# **Arboricultural Impact Assessment**

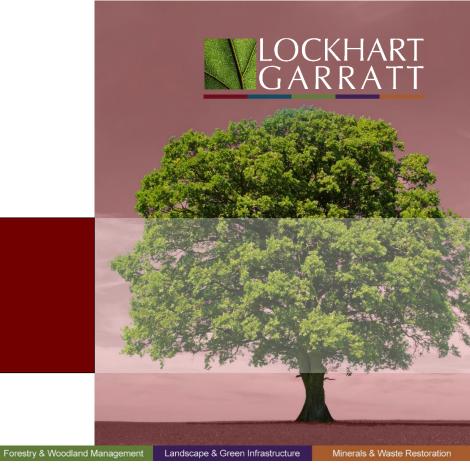
**Mr N Brearley** 

4b Hampstead Hill Gardens, London

18-2625 Ref:

**Version:** V2

18<sup>th</sup> February 2019 Date:



Arboriculture

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Andy Poynter	27/02/19	02/19 2 Updated document	
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Shaun Phillips	15/02/19	1	Quality Control
Approved for Issue By:			
Andy Poynter	18/02/19	1	Final document
Andy Poynter	27/02/19	2	Final document

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# **DISCLAIMER**

While all reasonable efforts have been made to identify defects in the subject trees, the statements made in this report do not take into account the effects of extreme weather events, vandalism or accidents, or changes to the site that may affect trees that have taken place since the date of the survey. Lockhart Garratt Ltd does not accept any responsibility in connection with these factors. The comments and observations made within this report will cease to be valid either within two years of the date of the survey (unless specifically stated elsewhere within the report), or when site conditions change or any works to trees take place that have not been specified within this report, whichever is the sooner.



# **ACRONYMS & ABBREVIATIONS**

# The following acronyms and abbreviations may be used throughout this report:

Α

AC Arboricultural Consultant

ACoW Arboricultural Clerk of Works

AMS Arboricultural Method Statement

C

CEZ Construction Exclusion Zone

CCS Cellular Confinement System

Μ

MWC Main Works Contractor

R

RPA Root Protection Area

S

SoU Statement of Undertaking

Т

TPF Tree Protective Fencing

TPO Tree Preservation Order

TPP Tree Protection Plan

TWC Tree Works Contractor



# **Purpose of Document**

This report has been commissioned to provide an assessment of the trees at 4b Hampstead Hill Gardens, London in accordance with the guidelines provided by BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

#### It consists of:

- A Tree Survey that records all relevant information about the trees on or adjacent to the site that may be impacted by the proposals. This includes a Tree Constraints Plan that shows the location of the trees on the site irrespective of any development considerations.
- An Arboricultural Impact Assessment to consider the impact that the development proposal may have on the trees. This shows the location of the trees in relation to the proposed development and the above and below ground constraints posed by the trees.
   It will also show an illustration of the recommended tree protection measures on a Draft Tree Protection Plan.

The purpose of this report is to demonstrate how the tree constraints have been considered. It also provides the London Borough of Camden with the necessary information to assess the tree issues associated with the planning application.

The aim is to present the information in a manner that can easily be understood by people without specific knowledge of tree related matters.



#### **Executive Summary**

The proposed development involves the demolition of the existing dwelling and the construction of a new dwelling that includes a basement level.

There is only one young sapling tree present within the site, however there are trees located within adjacent properties with the most prominent being a large beech located to the south-east within the garden of the adjacent property number 6.

None of the recorded trees are identified for removal, however the recently planted sapling within the front garden of 4b will be re-provided following the construction works. There is an extant Town and Country Planning Act section 211 notice for the pruning of lateral branches that overhang the garden boundary. No further pruning is necessary.

Given the built nature of the site, and existing piled boundary wall that incorporates a ring beam, the distribution of roots will be influenced by this structure and this has been indicated on the tree constraints plan.

Overall the proposal, including the basement on the periphery of the root protection area, will not have a detrimental impact on trees including the prominent beech tree (2).

The construction site will be restricted to land in the ownership of 4b Hampstead Hill Gardens. With all trees being located offsite, the tree protection barriers will also demarcate the boundary and inherently prevent works within the construction exclusion zone.

