Land off Stakehill Lane Stakehill Middleton

Trustees of J.P. Milne

TREE SURVEY REPORT

(Revision B)



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Appendix A – Glossary of arboricultural terms

1.0 Introduction

- 1.1 Trevor Bridge Associates Ltd (TBA) have been instructed by Trustees of J.P. Milne to undertake a pre-development arboricultural survey of trees and significant vegetation. The pre-development tree survey should be read in conjunction with the accompanying *Tree Survey & Root Protection Area drawings* ref: 5687.01, .02 & .03 revision B, 5687.04.
- 1.2 A site visit to the site was carried out in April 2018. For the purposes of updating the report to revision B the site was re-visited in July 2018.
- 1.2.1 Revision B of this report provides the inclusion of additional land and trees/vegetation within it.
- 1.3 This pre-development tree survey should be considered the first part of a process in identifying trees that are to be retained and protected. A key part of the pre-development survey is the identifying of Root Protection Areas (RPA's). In Addition to the pre-development survey the following documents may be required to fully support a planning application:
 - i) An Arboricultural Impact Assessment This will assess the impact on trees of a proposed development.
 - ii) An Arboricultural Method Statement This provides specific details on how a development should proceed in such a manner that avoids damage to trees being retained. It is accompanied with a tree protection plan.
- 1.4 The following information was provided for reference for the purposes of undertaking this pre-development survey.
 - Peak Surveying Services drawing: *Topographical Survey, Drawing No.: PSS-052-001.* (3x Sheets; 001.2, 001.3a, & 001.4). Date. March 2018.
- 1.5 This report has been undertaken by Mike Gregory HND Arb. M. arbor A. Mike has extensive experience working as a tree surgeon and has several years experience as a tree officer. He has provided advice and consultancy to the public sector for over 15 years. He is highly experienced in tree and development issues, having provided reports on over 600 development sites.

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2.0 Scope and Limitations of the Report

- 2.1 This report has been prepared to inform the design layout of potential development and be submitted with a planning application.
- 2.2 Due to the changing nature of trees and possibly other site circumstances this report and recommendations are limited to a two year period. Similarly, this report could be invalidated if any alterations are made to the site that could change the conditions as seen at time of inspection.
- 2.3 Under certain circumstances, roots can affect foundations, drains and other underground services. These issues have <u>not</u> been addressed by this report.
- 2.4 Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer occasional damage under only average weather conditions. A lack of recommended work does not imply that a tree will never suffer damage.

3.0 Site Location

- 3.1 The site comprises an area of pastoral fields situated to the north of Stakehill Lane, Stakehill, Middleton.
- 3.2 The location of the site is marked in red within the plan extract below:



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- 3.3 The grid reference of the site is SD 89309 08491
- 3.4 The full details of the tree cover is included within the tree survey schedule within section 11.0 of this report, and within the accompanying Tree Survey & Root Protection Area drawing.
- 3.5 Some trees within the site are subject to a Tree Preservation Order; *Tree Preservation Order no. 49. 1981.* Trees subject to the Order are identified within the schedule. The trees/groups within the schedule that are included within the Order are as follows:
 - 70G: Sycamore, Ash and Lombardy Poplar.
 - 111T: Sycamore.
 - 112T: Sycamore.
 - 113T: Sycamore.
 - 115T: Sycamore.
 - 116T: Sycamore.
 - 117T: Sycamore.
 - 125T: Sycamore.
 - 126T: Ash.
 - 127T: Sycamore.
 - 128T: Sycamore.
 - 129T: Sycamore,
 - 131T: Ash.
 - 133T: Sycamore.

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- 3.5.1 Revision B of this report includes an additional section of land to the south. This land (effectively comprising a wooded area) is subject to *Tree Preservation Order no. 58. 1981*.
- 3.5.1 The additional land falls mostly within an area designated group *G.4*. within the Order. While the Order provides a list, and number, of tree species that are protected, the nature of the land has altered from a discrete group of trees (since 1981) into a wooded area.
- 3.5.2 Many trees that have been included within group *G.4.* will have died. Of those remaining there is difficulty in assessing what is protected. In effect the Tree Preservation Order has become outdated and requires revising to update it with physical changes that have occurred over the last 37 years since its creation. However the Order remains valid, albeit difficult to interpret with the changes that have occurred since its making.
- 3.5.3 Were the Order revised, I consider likely it would be altered to a woodland designation.
- 3.5.4 Trees/groups that fall within the area designated G.4 are 153T to 187T.

4.0 Tree Survey Schedule - Methodology

- 4.1 This survey complies with British Standard 5837:2012 *Trees in relation to design, demolition and Construction Recommendations*. All significant trees or groups within the site have been inspected, identified and detailed.
- 4.2 <u>Site.</u> The survey was carried out from ground level and without the use of special diagnostic equipment (unless otherwise stated). Lower-grade material may been treated as numbered groups, for example where in rows or dense groupings.
- 4.3 Schedule. The following information is given in the schedule:
 - Tree reference No: A sequential number sequence post-fixed with a T for Trees, G for groups, H for hedges and W for Woodlands.
 - Tree Species. Common name of Species.
 - Height (metres). An electronic hypsometer is used to measure tree heights. Tree heights
 are only measured where it is possible to gain a clear unobstructed view of the tree,
 otherwise the height is estimated.
 - **Trunk diameter** (millimetres). This is a key measurement for calculating the Root Protection Areas of trees. Measurements are taken at 1.5m, height above ground level. If trees are assessed as a group or woodland feature, the trunk diameter of the largest tree within the group or woodland is estimated and used.
 - **Crown spread** (metres): The maximum lateral spread of the canopy as measured from the cardinal compass points (NESW). Spreads are measured either by pacing or laser where access is available, otherwise estimated.
 - **Crown clearance** (metres): The height of the lowest section of canopy measured from cardinal compass points.
 - **Age class.** A classification of the age of the tree. In the case of woodlands and groups this is based in the oldest tree.

Y – Young: Recently planted trees less than ½ life expectancy.

SM – Semi-Mature: Established trees less than 1/3rd predicted life expectancy.

EM – Early mature: Trees between 1/3rd and 2/3rd predicted life expectancy.

M - Mature: Trees over 2/3rd predicted life expectancy.

V - Veteran: A tree of significant age (with a large girth) which provides

cultural, landscape or ecological value.



- **Physiological condition:** (Good, Fair, Poor, Dead). An assessment of the tree's health and vitality reflecting the tree's potential longevity as well as its capacity for withstanding environmental stresses (such as pests and diseases).
- **Structural Condition:** (Good, Fair, Poor, Dead): A consideration of the structural integrity of the physical structure of the tree.
- Life Expectancy: Estimated remaining contribution (years, 0-10 10-20 20-40 40+).
- Root Protection Area: As calculated via BS 5837: 2012 (area in square metres and as a radius in metres). This is the basis of the Root Protection Area marked as a circle on the Tree Survey (may have been modified in light of site circumstances). This is generally the minimum position for protective fencing.
- Retention Category:

Trees are categorised using the criteria shown in the table below. The purpose of the categorisation is to apply a non fiscal value to tree stock to allow informed decisions on which trees should be retained or removed within the context of development.

TREES UNSUITABLE FOR RETENTION:

'U' - [Marked red on plan]

Trees of such a condition that they can not be realistically retained as living trees in the context of the current land use for longer than 10 years.

