BS5837 Arboricultural Impact Assessment & Method Statement

34 Belsize Lane, Camden, London, NW3 5AE

Client:	**34 Belsize Lane Limited**
Job Reference:	04030Rv2
Planning Ref:	TBC
Consultant:	Keiron Hart (BSc Hons, C.Env, F.Arbor.A, MICFor, MEWI, APAEWE)

March 2024

Tamla Trees
consulting arborists

Contents

1. Executive Summary & Response to Council Comments

1.1 Tamla Trees ltd has been appointed by 34 Belsize Lane Limited to provide advice on the arboricultural issues relating to proposed development which can be described as: *"Application for planning permission for the erection of a new ground floor link structure, erection of a new single storey first floor extension, plus landscaping works and all other associated and ancillary works".* We surveyed the site in July 2023. The survey accorded with BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations". Direct access to a number of the trees (due to location/ 3rd party ownership) was not possible and estimated condition/ dimensions are used as a result.

1.2 The property and grounds have become overgrown in recent years with minimal 'normal' garden management. It is proposed to remove T4 (Apple) T5 (Bay Laurel) & T9 (Eucalyptus). These trees are small BS5837 Cat C trees of minimal local and wider amenity. It is proposed to prune T12 (Magnolia) to shape as a result of its proximity to the existing building and developed asymmetrical canopy form. Provision is made for some pruning to T2 (Acer) but this may not be required depending on the suitable work clearance to deliver the proposal. T11 (Bay Laurel) has established white rot within the basal area of the stem (*Ganoderma* spp) and is identified for removal on health and safety grounds.

1.3 No excavation or foundation works within retained tree Root Protection Areas (RPA) are proposed. A system of tree protection (Full spec scaffold Herras fencing) and temporary ground protection seeks to ensure all retained trees are adequately protected through the re-development process (see Appendix 6 – Tree Protection Plan). All protection measures will be installed prior to any site activity and retained for the duration of works. All site welfare/ storage etc will be located in areas outside of the designated protection/ internally to the existing building.

1.4 The tree issues can be summarised as: **Effective Tree Protection (demolition & construction)> No Dig Patio Surface Installation> Hand digging / installation of Service routes (if required)> Site operative knowledge of tree protection issues> Soft landscaping to make good.**

1.5 The property is within the London Borough of Camden administration area. The property is within a Conservation Area but we have not been advised of any Tree Preservation Order (TPO). This report is based on client plan ref: 245-S3-101-Proposed Ground Floor Plan (and associated plans). The working methodology and tree protection measures detailed will only be effective if implemented as detailed.

2. Statutory Protection

2.1 At the time of writing we are advised as follows:

Conservation Area Status	
Is the site located within a Conservation Area?	Yes Fitzjohns Netherhall Conservation Area.
Notes: (i)All trees larger than 7.5cm diameter at 1.5m above ground level are subject to regulations within a Conservation Area. Exemptions apply for trees which are dead and dangerous but clarification before any tree works is advised. A notification is required in many circumstances.	
Tree Preservation Order Status	
Are inspected trees subject to a TPO?	TBC
Type of TPO	~~**Area**~~
	~~**Individual**~~
	~~**Group**~~
	~~**Woodland**~~
TPO Reference	-
Date TPO Made	-
Notes: (i) The type and details of any TPO determine which trees are 'protected'. Exemptions apply for trees which are dead and dangerous but clarification before any tree works is advised. An application may be required before undertaking works. (ii) Above information taken from Camden Council constraint plan March 2024 (iii) We have not been advised of whether any trees are the subject of a TPO.	

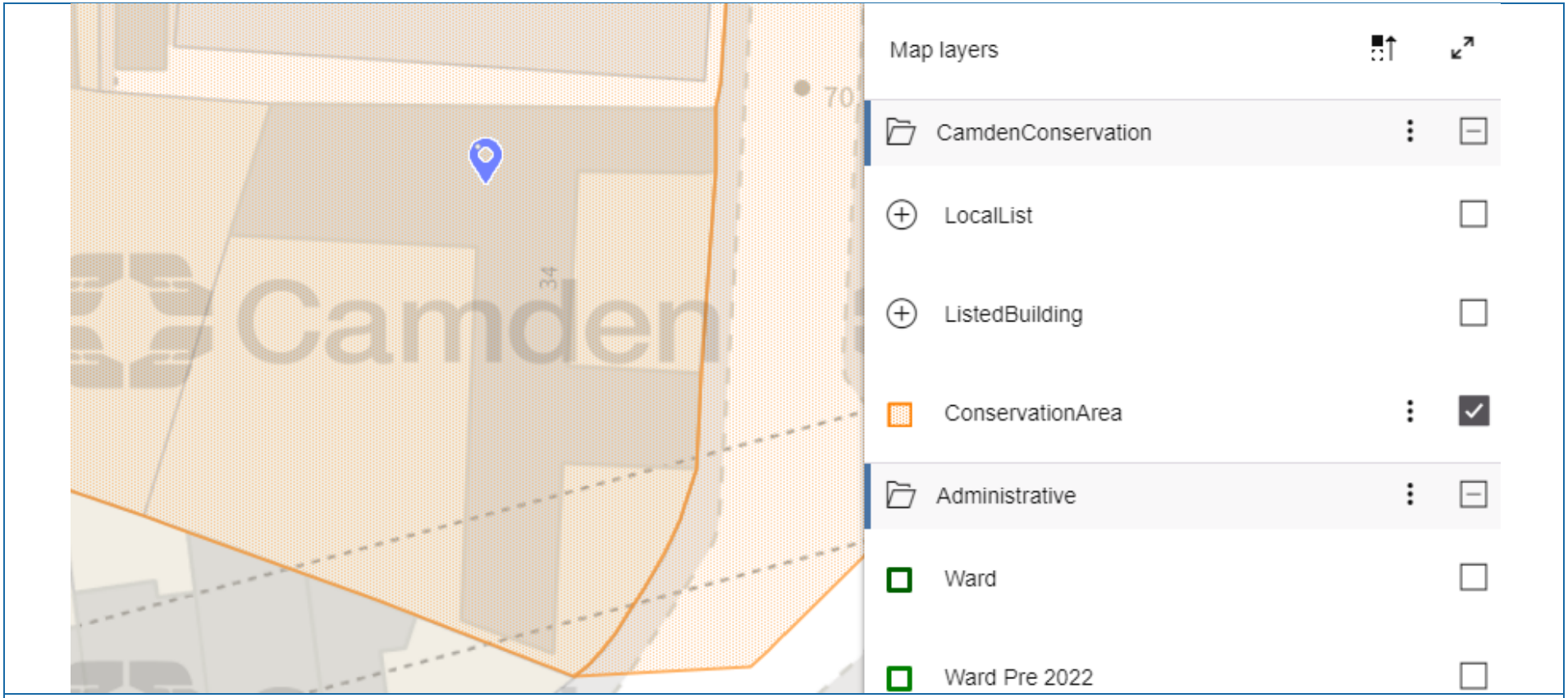


Fig 1 – Camden Council constraints plan plan indicates the property to be located within the Fitzjohns Netherhall Conservation Area..

3. Terms of Reference & Resource Information

3.1 BS5837:2012 'Trees in relation to design, demolition and construction – recommendations'

3.2 BS3998:2010 'Tree work – recommendations'

3.3 Arboricultural Associations Approved Tree Work Contractors List

3.4 https://www.trees.org.uk/Help-Advice/Help-for-Tree-Owners/Guide-to-Tree-Pruning

3.5 NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007" To include Operatives Hand-out Guidance

3.6 Foundation design, tree species water use - NHBC Chapter 4.2 Building near trees

3.7 TDAG Trees Planning & Development – A guide for delivery

3.8 TDAG Trees in Hard Landscapes – a guide for delivery

3.9 TDAG Tree Species Selection for Green Infrastructure – a guide for specifiers

3.10 BGS Open-Source Soil Data http://www.bgs.ac.uk/nercsoilportal/maps.html

3.11 HSE (2014) Avoiding danger from underground services: https://www.hse.gov.uk/pubns/books/hsg47.htm

3.12 Eissenstat & Yanai (1997) The ecology of root lifespan. *Advances in Ecological Research*, 27, 1-60.

3.13 Hendricks & Pregitzer (1992) The demography of fine roots in a northern hardwood forest. *Ecology*, 73, 1094-1104.

3.14 BRE Digest 412: Desiccation in clay soils.

3.15 Matheny & Clark (1998) Trees and Development: A Technical Guide to Preservation of Trees During Land Development.

3.16 https://www.camden.gov.uk/trees-planning

4. The Trees

4.1 The trees can be summarised as follows:

BS 5837 Cat	A	B	C	U
Specific Trees	-	T1, T2, T10, T13	T3, T4, T5, T6, T7, T8, T9, T12	T11
Total Number	None	4 trees	8 trees	1 tree*

**Based on available access.*

4.2 There were no hedgerows that qualify for consideration under the 1997 Hedgerow Regulations.

5.1 Site Specific Soils & Tree Rooting

5.1.1 Soil is an important factor in tree growth and the type of underlying soil can impact on successful integration of new developments.

5.1.2 A free draining sandy soil containing sand/gravel is likely to lead to water being accessible in the upper horizons during the growing season and available at greater depths and trees will generally be forced to explore a larger volume/ depth on such soils. The structure of such soil also makes compression more difficult (by heavy construction plant) and root penetration is easier for the trees. By comparison, a clay soil is more easily compressed, particularly when wet and compression can have a greater impact on tree health.

5.1.3 British Geology Survey (BGS) data indicates the site is located within what is defined as London Clay.[1]

Soil Description
Bedrock Deposits: London Clay Formation - Clay, silt and sand. Sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period. **Superficial Deposit: None recorded**

Underlying Soil Material contains Clay	**Yes**
Soil Type increased rooting depth profile?	**No**
Increased risk of soil compaction due to soil type	**Yes**

[1] https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=LC

5.1.4 All comments regarding soils should be verified with onsite geotechnical investigations and laboratory testing with foundation depth and design undertaken by a structural engineer comments regarding soils should be verified with onsite geotechnical investigations and laboratory testing with foundation depth and design undertaken by a structural engineer in accordance with the requirements of NHBC Chapter 4.2.

5.1.5 BS5837 indicates: 4.6.2 "*The RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution*." It advises at Section 4.6.3 That any deviation in the RPA from the original circular plot should take account of a number of site-specific factors.

5.1.6 BS5837 recognises that the root morphology of trees may be affected by a number of factors and in certain situations the plotting of RPA's will deviate from the circle to reflect site specific considerations. It is our experience that to consider structures such as driveways, houses and garages as areas trees cannot utilise for rooting (and to then modify RPA plotting where they exist within an identified RPA) is too simplistic and not aligned with how trees actually utilise soil.

5.1.7 Within around 3 to 4m of the base of mature trees there will generally be a structural root system providing both support and the main structure/ root architecture for smaller roots to originate. These larger roots have the very real capacity to be influence by any significant structures (footings, roads to adoptable standard construction etc) where there may be a physical obstruction close to them and this can affect root morphology in such locations. In addition to this there will generally be a noticeable increase in structural rooting to the southwest of mature trees in the UK to reflect the prevailing wind direction, particularly where a tree may be isolated/ open grown increasing its wind exposure. Root growth and location will also be influenced by the presence of other trees, structures sheltering trees etc all of which can combine to affect the shape and location of a structural root system.

