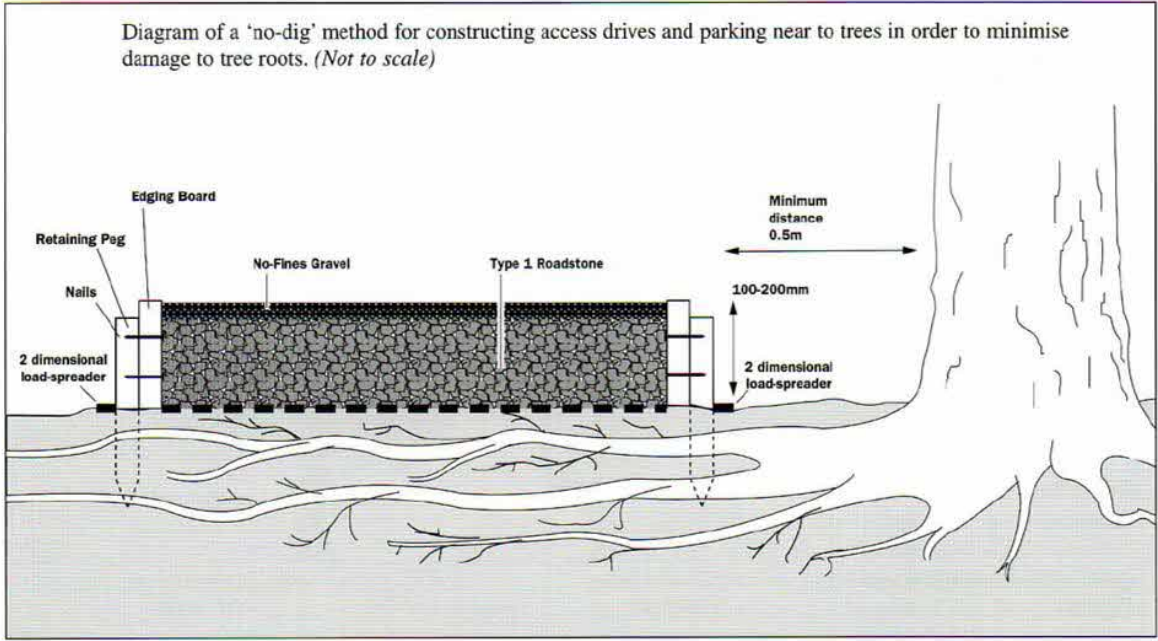
Heras fencing panels can then be removed.



References:

<http://greenfix.co.uk/geoweb/geoweb-tree-root-protection.html>

<http://www.terram.com/products/geocells/tree-root-protection-geocell.html>



Note: Subbase could be required depending on the existing ground CBR % and the type of traffic on the surface.



## 13.0 AVOIDING DAMAGE TO BRANCHES AND STEMS

- 13.1 The proximity of retained trees must be considered when planning site operations with wide or tall loads, or movement of excavators and cranes with wide booms. If limbs or trunks are damaged, pathogens may enter wounds leaving the tree unsafe for retention.
- 13.2 Where plant machinery manoeuvres are required on site, a banksman must oversee proceedings to ensure trees remain unharmed. In some cases, the barest minimum selective pruning works called 'Access Facilitation Pruning' may be advised by the Arborist. Under no circumstances should the construction personnel carry out any access facilitation pruning work. This should be left to the qualified Arborist and his team only.

## 14.0 RECOMMENDED TREE WORKS

- 14.1 Under no circumstances will a tree carrying a Tree Preservation Order (TPO) or listed within a conservation area be worked upon without prior local authority permission.
- 14.2 Any tree requiring pruning or actual tree removal will be carried out in strict accordance to BS3998 (2010) – 'Recommendations for Tree Work'. All works will be competently carried out by a competent and qualified Arborist.
- 14.3 During tree works within the project, safety signage must be displayed and only employees of the tree surgery company may enter the work zone. If works are on or alongside the public highway, then relevant signage and traffic management will be required in accordance to 'Chapter 8 Signage, Lighting and Guidance'.
- 14.4 Should overhanging trees encroach across site boundaries, all efforts to receive permission must be sought from the relevant land owners prior to any pruning works. Trespassing and unauthorised pruning works is not permitted.
- 14.5 The 'Wildlife and Countryside Act (1981)' and the 'Countryside and Rights of Way Act (2000)' must be adhered to at all times. Should any bat activity, or empty roosts be suspected, advice must be sought by the Local Authority.
- 14.6 Tree stumps in the Construction Exclusion Zone (CEZ) must not be mechanically dug or winched out, but removed by:
  - Cutting flush to ground level, or
  - Dug out using low ground disturbance grinding machinery (e.g. stump grinder)
- 14.7 Where resultant debris from tree surgery operations is to be removed from site, this should be done by a registered member practicing the Environment Agency Policies.