Retention of the trees facilitates their continued contribution to both the street scene and the screening benefit between the rear of the properties.

There are no arboricultural reasons to prevent this scheme going forward.



# **Table of Contents**

1.	INTRODUCTION	7
2.	PLANNING POLICY AND STATUTORY CONSIDERATIONS	8
3.	TREE SURVEY AND CONSTRAINTS	. 10
4.	ARBORICULTURAL IMPACT ASSESSMENT	. 11
5.	APPENDICES	. 13

# **Attachments**

Description	Reference	Version
Tree Schedule	18-2601	v1
Tree Constraints Plan	18-2602	v1
Draft Tree Protection Plan	18-2638	V3



#### 1. INTRODUCTION

#### Instruction

1.1. Written instruction was received from Neil Brearley to undertake a tree survey and to prepare an Arboricultural Impact Assessment to supplement a full planning application for a proposed residential property with basement following the demolition of the existing dwelling at 4b Hampstead Hill Gardens, London.

#### Scope

- 1.2. The survey has been carried out in accordance with the recommendations laid down by BS5837:2012 Trees in relation to design, demolition and construction Recommendations.
- 1.3. The information collected during the survey has been used to assist in the preparation of a report to accompany a planning application. This report includes:
  - A schedule of the relevant trees to include basis data and condition assessment
  - An appraisal of the impact that the proposed development may have on the trees and the resulting impact this may have on the local amenity.

#### **Site Description**

- 1.4. Hampstead Hill Gardens is a residential road located to the south of Hampstead village, it is of irregular alignment and connects Rossyln Hill with Pond Street. 4b is attached to 4a with both being constructed within the former rear garden of no. 4. There is off road parking at the front.
- 1.5. The subject property has a south facing garden and the offsite beech tree due east provides dappled shade to the modest garden. The garden has imported surfaces comprising paving and astro-turf both of which have subbase construction.
- 1.6. The garden boundary wall is understood to be located upon a piled foundation that incorporates a ring beam to support the wall itself.
- 1.7. An online check indicates the soil on site is London Clay bedrock and there are no superficial deposits recorded, this is corroborated by the soil investigation report by CET reference 246119 dated February 2015.

#### Limitations

- 1.8. The objective of this tree survey is to assess the significant trees and woody vegetation on or near the site to obtain dimensions and provide sufficient information to enable decisions to be made on planning aspects of the site and its potential development. Consequently the report is for planning purposes only and is not a detailed health and safety inspection of the trees.
- 1.9. Drawing and survey information provided is relied upon.
- 1.10. Soil investigations have been undertaken previously by CET and reliance on this for detailed foundation design must be confirmed with CET.



#### 2. PLANNING POLICY AND STATUTORY CONSIDERATIONS

#### **National Planning Policy Framework 2018**

- 2.1. National Planning Policy is currently defined by the National Planning Policy Framework (NPPF). This provides the most current and up to date planning guidance.
- 2.2. At the heart of the NPPF is a presumption in favour of sustainable development, and specifically states that for decision making, the LPA should be approving development proposals that accord with the development plan without delay.
- 2.3. The NPPF also states that the planning system should contribute to and enhance the natural and local environment, and provides specific guidance that:
  - "planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss."
- 2.4. Where the LPA does not have a development plan or the development plan is out of date, the LPA should grant planning consent insofar as the development proposals do not breach the NPPF.

#### **Local Planning Policy**

2.5. 4b Hampstead Hill Gardens is located within the boundary of the London Borough of Camden (LBC) planning authority. The Local Planning Authority (LPA) has a statutory obligation to ensure that provision is made for the protection of trees through section 197 of the Town and Country Planning Act (1990). LBC has prepared a specific development plan, Camden Local Plan (2017), that includes trees and the natural environment.

#### **Camden Local Plan 2017**

2.6. The relevant policies to this development proposal are Policy A3 – Biodiversity, Trees and vegetation which states:

"The Council will protect, and seek to secure additional, trees and vegetation. We will:

- j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation;
- k. require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;
- I. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development;
- m. expect developments to incorporate additional trees and vegetation wherever possible."



