

Arboricultural Appraisal Report

Impact Assessment & Method Statement to Inform Development

BS5837:2012 Trees in relation to Design, demolition and construction – Recommendations

3 Crediton Hill
London
NW6 1HT



CLIENT:	Simon Miller Architects Ltd
MWA REF:	DEV240905-1223Rev01
MWA CONSULTANT:	Mark Bisley BSc (Hons)
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Technical Summary

Proposal summary: A single storey outbuilding housing a gym will be constructed at the western end of the rear garden, extension of patio to rear of house and revised landscaping in rear garden.

See supervision statement regarding direct supervision of works and monitoring.

Table 1: Summary of Tree works Summary

Vegetation Works Summary	Vegetation Affected by Category			
	Cat A	Cat B	Cat C	Cat U
Removal under sound arboricultural management	0	0	0	1
Removal due to development	0	0	8	0
Pruning (Enabling Works)	0	0	1	0

Table 2: Mitigation Requirements Summary

Mitigation Requirements Summary	Vegetation Affected by Category			
	Cat A	Cat B	Cat C	Cat U
Protective Fencing	0	0	0	0
Ground Protection	0	1	1	0
Excavation within RPAs	0	1	1	0
No Dig Installation	0	0	0	0

Table 3: List of Vegetation Works and Mitigation

Works / Mitigation	Vegetation Affected
Removal	T3, T4, T5, T6, T7, T8, T9, T10, G1.
Pruning	T2
Protective Fencing	N/A
Ground Protection	T1, T2
Excavation within RPAs	T1, T2
No Dig Installation	N/A

Contents

Introduction	2
1 Scope	2
2 Supporting Documents	3
3 Components of Report	3
Site Assessment	4
4 Statutory Controls, Policy and other Constraints	4
5 Tree Survey	4
6 Site Description.....	5
Development Appraisal.....	6
7 Development Proposal	6
8 Arboricultural Impact Assessment.....	6
Arboricultural Method Statement	9
9 Arboricultural Method Statement (subject to revision if planning conditions are imposed)	9
10 Demolition Phase.....	12
11 Construction Phase.....	13
12 Sequencing of works & supervision.....	15
13 Conclusions.....	16

Appendix 1 – Key Contacts

Appendix 2 - Images

Appendix 3 – Site Monitoring Form

Appendix 4 – Example handout for site operatives when working with RPAs

Introduction

1 Scope

- 1.1 The scope of this report is limited to an appraisal of the existing significant vegetation on (and/or adjoining) the site and identification of the implications of development on retained vegetation in accordance with our instruction. The assessment is to be made with reference to BS 5837:2012 'Trees in Relation to design, demolition and construction – Recommendations'. This report is based on conditions found at the time of our survey.
- 1.2 To prepare clear recommendations supported by relevant plans and data in order to facilitate consideration of the arboricultural implications by the Local Planning Authority (LPA).
- 1.3 To consider the development proposals, identify areas where there are arboricultural issues and to recommend possible solutions.
- 1.4 To consider additional information supplied, to identify arboricultural issues arising from this information and to recommend possible solutions.
- 1.5 No responsibility is assumed by MWA Arboriculture Ltd for legal matters that may arise from this report, and the consultant shall not be required to give testimony or to attend court unless additional contractual arrangements are made.
- 1.6 This report is not a Tree Risk Management Report or a Hazard Analysis Report and its use as such is invalid.
- 1.7 The vegetation has been assessed from ground level only. Assessment of condition is based on a visual tree assessment (VTA). No detailed inspection of the upper crown has been carried out. No decay detection equipment (destructive or non-destructive) has been used to further assess the condition of the vegetation, which is beyond the scope of the survey. Any dangerous trees requiring further assessment on safety grounds will be identified.
- 1.8 Due to the changing nature of trees and other site circumstances this report and any recommendations made are limited to a 3-year period. Any alteration to the application site or any development proposals could change the current circumstances and may invalidate this report and any recommendations made. Should this be the case this report will require revision to reflect the development proposals.
- 1.9 A lack of recommended work does not imply that a tree is safe and likewise it should not be implied that a tree will be made safe following the completion of any recommended work.
- 1.10 All measuring instruments were used in accordance with appropriate user guides.
- 1.11 No site investigations to identify underlying soils and geology have been undertaken. This information may have a bearing upon existing and proposed foundations and landscape design. The project engineer is to be consulted regarding impacts from the recommendations contained within this report.

