

# *JK ARBORICULTURE*

*Arboricultural survey & implication study. – 46 Church Lane Bishopthorpe, York*

*October 2023*

*Goodlands*

*Railway Street*

*Slingsby*

*York YO624AL*

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## **1. INTRODUCTION:**

I am instructed by Mark Bramhall of Bramhall Blenkarn Leonard to carry out an arboricultural survey at 46 Church Lane Bishopthorpe in connection with the proposed demolition of the Doctor's Surgery and the construction of a new dwellinghouse. Ref: EML-OUT/1513/20230909-144027-144. The purpose of this report is to provide a preliminary consideration of the arboricultural implications created by the proposed development. In accordance with the feasibility and planning sections of BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations", trees deemed to be within the influencing distance of the projected construction have been evaluated for quality, and longevity.

### **Date of inspection:**

A site visit was made on 6 October 2023

## **2. METHODOLOGY:**

The trees have been evaluated in relation to British standard 5837:2012 – Trees in relation to design, demolition and construction – Recommendations with regard to their quality and their value in the landscape. All inspections were made from ground level. Trees are living organisms; consequently, their health and structural condition may change rapidly during extremes of weather and as a result of other environmental influences. These observations are based on the general condition of the trees at the time of inspection and the experience of the

surveyor. It is strongly recommended that tree stocks are inspected twice a year, i.e., in leaf and during autumn/winter. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report. The report aims to consider both the aesthetic qualities of the trees as well as their health, and a general indication as to their structural stability and the future safe life expectancy. This information along with the tree's general size and categorisation (U, A, B, or C) is recorded at Appendix 2 – Table 1. - Tree Survey Data. The report also considers the implication for trees as a consequence of the proposed development.

The Survey Plan at Appendix 3 plots the individual trees, and allocates a (T) number for each individual tree. The accurate crown spreads of individual trees, or estimation of crown spread in a particular direction, where access is not possible, are also recorded in the survey data Individual trees are also allocated a colour code with reference to BS 5837:2012. Trees in relation to Demolition, Design and Construction – Recommendations where A category trees are the highest quality trees, B category trees of good quality but downgraded owing to recognisable faults, and C category trees those of least significance or poor quality. (See Cascade Chart for tree quality at Appendix 1)

The root protection areas (RPA's) are calculated by multiplying the diameter of each tree trunk measured at 1.5m from ground level by a factor of 12 to provide a radius of a circle that should be protected during the development by fencing in accordance with the British Standard Table 1 **Tree Survey**: provides details for each tree surveyed. The trees and the radii for root protection areas are annotated on the plan at Appendix 3. All inspections were made from ground level.

Draft proposals for the site are illustrated at Appendix 3A

### 3. THE SITE, LOCATION, SPECIES & GENERAL CONDITION OF TREES:

The property is located on the southern side of Church Lane on a narrow rectangular plot. The trees that are the subject of this report are located along the eastern and southern boundaries of the site plus a single tree (T11) growing towards the southern end of the site and positioned just off the western boundary, T3, 4, and 6 are growing within the neighbouring property's curtilage.

#### The trees:

T11 is a maturing ash growing within the boundary hedge on the eastern side of the access. The upper third of the crown shows significant die-back. From my inspections of the Google maps Street View images this die-back has been occurring since at least 2008. The image below from 2008 shows the alignment of fairly recent trench running north south close to the trunk of the tree which will have at the time severed a large portion of roots on that side of the tree and likely to have caused the current die-back in the upper crown which has steadily progressed.



T2 is a small narrow dead tree.

T3 is a large spreading sycamore formed by five main stems. The crown of this tree hangs low over the eastern boundary of the site. The tree appears to be in a healthy condition.

T4 is a single stem of sycamore, although healthy, is suppressed by the dominance of T3.

T5 is a scrubby multi-stemmed self-sown small sycamore.

T6 is a large wide-spreading ash which appears to be in a reasonably healthy condition.

T7 is a medium-sized wild plum of narrow crown formed by two twisted stems. In a reasonably healthy condition.

T8 is a small narrow holly growing within the southern boundary hedge. In good health.

T9 is a scrubby hawthorn growing out of the base of the hedge close to the south western corner of the site.

T10 is a narrow wild plum in the south west corner of the site.

T11 is a young horse chestnut which is heavily infested with Horse Chestnut scale which has caused some early defoliation.