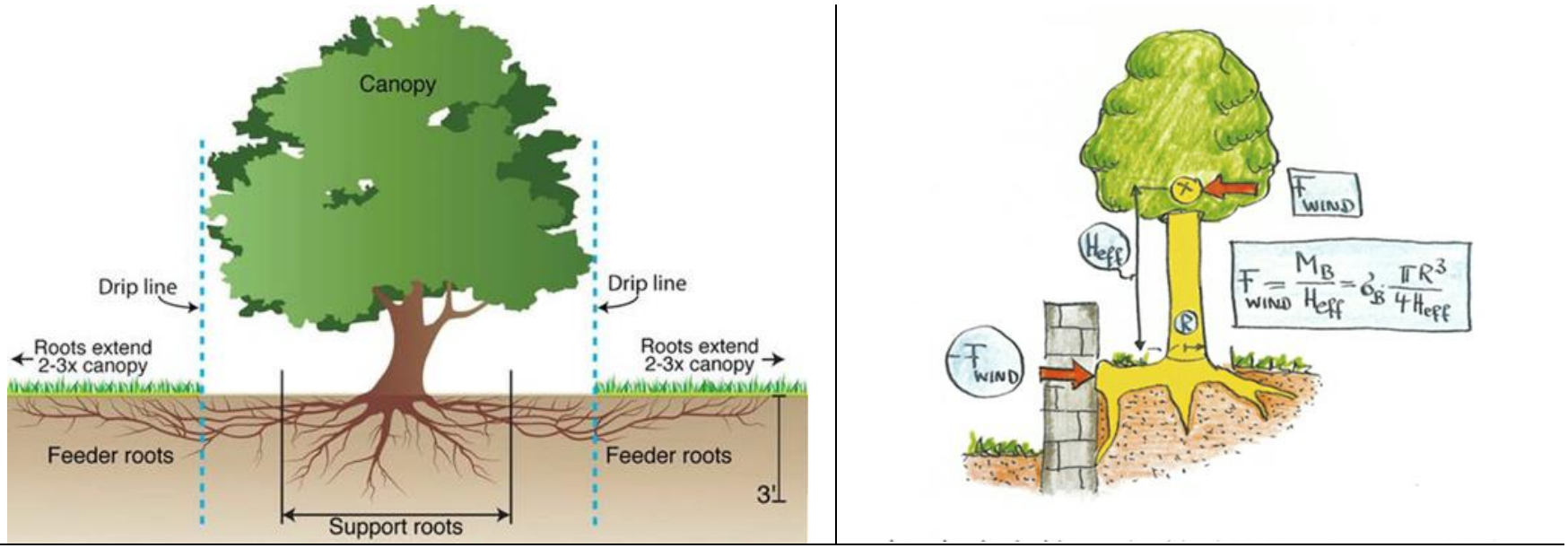


Fig 2 – Open grown trees or those with minimal obstructions close to their stems will have a network of structural roots supporting feeder/ fine root growth beyond (above left). In certain situations root morphology can be affected by structures close to the main stem (above right: Mattheck).

5.1.8 Beyond the structural (and generally permanent) root system will be a network of smaller roots which in turn subdivide to fine roots. Fine roots will also be found throughout the root system (i.e. both close to and distant from a tree) to maximise soil resource uptake and reflect underlying soil conditions. Some larger roots (>25mm and sometimes much larger) can extend away from this area and remain permanent particularly where there may be a constant supply of water (such as a broken downpipe on a building some distance away) which encourages a roots development. Generally the smaller roots (<10mm and particularly fibrous roots) outside of the immediate structural root plate can be considered to be in a state of constant change. They will grow seasonally and tree roots generally grow at night. Small fibrous roots are also mostly short lived (ranging from anything

between 10 days to over a year[2]). The cyclical death and decay of roots releases both nitrogen and carbon into the soil and is an important part of soil nutrient cycling process. The extent and location of the trees fine root system reflects a trees resource requirement (as resources are removed from certain areas of the soil and exploited in others) as well as the resource capacity required to form such a fibrous root system. Fine roots produced near the soil surface tend to live longer than those deeper in the soil[3]. The fine root system shows species variation and will also vary in depth (depending on species dynamics and underlying soil conditions). Adopted highways generally have a footing that extends < 0.5m and most UK residential properties have footings in the range of 0.5-1.5m depth. Trees will easily root below these depths and this is evidenced by the fact that every year in the UK there are thousands of tree related subsidence cases.

[2] Eissenstat & Yanai (1997) The ecology of root lifespan. *Advances in Ecological Research,* 27, 1-60.
[3] Hendricks & Pregitzer (1992) The demography of fine roots in a northern hardwood forest. *Ecology*, 73, 1094-1104.

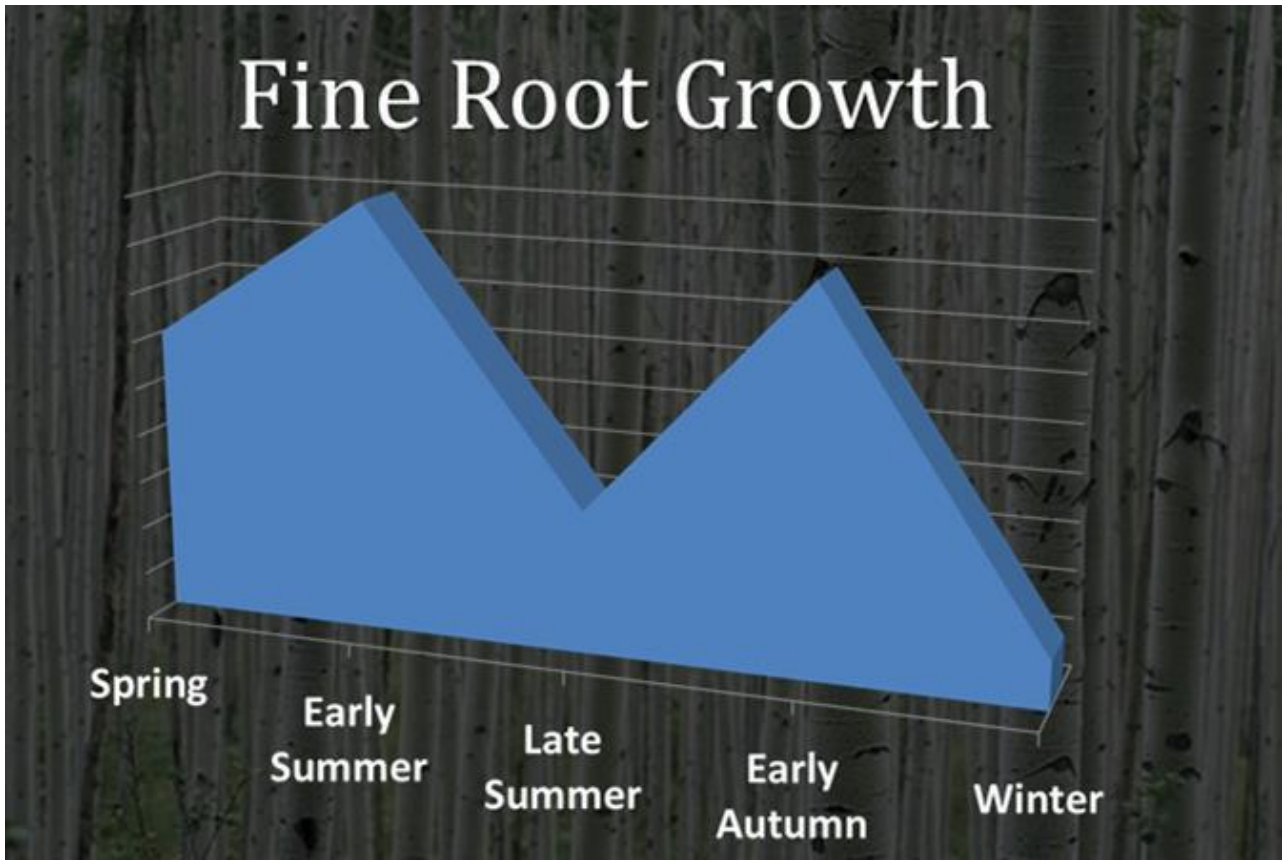


Fig 3 – Fine root growth is (generally) seasonal peaking in late spring and again in early autumn but dying back in winter dormant periods when photosynthetic production ceases. This is an important part of the soil nutrient cycle and demonstrates that a static RPA as calculated by BS5837 is a 'simplistic' view of the tree rooting dynamic. (Image Source: Tamla Trees**)**

5.1.9 The fine root system shows species variation and will also vary in depth (depending on species dynamics and underlying soil conditions). Adopted highways generally have a footing that extends < 0.5m and most UK residential properties have footings in the range of 0.5-1.5m depth.

