ATKINS

CITY OF LONDON

Hampstead Heath Ponds Project

ARBORICULTURAL IMPACT ASSESSMENT

July 2014

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Table of contents

Tables

Appendices

Appendix A Key and BS5837: 2012 Survey Table

Appendix B Tree Survey Schedules

Appendix C Glossary

Appendix D Drawings

Definitions

For ease of reference, the following terminology has been used throughout this Arboricultural Impact Assessment:

Term	Definition
The Proposed Development	As specified in The Application which is the subject of this Planning, Design and Access Statement
The Site	Land area of the Proposed Development
The Application	Proposed engineering works to the Hampstead and Highgate chains of ponds comprising dam raising at Model Boating Pond (2.5m) and Mixed Bathing Pond (1m), new walls along dam crest to increase the height of the dams at Men's Bathing Pond (1m) and Highgate No.1 Pond (1.25m), a 190mm kerb along part of the crest at Hampstead No.2 Pond, a new flood storage dam (5.6m) in the catchpit area, grass-lined spillways at most ponds, dam crest restoration, pond enlargement at Model Boating Pond, a replacement changing room building at Ladies Bathing Pond and associated landscaping, habitat creation and de-silting.
The Applicant	The City of London Corporation

1 Introduction

1.1 Terms of Reference

Atkins Limited (Atkins) has been commissioned by the City of London Corporation (CoL) to undertake a tree survey in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations in support of a planning application for the construction of improvements to the ponds on the Hampstead and Highgate chains of ponds within Hampstead Heath (the scheme).

The objective of the Proposed Development is to ensure compliance with the Reservoirs Act 1975 and the Hampstead Heath Act of 1871 and, by consequence, the likely requirements of the Flood and Water Management Act 2010. The Hampstead Heath Act of 1871 includes clauses for the preservation of the natural aspect and state of the Heath. The Proposed Development is to improve the water quality, reducing the current very occasional non-compliance with the EU New Bathing Water Directive of 2006.

A screening opinion has been issued by London Borough Camden on the 29th November 2013 which confirms that the Proposed Development is to be considered Environmental Impact Assessment (EIA) development. As such, an Environmental Statement (ES) is required to be submitted to accompany the planning application. This report is not included within the chapters of the ES and is submitted as a standalone document.

1.2 The Site

The Hampstead and Highgate chains of ponds are both located on Hampstead Heath in the London Borough of Camden. A site location plan is included as Figure 1.1. The location of the ponds is also illustrated within the key plan off the tree protection plan drawings that accompany this report.

1.3 Proposed Development

The proposed engineering works are covered in more detail within the Environmental Statement. However, they can be summarised as follows;

- Dam raising at Model Boating Pond (2.5m) and Mixed Bathing Pond (1m);
- New walls along dam crest to increase the height of the dams at Men's Bathing Pond (1m) and Highgate No.1 Pond (1.25m);
- A 190mm kerb along part of the crest at Hampstead No.2 Pond;
- A new flood storage dam (5.6m) in the catchpit area;
- Grass-lined spillways at most ponds;
- Dam crest restoration;
- Pond enlargement at Model Boating Pond;
- A replacement changing room building at Ladies Bathing Pond and associated landscaping;
- Habitat creation and de-silting;

1.4 Scope of Works

This report presents Arboricultural information captured between June 2013 and June 2104. The surveys were conducted by a team of professional and experienced Arboriculturists. The team comprised the following technical specialists:

- Arboricultural Team Leader Tom Dale BSc (Hons) M.Arbor.A;
- Arboricultural Technical Reviewer – Oliver Booth MSc M.Arbor.A;
- Arboriculturist – Hugh Coggles. HND Arboriculture. M.Arbor.A;
- Arboriculturist – Jason Mills AA Tech Cert
- Lee Smith. ABC Level 4 Certificate in Arboriculture.

2 Methodology

2.1 General

This Arboricultural Impact Assessment has been undertaken in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. The standard gives recommendations and guidance on the relationship between trees and design, demolition and construction process, setting out the principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures.

2.2 Spatial Scope and Terminology

The tree survey works commenced on site on 17th June 2013 and given the iterative design process, to the benefit of retaining trees where possible, continued intermittently until June 2014.

The spatial scope of the tree survey was informed using the preliminary design proposals for the associated ponds produced by Haycocks Ltd. This spatial scope increased in places as the Atkins engineers developed their designs in order to ensure all trees within close proximity of any proposed construction operations were considered and recorded. The term 'close proximity' relates to the distance judged by the Arboriculturists, based on the size of the tree, where a tree is considered to be at risk of harm from the proposals if they were to commence. The reference to harm includes direct tree root or crown damage or indirect damage from construction plant undertaking the engineering works.

2.3 Data Gathering

Data was collected by qualified and experienced Arboriculturists in accordance with BS 5837:2012, as outlined in Appendix A of this report. The purpose of the tree categorisation method applied by the Arboriculturist, being to identity the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained if development is to occur.

For a tree to qualify under any given category, it should fall within the scope of that category's definition as defined in figure A2 in Appendix A (category's U, A, B, C) and, for trees in categories A to C, it should qualify under one or more of the three subcategories (1, 2, 3). Subcategories 1, 2 and 3 are intended to reflect arboricultural and landscape qualities, and cultural values, respectively.

Trees were recorded as individual specimens and as groups. Where trees were recorded as groups measurements were taken from the largest tree within the group for the purposes of establishing data for the tree survey drawings. This level of survey meets the requirements of BS 5837:2012, which states that *'trees growing as groups or woodland should be identified and assessed as such'*. The BS defines the term group as *'trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally including for biodiversity (e.g. parkland or wood pasture)'.* Where distinct groups fell within larger woodland areas these were differentiated from the wider woodland area and recorded as separate groups.

Crown spreads of the surveyed trees were given as an average measurement or to the relevant cardinal points with regards to the proposals. The average measurement was taken from the cardinal point relevant to the direction of the proposed works. This level of survey is deemed sufficient by the Arboriculturist in order to establish the extent of the crown spread in the direction of the proposals. All crown spread measurements should be taken from the tree survey schedules

The trees were assessed in line with the Visual Tree Assessment (VTA) method as developed by Mattheck and Breloer (1994). This method is based on the axiom of uniform stress, whereby a tree will grow in response to environmental stimuli to produce a structure that bears forces evenly across its surface. As such an internal defect, such as decay, would initiate a noticeable change in the stem's shape to accommodate the physical change.

2.4 Survey

The locations of the trees and the outline of groups were plotted by a land survey team from Plowman Craven. The land survey team recorded individual trees with stem diameters greater than 100mm or the outlines of groups showing overall extent of canopy where individual trees in a cohesive group were less than 150mm diameter at 1.5m above ground level. The trees were tagged with aluminium numbered discs or in some cases the existing tree tag reference number was recorded. The use of tree tags facilitates ease of reference on site and provides a distinct reference point for individual or groups of trees. The tree reference numbers lose their sequence based on the intermittent nature of the site work, a factor of the iterative nature of the design process.

2.5 Limitations to Survey

Trees were identified and inspected from ground level only and were not climbed. No invasive examination techniques (such as increment boring, or internal decay detection) were carried out and as such no assessment of the internal condition of the wood of these trees can be given. The tree survey undertaken is not intended to be a tree risk management survey targeting safety related issues. However, where specific hazards have been identified these have been recorded and management recommendations provided. It is to be noted that the City of London have a comprehensive strategy in place for the management of tree related risk to people and property. The recommendations made within this report should be incorporated into this strategy where deemed appropriate by the City of London's tree team.

Where access permitted a Forest Ace Laser Hypsometer was used to measure tree heights and crown spreads of the tree stock.

BS 5837: 2012 does not include arguments for or against development, or for the removal or retention of trees. Where development is to occur the standard provides guidance on how to decide which trees are appropriate for retention. It is to be noted that whilst the extent of the tree survey has been influenced by the engineering options, the Arboricultural information captured is based on impartial observations by professional Arboriculturists of the trees in their current form/condition independent of any proposed construction.

Validity, accuracy and findings of the tree locations will directly relate to the accuracy of the supplied topographical information at the time of the survey, specifically the locations of the plotted trees. This includes the outlines of tree groups where individual trees have not been recorded.

The report does not comment on possible effects of trees on neighbouring properties, including in relation to subsidence or heave, or with regard to possible hazards presented by trees surveyed. Neighbouring owners of trees that are identified as posing a possible risk to the property/site in question should seek their own advice as to possible effects of the recommendations given within this report.

Damage to, or possibility of damage to, any other structure that is not referred to within the report is not considered unless otherwise specified. This includes both neighbouring structures and any other structure on the property.

Trees are living organisms subject to changes outside man's control, the information captured for the trees relates to that particular moment in time and could be subject to change from factors such as harsh or unexpected weather events which result in tree crown's or other key structurally elements being damaged.

3 Existing Site Conditions

3.1 Existing Land Use

Hampstead Heath is large public amenity green space covering approximately 300 hectares of land in the north London. The heath is separated by Spaniards Road (B519) into the west Heath and the main body of the Heath. The ponds project is focused on the Hampstead and Highgate chain of ponds within the main body of the Heath.

The ponds being considered within the planning application are as follows within the Highgate and Hampstead chains:

Highgate chain:

- Stock Pond;
- Kenwood Ladies' Bathing Pond;
- Bird Sanctuary;
- Model Boating Pond;
- Men's Bathing Pond; and
- Highgate No. 1 Pond

Hampstead Chain

- Vale of Health Pond;
- Viaduct Pond;
- Catchpit area;
- Mixed Bathing Pond;
- Hampstead No.2 Pond; and
- Hampstead No.1 Pond.

In addition to the ponds, Hampstead Heath broadly comprises a mix of wooded areas and grass parkland intersperse by multiple formal and informal footpaths. Access throughout the heath is relatively unhindered, meaning people have ready access to the bases of the trees on site. This access imposes differing levels of liability to the CoL which imparts varying levels of duty of care to carryout inspections for tree risk management. With access relatively unhindered the sensitivity of the surrounding target areas can be considered as high meaning any proposals will have to be carefully considered when informing on tree removal or retention.

Hampstead Heath is bound entirely by built development with the majority being residential properties or school facilities surrounding the main body of the Heath. These properties are afforded varying degrees of views into the heath. However, they can often be obscured by the crowns of existing trees or in some cases adjoining buildings.

3.2 Existing Tree Stock

The trees on the Heath are growing as part of larger formal and informal groups and as individual specimen trees. The Heath supports a wide range of tree species with prevalence towards deciduous trees including English oak, London Plane, Willows species and Poplar species. The Heath is estimated to support a total tree population in excessive of 20,000 trees. The majority of which form part of secondary woodland stands that have successfully self-established. This fact does not lessen the landscape or arboricultural value of the self-sown tree stock; however, it can often result in structural forms that are not conducive to the locality the trees are growing within, e.g. tall drawn slender trees adjacent to footpaths or other formal access routes. Similarly, the successive establishment of hedgerow trees species such as Blackthorn can lead to habitats becoming smothered and to the detriment of important wildlife or indeed more significant tree stock. The CoL recognises the importance of their tree stock with comprehensive management programmes in place to manage them.

The trees around the ponds vary in species, age and form. The larger climax tree species such as London Plane and English Oaks provide distinct landscape features serving to softening views of the built infrastructure beyond the confines of the site and making them more visible to views in and around the heath. In some cases the trees even form part of key historic views that serves to increase their landscape

amenity value. The smaller tree stock comprises mainly hedgerow tree species, i.e. tree species that form integral elements of hedgerows that provide lower level screening value to views into and around the ponds.

The Heath is known to support a number of special trees which are those that can be classified as ancient, veteran, notable, and champion or heritage trees. As part of this survey a number of veteran trees were included within the survey, including specimens that can be classified as ancient veteran trees. Where these are in close proximity to the proposals the designers have sought to amend the designs to ensure their retention.

The veteran trees recorded include tree references 0060, 0061, 1154, 0263, 0170, 0158, 0159, 0160, 0140, 0245, 0282, 0214 & 0210. Veteran trees are those with habitat features such as wounds or decay. The trees listed above are also old for their species and can predominantly be classed within the ancient tree category, i.e. a tree that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species.

3.3 Site Topography

The Heath falls steeply away from Spaniards Road in a south easterly direction. It sustains two shallow valleys that run in the same direction with each valley containing a chain of ponds. The Highgate chain is within the north valley, whilst the Hampstead chain is in the southern.

3.4 Soil Assessment

No soil assessment was carried out on site by the Arboriculturist although baseline information can be found within the ES document.

3.5 Statutory Protection

The trees on the heath are not subject to any Tree Preservation Orders or set within a Conservation Area.

4 Summary of Tree Condition

4.1 Number of Trees Recorded

The survey captured 266no. individual trees, 78no. groups and 2no. woodlands on site as part of formal and informal groups.

4.2 General Condition Details

The survey sheets in Appendix B provide more detail on all the trees surveyed on site. In general the trees on site were showing signs of fair to good vitality with average bud formation and coverage for the tree species and locality. The trees varied in age structure with the majority being young trees.

The criteria for establishing tree BS Categories is detailed within the cascade chart in Appendix A of the report. This chart is taken from BS5837:2012. It is to be noted that this criteria is subjective in places and so the Arboriculturists are also relying on their experience to determine suitable BS Categories.

In general BS Category A trees are high quality trees with an estimated 40+ years useful remaining life expectancy. These trees are often dominant trees in groups or ancient veteran specimens that offer high landscape amenity value or are of significant arboricultural or cultural value.

In general BS Category B trees are those of moderate quality with an estimated 20+ year's useful remaining life expectancy. The trees are often downgraded due to remedial defects such as storm damage, over extended limbs, asymmetrical crowns or limited past management intervention.

In general BS Category C trees are of low quality due to their young age or due to poor condition with an estimated 10+ year's useful remaining life expectancy. Whilst by definition such trees are of low quality as defined by their BS Category ratings they still can still offer landscape amenity value as part of larger groups.

In general BS Category U trees are trees with serious structural defects or trees in poor physiological condition that reduces their remaining useful life expectancies below 10years. Where U trees have been recorded they may require remedial works to reduce the risk of harm to people or property that could be reasonably foreseen as coming into contact with the trees. These works should form part of the Heath's tree risk management operations.

The following sections provide information on the trees captured on site at each pond.

4.3 Hampstead Chain

Vale of Health Pond – illustrated on drawing number: 5117039-ATK-P11-ZZ-DR-Y-2000

- Trees 0279 and 0282 have been classified as BS Category A trees;
- Trees 0264, 0269, 0270, 0271, 0273, G45-0277, 0280 and 0281 have been recorded as BS Category B trees;
- Trees 0265, G43-0268, G44 0266, 0267, 0272, 0274 and 0278 have been recorded as BS Category C trees;
- Tree references 0275 and 0276 have been classified as BS Category U.

Viaduct Pond - illustrated on drawing number: 5117039-ATK-P7-ZZ-DR-Y-2000

- Trees 0245 has been classified as a BS Category A tree;
- Trees 0246, 0247, 0248, G41-0251 and 0252 have been recorded as BS Category B trees;
- Trees G40 0250, G42, 0253, 0247A and 0247C have been recorded as BS Category C tree;
- Tree reference 0249 and 0247B have been classified as BS Category U.

Catchpit Area - illustrated on drawing numbers: 5117039-ATK-P7-ZZ-DR-Y-2000; 5117039-ATK-P12-ZZ-DR-Y-2000; 5117039-ATK-P12-ZZ-DR-Y-2001

- Trees 0216, 0219, 0220, 0242 and 1134 have been classified as BS Category A trees;
- Trees G29B 0211, 0212, 0213, 0215, 0218, 0223, 0227, 0228, 0229, G31-0230, G32-0231, G33, 0232, G37 0237, 1053, G38 0239, 0238, 0240, 0241, 1131, 1132, 1133, G1050, and 1138 have been recorded as BS Category B trees;
- Trees 0210, 0214, 0217, G30 0222, 0224, 0225, 0226, W1, W2, 0233, G34 0234, G35 0235, G36 0236, G39 0244, 1128, 1129, 1135, G1046, 1051, 1053, 0210A and G33A have been recorded as BS Category C trees;
- Tree references 0221, G40 0243, G1127 and 1130 have been classified as BS Category U.

Mixed Bathing Pond - illustrated on drawing number: 5117039-ATK-P8-ZZ-DR-Y-2000

- None of the surveyed trees have been classified as a BS Category A.
- Trees G2 0208, 0183, 0184 and G21 0185 have been recorded as BS Category B trees;
- Trees G28 0207, 0209, G1136, 1137, 1138, 1139, 0182, 0203, G26 0204, 0206 and G27 0205 have been recorded as BS Category C trees;
- None of the surveyed trees have been classified as a BS Category U.

Hampstead No. 2 - illustrated on drawing number: 5117039-ATK-P9-ZZ-DR-Y-2000

- Trees G18B -0175-0176, 2135, 2136 and 0177 have been classified as BS Category A trees.
- Trees G18B, 2133 and 0181 have been recorded as BS Category B trees;
- Trees G2179, G19B 0178, G19C, 0179 and G20B have been recorded as BS Category C trees;
- Tree reference 0180 has been classified as BS Category U.

Hampstead No. 1 - illustrated on drawing number: 5117039-ATK-P10-ZZ-DR-Y-2000

- Trees G22 0186-0191 have been classified as BS Category A trees;
- Trees 0201 and 0360 have been classified as a BS Category B;
- Trees G22-0192, G22-0193, G23-0194-0195, 0197, 0198, 0199, G24, G25, 0359, 0361, 0362, None of the surveyed trees have been classified as a BS Category C;
- Tree 0196 has been classified as BS Category U.

4.4 Highgate Chain

Stock Pond - illustrated on drawing number: 5117039-ATK-P1-ZZ-DR-Y-2000

- Trees 0060, 0061 and 1154 have been classified as BS Category A trees.
- Trees 0029, 0031, 0032, 0034, 0037, 0039, 0040, 0041, 0046, 0048, 0050, G5-0059, 1151, 1153 and 1136 have been recorded as BS Category B trees
- Trees 0030, 0033, 0035, 0042, 0043, 0044, 0045, 0047, G1-0051, G2-0052, G3-0053, 0054, G4-0055, 0056, 0057, 0058, 1150 and 1152 have been recorded as BS Category C trees.
- Tree reference 0049 has been classified as BS Category U.

Kenwood Ladies' Bathing Pond - illustrated on drawing number: 5117039-ATK-P-ZZ-DR-Y-2000

- None of the surveyed trees have been classified as a BS Category A;
- Trees 0101, 0102, 0103, 0103A, 0105, 0107, 0109, 0110, 0112, G7-0110-0114, 1156, 1158, 1161, 1165, 1169, 1171 and 1173 have been recorded as BS Category B trees;
- Trees 0100, 0106, 0108, 0111, G1155, G1157, G1159, 1159B, 1160, 1162 and G1164-1163 have been recorded as BS Category C trees.
- Tree reference 0104 and 0115 have been classified as BS Category U.

Bird Sanctuary Pond - illustrated on drawing number: 5117039-ATK-P3-ZZ-DR-Y-2000

- Tree 0263 has been classified as a BS Category A tree.
- Trees 0016, 0062, 0069, 0070, 0071, 0074 and 0063A have been recorded as BS Category B trees.
- Trees 0117, 0063, 0064, 0065, 0067, 0072 and G0063B have been recorded as BS Category C trees.
- Tree references 0066, 0068 and 0073 have been classified as BS Category U.

Model Boating Pond - illustrated on drawing numbers: 5117039-ATK-P3-ZZ-DR-Y-2000; 5117039-ATK-P4-ZZ-DR-Y-2000; 5117039-ATK-P4-ZZ-DR-Y-2001; 5117039-ATK-P4-ZZ-DR-Y-20002

- Trees G17-0166, 0170 and 0254 have been classified as BS Category A trees.
- Trees 0075, 0077-0080, 0256, 0262, 0167, 0168, 0169, 0172, 0173, 0083, 0085, 0087, 0163, 0164 and 0338 have been recorded as BS Category B trees.
- Trees 0076, 0257, 0259, 0258, 0260, 0165, 0171, 0174, 0084, G18-0086 and 0088 have been recorded as BS Category C trees.
- Tree references 0081, 0082 and 0261 have been classified as BS Category U.

Men's Bathing Pond - illustrated on drawing number: 5117039-ATK-P4-ZZ-DR-Y-2002

- Trees 0119, 0344, 0345 & 0352 have been classified as a BS Category A tree.
- Trees G0091, 0089, 0090, 0092, 0093, 0095, 0096, 0097, 0099, 0118, 0120, 0339, 0340, 0341, 0342, 0343, 0123, 0127, 0128, 0129, 0130, 0131, 1137, 0353, 0354, 0355, 0356, 0357 & 0358 have been recorded as BS Category B trees.
- Trees 0094, 0098, G347, G8, G9, 0125, 0126, G1143, 1144, G1145, 1146, G1147, G1148, 1149, 0348, 0349, G350 & 0351 have been recorded as BS Category C trees.
- Tree references 0122 and 0346 have been classified as BS Category U.

Highgate Number 1 Pond - illustrated on drawing numbers: 5117039-ATK-P6-ZZ-DR-Y-2000; 5117039-ATK-P6-ZZ-DR-Y-2001

- Tree 0149 has been classified as a BS Category A tree.
- Trees 0138, G12, 0140, 0141, 0142, 0144, 0146, 0150, 0153, 0154, G13, G15, 1140, 1142, 0158, 0159, 0160, G14, G1121-1122, 1123, 1124 & 1126 have been recorded as BS Category B trees.
- Trees 0132, 0133, 0135, 0136, 0145, 0147, G16, 0152, 0157, G0156, G1120 & G1125 have been recorded as BS Category C trees.
- Tree references 0134, G10, G11, 0148, 1141 and 1119 have been classified as BS Category U.

Preliminary management recommendations have been recorded for certain of trees surveyed on site. These works have been identified as part of managing the risk of failure or damage to people or property within proximity of the particular tree. These works should form part of the tree risk management strategy for the heath and be undertaken independent of the proposals.

5 Arboricultural Impacts

5.1 General

This survey takes into account the tree stock deemed likely to be affected by the proposed scheme and identifies their condition and suitability for retention. The drawings illustrate the extents of the survey area, the Root Protection Area (RPA) for each tree or trees and the proposals.

The British Standard relies heavily on the creation of a protected zone referred to as the RPA around each tree. This is 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. This area should be protected from disturbance "in order to avoid unacceptable damage to the tree as a result of severance or asphyxiation of the root system." The recommended minimum area (m^2) for each tree to avoid potentially harmful disturbance has been calculated for all of the trees on site and entered into the tree schedule and is illustrated on the tree survey drawings.

The RPA(s) for each tree or group of trees is illustrated as a circle centred on the base of the stem. This circular area does not take into account pre-existing site conditions or other factors that can influence or modify the shape and disposition of tree roots. Accordingly, the Arboriculturist can make modifications or judgements on the likely extents of RPAs, where through professional judgement it is deemed likely that the root zones have been restricted in a certain direction because of limiting factors such as; topography, drainage or the presence of existing built infrastructure. This detail is relevant in relation to the third party trees on the northern boundary of the site. It is the judgement of the Arboriculturist that the RPAs of trees 008 & G3 will not extend as far as they are illustrated on the Tree Protection Plans (TPPs) given the existing site conditions including topography and the close spacing between the trees.

5.2 Proposed Development

The proposals are covered in detail within the ES and the planning drawings. It must be noted that at present the construction methodologies are still in the process of being developed. As such, the location of any specific mitigation measures to facilitate the proposals, including the location of protective barriers, ground protection and facilitation pruning, will be defined within an Arboricultural Method Statement (AMS) and there locations illustrated on updated TPPs, where required.