## 15.0 REMOVAL OF HARD SURFACING WITHIN THE ROOT PROTECTION AREA

- 15.1 Bespoke specific arboricultural tree protection measures should be agreed by the nominated arboriculturalist prior to works commencing. Please note that damage to tree roots can be irreversible.
- 15.2 The initial break up is to be carried out by hand where possible, or low impact pneumatic hand-held tools. The use of breakers on diggers (no bigger than a 2.5 tonne machine) requires a specific pre-works plan, assessing the depth and width of specific root morphology that may be impregnated elements of hard surfacing infrastructure.
- 15.3 Removal of the hard surface should proceed in 2m wide strips to avoid unnecessary root damage and good quality topsoil should be laid as progress is made to 'make good' the remaining ground. This process also avoids the need to travel over exposed soil.
- 15.4 Subsequent removal of hard surface pieces should be carried out by hand. If this is not possible, a small 2.5 tonne excavator will be allowed within Root Protection Area (RPA), onto existing hard standing or weight distribution boards, under the provision that teeth on the bucket do not dig into the ground, expose roots or disturb soil underneath by dragging pieces across exposed soil. Once the remaining pieces are of a manageable size, hand clearance can continue.
- 15.5 No reduction of soil levels of the underlying surface are permitted.
- 15.6 Should levelling be required, good quality topsoil may be laid and dispersed by hand.
- 15.7 Should any tree roots above 25mm diameter be uncovered, guidance and approval must be sought from the Arborist and Local Authority.
- 15.8 Protective fencing must be correctly reinstalled immediately, in order to continue to protect trees before new surfacing is installed or soft landscaping is completed.

## 16.0 ARBORICULTURAL CONCLUSION

With compliance to the tree protection measures by the contractor, as well as supervision and guidance from the nominated Arborist, the retained trees should not experience trauma, damage or a shortened expected lifespan.

17.0 TREE SURVEY, PHOTOS AND KEY – TREE SURVEY AND PHOTOS DATED JULY 2022

Tree or Group, Hedge, Shrub, Woodland. # = offsite	Species Estimated measurements recorded using 'est.'	DBH recorded in mm	Tree Height in metres + First Branch in metres from ground level with cardinal direction	Branch Spread N E S W metres	Age Y SM EM M LM OM V A	SULE <10 10+ 20+ 40+	General Observations	Structural form	Physiological form	BS 5837 RC	BS 5837 RPA Radius recorded in metres m and m <sup>2</sup>	Recommended Works
								Poor Fair Good Dead	Poor Fair Good Dead	A B C U		
T1	Copper Beech	800	H: 17m  FB: 5m/N	N 6 E 7 S 9 W 5	M	20+	<p>Located in small raised border. Evidence of historic desiccated Kretzschmaria deusta fruiting bodies on buttress roots to west and south-east.</p> <p>Minor ivy presence at base, previously removed from stem to crown break.</p> <p>Historic pruning wounds present from previous crown lifting works with good wound wood formation.</p> <p>Minor deadwood in crown.</p>	Good	Good	B2	9.6m 290m <sup>2</sup>	---



T1 Copper Beech to left of photo. Tree is subject to a Tree Preservation Order (TPO). Photo shows entrance drive into property, viewed from north-east.



T1 Copper Beech with desiccated *Kretzschmaria deusta* fruiting bodies at base.

T2	Lebanon Cedar	1030	H: 17m FB: 4m/NE	N 8 E 7 S 8 W 7	M	40+	<p>Located in small raised border.</p> <p>Historically lifted on eastern side to approximately 11m with good resultant reaction wood. Further pruning wounds evident throughout, predominantly on eastern side. Evidence of recent deadwood removal.</p> <p>Lowest limb to west encroaching into neighbouring property. Historic evidence of storm damage or branch failure on this limb observed from fracturing of bark on upper side.</p> <p>Historic pruning wound to south-west at 12m. Exposed heartwood with good reaction wood forming.</p>	Fair	Good	B2	12.3m 475m <sup>2</sup>	---
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T2 Cedar. Tree is subject to a Tree Preservation Order (TPO).





T2 Cedar showing damage to lower limb headed west.



T2 Cedar viewed from west, also showing neighbouring development works.



T3 #	Hornbeam	570	H: 12m  FB: 1.5m/N	N 4 E 6 S 6 W 6	EM	20+	Some minor bark delamination on southern side of stem at 0.5m, thought to have been caused by vehicular contact.  Exposed surface roots, likely from strimming/mowing close to stem.  Low crown over footpath and road. Some evidence of minor crown lifting with exposed heartwood and good reaction growth.	Good	Good	B2	6.9m 150m <sup>2</sup>	Lift crown over roadside to 5m above ground level to facilitate vehicular access for high sided vehicles.
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T3 Hornbeam outside of plot. Low roadside foliage may require lifting to 5m in order to facilitate access for high-sided vehicles during development.