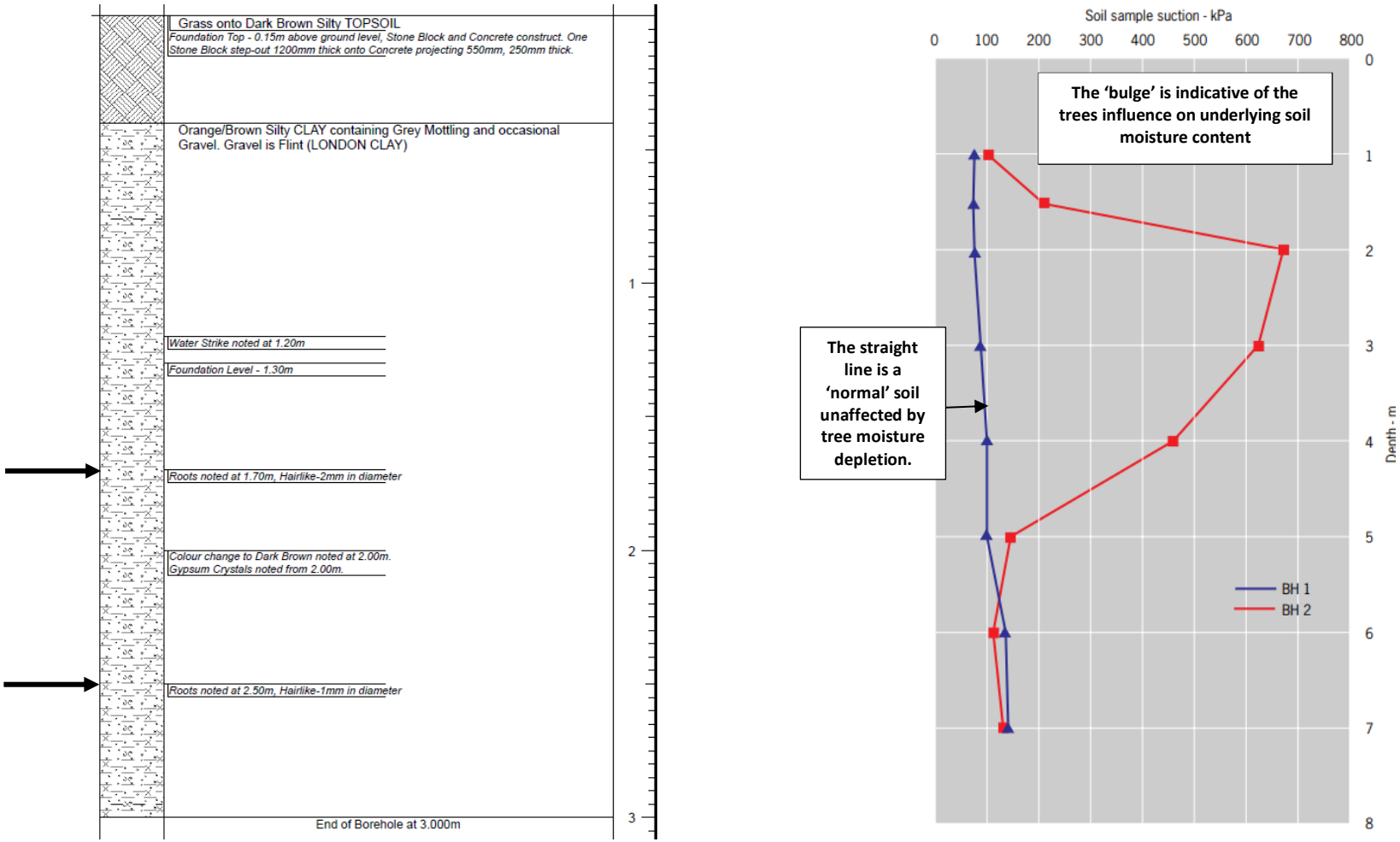


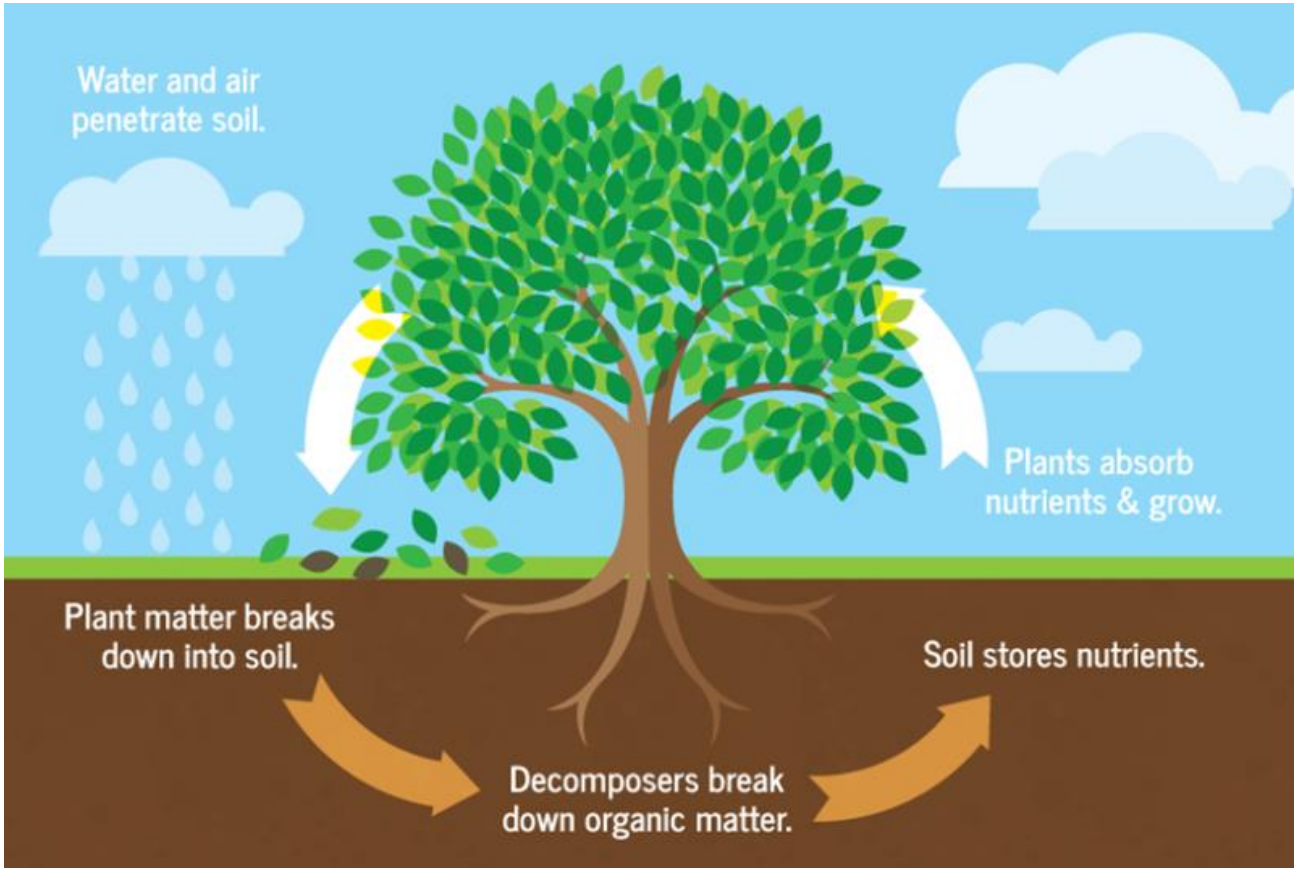
Fig 4 – Borehole log 10m from mature Oak tree on clay soil detailing fine roots to depths of 2.5m indicated with arrows (Source: Tamla Trees project) and annotated soil moisture depletion by trees showing a peak influence at 2m and extending to 5m (above right)

5.1.10 Against this backdrop rooting information seeking to manipulate RPA shapes to account for the presence of houses, garages etc outside of the immediate zone of structural rooting (3-4m) is not considered appropriate. Unless ground obstructions are present within the immediate structural rooting area or to such a depth as to nullify potential fine root growth (below basements or retaining wall step changes in levels for example) Tamla Trees ltd will show RPA's in a circular fashion but seek to maximise the quality and positioning of specified tree protection measures and encourage ground treatments (such as mulching – see Section 5.7). **Clients and developers must implement these measures for them to be effective. A failure to protect trees during the development process adversely affects soil and roots. Symptoms may not present themselves for a number of years following the development as the tree(s) enter a spiral of potentially irreversible decline.**

Fig 5 - Manion's spiral of tree decline for Norway Spruce (modified by Mrkva 1993)

5.1.11 BS5837 Section 4.6.3 Site Specific Assessment:

Section	Consideration	Site Specific Comments
4.6.3 (a)	*the morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures, and underground apparatus);*	• The existing property (and likely footings) will have deflected some root growth of trees, specifically those in close proximity (T2, T3, T7 & T12). The trees likely extend smaller (seasonal) fine root growth below the existing footings.
4.6.3.(b)	*topography and drainage;*	• The site is generally level with some localised level changes. • There was no evidence of intermittent flooding/ pooling of water on site within the identified RPA's other than the existing pond close to T6, T9 & T10.
4.6.4.(c)	*the soil type and structure;*	• Soil is indicated by the BGS as a clay. Where clay soils exist the risk from development related pressures is generally increased. This is due to reduced oxygen and moisture movement/ availability and increased risk of ground compaction (which is more prevalent on clay soils, particularly during wet periods when compression can increase upper surface bulk density and reduce oxygen availability). • Clay soils, however, retain increased moisture and nutrient availability as long as the integrity of the soil structure and root system is maintained. • **Protection measures detailed in this report will only be effective if these are instated immediately prior to all site works and maintained for the duration of the works.**
4.6.4.(d)	*the likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.*	• There are no construction related foundation works within retained tree RPA's. • The key to this (and any scheme) is **effective and robust tree protection and** measures that seek to retain and respect the landscape below tree canopies/ within RPA's to maintain soil conditions and nutrient recycling.



- ***Development has the very real capacity to adversely impact existing trees.***
- ***Tree Protection Measures seek to maintain the integrity of the identified area (See Appendix 6)***
- ***This is a 'damage limitation exercise' as identified Root Protection Areas only identify part of the trees rooting area.***
- ***Retaining the integrity of the existing soil and ground conditions can help trees to be successfully retained within projects.***
- ***Where possible try and maintain areas below tree canopies as mulched or soft landscape (not mown grass) as this maximises the natural nutrient cycle helping retain healthy trees.***

Image source: https://sswm.info/

Fig 6 – The Tree Nutrient Cycle – Every effort should be made to retain this through the development cycle. Introducing mulch below the canopy of retained trees will re-establish this natural process benefiting the trees.

5.2 Root Protection Area (RPA) Incursions

5.2.1 The following incursions into the RPA's of trees to be retained have been identified:

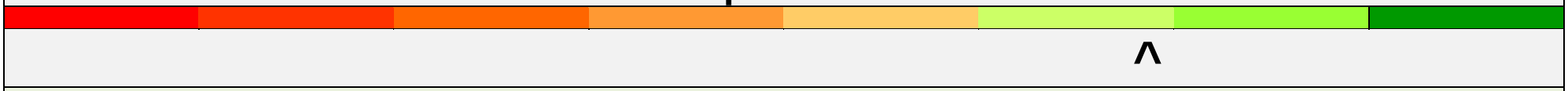
BS 5837 Cat	A	B	C	Summary
RPA Incursion	-	-	-	**Demolition –** None proposed. **Proposal/ Footings –** There are no new footing proposals within the RPA of retained trees. Minor internal pad works are advised but not within retained tree RPA's. **Services** – The new property will tie into existing on-site service connections and there is ample space to connect with Belsize Lane well away from trees (if this is required). Hand digging guidance is provided as a precaution for **ANY** localized excavations within the tree RPA's. **As a precaution all service works must form part of the contract for the construction to ensure these elements are clearly specified to the construction firm/ builders.** All service installation will be kept under review and any new installations will be undertaken by hand and in accordance with the working principles as defined within NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation, and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007" if physical excavation becomes a requirement. **Contractors (demo & construction) must be made aware of this requirement.** **This approach will work only if the tree protection measures detailed within this report and existing ground conditions below the trees are installed and maintained for the complete duration of the build cycle (i.e., erected before any activity of any kind and maintained for the complete duration of works).**
	-	-	-	
	-	-	-	

5.2.2 There are no new construction related RPA incursions:

Tree Number	RPA Total (Sqm)	Existing Incursion (Sqm)	As % of trees RPA	Proposed Incursion (Sqm)	As % of trees RPA	Difference +/-
Increase in RPA covered		**Decrease in RPA covered**				

5.2.3 It is recognised that BS5837 recommends all structures be placed outside the RPA of retained trees: *5.3.1 The default position should be that structures (see 3.10) are located outside the RPAs of trees to be retained. However, where there is an overriding justification for construction within the RPA, technical solutions might be available that prevent damage to the tree(s) (see Clause 7). If operations within the RPA are proposed, the project arboriculturist should: a) demonstrate that the tree(s) can remain viable and that the area lost to encroachment can be compensated for elsewhere, contiguous with its RPA; b) propose a series of mitigation measure.* On this project there are no new construction incursions within retained tree RPA's.

Tree & Development Risk Indicator



- On the basis no new construction works are proposed within the RPA of retained trees the identified risk is considered to be LOW.
- The Tree & Development Risk Indicator (TDRI™) is therefore LOW on the basis that development pressures to the retained trees should be LOW**.**
- **Arboricultural oversight and competent ground workers will be key to the effective delivery of this project.**
- **Note:** This level of risk if a visual guide only and is only relevant **if all advised tree protective measures are put in place prior to any on site activity and maintained for the duration of the works.**
- **Note:** Only on-site testing can confirm the local soil conditions below foundation level.