- Trees that have serious, irremediable, structural defect, such that their early loss is
 expected due to collapse including those which will become unviable after the removal
 of other category U trees (where for what ever reason, the loss of companion shelter
 can not be mitigated by pruning)
- Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline
- Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality

Note Category U trees can have existing or potential conservation value which might be desirable to preserve

TREES TO BE CONSIDERED FOR RETENTI	ON:		
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation
'A' – [Marked green on plan] Trees of high quality with an estimated life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (eg the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg veteran trees or wood pasture)
'B' – [Marked blue on plan] Trees of moderate quality with a remaining life expectancy of at least 20 Years	Trees which may be in the A category but are down graded due to their impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such they are unlikely to be suitable for retention for beyond 40 years; trees lacking the special quality necessary to merit category A designation	Trees that are in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with clearly identifiable conservation or other cultural benefits
'C' – [Marked grey on plan] Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them any greater collective landscape value; and/or trees offering low or only temporary /transient landscape benefits	Trees with no material conservation or other cultural value

- **Observations**: This provides general information regarding the trees, providing details regarding defects, or points of merit.
- Preliminary Recommendations: Any management works that should be carried out.
 Recommendations for management works are only recommended sparingly, generally
 where there is a significant safety concern, or long term benefit for the tree. Works are
 considered within the context of the site at the time of survey. Works that are required in
 relation to new development proposals are considered separately (such as part of a method
 statement).

5.0 Trees and Construction – General Issues

- 5.1 Typically, about 80% of roots will be found in the upper half metre of soil and often extending well beyond the canopy spread. The threat to the trees by development comes from:
 - (a) root severance or fracture
 - (b) compaction of the soil, preventing gaseous exchange and moisture percolation
 - (c) possible change to moisture gradients due to surface water run-off or interception
 - (d) physical damage to low branches and trunk.
 - (e) Damage from chemical run-off from construction activities

The consequences for the tree of such damage are:

- (i) instability, if severe enough
- (ii) entry points for pathogenic fungi at wounds / fractures
- (iii) loss of vitality due to reduced oxygen, mineral and moisture take-up; all leading to
- (iv) root death, and
- (iv) a general decline or possible death of the tree.

6.0 Tree Constraints

6.1 Constraints imposed by trees during development, both above and below ground need to be considered within the site layout design.

Protection is afforded to the tree by defining a Root Protection Area (RPA) within which no development activity should take place. The size of the RPA is defined in the British Standard and relates to trunk diameter. The RPA is normally the minimum position for placement of protective fencing.

6.2 Nominally the RPA is represented by a circle around the tree. The area of the RPA may however, subject to the consideration of the arboricultural consultant, and be altered to a polygon in order to reflect the site conditions and requirements. For example, existing hard surfaces and foundations are likely to restrict or limit root growth while good quality soil may promote and extend root growth.

- 6.3 Root Protection Areas primarily relate to below ground constraints (root protection). Other constrains that must be considered include:
 - The current as well as ultimate height and spread of a tree.
 - Large trees close to a building, particularly a dwelling, can cause apprehension to owners/occupiers that result in pressure for tree removal or inappropriate pruning. Buildings should be sited allowing for the species height, spread and overall habit
 - Species characteristics; i.e. density of foliage, fruit-fall, susceptibility to honeydew drip, or branch drop. Trees are shedding organisms. The leaves of some species may cause problems with blocking of gullies and gutters. Fruit may cause slippery patches and honeydew drop can affect surfaces (particularly cars). If conflicts may arise detailed design may address such issues, such as non-slip paths, use of car-ports, provision of leaf guards or grilles etc.
 - The potential impact on direct and diffuse light of a particular location of land; shading of buildings by trees can be a problem, especially where rooms require natural light, in addition open spaces such as gardens and sitting areas should be designed to meet requirements for direct sunlight (for at least part of the day).
 - Infrastructure requirements in relation to trees e.g. easements for underground or above ground apparatus and visibility splays.
 - Space for the provision of new planting or landscaping.
 - The proposed end use of space within Root Protection Areas.
 - The requirement to protect overhanging canopies of trees that overhang or extend beyond Root Protection Areas.

7.0 Structures within the Root Protection Areas of Trees.

- 7.1 In the development layout design structures should be positioned outside of RPAs. In some exceptional instances there may be an overriding justification for construction within the RPA. In such cases technical solutions may be available to minimise (to an acceptable level) disturbance to the tree/s. Where such technical solutions may be relied upon full details will need to be included within a method statement. Advice must be sought from a suitably qualified arboriculturalist in such matters.
- 7.2 In some cases it may be unavoidable to place permanent hard surfacing within an RPA (for example the placement of an access driveway or parking area). In such cases the following should apply:
 - No excavation of the soil should take place, other than scraping of the turf/vegetation layer
 - Any design must avoid compaction, allowing even distribution of weight.
 - New hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA.
 - If the proposed surface is likely to require de-icing salt then run-off should be directed away from the RPA.

- Permeable hard surfacing can result in soil moisture saturation for long periods (resulting in root death). Where there is a risk of water-logging a design should incorporate land drainage.
- 7.3 Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement systems. Piles, pads or elevated beams can support bridges over RPAs. In all cases full specifications and methodology must be included within a supporting method statement.

8.0 Wildlife Issues and Timing of Operations

- 8.1 <u>Bats.</u> Under current legislation it is an offence to 'intentionally or recklessly disturb a bat' or 'damage, destroy or block access to the resting place of any bat'. For further details consultation must be made with the Statutory Nature Conservancy Organisation (Natural England, 0300 060 1842, www.naturalengland.org.uk). Where relevant any current ecological surveys for the site will take precedence in this matter.
- 8.2 <u>Birds.</u> It is an offence to kill, injure or take any wild bird; or take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore work likely to disturb nesting birds must be avoided from late March to August.
- 8.3 The pruning of some species should avoid specific times. *Prunus* species (eg flowering and fruiting Cherry, Plum, Almond etc) should only be pruned during June August in order to minimise the risk of infection by Silver Leaf disease. *Acer* (Maples including Sycamore), *Betula* (Birches) and, *Morus* (Mulberry) should not be pruned February June due to sap bleeding; also *Juglans* (Walnut) should not be pruned from December June.

9.0 Tree Preservation Orders and Conservation Areas

- 9.1 The site is partially subject to a tree preservation order; the Stakeshill Lane, Middleton Tree Preservation Order No.49. 1981 (refer to section 3.5). In addition a section of the site is subject to Tree Preservation Area Order No. 58. 1981 (refer to section 3.5.1).
- 9.2 Works to protected trees require consent from the local planning authority. In the case of TPO's an application must be made. In the case of conservation areas a notification must be made. TPO applications take up to eight weeks, conservation area notifications take six weeks.
- 9.3 Certain exemptions apply; for example the removal of deadwood. In the case of dangerous trees 5 days written notice should be given to the local authority (in the cases of immediate danger the work should proceed, but the local authority contacted as soon as possible afterwards).
- 9.4 Planning consent overrides protected trees, where the works or removal are necessary for development to proceed.

