



LAKELAND
TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALIST

Arboricultural Impact Assessment

Top O'th Brow
Two Brooks Lane
Hawkshaw
BL8 4LA

January 2022

Project details

Job No.	LTC094
Site	Top O'th Brow, Two Brooks Lane, Hawkshaw, BL8 4LA
Client	Reena Kundu
Architect	Zara Moon Architects
Arboriculturist	Jennie Keighley PhD MSc MArborA
Local Authority	Bury Metropolitan Borough Council
Date	16 January 2022
Issue	Final issue for planning

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1. Executive Summary

- 1.1 This arboricultural impact assessment relates to a planning application at the site in question for the remodelling of the existing detached dwelling and conversion of the neighbouring outbuilding, including the erection of a link connecting the two buildings.
- 1.2 One individual tree, five groups of trees, a woodland edge and three hedges were recorded as potentially within influencing distance of the proposed works. Assessment of the tree data in relation to the proposal plan provided indicates that construction of the development as proposed will require the removal of two short sections of garden hedge and a low quality hawthorn tree.
- 1.3 There is sufficient room within the wider site to accommodate new tree planting in order to compensate for the small amount of development-related losses. The specification, delivery and aftercare of replacement tree planting can be secured by means of a condition attached to a planning approval.
- 1.4 The retained trees can be adequately protected by means of BS5837-specification tree protection fencing, which is to be laid-out as indicated on the appended tree protection plan, and by following the general tree protection recommendations made herein.

2. Introduction

- 2.1 The client's agent, Zara Moon Architects, instructed Lakeland Tree Consultancy to survey the trees at the site in question and undertake an arboricultural impact assessment (AIA) in relation to a planning application for the remodelling of the existing detached dwelling and conversion of the neighbouring outbuilding, including the erection of a link connecting the two buildings.
- 2.2 Arboriculturist Jennie Keighley PhD MSc MArborA visited the site on 10 August 2021 and surveyed the trees potentially within influencing distance of the proposed works in accordance with the British Standard guidance, BS5837 (2012) *Trees in relation to design, demolition and construction - Recommendations*.
- 2.3 This report will assess the potential impacts of the proposed development in relation to the existing tree population and outline the tree protection measures needed to prevent retained trees from being damaged during the construction works.

3. The Site and Tree Population

3.1 The site is located at the southern extent of the village of Hawkshaw, Greater Manchester, and is currently a detached, three-storey residential dwelling with a detached outbuilding to the west, detached garage to the south-east and surrounding garden areas (see Figure 1). The site is bounded to the north and east by woodland, and to the south and west by agricultural pasture. Existing vehicular access is via a concrete track leading from Two Brooks Lane, to the east.

3.2 The survey identified one individual tree, five groups of trees, one woodland edge and three hedges potentially within influencing distance of the proposed works. These were located both within the site and on areas of neighbouring land. The positions of the surveyed trees in relation to the existing site are shown on the appended tree survey plan.

3.3 The retention value of the surveyed trees was categorised using the guidance given in Table 1 of BS5837 (2012), which is explained in the appended tree survey schedule. Two groups and the woodland were categorised as moderate quality (B-category) and the individual tree, three groups and the hedges were categorised as low quality (C-category).

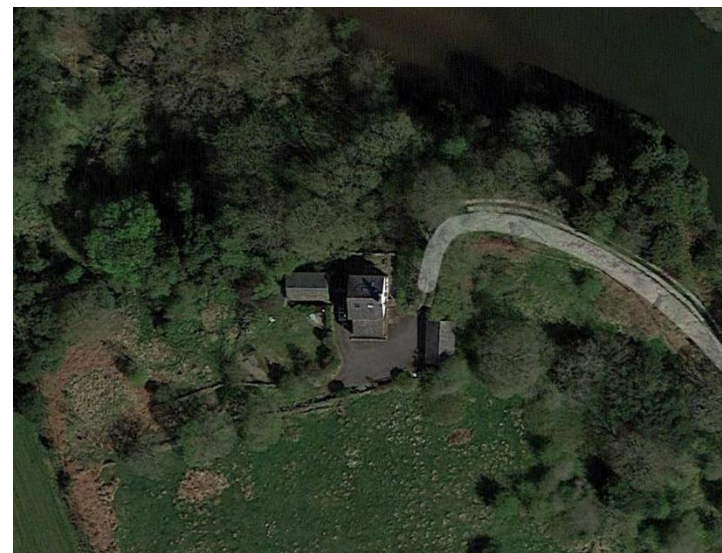


Figure 1: Google Earth image of application site (dated 22 April 2020)

