Arboricultural Impact Assessment

Site:

20 Church Row
Hampstead
London
NW3 6UP

Prepared for:

Roberts & Tréguer
24-28 Toynbee Street
London
E1 7NE

Prepared by:

Mr. G Davies *FdSc Arb MArborA*
Senior Arboricultural Consultant

Date of Site Visit:

14th January 2025

Bartlett Project Reference:

GD.241049.AIA

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Submitted on 31st January 2025

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EXECUTIVE SUMMARY

I was instructed by Zena Mothashar on behalf of Roberts & Tréguer to survey the trees within and adjacent to the boundary of 20 Church Row and to provide an Arboricultural Impact Assessment in line with the guidance and standards set out within British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations* to meet the requirements detailed within condition 5, set as part of the approved planning application Ref: 2024/2483/P.

I completed my site visit on the 14th January 2025

The approved scheme has been designed with the intention of retaining the Magnolia (T1), which is located within the rear garden of the site. This is a semi-mature tree featuring a prominent position and focal point within the garden.

The survey has also identified a number of third-party trees growing within the adjacent private gardens of which are relatively small specimens of limited merit.

None of the surveyed trees will require removal to facilitate the approved works, however a limited amount of pruning has been recommended. This is both to facilitate the works but also maintain good form and crown structure on grounds of good arboricultural practice. The recommended tree works are not considered to be of detriment to the form of the trees, their longevity and / or amenity.

All surveyed trees can be adequately and robustly protected with a combination of ground protection and vertical barriers. This report has provided comment and given recommendations with regards to the specific methodology required in order to prevent damage occurring during the works.

Therefore, this report has suitably satisfied condition 5 of the approved planning application Ref: 2024/2483/P by demonstrating how the approved external works within the rear garden can be carried out whilst adequately and robustly protecting all existing trees

1.0 SCOPE OF REPORT

1.1 Instruction

1.1.1 I was instructed by Zena Mothashar on behalf of Roberts & Tréguer in way of a signed acceptance dated 7th January 2025 to:

a) Survey the trees within the boundary of 20 Church Row, Hampstead, London NW3 6UP, as well as those on adjacent third-party property, that have the potential to influence approved works, which therefore must be considered as a constraint.

b) Provide an Arboricultural Impact Assessment within the guidance of British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations* as well as current local planning policy and any supplementary planning guidance, suitable to meet the requirements detailed within condition 5, set as part of the approved planning application Ref: 2024/2483/P.

Figure 1: Snipped image from Google maps showing an aerial view of the site (site boundary outlined in red)

1.2 Project Background

1.2.1 As part of the ongoing design and build process as well as to satisfy condition 5 relating to approved works, I was commissioned by Roberts & Tréguer to provide arboricultural input with regards to the protection of trees within and adjacent to the rear garden of 20 Church Row.

1.2.2 The property is located upon Church Row a residential street in Hampstead, London and is a mid terrace early eighteenth-century brick-built property set over 5 floors including an attic and basement, with small garden to the rear.

1.2.3 There has recently been an approved planning application with regards to works to refurbish the current house and landscaping the rear garden including the erecting of a single storey garden room / summer house to the rear of the garden. The below arboriculture condition (5) has been set as part of the approved works.

Prior to the commencement of any external works within the rear garden, details demonstrating how trees to be retained shall be protected during construction work shall be submitted to and approved by the local planning authority in writing. Such details shall follow guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction". All trees on the site, or parts of trees growing from adjoining sites, unless shown on the permitted drawings as being removed, shall be retained and protected from damage in accordance with the approved protection details.

1.0 SCOPE OF REPORT (continued…)

1.3 Report References & Supporting Information

1.3.1 I was provided with the following drawings and information to aid my report writing, as well as production of my tree constraint(s) plan(s) by Roberts & Treguer in both DWG and PDF file format.

- *Topographical Survey Ref TS24-010-1 Dated Jan 2024*
- *Fabric Removal - Lower Ground & Ground Ref DR-02-100 Rev 02 Dated January 2024*
- *Fabric Removal – Long Section A & B DR-02-104 Rev 02 Dated Jan 2024*
- *Tree Protection Section SK02*

1.4 Report Author

1.4.1 The site visit, tree survey, report and plans, have been completed by me, Mr Gareth Davies – Senior Consultant for Bartlett Consulting / Bartlett Tree Experts.

1.4.2 I have obtained a Level 5 *FdSc* in Arboriculture, hold ISA - Tree Risk Assessment and LANTRA Professional Tree Inspector qualifications, and am a 'Professional Member' of the Arboricultural Association with over 11 years' experience within the industry.

1.5 Aspects Included within Report

1.5.1 The information contained within this report follows the guidance of British Standard 5837 2012: *Trees in Relation to Design, Demolition and Construction – Recommendations* as well as Policies set out within London Borough of Camden', adopted local plan.

1.5.2 My impact assessment will discuss the constraints posed by the trees, as well as the potential impacts of proposed works in relation to those trees; give recommendations for design modification, specialist construction techniques, and / or mitigation and compensation options where appropriate; and consider statutory tree protection.

1.5.3 Also considered in this report is any facilitation pruning necessary to retained trees.

1.5.4 Appended to this report is a Tree Constraints Plan which accurately detail the positions of surveyed trees and vegetation colour coded based on their amenity and life expectancy as per British Standard 5837; and illustrates the physical dimensions of the crowns as per the cardinal points, the calculated Root Protection Area (RPA) of each tree and hedgerow, as well as shade / shadow patterns.

