Heath House
Hampstead
Greater London

TREE REPORT

(Tree Survey and
Constraint Advice)

ACD
Ecology
Archaeology
Arboriculture
Landscape Architecture

Prepared by
ACD Arboriculture

for

CONSERO
LONDON

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Date:	15/09/2015
Revision:	
Ref:	CON20086tr

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1. Executive Summary

1.1. This report provides survey information about the trees on the site at Heath House, Hampstead, Greater London, in accordance with the recommendations of BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. This is to identify the quality and value of existing trees on site, allowing decisions to be made as to the retention or removal of trees in the case of any development.

1.2. The subject trees have been categorised as follows:

BS Category	Number of individual trees	Tree Groups
U	1	0
A	4	0
B	4	0
C	13	7

1.3. A total of twenty two individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded. In addition a seven groups were surveyed and recorded.

1.4. Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a C and U category will not usually be retained where they would impose a significant constraint to development. U category trees are often in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

1.5. There is scope for development of the site whilst retaining the important trees on the boundaries and by removing the lower quality trees from the interior of the site.

1.6. It is recommended that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

2. Introduction

2.1. ACD were instructed by Consero, in August 2015, to survey and categorize the trees at Heath House, Hampstead, Greater London, in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. The survey includes all trees with a stem diameter greater than 75mm stem diameter at a height of 1.5m that are on site or close enough to pose a potential constraint to development.

2.2. The survey was carried out to assess the trees on site for their quality and benefits within the context of proposed development. The quality of each tree, or group of trees has been recorded by allocating it to one of four categories, where:

- Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design.
- C category trees will not usually be retained where they would impose a significant constraint to development, but should be retained where there is no reason for their removal.
- U category trees are in such a condition that they are unlikely to contribute beyond 10 years, and may be removed as good arboricultural practice.

2.3. This report provides the data and advice outlined in BS5837:2012 only. It must not be substituted for a tree risk assessment. Detailed tree inspection including decay mapping, aerial inspection, soil analysis, etc. was not undertaken. If further detailed inspection is deemed necessary then it will be made clear within this report.

2.4. We have not been instructed at this stage to contact the Local Authority and investigate the presence of any statutory protection on trees on, or adjacent to the site.

2.5. The Tree Reference Plan was based on the supplied topographical ground survey by On Centre Surveys Ltd, dated 14/01/2013, ref 17195D-1-1-LAND SURVEY.

2.6. The controlling authority is Camden Council, who can be contacted at: 020 7974 4444.

2.7. Any questions relating to the content of this report should be directed in the first instance to: ACD Arboriculture, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425 714/07796 832 490, quoting the site address and report reference number.

3. Scope and Method of Survey

3.1. The survey has been carried out in accordance with BS5837:2012 Trees in Relation to design, demolition and construction - Recommendations and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged. An explanation of the categories can be found at appendix 1.

3.2. No discussions took place between the surveyor and any other party.

3.3. The reference numbers of surveyed trees and groups of trees are shown on the Tree Reference Plan, which is based on the supplied survey drawing and appended to this report. The prefix G has been used to indicate a group of trees, and H for hedges. Stem locations within groups may be estimated, and indicative of canopy only.

3.4. The tree survey was carried out from ground level only.

3.5. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.

3.6. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.

3.7. Tree heights were measured with a clinometer, or estimated in relation to those measured with the clinometer. If individual tree heights are of particular concern, for example in shading calculations, then they are measured using a clinometer.

3.8. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m from ground level. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter may be an estimated average or a maximum.

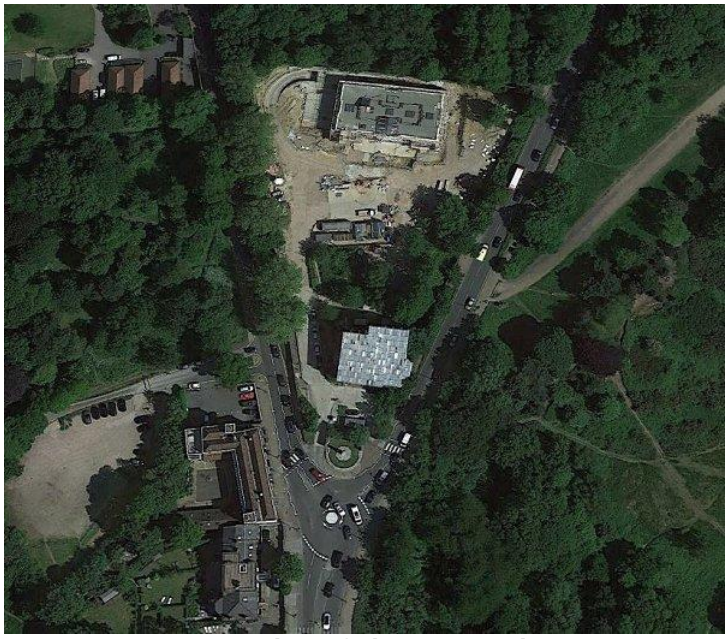
3.9. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. The canopy of tree groups will be indicated by measuring the maximum canopy radius for each compass point (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