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10.0 Felling Licences

- 10.1 There are restrictions on the felling of non-garden trees. In any quarter calendar year it is permissible to fell up to 5 cubic metres of timber (as long as the timber is not sold).
- 10.2 Certain exemptions apply, this includes the felling of trees to directly implement a planning consent. For full details the Forestry Commission provide a leaflet entitled Tree Felling Getting Permission which can be found at www.forestry.gov.uk.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
1G	Mixed Species Group	Mature	18	1	350						4.2									Good	Good	40+	Moderate	A2	Mixed mature plantation within the embankment of dual carriageway. Species include Hawthorn, Common Oak and Field Maple. Viewed from site- side only.	No work required.
2G	Mixed Species Group	Mature	8	1	250						3									Good	Fair	30+	Low	В3	Small group that form part of a larger strip of low density native trees. Hawthorn, Holly, Elderberry, and young Ash.	No work required.
3G	Mature Hawthorn and young Ash and Oak	Mature	5	1	200						2.4									Good	Fair	40+	High	В3	Offsite within roadside embankment. Viewed from site only.	No work required.
4G	Sycamore, and Field Maple	Mature	17	1	320						3.9									Fair	Fair	40+	Moderate	B2	Offsite within roadside embankment. Viewed from site only.	No work required.
5G	Mixed Species Group	Mature	17	1	600						7.2									Good	Good	40+	Low	B2	4x Mature Ash and single Sycamore. Group situated offsite. Estimated position of group.	No work required.
6G	Mixed Species Group	Mature	9	1	500						6									Good	Fair	40+	Low	В3	Elderberry, Holly, Hawthorn, and single mature common Oak. A line of vegetation within field area.	No work required.
7 G	Group of Goat Willow and Elderberry	Early- Mature	11	1	250						3									Good	Fair	30+	Low	C2	Low value.	No work required.
8G	Group of Ash	Semi- Mature	7	1	150						1.8									Good	Fair	40+	High	C2	Some eight young and semi-mature Ash. Group situated offsite. Estimated position of group.	No work required.
9Т	Crack Willow	Mature	13	1	660						7.8	4	7	5	4	5	3	4	3	Fair	Fair	20+	Low	C2	Minor cavities on trunk.	No work required.
10G	Row of Lombardy Poplar	Mature	22	1	450						5.4									Good	Fair	30+	High	B2	Corner row of 12x Lombardy Poplar. Some minor fractured and hanging branches and moderate deadwood. Not an Ideal species for retention in the vicinity of residential infrastructure.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
11T	Lombardy Poplar	Early- Mature	13	1	390						4.8	2	2	2	2	4	4	4	4	Fair	Poor	<10	High	U	Longitudinal cavity to south of trunk with decay.	Fell.
12T	Poplar	Mature	15	1	590						7.2	5	5	6	5	4	5	3	4	Fair	Fair	30+	Moderate	C1	Slightly asymmetric form. Moderate deadwood within the canopy.	No work required.
13T	Sycamore	Early- Mature	9	1	430						5.1	4	4	4	4	2	3	2	3	Fair/Po or	Fair	<10	Low	U	Generally poor vitality. Fungal bracket at base to north. The tree appears to be in terminal decline.	Fell.
14T	Ash	Early- Mature	10	1	390						4.8	4	4	4	4	3	2	1	1	Good	Good	40+	High	B2		No work required.
15T	Holly	Mature	9	2	200	200					3.3	2	2	2	2	0	0	0	0	Fair	Good	40+	Moderate	B2	Situated within boundary hedge. Estimated position and dimensions.	No work required.
16H	Native boundary hedging predominantly Hawthorn	Mature	1.5	1	25						0.9									Good	Fair	40+	Low	ВЗ		No work required.
17G	Mixed Species Group	Early- Mature	13	1	300						3.6									Good	Fair	40+	Moderate	B2	Goat Willow, Sycamore, Wild Cherry, Flowering Cherry and Hawthorn.	No work required.
18T	Flowering Cherry	Early- Mature	8	1	250						3	3	4	4	3	3	2	3	3	Good	Fair	40+	Low	C1	Estimated dimensions.	No work required.
19T	Flowering Cherry	Early- Mature	6	1	170						2.1	2	1	3	3	4	3	3	2	Fair	Fair/Poor	20+	Low	С3	Slightly suppressed and asymmetric form. Low branch to south partially fractured and lying on ground.	Remove fractured and hanging branch.
20G	Group of Hawthorn	Mature	5	1	220						2.7									Good	Fair	30+	Low	C1	Staggered row of Hawthorn with some Elderberry also present.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
21T	Elderberry	Mature	3	5	120	140	140	130	140		2.7	2	3	2	3	1	1	1	1	Good	Good	20+	Low	C2	Estimated dimensions.	No work required.
22T	Ash	Early- Mature	10	1	290						3.6	3	3	4	3	3	4	5	4	Good	Good	40+	High	B2	Estimated dimensions.	No work required.
23G	Norway Spruce, Magnolia, Lawson Cypress	Early- Mature	9	1	200						2.4									Fair	Fair	20+	Moderate	C2	Group of trees situated within neighbouring residential property. Estimated position.	No work required.
24T	Wild Cherry	Early- Mature	9	1	320						3.9	3	2	3	3	3	3	2	2	Good	Fair	40+	Moderate	C1	Situated within neighbouring property. Estimated position and dimensions.	No work required.
25T	Sycamore	Mature	15	1	400						4.8	3	3	3	3					Good	Fair	40+	Moderate	C1	Situated within neighbouring property. Estimated position and dimensions. Previous canopy pruning within the tree.	No work required.
26G	Hawthorn, Purple Leaf Plum and Sorbus	Mature	6	1	250						3									Fair	Fair	30+	Low	C1	Group of trees situated within neighbouring residential property. Estimated position.	No work required.
27T	Ash	Mature	15	1	760						9	5	7	6	6	4	2	3	5	Good	Good	40+	Low	B2	Estimated position.	No work required.
28H	Hawthorn Hedge	Mature	1.5	1	25						0.9									Good	Good	40+	Low	В3		No work required.
29T	Sycamore	Mature	17	1	750						9	6	6	6	6	3	3	3	3	Good	Good	40+	Moderate	A2	Off site tree; estimated position and dimensions.	No work required.
30T	Hawthorn	Mature	10	1	300						3.6	4	4	4	4	2	3	3	3	Good	Good	30+	Low	B2	Off site tree; estimated position and dimensions.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
31T	Eucalyptus	Mature	15	1	360						4.2	5	5	5	5	3	3	3	3	Good	Fair	20+	Moderate	C1	Off site tree; estimated position and dimensions.	No work required.
32T	Ash	Early- Mature	9	1	300						3.6	4	4	3	3	2	2	2	2	Good	Good	40+	High	B2		No work required.
33G	5x Goat Willow, 1x Crack Willow	Early- Mature	9	1	300						3.6									Fair	Fair/Poor	20+	Low	СЗ		No work required.
34H	Hawthorn Hedge	Mature	1	1	20						0.9									Good	Good	30+	Low	В3	Regularly managed section of Hawthorn hedge	No work required.
35T	Silver Birch	Mature	14	1	360						4.2	5	4	5	5	4	5	5	5	Good	Fair	40+	Moderate	B2	Off site tree; estimated position and dimensions.	No work required.
36T	Ash	Mature	18	1	500						6	3	4	4	4	9	9	9	9	Good	Fair	30+	Low	B2	Off site tree; estimated position and dimensions.	No work required.
37G	Row of mature Hawthorn	Mature	7	1	250						3									Good	Fair	30+	Low	C2	Remnants of former field boundary hedge. Reduced value due to its limited length.	No work required.
38G	Mixed Species Group	Mature	18	1	300						3.6									Good	Good	40+	Moderate	A2	Norway Maple, Common Oak, Sycamore, Hawthorn, Ash, and Goat Willow.	No work required.
39Т	Horse Chestnut	Mature	9	3	290	210	210				5.1	5	4	4	4	0	1	2	0	Good	Good	40+	High	B2	Off site tree; estimated position and dimensions.	No work required.
40T	Sycamore	Mature	9	1	460						5.4	4	4	4	4	1	2	2	2	Good	Good	40+	High	B2	Off site tree; estimated position and dimensions.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
41G	Row of Hawthorn	Mature	6	1	180						2.1									Good	Fair	30+	Low	C2	Remnant matured section of lapsed boundary hedge.	No work required.
42G	Mixed Species Group	Early- Mature	11	1	280						3.3									Good	Good	40+	High	B2	Sycamore, Hawthorn, Norway Maple. Off site group.	No work required.
43G	Mixed Species Group	Mature	19	1	350						4.2									Good	Fair	40+	Moderate	B2	Ash, Sycamore, Hawthorn, Common Oak, Norway Maple and Goat Willow. Off-site group.	No work required.
44G	Hazel and Hawthorn	Mature	4	1	170						2.1									Good	Fair	40+	Low	C2		No work required.
45T	Common Oak	Mature	10	1	500						6	6	6	4	4	2	2	3	2	Good	Fair	40+	Moderate	ВЗ	Situated within embankment of pond. Estimated dimensions.	No work required.
46T	Common Oak	Mature	9	2	360	360					6	5	5	5	6	2	0	2	3	Good	Fair/Poor	30+	Moderate	вз	Embankment of pond. Slowly subsiding, but the tree is adapting its structural form.	No work required.
47T	Common Oak	Mature	8	2	300	360					5.7	3	7	6	3	4	0	0	0	Good	Fair/Poor	30+	Moderate	В3	Situated within embankment of pond. Estimated dimensions.	No work required.
48T	Common Oak	Mature	7	2	350	300					5.4	3	4	6	4	2	0	0	1	Good	Fair/Poor	30+	Moderate	вз	Situated within embankment of pond. Estimated dimensions.	No work required.
49G	Matured Hawthorn row	Mature	6	1	250						3									Fair	Fair	20+	Low	ВЗ	Matured lapsed remnants. Includes single semi- mature Sycamore.	No work required.
50T	Common Oak	Early- Mature	9	1	390						4.8	6	5	5	5	1	1	1	2	Good	Good	40+	High	A2		No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
51T	Hawthorn	Mature	5	9						130	3.9	4	3	3	3	1	1	1	1	Good	Good	30+	Low	C1	Estimated dimensions.	No work required.