1.5.5 Modified RPA's have been illustrated in accordance with Clause 4.6.2 of British Standard 5837:2012 where pre-existing site conditions or other factors influence root morphology. The modified RPA still provides adequate protection for the root system and surrounding soil, whilst remaining plotted in the minimum area required.

1.5.6 My Arboricultural Impact Assessment (AIA) is accompanied by a Tree Protection Plan (dTPP). This plan illustrates trees to be retained and incorporated into the development design and also identifies locations of physical tree protection barriers, non-compacting ground protection, and site-specific working methodologies to guide technical design and on site works.

1.6 Aspects Excluded from Report

1.6.1 The contents of this report do not include discussions regarding subsidence and / or heave. This is the responsibility of the project Structural Engineer, appointed building contractor and Building Control department of the Local Planning Authority.

2.0 TREE PROTECTION STATUS

2.1 Statutory Protection

2.1.1 The Town & Country Planning Act (Tree Preservation) (England) Regulations 2012 and the Town & Country Planning Act 1990 (as amended) provides legislative protection for trees within England.

2.1.2 I conducted a tree protection status check through the London Borough of Camden's interactive mapping systems found at: https://ssa.camden.gov.uk/connect/analyst/mobile/#/main?mapcfg=%2FMapProjects%2FCamdenConservationn

2.2 Tree Preservation Order (TPO) Status

2.2.1 None of the trees detailed within this report are covered by a TPO.

2.3 Conservation Area (CA) Status

2.3.1 20 Church Row and trees discussed within this report are in the designated Hampstead Conservation area.

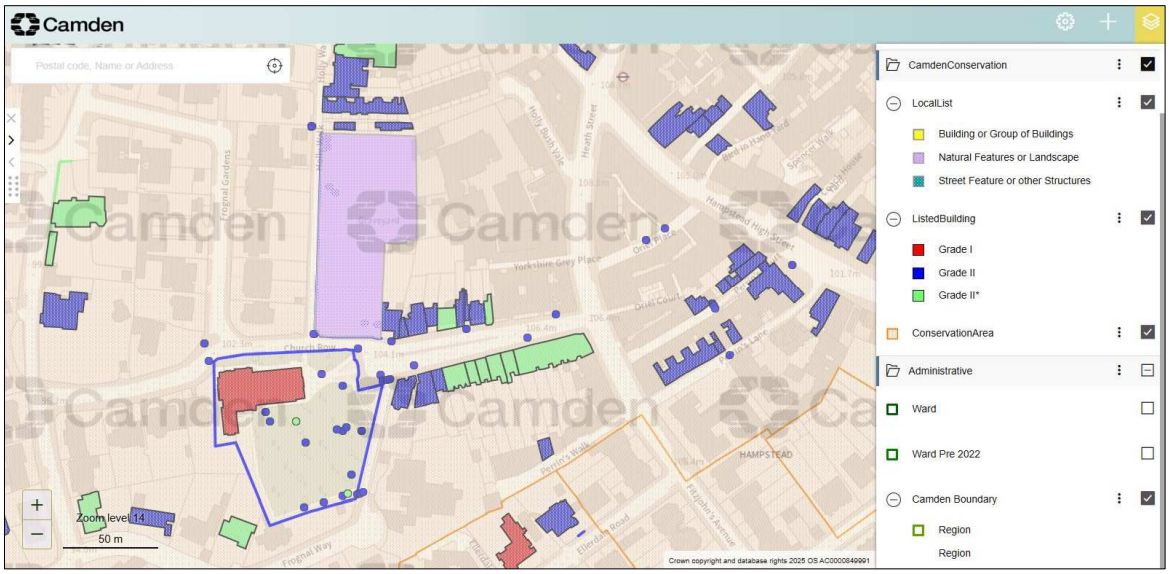


Figure 2: Snipped Image from Camden Council Website Showing Results of Tree Protection Status Check

2.4 Tree Management Implications

2.4.1 None of the trees on this site are currently subject to a Tree Preservation Order (TPO). However, it has been established via an online search that the site does stand within a designated Conservation Area (CA), administered by the LPA.

2.4.2 This affects all trees with a stem diameter 75mm or greater, when measured at a height of 1.5m above ground level.

2.4.3 Under the Town and Country Planning Act 1990 (as amended), a Section 211 Notice must be served to the LPA, providing them with 6 weeks' notice of any intention to implement works to protected trees.

2.4.4 The purpose of this notice is to provide the LPA with an opportunity to consider whether a TPO should be made in respect of the trees.

2.4.5 If consent is granted, all prescribed tree works contained within this report and required to facilitate the approved scheme may be implemented.

3.0 GENERAL TREE & SITE DETAILS

3.1 Local Landscape

3.1.1 The immediate built landscape surrounding the property comprises predominantly private residential dwellings of similar age and style, most of which also have gardens to the rear. There are a number of commercial properties located to the east of the site lining Heath street. St Johns Hampstead Church is located to the west and includes associated church grounds to the north and south of Church Row.

3.1.2 The notable canopy cover surrounding the site comprises a single line of street trees located to the centre of Church Row, as well as a number of trees located within the grounds of the St Johns Hampstead Church. There are also trees and shrubs growing within the rear garden of surrounding residential properties although they are typically smaller specimens.