#### **4. LEGAL PROTECTION:**

The site is within Bishopthorpe Conservation Area

**5. PROMINENCE IN THE LANDSCAPE:**

T1 ash is prominent on passing the site in both directions, whilst only the upper parts of the crown of T3 Sycamore are visible from the village street when approaching the site from the west. The remaining trees on the site and on the neighbouring property to the east are not visible from Church Lane.

**6. DEVELOPMENT PROPOSALS:**

The proposal is to demolish the existing doctor’s surgery and construct a new dwelling on approximately the same footprint.

**7. IMPLICATION FOR TREES:**

Tree No.	Species	Implications for tree
T1	<i>Ash (Fraxinus excelsior)</i>	The tree is proposed to be removed as part of the draft development proposals. Considering the continued decline of the tree and the prevalence of Ash die-back disease in the UK the long-term viability of this tree is uncertain.
T2		Dead tree to be removed
T3	<i>Sycamore (Acer psuedopatanus)</i>	A small percentage of the prescribed root protection area, approximately 3%, is within the south eastern corner of the proposed new dwelling. This is not considered significant in terms of root loss through excavations for foundations as there is no other proposed root disturbance within the root

		protection area for this tree. Provided that those parts of the root protection area within the site and outside the proposed footprint for the new dwelling are adequately protected during the development the health of this tree should not be adversely affected.
T4	<i>Sycamore (Acer psuedopatanus)</i>	Unaffected by the development proposals provided that it is adequately fenced off along the alignment of its prescribed root protection area during the development phase.
Tree No.	Species	Implications for tree
T5	<i>Sycamore (Acer psuedopatanus)</i>	Small insignificant scrubby tree to be removed as part of the development proposals.
T6	<i>Ash (Fraxinus excelsior)</i>	This tree is well outside the influence of the development. Provided that the small section of root protection area within the site is fenced off along its prescribed root protection area this tree will not be affected by the development proposals.
T7	<i>Wild plum (Prunus domestica)</i>	Small insignificant tree to be removed as part of the development proposals.



T8	<i>Holly</i>	Small boundary tree to be retained and unaffected by the development proposals provided that the small section of root protection area within the site is fenced off along its prescribed root protection area
T9	<i>Hawthorn (Crataegus monogyna)</i>	Small tree within the southern boundary hedge to be removed to accommodate a new garden shed.
T10	<i>Wild plum (Prunus domestica)</i>	Small tree within the southern boundary hedge unaffected by the development proposals.

Tree No.	Species	Implications for tree
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T11	<i>Horse chestnut (Aesculus hippocastanum)</i>	Small young tree growing close to the western boundary wall. Considering the tree's likely mature size and its position close to the boundary wall, and a neighbouring building, the tree is to be removed as part of the development proposals.
H1	<i>Privet and hawthorn hedge (Ligustrum vulgare and Crataegus monogyna)</i>	To be retained as part of the development proposals

H2	<i>Hathorn hedge</i> ( <i>Crataegus monogyna</i> )	To be removed as part of the development proposals
H3 & H4	<i>Privet</i> ( <i>Ligustrum vulgarie</i> )	To be removed as part of the development proposals and replaced with a wall as part of the development proposals.

## 8. CONCLUSIONS:

The proposed draft development proposals directly affect only T1 (Ash) and T3 (Sycamore). The health of the ash appears to have been compromised by the introduction of a service trench adjacent to the trunk of the tree at least fifteen years ago. The removal of major roots at the time will have caused a check in the tree's growth and the resultant die-back in the upper parts of the crown. In addition, whilst there was no strong evidence of Ash die-back disease at the time of inspection there is a strong possibility that it could succumb to the disease in future, especially as it has been stressed by the historical trenching. In addition, the tree is immediately adjacent to the public highway and may lose dead branches under storm conditions. It is not recommended that this tree is retained in the long-term. Should this tree have to be retained it should not be further compromised by the proposed development as only a very small percentage of the proposed root protection area lies within the northern section of the footprint of the proposed new dwelling, and, although a portion of the root protection area is to be used for car parking it should be possible to provide an appropriate surface that will not cause compaction of the ground within that part of the root protection area.