- 2.7. In addition the following supporting documents provide supplementary information:
  - Camden Planning Guidance (CPG) Trees dated November 2018 (Draft)
  - CPG Basements dated March 2018

# **Statutory Consideration**

- 2.8. With reference to the LBC website, Hampstead Hill Gardens is located within the Hampstead Conservation Area so all tree over 75mm stem diameter at 1.5 metres above ground level are protected and the council must be notified of any works proposed.
- 2.9. An online search did not reveal the opportunity to establish the presence Tree Preservation Orders within the borough, however the significant trees are subject to the Conservation Area legislation.



#### 3. TREE SURVEY AND CONSTRAINTS

#### **Tree Survey**

- 3.1. A tree survey was undertaken on 11<sup>th</sup> February 2019 and a copy of the recorded data can be seen in the tree schedule attached to this report (Ref: 18-2601).
- 3.2. The tree survey considered all trees that have the potential to be impacted by any development proposals. This included trees that are outside the application boundary, but within influencing distance. The extent of the tree survey has been marked on the Tree Constraints Plan (TCP) attached to this report (Ref: 18-2602).
- 3.3. The purpose of the tree survey has been to provide guidance to the owner on the existing tree stock and to inform the site design and layout. The results of the survey allow the opportunity to balance the retention of significant trees against the opportunity to enhance the existing tree stock through proactive management.
- 3.4. The tree survey has been undertaken without influence of the proposed site layout and prior to any works being undertaken on the site.

#### **Tree Constraints**

- 3.5. The results of the tree survey are graphically presented on the TCP.
- 3.6. The above ground constraints posed by canopy spread are plotted as a continuous line around the tree, shown in the corresponding BS5837 retention category colour.
- 3.7. The below ground constraints posed by the Root Protection Area (RPA) have been plotted as a magenta line with the text RPA inscribed.
- 3.8. A summary of my assessment of the quality of trees that have been identified on the site is summarised in Table 1.

Table 1 – An overview of tree quality in the surveyed area

	Category A	Category B	Category C	Category U	Total
Trees	0	2	1	0	3

3.9. Full details of the assessment criteria for the tree survey can be found in Appendix 1.



#### 4. ARBORICULTURAL IMPACT ASSESSMENT

#### **Development Proposal**

4.1. The existing dwelling is to be demolished and a replacement dwelling that includes a basement is to be constructed. The current garden boundary wall is to be underpinned and this structure will form the basement wall.

#### **Arboricultural Impacts**

- 4.2. The footprint of the existing dwelling is to be utilised, along with the current rear garden area comprising imported surfaces along with a substantial piled boundary wall foundation.
- 4.3. These existing structures will have influenced the distribution of roots within the soil. The TCP represents an illustration of root distribution based on the presence of buildings, the boundary wall structure. There will be roots under the paved and tarmacked road surfaces.
- 4.4. The supporting below ground structure may, as commonly found, extend beyond the building line so there will be a reduced incursion to that highlighted within the front garden to offsite tree 1. The incursion is some 0.7m<sup>2</sup> of the overall 137m<sup>2</sup> so barely 0.55, and therefore inconsequential.
- 4.5. Whilst the plan shows the RPA of beech tree 2 being influenced by the piled wall foundation ring-beam, there is a possibility that deeper roots have breached the boundary but this is assumed to be minimal given the surfacing present and installation thereof.
- 4.6. If the RPA was not adjusted to account for the boundary wall, and was simply shown as a circle, the area impacted will be some 11 metres that equates to 5% of the overall RPA of 222m<sup>2</sup>. This is an inconsequential incursion that will not compromise the tree's stability or long term health.
- 4.7. Consequently, whichever way the RPA is presented, the proposed basement on the periphery will have no detrimental impact.
- 4.8. The relationship of the recreational garden space is unchanged from the current situation, consequently there are no further impacts from shading, leaf litter or similar to be considered.

# **Tree Removal and Pruning**

- 4.9. The small cherry sapling within the front garden will be re-provided within the landscaping of the front garden.
- 4.10. There is an extant Section 211 notice, LBC reference 2017/1930/T, that provides for the lateral of branches by up to 2 metres (west) where branches overhang properties 4 and 4a, 4b is not specifically mentioned but for the reshaping to coordinate the crown with that of the portion overhanging the garden of number 6 Hampstead Hill Gardens, 4b should inherently be included. It does not appear that the reduction works over the garden of 4b have been undertaken.
- 4.11. The notice for these works expires on 25<sup>th</sup> May 2019 so could in theory be undertaken independently of the planning application for the proposed replacement dwelling.