3.2 Tree Identification & Location

3.2.1 Trees identified within this survey include the semi-mature Magnolia (T1) growing within the site boundary as well as a number of smaller trees and shrubs growing within neighbouring third-party gardens, close to the site boundary.

3.2.2 The onsite tree Magnolia (T1) as well as those growing within adjacent neighbouring gardens are all considered to have limited public amenity due to their relatively small size and location within the rear gardens, only, within some instances partially visible from the Frognal Way pedestrian footpath.

Figure 3: Image showing the Magnolia tree (T1) as viewed from the main house looking down the garden

4.0 APPROVED DEVELOPMENT & DEVELOPMENT SITE DETAILS

4.1 Approved Development

4.1.1 Approved site development includes:

- Demolition of existing garden structures and removal of the hardstanding patio area and paths
- Excavation of the soils within the rear garden to lower the existing ground level
- Construction of a Summer House and installation of all associated servicing and drainage

4.2 Existing Grounds

4.2.1 The existing garden consists of a patio area with a small garden path and steps leading to a redundant brick-built water feature. The garden predominantly comprises planting beds stocked with small shrubs and perennials.

4.3 Slopes

4.3.1 The garden is set upon a number of levels to account for the gradient sloping north to south. The existing boundary treatment consists of a continuous retaining brick wall with the surrounding gardens at varying levels to account for the wider gradient of the local area.

Figure 4: Photo of rear garden as viewed from the top floor of the main house

5.0 ARBORICULTURAL IMPACT ASSESSMENT

5.1 Tree Constraints Plan

5.1.1 Attached at the end of this report is a Tree Constraints Plan. This constraints plan illustrates the trees subject of my survey and their physical constraints (discussed below).

5.1.2 I have produced all the plans using architectural software, the *Proposed Site Plan* referenced in Section 1.3, and the tree data captured during my site visit and survey.

5.1.3 As works have been approved, the below impact assessment will take into consideration those works. In accordance with Section 4.4.1.2 of BS: 5837 (2012) the below impact assessment will identify any tree and development conflicts, and recommended design modifications where necessary.

5.2 Direct Impacts – Tree Removal or Pruning

5.2.1 The proposed works will not require the removal of any trees identified within this report

5.2.2 To enable the approved scheme there will be the requirement for a degree of selective pruning of overhanging third party trees. As previous pruning of these trees has already been carried out, only minor lateral reduction of regrowth from the third-party trees T2, T4 and T5 will be required in order to manage encroachment and allowing suitable clearance. These works can be carried out under common law.

5.2.3 The magnolia (T1) has also undergone previous pruning to manage its crown spread and height. A sympathetic crown reduction and thinning of this tree would impove its current form and structure as well as manage crown spread.

5.3 Direct Impacts – Approved Development

5.3.1 The key impact with regards to the surveyed trees is the works to lower the ground level within the rear garden.

5.3.2 As the magnolia (T1) is to be considered for retention as part of the scheme, the area occupied by the roots of this tree (as shown within the TCP) must be retained at existing ground level. This has been reflected within the sectional drawings where the area around the tree has been retained at a higher level whilst carrying out excavation lowering soil levels to the north and south.

5.3.3 Due to the extent of proposed works the default tree protection would typically consist of fully isolating the tree crown and RPA with the use of robust tree protection barriers. However, due to the constraints of the site and need for construction access to the rear of the garden in order to provide tree protection whilst allowing construction activities, I propose that a bespoke tree protection box is constructed around the main stem and primary branch structure. In addition, to prevent compaction within the RPA, I propose that suitable non-dig temporary ground protection is installed.

5.3.4 As exact root morphology of T1 is unknown, excavation to the edge of the RPA must be carried out carefully. Any roots encountered must be severed with a sharp and sterile pair of secateurs or loppers.

5.3.5 In this instance, I would also recommend that either a temporary or permanent retaining system is installed to the wall of the excavation. This will prevent soil slip and subsequent root exposure that could lead to damage and tree decline.

5.3.6 It is important for the long-term retention of the Magnolia (T1) that any hardstanding surfacing installed within the RPA is kept to a minimum coverage. This will allow the area to be retained as a viable rooting environment. Where hardstanding is required, it should be constructed with minimal impact, preferably a permeable material or constructed in a way that water can penetrate through to the roots below.

5.0 ARBORICULTURAL IMPACT ASSESSMENT (continued…)

5.3 Direct Impacts – Approved Development (Continued…)

5.3.7 Due to the variation in levels between the site and adjacent gardens as well as the substantial retaining brick wall that bounds the site, I do not anticipate roots from third party trees will be present within the site boundary.

5.3.8 Roots from third party trees and shrubs will however be in abundance on the adjacent side of the boundary wall. As such, if for any reason the wall requires re-building then its removal must be carried out sectionally with use of hand tools being careful not to damage roots of adjacent trees and shrubs. A bespoke method statement can be provided if required to account for this eventuality and the works could be carried out under arboricultural supervision.

5.3.9 The approved Garden room located to the rear of the site will require both electric, mains water supply and drainage. These services, typically located below ground, will have to be connected to the main house and routed through the RPA of T1. The Tree Protection section Ref SK01 shows an approximate depth in which the services will run, falling towards the main house.