5.3 Arboricultural Impacts

The table below outlines the impacts of the proposals on the tree stock on site and where mitigation measures are likely to be required to facilitate the works.

Table 5.1 – Tree Stock and Works

Hampstead Chain – Vale of Health Pond
Drawing 5117039-ATK-P11-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P11	0264	English Oak	B1	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P11	0265	English Oak	C1	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P11	G43 0268	Hawthornx4, Silver Birchx2, False Acaciax2, Holly	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Trees to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	G44 0266, 0267	Crack Willow x3	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Trees to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0269	Sycamore	B1*	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0270	Turkey Oak	B1*	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0271	Sycamore	B1	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P11	0272	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0273	Turkey Oak	B1*	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0274	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Trees to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0275	Common Ash	U	N/A	N/A	X	X	Tree of limited long term potential given structural condition. Potential for removal on the grounds of sound arboricultural management. Any tree woks outside of the scope of the pond improvement works.
P11	0276	False Acacia	U	N/A	N/A	X	X	Tree of limited long term potential given structural condition. Potential for removal on the grounds of sound arboricultural management. Any tree woks outside of the scope of the pond improvement works.
P11	G45-0277	Silver Birchx3, False Acacia<5no., Sycamorex2, Hawthornx1, English Oak<5no., Crack Willow	B2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Trees to be retained. Requirements for tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P11	0278	Crack Willow	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground. No excavations of surrounding soft surfaces or subsoil beneath footpath within the tree's RPA. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0279	Coastal Redwood	A1	N/A	N/A	X	X	Existing drainage pipe to be retained. No excavations within tree constraints. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P11	0280	False Acacia	B2	X	N/A	N/A	N/A	Tree located within the footprint of the proposed spillway. No mitigation measures feasible to retain the tree. Tree to be felled.
P11	0282	Luscomb Oak	A1/ 2/3	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P11	0281	Silver Birch	B2, 3	N/A	N/A	X	X	Existing drainage pipe to be retained. No excavations within tree constraints. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.2 – Tree Stock and Works

Hampstead Chain – Viaduct Pond
Drawing 5117039-ATK-P7-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P7	0245 Veteran	English Oak	A1, 3	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	0246	English Oak	B2	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	0247	English Oak	B2	N/A	N/A	X	X	Proposed works on periphery of crown and RPA extents. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P7	0248	Turkey Oak	B1	N/A	N/A	X	X	Proposed works on periphery of crown and RPA extents. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P7	0249	Goat Willow	U	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	G40 0250	Silver Birchx3, Goat Willowx5	C2	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	G41-0251	English Oakx10	B2	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	G42 0253	Common Beechx2	C2	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	0252	English Oak	B2	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	0247A (no tag)	Alder	C1	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No impact.
P7	0247B (not tag)	Crack Willow	U	X	X	n/a	n/a	Tree located within footprint of proposed works. However, tree is of limited long term potential and poor structural form. Tree recommended for felling due to its poor structural condition, regardless of proposed development
P7	0247C (no tag)	Crack Willowx2, Sycamorex1, Goat Willowx1	C2	X	n/a	n/a	n/a	Trees located within footprint of spillway. No feasible mitigation measures to retain trees. 4x Cat C trees to be felled.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.3 – Tree Stock and Works

Hampstead Chain – Catchpit
Drawings 5117039-ATK-P7-ZZ-DR-Y-2000
5117039-ATK-P12-ZZ-DR-Y-2000
5117039-ATK-P11-ZZ-DR-Y-2001

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P12-2001	0210	Hybrid Black Poplar	C1, C3	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	G29B 0211, 0212, 0213,	English Oakx8, Silver Birchx3	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0214	Hybrid Black Poplar	C1, C3	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0215	Hornbeam	B1/ 2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0216	London Plane	A1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P12-2001	0217	English Oak	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0218	London Plane	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0219	English Oak	A1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	0220	English Oak	A1/2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0221	Crack Willow	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	G30 0222	Common Osier Willow x3	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0223	English Oak	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0224	English Oak	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P12-2001	0225	English Oak	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0226	English Oak	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0227	Turkey Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0228	English Oak	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0229	Silver Birch	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	G31-0230	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	G32-0231	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	G33 0232	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	W1	Mixed	C2	X	N/A	X	X	Part of W1 to be felled - Approx. 18 BS Cat C trees to be felled. Mix of Hawthorn, Sycamore & Silver Birch. Remaining trees to be retained.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								Requirements for tree protective barriers to be defined within AMS
P7	W2	Wet Woodland, Mixed Willow, Ash, Sycamore, Hawthorn	C2	X	N/A	X	X	Part of W2 to be felled - Approx. 11 BS Cat C trees to be felled. Mix of Hawthorn & Willow species. Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS
P12-2000	0233	Common Ash	C1	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P12-2001	G34-0234	Lime, Common Ash, Crack Willow, Sycamore, Hawthorn	C2	X	N/A	X	X	Part of G34 to be felled - Approx. 11 BS Cat C trees to be felled. Mix of Holly, Hawthorn, Common Ash Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS
P12-2001	G35 0235	Mixed Group, Crack Willow, Small leaved Lime, Holly, False Acacia, Hawthorn	C2	X	N/A	X	X	Part of G35 to be felled - Approx. 5 BS Cat C trees to be felled. Mix of Holly, Crack Willow, Hawthorn, Small Leaved Lime Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS
P12-2001	G36-0236	Crack Willow, Elm, Hawthorn	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	G37 0237, 1053	Mixed group. Hawthorn, Elder	B2	X	N/A	X	X	Part of G37 to be felled - Approx. 12 BS Cat B trees to be felled. Mix of Hawthorn & Elder. Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS
P12-2000	G38 0239	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P12-2000	0238	English Oak	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	0240	Common Ash	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	0241	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	0242	Norway Maple	A1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	G40-0243	Crack Willowx7	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	G39 0244	Elm, Common Ash	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	G1127	Crack Willow	U	X	N/A	X	X	Part of G1127 to be cleared to facilitate construction access. Approx. 10 BS Cat U trees. Trees to be coppiced and allowed to regenerate where feasible. Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS
P12-2000	1128	Crack Willow	C2	X	N/A	N/A	N/A	Over 50% RPA infringement from the proposed works and the tree is located within the footprint of the temporary access route. Tree to be coppiced. Any temporary access route surface to be laid over the top of

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								the stump to allow for regeneration on completion of the works. Located within the footprint of the proposals.
P12-2000	1129	Common Ash	C2	X	N/A	N/A	N/A	Over 50% RPA infringement from the proposed works. Tree to be coppiced if feasible and allowed to regenerate.
P12-2000	1130	Crack Willow	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1131	Common Ash	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1132	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1133	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1134	London Plane	A1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1135	Common Beech	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	G1046	Sycamore	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P12-2000	G1050	Common Ash x2	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1051	Hawthorn	C2	X	N/A	N/A	N/A	Over 50% RPA infringement from the proposed works. Tree to be coppiced if feasible and allowed to regenerate.
P12-2000	1053	Goat Willow	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2000	1138	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	0210A (no tag)	Sycamore	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P12-2001	G33A (no tag)	Goat Willowx3, White Willowx1, Limex2, Silver Birch x 1	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.4 – Tree Stock and Works

Hampstead Chain – Mixed Bathing Pond
Drawing 5117039-ATK-P8-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P8	G28 0207	Crack Willow	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	G29 0208	Group of English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	0209	London Plane	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	G1136	Hawthorn, Common Ash, Blackthorn	C2	X	N/A	X	X	Part of group to be felled - Approx. 5 BS Cat C trees to be felled. Hawthorn & Blackthorn trees. As the trees are located in the footprint of the bund. Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS.
P8	1137	English Oak	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	1138	White Poplar	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	1139	Crack Willow	C3	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P8	0182	Hybrid Black Poplar	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	0183	Hybrid Black Poplar	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	0184	Hybrid Black Poplar	B2	N/A	N/A	X	X	Tree constraints within area of proposed bank re-enforcement operations. Works to be undertaken by hand within the RPA of the tree only localised ground level correction using a no-fines granular fill or topsoil. Requirements for tree protective measures to be defined within AMS.
P8	G21-0185	Hawthorn	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	0203	Hybrid Black Poplar	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	G26 0204	Elm	C1/2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	0206	Crack Willow	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P8	G27 0205	Hawthorn, Elm and Hawthorn group.	C2	X	N/A	X	X	Part of group to be felled - Approx. 2 BS Cat C trees to be felled. Hawthorn trees. Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.5 – Tree Stock and Works

Hampstead Chain – Hampstead No. 2 Pond
Drawing 5117039-ATK-P9-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P9	G18B-0175-0176, 2135, 2136	London Plane	A2	X	N/A	X	X	Tree 0175 is located within the footprint of the proposed culvert. Tree to be felled. Remaining trees to be retained. Requirements for tree protective barriers to be defined within AMS.
P9	G18B (no tag)	London Plane	B2, A2 as part of group	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	0177	London Plane	A2	X	N/A	N/A	N/A	Tree located within the footprint of the proposed works. At present the tree has been shown for removal. However, trial pits are to be excavated by hand to try and establish the extent of the tree roots within the footprint of the proposals. An Arboriculturist will then assess the impact of the potential tree root severance to determine whether the tree could be retained through further specific mitigation measures and assessment. Details to be captured with an AMS document.
P9	2133	London Plane	B2, A2 as part of group	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								protective barriers to be defined within AMS.
P9	G2179 (no tag)	Hybrid Black Poplar	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	G19B-0178	White Willow, English Oak, Cherry, Osier	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	G19C (no tag)	English Oak, Hawthorn, Common Ash	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	0179	Sycamore	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	0180	Crack Willow	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	0181	Cherry	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	G20B(no tag)	Hawthorn, English Oak, Cherry	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P9	G18B-0175-0176, 2135, 2136	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
Key: **Group/ Tree number** – Tree referenced in the tree survey.								

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.6 – Tree Stock and Works

Hampstead Chain – Hampstead No.1 Pond
Drawing 5117039-ATK-P9-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P10	G22-0186	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G22-0187	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G22-0188	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G22-0189	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G22-0190	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G22-0191	London Plane	A2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P10	G22-0192	London Plane	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G22-0193	London Plane	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	G23 0194 0195	Common Ash	C2	N/A	N/A	X	X	Proposed works within RPAs, limited to minimal excavation a the installation of a pre-cast concrete slab. The trees are currently in fair to poor structural condition, with past broken limbs hung-up within the tree's canopy and old tear out wounds throughout the upper canopy of the trees. Trees to be crown reduced to facilitate the works and also on the grounds of safety given the increase in risk posed to people if workers are to be working underneath the canopy of these trees. Requirements for crown reductions and ground protection methods to be defined within AMS.
P10	0196	Common Ash	U3	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P10	0197	Cherry	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P10	0198	Hawthorn	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	0199	Hawthorn	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P10	G24 0202	Cherry, Hawthorn, Silver Birch, Common Ash	C2	X	N/A	X	X	Part of group to be felled - Approx. 1 BS Cat C Hawthorn to be felled to facilitate the proposals. Trees to be coppiced where feasible. Requirements for tree protective barriers to be defined within AMS.
P10	G25 0200	Hawthorn, Cherry and Sycamore group.	C2	X	N/A	X	X	Part of group to be felled - Approx. 3 BS Cat C trees to be felled. Mix of Hawthorn and Cherry to facilitate the proposals. Trees to be coppiced where feasible. Requirements for tree protective barriers to be defined within AMS.
P10	0201	Sycamore	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	0359	Sycamore	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	0360	Elm	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	0361	Sycamore	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P10	0362	Hawthorn	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.7 – Tree Stock and Works

Highgate Chain – Stock Pond
Drawing 5117039-ATK-P9-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P1	0029	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0030	English Oak	C2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0031	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0032	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0033	Holly	C2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0034	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0035	English Oak	C2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0036	English Oak	n/a	N/A	N/A	N/A	N/A	Tree has failed near to ground level. The impacts of the proposals are not deemed relevant for the remaining stump.
P1	0037	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0038	English Oak	n/a	N/A	N/A	N/A	N/A	Tree has failed near to ground level. The impacts of the proposals are not deemed relevant for the remaining stump.
P1	0039	Common Beech	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	0040	English Oak	B2	N/A	N/A	X	X	Approximately 20% of the tree's RPA will need to be infringed upon by the proposals. Tree to be retained, specific mitigation measures to be detailed within AMS to facilitate the works and the retention of the trees.
P1	0041	English Oak	B2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P1	0042	Alder	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0043	Alder	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0044	Alder	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0045	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0046	English Oak	B2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0047	Hawthorn	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0048	English Oak	B2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and the installation of a wooden close board bund. Tree to be retained.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								Requirements for tree protective barriers to be defined within AMS.
P1	0049	English Oak	U	N/A	N/A	X	X	Adjacent works limited to localised raising of ground levels for the installation of an earth bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	0050	English Oak	B2	N/A	N/A	X	X	Adjacent works limited to localised raising of ground levels for the installation of an earth bund. Tree to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	G1-0051	Hawthorn, Elm, Field Maple	C2	X	N/A	X	X	Part of G1 to be felled - Approx. 5 BS Cat C Hawthorns to be felled to facilitate the works. Trees to be coppiced where feasible. Requirements for tree protective barriers to be defined within AMS.
P1	G2-0052	Common Alder	C2	N/A	N/A	X	X	Adjacent works limited to localised raising of ground levels for the installation of an earth bund. Trees to be retained. Requirements for tree protective barriers to be defined within AMS.
P1	G3-0053	Hawthorn	C2	X	N/A	X	X	Part of G3 to be felled - Approx. 5 BS Cat C Hawthorn to be felled to facilitate the works. Trees to be coppiced where feasible. Requirements for tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P1	0054	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and terracing of the existing slope. Excavations limited to the top of the embankment outside of the tree's active root plate, limiting the potential for significant tree root loss. Tree to be retained. Requirements for tree protective measures and barriers to be defined within AMS.
P1	G4-0055	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and terracing of the existing slope. Excavations limited to the top of the embankment outside of the tree's active root plate, limiting the potential for significant tree root loss. Tree to be retained. Requirements for tree protective measures and barriers to be defined within AMS.
P1	0056	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and terracing of the existing slope. Excavations limited to the top of the embankment outside of the tree's active root plate, limiting the potential for significant tree root loss. Tree to be retained. Requirements for tree protective measures and barriers to be defined within AMS.
P1	0057	English Oak	C2	N/A	N/A	X	X	Adjacent works limited to existing disturbed ground and terracing of the existing slope. Excavations limited to the top of the embankment outside of the tree's active root plate, limiting the potential for significant tree root loss. Tree to be retained. Requirements for tree protective measures and barriers to be defined within AMS.
P1	0058	Hawthorn	C2	N/A	N/A	N/A	N/A	Tree to be retained as a coppice stool.
P1	G5-0059	Group- 2 x Hornbeam	C2	X	N/A	N/A	N/A	G5 to be felled - Approx. 2 BS Cat C Hornbeams to be felled to facilitate the construction of the spillway.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P1	0060 Veteran	English Oak	A2, 3	N/A	N/A	X	X	Tree constraints outside of the direct works footprint. Adjacent hard surface access road to be used as a temporary haul route. Given the existing compacted surface the potential for tree root damage is significantly reduced. However, temporary matting over the section covering the tree's RPA may be required depending on the plant size using the route. Requirements for tree protective measures and barriers to be defined within AMS.
P1	0061 Veteran	English Oak	A2, 3	N/A	N/A	X	X	Tree constraints outside of the direct works footprint. Adjacent hard surface access road to be used as a temporary haul route. Given the existing compacted surface the potential for tree root damage is significantly reduced. However, temporary matting over the section covering the tree's RPA may be required depending on the plant size using the route. Requirements for tree protective measures and barriers to be defined within AMS.
P1	1150	Crack Willow	C2	N/A	N/A	X	X	Adjacent works to be limited to the retention of the existing pipe work or its renovation. No new trench is to be excavated within the tree's RPA. Requirements for tree protective measures and barriers to be defined within AMS.
P1	1151	English Oak	B2	N/A	N/A	X	X	Adjacent works to be limited to 20% RPA infringement. The line of the new overflow pipes should be moved to the west to reduce the infringement into the RPA o f tree 1151. Requirements for tree protective measures and barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P1	1152	Crack Willow	C3	N/A	N/A	X	X	Adjacent works will require a 25% RPA infringement. Tree also recommended for pollarding on the grounds of its existing poor structural condition. As such the tree can be retained. However, consideration should be given to moving the line of the new overflow pipes should be moved to the west to reduce the infringement into the RPA o f tree 1152. Requirements for tree protective measures and barriers to be defined within AMS.
P1	1153	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.
P1	1154 Veteran	English Oak	A2, 3	N/A	N/A	X	X	Earthworks for the new spillway will encroach into approximately 10% of the tree's RPA Tree to be retained and protected. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P1	1136	English Oak	B2	X	N/A	N/A	N/A	Tree to be felled to facilitate the construction of the spillway.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.8 – Tree Stock and Works

Highgate Chain – Kenwood Ladies' Bathing Pond
Drawing 5117039-ATK-P2-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P2	0100	Hawthorn	C2	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P2	0101	Common Alder	B2	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P2	0102	Common Alder	B2	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P2	0103, 103A	Common Alder	B2	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P2	0104	Crack Willow	U	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P2	0105	English Oak	B2	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P2	0106	Silver Birch	C2	N/A	N/A	N/A	N/A	Tree outside of the proposals, no impact.
P2	0107	Wild Cherry	B2	N/A	N/A	X	X	Adjacent proposals limited to the raising of the pond crest on top of the existing hard surfaced footpath. No excavations beyond the existing sub-base material, thereby, protecting any underlying tree roots. Specific mitigation measures and the requirements for any tree protective barriers to be defined within AMS.
P2	0108	Downey Birch	C2	N/A	N/A	N/A	N/A	Tree outside of the proposals, no impact.
P2	0109	Sorbus *spp*.	B2	N/A	N/A	N/A	N/A	Tree outside of the proposals, no impact.
P2	0110	Silver Birch	B2	N/A	N/A	N/A	N/A	Tree outside of the proposals, no impact.
P2	0111	Hawthorn	C2	X	N/A	N/A	N/A	Tree located at the foot of the proposed bund. Tree to be coppiced.
P2	0112	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P2	G7-0113-0114	Common Ashx1, Silver Birchx2, Common Alderx2	B2	N/A	N/A	N/A	N/A	Trees outside of the proposals, no impact.
P2	0115	Crack Willow	U	N/A	N/A	N/A	N/A	Tree outside of the proposals, no impact.
P2	G1155	Crack Willow x5	C2	N/A	N/A	X	X	Localise ground raising within RPA of southern tree. Works predominantly being undertaken where the existing footpath is located and the tree is a pollard specimen, these factors limit the potential for any significant adverse impact on the tree's roots.. All trees to be retained. Requirements for any tree protective barriers to be defined within AMS.
P2	1156	Common Ash	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P2	G1157	Hawthorn	C2	X	N/A	X	X	Part of G1157 to be felled - Approx. 5 BS Cat C Hawthorns to be felled to facilitate access to the pond for construction plant. Trees to be coppiced and allowed to regenerate where feasible. Requirements for any tree protective barriers to be defined within AMS.
P2	1158	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P2	G1159	Holly x5	C2	X	N/A	X	X	G1159 to be felled - Approx. 2 BS Cat C Holly's to be felled. Tree's to be retained where feasible and coppiced where they fall outside of the direct works footprint. Details for any tree protective barriers and tree works to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P2	1159B	English Oak	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. However, tree located adjacent to proposed construction access point. Facilitation pruning required to provide sufficient crown height for plant access. Details for any tree protective barriers and tree works to be defined within AMS.
P2	1160	Silver Birch	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1161	English Oak	B2	N/A	N/A	X	X	Tree located to the west of the proposed crest of the spillway. The close proximity of tree 1165 and the confined/sheltered aspect of this corner of the pond means that the tree's RPA is unlikely to extend as far as illustrated on the TPP. Tree to be retained. Details for any tree protective barriers and tree works to be defined within AMS.
P2	1162	English Oak	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P2	G1164-1163	Silver Birchx7	C2	X	N/A	X	X	1XTree in group to be felled to facilitate access to the site. Remaining tree stock to be protected with barriers. Details to be defined within AMS.
P2	1165	English Oak	B2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1166	Sycamore	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1167	Alder	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1168	Hawthorn	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1169	English Oak	B2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P2	1170	Hawthorn	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1171	English Oak	B2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1172	Hawthorn	C2	X	N/A	N/A	N/A	Tree located within the footprint of the proposals. Tree to be felled.
P2	1173	silver Birch	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.9 – Tree Stock and Works

Highgate Chain – Bird Sanctuary Pond
Drawing 5117039-ATK-P3-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P3	0116	Holm Oak	B2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0117	Scots Pine	C2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0062	English Oak	B1	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0063	Hawthorn	C1	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								Existing pond fenceline sufficient to protect tree's RPA.
P3	0064	Wych Elm	C1	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0065	Crack Willow	C2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0066	Common Alder	U	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0067	White Willow	C1	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0068	Crack Willow	U	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Existing pond fenceline sufficient to protect tree's RPA.
P3	0069	Alder	B1	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Adjacent works limited to raising the levels of the existing hard surface access road.
P3	0070	Common Alder	B2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Adjacent works limited to raising the levels of the existing hard surface access road.
P3	0071	Alder	B2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Adjacent works limited to raising the levels of the existing hard surface access road.
P3	0072	Cherry	C2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Adjacent works limited to raising the levels of the existing hard surface access road.
P3	0073	Willow	U	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Adjacent works limited

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								to raising the levels of the existing hard surface access road.
P3	0074	Common Alder	B2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact. Adjacent works limited to raising the levels of the existing hard surface access road.
P3	0063A	Crack Willow	B2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact
P3	G0063B	Alderx20, Silver Birchx2, Goat willow x2	C2	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. Potential for localised scrub cutting back to facilitate access for the installation of the new outflow pipe. Existing gaps in vegetation to be utilised where feasible.
P3	0263 Veteran	English Oak	A1, 3	N/A	N/A	N/A	N/A	Tree constraints outside of the proposed works footprint. No impact

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.10 – Tree Stock and Works

Highgate Chain – Model Boating Pond
Drawing 5117039-ATK-P3-ZZ-DR-Y-2000;
5117039-ATK-P4-ZZ-DR-Y-2000;
5117039-ATK-P4-ZZ-DR-Y-2001;
5117039-ATK-P4-ZZ-DR-Y-2002.

Sheet no.	Group/Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P3	0075	English Oak	B1	N/A	N/A	X	X	Adjacent proposals limited to the existing hard surface access road. No excavation beyond the sub-base of the existing hard surface is being undertaken. Limited potential for tree root damage. Requirements for tree protective measures and barriers to be defined within AMS.

Sheet no.	Group/Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P3	0076	London Plane	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0077	London Plane	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0078	English Oak	B1	N/A	N/A	X	X	Adjacent pond re-alignment will impact upon approximately 5% of the tree's RPA. Tree to be retained. The potential to sever any structural roots or concentrations of fibrous roots is minimal. Works will require specific mitigation measures. Details to be defined within AMS.
P3	0079	Crack Willow	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0080	Crack Willow	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0081	Sycamore	U	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No direct impact.
P3	0082	Common Ash	U	N/A	N/A	N/A	N/A	Tree constraints outside of works footprint. No direct impact.
P3	0256	London Plane	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0257	Lombardy poplar	C1	N/A	N/A	X	X	New pipeline proposed through tree's RPA. Tree to be retained. Works will need to be undertaken by hand and under Arboricultural supervision to assess any tree roots revealed by the excavations and to .