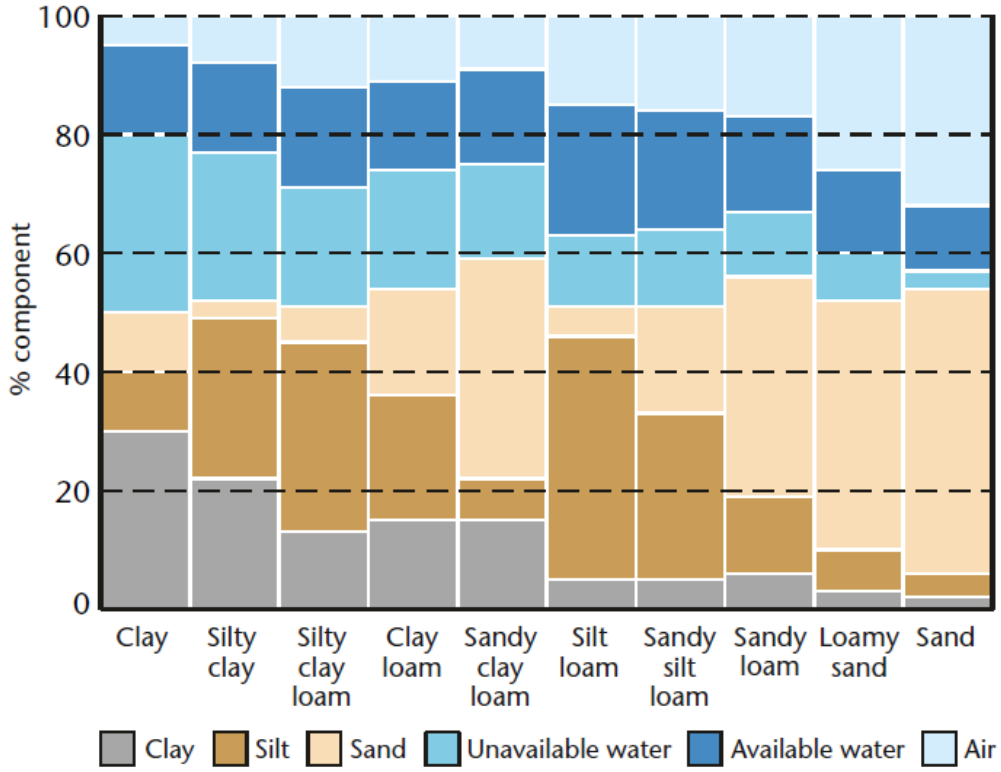


Fig 7 – Diagram showing the typical particulate composition and air/ water content at field capacity for mineral soil types[4] The variation in soil type has a direct bearing on the potential impact of adverse construction techniques (such as soil compaction) as well as overall root system morphology & development. Clay soils tend to have shallower rooting as moisture remains readily available while soils containing free draining gravel and sand can encourage deeper rooting based on reduce soil bulk density and greater seasonal variations in moisture availability. The immediate underlying soil is undefined and soil testing is advised.

[4] Forestry Commission (2005) The Influence of Soils and Species on Tree Root Depth

5.3 Tree Removal and Pruning Works

5.3.1 It is proposed to remove T4 (Apple) T5 (Bay Laurel) & T9 (Eucalyptus). These trees are small BS5837 Cat C trees of minimal local and wider amenity. It is proposed to prune T12 (Magnolia) to shape as a result of its proximity to the existing building and developed asymmetrical canopy form. Provision is made from some pruning to T2 (Acer) but this may not be required depending on the suitable work clearance to deliver the proposal. T11 (Bay Laurel) has established white rot within the basal area of the stem (*Ganoderma* spp) and is identified for removal on the health and safety grounds.

Fig 8 – T4 (Apple) – right and T5 (Bay Laurel) – left are proposed for removal.

Tree Surgery

Tree No.	Species	Proposed Tree Works	BS Cat
T2	Acer	Tip back any overhanging branches by 1 to 1.5m to suitable side growth points only if required to ensure clearance from building/ proposal. All works to accord with BS3998 Tree Works.	**B2**
T12	Magnolia	Crown reduce by 30% to create balanced canopy shape/ form and provide suitable clearance from the existing property. All works to accord with BS3998 Tree Works.	**C1**

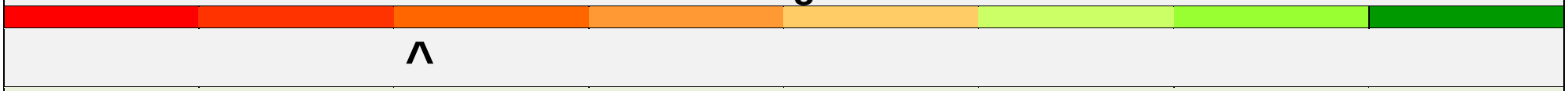
Proposed Removal

Tree No.	Species	Proposed Tree Works	BS Cat
T4	Apple	Remove	**C1**
T5	Bay Laurel	Remove	**C1**
T9	Eucalyptus	Remove	**C1**
T11	Bay Laurel	Remove	**U**

5.3.2 **Birds -** In the event future tree works are required to be completed between 1st March & the 31st July (inclusive) a due diligence check for nesting birds must be completed before work starts in order to comply with the Wildlife & Countryside Act 1981. This check should be recorded in the Site-Specific Risk Assessment. If active nests are found work should not take place until the young have fledged.

5.3.3 **Bats** – It should be noted that in England and Wales, the relevant legislation is the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010).

Tree Pruning Indicator



- The nature of the landscaped garden is such that trees are in close proximity to the building. This is an existing (not new) relationship.
- There will be an ongoing requirement to prune such trees to manage this relationship.
- The local authority retain control over the works by virtue of the fact the site and trees are located within a Conservation Area.
- **Note:** This is an indicative assessment. All and any future works should be undertaken in accordance with BS3998 (Tree Works) and we recommend the use of Arboricultural Association approved contractors.[5]

5.3.4 Please note that this is not a health and safety assessment report and that vigilance for the emergence of any fungal pathogens is advised. In many places on this survey full access to the basal areas of trees was not possible given their ownership/ location/ extensive undergrowth. Further information on tree safety can be found here.[6]

[5] https://www.trees.org.uk/ARB-Approved-Contractor-Directory
[6] https://ntsgroup.org.uk/guidance-publications/

5.4 Demolition & Foundations

5.4.1 All tree protection will be installed prior to any on site activity. The proposed tree protection procedure can be summarised as follows:

Stage 1

- Remove T4, T5, T9 & T11. Prune T12 (& T2 if setting out indicates a need).
- Install BS5837 protective fencing & temporary ground protection.
- Brief all contractors on purpose of fencing.

Stage 2

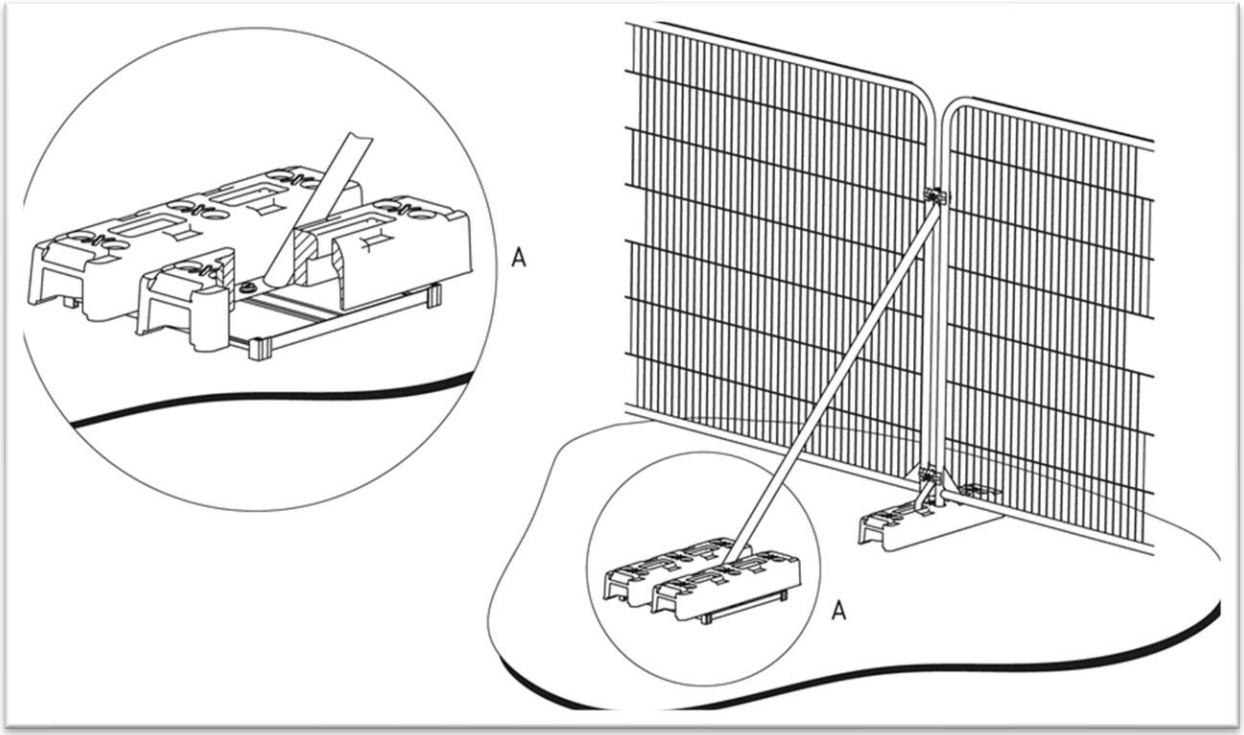
- Construct addition/ bedroom proposal.

Stage 3

- Remove tree protection measures only at end of works.
- BS3882 compliant topsoil imported (by hand) and raked out where required to 'make good'.
- Undertake soft landscaping (to include mulch below other retained trees where possible).

5.4.2 High quality BS5837 compliant tree protection will then be installed prior to any further on-site works:

Tree Protection



Overview

- *Tree protection required internally to site.*
- *Installed prior to any on site works.*
- *Feet fence spec proposed.*
- *Note: To be marked with signs (inset) and purpose to be briefed to all ground workers.*
- *Maintained for duration of the build.*

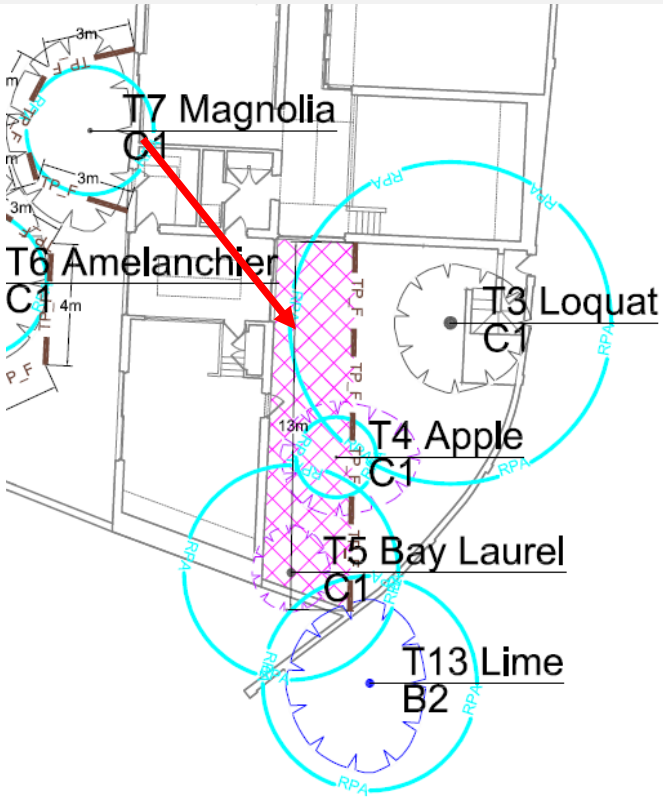
Threat Level to Retained Trees	LOW

5.4.3 All internal tree protection must be appropriately signed to ensure that all site operatives know its purpose.

Fig 9 – Professional grade weatherproof tree protection signs no smaller than 297 x 420 mm (A3) will be located at 5m intervals and all 'return' faces for tree protective fencing. *Note:* *High quality jpg/ png image available upon request*

5.4.4 Temporary ground protection is also required to allow movements around the construction within tree RPA's:

Temporary Ground Protection



Overview

- ***Installed prior to any on site works.***
- ***Allows movement through the RPA of retained trees (extract example of TPP left)***
- ***Maintained for duration of the build.***