4. The Development Proposal and Arboricultural Impact Assessment

- 4.1 The proposed site plan provided (drawing number 124.21 08), by Zara Moon Architects, indicates that the proposal is for the remodelling of the existing detached dwelling and conversion of the neighbouring outbuilding, including the erection of a link connecting the two buildings.
- 4.2 The proposed site plan provided does not show proposed services or drainage at this stage, although it is presumed that these would utilise supplies to the existing dwelling. If required, new service trenches and drainage features should be sited so as to avoid the root protection areas (RPAs) of retained trees.
- 4.3 As shown on the appended tree protection plan and in Table 1, below, construction of the development as proposed will require the removal of two short sections of low quality garden hedge and a low quality hawthorn tree from the edge of woodland W1. The architect has confirmed that the hawthorn tree requiring removal from the woodland edge is beyond the client's ownership boundary, but that the tree's removal has been authorised by the relevant neighbouring landowner.

Table 1: Arboricultural impacts of the proposed development

ID no.	BS5837 Category	Recommendation
H2	C	Remove in full
H3	C	Remove in full
W1	C	Remove one small, low quality hawthorn from edge of woodland
Total arboricultural impacts		Removals: 2no. C-category hedges 1no. C-category tree

Tree works

4.4 All tree works should be carried out by a suitably qualified, experienced and insured arborist in accordance with the British Standard guidance BS3998 (2010) *Tree work - recommendations*.

Compensatory tree planting

4.5 The wider property includes a sizeable garden area with sufficient room to accommodate new tree planting in order to compensate for the small amount of development-related losses. The specification, delivery and aftercare of replacement tree planting can be secured by means of a suitably worded condition attached to a planning approval and should be implemented in accordance with the British Standard guidance, BS8545 (2014) *Trees: from nursery to independence in the landscape - Recommendations*.

5. Protection of Retained Trees

Tree protection fencing

- 5.1 Adequate protection of the retained trees during the development is paramount in ensuring their health and survival. Creating a construction exclusion zone by erecting temporary fencing around the perimeter of the trees' root protection areas (RPA) is the most effective way of protecting them during the works. It is important that tree protection fencing is secured into the ground, so that it cannot be easily moved whilst the construction works are underway.
- 5.2 For the development in question, the default BS5837 (2012) tree protection fencing, as shown in the appended specification, is expected to be suitable. The fencing is to be laid-out as indicated on the appended tree protection plan prior to any works on site, including deliveries, and shall remain in place until the development is complete and all associated materials have been removed from site. Once erected, the tree protection fencing shall be labelled with an all-weather notice stating 'TREE PROTECTION AREA - KEEP OUT!'.

General tree protection recommendations

5.3 The following recommendations should be heeded throughout the development in order to prevent damage to retained trees: -

- Tree protection fencing shall be installed prior to any works on site, with the exception of tree works and vegetation removal
- Once in place, the tree protection fencing shall not be moved until the development is complete, unless authorised in advance by the Project Arboriculturist or LPA Tree Officer
- Vehicles and plant shall not operate within RPAs, unless there is an existing hard surface in place or load-appropriate ground protection has been installed
- Soil levels within RPAs shall not be raised or lowered, unless authorised in advance by the LPA
- Soil shall not be scraped, skimmed or mechanically compacted within RPAs. The majority of tree roots are found in the top 600mm of soil, so even a shallow scrape can cause detrimental root damage
- Materials, equipment, vehicles, skips, demolition arisings, stone or earth shall not be stored within soft-surfaced RPAs
- Oil, fuel, chemicals, cement or any other material with potential to cause damage to trees shall not be poured, stored, mixed, washed or discharged within tree RPAs. Consideration shall also be given to the topography of the site to prevent materials running towards trees
- Services and drainage shall not be installed below ground level within RPAs, unless authorised in advance by the LPA
- Surface water run-off shall not be re-diverted into or out of RPAs
- Fires shall not be lit within 15m of any tree crown or RPA
- Temporary buildings, including welfare units and portable toilets, shall not be sited within RPAs
- Notice boards, telephone cables, anchorage for equipment or any other services shall not be attached to trees
- Deliveries by crane shall be supervised by the site manager, ensuring the vehicle operates in a manner in which trees are not put at risk of damage