Sheet no.	Group/Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								Requirements for tree protection measures and tree protective barriers to be defined within AMS.
P3	0259, 0258	Alder	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0260	White Willow	C1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0261	Failed tree	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P3	0262	Turkey Oak	B1, 3	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P4-2000	0165	English Oak	C2	X	N/A	N/A	N/A	Tree located within the footprint of the new pond area. Tree to be felled.
P4-2000	G17-0166	Lime, 1xFalse Acacia	A2, C1	N/A	N/A	X	X	Trees to be retained on a new island area. Island footprint calculated using the RPA's of the retained trees. Outline of the island will need to be defined prior to any excavation operations and excavations methods agreed with the Arboriculturist to prevent any impact to tree crowns from booms. Requirements for tree protection measures to be defined within AMS.
P4-2000	0167	Sycamore	B2	X	N/A	N/A	N/A	Tree located within the footprint of the new pond area. Tree to be felled.
P4-2000	0168	Weeping Willow	B2	X	N/A	N/A	N/A	Tree located within the footprint of the new bund. Tree to be felled to facilitate the proposals

Sheet no.	Group/Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2000	0169	Weeping Willow	B2	N/A	N/A	X	X	New access road to pass over RPA, access road to comprise a no dig construction to limit the potential for tree root damage. Tree may require pollarding as part of the works. Details to be defined within AMS for access road installation and any crown reduction works.
P4-2000	0170 Veteran	English Oak	A2, 3	N/A	N/A	X	X	New access road to pass over RPA, access road to comprise a no dig construction to limit the potential for tree root damage. Details to be defined within AMS for access road installation and any other specific protection measures.
P4-2000	0171	Hawthorn, English Oak	C2	N/A	N/A	X	X	Tree on the periphery of the bund construction. Tree to be retained. Protective barriers will be required to protect remaining RPA. Details to be defined within AMS.
P4-2000	0172	London Plane	B2	N/A	N/A	X	X	Tree to be retained on a new island area. Island footprint calculated using the RPA's of the retained trees. Outline of the island will need to be defined prior to any excavation operations and excavations methods agreed with the Arboriculturist to prevent any impact to tree crowns from booms. Requirements for tree protection measures to be defined within AMS.
P4-2000	0173	English Oak	B1	N/A	N/A	X	X	Tree to be retained on a new island area. Island footprint calculated using the RPA's of the retained trees. Outline of the island will need to be defined prior to any excavation operations and excavations methods agreed with the Arboriculturist to prevent any impact to tree crowns from booms. Requirements for tree protection measures to be defined within AMS.

Sheet no.	Group/Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2000	0174	Standard dead tree	C3	N/A	N/A	N/A	N/A	Standing dead tree. Good habitat value. Tree located on the north east corner of the island. Good residual strength, onset of cubicle brown rot limited. Potential to retain dead tree to be confirmed.
P4-2000	0254	Copper Beech	A1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS, depending on the works for the borrow pits to the north.
P4-2002	0083	Hornbeam	B1	N/A	N/A	X	X	Proposed earth bund within RPA, approximately <15%. No excavation within RPA. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting.
P4-2002	0084	Grey Poplar	C1	X	N/A	N/A	N/A	Tree located within the footprint of the proposed earthbund. No mitigation measures feasible to retain the tree. Tree to be felled.
P4-2002	0085	Hornbeam	B1 (dependent on further insection	N/A	N/A	X	X	Proposed earth bund within RPA, approximately <15%. No excavation within RPA. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting.
P4-2002	G18-0086	Hornbeamx3	C2	X	N/A	N/A	N/A	Trees located within the footprint of the new dam crest. Trees to be felled.
P4-2001	0087	London Plane	B1	N/A	N/A	X	X	Proposed earth bund within RPA, approximately <15%. No excavation within RPA. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting.
P4-2001	0088	Common Ash	C1	X	N/A	N/A	N/A	Tree located within the footprint of the proposed earthbund. No mitigation measures feasible to retain the tree. Tree to be felled.

Sheet no.	Group/Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2001	0163	Hybrid Black Poplar	B2	N/A	N/A	X	X	Proposed earth bund within RPA, approximately <20%. No excavation within RPA. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting.
P4-2001	0164	Weeping Willow	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P4-2001	0338	Sycamore	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.11 – Tree Stock and Works

Highgate Chain – Men's Bathing Pond
Drawing 5117039-ATK-P4-ZZ-DR-Y-2001;
5117039-ATK-P4-ZZ-DR-Y-2002;
5117039-ATK-P5-ZZ-DR-Y-2000

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2001	G0091	Sycamore, Common Ash	B2	N/A	N/A	N/A	X	Tree outside of works footprint. RPA protected to the north by existing hard surface footpath. No impact. Requirements for any facilitation pruning to be defined within AMS.
P4-2001	0089	Sycamore	B1	N/A	N/A	N/A	X	Tree outside of works footprint. RPA protected to the north by existing hard surface footpath. No impact. Requirements for any facilitation pruning to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2001	0090	English Oak	B1	N/A	N/A	N/A	X	Tree outside of works footprint. RPA protected to the north by existing hard surface footpath. No impact. Requirements for any facilitation pruning to be defined within AMS.
P4-2002	0092	Hornbeam	B2	N/A	N/A	N/A	X	Tree outside of works footprint. RPA protected to the north by existing hard surface footpath. No impact. Requirements for any facilitation pruning to be defined within AMS.
P4-2002	0093	Hornbeam	B1	N/A	N/A	N/A	X	Tree outside of works footprint. RPA protected to the north by existing hard surface footpath. No impact. Requirements for any facilitation pruning to be defined within AMS.
P4-2002	0094	Hornbeam	C2	N/A	N/A	N/A	N/A	Tree outside of works footprint, no impact.
P4-2002	0095	Hornbeam	B1	N/A	N/A	N/A	N/A	Tree outside of works footprint, no impact.
P4-2002	0096	English Oak	B1	N/A	N/A	X	X	Proposed ditch renovation to south of the tree. Works limited to renovating the existing ditch line, no substantial excavations to the north, thereby, reducing the potential for any tree root severance for tree 0096. Given the proximity of the works tree protective barriers maybe required. Requirements to be defined within an AMS.
P4-2002	0097	Hornbeam	B2	N/A	N/A	X	X	Proposed earth bund construction will result in minor RPA infringement. Works limited to ground level raising, no excavations, limiting the potential for tree root damage. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting.
P4-2002	0098	Hornbeam	C1	N/A	N/A	X	X	Proposed earth bund and spillway construction will result in RPA infringement. Works limited to ground level raising, no excavations, limiting the potential for tree root damage. Tree to be retained. Remaining RPA to be protected using fencing and ground protection

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								matting. Requirements to be defined within AMS.
P4-2002	0099	Hornbeam	B2	N/A	N/A	X	X	Proposed earth bund and spillway construction will result in RPA infringement. Works limited to ground level raising, no excavations, limiting the potential for tree root damage. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting. Requirements to be defined within AMS.
P4-2002	0118	Hornbeam	B2	N/A	N/A	X	X	Proposed earth bund and spillway construction will result in RPA infringement. Works limited to ground level raising, no excavations, limiting the potential for tree root damage. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting. Requirements to be defined within AMS.
P4-2002	0119	Hornbeam	A2	N/A	N/A	X	X	Proposed earth bund and spillway construction will result in RPA infringement. Works limited to ground level raising, no excavations, limiting the potential for tree root damage. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting. Requirements to be defined within AMS.
P4-2002	0120	Alder	B2	N/A	N/A	X	X	Proposed earth bund and spillway construction will result in RPA infringement. Works limited to ground level raising, no excavations, limiting the potential for tree root damage. Tree to be retained. Remaining RPA to be protected using fencing and ground protection matting. Requirements to be defined within AMS.
P4-2002	0339	Sycamore	B1	N/A	N/A	N/A	N/A	Tree outside of works footprint, no impact.
P4-2002	0340	Lime	B1	N/A	N/A	N/A	N/A	Tree outside of works footprint, no impact.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2002	0341	Common Ash	B1	N/A	N/A	X	X	Proposed ditch renovation to east of the tree. Works limited to renovating the existing ditch line, no substantial excavations, thereby, reducing the potential for any tree root severance for tree. Given the proximity of the works tree protective barriers maybe required. Requirements to be defined within an AMS.
P4-2002	0342	Common Ash	B1	N/A	N/A	X	X	Proposed ditch renovation to north of the tree. Works limited to renovating the existing ditch line, no substantial excavations, thereby, reducing the potential for any tree root severance for tree. Given the proximity of the works tree protective barriers maybe required. Requirements to be defined within an AMS.
P4-2002	0343	English Oak	B1	N/A	N/A	X	X	Proposed ditch renovation to south of the tree. Works limited to renovating the existing ditch line, no substantial excavations, thereby, reducing the potential for any tree root severance for tree. Given the proximity of the works tree protective barriers maybe required. Requirements to be defined within an AMS.
P4-2002	0344	London Plane	A1	N/A	N/A	X	X	No excavation within RPA. Adjacent proposals limited to grass re-enforcement matting installation. Installation method and requirements for any tree protective barriers to be defined within AMS.
P4-2002	0345	London Plane	A1	N/A	N/A	X	X	No excavation within RPA. Adjacent proposals limited to grass re-enforcement matting installation. Installation method and requirements for any tree protective barriers to be defined within AMS.
P4-2002	0346	Crack Willow	U	N/A	N/A	N/A	N/A	Tree outside of the direct footprint of the proposals. Tree in poor structural condition, crown management operations required for risk management.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P4-2002	G347	Common Ash, Elm, Hawthorn	C2	N/A	N/A	N/A	N/A	Tree group growing adjacent to ditchline being renovated. Localised cutting back of branches and scrub clearance to facilitate the works. Requirements for any pruning and protection measures to be defined within AMS.
P5	G8-0121	Blackthorn, Hawthorn	C2	N/A	N/A	X	X	Group outside of the works footprint. Given the proximity of the proposals the requirements for any pruning and protection measures to be defined within AMS
P5	0122	Black hybrid poplar	U	N/A	N/A	N/A	N/A	Tree outside of the works footprint. However, tree recommended for management operations given the current defects identified on the tree as part of tree risk management operations.
P5	0123	Elm	B1	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.
P5	G9-0124	Hybrid Black poplar, Hawthorn, Common Ash, Apple, Elm	C2	N/A	N/A	N/A	N/A	Trees outside of proposals no impact.
P5	0125	Hybrid Black Poplar	C2	N/A	N/A	N/A	N/A	Tree outside of the works footprint. However, tree recommended for management operations given the current defects identified on the tree as part of tree risk management operations.
P5	0126	Hawthorn	C2	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.
P5	0127	Hornbeam	B2	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.
P5	0128	Hornbeam	B2	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.
P5	0129	Hornbeam	B2	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.
P5	0130	Hornbeam	B2	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.
P5	0131	Lime	B2	N/A	N/A	N/A	N/A	Tree outside of proposals no impact.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P5	G1143	Ash, Hawthorn, Blackthorn, Cockspur thorn	C2	X	N/A	X	X	Part of G1143 to be felled - Approx. 5 BS Cat C trees to be felled, mix of Hawthorn, Blackthorn and Ash. Trees located within the footprint of the spillway construction. Remaining trees to be retained and protected. Requirements for tree protective barriers to be defined within AMS. Potential to retain further trees if the spillway is relocated to the east.
P5	1144	Common Ash	C2	N/A	N/A	X	X	Adjacent proposals limited to localised ground level raising for a bund. Tree to be retained. Limited impact, no excavations. Requirements for tree protective barriers to be defined within AMS.
P5	G1145	Hawthorn, Cherry, Blacthorn, Cockspur thorn	C2	X	N/A	X	X	Part of G1145 to be felled - Approx. 10 BS Cat C trees to be felled, mix of Hawthorn, Blackthorn and Cherry. Trees located within the footprint of the spillway construction. Remaining trees to be retained and protected. Requirements for tree protective barriers to be defined within AMS.
P5	1146	Crack Willow	C3	N/A	N/A	X	X	Tree to be retained as a pollarded specimen, thereby limiting root-to shoot ratio and the likely spread of the tree's RPA. Requirements for tree protective barriers to be defined within AMS. Potential for tree removal if a new spillway layout is adopted.
P5	G1147	Cherry, Blackthorn	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Potential for cutting back of crown to facilitate access for plant. Requirements for any facilitation pruning and tree protective barriers to be defined within AMS.
P5	G1148	Willow x5	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P5	1149	Crack Willow	C1	N/A	N/A	X	X	Proposed 'H' section timber retaining wall to be installed along the extents of the spillway and over the RPA of tree 1149. 'H' section supports to be installed by hand digging to place supports outside of any structural roots, i.e. those over 80mm. Tree to be retained. Tree protection measures to be defined within AMS.
P5	1137	English Oak	B1	N/A	N/A	N/A	N/A	Tree outside of the works. No impact
P5	0348	White Willow	C1	N/A	N/A	N/A	N/A	Tree outside of the works. No impact
P5	0349	White Willow	C1	N/A	N/A	N/A	N/A	Tree outside of the works. No impact
P5	G350	Weeping Willow	C2	N/A	N/A	N/A	N/A	Trees outside of the works. No impact
P5	0351	Hawthorn	C1	N/A	N/A	N/A	N/A	Tree outside of the works. No impact
P5	0352	Manna Ash	A1	N/A	N/A	N/A	N/A	Tree outside of the works. No impact
P5	0353	Hornbeam	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P5	0354	Hornbeam	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P5	0355	Hornbeam	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P5	0356	Lime	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P5	0357	Lime	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P5	0358	London Plane	B1	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

Table 5.12 – Tree Stock and Works

Highgate Chain – Highgate No. 1 Pond
Drawing 5117039-ATK-P6-ZZ-DR-Y-2000;
5117039-ATK-P6-ZZ-DR-Y-2001.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P6-2001	0132	Sycamore	C2	N/A	N/A	X	X	New 1.25m dam wall construction within RPA of tree. Tree to be retained. Construction methodology to be defined within AMS.
P6-2001	0133	Common Ash, Hawthorn	C2	N/A	N/A	X	X	New 1.25m dam wall construction within RPA of tree. Tree to be retained. Construction methodology to be defined within AMS.
P6-2001	0134	Common Ash	U	X	N/A	N/A	N/A	Tree located within footprint of new 1.25m dam wall. Tree to be felled and allowed to regenerate.
P6-2001	0135	Common Ash	C2	X	N/A	N/A	N/A	Tree located within footprint of new 1.25m dam wall. Tree to be felled and allowed to regenerate.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P6-2001	0136	Crack Willow	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	G10-0137	Crack Willow	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0138	Common Ash	B2	N/A	N/A	X	X	Dam crest rising to south of tree within its RPA. Works limited to ground level raising, no excavations. Tree to be retained. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	G12-0139	Hawthorn	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0140 Veteran	English Oak	B2	N/A	N/A	X	X	Earth bund and ground level correction to west of the tree within its RPA. Works limited to ground level rising, no excavations. Tree to be retained. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0141	Alder	B2	X	N/A	N/A	N/A	Tree located within footprint of the spillway. Tree to be felled
P6-2001	0142	Lime	B2	X	N/A	N/A	N/A	Tree located within footprint of the spillway. Tree to be felled
P6-2001	G11-0143	Hawthornx2, Elderx1	U	N/A	N/A	X	X	Tree group to be retained. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0144	Alder	B1	X	N/A	N/A	N/A	Tree located within footprint of the spillway. Tree to be felled

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P6-2001	0145	Common Ash	C1	N/A	N/A	X	X	Tree to be retained. Adjacent works limited to ground re-enforcement and localised excavations for 'H' section metal posts for dam wall structure. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0146	English Oak	B2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0147	Common Ash	C2	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0148	Common Ash	U	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0149	English Oak	A1	N/A	N/A	X	X	Tree to be retained. Adjacent works limited to ground re-enforcement. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	0150	Common Ash	B2	N/A	N/A	X	X	Tree to be retained. Adjacent works limited to ground re-enforcement. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	G16-0151	Hawthornx1, Ashx1, Elderx2	C2	X	N/A	N/A	N/A	Tree 0151 to be felled. Tree located in the footprint of the spillway
P6-2001	0152	Common Ash	C2	N/A	N/A	X	X	Tree to be retained. Adjacent works limited to ground re-enforcement. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
P6-2001	0153	Lime	B2	N/A	N/A	X	X	Tree to be retained. Adjacent works included ground re-enforcement and earth bund installation. No excavations. Tree will need to be pollarded to facilitate its retention. Tree located off the main face of the spillway, meaning it can be retained as a pollarded specimen. Requirements for tree protective barriers to be defined within AMS.
P6-2001	0154	Horse Chestnut	B2	N/A	N/A	X	X	Tree to be retained. Adjacent works included ground re-enforcement and earth bund installation. No excavations. Tree located off the main face of the spillway, meaning it can be retained. Requirements for tree protective barriers to be defined within AMS.
P6-2001	G13-0155, 0156	Common Ash, Sycamore, Yew, Elm, Hawthorn,	B2/3	N/A	N/A	X	X	Tree's at a sufficient distance from the proposals to enable their safe retention. Tree group to be protected with protective barriers throughout construction operations
P6-2001	0157	Common Ash	C2, 3	N/A	N/A	X	X	Tree constraints outside of works footprint. No direct impact. Requirements for any tree protective barriers to be defined within AMS.
P6-2001	G15-0162	Common Ash, English oak, Laurel, Cherry	B2/3	N/A	N/A	X	X	Trees to be retained. Adjacent works limited to ground re-enforcement and localised excavations for 'H' section metal posts for dam wall structure. The sheet piled wall is of sufficient distance from the base of the trees to enable the retention of the trees in G15. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2001	1140	Lime	B2	N/A	N/A	X	X	Tree to be retained. No excavations to be carried out within RPA. Requirements for tree protective barriers to be defined within AMS.
P6-	1141	Common Ash	U	N/A	N/A	X	X	Tree to be retained. No

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
2001								excavations to be carried out within RPA. Requirements for tree protective barriers or facilitation pruning to be defined within AMS.
P6-2001	1142	Horse Chestnut	B2	N/A	N/A	X	X	Tree to be retained. Adjacent works limited to localised ground raising, no excavations Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	0158 Veteran	English Oak	B2	N/A	N/A	X	X	Tree at a sufficient distance from the proposals to enable safe retention. Tree to be protected with protective barriers throughout construction operations
P6-2000	0159	Sycamore	B2	N/A	N/A	X	X	Tree at a sufficient distance from the proposals to enable safe retention. Tree to be protected with protective barriers throughout construction operations
P6-2000	0160 Veteran	English Oak	B2, 3	N/A	N/A	X	X	Tree at a sufficient distance from the proposals to enable safe retention. Tree to be protected with protective barriers throughout construction operations
P6-2000	G14-0161	Sycamore, Alder, Elm, Hawthorn	B2/ 3	N/A	N/A	X	X	Adjacent sheet piled wall to be located as directed on site by the Arboriculturist. No trees to be coppiced or felled on the upstream side of the dam. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	G0156	Sycamore, Elm, Yew	C2	X	N/A	X	X	Approximately 6no. Trees to be coppiced to facilitate the installation of the sheet piled wall. Remaining trees to be protected. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	1119	Sycamore	U	N/A	N/A	X	X	Tree to be retained. No excavations to be carried out within RPA. Requirements for tree works and protective barriers to be defined

Sheet no.	Group/ Tree No.	Species	Cat	Removal due to		Mitigation required for		Details of how proposed build layout affects trees and mitigation.
				Cons	Cond	Canopy	RPA	
								within AMS, given existing poor structural condition of the tree.
P6-2000	G1120	Sycamore	C2	X	N/A	X	X	Approximately 2no. Trees to be coppiced to facilitate the installation of the sheet pile wall. Remaining trees to be protected. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	G1121-1122	Sycamore	B2	N/A	N/A	X	X	Adjacent sheet piled wall to be located as directed on site by the Arboriculturist. No trees to be coppiced or felled on the upstream side of the dam. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	1123	Yew	B1	N/A	N/A	X	X	Adjacent sheet piled wall to be located as directed on site by the Arboriculturist. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	1124	Yew	B2	N/A	N/A	X	X	Adjacent sheet piled wall to be located as directed on site by the Arboriculturist. Requirements for any facilitation pruning or tree protective barriers to be defined within AMS.
P6-2000	G1125	Elmx3	C1	X	N/A	N/A	N/A	Approximately 3no. Trees to be coppiced to facilitate the installation of the sheet pile wall.
P6-2000	1126	Sycamore	B2	X	N/A	N/A	N/A	Tree to be coppiced given the RPA severance to install the sheet pile.

Key:

Group/ Tree number – Tree referenced in the tree survey.

Species – Common name for species.

Cat – BS5837:2012 Category rating.

Removal due to - Cons – Construction, Cond – Condition. An X or n/a (not applicable) dependant on appropriate action or impact

Mitigation required for - Canopy or for RPA (Root Protection Area). An X or n/a indicates appropriate actions as a result of the impacts on the tree(s).

The impacts of the proposals have been quantified as accurately as possible given the information available at this time. The Proposed Development will require the removal of trees through direct impact by trees being located within the proposed footprint of the works and through indirect impact where the tree roots

will be severed to such an extent that the tree's should be removed given concerns over the tree's remaining stability and health.

Trees will tolerate a degree of root zone infringement depending on the works proposed and if they require any excavations, similarly, other factors to consider are species tolerance and the remaining un-surfaced RPA that can be retained. The BS5837 makes reference to 20% as a general rule in determining the amount of RPA infringement that could be achievable.

The design process has taken into account the constraints imposed by the trees on site, ensuring sympathetic design solutions where feasible. This is the case for the downstream side of the spillway at Model Boating Pond and Mixed Bathing Pond where a grass re-enforcement solution is proposed to place on top of the existing soils, with only small localised level correction to be undertaken, and filled with either granular fill or soils. This will not reduce the available oxygen and nutrient content within the tree's Root Protection Area (RPA), meaning that the trees can be retained.

The bullet points below summarise the trees requiring full or part removal in the case of the groups as outlined in the impacts tables above:

- Vale of Health Pond - 1no. BS Category B tree (reference 0280);
- Viaduct Pond – 5no. BS Category C trees (references 0247A, G0247C) and 1no.BS Category U tree (reference 0247B);
- Catchpit area – 12no. BS Category B trees (reference G37); 49no. BS Category C trees (references W1, W2, 0233, G34, G35, 1128, 1129 & 1051); and 10no. BS Category U trees (reference G1127);
- Mixed Bathing Pond – 7no. BS Category C trees (references G1136 & G27);
- Hampstead No.2 Pond – 2no. BS Category A trees (references 0177 & G18B-0175);
- Hampstead No.1 Pond – 5no.BS Category C trees (references G24 & G25) and 1no.BS Category U;
- Stock Pond – 8no. BS Category B trees (references 0029, 0031, 0032, 0034, 0037, 0039, 1153, 1136); 15no. BS Category C trees (references 0030, 0033, 0035, G1, G3 & G5);
- Ladies' Bathing Pond – 3no.BS Category B trees (references 1165, 1169 & 1171); 15no.BS Category C trees (references 0111, G1157, G1159, 1160, G1164-1163, 1166, 1167, 1168, 1170 & 1172);
- Bird Sanctuary Pond – No tree removal;
- Model Boating Pond – 2no. BS Category B trees (references 0167 & 0168); 6no.BS Category C trees (references 0165, 0084, G18 & 088)
- Men's Bathing Pond – 15no.BS Category C trees (references G1143 & G1145)
- Highgate No.1 Pond – 4no.BS Category B trees (references 0141, 0142, 0144 & 1126); 12no.BS Category C trees (references 0135, G16, G0156, G1125), 1 Cat U tree

The trees to be felled are to be coppiced where feasible. This will allow for rapid multi-stem regeneration from the coppice stools which will establish at a quicker rate than newly planted stock. The regrowth along with any mitigation planting will try to offset the loss of trees as part of the scheme.