Threat Level to Retained Trees	LOW

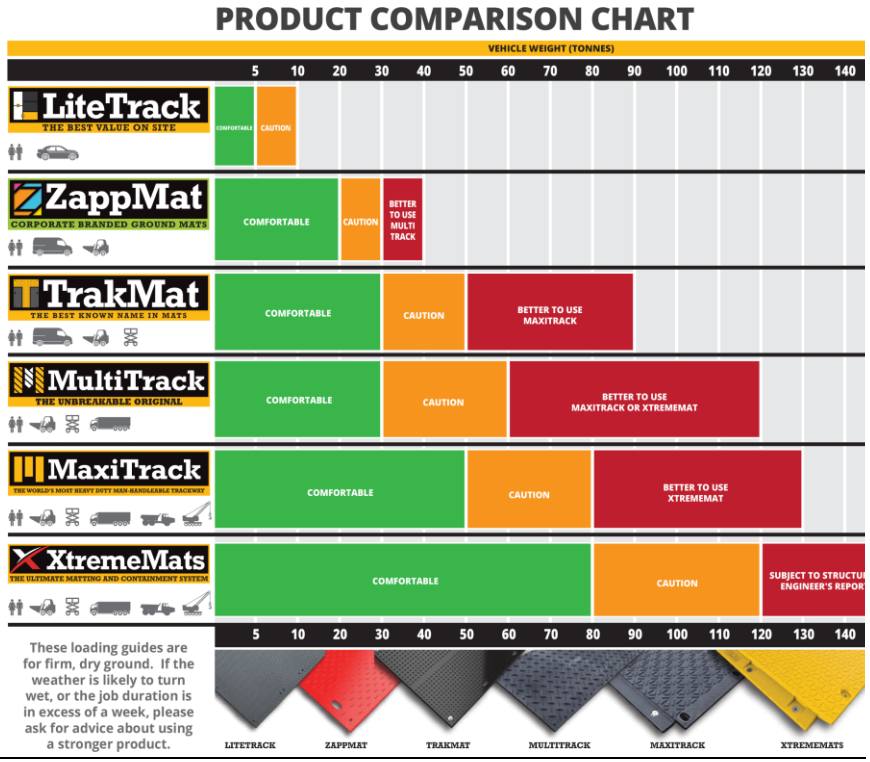


Fig 10 –The construction firm/ contractors must ensure that any areas where fencing may be moved (temporary) leads to exposed ground being covered with suitable temporary ground protection. This approach maximises the integrity of retained tree RPA's.

Fig 11 – Temporary ground protection is an effective way of allowing access through the RPA of retained trees. It must be installed prior to any on site activity and maintained for the duration of all works to be effective. Above left Tamla Trees project ground protection in place and above right being removed following the completion of site works. (**Note:** *depending on the length of time it is in place it will adversely affect underlying grass ground cover which will need reseeded/ turfed accordingly*)

5.4.5 **Site Manager/ Consultant Sign Off:** At this point a site inspection is required to confirm the appropriate tree protection measures have been completed.

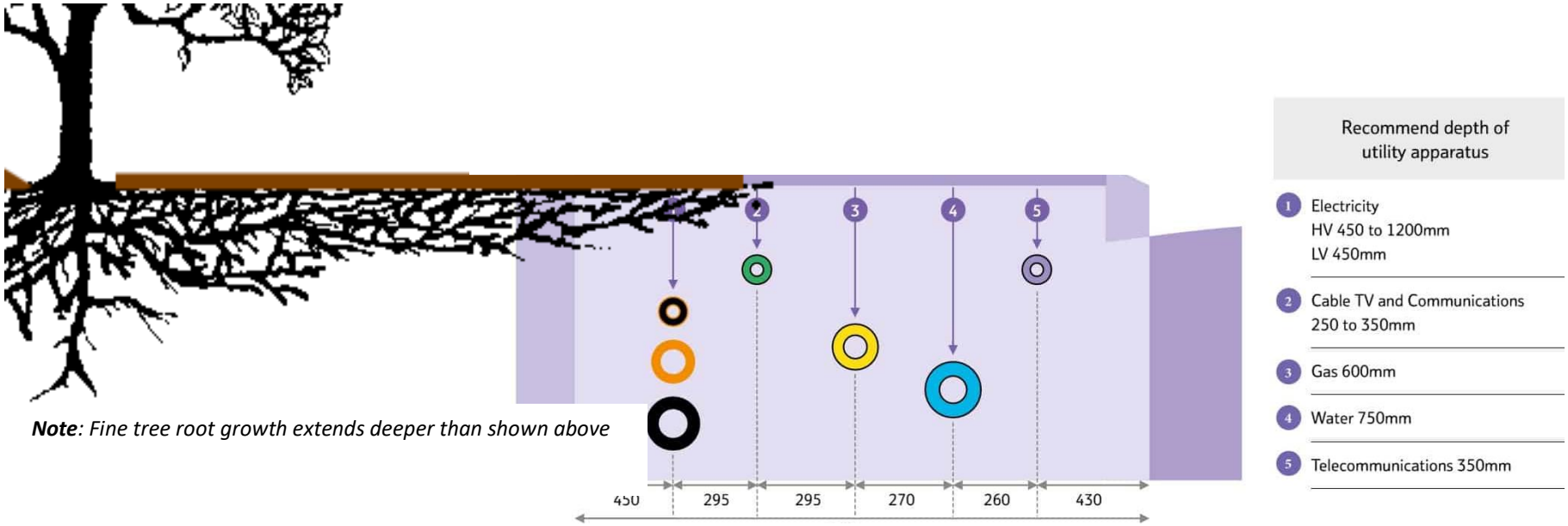
Date of Inspection	Compliance with Tree Protection Plan?			
	Yes		No	
Rectification Actions (insert notes)				
Site Manager Signature:				
Print Name:				
Arboricultural Consultant Signature:				
Print Name:				

5.5 Surfaces near Trees

5.5.1 No new surfaces are proposed within the RPA of retained trees.

5.6 Site Service Provision

5.6.1 Space exists for service connections to Belsize Lane well away from trees. Any unforeseen service excavations within RPA's will be hand dug (where initial exploratory dig work confirms roots to be present) with the route seeking to maximise spatial distance from retained trees and avoid incursions into RPA's where possible. On this project currently none are advised and this information is an advisory overview.



***Note**: Fine tree root growth extends deeper than shown above*

Fig 12 – Annotated service installation depth drawing (source: Thorne & Derrick**). Service installations occupy the same soil volume/ depth where the greatest level of tree roots will likely be found.**

5.6.2 **Services -** Any activity to excavate within the RPA has the capacity to cause root damage and should be hand dug in accordance with the principles detailed elsewhere within this report. All excavation should, where possible be avoided and this information provides an overview of the process in the event it becomes necessary.

PLEASE NOTE THIS OPERATION HAS AN ELEVATED CAPACITY TO CAUSE DAMAGE TO TREE ROOTS

5.6.3 **Planning the excavation:** A 'toolbox talk' will spot mark and agree the locations and working practices. In the event tree roots (multiple &/or roots >25mm in diameter) are encountered work will stop and progress with hand tools only.

				
Narrow Face Spade & Hand Trowel	**Stiff Hand Brush**	**Hi Vis Paint (for spot marking roots)**	**Hessian (to wrap exposed roots)**	**Duct Tape (to secure hessian)**

Fig 13 – Advised tools/ materials which should be available for all excavation works within RPA.

5.6.4 Digging around tree roots is a skill and operatives must proceed with caution. Once a root is located it is often necessary to use a combination of hand tools and a stiff hand brush to track and 'trace' the roots location. Spot marking roots >25mm with spray paint is advised. **All roots >25mm in diameter will be retained. Please also note that retention of all roots where possible (including fibrous ones) is advised.**

5.6.5 **How deep?** – The excavation need only be as deep as the relevant service to be installed requires.

5.6.6 **WARNING:** Breaking the ground has the potential to uncover services/ destabilise adjacent structures etc. Some general advice from the HSE can be found here. The site-specific assessment of this project is such that we do not consider there to be a risk of significant root damage from either a strip or pile and beam footing.

5.6.7 **Root Wrapping/ Protection:** In the event the footing works expose any roots >25mm in diameter these must be wrapped or protected with a covering of soil if left exposed overnight or for longer than any single 4-hour period before backfilling following service install.

Root Wrapping	
  	**Overview** • **Any exposed roots >25mm should be wrapped in hessian (example left) if exposed overnight or for any 4-hour period.** • **Spot marking with spray paint to highlight locations also advised.** • **Alternatively roots can be covered over with topsoil to maintain moisture retention.** • **Example Tamla Trees project on London Plane (left).**
Threat Level to Retained Trees	**LOW**

5.7 Landscaping & Ground Remediation

5.7.1 Following completion of the project any 'making good' will be with BS3882 compliant topsoil raked out by hand (to no more than 100mm depth within any tree RPA) and then seeded/ planted as appropriate. Further comment on landscaping is outside the scope of this report.

Fig 14 – All 'making good' topsoil will be BS3882 compliant and raked out by hand to no greater depth than 100mm.

5.7.2 We encourage the use of composted bark mulch below tree canopies where possible to aid water retention and increase soil microbial activity.

Mulching	
	**Overview** • ***Composted mulch spread around below tree by hand – no need to lift or remove underlying grass.*** • ***Mulch topped up annually/ as required.*** • ***Positive benefits for mulched trees***
Threat Level to Retained Trees	**LOW**

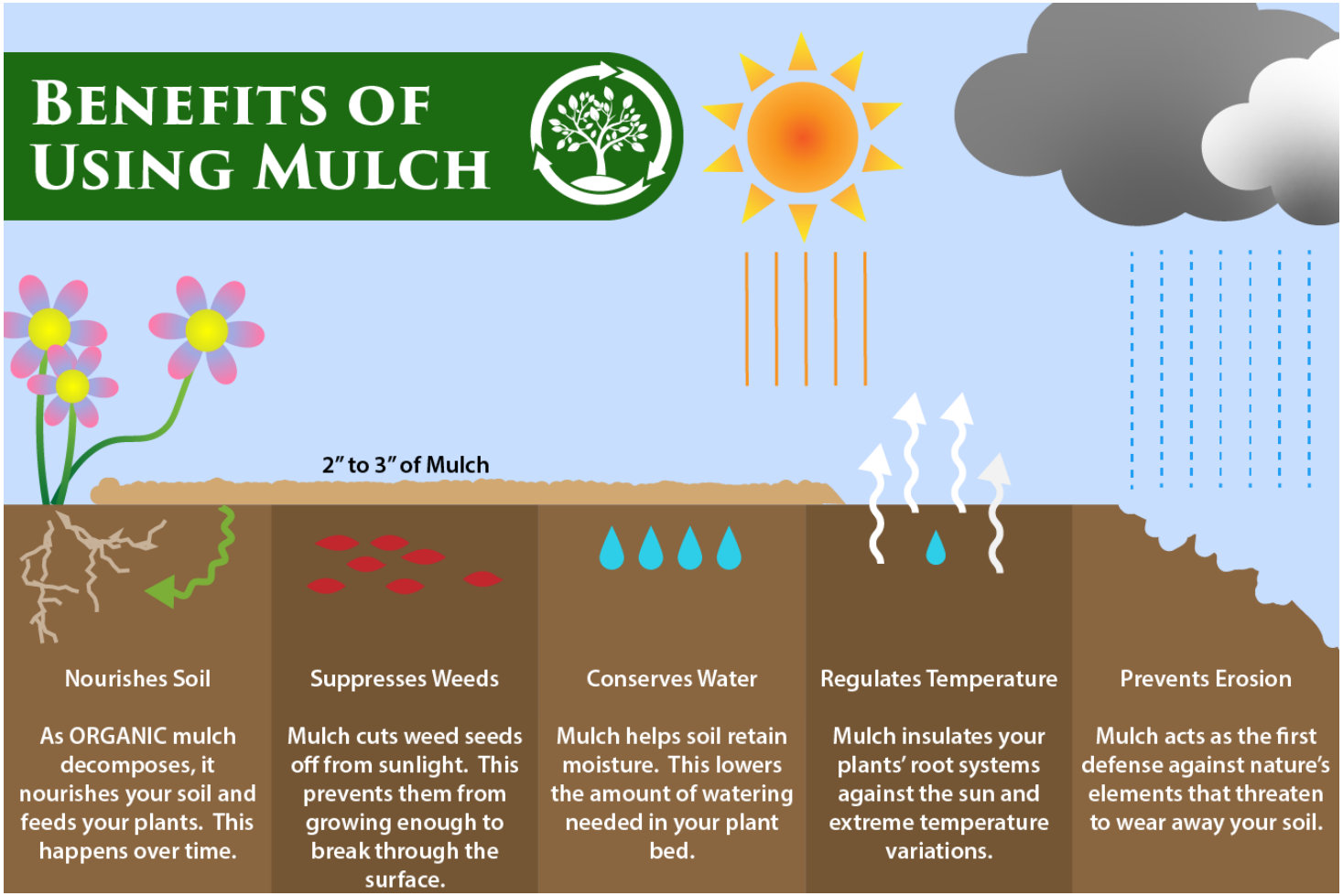


Fig 15 – Benefits of Mulch (Image Source 1st Stop Landscape Supply (US)

5.7.3 Where soft landscape planting occurs within the RPA of retained trees, we advise the use of small pot sizes and plug planting where possible to minimize the risk of root disturbance.