The sycamore is growing in the neighbouring garden to the east but its root protection area extends into the development site and slightly into the footprint of the proposed new dwelling. This infringement is not considered significant in terms

of the proposed development footprint and should not have any detrimental effects on the long-term health of this tree provided that ground protection is implemented to protect those parts of the root protection area outside of the footprint are adequately protected.

The other trees to be removed which are growing close to the southern boundary of the site are considered to be trees of low quality and T11 Horse Chestnut is will within a few years out-grow its location close to the western boundary and a neighbouring building.





I conclude that the draft proposals could be achieved provided that the appropriate tree protection measures are specified within a detailed Arboricultural Method Statement.

## LIST OF APPENDICE

Appendix 1	Cascade chart for tree quality assessment – BS 5837:2012
Appendix 2	Table 2 - Tree Data Sheets
Appendix 3	Tree Survey Plan
Appendix 3A	Draft Proposals
Appendix 4	Default Tree Protection Fencing
Appendix 5	Photographs

## APPENDIX 1

**BS5837:2012 Table 1 – Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
<b>Trees unsuitable for retention</b> (see Note)		
<b>Category U</b> 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	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>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</li> </ul> <p><i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</p>	
	<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>
		<b>3 Mainly cultural values, including conservation</b>
<b>Trees to be considered for retention</b>		
<b>Category A</b> <b>Trees of high quality</b> 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)	
<b>Category B</b> <b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	
<b>Category C</b> <b>Trees of low quality</b> 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	

APPENDIX 2

Tree No	Species	Hgt (m)	Trunk Diam (mm)	Cr. Spread(M)				Height to 1 <sup>st</sup> branch n/s/e/w	AGE M - Mature, SM semi-M Y - young	Structural condition	Physiological condition	Estimated remaining contribution	Grade BS 5837	RPA (Rad.) metres
				N	S	E	W							
				est. estimated										

T1	Ash <i>(Fraxinus excelsior)</i>	13	640	5.3	4.6	5.7	4.3	2.9 (w)	M	Fair	Fair, significant die-back in upper crown, possibly infected with Ash dieback disease.	≤10	C1	7.68
T2	Small dead tree													
T3	Sycamore <i>(Acer pseudoplatanus)</i>	16	5stem 300 250 200 200	5.6	6est	6.1	6.1	2.3(w)	SM	Good	Good, five stems emerging from ground level. Healthy tree.	40+	B2	4.87
T4	Sycamore <i>(Acer pseudoplatanus)</i>	15	300	2.2	6 est.	5.6	4.5		Y	Good but suppressed by T3, leans to the south	Good	25+	B2	3.60