3.10. No soil assessment was carried out at the time of survey. According to the National Soil Resources Institute online mapping service at http://www.landis.org.uk/soilscapes the soil on site is expected to be: Freely draining slightly acid loamy soils.

3.11. Where trees were not plotted on the survey their positions have been estimated.

4. Discussion

4.1. The site comprises Heath House, a single detached building not currently in use. At the north of the site is a residential development being currently constructed. There is a war memorial at the south of the site.



Overview of site surveyed

4.2. A total of twenty two individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded. In addition seven groups were surveyed and recorded.

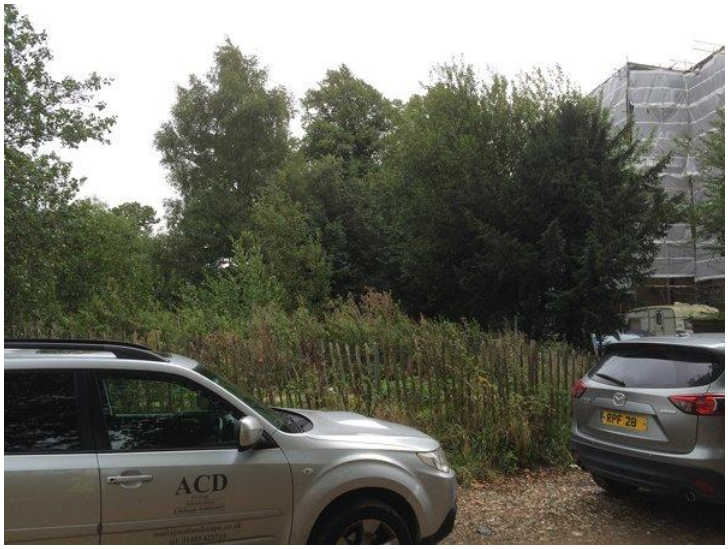
4.3. Four of the trees included in the survey are A category. These are all trees with high individual quality and landscape value.

4.4. Four individual trees on the site are B category. The B category trees on the site are those trees with moderate individual quality, or trees present in numbers, growing as groups with landscape value, such that they attract a higher collective rating than they might as individuals, or trees that might be included in the high category, but are downgraded because of impaired condition (e.g. unsympathetic past management and minor storm damage).

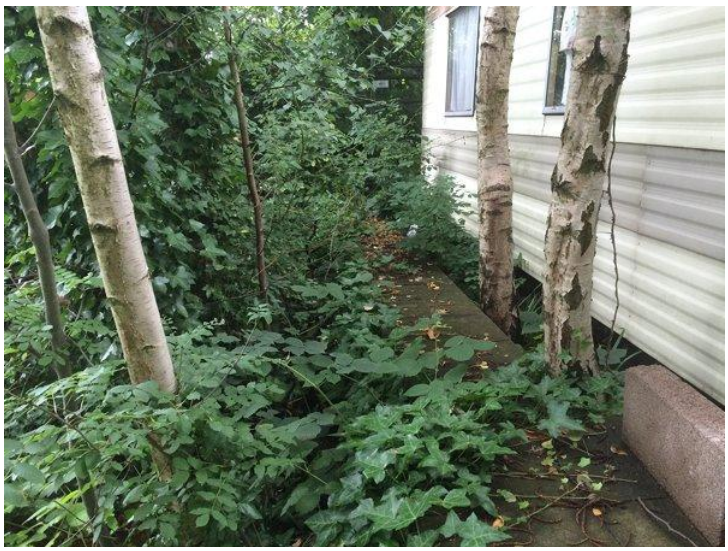
4.5. There are thirteen individual trees and seven groups of trees on the site which are C category. These are C category either due to their low inherent value due to low overall physiological vigour, or structural faults, or their diameter is less than 150mm at 1.5m above ground level. Most of the C category trees on the site are small self seeded Ash, Sycamore and Willow, which commonly arise due to lack of maintenance. These should not be considered any constraint to development, however where there are C category trees near the boundaries of the site, these could be considered for retention where they have landscape value as screening.

4.6. There is one individual tree of U category on the site which could be removed as good arboricultural practice as part of any development.