5.3.10 No information has been provided as to the method of installation, however, the least impactful method to install the servicing through the RPA of T1 would be to use a trenchless technique such as moling or directional drilling. If deemed impractical for the site, then alternatively an open trench would have to be excavated. This would have to be located as far from the main stem of T1 as possible and would be carried out with use of air-spade and hand tools, carefully excavating soils with an aim for maximum root preservation. This work should be carried out with the project Arboriculturist on hand to oversee the works.

5.4 Indirect Impacts – Approved Development

5.4.1 There are a number of indirect impacts specific to this site, associated predominantly with the scale of the construction phase. These include the potential for compaction of local soils, potential for mechanical damage to retained trees as well as the potential for contamination of the soils.

5.4.2 As discussed within section 5.3 above, suitable tree protection will be provided. This will be in way of boxing in the stem of the magnolia (T1) and installing adequate non-compacting ground protection ahead of the construction works on site. Due to the size of the site available free space will be limited. As such, designated areas must be assigned for construction activities such as material storage, fuelling machinery and mixing of cement. This will go some way in preventing any accidental soil contamination.

5.4.3 Careful phasing of site operations will also control the number of operatives, equipment and materials on site preventing further conflicts between the competing needs of development, tree retention and protection.

6.0 SUMMARY OF IMPACT ASSESSMENT

Table 1: Implications of Proposed Development on Existing Tree Population

Tree Ref.	Removal due to		Mitigation Required		Aspect of Development Affecting Retained Tree(s)
	Works	Condition	Crown	RPA	
T1	N/A	N/A	✓	✓	Excavation of soils adjacent to RPA Installation of services within RPA Access for construction works within RPA and crown spread
T2	N/A	N/A	✓	N/A	Construction works within western crown spread
G3	N/A	N/A	N/A	N/A	None
T4	N/A	N/A	✓	N/A	Construction works within north-western crown spread
T5	N/A	N/A	✓	N/A	Construction works within northern crown spread

Table 2: Mitigation / Modification of Design Required for Identified Implications

Tree Ref	Mitigation / Modification of Design Required
T1	1. Install bespoke protection boxing around tree stem and lower scaffold branches (as shown in dTPP) 2. Install non-compacting ground protection within RPA (as shown in dTPP) 3. Carry out carful excavation of soils adjacent to RPA – severing any roots encountered with a sharp sterile blade 4. Install underground services with use low impact techniques
T2	1. Carry out facilitation pruning
T4	1. Carry out facilitation pruning
T5	2. Carry out facilitation pruning

Table 3: Preliminary Facilitation Tree Work

Tree Ref	Species	Schedule of Facilitation Tree Works
T1	Southern Magnolia *Magnolia grandiflora*	Carry out a maximum 1.0m lateral reduction of the northern crown to re-balance Carry out a selective thin of the regrowth to improve structure
T2	Japanese Maple *Acer palmatum*	Carry out selective pruning to limit encroachment over site boundary
T4	Common Elder *Sambucas nigra*	Carry out selective pruning back to site boundary
T5	Apple *Malus*	Carry out selective pruning back to site boundary

7.0 CONCLUSIONS & RECOMMENDATIONS

7.1 Further Recommendations

7.1.1 Common nuisance issues such as leaf litter, flowers and sap can be addressed through careful and site specific design including: filtration for rainwater guttering of either mesh or “bristle” inserts; the incorporation of discreet ladder attachment points under the eaves; sufficient clearance between the edge of the roof and the guttering to facilitate ease of maintenance; fitting the downpipes with easily cleanable traps.

7.1.2 In this instance I would recommend that the designer considers the requirement for access to the rear of the garden room in order to manage regrowth from adjacent trees T4 and T5 through cyclical pruning.

7.2 Conclusions

7.2.1 I can confirm that full consideration has been given to the quality and condition of the existing tree population, the amenity and eco-system services the trees provide, as well as their above and below ground constraints.

7.2.2 In accordance with the guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction” this report has discussed how the approved external works within the rear garden can be carried out whilst adequately and robustly protecting all existing trees thus satisfying condition 5 of the approved planning.

8.0 TREE PROTECTION PLANNING

8.0.1 A Tree Protection Plan (TPP) can be found as an appendix at the end of this report. The TPP has been prepared in accordance with Section 7.1 of British Standard 5837:2012.

8.0.2 Both bespoke boxing and ground protection will be required to safeguard tree T1 against damage which may be sustained throughout works on site, and this plan is indicative of the anticipated locations of tree protection measures.

8.0.3 The TPP informs of these requirements, as well as illustrate how the tree protection measures may influence and limit the free space around the site once development commences.

8.0.4 Once established, both types of tree protection will be sacrosanct, and must not be moved or adjusted during any stage of site operations without the prior written consent of London Borough of Camden Council.

8.1 Ground Protection

8.1.1 Non-compacting ground protection will be required where the vertical barriers have been off-set to allow for the 'working zone' and site traffic during demolition and construction. Ground protection must be retained on site until there is no risk of any damage from demolition and construction works. A reference illustration can be seen in Figure 5 below.

8.1.2 No mixing of cement or other chemicals must take place atop the ground protection, nor should any storage of oils, fuels, chemicals or cement take place atop the ground protection.