The Heath is constantly evolving through the establishment of successional growth, if left unchecked important habitats such as grassland features can be lost. The allowance of felled trees to re-establish, or for successional growth scrub species to colonise areas where trees are removed, could provide a better solution for the replacement of lost vegetation. This is because of the existing root systems or seed banks previously shaded out by completing vegetation being able to establish at a quicker rate than any newly planted stock. Mitigation planting is covered in detailed within the landscape and visual assessment section of the ES.

When assessing the tree loss it must be noted that 72% of the 174 trees to be lost are BS Category C trees. Whilst these trees still offer landscape value as part of groups or are of a size that makes them readily visible from surrounding views the fact remains that these trees are either of limited size or they are in such a condition that their useful remaining life expectancy is below 20 years. Therefore, any new planting or coppiced stools will provide a longer term option for tree coverage.

5.4 Preliminary Management Recommendations

The preliminary management recommendations made within the tree survey schedules are in response to tree risk management of the structural defects recorded on site in certain trees. The management recommendations should be reviewed by the CoL heath tree team to determine their inclusion within any tree risk management strategy the heath have in place.

5.5 Preliminary Mitigation Measures

Reference has been made within the impacts tables to the use of protective barriers where trees are being retained. The locations of these barriers are still to be determined as the construction methods for the proposals are still to be confirmed through consultation with the Contractor BAM Nuttall. Barriers will be required to create Construction Exclusion Zones (CEZ's) in order to protect the Root Protection Areas (RPA's) of trees affected by any proposed works.

The CEZ's will be defined as all the areas behind the fencing or any existing boundary fencing. Site operations not permitted in the CEZ without consultation with an Arboriculturist include storage of plant, equipment or materials, vehicular or plant access, washing down of vehicles or machinery, handling, discharge or spillage of any substances, including cement washings, actions likely to cause localised water-logging, no mechanical digging, scraping or excavation shall be permitted in the CEZ and no earthworks or changes in the finished ground levels other than those agreed by an Arboriculturist.

The location and requirements for protective barriers will be defined within a site specific Arboricultural Method Statement (AMS) and an updated set of Tree Protection Plans (TPPs). Any protective barriers will need to be installed prior to any construction works commencing. The barriers are to be erected to exclude construction activity in the RPAs of retained trees and are to conform to figure 3b of BS5837:2012 (page 21), a heras type fencing.

The requirements for facilitation pruning, i.e. the selective removal of branches to enable plant access, will be defined within the works schedule of an AMS. Trees requiring facilitation pruning will be discussed with the Contractor and limited where possible as deemed appropriate by the Arboriculturist.

Further mitigation measures that will be required include temporary ground protection matting, 'no dig' construction for new footpath access routes and hand excavations to limit the impact on underlying tree roots. The locations of any mitigation measures will be captured within an AMS and on updated TPPs.

6 Arboricultural Method Statement

6.1 Heads of Terms

A site specific Arboricultural Method Statement (AMS) shall be produced once consultation has been completed with the Contractor and other stakeholders. An AMS document is primarily a planning condition requirement, as often outline planning applications lack sufficient construction detail to facilitate the preparation of an AMS.

The AMS will address some or all of the following:

- Locations of tree protective barriers;
- Removal of existing structures and hard surfacing within tree Root Protection Areas (RPAs);
- Installation of temporary ground protection measures;
- Excavations within RPAs;
- Installation of new hard surfacing – materials, design constraints and implications for levels;
- Tree works schedule; and
- A schedule of specific events requiring input or arboricultural supervision.

Appendix A. Key & BS5837:2012 Survey Table

Tree No: Sequential reference number given to the tree or group of trees as shown on the tree survey drawings.

Species: This is the common name given to the tree. The botanical name is sometimes given.

Height (Ht): tree height from the base of the tree to its heights stem, measured in metres (m). Measurements are taken to the nearest half metre.

Stem diameter (mm): measured in accordance with figure A1 below. Measurements rounded to the nearest 10mm.

Branch spread (m): measurement of crown spread to the four cardinal points, if the crown is balanced a single measurement is given. Crown spread plotted on the tree survey drawings. Measurements are taken to the nearest half metre.

1st significant branch and direction of growth (m): measurement of the height of the first significant branch above ground level, given in metres and direction of growth e.g. 2.4-N

Canopy height (m): height of the canopy above ground level. Measurements are taken to the nearest half metre.

Life stage: The following abbreviations are used:

Y = Young trees <1/5 life expectancy.
SM = Semi-Mature trees 1/5 – 2/5 life expectancy.
EM = Early Mature trees 2/5 – 3/5 life expectancy.
M = Mature trees 3/5 – 4/5 life expectancy
OM= Over-Mature trees >4/5 life expectancy

General observations, particularly of structural and/or physiological condition: e.g. observations of the any decay and physical defect.

Preliminary management recommendations: any identified preliminary management to rectify defects recorded in general observations. These may include the need for further detailed inspection, or works to address immediate hazard to life or property.

Estimated remaining contribution, in years:

<10
10+
20+
40+

Category grading: As per BS5837:2012 chart in accordance with figure A2 below.

A – Illustrated as light green (RGB code 000-255-000)
B – Illustrated as Mid blue (RGB code 000-000-255)
C – Illustrated as Grey (RGB code 091-091-091)
U – Illustrated as Dark red (RGB code 127-000-000)

Root Protection Area (m^2): plotted around each of the category A, B and C trees on relevant drawings, and illustrates 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 paramount.

(Note: Red hash tag '#' will denote that a measurement is estimated)

Figure A1 – Measurement of tree stems dependant on tree form:

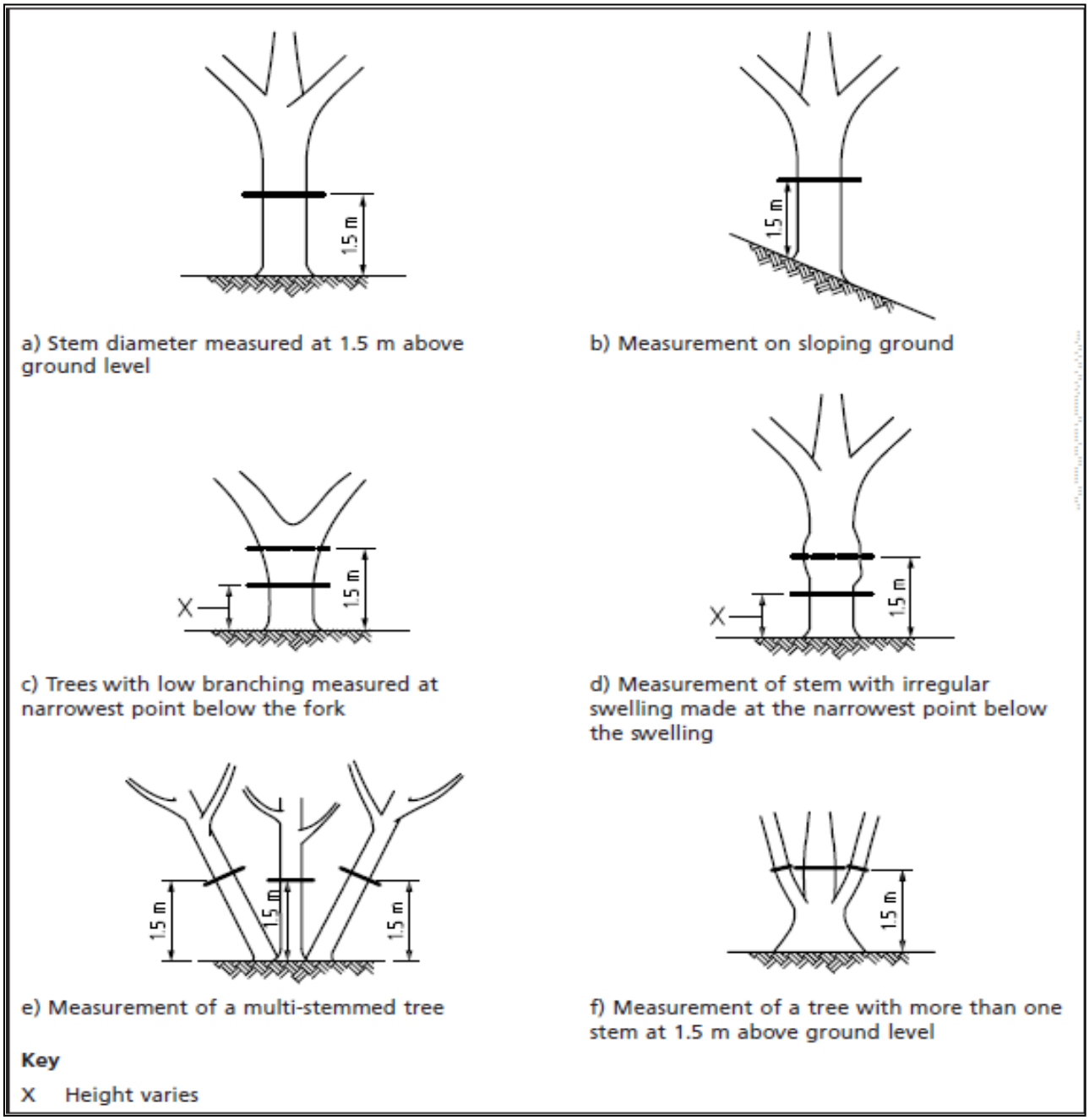

Figure A2 – Cascade chart for tree quality assessment from BS5837:2012

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U 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	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*		
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Trees to be considered for retention			
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present 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 material conservation or other cultural value
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

Appendix B. Tree Survey Schedules

Hampstead Chain –Vale of Health Pond

Drawing 5117039-ATK-P11-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P11	0264	English Oak	7	650	N=6.0 E=2.5 S=8.0 W=6.5	1.0-W	0	EM	Average vitality. Located on bank of pond. Dense crown. 5%deadwood in crown to 30mm diameter. Significant epicormic growth at base of scaffold limbs.	no works presently required	20+	B1	7.80
P11	0265	English Oak	8	1x250 2x220 1x150 1x90	N=7.0 E=2.0 S=6.0 W=6.0	0-N	0	SM	Average vitality. Multi stemmed from ground level. Partially occluded pruning wounds at ground level, not currently significant. Suppressed by neighbour to east, asymmetrical crown. <5% deadwood in crown.	no works presently required	20+	C1	4.20
P11	G43 0268	Hawthornx4, Silver Birchx2, False Acaciax2, Holly	To 8	To 300	To 3	n/a	GL	Y-EM	Group growing on pond edge. Self sown trees. Hawthorn x4-fair vitality, mutual crown suppression. Asymmetrical crowns from competition for light. 2xBirch. 2xFalse Acacia. Holly also establishing within group.	Coppice 2xHawthorn at northern extents of group given poor structural form.	10+	C2	3.60
P11	G44 0266, 0267	Crack Willow x3	6	500, 500	5.5	n/a	1	OM	Pollarded trees at 1.2-1.5m. 0266-Co dominant stems at base. Decay cavities throughout. Regeneration at pollarded boles.	Maintain on pollard cycle	10+	C2	8.52

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P11	0269	Sycamore	14	2x450	N=7.0 E=7.0 S=3.0 W=5.0	3.0-E	1	M	Average vitality. Dense ivy encroachment on main stems prevents basal inspection. Dense crown volume. Mutual crown suppression with Oak to south. <5% deadwood in crown. Dense ivy encroachment prevents clear view of branch attachments.	Sever ivy at base of tree and re-inspect when died back.	20+*	B1*	7.68
P11	0270	Turkey Oak	17	1100	N=5.0 E=7.9 S=7.5 W=7.1	0.5-S	1.8	M	Average vitality. Ivy encroachment of main stems from ground level to 15.0m above ground level. Ivy encroachment prevents clear view of base and branch attachments. Co-dominant stem union at 1.6m above ground level. Tight union with swelling at base. Thinning upper crown with secondary growth at top 2m.	Sever ivy at base of tree and re-inspect when died back.	20+*	B1*	13.20
P11	0271	Sycamore	16	700	mean 6.5	5.0-N	2	M	Average vitality. Co-dominant stems union at 3.0m above ground level. Tight union with fused bark for 300mm above union. Adequate crown condition with less than 5%deadwood in crown.	no works presently required	20+	B1	8.40
P11	0272	English Oak	8	300	5	2-S	2	Y	Growing on steep bank. Loss of apical dominance. Co-dominant stems at 2m. Extension growth on north & south scaffold limbs. Good vitality. Crown suppression	no works presently required	40+	C2	3.60

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P11	0273	Turkey Oak	16	1000	mean 8.0	3.0-E	3	M	Below average vitality. Thinning crown. Ivy encroachment of main stem. Ivy previously severed at base but now re-grown and dense, preventing basal inspection. Branch attachments appear adequate through dead ivy. 5% deadwood in crown to 100mm diameter.	sever and remove fresh ivy at base of main stem and re inspect.	20+*	B1*	12.00
P11	0274	English Oak	8	300	5	2-N	1.5	Y	Growing on steep bank. Loss of apical dominance at 5m. West crown extents reduced for footpath clearance. Fair to good vitality. Deadwood in crown from competition for light - <50mm. Footpath 4.5m west.	no works presently required	40+	C2	3.60
P11	0275	Common Ash	12	250@0.2	4	n/a	2	Y	Growing on steep bank. Co dominant stems at 250mm, merged leaders at 2m. Fair vitality. Poor structural form.	limited long term potential	<10	U	3.00
P11	0276	Robinia	14	1100	mean 4.5	1.5-W	3	OM	Below average vitality. Multi stemmed at ground level. Multiple historic stem failures at 6.0m above ground level. Remaining stems have been reduced to 14.0m above ground level. Tight stem unions. 5%deadwood in crown	Manage tree height on a cyclical basis to prevent stem failure onto footpath to north.	<10	U	13.20

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P11	G45-0277	Silver Birchx3, False Acacia<5no., Sycamorex2, Hawthornx1, English Oak<5no., Crack Willow	10	ave 500	ave mean 4.0	0	0	Y-OM	Mixed group including 3no. M-Silver Birch. 1no. OM-False Acacia. <5no. Y-Sycamore + 1-M. 1no. M-Hawthorn. 1no. Y-English Oak. <5no. Y-Crack Willow. Mostly average vitality and adequate condition except Robinia which is below average vitality and condition.	Continue to manage crowns back from footpath.	20+	B2	6.00
P11	0278	Crack Willow	6	750	E-3.5, 8	2-S	3	OM	Growing on waters edge. Crown break at 2m into 2xstems. Abrupt angle at union. Extension growth on stems leading to elongated cavities and saphroxlic fungal fruiting bodies. Stems prostrate habit End loading leading to horizontal splits	pollard	<10	C2	9.00
P11	0279	Coastal Redwood	20	1190	mean 5.6	2.5-E	1.5	M	Dominant tree within area. Average vitality. <5% needle chlorosis throughout crown. 5% deadwood in crown. Currently adequate structural condition.	Investigate needle chlorosis, lab test sample foliage to determine ailment.	20+	A1	14.28
P11	0280	False Acacia	18	620, 420	E&W-11, 6.5	4-E	4	M	Twin stem at base. West stem lean to west 30degrees. Co dominant stems at 1.8m. Extension growth on limbs. East stem - co dominant stems at 4m. Sheltered location	Good vitality. reduce western crown extents away from footpath	10+	B2	9.00

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P11	0282	Luscomb Oak	22	1100	W-17	4-W	2	M	Desire line to east and south. Crown break at 3m into 5xstems. Good vitality. Deadwood in crown from competition for light - <80mm. Deadwood overhanging footpath. Frayed branch wounds - bat roost potential.	Remove deadwood overhanging footpaths	40+	A1/2/3	13.20
P11	0281	Silver Birch	17	2x400 1x650	mean 8.0	2.5-S	4	M	Average vitality. Tri-stemmed at ground level. Unions are tight but resistant to probing. Fourth stem to south-west of tree has been historically coppiced. *piptoporus betulinus* fungal fruiting body attached to failed stem on north-east side of tree. Deep fissures on main stems to 7.0m above ground level, not currently significant. Minor ivy encroachment of main stems. Adequate crown condition with less than 5%deadwood in crown.	sever ivy at base of tree. monitor annually for appearance of fresh fungal fruiting bodies on main stems	10+	B2, 3	10.38

Hampstead Chain –Viaduct Pond

Drawing 5117039-ATK-P7-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P7	0245	English Oak	28	1630	18.0 to all points	4.0-N	4	M	Good vitality. Exposed buttressing all resonate solid. Crown break 3.0m above ground level. Multi-stemmed from 3.0m. Historically failed limb at 8.0m on north and south side. Minor decay at failure point not currently significant. <5%deadwood in crown to 50mm diameter, overhanging footpath. Good crown density and even crown structure. Bat potential within failure points.	remove deadwood in crown overhanging path	40+	A1, 3	19.57
P7	0246	English Oak	22	880	10.5, E-2.5	5-N	8	M	Good vitality. Informal footpath 1m west. Deadwood in crown <100mm. Crown suppression to east from adjacent tree. Asymmetrical crown. Deadwood in crown from competition for light	no works presently required	40+	B2	10.56
P7	0247	English Oak	17	610	8	4-W	2	SM	Good vitality. Crown break at 4.5m. Man-hole cover 5m west. No significant structural defects recorded	no works presently required	40+	B2	7.32

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P7	0248	Turkey Oak	14	540	7.9 to all points	4.0-N	3	EM	Fair vitality. Low lateral limb to south-east. Upper crown predominates to west due to light competition. <5% deadwood in crown.	no works presently required	20+	B1	6.48
P7	0249	Goat Willow	8	1x300, 1x280, 1x160	N=3.0 E=7.6 S=5.0 W= 2.0	3.0-E	1.8	SM	Average vitality, historic partial failure at base, main stem now leans 45° to east, corrected at 2.0m. Multi-stemmed at 0.5m with tight unions. Over-extended crown to east due to light competition.	coppice	<10	U	5.64
P7	G40 0250	Silver Birchx3, Goat Willowx5	16	To 300	To 3.5	n/a	4	Y-SM	Good vitality. Mutual crown suppression. Footpath 4m east. Leans-gradual, correcting at height. 8x trees. Goat Willow x5, 2 trees windblown.	Minor dieback in lower canopies from competition for light	10+	C2	3.60
P7	G41-0251	English Oakx10	17	ave 500	ave 6.0 to all points	2.0-E	2	Y-SM	10no English Oak. All average vitality, mutual crown suppression causing drawn crowns. Average 5%minor deadwood in crowns.	no works presently required	40+	B2	6.00

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P7	G42 0253	Common Beechx2	To 17	420	To 6	n/a	3	SM	Good vitality. 2xtrees. Partially occluded bark wounds in crowns, exposed desiccated wood. Bark wounds on buttress roots, partially occluded	Footpath within falling distance to east. Reaction wood around wounds no management at present	10+	C2	5.04
P7	0252	English Oak	17	550	6.7 to all points	6.0-N	3	EM	Average vitality. Located at top edge of slope. Minor bark wounds to main stem at 1.5m, partially occluded, not currently significant. Approximately 5% deadwood in crown including hangers over desire line. otherwise adequate condition	remove deadwood in crown overhanging footpath	40+	B2	6.60
P7	0247 A (no tag)	Alder	8	250	3.5	0.5-S	2.5	SM	Growing on edge of pond. Fair vitality.	no works presently required	20+	C1	3.00
P7	0247 B (not tag)	Crack Willow						Y	Basal decay extending up to .5m	Fell to ground level	<10	U	n/a
P7	0247 C (no tag)	Crack Willowx2, Sycamorex1, Goat Willowx1	To 8	To 150	To 3.5	n/a	GL	Y	Group of self sown trees. Fair vitality throughout.	no works presently required	10+	C2	1.80

Hampstead Chain – Catchpit

Drawings 5117039-ATK-P7-ZZ-DR-Y-2000; 5117039-ATK-P12-ZZ-DR-Y-2000; 5117039-ATK-P11-ZZ-DR-Y-2001

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2001	0210	Hybrid Black Poplar	23	1800	N= 14, E=12, S=13, W=11, W=6	2-N	1.2	OM	Massive main stem with pronounced buttressing. Narrow branch angles to major limbs to north-west and south. Bacterial fluxing from top of major limb to north-west at junction with main stem at 2.0m. Limb here is over-extended and has 10% major deadwood. Polyporus spp fungal fruiting bodies attached to large storm damage wound on west side at 6m, decay evident. 5% deadwood throughout remaining crown.	Reduce crown to north-west by up to 4m to reduce weight. Reduce remaining crown by up to 3m to reduce over-extended limbs and balance. Remove deadwood in crown overhanging paths.	10+	C1, C3	21.61
P12-2001	G29B 0211, 0212, 0213,	English Oakx8, Silver Birchx3	To 15	To 450	To 9.5-N	3-N	2	Y-EM	Multi-stem and single stems. Mutual crown suppression. Extension growth on north limbs towards clearing. Ivy encroachment in crowns and at bases. Loss of apical dominance in certain trees. Part of larger woodland to south	n/a	40+	B2	5.40

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2001	0214	Hybrid Black Poplar	34	1500+	to !3m	5-W	1	OM	Dense ivy encroaching main stem prevents full inspection. Crown breaks at 5m. Decay at storm damage wounds throughout crown. Weakly attached 10m long limbs with 200mm diameter. Fair vitality.	Remove ivy from gl to 2m and re-inspect.	10+	C1, C3	18.01
P12-2001	0215	Hornbeam	18	640	8.5	3.5-N	GL	M	Multi stem from 3.5m. Suggesting historic pollard. Good vitality. Dieback on lower laterals through competition for light. Ivy encroachment to 10m. Growing adjacent to clearing.	No works presently required	40+	B1/2	7.68
P12-2001	0216	London Plane	24	1140	13m all points	5-NW	3	M	Dense basal growth prevents full inspection. Crown breaks at 5m. 10% major deadwood in crown overhanging path.	Remove basal growth and re-inspect main stem. Remove deadwood in crown overhanging path.	40+	A1	13.68
P12-2001	0217	English Oak	9	4 x 280	to 5m	1.2m all	0.5m	SM	Old coppice stool. Dense ivy encroachment. 5% minor deadwood in crown	No works presently required	10+	C1	6.72

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2001	0218	London Plane	27	1150	to 11m	4-W	1.6	M	Dense ivy encroachment to 6m prevents full inspection. 5% minor deadwood in crown	Remove ivy from gl to 2m and re-inspect.	40+	B1	13.80
P12-2001	0219	English Oak	19	650 + 300	N=5, E=10, S=8, W=6	3-E	0.5	EM	Twin-stemmed. Good vitality	No works presently required	20+	A1	8.58
P12-2000	0220	English Oak	25+	800 600	11	7-NW	6.5	M	Twin stem at base. Good vitality. Minor deadwood in crown from competition for light. <100mm. Desire line 4m west. Ivy encroachment to 8m and on root collar. Prominent tree given size.	No works presently required	40+	A1/2	12.00
P12-2001	0221	Crack Willow	17	550 x 2	10m to all points	3.5- All	1.5	M	Multi-stem from ground level. 1 x stem previously failed at ground level. 2 x stems remain, stem to south with 1000mm x 300mm decay cavity at base. Remaining stems a unbalanced. Coppice close to ground level.	Coppice close to ground level.	<10	U	9.36

