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24 Heath Drive Tree Survey and Tree Constraints Plan

Prepared by: Stacey Cougill Eight Associates Ground Floor 57a Great Suffolk Street London, SE1 0BB

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Prepared for: Hannes Voss Kyson Studio 28 Scrutton Street London EC2A 4RP

Issue Status 24 Heath Drive Tree Survey and Tree Constraints Plan

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Executive Summary 24 Heath Drive Tree Survey and Tree Constraints Plan

Executive Summary

Eight Associates has been appointed by Kyson to carry out a Tree Survey and Arboricultural Impact Assessment to the British Standard 5837:2012 'Trees in relation to design, demolition and construction' at 24 Heath Drive, London NW3 7SB.

A site visit was made on the 7th December 2015 to survey the trees, hedges and vegetation to the British Standard. The condition of all trees on site was assessed and a Category Rating was allocated; this information is located table form in Appendix 1.

Tree positions and Root Protection Areas (RPA) have been outlined on the Tree Constraints Plan (TCP) using AutoCAD. It is recommended that both this report and the Tree Constraints Plan be used within the design process to help achieve a proposal with minimal impact on the trees.

In general the trees on site are of good and fair health and vigour. There are a limited number of trees that are poor condition (T14 cherry, T17 oak and T25 oak), or dead (T11 cherry) with some recommendations to fell or remove dead wood. See Appendix 3 Tree Survey Results for more detailed information.

An arboricultural Method Statement should be produced to ensure the protection of the trees on site through the construction phase.

Summary of the trees on site with their category rating (explained on page:

BS 5837 Category Rating	No. of Individual Trees	No. of Groups	Total
Δ Δ	3	0	3
R	7	0	7
C	12	2	1/1
	2	0	2
Tatal	25	0	07
Total	25	2	27

Introduction 24 Heath Drive Tree Survey and Tree Constraints Plan

Introduction

Eight Associates Ltd has been instructed by Hannes Voss of Kyson to carry out a Tree Survey, included within a contextual report, on specified trees and vegetation in and adjacent to the site as identified at 24 Heath Drive, London NW3 7SB.

The tree survey and following report are based on documents and information provided, including a topographical survey (March 2015) and a proposed landscape drawing (No. PSBF 16/LAND/01, May 2016).

The survey was undertaken on 7th October 2016 in partnership by Rosie Lodge from Eight Associates Ltd and Oliver Booth from Writtle Forest Consultancy Ltd.

The Tree Survey included within this report categorises and evaluates trees to identify those suitable for retention. The Tree Survey list details species name, dimensions of the trees, observations of the structural and physiological condition of the trees and categorizes the trees as to their retention value. The survey is based on the Visual Tree Assessment (VTA) method developed by Mattheck and Breloer (1994); it is preliminary in nature and should not be interpreted as a detailed tree condition inspection. Works are recommended to those trees that present an immediate and serious hazard to life or property, or maybe affected by a pest or pathogen that may spread to other trees on the site.

This report includes a Tree Constraints Plan (TCP), showing the position of the trees and the root protection area (RPA). Consideration of Modified RPA is made once knowledge of proposed development/ works are known unless otherwise specified. Considerations of light obstructions can be made if so requested.

There are some aspects that are not dealt with within report (please also refer to Appendix 4). The Tree Survey does not include recommendations in regard to future management of the trees. Neither do the works recommended consider works that may be required prior to development works or to facilitate access to the site. This report does not include an Arboricultural Implication Assessment (AIA), an Arboricultural Method Statement (AMS), or Tree Protection Plan (TPP).

The report and survey does not deal with issues relating to Subsidence or Heave either as a result of retention or removal of trees. Neither does the report or survey consider the water demands of the trees present to enable decisions as to foundation type and depth. This can be done if so required.

Contact Details 24 Heath Drive Tree Survey and Tree Constraints Plan

Ecologist's Details	
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Contact Name	Stacey Cougill
Contact Telephone Number	020 7043 0418
Ecology Report Reference	1948 24 Heath Drive_1610-31sc
Developer / Client Details	
Company Name	Studio Kyson
Company Address	28 Scrutton Street, London, EC2A 4RP
Contact Name	Hannes Voss
Contact Telephone Number	020 7247 2462
Development Details	
Development Name	24 Heath Drive
Development Address	24 Heath Drive, London NW3 7SB.