- 1.12 Any legal description or information given to MWA Arboriculture Ltd is believed to be accurate.
- 1.13 Where solutions to arboricultural problems are specified which require the usage of a third-party product e.g., no dig roadway construction, no liability is assumed for the performance or suitability of the product and specialist advice as to the suitability or installation of the product should be sought from the manufacturer or other specialist.
- 1.14 No responsibility is assumed by MWA Arboriculture Ltd for legal matters that may arise from this report, and the consultant shall not be required to give testimony or to attend court unless additional contractual arrangements are made.
- 1.15 Any alteration or deletion from this report shall invalidate it as a whole.

2 Supporting Documents

- 2.1 We have been supplied with pdf and dwg files showing the existing situation and the proposals. Tree locations were plotted from a topographical survey. The position and dimensions of off-site trees or trees not recorded on the topographical survey are estimated or measured from known fixed points where possible.

3 Components of Report

- 3.1 This report comprises the following elements:

Site Assessment

- Baseline tree survey of vegetation that may be impacted by proposals
- Description of the site
- Assessment of existing vegetation / tree stock
- Tree Survey Schedule (TS)

Development Appraisal

- Description of proposed development
- Arboricultural Impact Assessment

Arboricultural Method Statement

- Arboricultural Method Statement (AMS) - preliminary
- Tree Protection Plan (TPP)

Site Assessment

4 Statutory Controls, Policy and other Constraints

- 4.1 A check with London Borough of Camden returned that no trees on the site are subject to a Tree Preservation Order (TPO) but that the site is located within the West End Green Conservation Area (CA).
- 4.2 It would therefore be necessary to inform the Local Planning Authority (LPA) before working on trees within or adjacent to the site. Full planning permission would supersede this requirement in relation to works necessary to implement the development only.
- 4.3 National planning policy is set out in the revised National Planning Policy Framework (NPPF) July 2021 and trees on this site should be considered against the information contained in Section 15 “Conserving and enhancing the natural environment”. Trees can also contribute to historical character and settings and where this is the case Section 16 “Conserving and enhancing the historic environment” would also be relevant.

5 Tree Survey

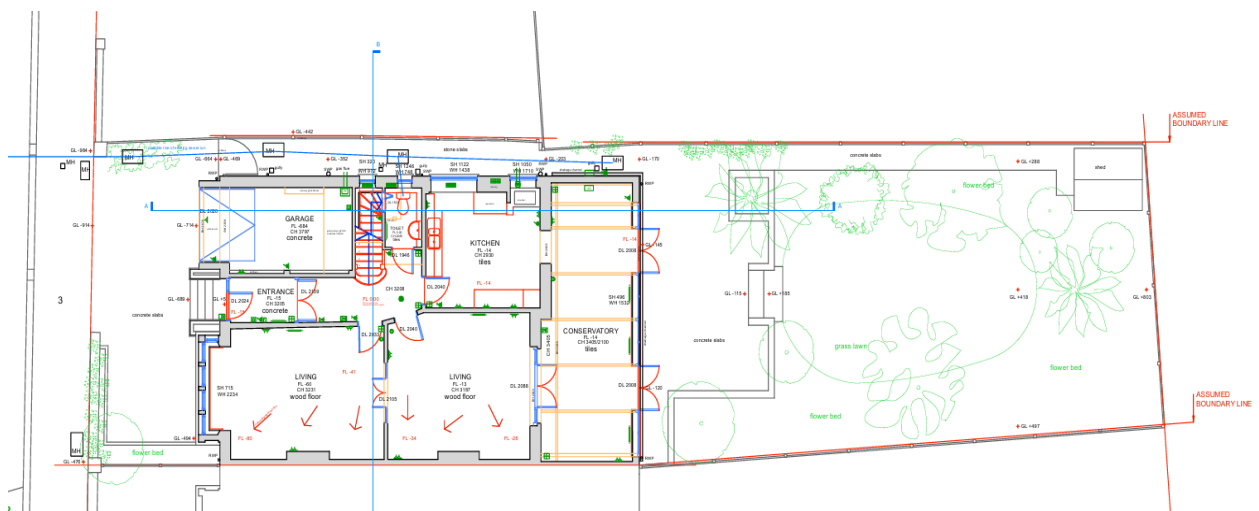
- 5.1 The survey was conducted on 06/06/2024. The weather was warm and sunny. A total of thirteen individual trees and three groups were recorded during the survey.
- 5.2 This type of survey is not expected to include all vegetation, but all trees with a stem diameter in excess of 75mm at 1.5m from the ground should be included. Substantial hedges and similar large collections should also be included, but areas such as planting beds with annual or herbaceous species would not be relevant to the survey. The terms ‘tree’ and ‘vegetation’ are used interchangeably in this document.
- 5.3 Vegetation was assessed in accordance with Sections 4.4 and 4.5 of BS 5837:2012. Under this system trees are allocated a retention category based upon their quality and value in the existing context. These are:
 - Category A – trees of high quality with long term future potential;
 - Category B – trees of moderate quality with medium term future potential;
 - Category C – trees of low quality with short term future potential;
 - Category U – trees in such a condition that they cannot be realistically be retained as living trees for longer than 10 years.
- 5.4 Category U trees may be upgraded if they have identifiable conservation, heritage or landscape value, but only where this does not compromise safety.
- 5.5 Off-site horse chestnut T1 and lime T11 were allocated category B for their arboricultural value and contribution to the wider landscape. All of the remaining surveyed vegetation was considered to be worthy of category C, with the exception of T6 which is assigned a U category.