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2001	G30 0222	Common Osierx3	To 8	To 310	N-5.5	3-N	3	SM	3xtrees. Multi stem forms from 500mm. Fair physiological condition. Minor deadwood in crowns. Mutual crown suppression. Desire line 1m north. End loading on northern limbs towards desire line.	Coppice	10+	C2	3.72
P12-2001	0223	English Oak	20	710	N=9.5, E=15, S=7, W=8	3.5-E	1	M	Growing against metal fence. Large limb tear out at 5m, leaving 1500x500 wound. Bat roost potential. Over-extended limbs to east. Dense ivy encroachment to 15. 5% major deadwood in crown	Remove ivy at base and re-inspect. Reduce over-extended limbs to east by up to 3.0 metres to reduce end-weight and limbs away from path.	20+	B1	8.52
P12-2001	0224	English Oak	18	540	N=4.3 E=6.5 S=6.9 W=5.1	3.0-S	5	EM	Ivy encroachment on main stem to top of tree. crown breaks 5.0m above ground level. less than 5%minor deadwood in crown.	sever ivy at base of tree	20+	C1	6.48
P12-2001	0225	English Oak	5	400	9, N-0	4-SW	0.5	SM	Fair vitality. Loss of apical dominance. Crown biased to south, over extending towards desire line. Ivy encroachment to 4m. Deadwood and dieback in crown. Abrupt angles on limbs	No works presently required	10+	C2	4.80

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2001	0226	English Oak	18	1x310 1x400	N=1 E 5.0 S=9.4 W=2	4.0-S	2	EM	Twin stemmed at ground level, tight union, resistant to probing. Stems touch at 2.0m above ground level; both stems resonate solid at this height. Crown predominates heavily to south due to light competition. 10% deadwood in crown to 100mm diameter.	sever ivy at base of tree	20+	C1	6.12
P12-2001	0227	Turkey Oak	17	650	10, E-3	2-W	5	EM	Fair vitality, dieback and deadwood in crown from competition for light. Mutual crown suppression. Dominance to west. Ivy encroachment to 8m. Desire line 400mm east. Ivy hindering full inspection of crown	No works presently required	20+	B2	7.80
P12-2001	0228	English Oak	20	650	5.2 to all points	2.5-N	8	EM	Ivy encroachment of main stem to 17.0m above ground level. Crown break at 2.5m. no clear view of scaffold limb attachments due to ivy encroachment. Adequate shoot extension and foliage.	Sever ivy at base of trees, re-inspect when died back.	20+	B1	7.80

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P12-2001	0229	Silver Birch	17	380	6, E-3	8-E	0.5	EM	Good vitality. Crown dominant to west given competition for light. Exposed surface roots to 2m from root collar. Co dominant stems at 8m. Gradual lean to west	No works presently required	20+	B2	4.56
P12-2001	G31-0230	English Oak	20	ave 510	N=4.0, 6.2 to all other points	4.5-N	6	EM	4 significant trees. Ivy encroachment of main stems to 8.0m above ground level. Less than 5% deadwood in crown.	reduce dominant tree to 4.0m to prevent failure onto desire lines	20+	B2	6.12
P12-2001	G32-0231	English Oak	21	max 710	N=7 E=10 S=10 W=12	2.5-S	1.8	M	3no English Oak. 2 mature and one young. All in adequate physiological and structural condition. 5%minor deadwood in crowns.	no works presently required	30+	B2	8.52
P12-2001	G33 0232	English Oak	To 20	580 & 400	To E & S-10	3-SE	2	EM	Good vitality. Drawn forms and asymmetrical crowns. Group of Oaks. Mutual crown suppression. 0232-Twin stem at base. 80mm diameter deadwood over desire line to west. Prominent group	Remove deadwood over footpath	40+	B2	8.46

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2001	W1	Mixed	18	ave 350	to 5.0m	1.0	1	Y-EM	Predominately Oak, approx <15 no. <5no silver birch. <5 no sycamore. Understory of hawthorn with occasional elder and elm. Desire lines through group. Mutual suppression creating narrow, drawn canopies. Ivy encroachment on most trees. <5% deadwood.	no works presently required	40+	C2	4.20
P12-2000	W2	Wet Woodland, Mixed Willow, Ash, Sycamore, Hawthorn	To 15	Av 350	To 7	n/a	GL	Y-M	Fair vitality. Failed willows re-establishing. Self sown trees. Mutual crown suppression. No visible management. Desire line through area, not heavily used given overgrown vegetation	Internal location, not visible from surrounding views - no management intervention required for tree risk.	10+	C2	4.20
P12-2000	0233	Common Ash	19	450	6.0 to all points	6.0-S	6	EM	Ivy encroachment of main stem to 15.0m. Main stem leans 15° to south, corrected at 8.0m. Minor deadwood in crown overhanging path.	no works presently required	10+	C1	5.40

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P12-2001	G34-0234	Lime, Common Ash, Crack Willow, Sycamore, Hawthorn	8-15	ave 300	ave 4.0	2	1	Y-M	Mixed group within catch pit enclosure, west of catch pit. <5no Lime. <5no Common Ash. 1no Crack Willow. 1no sycamore. <5 Hawthorn. Ivy encroachment of main stems, otherwise adequate condition. No public access to area.	no works presently required	20+	C2	3.60
P12-2001	G35 0235	Mixed Group, Crack Willow, Small leaved Lime, Holy, False Acacia, Hawthorn	To 18	To 600	To 8	n/a	GL	Y-EM	Fair vitality. Tall drawn forms. 2xCrack Willows, tall drawn forms, Large branch wound on north tree from failed limb. Snowberry dominating understory. No public access. 1xLime, 1xFalse Acacia. Mutual crown suppression, leans	No public access therefore no works at present	20+	C2	7.20
P12-2001	G36-0236	Crack Willow, Elm, Hawthorn	20	ave 450	ave 5.0	1	1	Y-M	Mixed group to south of catch pit. 1no dominant Crack Willow with understory of <5no young Crack Willow, 2no Elm and multiple young Hawthorn. Dominant Crack Willow has 3 stems from below ground level. ivy encroachment of main stem	coppice dominant Crack Willow at 0.5m above ground level	10+	C2	5.40

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P12-2000	G37 0237, 1053	Mixed group. Hawthorn, Elder	To 8	To 300	To 6	n/a	GL	Y-EM	Group of self sown trees predominantly Willow. Hawthorn on west edge. Mutual crown suppression. Fair to Good vitality. No public access.	No works presently required	20+	B2	3.60
P12-2000	G38 0239	English Oak	To 17	To 450	To S-9	n/a	1	Y-SM	Group of English Oak - 6no. Mutual crown suppression. Ivy encroachment on main stems & in crowns. Contorted stems. Desire line through group. No management visible. Asymmetrical crowns. No significant structural defects	No works presently required	20+	B2	5.40
P12-2000	0238	English Oak	17	580	N=5.4 E=5.8 S=7.1 W=4.8	2.0-S	2	EM	Ivy encroachment of main stem. Mutual suppression of crown with neighbouring trees. 2no previously failed limbs to south, not currently significant. Adequate condition.	sever ivy at base of tree	20+	B1	6.96

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2000	0240	Common Ash	22	810	9.0m to all points	8.0-S	10	M	Ivy encroachment of main stem to 17.0m above ground level. 1no English Oak tree growing at base of ash to west. 100mm diameter hangers observed in crown but limited pedestrian access to area. Drawn out stems caused by mutual suppression. <5%minor deadwood	Sever ivy at base of tree and re inspect when died back.	10+	B1	9.72
P12-2000	0241	English Oak	16	680	S & E-12	1-E	1	EM	Part of woodland. Twin stem at base. Asymmetrical crown with dominance to south and east. Ivy encroachment. Good vitality.	No works presently required	40+	B2	8.16
P12-2000	0242	Norway Maple	17	960	9.0 to all points	3.0-s	1.8	M	Significant surface root exposure on west side of tree. Minor damage to exposed roots with no significant decay. Crown break at 3.0m above ground level. less than 5% deadwood in crown to 60mm diameter overhanging footpath.	remove deadwood in crown	20+	A1	11.52

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2000	G40-0243	Crack Willowx7	ave 14	ave 450	ave 4 to all points	10	6	EM	Group of 7no Crack Willow. 3no stems remain standing. 4no have previously failed at approximately 3.0m above ground level. standing trees have decay within main stems	Coppice all trees within group.	<10	U	5.40
P12-2000	G39 0244	Elm, Common Ash	To 16	To 350	To 7	n/a	0.5	Y-SM	Old Elm coppice stool. Multi stem re-establishment. Mutual crown suppression. Tall drawn forms and leans. Ash-asymmetrical crowns, significant leans towards footpath to east. Dieback at branch extremities of Elm, leaves browning	Coppice Ash. Consider Elm reduction	10+	C2	4.20
P12-2000	G112 7	Crack Willow	To 16					OM	Approx 7no. Over mature or failed Willows. Trees have failed either at base or in crowns. Frayed wounds throughout. Bat potential. Fair vitality. Poor structural condition.	Low target area access, no works required at present	<10	U	
P12-2000	1128	Crack Willow	15	430	3, 7, 5, 0	4	5	EM	Heavy lean to east. Ivy covered stem. declining vitality	No works presently required	10+	C2	5.16

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2000	1129	Common Ash	14	2*500	3, 1, 3, 7	2	2.5	EM	Twin stems from ground level. Heavy end loading on eastern stem. Potential weakness at base union. Good vitality	No works presently required	20+	C2	7.10
P12-2000	1130	Crack Willow	13	4*500	2, 7, 7, 4	n/a	0	M	Multi stem. Partially collapsed, two remaining upright stems showing decline in vitality. Further collapse likely	Coppice	<10	U	
P12-2000	1131	Common Ash	14	360	5, E-0.5	0.5-W	4	SM	Fair vitality. Asymmetrical crown, suppression to east. Basal stem. Ivy encroachment to 4m. No apparent significant structural defects recorded.	No works presently required	20+	B2	4.32
P12-2000	1132	English Oak	15	2x600	8	2	1	EM	Co dominant stems from base. Weak union at base. Fair vitality, minor-moderate deadwood.	Reduce canopy by 3m to reduce the potential for premature failure	40+	B2	8.50
P12-2000	1133	English Oak	10	600	6	1.5	1.5	EM	Squat tree. Good vitality. Minor deadwood. No apparent significant structural defects recorded.	No works presently required	40+	B2	7.20

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2000	1134	London Plane	24	1300	10	4-S	3	M	Large open canopy with good vitality. Ivy at base. No apparent significant structural defects recorded.	No works presently required	40+	A1	15.60
P12-2000	1135	Common Beech	12	610	11, E-1	2-W	1.5	EM	Fair vitality with small diameter deadwood in crown. Asymmetrical crown through suppression to east. Merged stems in crown. Cavity on main stem at 1m, 60mm diameter. Probed to 300mm. Hollow sound on main stem too 400mm up and below cavity. Heartwood decay	No works presently required	10+	C2	7.32
P12-2000	G1046	Sycamore	8	300	4	n/a	2.5	SM	Group of squat trees. Heavy ivy encroachment throughout crowns. Fair vitality on visible limbs. Habitat value	No works presently required	10+	C2	3.60
P12-2000	G1050	Common Ash x2	13	400	4	7-E	5	SM	Ivy encroachment on stems. Leans. Fair vitality throughout	No works presently required	20+	B2	4.80

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P12-2000	1051	Hawthorn	10	180, 190, 120	S-1.5, 7	3-N	3	M	Fair vitality, heavy ivy encroachment on main stem and crown. Hinders full inspection of structural condition. 3xstems from base. Lean to north.	No works presently required	20+	C2	2.90
P12-2000	1053	Goat Willow	8	130	2.5	2	2.5	Y	Good vitality. Co-dominant stems.	No works presently required	20+	C2	1.56
P12-2000	1138	English Oak	12	500	6	2.5N	1	SM	2no.Oak. Fair vitality. Ivy encroachment. Small tree suppressed. larger tree containing larger diameter deadwood throughout crown	No works presently required	40+	B2	4.20
P12-2001	0210 A (no tag)	Sycamore	17	500	6	4N	6	EM	Observations approximate. Ivy encroachment into majority of canopy. Fair vitality.	No works presently required	20+	C2	6.00
P12-2001	G33A (no tag)	Goat Willowx3, White Willowx1, Limex2, Silver Birch x 1	To13	To 400	To 5	n/a	1	SM	Good vitality. No apparent significant structural defects. Informal group of self sown trees,	No works presently required	40+	C2	4.80

Hampstead Chain – Mixed Bathing Pond

Drawing 5117039-ATK-P8-ZZ-DR-Y2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P8	G28 0207	Crack Willow	8	Av 250	To 8m-S	1.8-S	1.5	SM	Group of mutually suppressed self sown Willows. Windblown trees present. Deadwood and dieback in crowns, over extending limbs towards footpath to south-periodically reduced. Leans	Periodically reduce limbs over extending towards footpath	10+	C2	3.00
P8	G29 0208	Group of English Oak	24	Est = 1050	E=7, S=9, W=12	4- W&E	1.8	M	No access to inspect bases. Edge tree tagged 0208 and surveyed. Group extends to north along bank. Crowns break at between 3 and 6m, vigorous stems. Compacted soil to south due to footpath/track. Less than 5% minor deadwood in crown	No works presently required	40+	B2	12.60
P8	0209	London Plane	17	440	N= 0, E=4, S=10, W=6	4-All	1	SM	Crown predominates to south as a result of suppression by neighbouring Oak tree. Fair vitality.	No works presently required	20+	C1	5.28

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P8	G1136	Hawthorn, Common Ash	To 10	To 250	To 3	n/a	GL	Y-SM	Fair vitality throughout. Mutual crown suppression. Heavy ivy encroachment on 3xsemi-mature trees on water's edge. 30no. predominantly self sown saplings.	No works presently required	20+	C2	3.00
P8	1137	English Oak	8	300	5	3.5	3	SM	Squat tree, lost central leader. Good vitality. Ivy on stem to base of crown. No access, observations from fence	No works presently required	40+	C2	3.60
P8	1138	White Poplar	14	350	3.5, S-5	3.5-N	2	SM	Fair vitality. Growing on water's edge. Heavy ivy encroachment to 6m. Lean to south west. Base not inspected	No works presently required	10+	C2	4.20
P8	1139	Crack Willow	12	1300	4	2	2	M	Old pollard, significant re-growth with good vitality. Ivy present. No access , observation from fence	No works presently required	20+	C3	15.00

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P8	0182	Hybrid Black Poplar	24	100	12, 12, 11, 10	3.0-E	3	M	Average vitality. Minor damage to small exposed surface roots on all sides of tree. Co-dominant stems at 5.0m above ground level. Moderate secondary growth on scaffold limbs. Thinning crown at tips, crown is showing signs of retrenchment. 10% deadwood in crown to 100mm diameter.	Reduce crown by 3.0m to promote secondary growth and continue management at smaller crown dimensions.	10+	C2	1.20
P8	0183	Hybrid Black Poplar	16	520	N-7, E-8	3-W	5	SM	Growing 1m north of water's edge. Growing on lean to east. Ground compaction at base. Minor deadwood in crown <5%. Fair vitality. Exposed surface root activity to 2m	No works presently required	20+	B2	6.24
P8	0184	Hybrid Black Poplar	16	640	11, 11, 11, 9	3.0-S	2	EM	Average vitality. Located on bank of pond. Crown break at 2.5m above ground level. Moderate secondary growth on scaffold limbs. Slight dieback in tips on north side of tree. Over extended lower lateral on north side of tree. 5%deadwood in crown to 30mm d.	Reduce lower lateral on north side of tree by 3.0m to reduce end weight.	20+	B2	7.68

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P8	G21-0185	Hawthorn	4	To 250	To 3	n/a	1.5	EM	3xtrees. Good vitality. Compaction of soils base. Footpath to north. Multi stem forms from 500mm. Tight unions, crossing rubbing branches	No works presently required	20+	B2	3.00
P8	0203	Hybrid Black Poplar	24	1300	9m all points	6-All	1.5	M	Extensive decay within exposed roots on north side of stem. Decay at old storm wounds throughout crown, at 5m, 7m, 11m, 15m and 17m. Weak attachments of new growth from old wounds.	Climbing inspection to determine structural integrity of entire crown.	10+	C1	15.60
P8	G26 0204	Elm	To 15	290 x 2	To 6	n/a	1	EM	Mutual crown suppression. Good vitality, no evidence of Dutch Elm disease. Multi-stem forms. Old coppice stools. Mutual crown suppression. Heavy ivy encroachment. Growing on water's edge. Self sown trees	Sever ivy to prevent smothering of trees crown	10+	C1/2	4.92
P8	0206	Crack Willow	8	550	To 5	n/a	GL	EM	Windblown tree, laying prostrate. Crown showing signs of good vitality.	No works presently required	10+	C2	6.60

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P8	G27 0205	Hawthorn, Elm and Hawthorn group.	4 to 6	Ave = 200	Ave = 2m all points	GL	GL	Y-SM	Self-set scrub. 4 x Elm, 4 x Hawthorn with bramble holly and ivy understory. Hawthorn to south tagged 0205. 2 x leaning stems, not currently significant. Fair vitality	No works presently required	10+	C2	2.40

Hampstead Chain – Hampstead No.2

Drawing 5117039-ATK-P9-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P9	G18B - 0175-0176, 2135, 2136	London Plane	average 14	12x average 870	estimated 11, 5, 5, 11	3.0-N And S	2	EM	Group of 12no. London Plane trees located on bank. All of average vitality. Basal decay observed on 2 specimens at east end of group. Not currently significant. All crowns raised over footpath to north, partially occluded pruning wounds in crowns to north. Less than 5% deadwood in crowns to 50mm diameter.	No works presently required	20+	A2	10.44
P9	G18B (no tag)	London Plane	15	730	7, 7, 5, 2	2.5-S	6	EM	Part of an avenue. Suppression causing asymmetrical crown formation. Good vitality. No apparent significant structural defects.	No works presently required	20+	B2, A2 as part of group	8.76
P9	0177	London Plane	15	1100	E-9, S-8	5-N	3	M	Part of an avenue. Co-dominant stems at 3m. Desire lines surrounding tree, 3m north and south, to 1m east and west. Growing on slope west to east. Fair vitality - relatively sparse crown. Pruning wounds.	No works presently required	20+	A2	13.20

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P9	2133	London Plane	15	780	7, 11.5, 10, 3	3-E	1.8	M	Part of an avenue. Old pollard-crown breaks at 3m. East scaffold limb 45-degree angle, fibre buckling compression side of branch, potential weakness. Limb overhangs footpath to east. Asymmetrical crown.	Reduce end weight of eastern scaffold limb	20+	B2, A2 as part of group	9.36
P9	G2179(no tag)	Hybrid Black Poplar	To 10	To 220	To 3	n/a	GL	SM	Group of 5x trees growing on water's edge. Self sown specimens. Fair to good vitality	No works presently required	10+	C2	2.70
P9	G19B-0178	White Willow, English Oak, Cherry, Osier	To 13	To 450	To 4.5	n/a	1.5	Y-EM	Informal group. Growing on water's edge and on bank. English Oak - included bark junction at co-dominant union. Merged limbs in canopy. Cherry self sown, mutual crown suppression. Kinked stems and drawn forms. White Willow - east stems pollarded. West stems remain	0178 - Co-dominant stems at base. Over extension towards water-pollard to 4m remaining stems to prevent premature failure.	10+	C2	5.40
P9	G19C (no tag)	English Oak, Hawthorn, Common Ash	To 8	To 250	To 4	n/a	GL	Y-EM	Informal group. Growing on water's edge and on bank. Good vitality. Mutual crown suppression	no works presently required	10+	C2	5.40

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P9	0179	Sycamore	12	7x230	3, 4, 5, 5	2.0-S	NA	SM	Average vitality. Multi stemmed below ground level. Dense ivy encroachment on main stems to top of tree. crown predominates to south	sever and remove 1.0m section of ivy at base of stems	10+	C2	6.24
P9	0180	Crack Willow	10	2x350	1, 8, 9, 7	2.0-S	2	EM	Average vitality. Multi stemmed at ground level. Union proved 20mm. Stems lean 45 degrees from vertical to south. Potential for failure at base is moderate to high. 5% minor deadwood in crown.	Coppice all stems 1.0m above ground level.	<10	U	5.94
P9	0181	Cherry	13	460	4, 4, 6, 3	2.0-E	3	EM	Average vitality. Located on bank of pond 1. Crown break at 2.0m above ground level. Exposed surface roots to north and east, not significant. 5%deadwood in crown to 20mm diameter.	No works presently required	10+	B2	5.52

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P9	G20B (no tag)	Hawthorn, English Oak, Cherry	To 8	To 300	To 3.5	n/a	GL	Y-SM	Screening function. Growing on pond bank. 1xHawthorn, 1xCherry, 1xEnglish Oak. Fair vitality. Heavy ivy encroachment hindering inspection and Smothering crown. End loaded limbs, not significant given lack of surrounding targets	Sever ivy	10+	C2	3.60

Hampstead Chain – Hampstead No.1

Drawing 5117039-ATK-P10-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P10	G22-0186	London Plane	23	1260	5.5m all points	3.5-NW	3	M	Lapsed 5m pollard. Good vitality. Minor deadwood in crown	No works presently required	40+	A2	15.00
P10	G22-0187	London Plane	23	1150	to 7m	10-E	4.5	M	Lapsed 5m pollard. Decay evident at old wounds throughout crown, not currently significant. Good vitality. Minor deadwood in crown	No works presently required	40+	A2	13.80
P10	G22-0188	London Plane	23	975	to 8m	9-W	8	M	Cavity at wound to main stem at 3.5m on east side, not currently significant. Good vitality.	No works presently required	20+	A2	11.70
P10	G22-0189	London Plane	23	980	to 8m	6=W	8	M	Lapsed 5m pollard. Good vitality. Minor deadwood in crown	No works presently required	40+	A2	11.76
P10	G22-0190	London Plane	21	710	to 9m	3.5-W	1.8	EM	Dense ivy encroachment to 5m prevents full inspection. Decay at wounds throughout crown. Good vitality.	Sever ivy and carry out further inspection of base.	20+	A2	8.52

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P10	G22-0191	London Plane	18	870	to 9m	7-W	9	M	Dense ivy encroachment to 11m prevents full inspection. Decay at wounds throughout crown. Good vitality.	Sever ivy and carry out further inspection of base.	20+	A2	10.44
P10	G22-0192	London Plane	16	710	to 7m	5-W	8	EM	Dense ivy encroachment to 11m prevents full inspection. Sparse thinning crown. Decay at wounds throughout crown. Good vitality.	Sever ivy and carry out further inspection of base.	10+	C2	8.52
P10	G22-0193	London Plane	16	720	to 5m	6-N	6	EM	Hollow sound from base of main stem on east side when sounded with mallet. Previously severely reduced. Very sparse growth.	Carry out further inspection to determine extent of decay at base possibly using PICUS tomograph.	<10	C2	8.64

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P10	G23 0194 0195	Common Ash	24	0194-610* 0195-670*	To 9m N	0194-7-W, 0195-7-SE	7	M	Fair vitality. Mutual crown suppression. Tall drawn forms, crowns formed at height. 0195-torn out limb at base of tree from east side of crown. Further tear out wounds in crown at height. 0194-Co dominant stems at 6m. Union not visible. Heavy ivy encroachment on both trees hindering full inspection of branch attachments and crown condition. Extension growth to north. Old fungal fruiting body on north side of tree 0195 at 14m. Potentially Inonotus spp.	Sever ivy at base to facilitate further inspection.	10+	C2	8.04
P10	0196	Common Ash	10	N/a	0	n/a			Monlithed tree. Standing deadwood habitat. Heavy ivy encroachment to full extents.	Retain as standing deadwood habitat	<10	U3	0.00
P10	0197	Cherry	7	270	4.5, S-3	4-N	2	SM	Growing on pond crest. Self sown tree. Fair vitality. Lean to north.	No works presently required	10+	C2	3.24
P10	0198	Hawthorn	8	300 + 200	3m all points	2-All	1.2	EM	Dense ivy encroachment on main stem and crown to 6m. Fair vitality. Main stem 10 degree lean to north-east.	Sever ivy and carry out further inspection of base.	10+	C2	4.32