52G	2x Hawthorn	Mature	4	1	200						2.4									Good	Good	30+	Low	C2		No work required.
53T	Common Oak	Early- Mature	8	2	230	280					4.2	5	5	5	4	3	2	1	4	Good	Good	40+	High	B2	Slightly asymmetric form.	No work required.
54G	Row of mature Hawthorn	Mature	5	1	260						3									Good	Good	40+	Low	В3	Remnants of hedge etc. Developed into good individual specimens.	No work required.
55G	Group of Hawthorn	Mature	7	1	260						3									Good	Good	40+	Low	В3		No work required.
56T	Common Oak	Early- Mature	8	1	340						4.2	5	5	4	4	5	4	6	6	Good	Good	40+	Moderate	B2		No work required.
57G	Mixed Species Group	Mature	12	1	270						3.3									Good	Fair	40+	Moderate	В3	Screening windbreak planting in boundary of neighbouring plant nursery. Predominantly Hawthorn but also Cherry, Blackthorn and Common Oak.	No work required.
58H	Mixed Species Group	Mature	3	1	60						0.9									Good	Fair	20+	Low	C2	Holly, Hawthorn, Privet, Cherry Laurel, Western Red cedar. Boundary hedge of adjacent plant nursery.	No work required.
59H	Hawthorn Hedge	Mature	1	1	40						0.9									Fair/Po or	Fair/Poor	20+	Low	C3	Predominantly, Hawthorn with Elderberry and young Ash. The hedge has been previously reduced resulting in low density mature stems forming most of the hedge structure.	No work required.
60G	Holly, Hawthorn and Dogwood	Semi- Mature	3	1	50						0.9									Fair	Fair	30+	Low	C3	Off-site group.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
61T	Goat Willow	Mature	10	1	540						6.6	7	7	6	6	4	4	4	4	Good	Good	30+	Low	B2	An unusually good specimen of Goat Willow. Situated within neighbouring garden. Viewed from site only. Estimated dimensions.	No work required.
62G	Willow Oak and Silver Birch	Early- Mature	10	1	300						3.6									Good	Fair	30+	Moderate	B2	Group of trees situated within neighbouring property. Viewed at distance; estimated position.	No work required.
63G	Mixed Species Group	Mature	11	1	350						4.2									Fair/Po or	Poor	10+	Moderate	C3	Off site group. Horse Chestnut, Sycamore, Norway Maple, and Alder. Squirrel damage within the Sycamores and Bleeding Canker has resulted in bark lesions within the Horse Chestnut. Some previous branch fractures. Group has limited safe useful life expectancy.	No work required.
64H	Leyland Cypress Hedge	Mature	3	1	60						0.9									Fair	Fair	20+	Moderate	C2	Screening boundary hedge within plant nursery. Regularly managed. Also contains Western Red Cedar, Privet, Cherry Laurel and Holly.	No work required.
65T	Ash	Mature	14	1	420						5.1	5	4	3	5	5	5	7	8	Good	Good	40+	Moderate	B2		No work required.
66T	Goat Willow	Mature	12	1	270						3.3	3	1	1	3	5	9	9	9	Fair	Fair	20+	Low	C2	Slightly asymmetric form.	No work required.
67T	Goat Willow	Mature	12	1	390						4.8	3	5	5	4	8	3	3	3	Fair	Fair/Poor	<10	Low	U	Bark dysfunction and decay in lower trunk.	Fell.
68T	Sycamore	Early- Mature	8	1	230						2.7	3	4	4	4	4	3	2	3	Good	Fair	40+	Moderate	СЗ	Estimated position. Slightly suppressed and asymmetric form.	No work required.
69H	Hawthorn Hedge	Mature	4	1	40						0.9									Good	Fair	30+	Low	C2	Young Ash tree also present growing from coppice.	No work required.
70G	Sycamore, Ash, Common Oak, Lombardy poplar & Hawthorn	Mature	23	1	650						7.8									Good	Fair	40+	Moderate	A2	Row of trees within a neighbouring property garden. Prominent features. Estimated position. Note: Sycamore, Ash and Lombardy Poplar are all within TPO no. 49. 1981	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
71T	Sycamore	Early- Mature	10	5	280	200	180	170	170		4.6	4	4	4	4	1	3	1	1	Good	Good	40+	High	C1		No work required.
72T	Goat Willow	Early- Mature	9	6						160	4.5	3	5	3	4	3	4	5	4	Fair	Fair	20+	Moderate	СЗ		No work required.
73T	Standing Dead Tree	Early- Mature	9	2	270	270					4.5	3	3	3	3					Dead	Dead	0		U	Some live growth but in terminal decline.	Fell.
74G	3x Sycamore	Early- Mature	9	1	350						4.2									Good	Good	40+	Moderate	B2		No work required.
75T	Sycamore	Early- Mature	9	2	200	260					3.9	3	3	3	3	1	1	1	1	Good	Good	40+	High	B2		No work required.
76T	Ash	Semi- Mature	8	12						90	2.8	3	3	3	3					Good	Fair	40+	High	C2	Viewed at a distance, estimated dimensions.	No work required.
77T	Goat Willow	Mature	5	7						150	4	4	4	6	7	0	0	0	0	Fair	Fair/Poor	30+	Moderate	СЗ		No work required.
78G	Goat Willow Group	Mature	3	1	100						1.2									Fair	Fair/Poor	20+	Moderate	С3		No work required.
79T	Goat Willow	Early- Mature	4	15						60	1.9	1	3	3	3	0	0	0	0	Good	Fair	30+	Moderate	СЗ		No work required.
80T	Goat Willow	Mature	8	1	270						3.3	4	6	6	6	2	4	3	3	Good	Fair	40+	Moderate	C2		No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	ø	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
81G	Goat Willow and Hawthorn Group	Mature	6	1	200						2.4									Good	Fair	30+	Low	C2		No work required.
82T	Goat Willow	Mature	5	10						100	3.2	3	4	2	3	0	2	0	0	Fair	Fair/Poor	20+	Moderate	C3		No work required.
83G	Group of Goat Willow	Young	4	1	90						1.2									Good	Fair	30+	Moderate	СЗ	Young self seeded group	No work required.
84T	Goat Willow	Early- Mature	6	10						150	4.6	4	3	4	5	2	3	1	0	Good	Fair	30+	Moderate	С3		No work required.
85T	Alder	Semi- Mature	4	6						100	2.4	2	2	1	1	1	1	1	1	Good	Fair	20+	Moderate	C2		No work required.
86T	Hawthorn	Mature	6	1	430						5.1	6	4	4	6	0	3	2	1	Good	Good	30+	Low	В3	Good individual specimen of Hawthorn.	No work required.
87T	Hawthorn	Early- Mature	4	6						90	2.2	2	2	2	2	1	1	1	1	Good	Good	40+	Low	C3		No work required.
88G	Group of Alder	Semi- Mature	5	1	150						1.8									Good	Fair	40+	High	C2		No work required.
89Т	Common Oak	Semi- Mature	8	2	290	180					4.2	4	5	5	5	3	2	1	2	Good	Good	40+	High	B2	Good future potential.	No work required.
90T	Goat Willow	Early- Mature	5	15						90	2.8	2	3	4	4	2	0	0	0	Fair	Fair/Poor	20+	Moderate	C3		No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
91T	Common Oak	Early- Mature	9	3	180	200	240				4.2	4	5	4	4	4	3	2	3	Good	Good	40+	High	B2	Good future potential.	No work required.
92T	Common Oak	Early- Mature	8	2	190	230					2.8	3	4	5	3	4	5	3	4	Good	Fair	40+	High	C1	Slightly asymmetric form.	No work required.
93T	Hawthorn	Mature	6	10						90	2.8	3	3	3	2	0	0	0	0	Good	Good	30+	Low	C2		No work required.
94T	Crack Willow	Over- Mature	9	8						250	7.1	5	5	5	5	0	0	0	0	Fair/Po or	Poor	<10	Low	U	Partially broken apart and collapsed.	Fell.
95T	Goat Willow	Mature	5	7						140	3.7	4	4	4	4	0	2	0	0	Fair	Fair/Poor	10+	Low	СЗ		No work required.
96G	Mixed Species Group	Early- Mature	6	1	200						0.9									Fair	Fair	30+	Moderate	C2	Goat Willow, Hawthorn and Alder growing amongst bramble.	No work required.
97T	Goat Willow	Mature	9	11						200	6.3	4	7	7	7	1	2	0	0	Good	Fair	20+	Low	C2		No work required.
98T	Alder	Early- Mature	10	3	190	260	150				4.2	5	4	4	4	0	1	1	9	Good	Good	40+	Moderate	B2		No work required.
99G	Goat Willow and Oak	Young	4	1	80						0.9									Good	Fair	40+	Very High	C3		No work required.
100H	Native Hedge	Young	3	1	25						0.9									Good	Fair	40+	Low	C2	Blackthorn, Hazel, Sorbus. Established young hedge .	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
101T	Goat Willow	Mature	10	6						160	3.9	3	4	5	3	4	5	1	4	Fair	Poor	<10	Low	U	Decay in base.	Fell.
102G	Mixed Species Group	Early- Mature	12	1	290						3.6									Good	Fair	30+	High	C3	4x Poplar and single Elderberry.	No work required.
103G	Group of young Oak	Young	3	1	60						0.9									Good	Fair	40+	High	С3		No work required.
104T	Hawthorn	Early- Mature	5	6						100	2.4	3	2	3	3	0	0	0	0	Good	Fair	30+	Low	C2		No work required.
105T	Hawthorn	Early- Mature	5	6						80	2	2	2	2	2	0	0	0	0	Good	Fair	30+	Low	C2		No work required.
106T	Common Oak	Mature	12	3	320	350	580				9	7	7	7	6	2	3	1	3	Good	Good	40+	Low	А3		No work required.
107T	Group of Goat Willow	Early- Mature	7	1	150						1.8									Fair	Fair	30+	Low	C2		No work required.
108T	Hawthorn	Mature	8	1	330						3.9	2	2	3	3	4	4	4	3	Fair	Fair	20+	Moderate	C1		No work required.
109G	Hawthorn group	Mature	8	1	250						3									Good	Fair	20+	Moderate	C2	Matured remnants.	No work required.
110T	Sycamore	Mature	10	1	510						6	5	5	4	4	4	4	5	5	Good	Fair	40+	Low	A2		No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
111T	Sycamore	Mature	10	1	510						6	5	4	5	5	5	2	5	4	Good	Good	40+	Low	A2	Note: Tree subject to TPO no. 49. 1981	No work required.
112T	Sycamore	Mature	11	1	640						7.8	7	7	7	5	5	6	6	5	Good	Good	40+	Low	A2	Note: Tree subject to TPO no. 49. 1981	No work required.
113T	Sycamore	Mature	10	1	720						8.7	5	5	7	6	7	6	5	5	Good	Good	40+	Low	B2	Old pruning wound with surface decay at 2.5m height to south. Note: Tree subject to TPO no. 49. 1981	No work required.
114T	Hawthorn	Mature	5	1	200						2.4	2	2	2	2	1	1	1	1	Fair	Fair	30+	Low	C2		No work required.