- 5.6 Tree locations were largely plotted from a topographical survey. Positions and dimensions of off-site trees and trees not recorded on the topographical survey were estimated or measured from known fixed points where possible.
- 5.7 The survey information is provided in tabular form in the associated document MWA TS 01 survey schedule.

6 Site Description

- 6.1 The site is located at the southern end of Crediton Hill in a largely residential area, within the West End Green Conservation area. The site itself contains no trees of significant arboricultural or amenity value. However, off-site horse chestnut T1 and lime T11 are significant trees, visible from neighbouring gardens and Crediton Hill.

6.2 Figure 1: Existing Situation



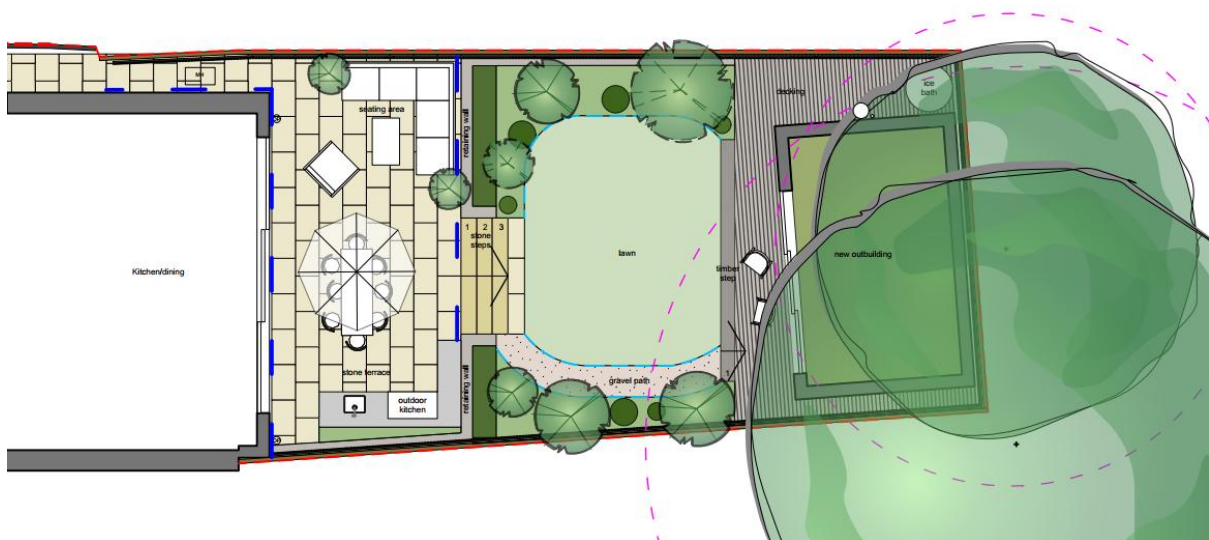
- 6.3 Most of the recorded trees and shrubs grow within beds and brick-built planters around the rear patio and lawn.
- 6.4 Horse chestnut T1 is located just beyond the rear right-hand corner of the rear garden, with a further off-site pear tree (T2) located just beyond the rear boundary. Off-site lime T11 is located beyond the site's southern boundary, while olive T13 is within the front garden of neighbouring No 5, Crediton Hill.

Development Appraisal

7 Development Proposal

7.1 The proposed development is to construct a single storey outbuilding at the western end of the rear garden, extension of patio to rear of house and revised landscaping in rear garden. The building will house a gym.

7.2 Figure 2: Proposed Situation



8 Arboricultural Impact Assessment

8.1 This appraisal is made in the context of a potential development. It therefore seeks to identify vegetation that would form a constraint to development, that vegetation that would need to be removed, assess impacts from the proposals and define measures to assist in the long-term retention of retained tree stock. The assessment does not consider the requirements of other disciplines such as highways or drainage.