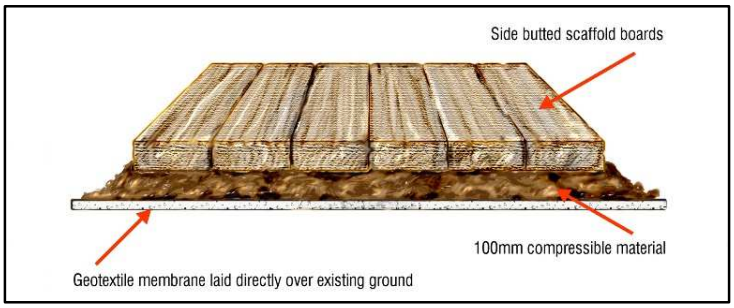


Figure 5: Illustration of Ground Protection Required Within Root Protection Areas

8.0 TREE PROTECTION PLANNING (continued…)

8.2 Tree Protection Box

8.2.1 As the construction access will be required within the Crown spread of Magnolia T1 I recommend a bespoke 'tree protection box' is constructed around the main stem and scaffold limbs to prevent direct damage to the tree.

Please see the image and specification of construction below.

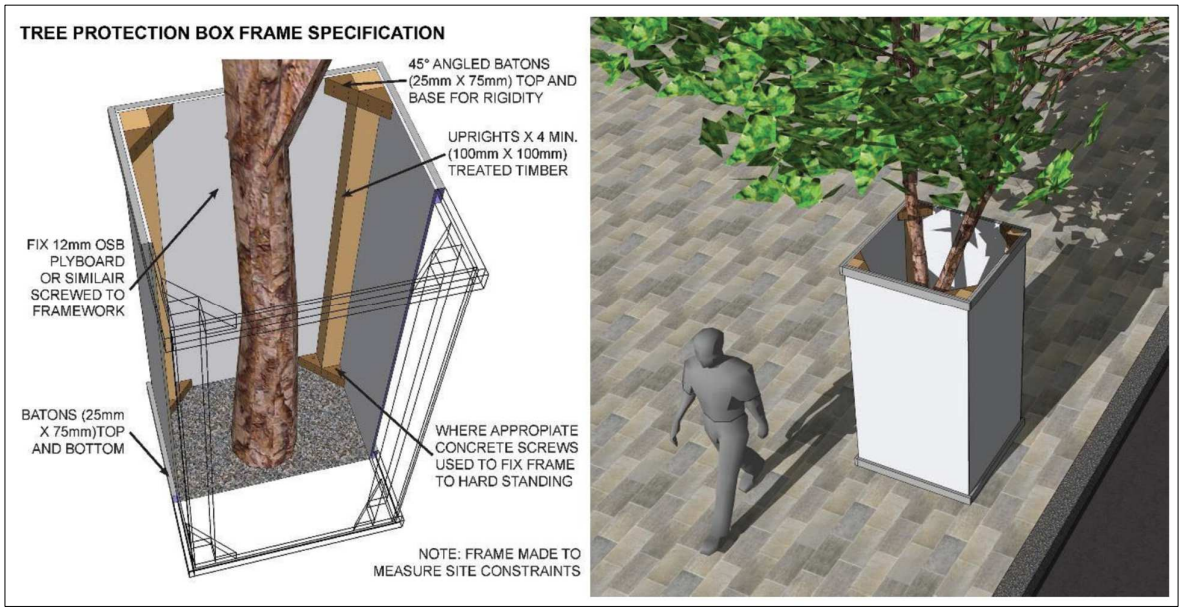


Figure 6: Illustration & Specification of Tree Protection Box (Reproduced from AECOM Limited Report)

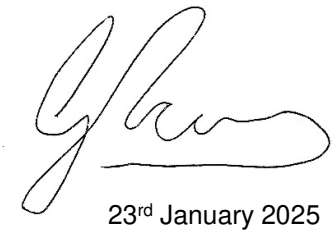
I trust that the contents and recommendations contained within this report were informative, easy to understand and helpful to you with regards to submitting your planning application to London Borough of Camden.

Should you have any further questions or require further advice, please do not hesitate to contact me again.

REPORT CLASSIFICATION: Arboricultural Impact Assessment & Draft Tree Protection Plan

REPORT STATUS: Final

REPORT COMPLETED BY: Mr. G Davies *FdSc Arb MArborA*
Senior Arboricultural Consultant

SIGNATURE: 

DATE: 23rd January 2025

REPORT REVIEWED BY: Ruth Le Poidevin
Bartlett Tree Experts Administrator- Consultancy

SIGNATURE: 

DATE: 31st January 2025

Appendix 1 - British Standard 5837(2012) Tree Survey Schedule

Client:	Roberts & Tréguer, 24-28 Toynbee Street, London, E1 7NE	***Report No:***	GD/241049/AIA
Completed by:	Mr. G Davies		
Trees Tagged:	NO	***Weather:***	Overcast
Site:	20 Church Row, Hampstead, London NW3 6UP	***Date of Survey:***	14th January 2025
Contact:	Bartlett Tree Experts | Bartlett Consulting (p) 01275 371 000 ext.2 (e) consultancy@bartlettuk.com (w) www.bartlett.com		