- 4.12. Tree pruning is been limited to the lateral reduction of branches growing towards the subject property and overhanging the garden, and covered by the extant section 211 notice, so there is no further impact upon the tree.
- 4.13. All pruning works will be undertaken by a suitably qualified arboricultural contractor in accordance with BS3998:2010 Tree Works Recommendations. This will ensure that the pruning cuts are carried out correctly and will not cause any structural or physiological defects in the future.

#### **Landscape and Visual Impacts**

- 4.14. There are no trees being removed to allow for the development, consequently there are no impacts upon the wider landscape.
- 4.15. Whist not trees, there are climbing plants growing up the flank wall of 4b that are planted within the garden of 6 Hampstead Hill Gardens. These can be retained with the cooperation of the neighbours as a supporting structure will need to be erected within the neighbouring property for the duration of the construction of the new dwelling.

#### **Protection of Retained Trees**

- 4.16. The successful retention of trees will be dependent upon the quality and maintenance of any protection system that is put in place.
- 4.17. Indicative tree protection measures have been considered within this report and are graphically presented in the Draft Tree Protection Plan (DTPP) (Ref: 18-2638).
- 4.18. The following principles for the protection of retained trees will be adopted by the contractor during the construction of the new dwelling. The protective fencing will run along the boundaries and consequently the CEZs are offsite and therefore inherently off limits.

#### **Summary of Impact Assessment**

- 4.19. None of the significant trees need to be removed for the demolition of the existing house and the construction of the proposed dwelling with basement. The sapling cherry in the front garden will be re-provided.
- 4.20. There is no appreciable impact to the prominent beech tree from the construction of the basement, the existing boundary wall piled foundation will have influenced local root morphology.
- 4.21. There are works permitted following the submission of a Town and Country Planning Act section 211 notice, valid until 25<sup>th</sup> May 2019.
- 4.22. The proposals is in accordance with local and national planning guidance that relate to trees.



#### 5. APPENDICES

#### **Appendix 1: Tree Survey Criteria (BS5837:2012)**

- 5.1. The assessment of the trees has been carried out in accordance with the guidance provided in section 4.4 of BS5837.
- 5.2. All observations were made from ground level, without detailed investigation with regard to the general condition of the tree.
- 5.3. Trees that are located outside of the site have been considered as part of this survey, and have been annotated on the accompanying plan as such.
- 5.4. Stem diameter measurements were taken using a girthing tape and in accordance with Annexe C of BS5837. Where access to the base of the tree was not possible for any reason, the diameter has been estimated.
- 5.5. Height, crown spread and canopy clearance measurements are recorded in accordance with the measurement convention detailed in paragraph 4.4.2.6 of BS5837.
- 5.6. The trees are categorised in an order defined in **Table 1** of BS5837, a copy of which can be seen below in **Figure 1**, but which can be summarised as:
  - **A Category** Trees of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years.
  - **B Category** Trees of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years.
  - **C Category** Trees of low quality and value currently in adequate condition able to remain until new planting can be established. These trees are expected to remain for a minimum of 10 years. It also includes young trees with a stem diameter less than 150mm measured at 1.5 metres above ground level.
  - **U Category** Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.
- 5.7. Additionally, BS5837:2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies.
  - Mainly arboricultural.
  - Mainly landscape.
  - Mainly cultural, including conservation.



Figure 1 – BS5837 Cascade Chart



# **Documents Supplied**

Document Reference	Date Received	Document Details	Supplied By
21518PR TOPO 2D	05/02/19	Topographical Survey	GRID Architects
SK020	05/02/19	Lower Ground Floor Plan	GRID Architects
SK021	05/02/19	Ground Floor Plan	GRID Architects
11/1/2	14/02/19	1955 Foundation Details	Neil Brearley
246119	25/02/19	CET Site Investigation Factual Report	Neil Brearley