8.2 Our assessment of the arboricultural component of the site is presented in the associated documents MWA Tree Survey Schedule MWA TS 01. Our assessment of the proposed scheme is shown in associated plan MWA TPP 02. The assessments consider tree location, ground conditions, likely root morphology, current dimensions, future growth and the proposed setting. The tolerance of the trees to disturbance based on species, age, condition and the presence of surrounding trees and / or built form is also considered.

8.3 **Above ground impacts:**

- Clearance pruning

8.4 The construction of the outbuilding will require some pruning of the eastern canopy of off-site pear T2. We recommended crown raising to 5m to provide sufficient ground clearance. This will have minimal long-term impact, provided it is carried out by qualified professionals in accordance with BS: 3998.

8.5 No protective fencing will be required following the proposed tree and shrub removal.

8.6 **Below ground impacts:**

- Foundations

8.7 The construction of the outbuilding will require the removal of a small existing shed. The construction of its existing base is unknown. However, should this prove to be a concrete base, it will require careful removal, using a pneumatic hand-held breaker and hand tools only. There should be no plant within the RPAs of T1 and T2.

8.8 The footprint of the proposed outbuilding sits within the RPAs of T1 and T2. Conventional foundation construction is likely to result in significant root loss. However, a suspended raft foundation will be constructed, supported by 15 helical steel screw piles, as detailed by Walder Sharp Consulting Structural Engineers, Drawing Ref. 0410 P.01, of September 2024. This will result in minimal root disruption to retained trees T1 and T2.

8.9 The installation of the screw piles will require construction plant and personnel to access the nominal RPAs of retained trees T1 and T2. To mitigate the risk of excessive soil compaction, plant and personnel should operate from temporary ground protection throughout the installation. Additional temporary ground protection is required to protect the RPAs of retained trees and shrubs G1 and T10, to allow access across the garden.

8.10 **Tree/hedge removals:**

8.11 Trees T3, T4, T5, T6, T7, T8, T9, T10 and G1 are located within the footprint of the proposed outbuilding, enlarged patio or will need to be removed to facilitate the new soft landscape scheme. All of the above are assigned a C category. Ceanothus T6 is assigned a U category and is removed for sound arboricultural reasons.

8.12 **Other Impacts:**

- NJUG 10
- Shading
- Massing/over dominance.

8.13 Off-site trees T1 and T2 are likely to cause some shading and will overhang the proposed outbuilding. Falling leaves and debris will require regular clearance, particularly in autumn and winter months. The position of the outbuilding is also likely to require cyclical pruning of the eastern canopies. Chestnut T1 is the larger of the two trees and has historically been crown reduced. Therefore, this is not considered to be a significant constraint on the design proposal and will have a limited impact on the long-term health of the trees if conducted in accordance with BS: 3998.

8.14 We currently have no information relating to the provision of services to the new outbuilding. In order to safeguard retained vegetation we advise that any excavation undertaken within the RPA of retained trees is supervised by a competent arboriculturist and that any root pruning which may be necessary is undertaken in accordance with NJUG10.

Arboricultural Method Statement

9 Arboricultural Method Statement (subject to revision if planning conditions are imposed)

9.1 Our assessment identifies that the proposed development will require works to be conducted within the RPAs of retained trees based on the current information. Extra care is therefore required to prevent damage to retained trees.

9.2 The following sections provide information relating to the order of implementation and proposed works. This assessment is based upon the plans available at the time of writing. As such the recommendations below may be subject to revision in response to additional information or revisions required to discharge planning conditions.

9.3 Restrictions to operations within RPAs

9.4 Where development activities occur within the RPAs of retained vegetation the following shall apply within the RPA:

- All excavation will be by hand and completed under direct arboricultural supervision of the project arboriculturist, following a written method statement that has first been approved by the local planning authority.
- No mechanical excavation is to take place within the RPA. In some circumstances it may be permissible under strict arboricultural site supervision and with a site-specific method statement.
- No lowering of levels for any purpose (except removal of grass sward using hand tools).
- No storage of plant or materials.
- No storage or handling of any chemical including cement washings.
- No vehicular access unless specified when those needed for construction works such as light diggers, mini dumper mini piling machinery shall advance only over ground protection or existing hard surfaces (if present) subject to loads.
- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders' sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees.
- No fire is permitted at any time.
- Whacker plates will not be used within the RPAs of retained trees. Non vibrating rollers will be used to compact materials if required. Hand tampers should be avoided as they can also damage roots, but these may be employed if access prevents the use of a roller.