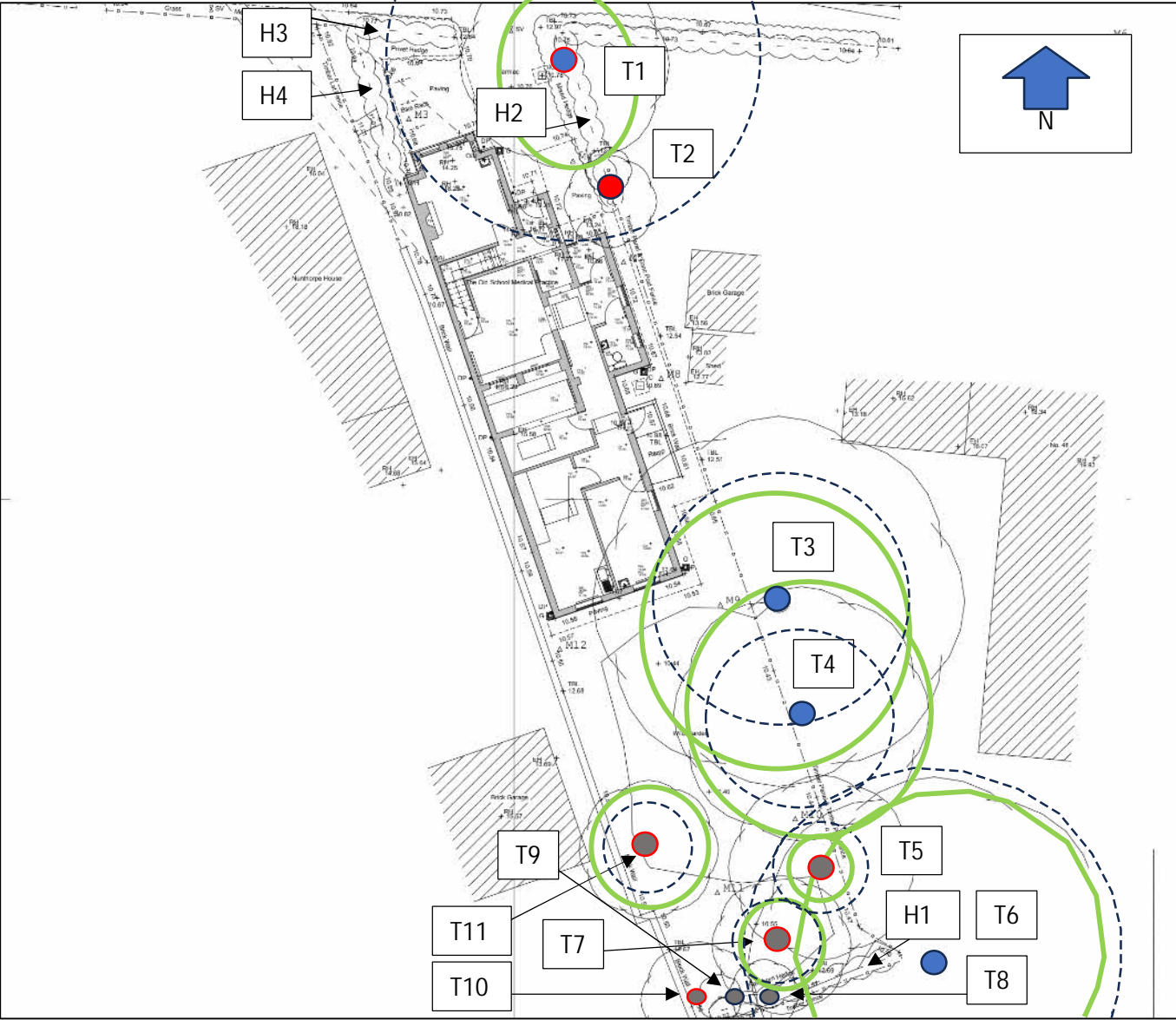
T5	<i>Sycamore</i>	3	5stem 80 80 80 60 50	2.6 N ---- S  2.0 E ---- W	From ground level	Y	Good, small scrubby tree	Good	20+	C2	1.90
T6	<i>Ash</i>  <i>(Fraxinus excelsior)</i>	14	650  est	Not applicable	Not applicable	SM	Good,	Good	40+	B2	7.80
T7	<i>Wild plum</i>  <i>Prunus domestica</i>	10	120  120	2 1.5 2.5 2.5	1.9w	SM	Good	Good	20+	C2	2.0
T8	<i>Holly</i>  <i>Ilex aquifolium</i>	6	150	1 1 1 1	1.9w	SM	Good	Good	40+	C2	1.80
T9	<i>Hawthorn</i>  <i>Crataegus monogyna</i>	3	2 stems, 50  50	1m E ---- W		Y	Good	Good	40+	C2	1.0
T10	<i>Wild plum</i>  <i>Prunus domestica</i>	7	240	1.8 2.2 2 2		Y	Good	Good	20+	C2	2.88

T11	Horse Chestnut <i>Aesculus hippocastanum</i>	8	140	2.4 2.7 2.3 2	1.2w	Y	Good	Fair, heavy infestation of leaf minor which has caused leaves to brown with some defoliation.	≤15	C1	1.68
H1	Privet and hawthorn ( <i>Ligustrum ovalifolium</i> and <i>Crataegus monogyna</i> )	1.9-2.1				Y	Good	Good	40+		Allow 1m
H2	hawthorn ( <i>Crataegus monogyna</i> )	2				M-	Good	Fair	20+		To be removed
H3	Privet and hawthorn ( <i>Ligustrum ovalifolium</i> )	1.8				M	Good	Good			To be removed