Plug and Pot Planting	
	**Overview** • **Within 1.5m of retained trees planting should be with plug stock (left)** • **Small plant pot sizes <3l utilised for new planting in further areas.** • **Hand dug planting holes.** • **Top dressed in compacted bark mulch/ soil as appropriate.** • **Watered weekly May – September during season 1 & 2.**
Threat Level to Retained Trees	**LOW**

5.8 Tree Shading of Proposal

5.8.1 The proposal is not adversely affected by shade from retained trees as the existing relationship remains unchanged between trees and the existing building. The addition is at an elevated level increasing light and is a bedroom.

5.9 Arboricultural Project Supervision

5.9.1 Most damage to trees on developments sites is caused inadvertently and to ensure continued protection during development a system of site monitoring is normal.

5.9.2 Basic checks will be undertaken as the construction phase progresses to ensure that protective fencing remains intact and ensure the proposed works close to trees are completed in accordance with this report. Any unforeseen issues can be identified and discussed with the consulting arboriculturalist before any damage to trees occurs.

5.9.3 This approach allows a strong working relationship with the site manager/ construction staff to identify issues that may affect retained trees and ensure they are addressed before they escalate.

5.9.4 After each site inspection is completed, a formal record will be sent to the local authority. On this basis we would advise the following inspection regime:

Visit Detail	Date	Status
1st Site Inspection Attend site once tree protection is in place. Inspect/ Toolbox talk with site operatives regarding tree protection measures. Update local authority on findings.	**TBC**	**Incomplete**
Attend site at 8-week intervals to inspect continued tree protection/ Liaise regarding services works/ localised demo and rebuild (tree protection amendments)/ Landscaping.		
Final Site Inspection Final site visit to confirm that no damage has been done to retained trees/ identify any remedial actions in the event damage has occurred. Assess any required tree surgery following construction. Update local authority and project team on findings.	**TBC**	**Incomplete**

Note: Actual visit dates subject to change/ confirmation depending on project program.

Appendix 1 – BS5837 Survey Key

BS 5837 Cat	Description
A	Those of high quality and value: in such a condition as to be able to make a substantial contribution (> 40 years)
B	Those trees of moderate quality and value: those in such a condition as to make a significant contribution (> 20 years)
C	Those trees of low quality and value: currently in an adequate condition to remain until new planting could be established (> 10 years)
U	Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed regardless of development (< 10 years)

Note: Subcategories are denoted in the tree survey data (A1, B1, C2 etc.). You are referred to BS5837 for further detail if required.

Tree No.	T (tree), G (group), H (hedge), W (woodland) + Ref No.
Species	Common Name
Ht (m)	Measured height in metres
DBH (m)	Diameter at 1.5m above ground level
No of stems	An indication of the trees form @1.5m (1 = single stem, m/s = multi-stemmed)
Branch Spread	In m to cardinal points
Cr Ht Clearance (m)	Overall height of lowest branches from the ground level on side of proposed development
Life Stage	Young, Semi-Mature, Early Mature, Mature, Over-Mature
General Observations	Observations on the condition of the tree(s)
Tree Work Specification	Proposed tree works in accordance with BS3998
BS Cat	See above
Life Exp	Estimated remaining contribution in years.
RPA Radius(m)	Radius of the trees Root Protection Area measured from the trunk to the edge of the RPA circle in metres

Appendix 2 – BS5837 Tree Classification

The classification of trees is undertaken during the survey to inform decisions as they relate to designs and retention/ removal. The 'value' of a tree in terms of its visual amenity is subjective and the full condition of a tree may not be apparent given access and other site-specific factors. If a tree is proposed for retention in many respects its BS category is irrelevant. We encourage the retention of all trees where the design realistically allows this with the exception of U cat trees (as these are usually 'defect' trees). There should not be a presumption that all C category trees can or should be removed. Generally A & B Category trees are those of greatest value to a development and designs should be manipulated to retain these where possible. Further detail on classification of trees is contained at Section 4.5 of BS5837. Some selective extracts are detailed below:

4.5.2 *The purpose of the tree categorization method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.*

4.5.5 *When determining the appropriate category for any given tree, group, or woodland (see* ***4.4****), the arboriculturist should start by considering whether the tree falls within the scope of category U. Assuming that it does not, the arboriculturist should then proceed on the presumption that all trees are considered according to the criteria for inclusion in category A. Trees that do not meet these criteria should then be considered in light of the criteria for inclusion in category B. This process should be repeated, as required, until the appropriate quality or value assessment is reached.*

4.5.6 *Trees of generally high quality and/or value which have a defect or defects that do not reduce their retention span below the suggested 40-year threshold, should be placed in category A, i.e. they should not be downgraded as a result of minor imperfections.* **Tamla Trees Note:** We do not apply a simple >40 = Cat A approach as many trees will have retention values in excess of 40 years but not be considered Cat A.

4.5.11 *The tree survey might identify the presence of veteran trees on the site. The implications of their presence on the use of the surrounding land should be assessed at the earliest possible stage of the design process. Where such trees are to be retained, particular care should be taken in the design to accommodate them in a setting that aids their long-term retention.*

Please note assessments are made based on available access and factors can affect full inspections (3rd party tree location, extensive basal undergrowth, Ivy etc). This survey is not a full health and safety inspection although obvious defects (where noted) will be identified.
BS5837 Table 1 is shown on the following page and provides detail on the relevant categorisation. Elements of this remain subjective and if a tree is shown for retention its category is somewhat irrelevant as we consider all trees should be afforded the same value/ protection if to be retained.

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Appendix 3 – BS5837 Survey Data

Tree No.	Species	DBH (m)	No of Stems	Ht (m)	Crown Spread				BS Cat	Age Class	Life Expect	Cr Ht (m)	Observation	Recommendations	RPR (m)
					N	E	S	W							
T1	Acer	0.25	1	7	3	3	3	3	B2	Mature	20 to 40	2	3rd party tree with no access to inspect. Lush canopy.	No works	3
T2	Acer	0.35	1	7	3.5	4	3.9	3.3	B2	Mature	20 to 40	2	3rd party tree with no access to inspect. Lush canopy.	Tip back any overhanging branches by 1 to 1.5m to suitable side growth points only if required to ensure clearance from building/ proposal. All works to accord with BS3998 Tree Works.	4.2

Tree No.	Species	DBH (m)	No of Stems	Ht (m)	Crown Spread				BS Cat	Age Class	Life Expect	Cr Ht (m)	Observation	Recommendations	RPR (m)
					N	E	S	W							
T3	Loquat	0.48	M/S	4	2.1	2.9	2.5	2	C1	Mature	20 to 40	1	Multi stemmed example close to wall.	No works	5.8
T4	Apple	0.12	1	2.2	2	3	2.1	2	C1	Mature	20 to 40	0.5	Established fruit tree.	Remove	1.4
T5	Laurel (Bay)	0.32	2	3	1.7	1.4	1.4	1.4	C1	Mature	20 to 40	1.2	Twin stemmed clipped tree.	Remove	3.8
T6	Amelanchier	0.22	1	3	4.4	2.7	3	3.3	C1	Mature	20 to 40	0.5	Established but slightly over mature tree with some dead. Not without character.	No works	2.6
T7	Magnolia	0.19	1	3	3.5	1.5	3.6	3	C1	Mature	20 to 40	1	Initially planted against the wall face of the house but now outgrown location.	No works	2.3

Tree No.	Species	DBH (m)	No of Stems	Ht (m)	Crown Spread				BS Cat	Age Class	Life Expect	Cr Ht (m)	Observation	Recommendations	RPR (m)
					N	E	S	W							
T8	Cherry	0.22	1	6.5	3.2	3.1	5.4	2.8	C1	Mature	20 to 40	2	Suppressed, asymmetric and slightly over mature with above average deadwood.	No works	2.6
T9	Eucalyptus	0.1	1	4	1.2	1.2	1.2	1.2	C1	Mature	20 to 40	1	Ivy covered, previously topped. High growth potential.	Remove	1.2
T10	Laurel (Bay)	0.37	1	8	5.4	5.6	5	4	B2	Mature	> 40	1.5	Slightly asymmetrical. Leaning stem.	No works	4.4
T11	Laurel (Bay)	0.46	1	9	3.9	4.2	4.4	4	U	Mature	> 40	1.5	Slightly asymmetrical. Leaning stem. *Ganoderma* spp decay present. U cat tree as a result.	Remove	5.5
T12	Magnolia	0.26	1	7	4	5.9	4	1.5	C1	Mature	20 to 40	0	Sprawling. Not without character. Asymmetric.	Crown reduce by 30% to create balanced canopy shape/ form and provide suitable clearance from	3.1

Tree No.	Species	DBH (m)	No of Stems	Ht (m)	Crown Spread				BS Cat	Age Class	Life Expect	Cr Ht (m)	Observation	Recommendations	RPR (m)
					N	E	S	W							
														the existing property. All works to accord with BS3998 Tree Works.	
T13	Lime	0.32	1	7.5	3	2	3.2	3	B2	Mature	20 to 40	1	Established street tree. Previously reduced.	No works	3.8

Appendix 4 – Tree Works Schedule

Tree Surgery

Tree No.	Species	Proposed Tree Works	BS Cat
T2	Acer	Tip back any overhanging branches by 1 to 1.5m to suitable side growth points only if required to ensure clearance from building/ proposal. All works to accord with BS3998 Tree Works.	**B2**
T12	Magnolia	Crown reduce by 30% to create balanced canopy shape/ form and provide suitable clearance from the existing property. All works to accord with BS3998 Tree Works.	**C1**