9.5 Care shall be taken when planning site operations in proximity of retained trees to ensure that wide or tall loads, or plant with booms, jibs and counterweights, can operate without coming into contact with retained trees. Such contact can result in serious injury to them and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity of trees shall be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is at all times maintained.

9.6 **Enabling works**

9.7 A pre-commencement meeting will be held to discuss phasing of works and appropriate practices where works are to be conducted within RPAs. This meeting will include the site agent and project arboriculturist.

9.8 Works to vegetation detailed in the Tree Protection Plan MWA TPP 02 will be completed before any other activity is conducted on the site.

9.9 The current proposal requires no protective fencing following tree and shrub removal and the installation of temporary ground protection. However, a fencing specification is provided below in the event that alterations to the proposal allow further tree retention.

Figure 3: Fencing Specification

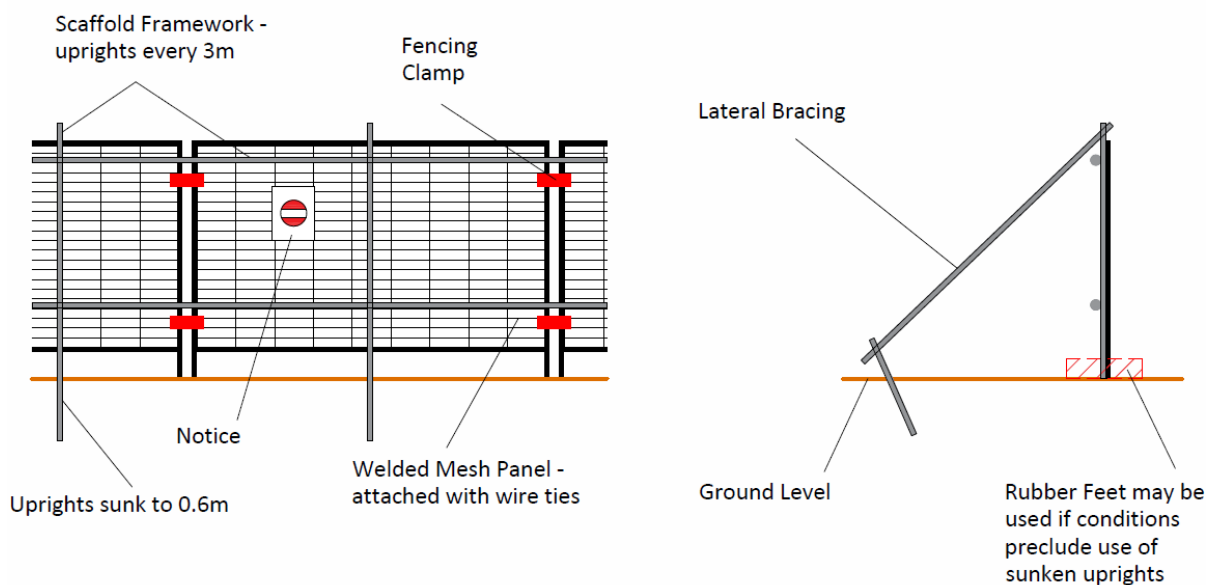


Figure 4: Fencing Warning Sign



9.1 Ground boarding will be used to protect The RPAs of T1, T2, T10 and the retained section of G1. A generic example of boarding suitable for pedestrian access is shown below, but this should be tailored to expected loads.