Tree Ref No.	Species	Ht. (m)	Stem Dia. (mm)	Crown Spread				Crown Clearance				Ht. to 1st limb (m)	Age	Phys. Cond.	Structural Condition			Observations	Preliminary Management Recommendations	Life Exp.	Cat.
				North	East	South	West	North	East	South	West				Basal	Stem	Crown				
T1	Southern Magnolia *Magnolia grandiflora*	6.2	240 130	5	3	3	2	2	2.5	2	2	2.0m north & south-east	EM	Good	G	G	F	• Single stem specimen • Bifurcation at 1.5m • Historically topped at 2.0m resulting in multiple regrowth • More recent height reduction resulting in further multiple re-growth forming form pruning cuts • Ongoing pruning of the western crown to maintain clearance over boundary	• Manage through thinning of regrowth and height and lateral reduction to maintain crown volume	20+	B1
T2	Japanese Maple *Acer palmatum*	2	60 avg	2	1.5	1.5	1	1	1	1	1	-	SM	Good	F	G	F	• Third party tree • Multiple stem specimen • Growing adjacent to boundary wall at approx. 1.0m raised level • Slight asymmetrical crown bias to south • Western crown marginally overhanging site by approx 500mm	• No works currently required	20+	C1
G3	Common Elder *Sambucas nigra*	2	60 avg	1	1	1	1	0.5	0.5	0.5	0.5	-	SM	Fair	F	F	F	• Mixed group of shrubs • Growing adjacent to site boundary • Some in direct contact with boundary wall • All growing at raised level approx. .5m above site • Previous pruning of the western crowns to manage encroachment over site	• No works currently required	10+	C1

Tree Ref No.	Species	Ht. (m)	Stem Dia. (mm)	Crown Spread				Crown Clearance				Ht. to 1st limb (m)	Age	Phys. Cond.	Structural Condition			Observations	Preliminary Management Recommendations	Life Exp.	Cat.
				North	East	South	West	North	East	South	West				Basal	Stem	Crown				
T4	Apple *Malus*	3.5	130	2	1.5	2.5	2	1.5	1.5	1.5	1.5	-	SM	Fair	F	F	F	• Third party tree unable to view at base • Growing approx .5m below site level within adjacent garden beyond brick wall • Single stem specimen bifurcating at 1.5m • Further bifurcation of co-dominant leaders forming multiple leaders • Western crown overhanging site with evidence of some previous pruning to manage encroachment • Asymmetrical crown bias to west	• No works currently required	10+	C1
T5	Fig *Ficu carica*	4.5	80 avg	2	3	2	4	1.5	2	2	2	-	SM	Fair	F	F	F	• Third party tree • Growing adjacent to boundary • Growing approx. 1.0m lower level than site • Multiple stem specimen resulting from previous management • Previous pruning to prune back to site boundary with only small dia regrowth overhanging site boundary	• No works currently required	10+	C1

Appendix 2: Tree Survey Key

Tree ID	The tree number of physical tree tag (if applicable) or sequential numerical reference, of a tree, group of trees, etc. as shown on the Tree Constraints Plan.
Species	The English Common Name of the tree. The Latin name will be provided as clarification where deemed necessary.
Age	The following abbreviations are used to give the age of the tree; **NP** = Newly Planted, **Y** = Young (recently planted and establishing within landscape) **SM** = Semi-Mature (established within landscape and developing / growing) **M** = Mature (having reached anticipated size and age for species / growth has slowed) **OM** = Over Mature (tree of exceptional age for species) **V** = Veteran (exceptional chronological age as well as size with decay / wildlife habitat / broken limbs / etc.)
Tree Height	Measurements are obtained using a laser clinometer and provided in metres. A black asterisk * will denote that the measurement is estimated.
Crown Height	The first figure, is given in metres, is the height of the lowest branch above ground level. The second figure, also in metres, is the height of the lowest part of the tree crown above ground level. All measurements are obtained using a digital clinometer. Measurements will be provided over the development site if know. A black asterisk * will denote the measurement is estimated.
DBH	Diameter at Breast Height - measurement are obtained using a diameter tape, provided in millimetres, and measured at 1.5 metres above ground level, unless otherwise noted. A black asterisk * will denote that the measurement is estimated.
Crown Spread	Measurements are obtained using a laser range finder, and provided in metres, radially, at the four cardinal points unless otherwise noted. A black asterisk * will denote that the measurement is estimated.
Structural Condition	Structural condition and observations of the crown (branching structure) stem and root collar, qualified with the terms: **Good**, **Fair**, **Poor**
Category	This is the grading category (amenity valuation) of trees, applied during the survey. Trees are categorised in accordance with the Cascade Chart for Tree Quality Assessment - Table 1 in BS 5837(2012) and shown in Appendix 2 below. This is applied by considering first if the tree is Category U. If not, then all trees are Category A and then 'cascade' down if not meeting the criteria for Category A.
Life Expectancy	This is the estimated number of years in which the tree will remain a valuable feature in the landscape, as well as in good health and condition, excluding any outside human influences. This estimation is made exclusive of the Category of Retention and is quantified in the following categories: ≥40 years / ≥20 years / ≥10 years / ≤10 years
Vitality	Qualification of the physiological condition of the tree using the following terms: **Dead**, **Poor**, **Declining**, **Fair** & **Good**
RPR / RPA	**RPR** – Root Protection Radis, expressed as a radial distance in metres from the tree stem; **RPA** – Root Protection Area, expressed as an area in square meters around the trees. Both measurements are the minimum area around a tree deemed to contain sufficient roots and rooting environment to maintain tree vitality. A construction exclusion zone in the first instance.
Comment	These are brief comments and observations about the tree or site, to assist in better understanding the tree, site layout, potential impacts or relationship with proposals.
Abbreviations Used	**ADB**: Ash Dieback – the severity of which is also quantified in 'stages' as per The Tree Council guidance document (found here); **AG:** Adaptive growth – new wood produced in response to biomechanical weakness, often stronger than 'normal' wood due to multiple biological & physiological adaptations. **Cup-shaped Union**: a union which started as included bark, but created ribs on-top, forming a cup-shape; **D3**: damage, decay, dysfunction; **FFB**: fungal fruiting body; **IB Union**: included bark union, a structural weakness at branch or stem unions; **NSS**: not structurally significant; **Notable Tree**: large, over-mature, 'magnificent' locally important tree for cultural, social, historical, landscape or other similar reasons; **SULE**: safe useful life expectancy; **VTA**: visual tree assessment;
Definitions	**Structure: Good –** no features or observations of note / concern; **Moderate**: minor remedial or non-concerning features or observations such as storm damage, unsympathetic management or presence of decay or cavities; **Poor** – significant, numerous structural weaknesses, extensive decay and / or tree parts in the process of failure which have compromised the tree. **Vitality**: **Good** – vigorous annual extension growth and bud development, dense and full canopy, good leaf colour and size typical for species; **Fair** – parts of canopy with reduced annual extension growth and bud development, gaps within the canopy, leaf discolouration and/or unusual leaf size and shape, some tip dieback; **Poor** – over 30% of canopy exhibiting dieback and decline with the canopy exhibiting a fragmented appearance, numerous broken dead and decaying branches, poor leaf colour and growth. **Decline** – transitioning between good to fair / poor