The survey, unless otherwise stipulated, is based on the qualified Arboriculturist making trained observations from ground level.

KEY	Explanation and Units
T, G, H, S or W	Tree/Group/Hedge/Shrub/Woodland numbers in tree survey and on enclosed plan. Offsite trees are suffixed with a # symbol.
Species	Defined in Common and/or Botanical names.
DBH	The Diameter at Breast Height (DBH) measures the girth of the stem in millimetres at 1.5metres above ground level in accordance with Forestry Commission specifications. Estimated dimensions (e.g. for off-site or otherwise inaccessible trees) are labelled with 'est.'
Height	Approx. Height of tree recorded in metres. Also first significant branch height and its cardinal direction.
Canopy Spread	Approx. Canopy Spread recorded in metres with cardinal growth direction given where appropriate; N, E, S, W.
Age	<p>Y: Young tree less than fifteen years old and/or &lt;1/3 fully grown.</p> <p>SM: Semi-Mature tree having attained 1/3 to 2/3 full stature and 1/3 to 1/2 estimated lifespan.</p> <p>EM: Early-Mature tree at 2/3 to virtually full size, and approx. halfway through its estimated lifespan</p> <p>M: Mature fully-grown tree</p> <p>LM: Late-Mature fully-grown tree, possibly declining in vigour yet many years of safe life expected.</p> <p>OM: Over-Mature fully-grown tree, often declining in vigour with possible historic or ecological value.</p> <p>V: Veteran tree, usually old and of significant historic, habitat or cultural value.</p> <p>A: Ancient tree, very old and of significant historic, habitat and cultural value.</p>
SULE	Remaining Safe Useful Life Expectancy (SULE) recorded using the following statistics: <10 years, 10+, 20+ or 40+ years.
Observations	<p>Root Condition: The visual assessment of the rooting area, taking into consideration any evidence of physical damage, soil compaction, heave, excavation work and/or drainage problems.</p> <p>Stem Condition: The visual assessment of the stem and main scaffold branches, observing any visible faults and wounds, and other exterior signs which may suggest possibility of internal compromise. If decay is suspected, a sounding hammer may be used.</p> <p>Leaf &amp; Bud: The visual assessment of the amount and condition of foliage cover and/or bud development, when compared against the foliage of the surrounding trees of the same species.</p>
Structural and Physiological Form	Good / Fair / Poor / Dead
BS:5837 Retention Category	<p>Retention Category:</p> <p>Category A = High quality or value and a life expectancy of 40+ years</p> <p>Category B = Moderate quality or value and a life expectancy of 20+ years.</p> <p>Category C = Low quality or value with a life expectancy of 10+ years, or a stem diameter below 150mm</p> <p>Category U = Trees generally unsuitable for retention that are dead, dying, diseased and/or anticipated to fail. Usually with a life expectancy of less than 10 years.</p> <p>Sub division:</p> <p>Category 1 = Primarily arboricultural values, including significant, rare and good examples of specific species.</p> <p>Category 2 = Primarily landscape values, considered visually valuable either individually or in groups.</p> <p>Category 3 = Primarily conservation values, including habitat, historical and/or commemorative importance.</p>
BS:5837 RPA	The Root Protection Area (RPA) is measured in metres (radius from tree stem), and metres squared (total area), specifically calculated using the Diameter at Breast Height (DBH).
Recommended Works	The Arborist's recommendations for any work.



## 18.0 GUIDELINES TO EMPLOYING ARBORICULTURAL CONTRACTORS

It is recommended that clients:

- Have more than one contractor supply a quote
- Check training and insurance certificates
- Be clear about procedures and enforceable protective constraints
- Ensure all contractors adhere to policy statements set down by the Arborist
- Communicate fully in order to achieve success with project
- Utilise a company who are approved by the Arboricultural Association

#### Full Legal Disclaimer

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#### Third Party Disclaimer

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#### Specific - Trees

All tree inspections, unless specified, have been undertaken from ground level and using non-invasive techniques. Comments contained within the report on the condition and risk associated with any tree relate to the condition of the tree at the date and time of survey. Please note that the condition of trees is subject to change. This change may occur, but is not limited to biological and non-biological factors as well as mechanical / physical changes to conditions in the proximity of the tree. Trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance. Heritage Tree Services Ltd can provide further information on this matter if required.

Please note no statutory control checks have been undertaken (unless specified). Where tree surgery works have been identified these works are based on the assumption that planning is approved. No tree works should be undertaken prior to determination of this application without up-to-date confirmation of the Tree Preservation Order / Conservation Area Status of the vegetation. All works should be undertaken in accordance with the appropriate Duty of Care. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species.

Any comment relating to 3rd party trees has been made without full access to the tree(s). Should these trees have any impact on the proposed development we would advise you to instruct us to contact the 3rd party and undertake further inspection work.