115T	Sycamore	Mature	14	1	720						8.7	7	6	7	5	8	5	6	8	Good	Good	40+	Low	A2	Composted material has been deposited around the base of the true. This should be removed. Note: Tree subject to TPO no. 49. 1981	Remove composted material deposited around base and trunk of tree. This must be done in a manner that does not result in disturbance of the ground around the tree, not cause damage to the tree itself.
116T	Sycamore	Mature	13	1	470						5.7	5	3	6	3	2	5	5	5	Good	Fair	30+	Low	B2	Composted material has been deposited around the base of the true. This should be removed. Note: Tree subject to TPO no. 49. 1981	Remove composted material deposited around base and trunk of tree. This must be done in a manner that does not result in disturbance of the ground around the tree, not cause damage to the tree itself.
117T	Sycamore	Mature	15	1	700						8.4	6	6	6	7	7	8	8	4	Good	Fair	30+	Low	B2	Fracture stub and bark wound at some 3m height to the north. Remove composted material deposited around base and trunk of tree. This must be done in a manner that does not result in disturbance of the ground around the tree, not cause damage to the tree itself. Note: Tree subject to TPO no. 49. 1981.	No work required.
118G	Row of Hawthorn	Mature	8	1	230						2.7									Good	Fair	20+	Low	C2	Matured remnants.	No work required.
119H	Hawthorn Hedge	Mature	1.5	1	25						0.9									Good	Good	40+	Low	В3	Regularly managed	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
120T	Ash	Mature	20	1	650						7.8	5	8	7	5	4	5	9	11	Good	Fair	30+	Low	B2	Slightly asymmetric form. Some major deadwood within canopy. Estimated dimensions.	Remove major deadwood.
121T	Ash	Mature	22	1	550						6.6	8	8	1	4	4	7	7	5	Good	Fair	20+	Low	C1	Estimated dimensions. Tree has developed a suppressed canopy form with bias to north.	No work required.
122T	Ash	Mature	22	2	560	310					7.8	6	4	7	6	9	12	9	7	Good	Fair	30+	Low	B2		No work required.
123T	Ash	Mature	17	1	360						4.2	4	1	4	5	11	11	11	11	Good	Fair	30+	Moderate	C1	Woodland growth form. Grows closely adjacent with smaller Sycamore whose stem rubs against the Ash trunk.	Fell Sycamore whose stem is rubbing against Ash trunk.
124G	Group of Hawthorn	Mature	7	1	160						1.8									Fair	Fair	30+	Low	C2		No work required.
125T	Sycamore	Mature	14	1	650						7.8	6	4	7	7	5	7	9	4	Good	Fair	40+	Low	B2	Minor fracture stubs and pruning wounds. Note: Tree subject to TPO no. 49. 1981	No work required.
126T	Ash	Mature	25	1	980						11.7	4	7	10	6	10	11	10	10	Good	Fair	30+	Low	В1	Large dominant specimen. Potential hazard beam on main lateral limb to south. Some major deadwood within the canopy. Note: Tree subject to TPO no. 49. 1981	Reduce southerly lateral by approx. 4m in length to lessen end weight. Remove major deadwood.
127T	Sycamore	Mature	14	1	550						6.6	7	4	7	3	5	3	4	3	Fair	Fair	30+	Low	B2	Some minor deadwood within the canopy. Note: Tree subject to TPO no. 49. 1981	No work required.
128T	Sycamore	Mature	16	1	620						7.5	6	7	8	3	5	4	9	9	Fair	Good	40+	Low	B2	Some major deadwood.	Remove major deadwood.
129T	Sycamore	Mature	14	1	620						7.5	5	5	7	6	7	5	5	3	Good	Good	40+	Low	A2	Some minor deadwood. Note: Tree subject to TPO no. 49. 1981	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
130H	Hawthorn Hedge	Mature	1	1	25						0.9									Fair	Fair	30+	Low	C2	Regularly managed but slightly thinning.	No work required.
131T	Ash	Mature	20	1	840						10.2	6	6	6	9	5	4	3	8	Fair	Fair	20+	Low	В3	Some erosion within the main root collar. Some large lower lateral branches. Some previous branch factures. Note: Tree subject to TPO no. 49. 1981	In context of development close to the tree; undertake overall Canopy reduction by 30%.
132G	Row of Wild Cherry	Mature	12	1	400						4.8									Fair/Po or	Fair/Poor	20+	Low	C3	Off site trees of which there is limited visibility off. Some of the row are in poor condition.	No work required.
133T	Sycamore	Mature	13	1	650						7.8	6	6	6	6	5	5	5	5	Good	Good	40+	Moderate	A2	Viewed at a distance, estimated dimensions. Tree situated within neighbouring property. Note: Tree subject to TPO no. 49. 1981	No work required.
134G	Hawthorn, Wild Cherry.	Mature	8	1	200						2.4									Fair	Fair	30+	Low	C2	Off site.	No work required.
135G	Hawthorn, Goat Willow.	Mature	9	2	500	500					8.4									Fair/Po or	Fair/Poor	10+	Low	С3	Tree situated within neighbouring property. Includes mature Goat Willow with indications of decay in lower stem.	No work required.
136H	Hawthorn Hedge	Mature	1.7	1	25						0.9									Good	Good	40+	Low	А3	Good structure well managed.	No work required.
137H	Hawthorn Hedge	Mature	1.7	1	25						0.9									Good	Good	40+	Low	А3	Good structure well managed.	No work required.
138T	Ash	Semi- Mature	8	1	300						3.6	5	3	4	4	2	4	3	2	Good	Fair	40+	High	C1		No work required.
139T	Ash	Semi- Mature	7	4	150	160	150	130			3.6	3	5	4	2	2	2	2	2	Fair	Fair	30+	High	C2		No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
140G	Group of Hawthorn and Elderberry	Mature	6	1	200						2.4									Good	Fair	30+	Low	C2		No work required.
141G	2x Hawthorn	Mature	5	1	200						2.4									Fair	Fair	20+	Low	C2		No work required.
142G	4x Hawthorn	Mature	4	1	170						2.1									Good	Fair	30+	Low	C2		No work required.
143G	Mixed Species Group	Mature	14	1	600						7.2									Good	Good	40+	Moderate	B2	Goat Willow, Ash, Sycamore and Hawthorn.	No work required.
144H	Hawthorn Hedge	Mature	1.2	1	20						0.9									Good	Fair	40+	Low	В3		No work required.
145H	Hawthorn Hedge	Mature	1.2	1	20						0.9									Good	Fair	40+	Low	В3		No work required.
146T	Sycamore	Mature	14	1	940						11.4	5	6	6	4	3	2	2	2	Good	Good	40+	Moderate	A2	Well structured individual specimen.	No work required.
147T	Larch	Mature	13	1	350						4.2	4	4	4	4					Good	Good	30+	Low	B2	Tree viewed at distance. Tree situated within neighbouring property. Estimated position and dimensions.	No work required.
148T	Larch	Mature	14	1	400						4.8	5	5	5	5					Good	Good	30+	Low	B2	Tree viewed at distance. Tree situated within neighbouring property. Estimated position and dimensions.	No work required.
149T	Mixed Species Group	Early- Mature	10	1	250						3									Fair	Fair	30+	High	C2	Sycamore and Hawthorn. Group viewed at a distance with poor visibility. Estimated position.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
150T	Leyland Cypress	Mature	8	1	300						3.6	3	3	3	3					Fair	Fair	20+	Moderate	C2	Neighbours. Estimated position and viewed at distance.	No work required.
151G	Group of Wild Cherry	Mature	12	1	350						4.2									Good	Fair	40+	Moderate	B2	Neighbours. Estimated position and viewed at distance.	No work required.
152G	4x Ash	Mature	16	1	260															Fair	Fair	10+	Low	C2	Possible indications of Ask dieback in outer canopies.	No work required.
153T	Goat Willow	Early- Mature	8	1	250							6	2	4	5	1	5	3	3	Fair	Fair	20+	Moderate	С3	Slightly asymmetric form.	No work required.
154T	Alder	Mature	21	1	480							4	4	4	4	5	6	8	9	Good	Good	30+	Low	В1		No work required.
155T	Goat Willow	Mature	10	4	150	170	240	290				8	6	2	5	4	3	4	4	Fair	Fair	20+	Low	C2	Suppressed form.	No work required.
156T	Sycamore	Mature	17	1	510							7	5	4	5	7	8	7	3	Good	Fair	40+	Low	B2		No work required.
157T	Sycamore	Mature	15	3	370	280	430					6	5	5	6	3	4	7	6	Fair	Fair	20+	Low	B2	Moderate deadwood in canopy. Most northerly stem has tear wound to south at base.	Remove northerly stem with tear wound near its base. Remove moderate deadwood on roadside.
158T	Sycamore	Mature	12	1	270							3	3	5	5	9	8	8	9	Fair	Fair	30+	Moderate	C1	Slightly suppressed form. Minor deadwood throughout.	No work required.
159T	Ash	Mature	20	1	380							5	8	4	7	9	9	13	12	Good	Fair	30+	Low	B2		No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	s	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
160T	Sycamore	Mature	19	5	210	120	240	280	250			4	1	4	9	9	9	9	2	Fair	Fair	20+	Moderate	C1		No work required.
161T	Beech	Mature	22	3	370	690	870					8	8	10	8	8	5	4	2	Good	Good	40+	Low	A1	Large dominant specimen. Dominant specimen within the woodland.	No work required.
162T	Sycamore	Mature	15	1	460							6	7	3	6	1	2	1	4	Good	Good	40+	Moderate	B2	Slightly suppressed form.	No work required.
163T	Sycamore	Mature	17	1	740							6	8	8	7	2	2	2	5	Good	Good	40+	Moderate	B1	Some moderate deadwood.	No work required.
164T	Dead Standing Tree	Mature	9	1	370							6	2	3	4					Dead	Dead	0		U		May be retained as is, or monolithed at some 3m height.
165T	Sycamore	Mature	16	1	340							3	5	5	2	7	5	7	9	Good	Good	40+	Moderate	B2		No work required.
166T	Sycamore	Mature	17	1	410							4	3	5	3	7	8	7	7	Good	Good	40+	Moderate	B2		No work required.
167T	Sycamore	Mature	17	1	320							3	3	4	2	9	9	8	8	Fair	Fair	40+	Moderate	B2		No work required.
168G	3x Sycamore	Early- Mature	16	1	260															Fair	Good	40+	Moderate	B2	Moderate value as part of woodland collective.	No work required.
169G	Mixed Species Group	Early- Mature	16	1	240															Good	Fair	40+	Moderate	C2	Predominantly Sycamore and Ash, but also includes Hawthorn and Holly.	No work required.