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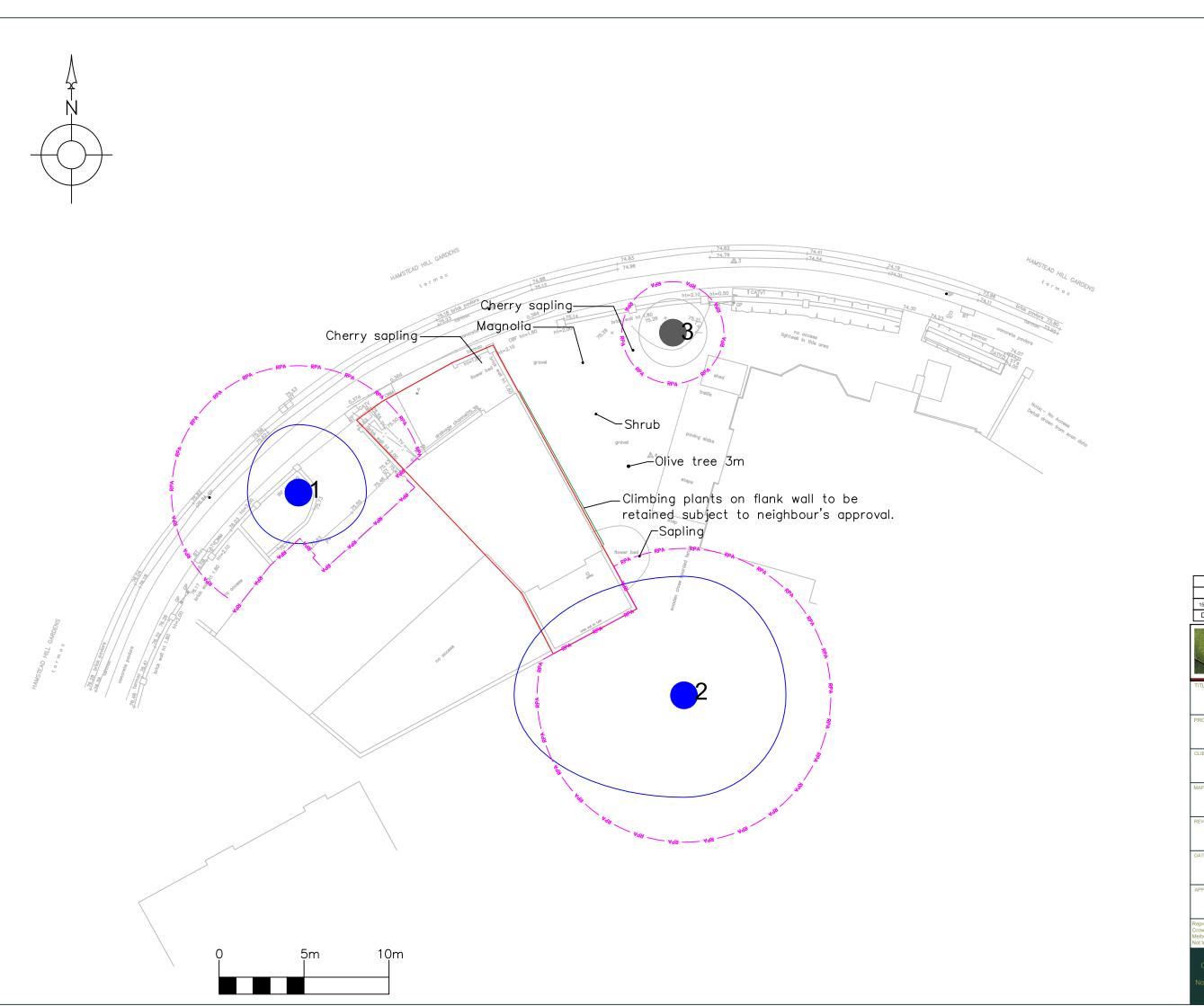
# LANDSCAPE & GREEN INFRASTRUCTURE

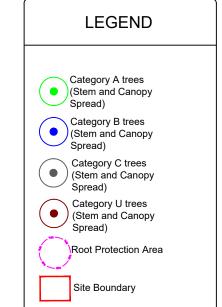
LANDSCAPE & VISUAL IMPACT ASSESSMENT | LANDSCAPE DESIGN & SPECIFICATION LANDSCAPE MANAGEMENT PLANS | GREEN INFRASTRUCTURE PLANNING & DESIGN | EXPERT WITNESS