6. Tree Preservation Orders, Conservation Areas and Other Legal Constraints

- 6.1 Trees may be subject to legal protection, by means of being covered by a Tree Preservation Order (TPO) or by being located within a Conservation Area. It is an offence to cut down, uproot, top, lop, cause wilful damage or destruction of protected trees without the appropriate consent from the Local Authority. Fines for carrying out unauthorised works to protected trees can be considerable. The Local Authority must be given six-weeks' notice prior to the removal of trees within a Conservation Area with a stem diameter greater than 75mm (at a height of 1.5m above ground level). To carry out works on trees covered by a TPO, a formal application must be made to the Local Authority, the result of which should be determined within an eight-week period.
- 6.2 According to the interactive mapping service on Bury Council's website (<https://maps.bury.gov.uk/externalwebmap/Map.aspx?MapName=PA>; searched on 22 December 2021), the site is not within a Conservation Area and none of the trees surveyed are the subject of a TPO.
- 6.3 It should be noted that, subject to certain exemptions, a felling license must be obtained from the Forestry Commission for felling of trees that will equate to more than five cubic metres of timber in a calendar quarter. This does not, however, apply to tree removals that are authorised under a detailed planning approval.
- 6.4 Hedgerows meeting a particular series of criteria may be classed as 'important' and afforded legal protection under the Hedgerows Regulations 1997. It is an offence to remove an important hedgerow without appropriate consent from the Local Authority.

6.5 Birds, bats and certain other species are protected by the Wildlife and Countryside Act 1981. It is an offence to disturb wild birds within the nesting season (from March to August inclusive) and bats at any time of year, and this must be taken into account whilst carrying out tree works. The advice of a suitably qualified and licensed ecologist must be sought if the presence of birds, bats or other protected species is identified before or during tree works.