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P10	0199	Hawthorn	9	350 + 250	3.5m all points	3.5-E	1.2	EM	Dense ivy encroaching on main stem and crown to 6m. Fair vitality.	Sever ivy and carry out further inspection of base.	10+	C2	5.16
P10	G24 0202	Cherry, Hawthorn, Silver Birch, Common Ash	To 8	To 150	To 3	n/a	GL	Y-SM	Hawthorn on west extents of group. Self sown trees growing on water's edge. 2xBirch. 6xCherry. 2xAsh. Mutual crown suppression. Leans and drawn forms. Heavy ivy encroachment throughout	No works presently required	10+	C2	1.80
P10	G25 0200	Hawthorn, Cherry and Sycamore group.	6 to 9	Ave=200	Ave=2.5 m all points	GL	GL	Y	3xHawthorn, 2 x Cherry, 1 x Sycamore. Scrubby self-set trees with Elder and privet understory. Fair to good vitality. Tree 0200 partially windblown currently stable.	No works presently required	20+	C2	2.40
P10	0201	Sycamore	6 to 9	Est=700	7m all points	5-S	3	M	Dense basal growth prevents full inspection. Good form and vitality. 5% major deadwood in crown	Remove basal growth from gl to 2m and re-inspect. Remove deadwood in crown overhanging path.	20+	B2	8.40
P10	G359	Sycamore	15	3x 280	upto 5	na	2	SM	3no. stems. Ivy encroachment. Suppressed canopy. Fair vitality	None at present	20+	C2	4.8

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P10	360	Elm	12	320	7n	3n	1	SM	Good vitality, Sycamore growing into canopy. Ivy encroachment which has been severed	None at present	20+	B1	3.8
P10	361	Sycamore	8	400	5n	2.5e	1	EM	Ivy encroachment into canopy. Unable to make full assessment	None at present	20+	C1	4.8
P10	362	Hawthorn	6	200	2.5	na	1	SM	Ivy encroachment. Suppressed by adjacent tree. Fair vitality	None at present	40+	C1	2.4

Highgate Chain – Stock Pond

Drawing 5117039-ATK-P1-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0029	English Oak	18	500 + 680	S=8 N=9	3-S	0.5	SM	Twin stemmed at ground level, union buried. Minor basal decay. 10% major deadwood in crown. Vigorous secondary epicormic growth.	No works presently required	40+	B2	10.14
P1	0030	English Oak	7	370	0, 2.5, 9, 3.5	2.5-S	0.5-S	SM	Swelling to main stem, 1.0m above ground level on north side only. from 1.5m above ground level main stem leans 35 degrees to south, uncorrected. Crown predominates heavily to south. Adequate physiological condition.	Reduce lateral spread of crown to south by 1.5m to reduce leverage.	10+	C2	4.44
P1	0031	English Oak	18	780	S=10.6 N=5	3.2-S	3	SM	Bird box at 5m. Crown suppressed by neighbours. 5% major and minor deadwood overhanging path. Branching predominates to south.	No works presently required	20+	B2	9.36

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0032	English Oak	19	430	mean 3.0	3.5-N	4.5	SM	Single dominant main stem. epicormic growth on main stem from 3.0m above ground level to upper crown. Dense branch ends. 5% deadwood in crown to 50mm diameter.	No works presently required	20+	B2	5.16
P1	0033	Holly	5	130	S=3	0.5-E&W	0	Y	Fair form and vitality.	No works presently required	40+	C2	1.56
P1	0034	English Oak	18	440	S=9 N=0	3.5-S	3	EM	Main stem leans 15 degrees to south. Bird box at 5m. Crown suppressed by neighbours. 5% minor deadwood overhanging path. Branching predominates to south.	Remove deadwood overhanging path.	20+	B2	5.28
P1	0035	English Oak	16	320	4, 2, 0, 2	3.0-N	6	SM	Failure of scaffold limb 3.0m from main stem, 3.0m above ground level. Overhangs stock pond. Dense epicormic growth on main stem from 6.0m above ground level to upper crown. Crown predominates heavily to north due to light competition.	No works presently required	10+	C2	3.84

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0036	English Oak	n/a	n/a	n/a	n/a	n/a	n/a	Tree failed.	n/a	n/a	n/a	n/a
P1	0037	English Oak	19	1x400 1x440	4, 5.4, 8.2, 3	5.0-S	5	EM	Average vitality. Twin stemmed below ground level. Over-extended scaffold limbs 5.0m above ground level to south. 5% deadwood in crown to 100mm diameter, some overhangs footpath. Dense epicormic growth on main stems.	Remove deadwood in crown overhanging footpath.	20+	B2	7.08
P1	0038	English Oak	n/a	n/a	n/a	n/a	n/a	n/a	Tree failed.	n/a	n/a	n/a	n/a
P1	0039	Common Beech	18	480	N-7, E-6.5, S-8.5, W-2.5	4-S	4	EM	Good vitality. Tree 0038 growing immediately adjacent. Co-dominant stems at 3m. Included bark junction. Hung up failed limb in canopy to south over footpath. Mutual crown suppression. Extension growth to south given suppression.	Remove hung-up failed branch	20+	B2	5.76

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0040	English Oak	19	1x560 1x550	mean 8.0	2.0-S	3	M	Average vitality.co-dominant stems from 1.0m above ground level. Seam at union extends down to ground level but is resistant to probing. not currently significant. Moderate secondary epicormic growth on scaffold limbs, 5% deadwood in crown to 50mm diameter.	Remove deadwood in crown overhanging footpath.	20+	B2	9.42
P1	0041	English Oak	18	555	N=7 S=7	5-S	5.5	SM	5% major and minor deadwood in crown. Fair vitality.	No works presently required	40+	B2	6.66
P1	0042	Alder	11	240	N= 4 S=3	3-N	0.5	SM	Suppressed by neighbouring Oak. Less than 5% minor deadwood.	No works presently required	20+	C2	2.88
P1	0043	Alder	9	180	N= 45 S=35	2-N	0.5	SM	Suppressed by neighbouring Oak. Fair vitality. Less than 5% minor deadwood.	No works presently required	20+	C2	2.16

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0044	Alder	14	1x280 1x230	mean 3.5	3.5-S	4	EM	Average vitality. Co-dominant stems from 0.5m above ground level. 200mm wide rib of reaction wood at base of union, resistant to probe. Not currently significant. Less than 5%deadwood in crown.	No works presently required	20+	C2	4.32
P1	0045	English Oak	5	380	N=4 S=1	1.8-S	1.5	SM	Squat growth, possibly previously pollarded. Decay at branch unions currently insignificant.	No works presently required	40+	C2	4.56
P1	0046	English Oak	19	770	9, 8.5, 11, 11	3.0-W	3	M	Average vitality. Dense ivy encroachment of main stem from ground to 6.0 above ground level. Crown breaks at 6.0m, unions obscured by ivy. Moderate secondary growth on main scaffold limbs. 5%deadwood in crown to 50mm diameter, some overhangs footpath.	Sever and remove 1.0m section of ivy from base of tree. Remove deadwood in crown overhanging footpath.	20+	B2	9.24
P1	0047	Hawthorn	4	3x140	mean 2.0	0.5-S	NA	SM	Average vitality. Multiple stems from 0.5m above ground level. 5%deadwood in crown to 50mm diameter.	No works presently required	10+	C2	2.88

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0048	English Oak	5	220	5, 1, 0, 4	2.0N	1	SM	Dense ivy encroachment on main stem from ground to 4.0m above ground level. Main stem leans 45 degrees from vertical to north. Dense epicormic growth on scaffold limbs. 5% deadwood in crown to 20mm diameter.	No works presently required	10+	B2	2.64
P1	0049	English Oak	13	120	N=2 S=3	6-S	5	Y	Poor stem taper, drawn growth.	No works presently required	<10	U	1.44
P1	0050	English Oak	18	490	7m all points	8-S	5	SM	Ivy encroaching main stem to 15m. 5% minor deadwood in crown. Fair vitality.	No works presently required	40+	B2	5.88
P1	G1-0051	Hawthorn, Elm, Field Maple	To 12	To 250	To 2.5	n/a	GL	Y-SM	Fair vitality on Hawthorn given competition for light and heavy ivy encroachment. Elm poor vitality - Dutch Elm Disease, standing dead stems. Field Maple good vitality mutual crown suppression. Spoil piled at bases of northern trees in group from footpath works	Reduce Elms to 2m to manage risk of failure towards footpath to east. 0051-Hawthorn, deadwood in crown, heavy ivy encroachment, decay cavities on stems-reduce to 3m	10+	C2	3.00

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	G2-0052	Common Alder	To 18	To 320	To 6-W	n/a	1	SM-EM	Good vitality. Growing on water's edge. Mutual crown suppression, extension growth towards pond given space. Drawn forms. 4xtrees	No works presently required	10+	C2	3.84
P1	G3-0053	Hawthorn	To 10	To 190X3	To 4-N, 3	n/a	2	SM-M	Fair to poor vitality. Growing directly in footpath surface. Compaction at base-leading to decline in vitality. Deadwood and dieback in canopies.	Reduce to 3m	10+	C2	3.96
P1	0054	English Oak	20	560	7m all points	4.5-W	6	EM	Crown breaks at 5m. Decay cavity in -co-dominant union to south at 9m. Thinning crown.	No works presently required	10+	C2	6.72
P1	G4-0055	English Oak	To 16	To 250	To 6-N, 4	5-N	5	Y	Group of 4xtrees. Growing on embankment. Mutual crown suppression. Extension growth to north. Good vitality. leans and drawn forms	no works presently required	40+	C2	3.00

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0056	English Oak	18	590	7.6, 4.5, 7, 9	6.0-S	6	EM	Average vitality. Located on bank 2.0m below level of footpath to north. Crown breaks 6.0m above ground level. 5%deadwood in crown to 150mm diameter, some overhangs footpath. Moderate secondary growth on scaffold limbs. Partially occluded wound 6.0m above ground level on east scaffold limb, not structurally significant but could have bat roost potential.	Remove deadwood in crown overhanging footpath	20+	C2	7.08
P1	0057	English Oak	12	500	4, 6, 6, 8	3.0-W	2	EM	Below average vitality. Located on bank 2.5m below level of footpath to north. 10% deadwood in crown to 100mm diameter.	no works presently required	10+	C2	6.00
P1	0058	Hawthorn	3.5	100	2.5m all points	1.5-S	1.8	Y	Sparse crown.	No works presently required	10+	C2	1.20
P1	G5-0059	Group- 2 x Hornbeam	7	Ave=150	2.8 all points	1-NW	0	Y	Good vitality, good form.	No works presently required	40+	B2	1.80

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P1	0060	English Oak	14	1250	7m all points.	3.5-SE	3.5	Vet	Aerial exposed buttress roots on south side. Root to southwest sounds hollow when sounded with mallet. Decay within buttress to east. Old pollard tree. Storm damage throughout crown. High bat roost potential. 10% major deadwood in crown.	Carry out detailed inspection to establish extent of decay at base. Non-invasive picus test recommended.	20+	A2,3	15.00
P1	0061	English Oak	16	1210	7.5, 6.8, 8.5, 6.6	5.0-S	7	M	Average vitality for mature specimen, approaching over-mature. Located on edge of drainage ditch. Deep fissures caused by increased growth on east of main stem to 1.0m above ground level. Multiple partially occluded pruning wounds to 200mm diameter on scaffold limbs over footpath. Decay cavity with bat roost potential 8.0m above ground level on south side of crown. 5% deadwood in crown to 50mm diameter.	No works presently required	20+	A2,3	15.00
P1	1150	Crack Willow	23	1x720 1x600	6,6,10,5	4-W	7	M	Co dominant stems from base. Large failed limb at 4m. Elongated lower limb to south. Fair vitality	No works presently required	10+	C2	11.40

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P1	1151	English Oak	16	350	7.5, E-0	4-W	1	SM	Fair vitality. Tall drawn form. Heavy ivy encroachment to full crown extents. Lean to west. Asymmetrical crown.	No works presently required	20+	B2	4.20
P1	1152	Crack Willow	23	1000	7	2.5-W	4	M	Large hanging branches. Evidence of decay on stem and scaffold limbs. Ivy. Tear out wounds throughout crown.	Reduce 3m above co dominant stems	10	C3	12.00
P1	1153	English Oak	17	700	W-10, 4	2-SW	1.8	EM	Merged co-dominant leaders at 2.5m. Asymmetrical crown, dominance to west. Hung up failed tree in south crown extents.	Remove hung-up failed tree	40+	B2	8.40
P1	1154	English Oak	18	1400	10	3-W	1	M	Large open grown specimen. Wound with decay from base to 3.5m. Moderate deadwood throughout crown. Fair vitality.	No works presently required	40+	A2,3	16.81
P1	1136	English Oak	16	410	0,3,3,8	3-S	1	SM	Good vitality with small diameter deadwood. Asymmetrical crown. no apparent significant structural defects	None at present	40+	B2	4.92

Highgate Chain – Ladies' Bathing Pond

Drawing 5117039-ATK-P2-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P2	0100	Hawthorn	4	1x100 1x90	mean 1.5	1.8-N	2	Y	Twin stemmed below ground level. Minor ivy encroachment of main stems to 2.5m above ground level. Less than 5%deadwood in crown to 10mm diameter.	sever and remove 1.0m section of ivy at base of tree	10+	C2	1.68
P2	0101	Common Alder	11	1x300 1x260 1x200	mean 4	2.0-S	2.5	EM	Average vitality. Tri-stemmed at ground level. Located on bank of bathing pond, no access to fully inspect base. Less than 5%deadwood in crown to 20mm diameter.	no works presently required	20+	B2	5.28
P2	0102	Common Alder	10	290, 240	N-5.5, S-5.5, W-4	3-E	4	EM	Good vitality. Mutual crown suppression. Co dominant stems at 600mm, union not inspected. Minor ivy encroachment on south stem. Growing directly on pond edge, no access to base	no works presently required	20+	B2	4.50

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P2	0103, 103A	Common Alder	11	2x200	mean 3	4.0-S	3	EM	Average vitality. Located on bank of bathing pond, no access to fully inspect base of tree. Twin stemmed below ground level. Minor ivy encroachment on one stem to 8.0m above ground level. Less than 5% deadwood in crown to 10mm diameter.	sever and remove 1.0m section of ivy at base of tree	20+	B2	2.40
P2	0104	Crack Willow	11		N-5, W-8	2-NW	4	OM	Fair vitality. Hollow main stem. Two remaining stems. Pre-dominant to west over pathway. Approx 100mm width of sound wood.	Reduce remaining stems back to 500mm from main stem. Poor structural integrity liable to failure over footpath	<10	U	0.00
P2	0105	English Oak	11.5	370	mean 4.5	2.5-N	1.8	SM	Average vitality. Main stem leans 10 degrees from vertical to south, corrected at 6.0m above ground level. Less than 5% deadwood in crown to 20mm diameter.	no works presently required	40+	B2	4.44

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P2	0106	Silver Birch	14	250, 250, 150		2-SW	2	M	Fair vitality. 3xstems from base. West stems merged at 400mm to 1.5m. Lean to west given crown suppression. Heavy ivy encroachment. Minor deadwood in crown from competition for light. East stem leans towards adjacent woodland area.	Severe ivy at base to allow inspection of branch attachments in crown	10+	C2	4.62
P2	0107	Wild Cherry	8	280	3, 4, 4, 4	3.0-N	2	EM	Average vitality. Crown breaks 3.0m above ground level. 5%deadwood in crown to 10mm diameter. Exposed surface roots to east of tree at footpath. Minor damage from pedestrian activity. no decay observed and not currently significant.	no works presently required	20+	B2	3.36
P2	0108	Downey Birch	11	160	3.5	3-SE	4	SM	Fair vitality. Dieback on lower branches. No structural defects recorded at base	no works presently required	10+	C2	1.92

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P2	0109	Sorbus *spp*.	7	210	mean 3	2.0-N	1.5	SM	Average vitality. Partially occluded pruning wounds on main stem at 1.8m above ground level, not currently significant. Dense crown. Less than 5% deadwood in crown to 10mm diameter.	no works presently required	20+	B2	2.52
P2	0110	Silver Birch	16	310	4	5-N	3	M	Good vitality. Lower lateral limb to north failed 500mm from stem, hanging. Single. Minor kinks from suppression.	no works presently required	20+	B2	3.72
P2	0111	Hawthorn	5	3x150	2, 1, 1, 1.5	4.0-N	3	M	Below average vitality. Tri-stemmed 1.0m above ground level. Ivy prevents full inspection of main stems and unions. 10%deadwood in crown to 10mm diameter, predominantly at tips.	sever and remove 1.0m section of ivy at base of tree	10+	C2	3.12
P2	0112	English Oak	13	330	6, 5, 4, 6	2.5-W	2.5	SM	From 2.5m above ground level main stem leans 20 degrees to east. Corrected at 3.5m above ground level. Stem of failed silver birch hung up in crown, 2.5m above ground level. No public access to area, not significant.	no works presently required	40+	B2	3.96

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P2	G7-0113-0114	Common Ashx1, Silver Birchx2, Common Alderx2	To 13	To 250	To 4	n/a	GL	Y-SM	Group of 2xAlder, 1xAsh. 2xSilver Birch. Good vitality. Seasonal screening function. Mutual crown suppression. Bases not inspected.	no works presently required	20+	B2	3.00
P2	0115	Crack Willow	3	estimated 800	0,1,4,1	1.0-W	NA	M	Historically failed at base, regeneration over pond. No access to area to carry out full inspection.	no works presently required	<10	U	9.60
P2	G1155	Crack Willow x5	10	480	3	n/a	2	EM	Row of topped trees 3-5m. Some decay at old pruning cuts. Approximately 3m north of hardsurface access footpath. Good vitality	no works presently required	20+	C2	5.76
P2	1156	Common Ash	13	260	4,5,4,5	4	5	SM	Good vitality. Stable lean to north east. Good vitality. No apparent significant structural	no works presently required	40+	B2	3.12
P2	G1157	Hawthorn	To 8	To 250	To 3.5	n/a	1.8	Y-EM	10xtrees. Fair vitality throughout, mutual crown suppression. No apparent significant structural defects recorded	no works presently required	20+	C2	3.00

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P2	1158	English Oak	17	650	6	2-E	5	EM	Good vitality. Slight lean on main stem to south. Minor deadwood in crown. No apparent significant structural defects recorded	no works presently required	40+	B2	7.80
P2	G1159	Holly x5	8	170	1,1,2.5,1	n/a	1	SM	Good vitality. Mutual crown suppression. No apparent significant structural	no works presently required	20+	C2	2.04
P2	1159B	English Oak	12	450	6	2.5-S	2	SM	Old tear out wound at 2-3.5m. Not significant at present. Fair vitality throughout crown	no works presently required	20+	C2	5.40
P2	1160	Silver Birch	13	350	2, 2, 5,2	4.5	5	M	Wound at base with decay. Suppressed poorly formed canopy. Poor vitality	no works presently required	10	C2	4.20
P2	1161	English Oak	19	720	9,7,8,8	1.5	4	EM	Growing on edge of pond. Minor deadwood throughout. Good vitality. No apparent significant structural	no works presently required	40	B2	8.64

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P2	1162	English Oak	10	310	3.5	5-N	2	Y	Good vitality. Single leader. No apparent significant structural defects recorded	no works presently required	40+	C2	3.72
P2	G1164-1163	Silver Birchx7	To 17	To 380	To 4	n/a	4	SM-M	7xtrees. Fair vitality throughout, with minor deadwood in crowns. 1164-Elongated cavity on north side of stem from 3-7m. White rot present- woodpecker holes. Half of stem circumference. 1163-3xstems from base. West stem failed brown rot at wound. Remaining stems sound when struck with a mallet. Bark wounds recorded, not significant at present	Remaining trees no works presently required. 1164-Reduce height to 8m and leave as standing deadwood habitat -tree currently within falling height of footpath to north	10+	C2	4.56
P2	1165	English Oak	15	600	8,8,8,5	5	6	EM	Growing on bare earth bank. No significant structural defects Slightly suppressed to west. Good vitality.	no works presently required	40	B2	7.20
P2	1166	Sycamore	9	270	4	4	3	SM	Growing on edge of pond. beginning to display slight lack of vitality	no works presently required	20	C2	3.24

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P2	1167	Alder	9	1x260. 1x140	3,3.5,3, 3	2.5	3	SM	2 stems from ground level. Growing on edge of pond. Good vitality	no works presently required	20	C2	3.00
P2	1168	Hawthorn	8	310	5, E-2	1.2-S	2	EM	Fair vitality. Dieback & deadwood in crown through competition for light. Decay cavities on main stem and dead branch stub from ground level. Lean to east.	No works presently required	20+	C2	3.72
P2	1169	English Oak	17	670	E-5, 6.5	2-SE	2	EM	Good vitality. Loss of apical dominance at 6m-3xstems. Union not visible. Minor deadwood in crown. No apparent significant structural defects recorded. n	No works presently required	40+	B2	8.04
P2	1170	Hawthorn	8	320	2	5	5	Em	Ivy covered. Located between fence and steel container. Visible branches showing good vitality	Cut and strip ivy to 2m	20	C2	3.84
P2	1171	English Oak	9	230	3	3	3	y	Good vitality. Ivy to 7m. Adjacent chestnut paling.	cut and strip ivy to 2m	40	B2	2.76

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P2	1172	Hawthorn	8	240	4, E-2.5	3-W	1.8	EM	Fair vitality, minor deadwood in crown. Dieback on central leader through competition for light. Lean to west	no works presently required	20+	C2	2.88
P2	1173	silver Birch	10	390	5,5,3,5	3.5	4	em	Tree growing on earth bank with slight lean to south east. Bifurcates at 3.5m union is sound. good vitality	no works presently required	20	B2	4.68

Highgate Chain – Bird Sanctuary

Drawing 5117039-ATK-P3-ZZ-DR-Y-2000

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P3	0116	Holm Oak	23	830	10, 10, 8, 10	4.0-W	2	M	Average vitality. Leaf miner affecting approximately 20% of old leaf surface, new leaves currently unaffected. Tri-stemmed 2.0m above ground level, unions appear adequate. 5%deadwood in crown to 50mm diameter.	No works presently required	20+	B2	9.96
P3	0117	Scots Pine	18	380	E-5, W-0	7-E	7	M	Fair vitality. Dieback in upper canopy. Crown suppression to west from 0116. Western crown of 0116 coming into contact with 0117 at 7m. Not significant at present. Ivy encroachment at base to 1m. Drawn form through competition /or light.	No works presently required	10+	C2	4.56
P3	0062	English Oak	10	270	3m all points	2.5-E	2.5	Y	No access to base of tree. Crown beaks at 2.5m. Fair vigour. 5% minor deadwood in crown	No works presently required	20+	B1	3.24

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P3	0063	Hawthorn	6.5	1x170 1x100	mean 3.4	2.0-S	2	SM	Average vitality. Twin stemmed below ground level. Epicormic growth on main stems, 10%deadwood in crown to 30mm diameter.	No works presently required	10+	C1	2.40
P3	0064	Wych Elm	14	220	3m to all points	3-SE	1.5	Y	No access to base of tree. Fair vitality. Fair form.	No works presently required	10+	C1	2.64
P3	0065	Crack Willow	10	200	4, 0, 0, 6	7.0-N	6	Y	Inspected from footpath. Average vitality. Main stem leans 50 degrees from vertical to north-west due to light competition, overhangs pond. Not significant.	No works presently required	10+	C2	2.40
P3	0066	Common Alder	3.5	120	2.5m all points	2-NE	0	Y	No access to base of tree. Main leader previously snapped 0ut at 3.5m	No works presently required	<10	U	1.44

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P3	0067	White Willow	13	680	N=5 E=0 S=2 W=5	4-N	5	M	No access to base of tree. Large wound on north-west side at old limb tear out. Storm damage throughout crown. 5% major deadwood in crown.	No works presently required. Tree will require reduction if access to base allowed.	10+	C1	8.16
P3	0068	Crack Willow	2.5	estimated 900	3.5, 1, 0, 1	2.0-N	2	OM	Below average vitality, in decline. Pollard/monolith at 2.5m above ground level. Significant decay observed in main stem. Adequate condition at current dimensions. Silver birch, 5.0m tall, 50mm dbh growing at base of willow.	No works presently required	<10	U	10.80
P3	0069	Alder	12	5x estimated 250	5, 5, 5, 3	3.5-S	3.5	M	Inspected from footpath. Average vitality. 5no co dominant stems from ground level. Unions appear adequate. 5% deadwood in crown to 20mm diameter. Hawthorn growing at base of tree to south.	No works presently required	20+	B1	6.72
P3	0070	Common Alder	14	240	N=3.5 S=3.5	3-N	3	SM	No access to base of tree. Good vitality, good form.	No works presently required	40+	B2	2.88

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P3	0071	Alder	14	250	4, W-1.5	2-S	2	SM	Good vitality. Growing directly on water's edge. Suppression to west. Single leader. North side of tree not surveyed	no works presently required	40+	B2	3.00
P3	0072	Cherry	4	190	2, E-3	2-S	3	SM	Fair vitality. Hawthorn at base to west. Old branch wound at 1m north side main stem.	no works presently required	10+	C2	2.28
P3	0073	Willow	8	N/A	3m all points	N/A	0	EM	Dead tree	Fell	<10	U	0.00
P3	0074	Common Alder	8	6 x 150	4m all points	2-S	1.8	SM	No access to base of tree. Dense vegetation at base. Fair vitality, fair form.	No works presently required	20+	B2	4.44
P3	0063 A	Crack Willow	16	700	6	3W	3	EM	Good vitality. Small diameter deadwood. No apparent significant structural defects	None at present	20+	B2	8.40

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P3	G0063B	Alderx20, Silver Birchx2, Goat willow x2	To 16	To 350	To 4	n/a	GL	Y-SM	Self sown group, estimated numbers. Mutual crown suppression. Fair vitality. Tall drawn forms. No apparent significant structural defects recorded	no works presently required	20+	C2	4.20
P3	0263	English Oak	16	950	N=5.3 E=9.9 S=11.3 W=10.2	4.0-S	0	M	Average vitality. Adequate basal condition. Pruning and failed limbs to north have created asymmetrical crown. Minor decay observed at failure points, not currently significant. Minor dieback in tips to north of crown. 5%minor deadwood in crown.	no works presently required	40+	A1, 3	11.40

Highgate Chain – Model Boating Pond

Drawings: 5117039-ATK-P3-ZZ-DR-Y-2000; 5117039-ATK-P4-ZZ-DR-Y-2000; 5117039-ATK-P4-ZZ-DR-Y-2001; 5117039-ATK-P4-ZZ-DR-Y-2002.

