

# ARBORICULTURAL METHOD STATEMENT:

14 Greenaway Gardens London NW3 7DH

# **REPORT PREPARED FOR:**

Danylo Knysh 14 Greenaway Gardens London NW3 7DH

## **REPORT PREPARED BY:**

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Ref: DKS/14GRW/AMS/01a

Date: 23rd November 2021

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#### 1.0 Introduction

#### 1.1 Purpose & Use of the Method Statement

1.1.1 This method statement has been prepared for Danylo Knysh, for assistance with the discharge of planning conditions at 14 Greenaway Gardens, London NW3 7DH: London Borough of Camden planning permission no.: 2021/0984/P. The document will address the following condition:

**4** Prior to the commencement of demolition works on site, tree protection measures shall be installed in accordance with approved tree protection plan and arboricultural method statement. The protection measures shall then remain in place for the duration of works on site, unless otherwise agreed in writing by the local authority.

**Reason:** To ensure that the development will not have an adverse effect on existing trees and in order to maintain the character and amenity of the area in accordance with the requirements of policies A2 and A3 of the London Borough of Camden Local Plan 2017 and policies BGI 1 and BGI 2 of the Redington and Frognal Neighbourhood Plan 2020.

- 1.1.2 This document lays down the methodology for any proposed works that may have an effect upon the trees on and adjacent to the site. It is essential within the scope of any contracts related to the development proposals that this method statement is observed and adhered to. It is recommended that this document form part of the work schedule and specification issued to the building contractors and can be used to form part of the contract.
- 1.1.3 Copies of this document will be available for inspection on site. The developer will inform the local planning authority within twenty-four hours if the arboricultural consultant is replaced.

#### 1.2 Terms of Reference

- 1.2.1 We (LT) are instructed by Danylo Knysh to prepare a method statement for proposed development based on the above planning application with reference to BS 5837:2012 Trees in Relation to Design, Demolition and Construction.
- 1.2.2 For this purpose, the client has supplied us with a site survey plan (37915\_01-07\_PES) and the consented drawings (floor plans, structural drawings, Construction Management Plan etc.) as found on the council's website. We are also reliant upon our own impact assessment report DKS/14GRW/AIM/01 and plan overlays of tree constraints contained therein.

#### 1.3 Development Proposals & Potential Impacts

1.3.1 The principal proposals are for: *Demolition of summerhouse in rear garden and landscaping works.* 

#### 1.4 Sequence of Works

- 1.4.1 The sequence of works will be as follows:
  - initial tree works felling and stump grinding for working clearances
  - installation of Tree Protection Barrier (TPB) & ground protection
  - excavation of earth mound
  - demolition of summerhouse and swimming pool
  - removal of hard surfacing
  - removal of TPB & ground protection
  - soft landscaping

These works and their arboricultural implications are outlined in sequence below

#### 1.5 Site Supervision

- 1.5.1 On this site, a site manager will be nominated to be responsible for all arboricultural matters on site. A pre-commencement site briefing/meeting between the site manager and arboricultural consultant will be held (see Table 1 below). The site manager's details will be issued to the London Borough of Camden in the minutes / site monitoring report for this meeting. During this meeting all the tree protection methods below will be studied and familiarization with requirements of this AMS. The site manager will also:
  - be present on site for the majority of the time;
  - have the authority to stop any work that is causing, or has the potential to cause harm to any tree;
  - be responsible for ensuring that all site operatives are aware of their responsibilities toward trees on site and the consequences of the failure to observe these responsibilities;
  - make immediate contact with the Arboricultural consultant in the event of any tree related problems occurring, whether actual or potential, in accordance with a tree protection protocol (see section 1.6 below).