Appendix 3: 5837(2012) Cascade Chart for Tree Quality Assessment

TREES UNSUITABLE FOR RETENTION		
CATEGORY & DEFINITION	**CRITERIA**	**SHOWN ON PLAN**
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 serious, irremediable, structural defects, 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 might be desirable to preserve.	**DARK RED**

TREES TO BE CONSIDERED FOR RETENTION				
CATEGORY & DEFINITION	**CRITERIA (subcategories)**			**DENTIFICATION ON PLAN**
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
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)	**LIGHT GREEN**
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 & 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	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	**MID BLUE**
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 significant greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**GREY**

Appendix 4: Report Limitations & Methodologies

Limitations of the Assignment

- This report is restricted to those trees shown on the attached Tree Constraints Plan and described in the tree survey schedule. Furthermore, this report and Tree Constraints Plan can only be used for dealing with the issues related to the design proposals.
- All plans and discussions within this report are based entirely on the drawings provided to Bartlett Consulting and referenced above. All scaled measurements must be checked against the original submission documents as well as confirmed on site.
- Any material planning changes to the site, trees and design proposals after the date of report delivery will invalidate this report.
- This assessment considers the possible implications to the proposed built structures. Suggestions from an arboricultural perspective may be provided outlining an alternative site layout. Such suggestions must be considered by the project Architect/Designer/or Engineer before implementing any suggestions.
- If a Topographical Survey was not commissioned for this project, the trees will be plotted by Bartlett Consulting using the Trimble TDC6 Global Positioning System and a geo-referenced Ordnance Survey base map provided the Planning Agent.
- I occasionally use AI tools, such as ChatGPT, to refine paragraphs and enhance the clarity of discussions and conclusions in my reports, as I find this helps present technical and scientific content in 'plain English'. However, I do not rely on AI for interpretation, decision-making, or providing tree management recommendations.

Limitations of the Tree Survey

- The trees were not climbed at the time of the survey. Tree dimensions were recorded using hand tools such as a diameter tape, laser range finder and measuring tape. A 'sounding hammer' and binoculars, as well as depth probe were used to assess the trees in more detail where necessary.
- This assignment was not a 'tree risk assessment' as defined by current industry standards and guidance documents. The owner / client shall not infer that any information contained in, or absent from, our tree survey data, report, or deliverable material is a tree risk management plan or declares a tree, group of trees or area of trees to be "safe" or the risk of failure mitigated in any way.
- The statements, findings and recommendations made within this report do not take into account any effects of extreme climate and weather incidences, vandalism, changes in the natural and built environment around the tree(s) after the date of this report, nor any damage whether physical, chemical or otherwise.
- Bartlett Consulting cannot accept any liability in connection with the above factors, nor where recommended tree management is not carried out in accordance with modern tree health care techniques, within the timeline proposed.

Timing of the Tree Survey & Report

- The observations & findings of this report remain valid for one year, from the date of issuance.

Invalidation of the Tree Survey & Report

- Recommendations and conclusions provided within this report will become invalid if any building works are undertaken, soil levels altered, or any unsolicited tree works undertaken outside the scope of this report as well as design proposals considered.
- If any alterations to the existing building structures, or soil levels, or if any unsolicited tree works have been completed, it is the recommendation of Bartlett Consulting that a new tree survey and impact assessment will be required to reflect and assess these changes.

Trees in Relation to Other Properties

- The tree survey and report consider only those trees in relation to the site as identified.
- This report does not comment upon the possible effects of trees on neighbouring properties, including matters concerning subsidence or heave, or with regards to potential hazards presented by trees surveyed.
- Neighbouring land / tree owners that are identified as posing a potential risk to the site should seek their own independent advice.
- Damage to, or potential damage to any existing structures that are not referred to within this report is not considered, unless otherwise specified. This is inclusive of built structures within and adjacent to the site.