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P3	0075	English Oak	11	505	N=4 E=6 S=9 W=3	4-S	1.9	EM	Crown breaks at 3.5m. Squat wide-spreading tree. 5% minor and major deadwood in crown	Remove deadwood overhanging path	40+	B1	6.06
P3	0076	London Plane	13	720	6.3, 5.6, 4.9, 6.0	2.5-W	1.8	SM	Average vitality. Located on edge of footpath, roots causing minor direct damage to north. Decay cavity 2.5m above ground level on north of main stem. Hollow sounds on south-east side of main stem, 2.5m above ground level. Main stem leans 25 degrees from vertical to east. Exposed roots and minor soil heave at base to south-west. Any movement appears to have settled. 5%deadwood in crown to 20mm diameter	Investigate cavity and residual wall 2.5m above ground level on main stem.	10+	C1	8.64

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P3	0077	London Plane	18	1130	N=10 E=10 S=10 W=7	4.5 E	1.5	M	Main stem leans 25 degrees toward east from gl to 5m, and then rights itself. Old pollard at 4.5m. Lower crown previously reduced. Cavities at 5m at base of co-dominant and at 12m in dominant leader. Minor storm damage throughout crown. Fair vitality	Reduce by up to 2m in height and spread. Remove deadwood	20+	B1	13.56
P3	0078	English Oak	12	720	4, 5, 8, 6	3.0-S	1.8	EM	Average vitality. 5%deadwood in crown to 50mm diameter, overhanging footpath. Adequate structural condition.	Remove deadwood in crown overhanging footpath.	20+	B1	8.64
P3	0079	Crack Willow	12	510	N-2, E-7, S-8, W-7.5,	2-W	1.5	SM	Good vitality. Footpaths north and south of tree. 30degree lean to west from 2m. Crown dominant to south and west. Pruning wounds in crown from lifting operations. Minor deadwood at base of tree.	no works presently required	20+	B1	6.12
P3	0080	Crack Willow	16	500+200 +200	8m all points	0 all	0	M	Dense vegetation at base prevents full inspection of main stem. Minor storm damage throughout crown	Clear vegetation at base and re-inspect main stem	20+	B1	6.89

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P3	0081	Sycamore	12	470	3	4-S	4	EM	Fair vitality. *Ganoderma spp* fungal bracket at base north west side of tree. Hollow sounding stem 300mm up and to sides Of bracket. Crown reduction undertaken. Dried flux south west side.	Tree will require removal or significant reduction within next 5years	<10	U	5.64
P3	0082	Common Ash	8	850	NA	NA	NA	OM	Dead ash, monolithed at 12.0m above ground level. 70% missing bark. Desiccated wood observed in areas of missing bark. Ganoderma spp brackets at base on north side of stem. daldinia concentrica fruiting bodies from ground level to top of remaining stem.	monitor annually for progress of decay	<10	U	10.20
P3	0256	London Plane	13	740	N=3.8 E=3.4 S=7.7 W=6.3	3.0-S	0.5	EM	Average vitality. Crown predominates to south, caused by suppression from poplar tree to north.<5% minor deadwood in crown. Adequate condition.	no works presently required	40+	B1	8.88

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P3	0257	Lombardy poplar	19	750	mean 3.0	4.0-E	4	M	Average vitality. Young English Oak tree growing at base of main stem to north, touching stem. Multiple tight branch unions in crown, common for species. <5% minor deadwood in crown.	no works presently required	10+	C1	9.00
P3	0259, 0258	Alder	9	380	mean 3.5	2.0-S	1	SM	Average vitality. Located on edge of footpath. Minor decay at previously failed limb 4.0m above ground level on north side of tree. 5%minor deadwood in crown overhanging footpath.	remove deadwood in crown overhanging footpath	20+	C1	4.56
P3	0260	White Willow	9	380	mean 3.5	2.0-S	1	SM	Average vitality. No apparent significant structural defects	no works presently required	20+	C1	4.56
P3	0261	Failed tree	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	U	n/a

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P3	0262	Turkey Oak	14	1130	N=8.4 E=6.2 S=6.5 W=5.9	2.5-E	2.5	M	Average vitality. area of dead, lifting bark on north side of main stem from ground level to 1.5m, probed 10mm. all other buttress roots are adequate condition. Crown break at 3.0m above ground level. Moderate retrenchment of crown, approximately 10% deadwood in crown to 150mm diameter. Grass left to grow beneath crown to deter foot traffic. Partially occluded pruning wounds with minor decay observed on main stem to 250mm diameter.	Monitor decay at base of tree annually. Inspect regularly for fungal fruiting bodies.	20+	B1, 3	13.56
P4-2000	0165	English Oak	4	4x200	3.5, 3, 3.5, 4	1.5-E	1	SM	Average vitality. Multi stemmed from ground level. Minor decay at partially occluded pruning wounds on east side of tree. Fused stems 1.0m above ground level on south side of tree. Not currently significant. Less than 5% minor deadwood in crown.	No works presently required	10+	C2	4.80

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2000	G17-0166	Lime, 1xFalse Acacia	To 18	To 750	To 6.5-S	n/a	1.5	EM-M	Fair to good vitality. Mutual crown suppression. Minor deadwood in lime crowns. Robinia-tall drawn form. Crown dominant to east. Cavity on main stem at 600mm. Dieback in crown.	Further inspection of Robinia with decay detection equipment -tree sheltered. Footpath to west of group, fishing area underneath trees to east.	20+	A2, C1-Robinia	9.00
P4-2000	0167	Sycamore	11	380	mean 3.5	2.5-E	2	SM	Average vitality. Minor root girdling at base. Less than 5 % minor deadwood in crown.	No works presently required	20+	B2	4.56
P4-2000	0168	Weeping Willow	10	760	4.5, 5.5, 12, 5.5	2.0-E	0.5	EM	Average vitality. Main stem leans 20 degrees from vertical to east, corrected a 1.5m above ground level. Co-dominant stems at 1.5m. Over extended scaffold limb to south overhangs bench. 5%deadwood in crown to 50mm diameter.	Reduce over-extended scaffold limb to south by 4.0m. remove deadwood in crown	20+	B2	9.12
P4-2000	0169	Weeping Willow	10	570	N-7, E-8, 7	4-E	GL	EM	Good vitality. Deadwood in crown from competition for light - <80mm. Crossing & rubbing branches. Footpath 7m east. East scaffold limb overextended growth habit. Crown break at 5m.	Reduce east scaffold limb by 3m to reduce chances of failure over footpath	20+	B2	6.84

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2000	0170	English Oak	22	1510	10, 12, 8, 10	5.0-E	1.8	M	Average vitality. 2 small patches of dry black exudation on west side of main 1.5m above ground level. Failed scaffold limb at 1.8m above ground level on south side of main stem resulting in cavity with opening 750mm wide, 1100mm long. Extends approximately 1200mm in towards centre of tree. Walls of cavity have brown, cubicle appearance. Crown break between 5.0m-6.0m above ground level. Crown in adequate condition with less than 5% deadwood.	Investigate main stem at 1.8m above ground level using specialist decay detection equipment to determine extent of decay and residual wall.	20+	A2, 3	18.13
P4-2000	0171	Hawthorn, English Oak	4	300	3	1-S	GL	Y-EM	Young self sown Oak. Early mature Hawthorn. Good vitality. Mutual crown suppression. Tight unions, crossing & rubbing branches	No works presently required	20+	C2	3.60
P4-2000	0172	London Plane	10	860	7, 3.5, 10, 10	3.0-W	1	EM	Average vitality. Exposed buttress roots. Historic root disturbance to east from installation of footpath. Main stem leans 20 degrees from vertical to west, uncorrected. Crown break at 3.0m above ground level. Less than 5 %minor deadwood in crown.	No works presently required	20+	B2	10.32

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P4-2000	0173	English Oak	11	480	7	3-W	2	SM	Good vitality. Crown break at 3m into 2xstems. Footpath 3m east. Long term potential	n/a	40+	B1	5.76
P4-2000	0174	Standard dead tree	3.5						Monolithed standard dead tree	Retain for deadwood habitat	<10	C3	0.00
P4-2000	0254	Copper Beech	11	990	N=10.3 E=10.2 S=9.5 W=7.0	2.5-E	0.5	M	Average vitality. 2no girdling roots to east of main stem. Minor damage to exposed surface roots but no decay observed, not currently significant. Crown break at 3.5m above ground level. 5%deadwood in crown to 60mm diameter, some overhanging footpath.	Remove deadwood in crown overhanging footpath.	40+	A1	11.88

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0083	Hornbeam	13	610	6.7, 6.7, 8.4, 7.6	2.0-S	0.5	M	Average vitality. Fungal Fruiting Body (not identified) attached to base of tree to west. no hollow sounds in vicinity when tapped with rubber mallet. Included bark union 3.0m above ground level at base of co dominant stems. Partially occluded pruning wound at same height. Not currently significant. Dense crown. 5%deadwood in crown to 40mm diameter.	PICUS test at base within 12 months. remove deadwood in crown overhanging footpath	20+	B1	7.32
P4-2002	0084	Grey Poplar	19	520	2m all points	2.5-NW	3	SM	Thinning crown. 15% minor deadwood in lower crown. Fair to poor vitality.	No works presently required	10+	C1	6.24
P4-2002	0085	Hornbeam	14	700	N=7 E=7 S=8 W=6	2.5-all	1	M	*Ganoderma spp* decay fungus brackets attached to base on east and west sides. Direct local area sounds hollow when sounded with mallet. Rubbing branches. Previously significantly reduced. Less than5% min0r deadwood.	Apply -phosphites to promote strong root growth. Carry out non-invasive picus test to establish extent decay at base	20	B1 (dependent on further insection	8.40

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	G18-0086	Hornbeamx3	To 10	190, 150, 80	To 5	n/a	1.8	Y-SM	Fair vitality. 3xtrees. Multi stem at base from previous coppice works. Kinked stems from mutual crown suppression. Pruning wounds.	No works presently required	10+	C2	3.06
P4-2001	0087	London Plane	14	960	9.8, 5.8, 6.7, 9.2	3.0-E	1.8	EM	average vitality. Previously crown raised over footpath to west resulting in 2no partially occluded pruning wounds 250mm diameter. Not currently significant. Main leader historically pruned to 10.0m above ground level. 5% deadwood in crown to 20m.	No works presently required	20+	B1	11.52
P4-2001	0088	Common Ash	14	665	N=5 E=4 S=7 W=8	3-S	2.5	M	Crown breaks at 3m. 15% deadwood in crown, predominantly minor. Crown thinning.	Remove deadwood in crown	10+	C1	7.98

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P4-2001	0163	Hybrid Black Poplar	22	1100	11, 6, 8, 8	2.0-W	0.5	M	Average vitality. Twin stemmed at 7.0m above ground level. Historic failure of scaffold limb on east side of tree 12.0m above ground level. Minor decay observed at old pruning wounds approximately 16.0m above ground level. Re-growth has potential for weak attachment points. 5%deadwood in crown to 80mm diameter	Reduce crown 3.0m to reduce loading over weak attachment points. remove deadwood in crown	10+	B2	13.20
P4-2001	0164	Weeping Willow	15	680	W-10, S-7.5	3.5-W	1	M	Good vitality. Growing on grass bank. Crown dominant to West. Crown break at 3m into 5 stems. Deadwood in crown from competition for light - <80mm. Black exudates on main stem at 1.2m south side. West scaffold limb over extending,	Reduce west scaffold limb as part of tree risk management	20+	B2	8.16
P4-2001	0338	Sycamore	10	2x330	5	3s	2.5	EM	Bifurcates at .5m. Union sound. Good vitality with no apparent significant structural defects	None at present	40+	B1	5.4

Highgate Chain – Men's Bathing Pond

Drawings 5117039/COL/LA013-015

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2001	G0091	Sycamore, Common Ash	15	290, 280	To 5	3-W	4	EM-M	Group 3xSycamore. 1xAsh. Good vitality. Screening function. Mutual crown suppression. Multi stem and co-dominant stems. Lean on ash to south. Hawthorn and self sown vegetation at base	no works presently required	20+	B2	4.86
P4-2001	0089	Sycamore	12	690	6m all points	4-All	3.5	M	Kinked main stem from ground level to 2m. Crown breaks at 3.5m. 5% minor deadwood in crown. Fair vitality	No works presently required	20+	B1	8.28
P4-2001	0090	English Oak	13	1x560 1x520	5, 5, 8, 5	2.0-W	1.5	M	Average vitality. Twin stemmed 1.0m above ground level. Adequate union. Moderate secondary growth on main scaffold limbs. Crown raised 2.5m above ground level over footpath to north. Less than 5% deadwood in crown to 20mm diameter.	No works presently required	20+	B1	9.17

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0092	Hornbeam	17	690	6m all points	3.5-S	1.8	M	Crown breaks at 3m. Good vitality. 5% major deadwood in crown	Remove deadwood in crown	40+	B2	8.28
P4-2002	0093	Hornbeam	17	680	mean 7	3.0-S	1	M	Average vitality. Decay at un-occluded pruning wounds2.0m and 3.0m above ground level on scaffold limb to west of main stem. Dense secondary growth on main scaffold limbs throughout crown. 5%deadwood in crown to 30mm diameter.	reduce scaffold limb with decay at base by 2.0m to reduce end loading over weakened structure	20+	B1	8.16
P4-2002	0094	Hornbeam	14	575	7m all points	2.5-NE	2.2	M	Decay cavity on south-east side of main stem occupying estimated 25% of stem area. Decay at old wounds throughout crown. 10% major deadwood in crown. Fair vitality.	Remove deadwood in crown	20+	C2	6.90

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0095	Hornbeam	19	900	8, 8, 8, 6	2.0-S	1.8	M	Average vitality. 50mm recess on main stem from ground level to 1.8m above ground level on north side of main stem. Not currently significant. Minor decay observed at partially occluded pruning wounds on main stem 3.0m above ground level. Not currently significant. 5%deadwood in crown to 50mm diameter	No works presently required	20+	B1	10.80
P4-2002	0096	English Oak	20	970	N=8 E=11 S=6 W=6	3.5-SE	2.5	M	Over-extended limb on south-east side, not currently significant. Wound on main stem at 3.5m. Minor storm damage throughout crown. Less than 5% minor deadwood in crown.	No works presently required	40+	B1	11.64
P4-2002	0097	Hornbeam	17	520	8m all points	2-NE	2.2	M	Crown breaks at 2.5m. Minor decay at old wounds at points of raising works. Less than 5% minor deadwood in crown. Good vitality.	No works presently required	40+	B2	6.24

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0098	Hornbeam	12	520	9, 6.3, 3.8, 6.0	2.0-N	2	EM	Average vitality. Helical fluting from ground to 1.8m above ground level, not significant. Dead decaying limb 2.0m above ground level, 200mm diameter at widest point. Minor decay at partially occluded wounds 2.0-3.0m above ground level, none currently significant. 5%deadwood in remaining crown to 20mm diameter.	Remove dead decaying limb.	20+	C1	6.24
P4-2002	0099	Hornbeam	18	560	8m all points	4-NE	2.2	M	Crown breaks at 2.5m. Lower crown to south heavily weighted at tips and drooping down. 5% major deadwood in crown. Good vitality.	Reduce limb to south at 3.5m by up to 1.5m to reduce weight. Remove deadwood in crown	40+	B2	6.72
P4-2002	0118	Hornbeam	12	420	3.5, 4, 4, 5	2.0-N	1.8	EM	Average vitality. Partially occluded pruning wound on main stem 2.5m above ground level, minor decay not currently significant. Dense Epicormic growth on main scaffold limbs. Less than 5% deadwood in crown to 70mm diameter.	No works presently required	20+	B2	5.04

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0119	Hornbeam	19	770	6.5	2-W	2	M	Good vitality. Dominant tree in group. Single leader to 8m, then co-dominant stems. Hung up dead branch in crown at 4m-50mm diameter. Desire line 500mm to east. Footpath 5m north.	Ribbed main stem	20+	A2	9.24
P4-2002	0120	Alder	12	390	mean 3.5	3.0-S	2	EM	Average vitality. Adequate physiological and structural condition. Less than 5% deadwood in crown to 20mm diameter.	No works presently required	20+	B2	4.68
P4-2002	G8-0121	Blackthorn, Hawthorn	4.5	To 100	To 4	n/a	GL	EM	Approx 5trees. Half of group coppiced. Multi-stem forms on remaining trees. Regeneration occurring. Fair vitality. Mutual crown suppression	No works presently required	10+	C2	1.20

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0122	Black hybrid poplar	30	170	11, 10, 9, 14	5.0-W	1	M	Average vitality. Ganoderma aplanatum fungal fruiting bodies attached to base of main stem on north and east sides. one large old and two new brackets to north, one small old bracket to east. Extensive hollow sounds from stem and buttress roots on north and east sides from ground level to 2.0m above ground level. Stem and buttress roots on south and west sides sound solid. Multiple large partially occluded pruning wounds to main scaffold limbs between 6 and 10m above ground level on east side of tree. decay observed at wounds.	fell to ground level due to poor condition and short life expectancy	<10	U	0.00
P4-2002	0123	Elm	4.5	3x80	mean 3	NA	NA	SM	Average vitality. Dense crown. Less than 5%deadwood in crown to 10mm diameter.	No works presently required	20+	B1	1.68
P4-2002	G9-0124	Hybrid Black poplar, Hawthorn, Common Ash, Apple, Elm	To 16	To 300	To 4	n/a	GL	Y-SM	Self sown. Mutual crown suppression. Good vitality. Growing on water's edge.	No works presently required	10+	C2	3.60

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0125	Hybrid Black Poplar	36	1650	N-13, E-7, S-14, W-14	10-W	2	M	Desire line 4.5m south east. Good vitality. Loose bark at north side at base. Minor damage to exposed surface roots. Failure of eastern scaffold limb at 7m exposed desiccated wood, large cavity remaining. Over extended limbs to north and east. Crown weighted to west. Thinning crown, dieback to north.	Crown reduction required focusing on overextended limbs and dieback	10+	C2	19.81
P4-2002	0126	Hawthorn	7	260	mean 2	1.0-N	0.5	EM	Average vitality. Minor ivy encroachment on main stem to 4.0m above ground level. 5%deadwood in crown to 30mm diameter.	No works presently required	10+	C2	3.12
P4-2002	0127	Hornbeam	18	680	9, S-6	3-N	3	M	Dominant tree in group. Good vitality. Footpath 500mm north. Crown break at 3m into 3xmain stems. Crown suppression to south, deadwood in southern crown from competition for light - <70mm. exposed surface root activity to 600mm from base	remove deadwood in crown	20+	B2	8.16

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P4-2002	0128	Hornbeam	17	485	7, W-4	5-E	2	EM	Good vitality. Single leader to 14m. Mutual crown suppression. Deadwood in crown from competition for light, <80mm.	remove deadwood in crown	20+	B2	5.82
P4-2002	0129	Hornbeam	17	470	4, 6, 8, 6	2.5-S	1	EM	Average vitality. Twin stemmed at 2.5m above ground level. Dominant stem to north. 5%deadwood in crown to 100mm diameter.	remove deadwood in crown	20+	B2	5.64
P5	0130	Hornbeam	20	640	4, 5, 7, 7	4.0-N	1	M	Average vitality. Decay cavity on north side of main from 0.2 to 1.0m above ground level. Desiccated wood within cavity is resistant to probing. Cavity extends 260mm towards centre of tree. Included co dominant stem union 3.0m above ground level. Multiple wounds with minor decay on main stems to 8.0m above ground level.	Reduce crown of tree by approximately 4.0m height and 2.0m lateral spread to reduce loading over weak union.	20+	B2	7.68

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P5	0131	Lime	17	490	5.5	4-S	1	EM	Good vitality. Heavy suckering growth at base hindering inspection of basal condition. Lower limbs lifted in past. Flattening on main stem at 1.8m, potential for lateral crack adaptive growth. Cavity at old branch wound 2.5m north side of main stem.	Remove suckering growth at base to facilitate basal inspection	20+	B2	5.88
P5	G1143	Ash, Hawthorn, Blackthorn	To 8	To 200x2	To 4.5	n/a	GL	Y-EM	2xearly mature Hawthorn, remaining 20no. Self sown saplings. Ivy encroachment throughout. Tall drawn forms. Fair vitality throughout	No works presently required	20+	C2	2.80
P5	1144	Common Ash	10	680	6,6,5,4	4	5	EM	Topped tree. Significant decay of base and stem to 2m. Fair vitality	Further non-invasive inspection using a PiCUS tomograph	10+	C2	8.16
P5	G1145	Hawthorn, Cherry, Blacthorn	To 6	To 160	To 3	n/a	GL	Y-SM	Approx 20no. Predominantly self sown trees. Mutual crown suppression. Fair vitality throughout.	No works presently required	20+	C2	1.92
P5	1146	Crack Willow	6	1000	4	2.5	1	M	Topped at 3-4m. Hollow tree. Fair vitality on established stems	No works presently required	10+	C3	12.00