1.5.2 At this stage, the nominated Key Personnel are as follows:

Adam Hollis Arboricultural Consultant Landmark Trees info@landmarktrees.co.uk Tel: 0207 851 4544

#### 1.6 Site Monitoring

- 1.6.1 Landmark Trees are to be retained as Arboricultural Consultants responsible for site monitoring for the duration of the development. As noted above Adam Hollis MSc (Arb) is the key contact, with monitoring occasionally undertaken by James Bell Tech Cert. (subject to any new staff intake). Site supervision will be undertaken by a qualified and experienced arboriculturalist at pre-determined and agreed time intervals as indicated in Table 1 below. In addition to specific task supervision, general monitoring of protection measures will be undertaken at least once per month, coordinated where practical with visits detailed in Table 1.
- 1.6.2 Routine visits will generally be unannounced. However, the arboriculturalist will also visit subject to advance notification (2 weeks) and agreement to supervise any agreed works within the RPA, in accordance with table 1 below.
- 1.6.3 A tree protection protocol for contingencies will be integrated into the site induction process at a pre-commencement meeting involving the developer, the arboricultural consultant, the site manager and the Council tree officer as appropriate. The protocol will be that, in the event of any unplanned incursion / accident / spillage within the RPA, the site agent should notify (by telephone) the retained arboricultural consultant immediately. The consultant will provide advice and attend site as soon as possible. This may require the stoppage of all or part of the works in the vicinity of the tree. The consultant will notify the LPA Tree Officer of the nature and extent of damage, the mitigation strategy and likely prognosis. The contact details of the LPA Tree Officer are:

Tom LittleTel: 0207 974 4444Tree and Landscape Officer (Planning)London Borough of CamdenTom.Little@camden.gov.uk

- 1.6.4 The site monitoring sheet in Appendix 3 will be used to provide photographic evidence, indicate the remedial action required and timescales for remediation completion. The consultant and officer will further liaise as necessary (perhaps meeting on site) until the officer is satisfied that protection measures are again satisfactory. The action in response to incidents will be commensurate with and appropriate to the nature of any such incident. Any breach of the stipulated timescale for remediation will trigger a further monitoring report.
- 1.6.5 Supervision will not require the arboriculturalist to be present throughout all operations to ensure tasks are carried out as per the approved methodology, but certainly, during the key elements of proposed (and any other unplanned) incursions into the protection areas (subject to LPA agreement and for whatever reasons) to ensure the arboricultural objectives were met. However, where tasks are ongoing, provided the arboriculturalist is satisfied, and after an appropriate briefing, the supervision may be reduced to telephone and email contact between the site manager and Arboricultural consultant.
- 1.6.6 The Local Authority will be accorded free access to the site subject to H&S requirements; as noted at 1.6.3, any problems will be reported directly to Arboricultural consultant, who will then visit the site and make recommendations to the developer on how best to rectify the situation and ensure implementation. As noted in Table 1 below, a final sign-off visit will be carried out at the end of the development and a formal letter sent to both the client and the London Borough of Camden indicating an end to the monitoring period. It is the client's duty to notify LT that the project has been completed, in order to facilitate such an inspection.
- 1.6.7 Landmark Trees will be instructed to provide the above monitoring. In the absence of routine payment (as per our business terms), routine monitoring will cease (temporarily or permanently) and the London Borough of Camden will be informed of the cessation of monitoring. The client will also reserve the right to dismiss Landmark Trees and replace with another arborist, but must inform the London Borough of Camden.