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	S	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
170T	Hawthorn	Mature	8	2	180	190						3	3	4	4	3	3	2	3	Fair/Po or	Fair	10+	Low	C3		No work required.
171T	Ash	Mature	17	1	400							5	5	4	5	8	9	6	2	Good	Fair	30+	Moderate	B2	Moderate deadwood. Slightly suppressed form.	No work required.
172T	Horse Chestnut	Mature	16	2	640	590						6	6	6	6	5	6	4	1	Good	Fair/Poor	20+	Low	B2	Bifurcates at some 1m above ground level. Patches of bark dysfunction around base. Wound with surface decay at base to south.	Reduce canopy overall by some 305 to lessen end weight.
173T	Pear	Mature	12	2	360	470						6	8	4	5	8	8	8	7	Good	Fair	20+	Very Low	В3		No work required.
174T	Pear	Mature	12	1	520							4	6	7	6	8	9	9	4	Good	Fair	20+	Very Low	В3		No work required.
175T	Sycamore	Mature	17	1	520							7	6	6	6	4	6	4	4	Fair	Good	40+	Moderate	B2		No work required.
176T	Sycamore	Mature	17	1	460							6	2	8	8	9	11	2	3	Good	Fair	40+	Moderate	B2	Slightly suppressed form.	No work required.
177G	4x Holly	Early- Mature	8	1	220															Good	Fair	40+	Moderate	B2		No work required.
178G	Mixed Species Group	Early- Mature	8	1	200															Good	Fair	30+	Moderate	C2	Hawthorn, Sycamore, Ash, Elderberry	No work required.
179T	Ash	Mature	21	1	800							7	10	9	8	7	7	7	7	Good	Fair/Poor	20+	Low	C1	Trunk bifurcates at some 1m height with slightly weak junction.	Reduce overall canopy by 25%