H4	<i>Privet</i> <i>(Ligustrum ovalifolium)</i>	1.8				<i>M</i>	<i>Good</i>	<i>Fair, die-back at northern section</i>			<i>To be removed</i>
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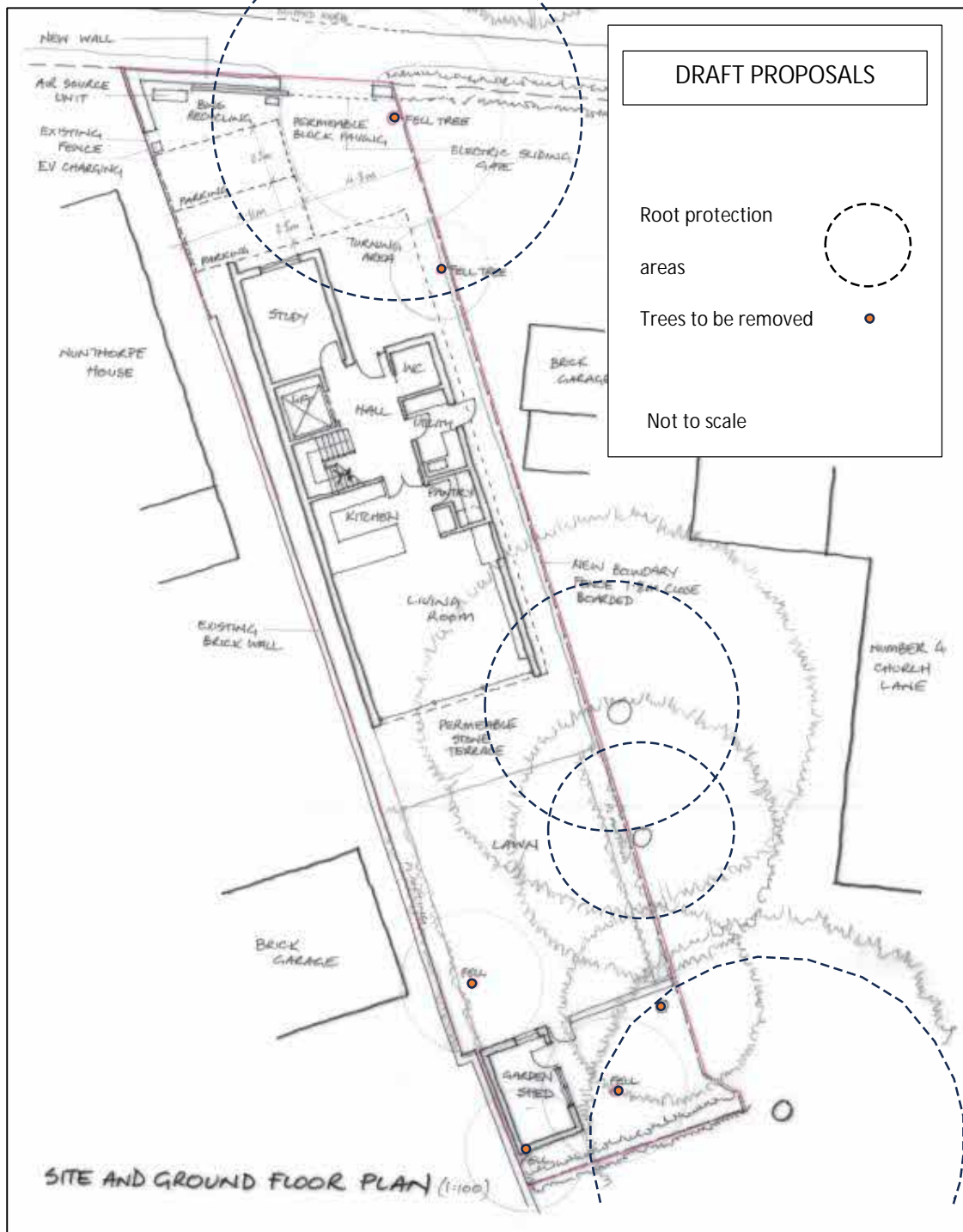
# APPENDIX 3