## Table 1: Site Monitoring Visits

Supervision Visit No:	Details	Lead-in time required by LT	Action
Visit 1: Pre-Development Site Inspection	<ul> <li>To include Site Agent briefings (S.1.5) prior to commencement of demolition / groundworks.</li> <li>To confirm position of protective fencing and that it has been erected in accordance with AMS and Tree Protection Plan.</li> <li>To check any pre-demolition/construction ground protection is in place.</li> <li>To check any tree works have been undertaken in accordance with this AMS</li> <li>Determine if further tree work is required and seek required permission if necessary.</li> <li>To check site facilities/access are in accordance with the AMS.</li> </ul>		Issue a brief report with findings to Architect, Tree Officer and Main Contractor within 5 days of site supervision visit (Site Monitoring Sheet in Appendix 5).
Visit 2: Demolition of existing structure / landscaping	<ul> <li>Attend any demolition activities where supervision is prescribed by the AMS to ensure work is undertaken in accordance with its specification.</li> <li>Date to be confirmed following formal project planning.</li> <li>2 weeks prior notice required.</li> </ul>		As per Visit 1.
Visit 3: Groundworks within RPA	<ul> <li>Attend any excavation within RPA's where arboricultural supervision is prescribed by the AMS to ensure work is undertaken in accordance with its specification.</li> <li>Date to be confirmed following formal project planning.</li> <li>2 weeks prior notice required.</li> </ul>		As per Visit 1.
Ongoing Monitoring Visits	<ul> <li>Periodically during entire project.</li> <li>Visits will be based on intensity of site operations, but at a minimum of monthly visits.</li> <li>Attend site at least once per month to confirm protective measures are still in place / can be removed at appointed times. Ensure attendance is timed for any other key elements of proposed (and any other unplanned) incursions into the protection areas.</li> <li><u>Pre-start landscape meeting</u> with main contractor to confirm ongoing tree protection measures.</li> </ul>		As per Visit 1.
Final Site Visit - Completion of construction phase supervision visit (S.5)	After it has been confirmed that the construction phase is complete, allow removal of temporary protective fencing and ground protection. Specify any remedial work if necessary.		As per Visit 1 and provide signed arboricultural checklist (see Appendix 5)

#### 2.0 Pre- Development Site Preparation

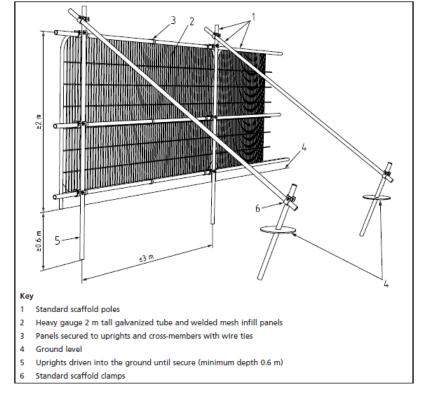
#### 2.1 Arboricultural Works

- 2.1.1 All works must be carried out by a competent arborist in accordance with BS 3998: 2010 and any other prevailing good professional practice including BS 8545:2014 Trees: from nursery to independence in the landscape. Recommendations.
- 2.1.2 It will be noted that a number of trees have been removed with the consent of the London Borough of Camden since our original survey of the site and thus, specific works recommended to facilitate development are the felling of T67. These specific works to facilitate development and any other husbandry works are listed in Appendix 1.

#### 2.2 Installation of Tree Protection Barrier

- 2.2.1 The Root Protection Area (RPA) indicates the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. The default position is for the RPA's to be fully fenced off to form the boundary of the Construction Exclusion Zone (CEZ), an area based on the RPA, from which access is prohibited for the duration of the project, including the storage of any works materials and equipment.
- 2.2.2 A Tree Protection Barrier [TPB] comprising steel mesh panels of 2.4m in height ('Heras') should be erected to protect retained trees. These panels will be mounted on a scaffolding frame as shown in Figure 1 below (this is also Figure 2 of BS5837: Trees in Relation to Design, Demolition and Construction in paragraph 6.2.2.2).

2.2.3 The TPB's are to be erected before any work (other than tree surgery) commences on site, are to remain *'in situ'* undamaged for the duration of all work or each phase, and only to be removed once all work is completed. If any work is deemed necessary prior to the erection of fencing a Landmark Trees representative should be informed to enable their presence to oversee the work being carried out.



2.2.4 The location of the RPAs and TPB's are shown in the Tree Protection Plans at Appendix 4.

Fig. 1 Tree Protection Barrier Specification (Source: Figure 2 from BS5837 - Default specification for protective barrier)

# 2.3 Ground Protection

2.3.1 Extant areas of RPA that cannot be fenced off and therefore lie outside the CEZ must be protected with fit-for-purpose ground protection. The location and type of ground protection is shown in the Tree Protection Plans at Appendix 4. As per paragraph 2.2.3, this ground protection is to be installed before any work (other than tree surgery) commences on site, is to remain *'in situ'* undamaged for the duration of all work until the landscape phase and only to be removed once all construction work is completed.