Tree Group Hedge	Common Name	Age Class	Height (m)	No. of Stems	Stem 1	Stem 2	Stem 3	Stem 4	Stem 5	> 5 stems	Root Protection Area (Radius, m)	N	E	ø	w	N(H)	E(H)	S(H)	W(H)	Physiological Condition	Structural Condition	Life Expectancy	Future Growth Potential	Retention Category	Comments & Observations	Preliminary Work recommendations
180T	Beech	Mature	18	1	520							10	8	4	9	1	2	1	1	Good	Fair	40+	Moderate	B2	Suppressed form.	No work required.
181T	Ash	Mature	22	1	760							6	9	3	5	6	4	12	6	Poor	Fair	10+	Low	C2	The exhibits poor vitality	No work required.
182T	Ash	Mature	22	1	930							7	9	10	5	13	8	7	10	Fair	Good	20+	Low	B2	Dominant specimen.	No work required.
183T	Beech	Mature	22	1	760							9	7	7	10	6	5	7	6	Good	Good	30+	Low	A2		No work required.
184T	Beech	Mature	21	1	730							5	7	6	8	2	3	3	4	Good	Good	40+	Moderate	A2		No work required.
185T	Sycamore	Early- Mature	16	1	310							1	4	6	5	5	4	4	4	Good	Fair	20+	Moderate	C1	Suppressed form.	No work required.
186T	Sycamore	Early- Mature	12	1	270							3	3	4	5	4	5	3	6	Good	Good	20+	Moderate	C1	Slightly suppressed form.	No work required.
187T	Mixed Species Group	Mature	7	1	200															Fair	Fair	30+	Low	C2	Hawthorn Holly, Elderberry	No work required.
188G	Mixed Species Group	Mature	12	1	300															Good	Good	40+	Moderate	B2	Ash, Alder, Cherry and Goat Willow.	No work required.

Appendix A - Glossary of Arboricultural Terms

Adventitious shoots

Shoots that develop from tissue other than a growing shoot apex or bud. Such shoots will often develop in circumstances where a tree has been pruned or is under physiological stress.

Bifurcation

The point at where a single tree trunk forks into two stems.

Bottle-butt/Bottling

Usually occurring in the base of a tree trunk where decay results in a tree developing additional **secondary growth** to structurally compensate. See also **Reaction wood**.

Brown-rot

A type of wood decay where cellulose is primary degraded resulting in a brittle decay where affected wood can retain hardness but lose toughness and flexibility. Affected wood can fracture acutely.

Buckling

The physical deformation of bark and wood when subjected to significant compression loading. For example buckling may occur at base of a leaning trunk that has not developed sufficient growth to withstand **compression loading**, or whose structural integrity is reduced via internal decay.

Cable Brace

The use of cables to form a linkage between two or more stems/branches in order to reduce the possibility of stem/branch failure.

Canker

A wound or lesion that has formed on the bark of a tree. This may be caused by a fungal or bacterial pathogen.