South of site, G4 (left), T1 (right)



Trees on interior of siteT7 (right), Trees 18/19 (rear centre)



Detail of self seeded trees (G5)

5. Conclusions and Recommendations

5.1. Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a C category will not usually be retained where they would impose a significant constraint to development. U category trees are in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

5.2. There is scope for development of the site whilst retaining the important trees on the boundaries and by removing the lower quality trees from the interior of the site.

5.3. It is recommended that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

5.4. Trees can be a development constraint both below and above the ground. In terms of below ground constraints, BS5837:2012 RPAs indicate an area that contains sufficient rooting volume to ensure survival of the tree. In terms of the proximity of structures to trees, the default position should be that structures are located outside the RPAs of trees to be retained. This area of ground should be taken into account with the site layout, such that it can left undisturbed during demolition and construction by prohibiting activity from the area using protective fencing or ground protection.

5.5. In terms of the above ground factors, tree constraints presented by the canopy and the psychological effects of tree proximity to dwellings (such as shading, perceived threat of tree failure, etc.) must also be considered during scheme design. This will involve optimising site layout and building room use to avoid the end-user becoming resentful of the trees, and seeking excessive pruning or even tree removal. This is especially a consideration with trees located on southern boundaries.

5.6. Preferably, conflicts between proposed structures and RPAs and tree canopies should be ‘designed out’ through the careful positioning of any built form. It is therefore advisable that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

5.7. When a final layout is agreed, an Arboricultural Impact Assessment (AIA) should be completed to discuss arboricultural issues within the scheme, and demonstrate to the Planning Authority the viability of the layout.

5.8. Surgery may be required in order to allow trees to be retained close to structures, to allow access for construction or future site traffic, or in the interests of the future health and safety of the trees and users of the site. Detailed recommendations for surgery can be provided once a final site layout is agreed and it is determined which trees are to be retained. All surgery should comply with BS3998:2010 Tree Work or more recently accepted arboricultural good practice.

5.9. Before any works start on site, including demolition, an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) should be submitted, approved and implemented.

There must be no changes in levels, service routing, machine activity, storage of materials or site hut positioning within the Root Protection Areas (RPAs) and the protective fencing must remain in position for the duration of the construction process.

5.10. Attention is drawn to the provisions of the Occupiers Liability Act (1957 and 1984). A land owner has a duty of care to ensure that reasonable steps are taken to ensure the safety of others entering their land. There is a special responsibility to ensure the safety of children, who may be unaware of danger. Reasonably frequent inspections of trees with potential to cause harm, by a competent person, together with implementation of any recommendations, should ensure compliance with the legislation regarding tree safety.

5.11. Notice must also be taken that it is an offence under the Wildlife and Countryside Act and Countryside and Rights of Way Act to disturb a nesting bird or roosting/breeding bat. Further advice, particularly if bats are discovered during tree work, may be obtained from ACD's Ecologist, if required.

Tom Grayshaw BA (Hons) Tech ArborA
Associate Director
15 September 2015

Appendix 1: Summary of Categories BS5837:2012

BS5837:2012 Table 1 -**Cascade chart for tree quality assessment**			
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 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them 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 2: Tree Survey Schedule

