

ARBORICULTURAL SURVEY REPORT

TREE SURVEY SCHEDULE & TREE CONSTRAINTS PLAN

50 Lewes Road
Ditchling
East Sussex
BN6 8TU

Client: Mr R Beacroft

August 2023

Abi StAubyn

MICFor MArborA DipARB L6 (ABC) MEng(Hons)

Ref: StA 3135 AS Lewes Road Rev 1



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1. Introduction

1.1. Scope of report

- 1.1.1 St Aubyn Tree Consultancy are instructed to carry out a survey at 50 Lewes Road, Ditchling, East Sussex BN6 8TU, to provide the baseline tree constraints information to inform a planning application.
- 1.1.2 This report provides information about the site and the trees growing within and immediately adjacent to it. It includes a tree survey schedule, a table of root protection areas (RPAs) and a tree constraints plan.
- 1.1.3 This report complies with the planning policies of Lewes District Council and the South Downs National Park Authority with the recommendations of British Standard BS 5837: 2012, *Trees in relation to design, demolition and construction – Recommendations* (the British Standard).

1.2. Site description

- 1.2.1 The site is accessed via a driveway between Nos. 48 and 52 Lewes Road, leading to two properties to the rear. No. 50 Lewes Road is the western most of these two properties. To the north the boundary abuts the rear boundary of No. 48 Lewes Road, to the south and west the boundaries abut open fields and to the east the site abuts the boundary with No. 50A Lewes Road.
- 1.2.2 The site comprises a detached garage and a detached bungalow, with large front and rear gardens laid to lawn with well established boundary hedging.
- 1.2.3 A check of an online soil information resource¹ revealed the soils to be slowly permeable seasonally wet, slightly acid but base-rich loamy and clayey soils.

1.3. Information provided

- 1.3.1 The following plan was used to aid the preparation of this report:
 - Topo ref: HB Surveys Ltd 23074-02-T-E

¹CRANFIELD SOIL AND AGRIFOOD INSTITUTE. (2021) Soil descriptions. [Online] Available from: www.landis.org.uk/soilscapes/ [Accessed: 6th August 2023]



1.4. Statutory protection

1.4.1 Lewes District Council does not provide online information about the locations of Tree Preservation Orders (TPOs) and therefore it is not known whether there are any TPOs within or adjacent to the site.

1.4.2 The site is not in the Ditchling Conservation Area.

1.5. Other designations

1.5.1 A check of 'MAGIC'² map showed that there are no areas of ancient semi-natural woodland (ASNW) within or adjacent to the site. Ancient semi-natural woodland is any area that's been continuously wooded since at least 1600 AD.

1.5.2 The site is within the South Downs National Park.

1.6. Limitations

1.6.1 This arboricultural survey report has been prepared as a design tool for a proposed development and planning application. This survey does not constitute a condition and safety survey.

1.6.2 The locations of trees are based on the topographical plan provided. Additional trees omitted from the topographical survey have been plotted using measurements taken on site where necessary.

1.6.3 The condition of trees can change significantly within short periods of time due to natural events or people led activities. If there are no changes within the site, this report is valid for a period of 2 years.

² The DEFRA MAGIC map website provides authoritative geographic information about the natural environment across government: www.magic.defra.gov.uk



2. Tree Survey

2.1. Findings

2.1.1 The trees on and adjacent to the site were surveyed on 7th August 2023 by Abi St Aubyn. Information about the survey methodology and the tree data recorded can be found at **Appendix 1**. The root protection areas (RPAs) table and the tree constraints plan can be found at **Appendix 2 & Appendix 3**.

2.1.2 A total of 25 individual trees, 1 group and 10 hedges were surveyed. A summary of their British Standard categorisation is provided at **Table 1** below.