Co-dominance

See also **dominance** and **suppressed form**. Co-dominance occurs where two or more trees grow in close proximity to each other forming a group, but no one tree has attained structural dominance over the neighbouring trees. In some cases one or more trees may visually appear as having one large canopy. This is most often the case with groups of trees of the same species and similar age.

Compression Loading

Mechanical loading creating a compressive force.

Construction Exclusion Zone

An area or areas, usually within a root protection area, which is to remain undisturbed during development processes. Such areas are generally fenced off with tree protective fencing during development.

Coronet cuts

Pruning technique often associated with **monoliths**, but may be applied to branches in any tree. Coronet cuts are multiple jagged cuts made at a pruning point to the remaining branch stub to emulate, as far as is possible, a natural branch fracture in order to promote a habitat conditions beneficial to wildlife.

Crown lifting

The pruning of lower limbs within a tree canopy, usually specified by indicating a required height in metres above ground level.

Crown reduction

The reduction of the outer section of a tree's canopy either partially or all over. Specified by an amount in metres, but may also be specified as a % of the total canopy spread. The natural form of the canopy should be retained, as far is possible.

Crown thinning

The removal of selected branches within the internal structure of a tree canopy, usually to lessen canopy density. This is achieved by removal of secondary or tertiary branches.

Deadwood

Dead branches within the tree. Most deadwood results from the natural dying off of branches within a tree canopy. It is natural for deadwood to form in mature trees. Where deadwood forms on the outer section of tree canopies, referred to as **die-back**, it is generally an indication that the tree is under physiological stress. Deadwood plays an important role for habitat and biodiversity and should not be removed unnecessarily. Within TBA reports deadwood is referred to in three different sizes based on estimated girth:

Minor deadwood: Girth up to 20mm.

Moderate deadwood: Girth from 20 to 40mm

Major deadwood: Girth 40mm and larger

Die-back

The dead of branches in the outer canopy, beginning with shoot-tips. Die-back is usually an indication of severe physiological stress within a tree, often associated with root dysfunction. Die-back can manifest in the long term with significant dying off of larger branches. Other symptoms are usually present, such as small leaf development, late bud-burst, early dropping of leafs, thin leaf cover and the presence of **epicormic growth** in the main canopy. For some species such as Common Oak, die-back is a natural part of the tree's life-cycle; as the tree ages and its vitality reduces, the tree will naturally retrench canopy cover to reduce resource/energy expenditure.

Dominant/dominance

A tree may be referred to as being visually dominant within a landscape. Dominance may also refer to a trees structural dominance over neighbouring trees. As plants, trees require sunlight to photosynthesise. The more a tree can develop canopy cover with access to sunlight the more chance that tree will remain healthy. Groups of trees will effectively complete for sunlight, adapting growth to achieve this. Dominant trees are those which achieve dominance over neighbouring trees. See also **co-dominance** and **suppressed form**.

Dysfunction

The disturbance to physiological aspects of a tree. This may be caused by a pathogen or by physical damage.

Epicormic growth

A shoot that forms from an adventitious bud (see **adventitious shoots**). Sometimes triggered by physiological stress or pruning. Some species produce epicormic growth when healthy, such as common Lime.

Flush-cut

A poor pruning technique in which a branch is removed by cutting into the tissue of the 'parent' branch or trunk, thus unnecessarily harming tissue on parts of the tree being retained. Flush-cut branch wounds are more likely to decay and form cavities.

Hazard Beam

An upwardly curved lateral branch/limb that has strong compressive and tensile mechanical forces acting within it, which can result in a longitudinal splitting referred to as hazard beam failure. These most often result in **incipient failure**.

Incipient failure

The fracture or breakage of a part of a tree that remains partially attached within the tree.

Included bark

Usually occurs within the fork of a tree where two opposed stems grow adjacent each other forming a split to form. This will often result in mechanically weakened forks or **bifurcations**.

Laterals

Limbs that forms the sides of a tree canopy.

Layering

The ability of some species to propagate themselves by developing adaptive root growth on stems that become embedded in soil, such as Willow. This can result in a single 'parent tree' falling into decline, but creating outer new growth from fallen stems, branches.

Lions tailing

A branch with little or no side branches along its length other than the branch end. This is usually the result of poor pruning technique when **crown thinning**. Such branches are more likely to oscillate and fracture in wind, or simply become structurally overloaded.

Loading

Mechanical force applied to a tree or parts of a tree, either through the structure of the tree itself, or external forces such as wind.

Longitudinal

Along the length of a stem, branch etc.

Mulch

A material placed around the base of a tree in order to improve growth potential or heath by suppressing competition of other plants, conserving moisture, reducing fluctuations in soil temperature, and depending on the material used, improving the upper soil nutrients. Mulch can range from mats for newly planted trees, to woodchip or other organic material placed around mature trees.

Monolith

An alternative to tree felling, where the trunk of a tree is retained at a height usually no greater than several metres above ground level. The purpose is to retain deadwood habitat for wildlife. The canopy is fully removed though some primary branches may be retained as stubs. The pruning points around the tree are **coronet cut** to emulate natural branch fractures in order to promote more natural decay patterns and increase potential for habitat and biodiversity.

Occlusion

Also referred to as wound-wood. New wood formation that forms from the exposed cambium around wounds, particularly pruning wounds. Full occlusion occurs when the wound wood covers the wound.

Pioneer species

Species of trees that are adept at colonising land which becomes derelict or unmanaged. Such species are commonly Silver Birch, Willow (particularly Goat Willow), Ash, Alder and Common Oak.

Pollarding

The removal of a tree canopy back to a section of the trunk of primary branches (usually no more than several metres above ground level) and allowing the tree to re-generate. It is a severe form of pruning that is most appropriate in only a few species. Such pruning will normally require re-pollarding to be undertaken on a cyclic basis. Generally between three to five years. Pollarding as a management option is best undertaken when a tree is at a young age, but is most often used on mature trees as an intervention measure.

Reaction Wood

Woody material formed in parts of a tree in order to increase structural support. Such growth is an adaptive response to changes in mechanical loading which may result from changes in exposure, mechanical defects and wood decay. Trees are mechanically 'self optimising'; structurally responding and adapting to the environmental conditions they are in, be that decay, wind exposure, light suppression etc.

Retrenchment pruning

A form of **crown reduction** in over-mature or veteran trees to anticipate or keep pace with decline within the canopy. This may be a phased form of crown reduction which is intended to emulate the progressive shrinkage of canopy into the lower crown.

Root-collar

The point at the base of the trunk between the above ground and underground portion of the tree.

Secondary growth

The growth of wood stems to increase in girth.

Suppressed Form

See also **dominance** and **co-dominance**. A tree develops a suppressed form when neighbouring trees (or structures) block light. A tree depends on sunlight in order to function. Where light may be restricted by larger, more dominant neighbouring trees, a suppressed tree may have little option than to grow towards available light sources in order to survive. This can result in trees forming lateral and leaning growth forms.

Structural root plate

The portion of the roots that are closest to the root-collar. These roots are most important in providing structural support for the tree.

Taper

The rate in which the girth of a branch or stem reduces along its length.

Targets

The potential objects or persons that may be impacted should a tree or parts of a tree fail. A tree within an urban environment would tend to have a much higher target potential than a tree in a field. In the case of development the target potential of a tree may be significantly increased.

Topping

The removal of the upper portions of a tree, usually in a crude manner that results in disfigurement of a tree and potential long term structural and physiological damage. Not to be misinterpreted as Crown reduction.