Figure 5: Ground Protection Schematic

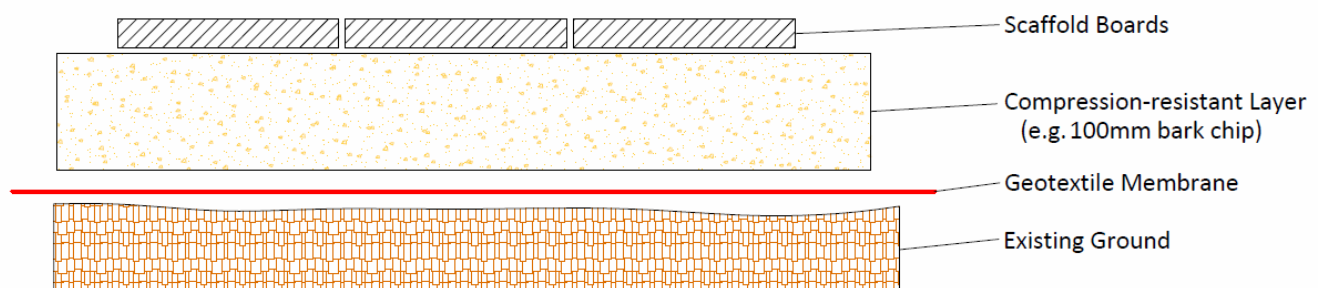


Figure 6: Ground Protection Example



10 Demolition Phase

- 10.1 Construction of the outbuilding requires the demolition of the existing shed, located in the rear left corner of the rear garden.
- 10.2 Above ground structures will be demolished within their own footprint as far as possible. Existing hard surfaces provide the best protection to roots which extend below the surface. Where possible these will be left in place until the final stage of the demolition process.
- 10.3 Demolition of above ground structures will be ordered to minimise potential impacts on trees with particular attention given to access routes adjacent to retained vegetation. Plant may be used to conduct these works subject to the use of a banksman to safeguard tree canopies.
- 10.4 Footings, sub bases and existing services within RPAs should be left in place wherever possible. Should this not be possible they will be removed using only hand tools (if practicable). If necessary, plant may be used but methodology will need to be agreed in advance with the project arboriculturist in advance as these works may need to be supervised.
- 10.5 Existing hard surfaces within RPAs may be broken out using machines located outside the RPAs or on existing surfaces capable of supporting the loads required. All material will to be removed manually if possible. No plant is permitted within unprotected RPAs at any time, but spoil may be loaded into the buckets of machines located outside the RPA and reaching in.
- 10.6 Exposed surfaces will be protected as soon as possible once demolition material has been removed. Where exposed roots are present that cannot be immediately covered damp hessian will be used to wrap the roots (hessian will not be wetted if there is a chance of frost). Wrappings will be removed before burying the roots. If possible exposed areas will be covered with at least 100mm of topsoil or with ground boarding if specified.

- 10.7 Should the level of dust build-up on the tree become significant, the advice of an arboriculturist will be sought. If considered appropriate by the attending arboriculturist the affected trees will be hosed down immediately.
- 10.8 A pre-commencement meeting will be held to discuss phasing of works and appropriate practices where works are to be conducted within RPAs. This meeting will include the site agent and project arboriculturist.

11 Construction Phase

- 11.1 Following the completion of required tree and shrub removal, temporary ground protection will be installed to protect the RPAs of retained trees throughout the construction. Ground protection within the footprint of the building may be removed following the installation of the screw piles.
- 11.2 **Excavations within the RPA**
- 11.3 The construction of a raft foundation within the RPAs of T1 and T2 requires the installation of 15 screw piles. These are rotated into the ground and require no excavation.
- 11.4 **Installation of Services (underground and above ground services)**
- 11.5 We have not been provided with information regarding the provision of services to the new outbuilding. However, installation must follow the methodology set out below.
- 11.6 Since trenching for the installation of underground services severs any roots present and may change the local soil hydrology in a way that adversely affects the health of the tree, in the event of works being required, particular care will be taken in the routing and methods of installation of all underground services.
- 11.7 If required, the project arboriculturist will discuss the routing of underground services as soon as the requirement is identified. Guidance offered in NJUG will act as reference for working methods.
- 11.8 Extra precautions will be taken if it is necessary to use concrete near to or within the RPAs of retained trees. This is necessary to prevent potential soil contamination in areas where roots are likely to be present either directly (spillage) or leaching. These include:
- Holes will be excavated by hand;
 - An impermeable membrane will be used to line the hole to protect surrounding soil before pouring concrete;
 - No concrete is to be mixed within an RPA;
 - Excess/spilt concrete will be removed upon completion of works.

11.9 Additional precautions outside the exclusion zone

11.10 Planning of site operations will take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees.

11.11 Such contact can result in serious damage to the trees and might make their safe retention impossible. Consequently, any transit or traverse of plant in proximity to trees will be conducted under the supervision of a banks man, to ensure that adequate clearance from trees is maintained at all times. Access facilitation pruning will be undertaken where necessary to maintain this clearance. NOTE: In some instances LPA consent for pruning may be required.

11.12 Fires are prohibited due to the likely proximity of retained vegetation. NOTE: Local environmental health authorities might also have specific restrictions relating to fires.

11.13 Any materials whose accidental spillage would cause damage to a tree will be stored and handled well away from the outer edge of its RPA. It is essential that allowance will be made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.