## Tree Survey

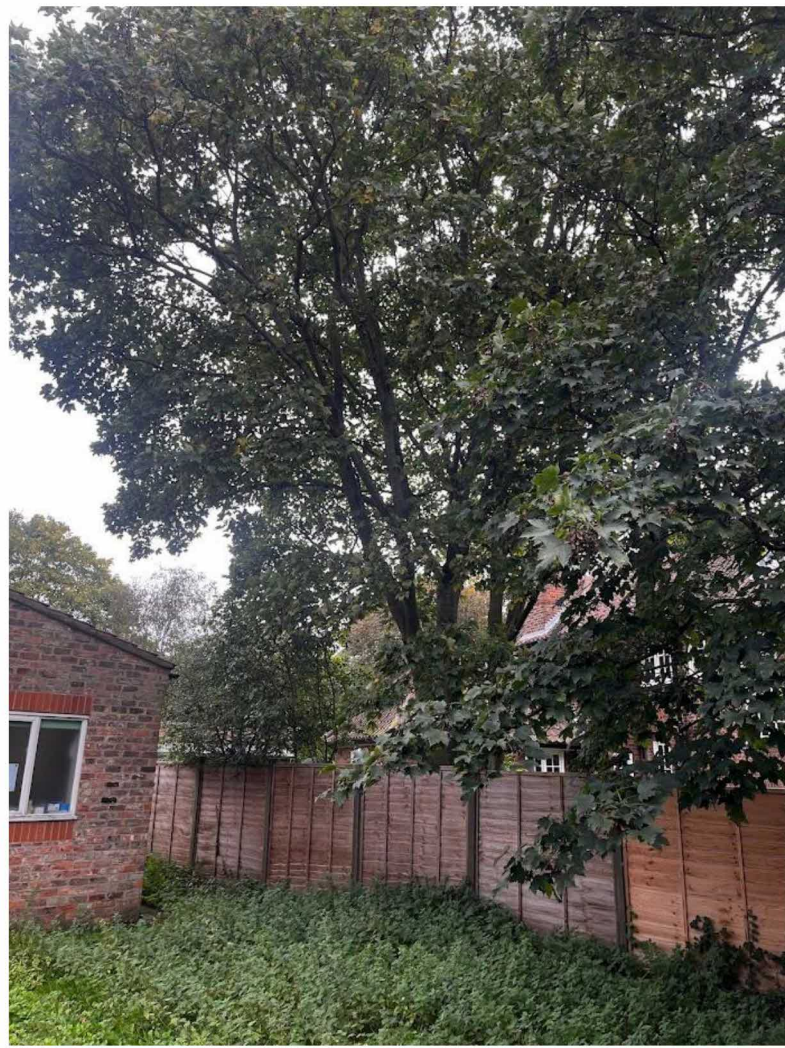
- Category 'B' trees ●
- Category 'C' trees ●
- Dead tree ●
- Trees to be removed
- Root protection areas
- Crown spreads

Not to scale – refer to Tree data table for dimensions





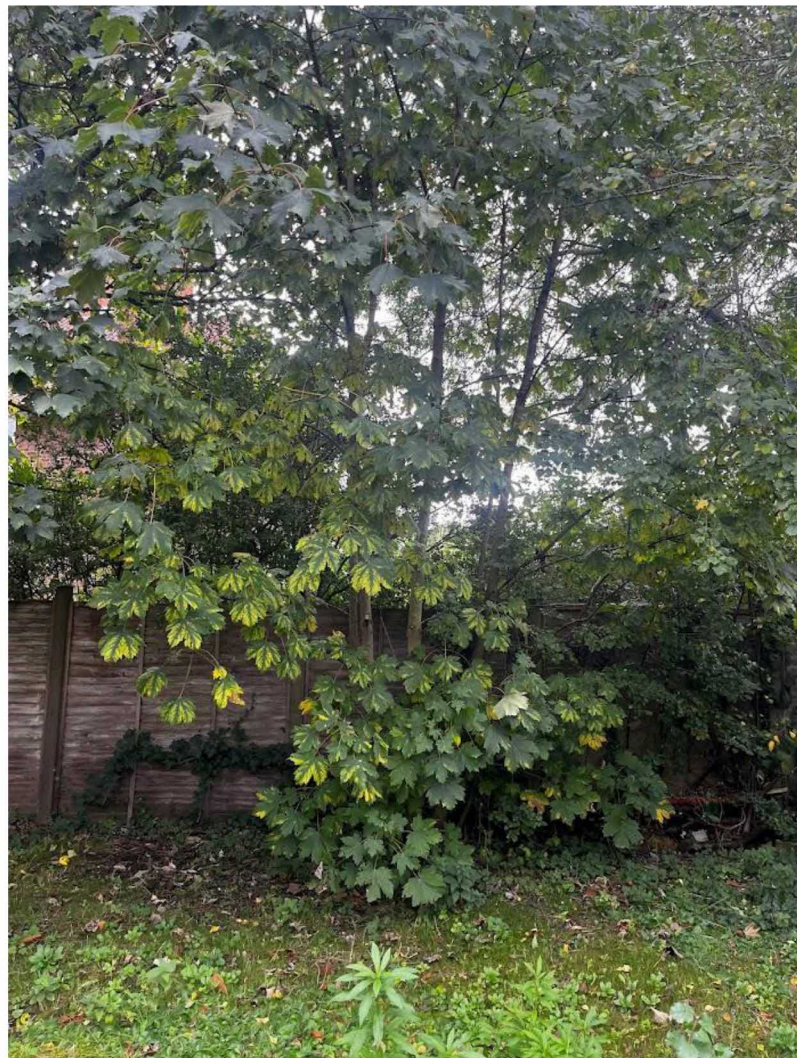
*T1 Ash showing die-back in upper crown*