### 3.0 Development Phase

- 3.1.1 The following general precautions will apply:
  - No fires shall be made on any part of the site, or within 20m of any tree to be retained.
  - No spilling or pouring of fuels, oils, solvents, tar shall be made on any part of the site.
  - No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.
  - No spillage or discharge of wet mortar or concrete shall be made on any part of the site.
  - No storage of materials shall be made within the protective fences.
  - No breaching or moving of the protective hoarding without the approval of an arboriculturist.
- 3.1.2 The procedures for dealing with variations and incidents are detailed in S1.6.
- 3.2 Working within Root Protection Areas (RPA)
  - 3.2.1 Although the default position is to exclude all construction activity from the RPA, this degree of protection is not entirely possible on the site: it is necessary to perform some works (in part) within the RPA i.e. demolition of summerhouse and swimming pool, removal of hard surfacing and changes in levels.
  - 3.2.2 All involved parties will need to be made aware of the deficiencies. In these instances, careful and supervised working, as described in sections, S. 3.5 (levels) and S. 3.6 (demolition) will be required.

#### 3.3 Site Access, Accommodation & Storage

- 3.3.1 Access to the rear garden will be gained through the garage whose rear wall will be removed to permit this. Conveyors will be installed through the garage to move spoil from the rear garden to a skip situated on the front drive. Site accommodation and material storage will utilise the site interior / rear garden away from tree RPA.
- 3.3.2 Delivery lorries will be excluded from RPA's by fencing and ground protection. Adequate allowance must be made for vehicle heights and ground clearance, where tree canopies overhang access routes. Any further pruning for working clearances must be discussed first with the arboriculturalist; once agreed in principle these works should be approved by the appropriate tree officer and approved in writing by the LPA.

#### 3.4 Routing & Installation of Services

3.4.1 No service installation is required.

#### 3.5 Changes in Grade

3.5.1 The outer limits of the mound of soil between the swimming pool and house to be removed shall be manually excavated to the required depth or 1m depth whichever is shallowest in conjunction with pre-emptive root pruning under arboricultural supervision. In the unlikely event of discovering roots >25mm diameter, they may only be cut in consultation with the retained arboriculturalist and with the approval of the Local Authority Tree Officer.

#### 3.6 Demolition Measures.

Detailed method statements and risk assessments will be obtained from all specialist subcontractors involved in these works and these will be scrutinised by the site agent to ensure the AMS requirements have been considered therein.

- 3.6.1 All plant and vehicles engaged in demolition works (removals only) will either operate outside the RPA, or work from within the existing built structure and reinforced hard standing, near trees. It will be necessary to undertake demolition of the summerhouse inwards within the footprint of the existing building (often referred to as "top down, pull back").
- 3.6.2 Should levels of dust build-up on trees occur, it may be necessary to seek the advice of Landmark Trees on remedial measures, e.g. hose down the tree(s) immediately following any significant accumulation of dust.
- 3.6.3 The swimming pool will be broken up using hand held tools only before light plant removes the resulting spoil to the conveyor belt system.
- 3.6.4 Following removal of the summerhouse and swimming pool, the hard surfacing surrounding them and its sub-base will be broken up using hand-held power tools before being removed by light plant using a toothless bucket working away from trees. This work is to be carried out under arboricultural supervision and the discovery of any significant roots (>25mm diameter) within the sub-base will necessitate the manual removal of the sub-base around them. Exposed sub-base / soil will not be left open to vehicular access, but boarded over for temporary pedestrian access only until the replacement topsoil is introduced.
- 3.6.5 Should levels of dust build-up on trees occur, it may be necessary to seek the advice of Landmark Trees on remedial measures, e.g. hose down the tree(s) immediately following any significant accumulation of dust.