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P5	G1147	Cherry, Blackthorn	To 7	To 250	To 4	n/a	GL	Y-SM	8xtrees. Plus self-sown saplings. Mutual crown suppression. Fair vitality throughout	No works presently required	20+	C2	3.00
P5	G1148	Willow x5	8	300	3	n/a	1	EM	Topped trees. Central tree multi stem from base. Fair vitality	No works presently required	10+	C2	3.60
P5	1149	Crack Willow	10	1000	7	2.5	1	M	Severe decay of stem and base. Topped at approx 5m, Good vitality	Pollard programme to manage risk of branch failure	10+	C1	12.00
P5	1137	English Oak	10	750	8	3-SE	3	EM	Good vitality. Minor mechanical damage to base-west side of root flare. Crown break at 3m, pronounced south east scaffold limb. Pedestrian footpath encircling south west side of base. Fibre buckling wound wood on main stem.	No works presently required	40+	B1	9.00
P5	339	Sycamore	15	830	10	3n	2	M	Fair vitality. Small diameter deadwood, slightly sparse upper canopy. No apparent significant structural defects	None at present	40+	B1	10

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P5	340	Lime	5	5x150	3.5	na	GL	SM	Multi Stemmed from ground level. Good vitality. Some decay at base. Structural stability not compromised	None at present	40+	B1	3.4
P5	341	Common Ash	14	380	5	3w	3	SM	Good vitality. slightly suppressed to east. No apparent significant structural defects	None at present	40+	B1	4.6
P5	342	Common Ash	14	380	5	5e	4	SM	Ivy encroachment. Good vitality. Slightly suppressed to north and west. No apparent significant structural defects	None at present	40+	B1	4.6
P5	343	English Oak	14	920	8e	3.5e	3.5	EM	Good vitality with no apparent significant structural defects. Slightly suppressed to north.	None at present	40+	B1	11
P5	344	London Plane	16	1060	10	2.5e	2	M	Good vitality with no apparent significant structural defects. immediately adjacent footpath	None at present	40+	A1	12.7

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P5	345	London Plane	14	1170	10	2.5s	1.5	EM	Good vitality with no apparent significant structural defects recorded.	None at present	40+	A1	14
P5	346	Willow	n/a	n/a	n/a	n/a	n/a	n/a	Dead tree	Fell or leave as monolith.	n/a	U	n/a
P5	G347	Common Ash, Elm, Hawthorn	Up to 8	upto 150	upto 2	na	GL	Y	Area of self sown young trees. Good vitality throughout with no apparent significant structural defects recorded	None at present	40+	C2	1.8
P5	348	White Willow	8	200	4	na	GL	Y	Good vitality with no apparent significant structural defects recorded.	None at present	40+	C1	2.4
P5	349	White Willow	9	650	4	3n	1.5	EM	Topped at 6m. Vigorous re-growth at topping cuts. Good vitality. Likely to have weak branch attachment and decay at topping cuts	None at present	20+	C1	7.8

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P5	G350	Weeping Willow	13	720	upto 7	na	1	M	3no. Mutual crown suppression. Evidence of previous limb failures. Pockets of decay within canopy. Fair vitality	None at present	20+	C2	8.6
P5	351	Hawthorn	4	250	2.5	2s	0.5	SM	Stable lean to east, 'pocket of decay at base of crown. Good vitality	None at present	40+	C1	3
P5	352	Manor Ash	20	950	8	4n	GL	M	Good vitality. Minor mechanical damage to buttresses. Small diameter deadwood. No apparent significant structural defects recorded	None at present	40+	A1	11.4
P5	353	Hornbeam	8	620	5	2.5n	2	EM	Fair vitality. Previously suppressed canopy. Small pockets of decay. Fair vitality. No apparent significant structural defects recorded	None at present	40+	B1	7.4
P5	354	Hornbeam	8	330	5	3n	2	SM	Good vitality. Suppressed to east. No apparent significant structural defects recorded	None at present	40+	B1	3.9

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P5	355	Hornbeam	8	330	8,3,3,3	2w	1.5	SM	Good vitality, suppressed by adjacent trees. No apparent significant structural defects recorded	None at present	40+	B1	3.9
P5	356	Lime	10	340	2,2,3,4	3.5s	2	SM	Pockets of decay at base of crown. Good vitality, suppressed by adjacent trees. No apparent significant structural defects recorded	None at present	40+	B1	4.1
P5	357	Lime	12	500	8	2.5w	1	SM	Good vitality, no apparent significant structural defects recorded.	None at present	40+	B1	6
P5	358	London Plane	17	810	9	4w	2	EM	Fair vitality. Lower canopy suppressed to west. No apparent significant structural defects recorded	None at present	40+	B1	9.7

Highgate Chain – Highgate No.1

Drawings 5117039-ATK-P6-ZZ-DR-Y-2000; 5117039-ATK-P6-ZZ-DR-Y-2001

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P6-2001	0132	Sycamore	10	340	4, 3, 3, 4	3.0-S	1.8	SM	Average vitality. Located on bank of pond. Unable to inspect north side of main stem. Ivy encroachment of main stem to 2.0m above ground level. Main stem leans 10 degrees from vertical to north, uncorrected. 5% deadwood in crown to 20mm diameter.	No works presently required	20+	C2	4.08
P6-2001	0133	Common Ash, Hawthorn	6	500	To 3	2.5-E	1	EM	Growing on water's edge. Ash-pollarded at 5m, Epicormic growth on main stem. Northern scaffold limb growing through adjacent hawthorn. Hawthorn multi-stem at base. Mutual crown suppression. Fair vitality	No works presently required	10+	C2	6.00
P6-2001	0134	Common Ash	3.5	210	mean 1	3.5-W	1.5	SM	Poor condition tree. Previously topped at 3.5m above ground level.	fell to ground level	<10	U	0.00

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P6-2001	0135	Common Ash	4	450	2.5, 0, 0, 3	3.0-W	2	EM	Located on bank of pond. Main stem leans 45 degrees from vertical to west and is in contact with adjacent metal fence. Ivy encroachment of main stem to 3.0m above ground level. Previously topped at 3.5m above ground level. Small hawthorn at base.	No works presently required	10+	C2	5.40
P6-2001	0136	Crack Willow	12	11x250 average	8, 1, 2, 3	3.0-N	NA	SM	3no willow located on bank of pond. All specimens multi stemmed at ground level, all crowns predominate heavily to north. Weak stem unions make likelihood of failure high.	Coppice all stems 1.0m above ground level	10+	C2	9.96
P6-2001	G10-0137	Crack Willow	2.5	500	NA	NA	NA	OM	Standing dead willow. Current size and location are low risk.	No works presently required	<10	U	0.00
P6-2001	0138	Common Ash	17	500	E-10.5, W-4.5, 10	4-S	2	M	Co-dominant stems at 4. Lean to south. Open, pendulous crown. Good vitality. Old tear out wound at 10m in west crown extents.	Reduce west stem by 1m to reduce end weight on limb, remove failed limbs beneath	20+	B2	6.00

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P6-2001	G12-0139	Hawthorn	8	To 300	To 4.5	n/a	1	M	Group of 3 trees. Mutual crown suppression. Good vitality. Desire line east & west. Leans, Crossing and rubbing branches	No works presently required	20+	B2	3.60
P6-2001	0140	English Oak	11	108	6, 6, 5, 7	4.0-N	2	M	Average vitality. Decay cavity on north side of main 1.8m above ground level extending vertically to 2.5m above ground level. Crown has received significant reduction in past to 5.0m above ground level. 5% deadwood in crown to 80mm diameter.	Investigate cavity at 1.8m above ground level to assess significance of decay. remove deadwood in crown	20+	B2	1.30
P6-2001	0141	Alder	17	500	5	2-NE	2	M	Good vitality. Single leader. Pronounced north east buttress root.	No works presently required	20+	B2	6.00
P6-2001	0142	Lime	16	500	6.5, S-7.5	4-S	1.5	M	Good vitality. Heavy suckering growth at base hindering inspection of basal condition. Exposed surface root activity to 2.8m from main stem. Crown periodically lifted.	Remove suckering growth at base	20+	B2	6.00

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P6-2001	G11-0143	Hawthornx2, Elderx1	9	9x250 estimated	3, 3, 4, 3	1.8-N	1.8	M	2no hawthorn and 1no Elder trees. All poor vitality. Specimen to south-west of group is 70% dead/dying. Dense ivy encroachment of all stems to 5.0m above ground level.	coppice all stems at 1.5m above ground level	<10	U	0.00
P6-2001	0144	Alder	14	510	mean 4	3.0-N	2	M	Co-dominant stems union 5.0m above ground level. Adequate union. Less than 5% minor deadwood in crown. Elder growing at base of tree.	No works presently required	20+	B1	6.12
P6-2001	0145	Common Ash	18	930	6, 4, 3, 5	1.8-W	1.8	M	Decay cavity at base of tree on north-west side of main stem. Cavity is 300mm wide and extends approximately 600mm towards centre of tree. 3 large and one new Ganoderma spp fungal fruiting bodies attached to base of main stem to west. Sunken bark and hollow sounds to 1.0m above ground level above brackets. Further small Ganoderma brackets on north, east and south sides of main stem between buttress roots. Tree has been veteranised with pruning at 12.0m above ground level.	Investigate base of tree using PICUS to assess extent of decay.	10+	C1	11.16

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P6-2001	0146	English Oak	18	600	N-3, W-4.6, 5	5-N	2	EM	Fair to good vitality. Mutual crown suppression. Dieback a deadwood in crown to west - <80mm. Frayed wounds in crown from previous limb failure. Bat potential.	Target area not frequently used, therefore, retain deadwood habitat	40+	B2	7.20
P6-2001	0147	Common Ash	16	540	N-2.5, E-3, 7.5	4-W	3	EM	Fair vitality. Tree on lean to south. Decayed south buttress root. Sunken bark from ground level to 3m south side of main stem. *Daldinia concentrica* brackets present on south side of main stem. Indicating presence of decay and deadwood. Footpath within 1 and a half trees height	reduce south and west crown extents to reduce loading	10+	C2	6.48
P6-2001	0148	Common Ash	6.5	450	NA	NA	NA	EM	Standing dead ash tree. monolithed at 6.5m above ground level. *daldinia concentrica* fruiting bodies attached to main stem. woodpecker holes at 4.0m above ground level in scaffold limb and 6.0m above ground level on main stem. potential for bat habitat	inspect for bat roost potential	<10	U	0.00

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P6-2001	0149	English Oak	20	970	9, 7, 10, 7	4.0-N	0.5	M	Average vitality. Crown breaks 5.0m above ground level. Mutual suppression to west from T0150. Adequate physiological and structural condition. Less than 5% deadwood to 100mm diameter in crown.	No works presently required	40+	A1	11.64
P6-2001	0150	Common Ash	20	920	13	7-N	3	M	Good vitality. Co dominant stems at 5m. Crown suppression to north, dominant to south. Desire line 2m west. Dense crown hindering inspection of branch attachments and canopy condition.	Remove hung up dead branch in east stem. no works presently required	20+	B2	11.04
P6-2001	G16-0151	Hawthornx1, Ashx1, Elderx2	7	average 6x80	mean 3	0.5-N	NA	SM	1no Hawthorn, 1no Ash, 2no Elder. all adequate physiological and structural condition. ivy encroachment on main stem of hawthorn.	sever ivy at base of hawthorn	20+	C2	2.40

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P6-2001	0152	Common Ash	15	730	mean 8	3.5-E	1	M	Average vitality. Crown break at 4.0m above ground level. Woodpecker holes at 7.0m and 10.0m above ground level on east co-dominant stem. Bat roost potential. Crown historically reduced by approximately 25%. 10% deadwood in crown to 100mm diameter.	Reduce east co dominant stem by 2.0m to reduce loading over weak stem. Remove deadwood in crown. Examine woodpecker holes for bat roost potential.	10+	C2	8.76
P6-2001	0153	Lime	14	460	4	4.5-E	1	SM	Good vitality. Heavy suckering growth at base hindering inspection of basal condition. Cavity west side of main stem at 1.4m - 400mm by 100mm. Onset of decay, probed to 30mm before hitting sound wood. Suppression to west from adjacent tree. Desire line 3m	Compaction at base. Surface root activity to 1m from main stem	20+	B2	5.52
P6-2001	0154	Horse Chestnut	17	910	7,5 ,8, 8	4.0-SE	1.8	M	Average vitality. Multi stemmed at 2.0m above ground level. Partially occluded pruning wound at base of co dominant stem to north. Surrounding wood sounds solid when tapping with rubber mallet. Dense crown with minor crossing rubbing branches.	Thin crown by 10% and remove crossing rubbing branches.	10+	B2	10.92

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P6-2001	G13-0155, 0156	Common Ash, Sycamore, Yew, Elm, Hawthorn,	To 19	50-500	To 8	n/a	GL	Y-M	Fair to good vitality. Woodland area. Ash & Sycamore canopy trees. Hawthorn understorey. Growing on embankment. Screening function. Mutual crown suppression. Limb failure on 0155-frayed wound remaining on hazard beam to north, bat roost potential. Unbalanced crowns. Self sown sycamore & ash dominate the understorey. Heavy ivy encroachment hindering inspection of basal conditions of mature trees and their canopies. Leans and Drawn forms through competition for light. Crowns formed at height. Younger trees dominate eastern area, Av 10 trees. Elms failing due to Dutch Elm Disease. Causeway at top of ridge. Trees within falling distance of residential property to south	Sever ivy to enable condition assessments. Selective coppicing	40+	A2/3	4.80
P6-2001	0157	Common Ash	6	1300	mean 2	4.5-S	4	OM	Below average vitality. Historically monolithed 4.5m above ground level. Minor re-growth. Dense ivy encroachment of main stem. daldinia concentrica fruiting bodies attached to main stem. small stature and location mean low risk	No works presently required	10+	C2, 3	15.60

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P6-2001	G15-0162	Common Ash, English oak, Laurel, Cherry	To 18	To 600est	To 10-N	n/a	GL	Y-M	Squared woodland area. No access, third party ownership. Fair vitality. Mutual crown suppression. Heavy ivy encroachment. Over extended limbs to north on mature trees at top of embankment. Decay entry points. Old branch wounds. Recently failed branch from tree in group on causeway. Target area used.	Sever ivy. Reduce northern crown extents	20+	B2/3	7.20
P6-2001	1140	Lime	15	630	5	4	2	EM	Good vitality. hanging branch at approximately 6m.	Remove hanging branch	40+	B2	7.56
P6-2001	1141	Common Ash	7.5	560	2	2-N	2	EM	Poor vitality. Crown reduced in height & spread. Minimal live crown remaining. Dieback & deadwood at old pruning points. Loose bark to 2m Westside of tree. Insect bore holes evident. Daldinia concentrica brackets below old tear out wound at 3m west.	tree risk management works undertaken.	<10	U	6.72
P6-2001	1142	Horse Chestnut	12	660	5	3	2	EM	Good vitality. Surface roots visible. No apparent significant structural	No works presently required	40+	B2	7.92

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P6-2000	0158	English Oak	19	1600	mean 8	10.0-N	6	M	Average vitality for maturity. Crown break at 5.0m above ground level. Ivy encroachment on main stem and scaffold limbs, severed at base and dying back. Fungal fruiting body attached to main stem 1.0m above ground level on south side. No hollow sound in vicinity when tapping with rubber mallet. Not currently significant. Dense branch ends caused by previous ivy encroachment of scaffold limbs.	Consider small reduction of crown to promote secondary growth on scaffold limbs. Monitor annually for signs of increased fungal activity at base.	20+	B2	19.21
P6-2000	0159	Sycamore	19	1150	9, 8, 2, 9	5.0-N	5	M	Average vitality. Twin stemmed at 2.0m above ground level. Stem to south has been reduced to 8.0m above ground level and is now densely ivy clad. 300mm section of dead bark with exposed desiccated wood to 2.0m above ground level on west side of main stem. Resistant to probing. Crown predominates heavily to north due to reduction of stem to south.	Monitor base annually for signs of decay on east side of main stem at location of dead bark.	20+	B2	13.80

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P6-2000	0160	English Oak	20	1150	10, 9, 9, 11	6.0-E	5	M	Average vitality. Minor ivy encroachment on main stem. Multi stemmed from 3.5m above ground level. Multiple historic failures in crown with deadwood and cavities to 300mm diameter. High bat roost potential.	Sever and remove 1.0m section of ivy at base of main stem.	20+	B2, 3	13.80
P6-2000	G14-0161	Sycamore, Alder, Elm, Hawthorn	To 16	550-0161, Av-300	To 4	n/a	GL	Y-M	Linear group on wars edge. Fair to good vitality. 0161-dominant tree in group, single leader, heavy ivy encroachment to full crown extents. Mutual crown suppression throughout group. Leans snd drawn forms. Self sown vegetation. Vegetation management undertaken recently with removal of scrub, dead elms and selective tree removal. Intermittent line.	No works presently required-no targets at present	20+	B2/3	6.60

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P6-2000	1119	Sycamore	14		4	n/a		SM	Fair vitality with relatively sparse crown. Crown break at 1.5m into 4xstems. Column of decay from base to 2m south side of stem. Limited remaining sapwood. Within falling distance of target areas to north. Poor structural integrity. Fluxing in between north and west buttress roots	Fell on the grounds of safety & sound arboricultural management	<10	U	0.00
P6-2000	G1120	Sycamore	15	5x250	4	5N	6	SM	Multi stemmed with included bark unions. Ivy at base. Decay at base of central tree. tall elongated stems, fair vitality	No works presently required	20+	C2	5.60
P6-2000	G1121-1122	Sycamore	Up to 17	up to 500	5	4N	4	EM	30no. Sycamore with understorey of Elm and Holly. Growing on edge of pond. Majority are multi stemmed. Ivy encroachment. Fair to good vitality. Some moderate dead wood	No works presently required	20+	B2	6.00

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P6-2000	1123	Yew	12	530	S-4.5	4-W	4	SM	Fair vitality with small diameter deadwood throughout crown. Heavy ivy encroachment at root flare. Mutual crown suppression. Crown lifted to 4m. Loss of vitality through competition for light.	Clear ivy from root flare	40+	B1	6.36
P6-2000	1124	Yew	10	320	3	2S	2	Y	Suppression canopy. Exudates from old wound at 1.5m. No significant.	No works presently required	40+	B2	3.84
P6-2000	G1125	Elmx3	8	To 180	3.5	2-NW	2	Y	Fair vitality, 1xtree failed at base. Mutual crown suppression. 1125-Ivy severed at base. Co-dominant stems from 3m.	No works presently required	20+	C1	2.16
P6-2000	1126	Sycamore	17	450	5	4N	5	EM	Ivy encroachment. Fair vitality. Small diameter deadwood. Bifurcates at 3m. No apparent significant structural defects	No works presently required	20+	B2	5.40

Sheet no.	Tree No	Species in Group	Ht (m)	Stem diameter (mm)	Branch spread (m) N E S W	1st major branch height (m) & Direction N/E/S/W	Canopy height (m)	Life stage Y SM EM M OM	General observations Structural and/or physiological condition	Preliminary management recommendations	Est'd Remaining contribution (years) <10/10+/20+/40+	Category grading A B C U 1/2/3	Root Protection Area Radius (m)
P6-2000	G0156	Sycamore, Elm	To 12	To 150	To 3	n/a	1	Y	Group of self sown trees forming part of larger group. Fair vitality. Tall drawn forms through competition for light and close spacing.	No works presently required	10+	C2	

Appendix C. Glossary of Terms

Term	Description
Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site.
Adaptive Growth	The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone
Amenity Value	The environmental and landscape benefits of trees as opposed to their commercial value for timber
Ancient Woodland	Sites which have been wooded since at least 1600, as defined by English Nature and recognised as being of high nature conservation value, whether managed or not. They may be semi-natural or replanted.
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculture	The study and care of trees and other woody vegetation
Arboriculturist	A person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.
Cavity	An open wound, characterised by the presence of decay and resulting in a hollow
Co-dominant stems	Where a trees main stem splits into two leaders, can also be called twin-stemmed.
Competent person	A person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.
Construction	Site-based operations with the potential to affect existing trees.
Construction Exclusion Zone (CEZ)	Abbreviated to CEZ. The area based on the root protection area from which access is prohibited for the duration of a project.
Coppice	A traditional method of woodland management in which young tree stems are repeatedly cut down to near ground level. In subsequent growth years, many new shoots will emerge, and, after a number of years the coppiced tree, or *stool*, is ready to be harvested, and the cycle begins again
Crown clearance	This is the removal of all dead, dying and diseased branches; in addition branches that are cleared away from a specific hazard e.g. live railway line.
Crown lifting	The removal of lower branches to provide a desired amount of clearance above ground level. This can be achieved either by the complete removal of a branch or only parts of which extend below the desired height
Crown reduction	The overall reduction of both the height and spread of the crown.
Decay	Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.

Term	Description
Deadwood	Deadwood is often present within the crown or on the stems of trees. In some instances is may be an indication of ill health, however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).
Epicormic growth	A secondary growth from dormant adventitious buds on the stem or main braches.
Failure	In connection with tree hazards, apartail or total fracture within woody tissue or loss of cohesion between roots and soil.
Hazard beam	An branch that has over extended in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).
Hung-up limb	Dead or fallen branch from within the crown or from another tree's crown that has failed and been caught up by, and resting on, branches of a tree
Included Bark Junction	Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.
Ivy Growth	Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.
Monolith	A large bulk of standing dead wood. Usually the truck of the tree or the truck with the base of the branch frame work. These should be retained for wildlife habitat when the risk is appropriate for the location.
Pollarding	This involves the removal of whole branches to leave only the main trunk. In species such as willows and poplars such as significant pruning is acceptable with new branches developing from the pollard heads. Secondary pruning of the new wood can help form a new canopy to the tree several years after the initial pollard
Reaction Wood	Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.
Root Protection Area (RPA)	Abbreviated to RPA. The layout design tool indicating 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.
Service	Any above or below ground structure or apparatus required for utility provision.
Stem	The principal above-ground structural component(s) of a tree that supports its branches.
Structure	A manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.
Structural Defect	Internal or external points of weakness, which reduce the stability of the tree
Sub-dominant stem	A branch within the crown that is not the dominant leader

Term	Description
Suppressed	Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.
TPO	A Tree Preservation Order is an order made by Local Planning Authority which in general makes it an offence to cut down, lop, top, uproot, wilfully damage or wilfully destroy a tree without first getting permission from us. Tree Preservation Orders are usually made to protect trees that make a significant contribution to the amenity of an area. They may particularly be made when it is felt that a tree may be under threat.
Tree Constraints Plan (TCP)	Abbreviated to TCP. Plans showing specific tree constraints including Root Protection Areas and Crown spread.
Tree Protection Plan (TTP)	Abbreviated to TPP. Scaled drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.
Veteran Tree	A tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. These characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem.
Visual Tree Assessment	A non-invasive method of examining the health and structural condition of trees. Developed by Claus Mattheck and David Breloer 1994
Wound	Any injury, which induces a compartmentalisation response
Wound Wood	Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term “callus.”

Appendix D. Drawings

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