*T3 Sycamore*



*T4 Sycamore*



*T5 Sycamore*



T6 Ash



T7 Wild plum



T8 Holly (centre), T9 Hawthorn



T10 Wild Plum



H2 Hawthorn



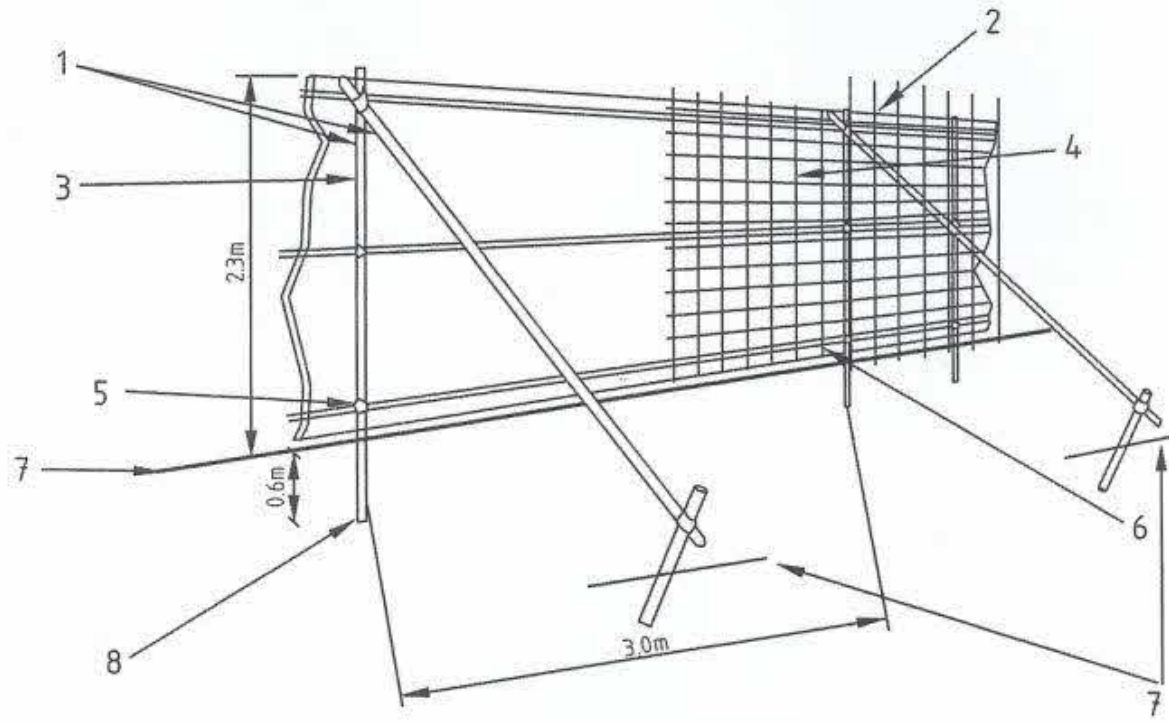
T11 Horse chestnut



H3 Privet



H4 Privet



- |  |  |
|--|--|
| 1 Standard scaffold poles  | 5 Standard clamps  |
| 2 Uprights to be driven into the ground  | 6 Wire twisted and secured on inside face of fencing to avoid easy dismantling |
| 3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps | 7 Ground level   |
| 4 Weldmesh wired to the uprights and horizontals   | 8 Approx. 0.6m driven into the ground  |

Default – Protective fencing for RPA