## 3.7 Construction Measures

- 3.7.1 The stone terracing within the theoretical RPAs of T29, T31 and T32 is to be installed upon a floating concrete slab with a clayboard void former below to allow the roots to breathe and deal with ground swell. All cement based works in root protection zones will be fully contained in impervious lining materials.
- 3.8 Removal of Ground Protection & Post Construction Landscaping & Treatment
  - 3.8.1 The tree protection may be removed upon completion of the demolition works and when any site machinery has been removed from the RPA.
  - 3.8.2 Before any landscaping works are carried out, there shall be a site meeting between (as a minimum) the retained arboriculturist and the landscaping manager to discuss tree protection measures.
  - 3.8.3 All landscaping and associated ground works within RPA will be carried out manually and carefully with due regard for soil and root protection, avoiding changes of ground levels or deep digging. Mechanised cultivation must not be used within any RPA's. If existing soft vegetation is to be removed, this shall be done using hand tools only.

# 4.0 Summary of Proposed Methods

#### 4.1 Table of Impacts and Mitigation

4.1.1 The table below summarises the main areas where trees could become damaged by the proposed development and the methods that need to be adopted in order to prevent such damage:

## Table 2: Summary of Proposed Methods

Impact	Mitigation	<u>Reference</u>	Trees Affected
General site access, material storage etc.	Ground protection to acceptable standards.	Paras 2.2.1 & 3.3.3 Tree Protection Plan in Appendix 4	All retained trees
Demolition of existing structures within RPA	Pull back technique within RPA	Section 3.6	T29, T31, T32 & T37 – T40
Damage to roots caused by level changes within RPA.	Manual excavation of outer limits of soil mound within RPA to 1m depth with pre-emptive root pruning	Section 3.5	Т29

### 5.0 Completion

#### 5.1 Completion Meeting

5.1.1 Following completion of the works listed above, a Landmark Trees consultant will conduct a walkover survey of the trees to review any defects or signs of ill-health, and inform the local authority in a final report as per Table 1. It is the client's duty to notify LT that the project has been completed, in order to facilitate such an inspection. A separate LT post-development tree inspection is recommended to facilitate a constructive meeting.

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Adam Hollis MSc ARB MICFor FArbor A

23<sup>rd</sup> November 2021

# For and on behalf of Landmark Trees

**RICS** 

# **APPENDIX 1: ARBORICULTURAL WORKS**

Notes	for Guidance:
1, 2, 3 RP CB CL# CT#% CCL CR#% DWD Fell FInv Pol Mon	<ul> <li>Pre-emptive root pruning of foundation encroachments under arboricultural supervision.</li> <li>Cut Back to boundary/clear from structure.</li> <li>Crown Lift to given height in meters.</li> <li>Crown Thinning by identified %.</li> <li>Crown Clean (remove deadwood/crossing and hazardous branches and stubs).*</li> <li>Crown Reduce by given maximum % (of outermost branch &amp; twig length)</li> <li>Remove deadwood.</li> <li>Fell to ground level.</li> <li>Further Investigation (generally with decay detection equipment).</li> <li>Pollard or re-pollard.</li> <li>Check / monitor progress of defect(s) at next consultant inspection which should be &lt;18</li> </ul>
Svr Ivv	months in frequented areas and <3 years in areas of more occasional use. Where clients retain their own ground staff, we recommend an annual in- house inspection and where practical, in the aftermath of extreme weather events. / Clr Bs - Sever ivy / clear base and re-inspect base / stem for concealed defects.
	nerally specified following BS3998:2010

Landmar	Date: 25/09		ay Garden			ppendix 1 ended Tree Works	Surveyor(s): Ref:	Kim Dear DKS/14GRW/AIA	Hide irrelevant Show All Trees
Tree No.	English Name	B.S. Cat	Height	Ground Clearance	Crown Spread	Recommended Works	Comments	/ Reasons	
29	Oak, English	A	17	1.5	10,10,9, 10	FInv DWD Carry out decay detection on main stem	Honey fungus at Dying back (lead major deadwood Recommended h	stem /centre)	
60	Hawthorn, Common	U	9	4.5	3331	Fell	Dead Recommended h	nusbandry 2	
67	Birch, Silver	В	12	3.0	4355	Fell	To facilitate deve	elopment	

# **APPENDIX 2: GENERAL GUIDELINES**

- 2.1 All work must be to BS 3998:2010 'Recommendations for tree work'.
- 2.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors, and will be covered by adequate public liability insurance.
- 2.3 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the consultant's attention immediately.
- 2.4 No liability can be accepted by the consultant in respect of the trees unless the recommendations of this method statement are carried out under the supervision of a Landmark Trees consultant.
- 2.5 It is advisable to have trees inspected by a consultant regularly. On this site it is recommended that these inspections are made every year.