12 Sequencing of works & supervision

12.1 Phase 1a – Pre start – relevant stakeholders to be made aware of AMS and sequencing of works. These include:

- Site Manager (TBC)
- Arboriculturist (O Hutchison – MWA Arboriculture Ltd)
- LPA tree officer
- Engineer
- Appointed tree works contractor

12.2 The agenda of this meeting will cover installation of tree protection mitigation, operating rules, scope of tree works, phasing and landscape operations if information available.

12.3 Phase 1b – Enabling works prior to practical start to be inspected by arboriculturist to include:

- Tree works as per MWA TPP
- Trouble shooting

12.4 Phase 2 – Demolition phase - monitoring visit(s)

- Assessment for unauthorised encroachment in exclusion zones (unscheduled visits)
- Supervision of works (if required)
- Trouble shooting with site manager

12.5 Phase 3 – Construction phase - monitoring visit(s)

- Assessment for unauthorised encroachment in exclusion zones (unscheduled visits)
- Supervision of works (if required)
- Trouble shooting with site manager

12.6 Phase 4 – Practical completion and Landscaping (hard and soft)

- Arboriculturist to meet with site manager
- Final monitoring report to be completed

12.7 **SUPERVISION VISITS WILL BE RECORDED USING MWA SITE MONITORING FORM TO BE ACCOMPANIED BY PHOTOGRAPHS. THIS INFORMATION CAN BE MADE AVAILABLE TO THE LPA UPON THEIR REQUEST.**

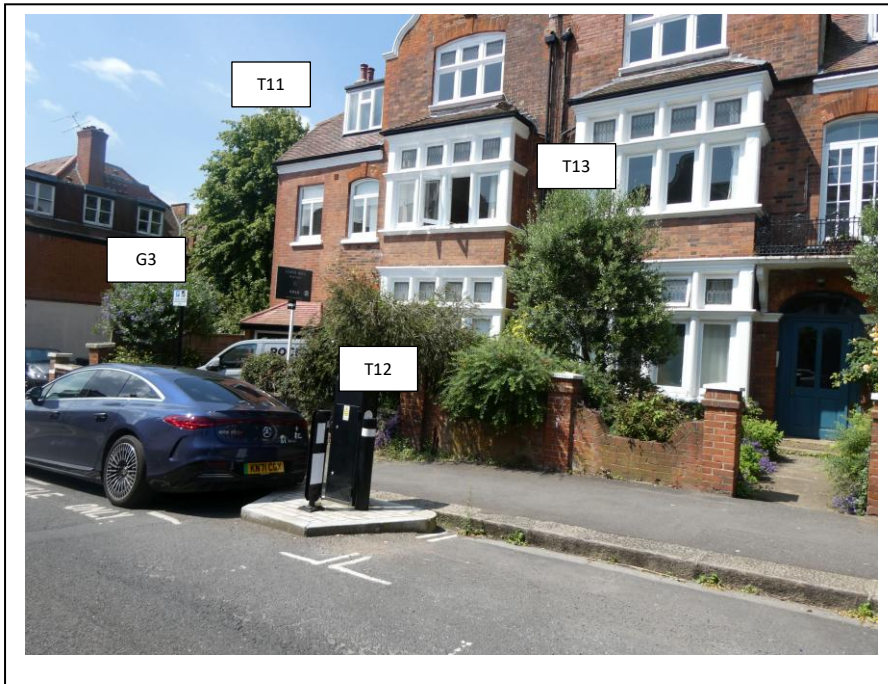
13 Conclusions

- 13.1 There is significant vegetation adjacent to the site which falls within the constraints of BS 5837:2012.
- 13.2 A total of ten individual trees and three groups were recorded during the survey. Eight category C trees, three C category groups and one U category tree will need to be removed to accommodate development.
- 13.3 Provided that development works take place in accordance with the method statements specified in this report, the works will not be detrimental to the retained vegetation.
- 13.4 All technical issues relating to arboriculture should be addressed to MWA Arboriculture Ltd in the first instance. MWA Arboriculture Ltd will liaise between the Local Planning Authority and any interested parties.
- 13.5 It is suggested that the development proceeds in accordance with the above recommendations with the use of condition(s) to ensure the appropriate methods of working are agreed and any necessary site supervision/enabling works are correctly sequenced prior to the commencement of construction work.