Tree category	Individual tree	Group	Hedge
A	-	-	-
B	7	-	4
C	15	1	6
U	3	-	-
Totals	25	1	10

Table 1: Tree categorisation summary

2.1.3 The key arboricultural features of the site are:

- Native hedges H6, H20, H28 & H30
- Hornbeam T1
- White Willow T9
- Tulip Tree T17, and
- Silver Birch T33

2.1.4 These trees are in keeping with the character and appearance of the locality.



3. Next Stages

3.1. Arboricultural impact assessment

- 3.1.1 This survey report provides the baseline arboricultural information to explain the arboricultural constraints at the site. The next stage is an iterative process - the emerging design is overlaid with the baseline arboricultural information. The direct and indirect arboricultural impacts of the evolving proposed design are assessed and where necessary mitigation measures are recommended. This is an informal impact assessment stage that informs the design process.
- 3.1.2 This impact assessment takes account of the effects of any tree loss required to implement the design, and any potentially damaging activities proposed in the vicinity of retained trees. Such activities might include the removal of existing structures and hard surfacing, the installation of new hard surfacing, the installation of services, and the location and dimensions of all proposed excavations or changes in ground level, including any that might arise from the implementation of the recommended mitigation measures. In addition to the impact of the permanent works, the buildability of the scheme in terms of access, adequate working space and space for storage of materials also needs to be considered.
- 3.1.3 Once the design has been finalised a formal impact assessment report, tree removals plan, arboricultural method statement and tree protection plan will be required to accompany the planning application.



Appendix 1 Tree survey methodology and schedule

Tree survey methodology

The trees on and adjacent to the site were surveyed by Abi St Aubyn on Monday 7th August. Weather conditions on the date of the survey were clear, dry & bright. Trees were in full leaf.

The trees were surveyed using Visual Tree Assessment³ and following the recommendations of the British Standard⁴.

The survey information was recorded using *Axciscape* tree survey software. Heights and radial crown spreads were measured using a laser distometer or where inaccessible, these were estimated. Trunk diameters were measured using a diameter tape or where inaccessible, these were estimated.

Other tools used if needed were a nylon headed hammer to tap trunks to detect the difference in sound in degraded wood/cavities and a large screwdriver to determine the depth of cavities, within reach from ground level.

The assessment of the categories (A, B, C & U) for trees was carried out in accordance with the British Standard⁴.

³Visual Tree Assessment (VTA) is a tree survey methodology established by Mattheck & Breloer, outlined within the *Principles of Tree Hazard Assessment and Management* by Lonsdale, where external above ground visual signs of decay and of growth-related defects are recorded from ground level.

⁴BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* (the British Standard). The survey methodology follows the British Standard apart from sub-categories have not been included and the first significant branch and direction of growth have been omitted. These adjustments are because the British Standard is nearly 10 years old and overdue a review, and in practice the omitted information is very rarely used to inform the design process or tree protection measures. However, if in a particular case this information is relevant, it will be included in the comments. Also, an additional category of 'collection' is used for new tree planting of a similar age, to supplement the recommended individual, group, woodland and hedge categories.



Tree survey schedule key

No	Sequential reference number. Individual trees are recorded as T, groups as G, and hedges as H.
Species	Common tree name.
Height	Measured/estimated in metres as access allows.
Trunk diameter	Measured/estimated in millimetres as access allows.
Crown clearance	Height between the existing ground level, estimated in metres.
Radial crown spread	Either an average or at four cardinal points. Measured/estimated as access allows.
Life stage	Young, semi-mature, early-mature, mature, over-mature and ancient.
Physiology	Good, average, below average, poor, dead.
Structure	Good, average, below average, hazardous, dead.
Landscape value	High, moderate, low.
Lifespan	<10 years, 10+ years, 20+ years, 40+ years
Comments	Presence of any decay and/or physical defects, and/or preliminary management recommendations. Whether a tree is considered to be a veteran tree ⁵ , irrespective of its age.
Category	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 tree with a stem diameter below 150mm U – trees unsuitable for retention due to their condition

⁵ Whist veteran trees typically provide a range of niche habitats, they are especially valuable if ancient, due to their scarcity and high habitat value for associated species of fungi, lichens and saproxylic invertebrates, including some which are rare or endangered and occur only where such trees have been continuously present for centuries. These trees, where present, will be of high value, category 'A'.