# APPENDIX 3: SAMPLE SITE MONITORING SHEET



# Site Monitoring Report Sheet

Client:				Planning Ref:	
Local Authority:				Date:	
Site Address:					
Proposal:					
Visit Checklist		Y/N			Y/N
Tree protection barrier place	(TPB) in		TPE	3 as per approved	
Ground protection (GF	) in place			as per approved	
TPB / GP breached			Tre	es damaged	
Site Agent briefed by L					
LT briefed by Site Agen	†				
LPA informed	l				
Remedial action requir Comments	ed				
Comments					
Recommendations					
Outcome					
1					
2					
3					
4					

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Registered Consultant

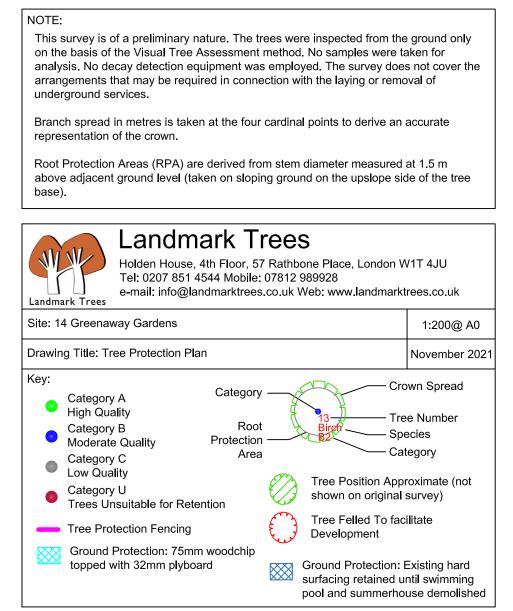
# Arboricultural Supervision Sign off Checklist

		Task Date Signed (Project Signed					
Tree	Project Phase	TASK	Completed	Signed (Project arboriculturist)	Signed		
No (s)					(Site Manager)		
	Pre- commencement	Pre-commencement site meeting to include site manager briefing (S.1.5)					
	Pre- commencement	Confirm the location and specification of the protective measures is in accordance with AMS & Tree Protection Plan (TPP)					
	Pre- commencement	Confirm any tree works have been undertaken in accordance with this AMS (S.2.1/ App 1) and determine if further tree work is required					
	Pre- commencement	Seek required permission for further tree works if necessary.					
	Installation of any new services	Attend any excavation within RPA's where arboricultural supervision is prescribed by the AMS (S3.4) to ensure work is undertaken in accordance with NJUG provisions or other specification.					
	Demolition	Demolition of hard surfaces/ structures within RPA (S3.6) Confirm position of any additional temporary ground protection and that temporary ground protection is in accordance with AMS.					
	Completion of Demolition	Sign off of the demolition phase					
	Construction	Supervised manual excavation of foundations					
	Construction	Installation of 'No Dig' hard surfacing					
	Construction	Additional excavations (if required)					
	Completion of Construction	Completion of construction					
	Post Construction	Removal of machinery and materials from site					
	Post Construction	Dismantle & removal of protective measures					
	Landscaping	Completion of Landscaping					
	Project Completion	Sign off from project arboriculturist					

Arboricultural Method Statement: 14 Greenaway Gardens, London NW3 7DH Instructing party: Danylo Knysh, 14 Greenaway Gardens, London NW3 7DH Prepared by: Adam Hollis of Landmark Trees, Holden House, 4th Floor, 57 Rathbone Place, London W1T 4JU

# **APPENDIX 4: TREE PROTECTION PLAN**





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