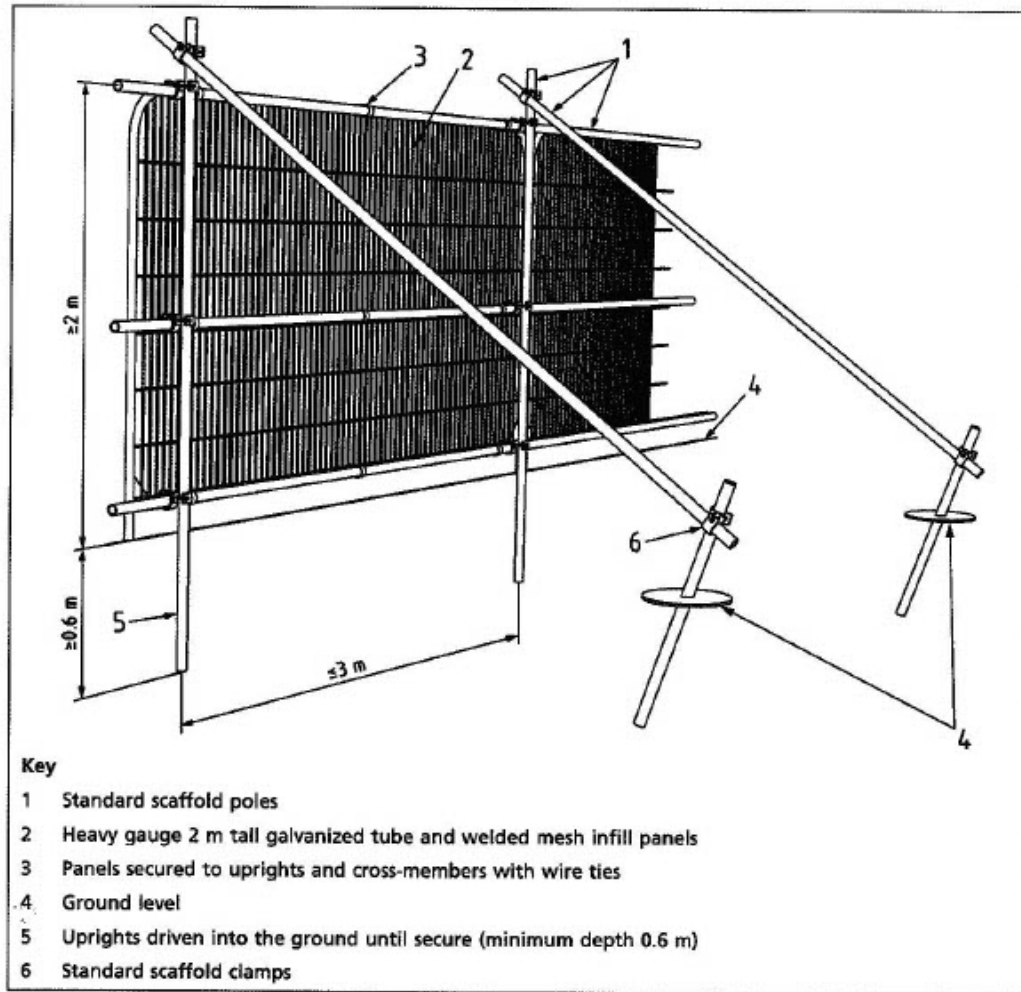
References

British Standards Institute (2014) *BS8545 Trees: from nursery to independence in the landscape - recommendations*

British Standards Institute (2012) *BS5837 Trees in relation to design, demolition and construction - recommendations*

British Standards Institute (2010) *BS3998 Tree work - recommendations*

BS5837 Tree Protection Fencing



Reproduced from BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, BSI Standards Institution 2012.

TREE PROTECTION AREA KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND ARE SUBJECTS OF A
TREE PRESERVATION ORDER
(TOWN & COUNTRY PLANNING ACT 1990)