No.	Species	Height (m)	Trunk Dia. (mm)	Crown Clearance (m)	Radial Crown Spread (m)				Life Stage	Physiology	Structure	Landscape Value	Life-span	Comments	Category
					N	E	S	W							
T1	Hornbeam	15	420, 400 & 250	2	6	8	7	8	Mature	Below average	Below average	Moderate	40+	Off-site; no access to base of tree; triple-stemmed; extensive dieback in southern most stem; good density of foliage in the rest of the crown.	B
H2	Hornbeam & Leyland Cypress	3-3.5	150, 150 & 50	0	1.5	1.5	1.5	1.5	Mature	Average	Average	Low	40+	Line of Hornbeam hedging on the site side and a line of Leyland Cypress hedging growing adjacent to the Hornbeam hedging on the neighbouring land of the residential garden of No. 48; Leyland Cypress hedging is c.0.5m higher than the Hornbeam hedging.	C
T3	Leyland Cypress	2	30	0	1	1	1	1	Early-mature	Below average	Average	Low	40+	Large shrub, pruned to a dome; bronzed foliage within crown typical of Cypress aphid.	C
T4	Purple Norway Maple	6	230 @ 1.2m	2	2	4	4	2	Semi-mature	Average	Below average	Low	40+	Small tree growing adjacent to garage; crown heavily pruned over neighbouring land.	C
H5	Hawthorn	2	25	1	0.5	0.5	0.5	0.5	Early-mature	Average	Average	Low	40+	Low level boundary screening; small section adjacent to garage door; regularly maintained.	C
H6	Hawthorn	2	25	0	0.75	0.75	0.75	0.75	Early-mature	Average	Average	Low	40+	Low level native hedgerow; provides screening.	B
T7	Purple Norway Maple	2	50	0.5	1	1	1	1	Young	Average	Below average	Low	10+	Recently planted; lost leaders; of poor form and low quality.	C
T8	Cherry	2	25	0.5	1.5	1.5	1.5	1.5	Semi-mature	Below average	Hazardous	Low	<10	Sparse crown; small tree of little potential.	U
T9	White Willow	12	170, 230, 120, 120 & 85	1.5	3.5	3.5	3.5	3.5	Early-mature	Average	Average	Moderate	40+	Multi-stemmed from 1.2m; growing adjacent to garden wall.	B
G10	Leyland Cypress & shrubs	1-3	65 & 55	0	1.5	1.5	1.5	1.5	Semi-mature	Average	Average	Low	40+	Mixture of conifers and shrubs growing in a soft landscaped area; some maintained as low domes and one small tree/large shrub of c.3m in height; of low landscape value; readily replaceable.	C
H11	Leyland Cypress	2	55	0	1	1	1	1	Semi-mature	Poor	Average	Low	20+	Non-native conifer hedge; northern side is extensively impacted by the Cypress aphid, with large sections of bronzed foliage from which no new growth will develop.	C
H12	Leyland Cypress	2	55	0	1	1	1	1	Semi-mature	Poor	Average	Low	20+	Non-native conifer hedge; northern side is extensively impacted by the Cypress aphid, with large sections of bronzed foliage from which no new growth will develop.	C
T13	Tulip Tree	6	145	1	2.5	2.5	2.5	2.5	Early-mature	Average	Below average	Low	20+	Twin leaders from 3m, with one historically removed and one remaining; small crown.	B