Proposed Removal

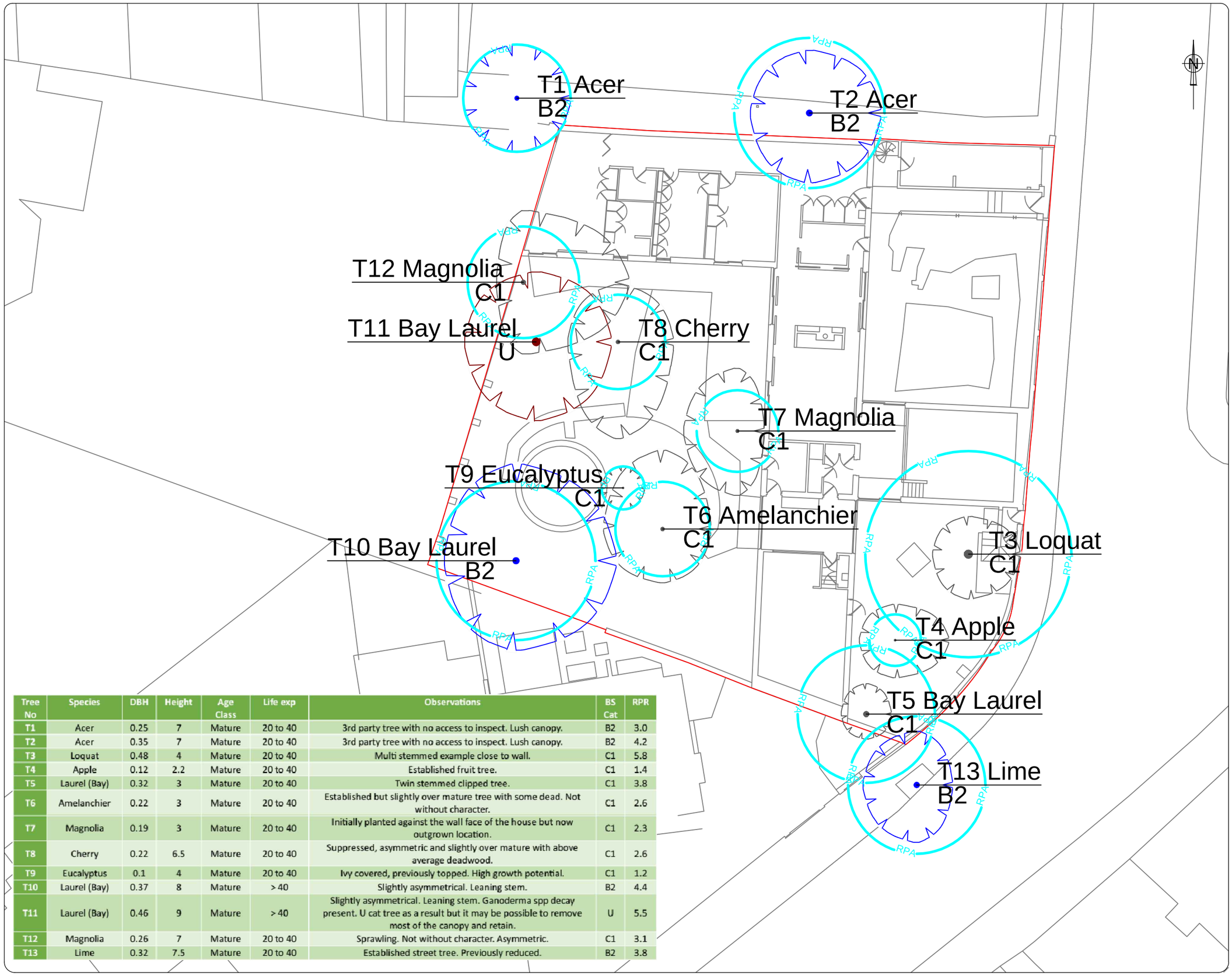
Tree No.	Species	Proposed Tree Works	BS Cat
T4	Apple	Remove	**C1**
T5	Bay Laurel	Remove	**C1**
T9	Eucalyptus	Remove	**C1**
T11	Bay Laurel	Remove	**U**

NOTE: All tree works to be undertaken in accordance with BS 3998:2010 'Tree work - Recommendations'.

NOTE: We recommend using Arboricultural Association approved contractors who can be sourced here

Habitat Creation – Where possible pruned and removed wood, particularly from native trees should be locally staked on site to create habitat refuges.

Appendix 5 - Tree Constraints Plan



Tree No	Species	DBH	Height	Age Class	Life exp	Observations	BS Cat	RPR
T1	Acer	0.25	7	Mature	20 to 40	3rd party tree with no access to inspect. Lush canopy.	B2	3.0
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T3	Loquat	0.48	4	Mature	20 to 40	Multi stemmed example close to wall.	C1	5.8
T4	Apple	0.12	2.2	Mature	20 to 40	Established fruit tree.	C1	1.4
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T6	Amelanchier	0.22	3	Mature	20 to 40	Established but slightly over mature tree with some dead. Not without character.	C1	2.6
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T8	Cherry	0.22	6.5	Mature	20 to 40	Suppressed, asymmetric and slightly over mature with above average deadwood.	C1	2.6
T9	Eucalyptus	0.1	4	Mature	20 to 40	Ivy covered, previously topped. High growth potential.	C1	1.2
T10	Laurel (Bay)	0.37	8	Mature	> 40	Slightly asymmetrical. Leaning stem.	B2	4.4
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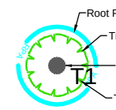
T12	Magnolia	0.26	7	Mature	20 to 40	Sprawling. Not without character. Asymmetric.	C1	3.1
T13	Lime	0.32	7.5	Mature	20 to 40	Established street tree. Previously reduced.	B2	3.8

Tree Survey Drawing Key



See Tamla Trees, Tree Survey for Individual Tree Details

KEY

Please refer to Tamla Trees report for details

- Category A - Trees of high quality
- Category B - moderate quality
- Category C - low quality
- Category U - Dead, Dying or Defect trees with <10 years retention value

RPA - root protection area as defined by Table 2 BS 5837:2012

NOTE # Tree positions indicatively mapped due to lack of detailed topographical plan

REV AMENDMENTS DRAWN DATE AUTH'D

PROJECT
34 Belsize Lane,
Camden,
London, NW3 5AE

CLIENT
34 Belsize Lane Limited

TITLE
Tree Constraint Plan (TCP)

Job	Scale	DRG NO	Revision
04030R	1:200 @ A3	04030P_TCP_01	A
Date: 21/03/2024	Type: a		

Tel: 01252 811 233
Email: info@tamlatrees.com
Web: www.tamlatrees.com
Tamla Trees consulting arborists

Tree No	Species	DBH	Height	Age Class	Life exp	Observations	BS Cat	RPR
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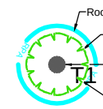


See Tamla Trees, Tree Survey for Individual Tree Details

KEY

Please refer to Tamla Trees report for details

- Category A - Trees of high quality
- Category B - moderate quality
- Category C - low quality
- Category U - Dead, Dying or Defect trees with <10 years retention value

RPA - root protection area as defined by Table 2 BS 5837:2012

NOTE # Tree positions indicatively mapped due to lack of detailed topographical plan

REV AMENDMENTS DRAWN DATE AUTH'D

PROJECT
34 Belsize Lane,
Camden,
London, NW3 5AE

CLIENT
34 Belsize Lane Limited

TITLE
Tree Constraint Plan (TCP)

Job	Scale	DRG NO	Revision
04030R	1:200 @ A3	04030P_TCP_02	A
Date: 21/03/2024	Type: a		

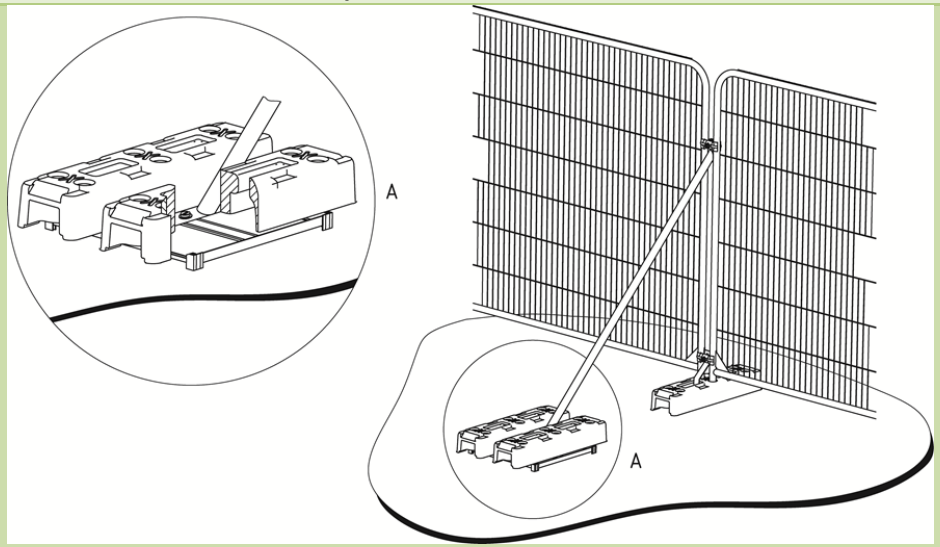
Tel: 01252 811 233
Email: info@tamlatrees.com
Web: www.tamlatrees.com
Tamla Trees consulting arborists

Appendix 6 - Tree Protection Plan

Tree protection is essential to successfully integrate the proposal into the surrounding trees. It is designed to manage the impact on the underlying soil and rooting environment. It must therefore be installed prior to any further site activity. Even apparently minimal tracking of the soil near trees has the capacity to irretrievably modify the soil environment to the detriment of tree health and stability.

All our fencing specifications accord with advice and guidance within BS 5837. Modifications to fence types are possible but should be discussed prior to implementation. In all other instances the form detailed below should be shown. This offers the best protection to retained trees.

- **All tree protection must be in place prior to any site activities. It is recommended that this fencing is installed prior to any site works (including demolition).**
- **To be effective Tree Protection must remain in place for the duration of the development and form part of the site induction process.**
- **Fencing spec (right) proposed and to be manipulated to reflect site features/ available space for installation. To be combined with temporary ground protection (not shown right).**
- **Maintained for the duration of all site works.**



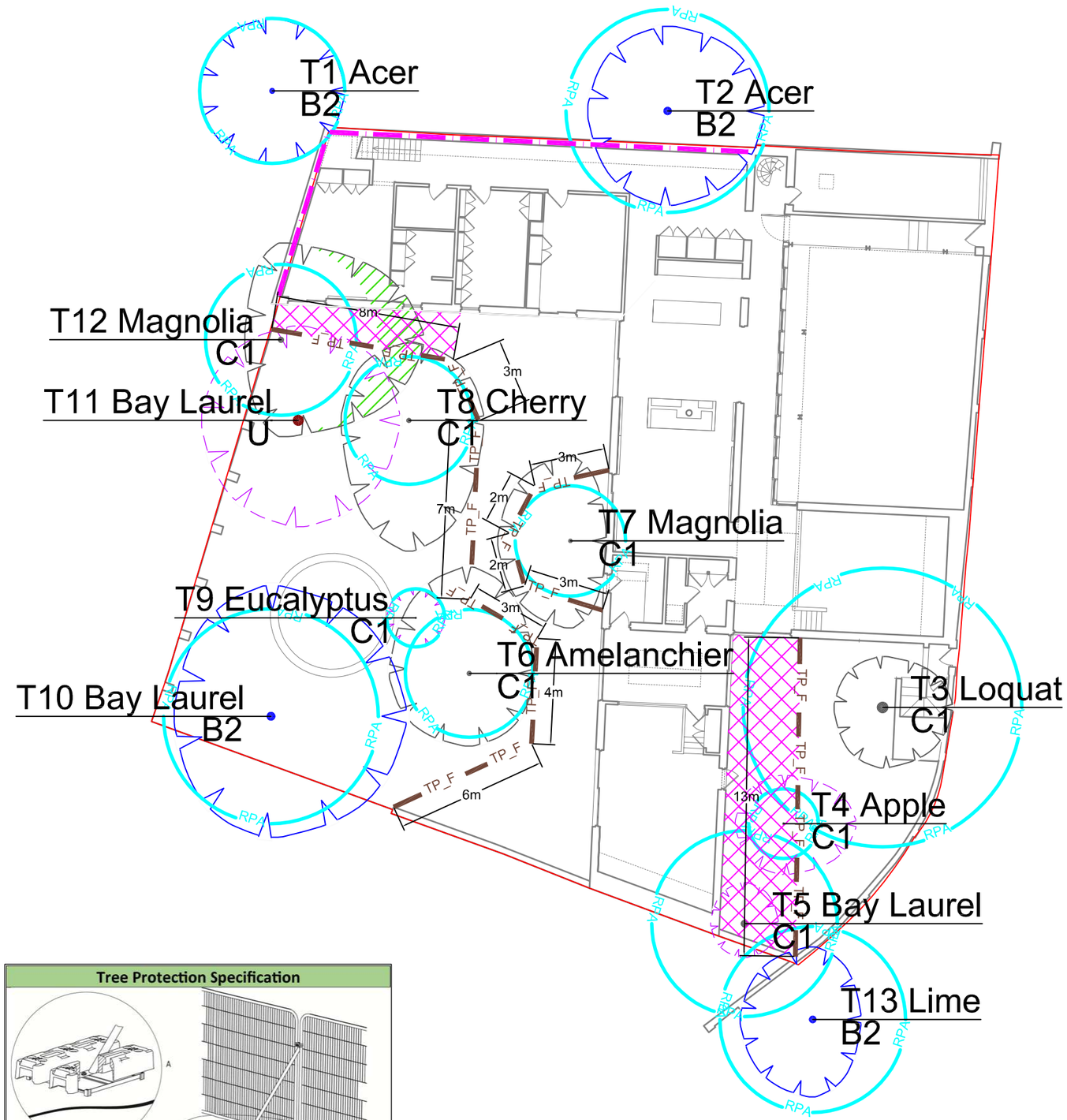

At Start
TPP Fencing
For Duration
TPP Signage in Place?
For Duration
TPP Remains
For Duration
Tree Protection Part of Induction Process
For Duration
Evidence of regular review?
TREE PROTECTION AREA
If you require access contact Site Manager
Keep out
THESE TREES ARE PROTECTED BY PLANNING CONDITIONS AND/OR IS THE SUBJECT OF A TREE PRESERVATION ORDER
GROUND COMPACTION KILLS TREE ROOTS - BREACHING A TPO IS A CRIMINAL OFFENCE - HELP RETAIN HEALTHY TREES BY RESPECTING THIS FENCING