CONTRAVENTION OF TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

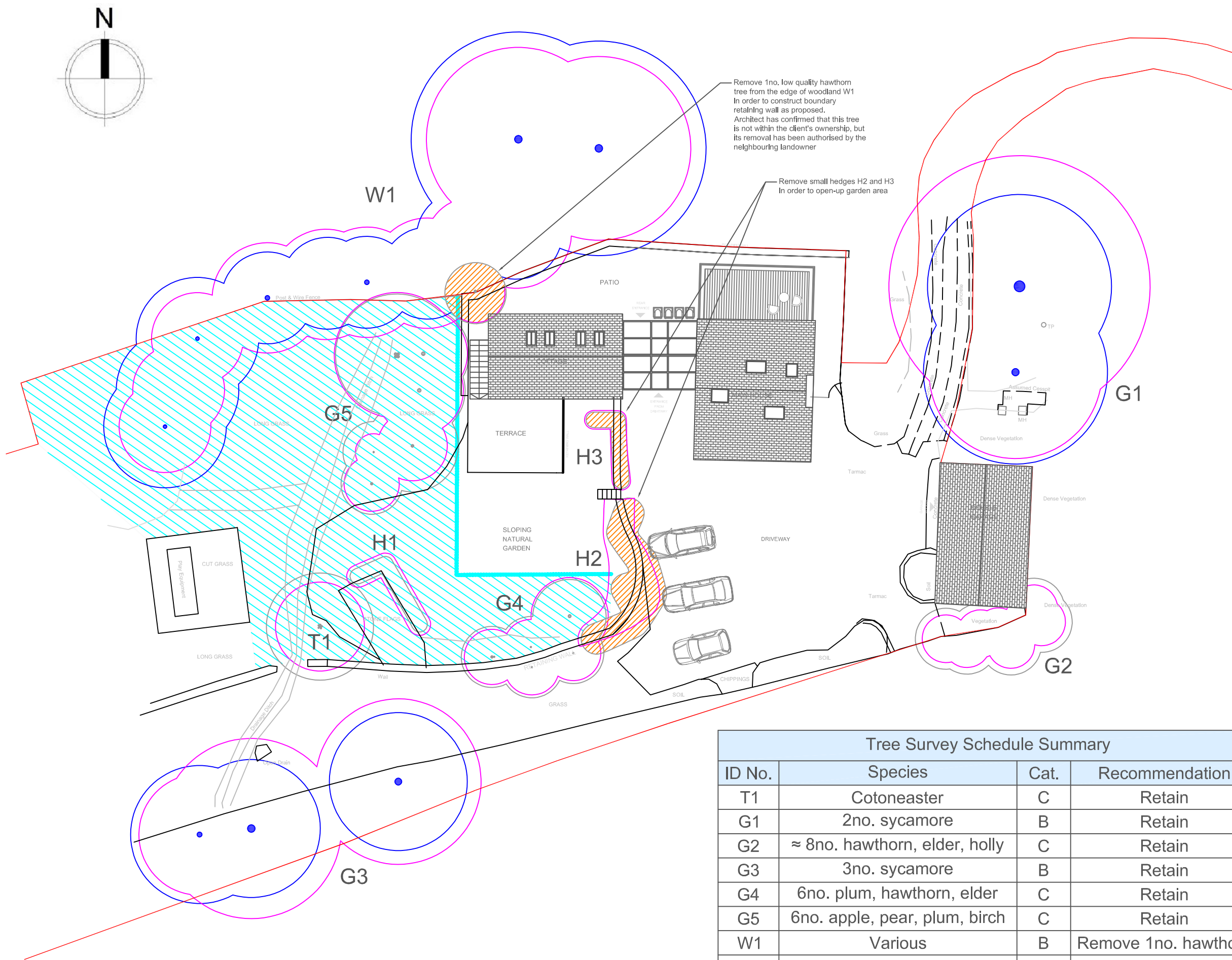
THE FOLLOWING **MUST** BE OBSERVED BY ALL PERSONS:-

- THE PROTECTIVE FENCING MUST NOT BE REMOVED
- NO PERSON SHALL ENTER THE PROTECTED AREA
- NO MACHINE OR PLANT SHALL ENTER THE PROTECTED AREA
- NO MATERIALS SHALL BE STORED IN THE PROTECTED AREA
- NO SPOIL SHALL BE DEPOSITED IN THE PROTECTED AREA
- NO EXCAVATION SHALL OCCUR IN THE PROTECTED AREA

ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Tree protection fencing shall be installed as shown in the specification on the left and shall be labelled at regular intervals with all-weather notices, such as that shown above, stating "TREE PROTECTION AREA - KEEP OUT!"

Tree Protection Plan



BS5837 Tree retention categories:

- Category 'A' High quality
- Category 'B' Moderate quality
- Category 'C' Low quality
- Category 'U' Unsuitable for retention
- Root protection areas (RPAs)
- Proposed tree removals
- Construction exclusion zone and tree protection fencing

Identification numbers:

T = individual tree
G = group of trees
H = hedge
W = woodland

Site:

Top O'th Brow
Two Brooks Lane
Hawkshaw
BL8 4LA

Client:

Reena Kundu

Date: January 2022

Scale: 1:250 at A3

Drawing: LTC094-TTP

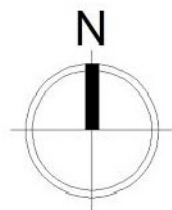
Drawn by: JK

Tree Survey Schedule Summary			
ID No.	Species	Cat.	Recommendation
T1	Cotoneaster	C	Retain
G1	2no. sycamore	B	Retain
G2	≈ 8no. hawthorn, elder, holly	C	Retain
G3	3no. sycamore	B	Retain
G4	6no. plum, hawthorn, elder	C	Retain
G5	6no. apple, pear, plum, birch	C	Retain
W1	Various	B	Remove 1no. hawthorn
H1	Hornbeam	C	Retain
H2	Plum, apple, currant	C	Remove
H3	Plum, apple	C	Remove