No.	Species	Height (m)	Trunk Dia. (mm)	Crown Clearance (m)	Radial Crown Spread (m)				Life Stage	Physiology	Structure	Landscape Value	Life-span	Comments	Category
					N	E	S	W							
T14	Rowan	5	25	1.5	1.5	1.5	1.5	1.5	Early-mature	Average	Average	Low	20+	Small ornamental tree.	C
T15	Silver Fir	2	60	0	1	1	1	1	Semi-mature	Average	Average	Low	40+	Non-native conifer with great growth potential.	C
T16	Yew	2	25	0	2	0.5	2	2	Semi-mature	Average	Average	Low	40+	Large shrub.	C
T17	Tulip Tree	10	435	0.5	4.5	4.5	4.5	4.5	Mature	Average	Below average	Low	40+	Historically topped at 5m (leaders removed); poor form; great growth potential.	B
T18	Box Elder	6	105, 85, 45, 45, 20, 20 & 20	1.5	2.5	2.5	2.5	3	Early-mature	Average	Average	Low	40+	Small ornamental tree; multi-stemmed from 1.5m.	B
H19	Lawson Cypress	2	55	0	0.5	0.5	0.5	0.5	Semi-mature	Poor	Average	Low	20+	Non-native conifer hedge; numerous patches of brown foliage caused by Cypress aphid, no new green growth will develop from these area; of low quality.	C
H20	Hawthorn	1.5-3	25	1	0.5	0.5	0.5	0.5	Early-mature	Average	Average	Low	40+	Native hedge; low level boundary screening; northern end managed at a lower level to southern end.	B
T21	Cherry Plum	2	25	1	1	1	1	1	Semi-mature	Poor	Below average	Low	<10	Small tree with sparse foliage and cankerous legions on trunk; in irreversible decline.	U
T22	Purple Norway Maple	4	45	1.5	3	3	3	3	Semi-mature	Average	Average	Low	40+	Small tree.	C
T23	Apple	2	25	0	1.5	3	3	3	Mature	Average	Below average	Low	10+	Trunk leans 25' to the SW; small fruit tree; of low quality.	C
T24	Fastigate Hornbeam	7	110	0	1.25	1.25	1.25	1.25	Semi-mature	Average	Average	Low	40+	Upright form; small crown with tight unions.	C
T25	Dawn Redwood	6	90	0	1.5	1.5	1.5	1.5	Semi-mature	Average	Below average	Low	40+	Small tree with great growth potential; specimen tree but due to age readily replaceable.	C
T26	Apple	3	25	0	1.5	1.5	1.5	1.5	Semi-mature	Average	Average	Low	20+	Small fruit tree.	C
T27	Corkscrew Willow	12	200, 150, 75, 75, 25, 25 & 25	1.5	3.5	3.5	3.5	3.5	Early-mature	Average	Average	Moderate	20+	Unable to inspect stem due to dense ivy; triple-stemmed from base; eastern stem decayed with deadwood fungus and sparse crown; recommend removal of eastern stem.	B
H28	Field Maple, Hawthorn & Blackthorn	2	55	0	1.5	1.5	1.5	1.5	Semi-mature	Average	Average	Moderate	40+	Mixed native hedge; provides screening.	B
T29	Lawson Cypress	3	50	0	0.5	0.5	0.5	0.5	Semi-mature	Average	Average	Low	40+	Small non-native conifer; great growth potential; not in keeping with the local landscape character.	C



No.	Species	Height (m)	Trunk Dia. (mm)	Crown Clearance (m)	Radial Crown Spread (m)				Life Stage	Physiology	Structure	Landscape Value	Life-span	Comments	Category
					N	E	S	W							
H30	Beech	2-3.5	75	0	1	1	1	1	Semi-mature	Average	Average	Moderate	40+	Short section of native hedge; provides screening.	B
T31	Purple Leaved Cherry Plum	4	60	1.5	2.5	2.5	2.5	2.5	Mature	Below average	Below average	Low	<10	Multi-stemmed from base; sparse crown; suppressed by adjacent shrubs; of little potential.	U
H32	Lawson Cypress	2	25	0	0.5	0.5	0.5	0.5	Semi-mature	Poor	Average	Low	10+	Large sections of bronzed foliage typical of the Cypress aphid; non-native species.	C
T33	Silver Birch	15	455	0	5.5	5.5	5.5	5.5	Mature	Good	Average	Moderate	20+	Large crown; pruning stub with a cavity on E side at c.2m of c.250mm diameter, area surrounding cavity was tapped with nylon headed hammer, and the intonation indicated that the cavity is localised; good density of foliage.	B
T34	Pittosporum	6	25	1.5	1.5	1.5	1.5	1.5	Early-mature	Below average	Average	Low	10+	Small ornamental tree with a sparse crown.	C
T35	Cherry Plum	6	175	1.5	2.5	2.5	2.5	2	Over-mature	Below average	Average	Low	<10	Off-site; no access to base of tree; tree has a sparse crown.	C
T36	Judas Tree	2	35	1	1.25	1.25	1.25	1.25	Young	Average	Average	Low	10+	Small ornamental tree.	C



Appendix 2 Table of root protection areas

The root protection area (RPA) table

The root protection area (RPA) of a tree is a layout design tool which shows 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 British Standard provides calculations for both single and multi-stemmed trees, which are based on mathematical formulae using the trunk diameter of a tree.