# MINERALS & WASTE RESTORATION

PLANNING RATIONALISATION & STAKEHOLDER LIAISON | LAND SURVEY & MANAGEMENT PLANNING COST ENGINEERED LANDSCAPE & HABITAT DESIGN | IMPLEMENTATION MANAGEMENT & CLERK OF WORKS RESTORATION & AFTERCARE MANAGEMENT PLAN (RAMP) | SOIL SURVEY & ADVICE

Client:	Neil Brearle	е <b>у</b>																	Reference:		18	8-2601
Site:	4b Hampsto	ead Hill Gardens	s, London					Surv	eyor:	Andy P	oynter								Date of sur	rvey:	11	1.02.19
Key to Nota	ations																					
<u> </u>		•						Age Cla	ISS				Defi	inition		Category C	Grading					
Stem Dia:		Stem diameter (mm)	at 1.5m above ground lev	/el			Υ	Young		1st 1/3rd	of life exp	ectancy					Category		ULE		Sub cate	egory
C.C.		Height of crown clea	rance above ground level				EM	Early Ma	ture	2nd 1/3rd	d of life ex	pectancy				Α	High Quality & Value		40+	1	Mainly art	boricultural value
L.B.		Lowest branch heigh	nt in meters				M	Mature		Final 1/3	rd of life e	xpectanc	V			В	Moderate Quality & Value		20-40	2	Mainly la	andscape value
D.L.B.		Direction of Lowest E	Branch				OM	Over Ma	ture	Beyond li	fe expect	ancy & in	natural de	ecline		С	Low Quality & Value		10-20	3	Mainly	cultural value
J.L.E.		Useful Life Expectan	cy of tree in years				٧	Veteran		Great ag	e & poss.	high con:	servation v	value		U	Dead, dying or dangerous		<10			
Physiological	condition		Good	No significa	ant health pro	blems				Fair			Sympton	ns of health that car	he remediated		Poor	Significant ill health				
Structural con	dition		Good	No significa	ant defects																1	
otractarar con	I		Good	140 Significe	ant delects		_			Fair			Significa	nt defects that can I	oe remediated	T	Poor	Significant defects with no remedy				
					04	NI	_	L.,	<u>.                                    </u>				DI D									RPA Radial
Tree No.	Tag No.	Species	Botanical Name	H (m)	Stem Dia.	No of Stems		ranch S	Spread	(m) W	CC (m)	LB (m)	DLB (m)	Age	PC	sc	Comments	Recommendations	ULE	Cat.	RPA (m2)	distance (m)
	N/A	Hornbeam	Carpinus betulus	12	550	1	4	4	3	w		4	North	EM	Good	Good	Located within front garden of adjacent property, previously pruned on numerous occasions such that is now of pollarded appearance. Estimated dimensions.	None.	20-40	B1	137	6.60
2	N/A	Beech	Fagus sylvatica sp.	17	700	1	7	6	6	10	6	5	West	М	Good	Fair	Located with rear garden of neighbouring property. Past pruning has resulted in an asymmetrically formed crown that is now biased and overhanging the garden of 4b along with others. Estimated dimensions.	Lateral reduction of branches overhanging the garden would be prudent. (Theses works can be carried out under the section 211 notice that expires 25th May 2019).	20-40	B1	222	8.40
3	N/A	Lawson Cypress	Chamaecyparis lawsoniana	8	250	1	2	2	2	2	-	-	n/a	EM	Good	Good	Ubiquitous species located within adjacent property's garden. Estimated dimensions.	None.	20-40	C2	28	3.00