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W1

G1

G5

H3

H1

H2

G4

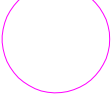
T1

G2

G3

Tree Survey Plan

BS5837 Tree retention categories:

-  Category 'A'
High quality
-  Category 'B'
Moderate quality
-  Category 'C'
Low quality
-  Category 'U'
Unsuitable for retention
-  Root protection areas (RPAs)

Identification numbers:

- T = individual tree
- G = group of trees
- H = hedge
- W = woodland

Site:
Top O'th Brow
Two Brooks Lane
Hawkshaw
BL8 4LA

Client:
Reena Kundu

Date: August 2021

Scale: 1:200 at A3

Drawing: LTC094-TSP

Drawn by: JK

Tree Survey Schedule Summary		
ID No.	Species	Cat.
T1	Cotoneaster	C
G1	2no. sycamore	B
G2	≈ 8no. hawthorn, elder, holly	C
G3	3no. sycamore	B
G4	6no. plum, hawthorn, elder	C
G5	6no. apple, pear, plum, birch	C
W1	Various	B
H1	Hornbeam	C
H2	Plum, apple, currant	C
H3	Plum, apple	C



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BS5837 Tree Survey Schedule

The trees surveyed have been assigned one of the following categories, in line with the guidance outlined in British Standard 5837 (2012)

Trees in relation to design, demolition and construction - Recommendations: -

A

Trees of **high quality** with an estimated remaining life expectancy of at least 40 years

B

Trees of **moderate quality** with an estimated remaining life expectancy of at least 20 years

C

Trees of **low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

U

Unsuitable for retention

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

Key to tree survey schedule: -

T	Tree	Age is classed as either: young; semi-mature, early-mature, mature or post-mature
G	Group	
W	Woodland	
H	Hedge	
		Life expectancy is classed as either: <10 years; 10+ years; 20+ years or 40+ years
RPA	Root protection area	The radial RPA is calculated as twelve times the stem diameter and represents the area where protection of the tree roots during development works is essential to the tree's future health and survival Where the RPA is not shown as circular on the tree survey plan, it may have been modified to take account of built structures such as buildings, roads or retaining walls
#	Estimated values	Measurements may have been estimated where the tree is inaccessible, such as if it is located on neighbouring land or if the stem is heavily covered in ivy Where trees have multiple stems, an average stem diameter may be given
≤ ≥ ≈		For groups of trees and hedges, measurements for the largest individual will be given or average measurements may be given where the individuals are approximately uniform

BS5837 Tree survey schedule

Site Top O'th Brow, Two Brooks Lane, Hawkshaw, BL8 4LA

Surveyor Jennie Keighley PhD MSc MA ArborA

Survey Date 10 August 2021

Client Reena Kundu

Conditions Scattered cloud, light breeze

Job no. LTC094

ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
T1	Cotoneaster tree <i>Cotoneaster</i> sp.	6x100 #	Mature	6	N 3.5 E 3.5 S 3.5 W 3.5	1.25	Good Good	10+	2.9	C	- Multi-stemmed from base - Several stems and branches removed in the past, with stubs exhibiting some early decay
G1	2no. sycamore <i>Acer pseudoplatanus</i>	≤ 710	Early-mature to mature	≤ 22	N 6 E 6 S 6 W 6	1.5	Good Good	20+	≤ 8.52	B	- Pair of trees growing at side of driveway - Septic tank within RPA of smaller tree - Crown of smaller tree overhangs roof of existing garage slightly - Overhead cables pass between crowns
G2	≈ 8no. Hawthorn Elder Holly <i>Crataegus monogyna</i> <i>Sambucus nigra</i> <i>Ilex aquifolium</i>	≤ 130	Young to mature	≤ 8	N 2 E 2 S 2 W 2	0	Good Good	20+	≤ 1.56	C	- Dense group growing close to existing garage - Stems growing on or beyond dilapidated stone boundary wall and, therefore, some of trees may be under neighbouring ownership
G3	3no. sycamore <i>Acer pseudoplatanus</i>	≤ 490	Semi-mature to early-mature	≤ 15	N 4.5 E 4.5 S 4.5 W 4.5	1	Good Good	20+	≤ 5.88	B	- Linear group of trees growing along site boundary - Stems traverse wire boundary fence and, therefore, ownership unclear