For single stem trees, the RPA, is calculated as an area equivalent to a circle with a radius 12 times the stem diameter. This is capped at a circle of 15m diameter or 707m². For trees with 2-5 stems and 5+ stems more complex calculations are required in accordance with the methodology recommended within the British Standard.

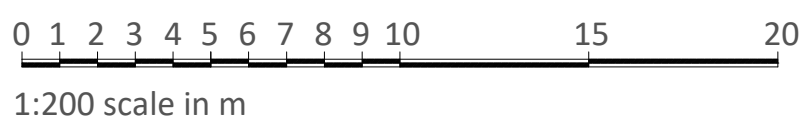
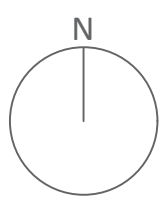
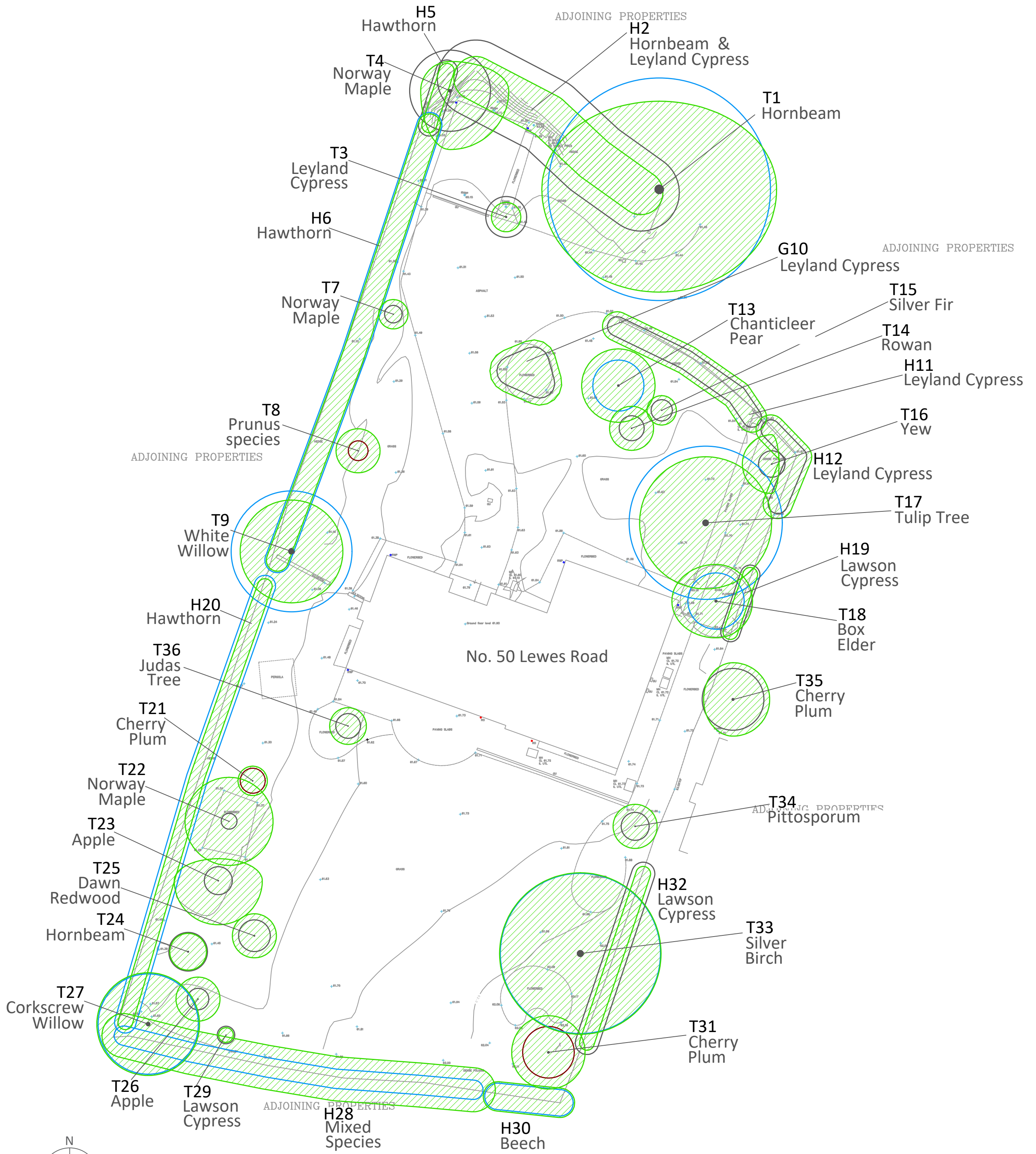
The RPA radius and nominal RPA area for each tree are provided in the following table and the trees' RPAs are shown on the tree constraints plan in the colour of their corresponding categories.