15/02/19	Original report	AP	1
Date	Details of Change	Ву	Versior



Tree Constraints Plan

4b Hampstead Hill Gardens

Cast Real Estate

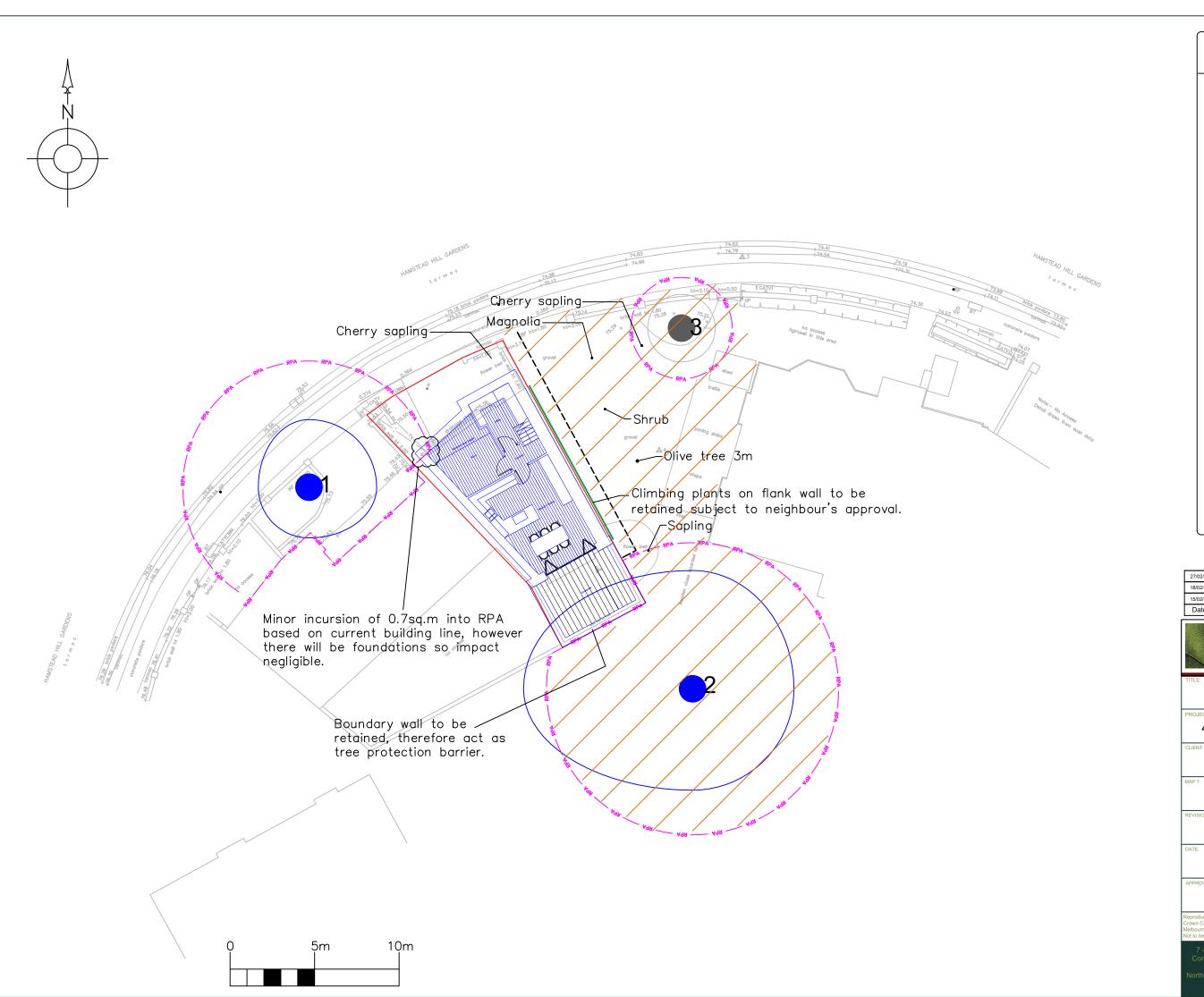
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v1

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ΑP





Category A trees
(Stem and Canopy Spread)

Category B trees (Stem and Canopy Spread)

Category C trees (Stem and Canopy Spread)

Category U trees (Stem and Canopy Spread)

Root Protection Area

Site Boundary



Existing Layout



Proposed Layout

Construction Exclusion Zone (area required to protect retained trees roots and canopy).

Tree Protection Fencing

27/02/19	Updated tree protection measures	AP	3
18/02/19	Changes following internal quality control procedure	AP	2
15/02/19	Original report	AP	1
Date	Details of Change	Ву	Version



Draft Tree Protection Plan

4b Hampstead Hill Gardens

Mr N. Brearley

4420/01/18-2638

v3

15.02.19

SP

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