BS5837 Tree survey schedule

Site Top O'th Brow, Two Brooks Lane, Hawkshaw, BL8 4LA

Surveyor Jennie Keighley PhD MSc MA ArborA

Survey Date 10 August 2021

Client Reena Kundu

Conditions Scattered cloud, light breeze

Job no. LTC094

ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
G4	3no. purple cherry plum 2no. hawthorn 1no. elder <i>Prunus cerasifera</i> Nigra <i>Crataegus monogyna</i> <i>Sambucus nigra</i>	≤ 210	Young to mature	≤ 7	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	0.5	Good Good	10+	≤ 2.52	C	- Group of small garden trees growing on either side of low wall - Elder has small leaves, suggesting reduced vitality
G5	2no. common pear 2no. purple cherry plum 1no. orchard apple 1no. downy birch <i>Pyrus communis</i> <i>Prunus cerasifera</i> Nigra <i>Malus domestica</i> <i>Betula pubescens</i>	≤ 4x170 #	Semi-mature to post-mature	≤ 11	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	1	Poor to Good Moderate to Good	10+	≤ 4.1	C	- Small orchard area - Reportedly poorly fruit-bearing and very sparse fruit cover evident from survey - Very heavily pruned in the past - One of cherry plums has a heavily decayed codominant leader failed at a height of 1.5m

BS5837 Tree survey schedule

Site Top O'th Brow, Two Brooks Lane, Hawkshaw, BL8 4LA

Surveyor Jennie Keighley PhD MSc MArborA

Survey Date 10 August 2021

Client Reena Kundu

Conditions Scattered cloud, light breeze

Job no. LTC094

ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
W1	Sycamore						Poor to Good				
	Common ash										
	Holly										
	Hawthorn										
	Rowan						Poor to Good				
	Downy birch										
	Goat willow										
	Elder										
	Apple										
	Purple cherry plum										
		≤ 500 #	Young to mature	≤ 20	N ≤ 7 E ≤ 7 S ≤ 7 W ≤ 7	≥ 0		40+	≤ 6	B	- Southern edge of a woodland extending over neighbouring land to north - Not accessed to inspect in detail - Ash crowns exhibiting signs of early to advanced terminal infection with ash dieback disease (fungal pathogen <i>Hymenoscyphus fraxineus</i>)
	<i>Acer pseudoplatanus</i>										
	<i>Fraxinus excelsior</i>										
	<i>Ilex aquifolium</i>										
	<i>Crataegus monogyna</i>										
	<i>Sorbus aucuparia</i>						Poor to Good				
	<i>Betula pubescens</i>										
	<i>Salix caprea</i>										
	<i>Sambucus nigra</i>										
	<i>Malus domestica</i>										
	<i>Prunus cerasifera</i> Nigra										

BS5837 Tree survey schedule

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Surveyor Jennie Keighley PhD MSc MA ArborA
Conditions Scattered cloud, light breeze
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ID no.	Species Latin name	Stem diameter (mm)	Age	Height (m)#	Crown spread (m)	Crown clearance (m)	Structural condition Physiological condition	Life expectancy (years)	Radial RPA (m)	BS5837 category	General observations
H1	Hornbeam <i>Carpinus betulus</i>	≈ 60	Semi-mature	2	N 0.5 E 0.5 S 0.5 W 0.5	0	Good Good	20+	≈ 0.72	C	• Short section of managed garden hedge growing around patio area
H2	Purple cherry plum Apple Currant <i>Prunus cerasifera</i> Nigra <i>Malus</i> sp. <i>Ribes</i> sp.	≈ 100	Mature	3	N 1 E 1 S 1 W 1	0.5	Good Good	10+	≈ 1.2	C	• Managed garden hedge growing atop stone retaining wall
H3	Purple cherry plum Apple <i>Prunus cerasifera</i> Nigra <i>Malus</i> sp.	≈ 50	Semi-mature	1.5	N 0.5 E 0.5 S 0.5 W 0.5	0	Good Good	20+	≈ 0.6	C	• Short section of managed garden hedge