Trees in Relation to Subsidence, Heave and Direct Damage

- This report does not deal with matters concerning subsidence or heave to any existing built structure on or neighbouring the site. It may be prudent to consider the effects of heave on any built structure if trees are to be removed.
- Similarly, the issue of direct damage (physical damage caused by tree roots) is not dealt with in this report.

Trees Subject to Statutory Controls

- Whilst Bartlett Consulting has made attempts to ascertain if any of the trees subject to this report are 'protected', their status may be subject to change. Therefore the final responsibility for checking statutory protection for trees rests with the employed contractor and not with Bartlett Consulting
- It remains the tree owners responsibility to provide the LPA appropriate notice as detailed in Section 2.

Copyright

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TREE CONSTRAINTS PLAN

SCALE : 1 : 125 @ A4

DATE : 1/23/2025

N

20 Chruch Row, Hampstead, London, NW3 6UP
GD/241049/TCP

KEY

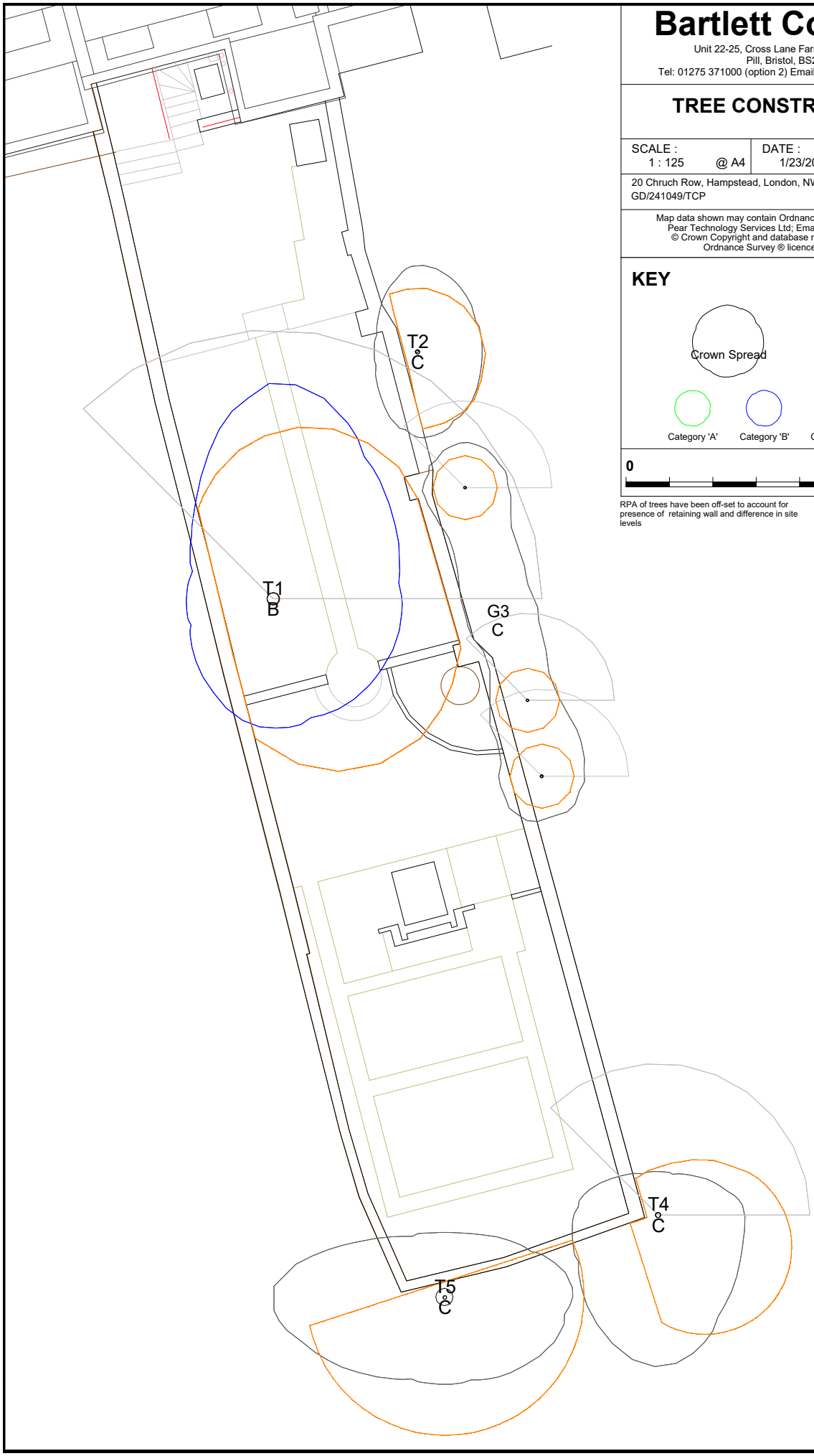
Crown Spread

Root Protection Area

Category 'A' Category 'B' Category 'C' Category 'U'

0 8m

RPA of trees have been off-set to account for presence of retaining wall and difference in site levels



Bartlett Consulting

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TREE PROTECTION PLAN

SCALE :	DATE :	N
1 : 125 @ A4	1/30/2025	

20 Chruch Row, Hampstead, London, NW3 6UP
GD/241049/TPP