Temporary Ground Protection Specification

To be installed prior to any on site activity (demolition or construction)

- *Retain existing on site hard standing if present for as long as possible.*
- *If indicated new temporary ground protection should be installed as part of the tree protection measures prior to work starting on site.*
- *For exposed unmade ground within Root Protection Area.*
- *To be laid on non-permeable membrane*
- *We recommend 3m x 1m x 20mm matts manufactured from recycled HMPE plastic, with carrying handles and an engraved grid pattern with minimum 150mm overlap to join together.*

To cover all exposed unmade ground for tree Root Protection Area outside of Tree Protective Fencing



TREE PROTECTION AREA

If you require access contact Site Manager

THESE TREES ARE PROTECTED BY PLANNING CONDITIONS AND/OR IS THE SUBJECT OF A TREE PRESERVATION ORDER

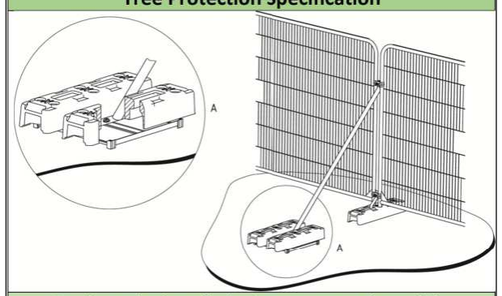
GROUND COMPACTION KILLS TREE ROOTS - BREACHING A TPO IS A CRIMINAL OFFENCE - HELP RETAIN HEALTHY TREES BY RESPECTING THIS FENCING

e: info@tamlatrees.com w: tamlatrees.com o: 01252 811 233
Tamla Trees Registered England & Wales Companies Act 2006 Reg No: 08831629

- *Warning signs to be located every 5m and to be minimum A3 in size (i.e. 42cm x 29.7cm)*
- *To be checked and replaced as necessary.*

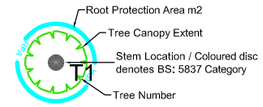
Deviations from the advised tree protection compromises tree roots and should be avoided. The purpose of tree protection measures should be briefed to all on site staff.

Tree Protection Specification



Fencing to be installed prior to any on site activity (demolition or construction)

Tree Survey Drawing Key



See Tamla Trees, Tree Survey for Individual Tree Details

KEY

Please refer to Tamla Trees report for details

- Category A - Trees of high quality
- Category B - moderate quality
- Category C - low quality
- Category U - Dead, Dying or Defect trees with <10 years retention value

RPA - root protection area as defined by Table 2 BS 5837:2012

Proposed removal - to facilitate Development

Canopy reduced by 30% in accordance with BS3998

Location of protective fencing - BS 5837 Feet Fence (or similar)

Existing boundary acting as protective fencing

Temporary ground protection

NOTE # Tree positions indicatively mapped due to lack of detailed topographical plan

REV	AMENDMENTS	DRAWN	DATE	AUTH'D

PROJECT
34 Belsize Lane,
Camden,
London, NW3 5AE

CLIENT
34 Belsize Lane Limited

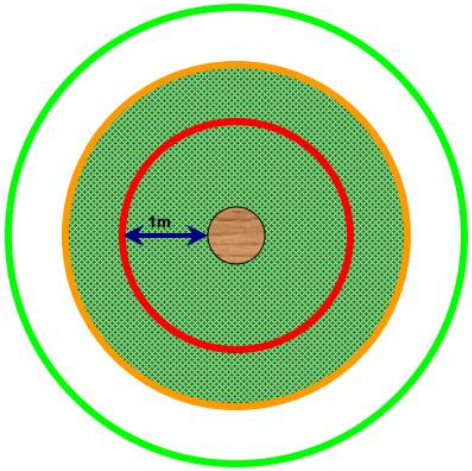
TITLE
Tree Protection Plan (TPP)

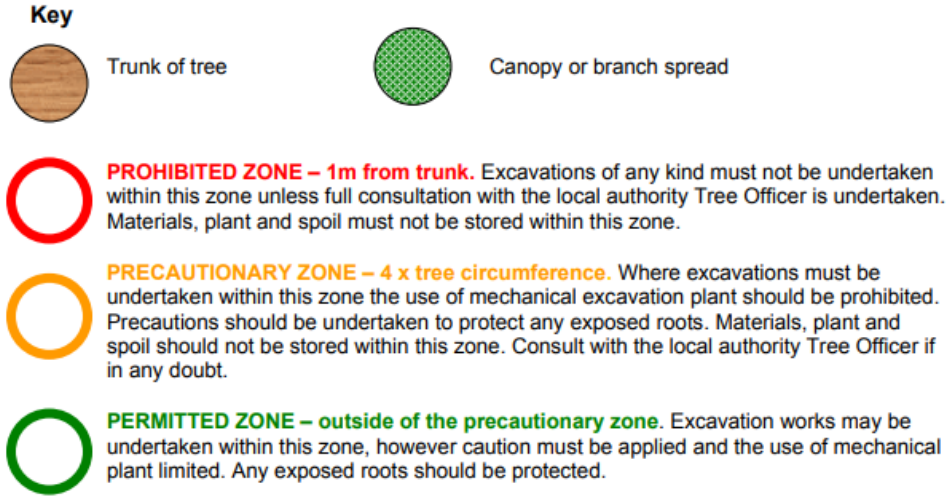
Job	Scale	DRG NO	Revision
04030R	1:200 @ A3	04030P_TPP_01	A
Date: 21/03/2024	Type: a		

Tel: 01252 811 233
Email: Info@tamlatrees.com
Web: www.tamlatrees.com
Tamla Trees consulting arborists

Appendix 7 - Tree & Services Plan

- Indicative service routes relative to retained tree and Root Protection Areas.
- To be kept under review as part of site inspection process.
- **Note:** All service companies should be provided with a copy of the Tree Protection Plan as early in the design process as possible to ensure that service routes are located outside RPA's where possible.
- NJUG 4 – National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007" to be adhered to at all times. A copy is available here.





Extract from National Joint Utilities Group "Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, issue 2. London: NJUG 2007"

Tamla Trees
consulting arborists

Service drawing not yet available.

Appendix 8 – Site Photographs

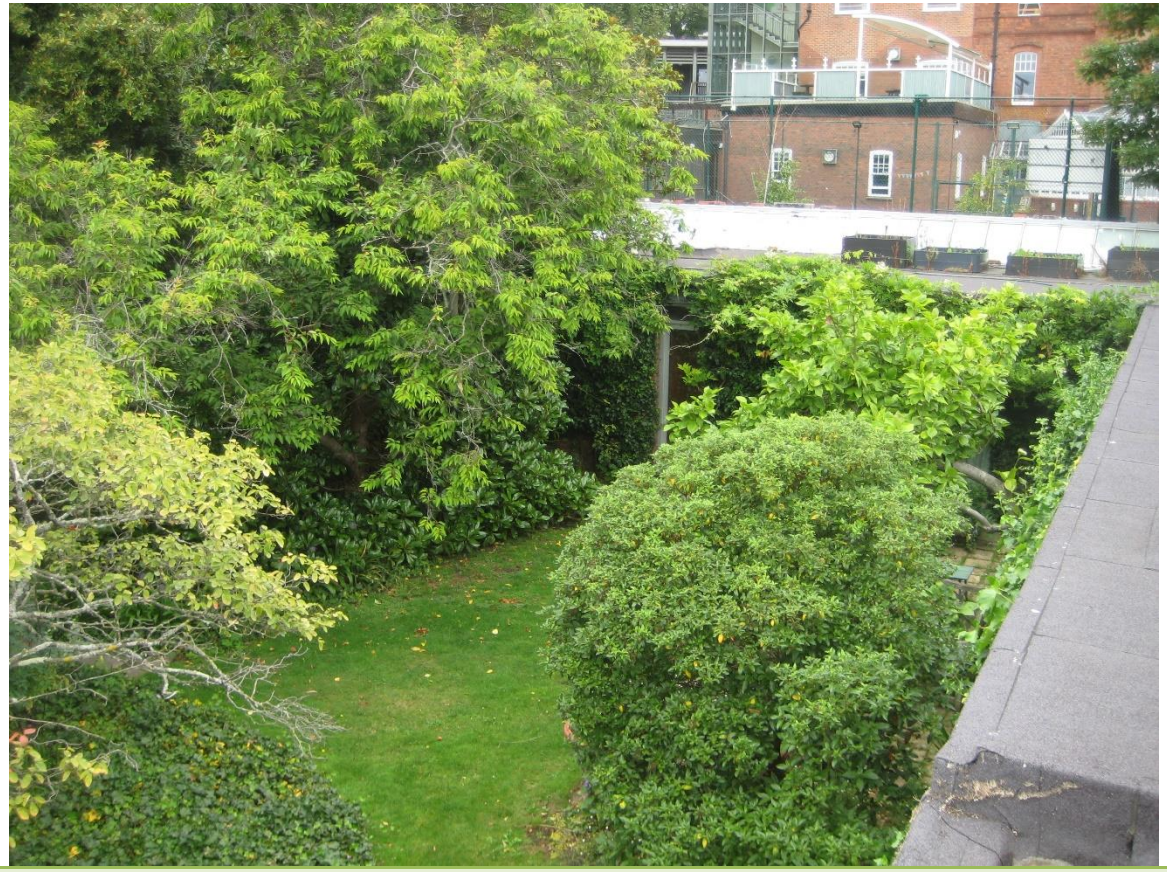


Image 1 – The internal garden area and trees from the roof.

Image 2 – T2 – 3rd party Acer.	**Image 3 –** Ganoderma at the base of T11

Appendix 9 – Limitations

Full Legal 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 risk/ target areas and in accordance with relevant HSE guidance. Tamla Trees ltd can provide further information on this matter if required. Where full access to trees (Ivy, materials at base, location on 3rd party land) was not possible Tamla Trees ltd accept no liability for issues that arise.

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/ measurements relating to 3rd party trees have 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 detailed inspection work.

A legal Duty of Care requires that any tree works specified in this report should be performed by qualified, arboricultural contractors who have been competency tested to determine their suitability for such works in line with Health & Safety Executive Guidelines. Additionally all works should be carried out according to British Standard 3998 (2010) Recommendations for Tree Work.