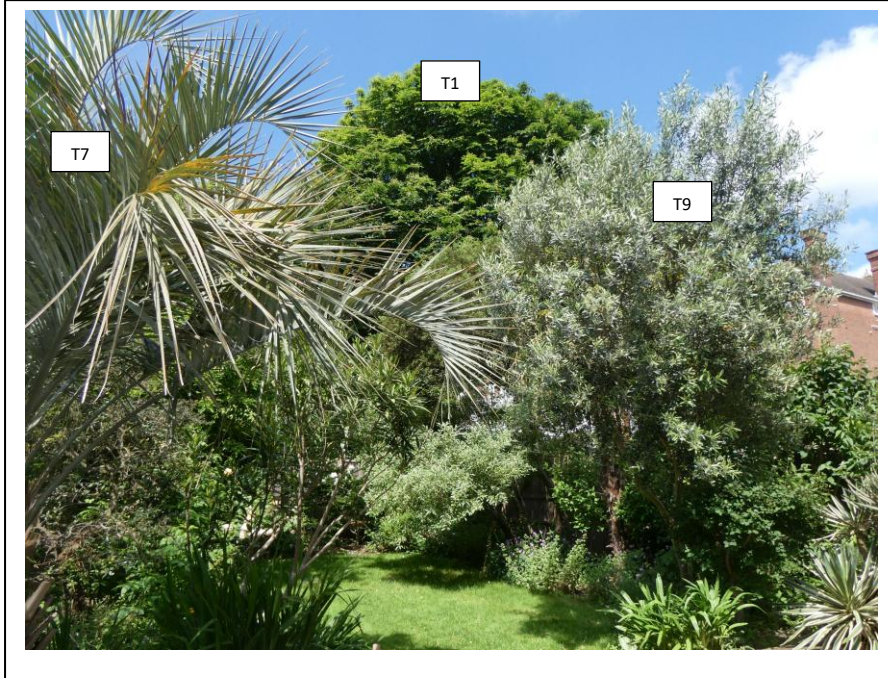
Appendix 1 – Key Contacts

Position	Organisation	Name	Contact Info
Project Arborist	MWA Arboriculture Ltd	Mark Bisley	0191 432 9560 office@mwaarboriculture.co.uk
LPA Tree Officer	London Borough of Camden	TBC	TBC
Site Manager	TBC	TBC	TBC

Appendix 2 – Images



View of trees to the front of the property.



View along the rear garden from the patio.



View of T1 beyond the rear and righthand boundary.



View of T1 and T2 beyond the rear boundary.

Appendix 3 – Site Monitoring Form

Arboricultural Monitoring & Supervision Record			
Site Address			
MWA Consultant			
Date of visit			
Also in attendance			
Purpose of Visit			
Monitoring	Supervision	Spot-Check	Meeting
Observations			
	As per AMS/TPP?	Breach?	S Manager aware?
Protective Fencing			
Ground protection			
Signage			
Storage			
Access/egress			
Tree Works			
Underground services			
Comments			
Signed:			
Dated:			

Appendix 4 – Example handout for site operatives when working with RPAs



Precautions When Working Close to Trees



The following points are designed to prevent damage to both the visible and below ground parts of the tree. Failure to work in line with the points set out below is likely to result in damage to trees and may result in action by the Local Planning Authority such as a stop notice or prosecution.

- Works stipulated in the approved **Tree Protection Plan** and Arboricultural Report will be completed before other works on the site begin. No other tree pruning is permitted without written permission from the Project Arboriculturist.
- If required **Protective Fencing** is to be installed in accordance with the approved Tree Protection Plan before the start of any construction activities, including demolition or placing of site offices.
- **Protective Fencing** will remain in place until the end of the build unless approval for its removal is provided in writing by the Project Arboriculturist.
- If required **Ground Protection** is to be installed in accordance with the approved Tree Protection Plan before the start of any construction activities, including demolition or placing of site offices.
- **Ground Protection will remain in place** until the end of the build unless approval for its removal is provided in writing by the Project Arboriculturist.
- **Excavations within the Root Protection Areas of retained trees (RPAs)** must be conducted in **strict accordance with the AMS** and in accordance with site specific briefing provided by the Project Arboriculturist.
- Only those **underground services** shown in the approved plans will be routed through the RPA of retained trees without consultation with the Project Arboriculturist. (See above regarding excavation within RPAs.)
- **No storage of chemicals or other materials** is allowed within the RPA of retained trees irrespective of ground protection. Materials should not be stored uphill of retained trees or their RPAs.
- **No mixing of concrete or other potentially toxic materials** is permitted within the RPAs of retained trees.
- **No fires are permitted within RPAs or close to retained trees**, irrespective of local Council policy.
- **Banksman** will be used whenever plant is operating close to retained trees.
- **No plant may operate within the RPA of retained trees** without appropriate ground protection in place.
- Details for the **Project Arboriculturist** may be obtained from the Site Agent.