No.	Species	Category	RPA Radius (m)	RPA (m ²)
T1	Hornbeam	B	7.58	180.53
H2	Hornbeam & Leyland Cypress	C	2.62	21.57
T3	Leyland Cypress	C	1.39	6.07
T4	Purple Norway Maple	C	2.76	23.93
H5	Hawthorn	C	0.73	1.67
H6	Hawthorn	B	0.85	2.27
T7	Purple Norway Maple	C	0.6	1.13
T8	Cherry	U	0.67	1.41
T9	White Willow	B	4.12	53.33
G10	Leyland Cypress & shrubs	C	1.02	3.27
H11	Leyland Cypress	C	0.66	1.37
H12	Leyland Cypress	C	0.66	1.37
T13	Tulip Tree	B	1.74	9.51
T14	Rowan	C	0.85	2.27
T15	Silver Fir	C	0.72	1.63
T16	Yew	C	0.9	2.55
T17	Tulip Tree	B	5.22	85.61
T18	Box Elder	B	1.92	11.58
H19	Lawson Cypress	C	0.66	1.37
H20	Hawthorn	B	0.73	1.67
T21	Cherry Plum	U	0.85	2.27
T22	Purple Norway Maple	C	0.54	0.92
T23	Apple	C	0.95	2.84
T24	Fastigate Hornbeam	C	1.32	5.47
T25	Dawn Redwood	C	1.08	3.66
T26	Apple	C	0.73	1.67
T27	Corkscrew Willow	B	3.42	36.75
H28	Field Maple, Hawthorn & Blackthorn	B	0.66	1.37
T29	Lawson Cypress	C	0.6	1.13
H30	Beech	B	0.9	2.55
T31	Purple Leaved Cherry Plum	U	1.76	9.73
H32	Lawson Cypress	C	0.79	1.96
T33	Silver Birch	B	5.46	93.67
T34	Pittosporum	C	0.95	2.84
T35	Cherry Plum	C	2.1	13.86
T36	Judas Tree	C	0.84	2.22



Appendix 3 Tree constraints plan



- Key:**
- Tree canopy - all categories
 - Tree (T), group (G) or hedge (H)
 - RPA of a category 'B' tree - moderate quality
 - RPA of a category 'C' tree - low quality
 - RPA of a category 'U' tree - tree that cannot realistically be retained due to its condition

- Notes:**
1. This drawing is based on topographical survey ref: HB Surveys Ltd 23074-02-T-E. Some additional trees have been plotted by measurements taken on site.
 2. Please check if there are any Tree Preservation Orders (TPOs) or if Conservation Area protection applies to trees before carrying out trees works - TPOs might have been made after the date of this drawing, or the online planning mapping service might not have been up to date at the date of this drawing.
 3. The shape of root protection areas (RPAs) have been modified where pre-existing site conditions (road, building foundations ect) or other factors (trenching) indicate that rooting is likely to be asymmetrical. For on site trees, no change to the overall area of each RPA has been made up to a maximum distance of 15m from the trunk. Beyond this, marginal decreases in the areas of RPAs might result if there are no other areas suitable for rooting within the 15m radius.
 4. This drawing was originally produced in colour.
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Client
MR R BEACROFT

Project
50 LEWES ROAD, DITCHLING, EAST SUSSEX BN6 8TU

Title
TREE CONSTRAINTS PLAN

Scale
1:200 @ A2

Date
AUG 2023

Drawn by
ASTA

REV	Description	Date
0	Preliminary issue	08.08.2023

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