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Whitebeam (Sorbus aria)	6 (0.5)	200,170 (2)	3	2	3	4	EM	20+	Stem diameter estimated due to fencing. Twin stem from ground level. Pruned hard away from monument.	C2
T2	Hawthorn (Crataegus monogyna)	5 (1)	200,150,150 (3)	3	4	3	1	EM	10+	Triple stem from ground level. Pruned hard away from entrance. Low individual quality landscape value as part of boundary screening.	C2
T3	Common Oak (Quercus robur)	6 (2)	150 (1)	3	1	3	3	Y	20+	Self seeded tree arisen from lack of maintenance. Stem position estimated as not indicated on topographical survey.	C2
T4	Garrya elliptica	4 (0)	150,150 (2)	1	1	1.5	3	M	10+	Garrya elliptica. Poor condition throughout. Low crown volume. Half of crown topped.	C1
T5	Wild Cherry (Prunus avium)	10 (2)	250 (1)	3	3	3	3	EM	<10	Dead tree.	U
T6	Cherry Plum (Prunus cerasifera)	8 (2)	190 (1)	3	3	3	3	EM	20+	Fair tree but low landscape significance on interior of site. Stem position estimated as not indicated on topographical survey.	C1
T7	Yew (Taxus baccata)	8 (0)	120 (7)	4	3.5	1.5	3.5	EM	20+	Multi stem from ground level. One sided crown shape due to reduction work. Otherwise fair tree.	B2
T8	Goat Willow (Salix caprea)	10 (3)	340,190 (2)	4	4	4	4	EM	20+	Twin stem from ground level. Smaller stem has decay in stem. Limited life expectancy due to anticipated decay issues.	C2
T9	Sweet Chestnut (Castanea sativa)	6 (2)	100,160 (2)	3	3	3	3	Y	20+	Consistent with having self seeded. Stem position estimated as not indicated on topographical survey.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T10	Silver Birch (Betula pendula)	15 (1.5)	330 (1)	4	4	4	4	EM	20+	Stem position consistent with having self seeded. Otherwise fair tree.	B2
T11	London Plane (Platanus X hispanica)	18 (5)	920 (1)	10	9.5	9.5	9.5	M	40+	Pollarded and regrown from 8m. High individual quality and landscape value.	A2
T12	London Plane (Platanus X hispanica)	18 (5)	820 (1)	10	9.5	9.5	9.5	M	40+	Pollarded and regrown from 8m. High individual quality and landscape value.	A2
T13	Bay (Laurus nobilis)	8 (0)	500 (MS)	4	4	4	4	M	20+	Multi stem clump. Stem diameter estimated.	C2
T14	Sweet Chestnut (Castanea sativa)	12 (2)	750 (1)	6	5.5	5.5	5.5	M	40+	Landscape value as part of boundary screening.	B2
T15	Ash (Fraxinus excelsior)	8 (2)	150,150,150 (3)	4	4	4	4	SM	20+	Multi stem self seeded tree. Not suitable for retention.	C2
T16	Sycamore (Acer pseudoplatanus)	6 (2)	100,100 (2)	2	2	2	2	Y	20+	Multi stem self seeded tree. Not suitable for retention.	C2
T17	Sessile Oak (Quercus petraea)	16 (2)	690 (1)	5	6	5	5	M	40+	Landscape value near boundary.	B2
T18	Common Lime (Tilia X europaea)	18 (2)	660 (1)	6	6	6	6	M	40+	Landscape value near boundary. High individual quality and landscape value.	A2
T19	Common Lime (Tilia X europaea)	18 (2)	610 (1)	6	6	6	6	M	40+	Landscape value near boundary. High individual quality and landscape value.	A2
T20	Sycamore (Acer pseudoplatanus)	10 (2)	310 (1)	4	5	3.5	2	EM	20+	Low quality. Topped and regrown so no main leader. Unsuitable in the long term for retention.	C1
T21	Cherry Laurel (Prunus laurocerasus)	8 (0.5)	180,180,180 (3)	4	4	4	4	EM	10+	Triple stem. Low quality.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N | E | S | W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T22	Sycamore (Acer pseudoplatanus)	8 (2)	120,120,120 (3)	4	4	4	4	SM	10+	Triple stem from ground level. Stem position estimated as not indicated on topographical survey. Self seeded tree growing in unsustainable relationship with wall. Recommend removal.	C2
G1	Hawthorn (Crataegus monogyna)	3 (0)	75 (1)	1	1	1	1	Y	20+	Young self seeded trees.	C2
G2	Sycamore (Acer pseudoplatanus)	8 (2)	120 (1)	2	2	2	2	Y	20+	Self seeded trees arisen from lack of maintenance. Stem positions estimated as not indicated on topographical survey.	C2
G3	Ash (Fraxinus excelsior)	8 (2)	100 (1)	3	2.5	2.5	2.5	Y	20+	Self seeded trees arisen from lack of maintenance. Stem positions estimated as not indicated on topographical survey.	C2
G4	Ash (Fraxinus excelsior)	5 (2)	100 (1)	1	1	1	1	Y	20+	Self seeded trees arisen from lack of maintenance. Stem positions estimated as not indicated on topographical survey.	C2
G5	Silver Birch (Betula pendula)	10 (2)	100 (1)	2	2	2	2	Y	20+	Stem positions estimated as not indicated on topographical survey. Average estimated dimensions given for group. Self seeded saplings.	C2
G6	Common Oak, Goat Willow, Silver Birch (Quercus robur, Salix caprea, Betula pendula)	4 (0.5)	100 (1)	2	2	2	2	Y	10+	Young self seeded trees arisen from lack of maintenance. Low quality.	C1
G7	Ash, Common Lime (Fraxinus excelsior, Tilia X europaea)	6 (2)	150 (1)	3	3	3	3	Y	20+	Average estimated dimensions given for group. Stem positions estimated as not indicated on topographical survey. Low individual quality but landscape value as part of boundary screening.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.).| **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.| **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

Appendix 3: Tree Reference Plan
(CON20086-01)

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