Trees considered within the survey Tree Survey and Tree Constraints Plan

Identification and location of the trees

The relevant trees are located within or adjacent to the site at 24 Heath Drive, London NW3 7SB.

The locations of the trees are illustrated on the attached Tree Constraints Plan. The locations of the trees are based on the topographical survey provided. Trees not included in the topographical survey have been plotted using a laser distometer measured off from fixed points; whilst this method is questionable to provide utmost accuracy, it is considered sufficient to allow the plotting and consideration of Root Protection Areas. A scale is used for the purpose of plotting the RPA; it is not recommended that this scale is used for any further measurements. Where deemed appropriate some trees are considered as a group.

Trees included in the Survey

Trees included are those present at the time of the survey, with a stem diameter greater than 75mm at 1.5m from ground level.

Also included are those trees on adjacent land which are within a distance equal to 12 times their stem diameter from the boundary, where the tree is identified/ observed. Such trees will be surveyed only from within the confines of the boundary of the site considered unless prior consent is obtained to inspect these trees.

Categorization and Data collection

Trees are categorized in accordance with the cascade chart given as Table 1 in B.S.5837, a copy of this chart is included within Appendix 2.

Data collected within the survey is explained within Appendix 1. This data is collected considering the guidelines given within B.S.5837:2012.

Composition of the Tree Constraints Plan 24 Heath Drive Tree Survey and Tree Constraints Plan

The Aim of the Tree Constraints Plan (TCP)

The Tree Survey enables the development of a Tree Constraints Plan (TCP). The TCP shows the influence that the trees on and adjacent to the site will have on a site development layout/ proposed works and to inform areas that can be developed.

Where a site development has already been outlined the trees are none-the-less evaluated independently of the proposed development.

What is included in the TCP

The plan identifies the Root Protection Area (RPA). This is the minimum area (in square metres) which should be left undisturbed around each retained tree.

The RPA whilst not affecting the total area can be modified. This is according to the morphology and disposition of roots, the soil type and structure, topography and drainage. This is considered (if relevant) within an Arboricultural Implication Assessment.

The report does not consider in this instance a consideration of the growth potential of the trees or possible effects of obstruction of daylight to the building.

Conclusion 24 Heath Drive Tree Survey and Tree Constraints Plan

Further considerations

An Arboricultural Implications Assessment (AIA) will take into account issues relating to tree preservation orders, conservation area protection as well as the effect on the amenity value of the trees. The assessment will further take into account issues relating to the TCP and deal with issues relating to the proposed design and layout of the site. This in turn will affect possible relevant tree work proposals and new tree planting.

The Arboricultural Method Statement (AMS) is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is generally drawn up along with a Tree Protection Plan (TPP) after the layout proposals have been finalized. The TPP outlines trees to be retained, removed, location of barriers and type of barrier to be installed.

The AMS will take into consideration construction operations undertaken in the vicinity of the trees. It will deal with such issues as site access, intensity of construction activity, space needed for works, location of materials and location of service runs.

Appendix 1: Explanation of Category Headings 24 Heath Drive Tree Survey and Tree Constraints Plan

Tree No	The tree number as given to the tree or group of trees as shown on the site plan. The plotting of these trees are approximations.
Species	This is the general common usage name given to the tree. The Latin genus is sometimes given as clarification where deemed necessary.
Height	This is an approximate figure given in metres. Measurements are taken using a digital clinometer.
Stem Diameter	The measurement is given in millimetres using a standard girth tape. This is an approximate measurement of the diameter of the trunk at a height of 1.5m from ground level.
Crown Spread	This is an approximate figure given in metres where 'm' denotes metres. It is an approximate measurement of the radial crown spread to north, east, south and west.
Height of crown clearance	This is the height in metres of the crown clearance above adjacent ground level. This measurement pertains to information on ground clearance and shading.
Height to first major limb	This is the height in metres to the first major limb that would not normally be removed as a consequence of crown lifting works. The orientation of this limb is also recorded (e=east, n=north, s=south and w=west).
Age Class	The following abbreviations are used to give the age of the tree; Y= Young trees aged less than one third of life expectancy. EM = Early mature tree, approx. one third of life expectancy. SM= Semi mature trees between one to two thirds of life expectancy. M = Mature tree over two thirds of life expectancy. OM= Over mature trees exceeding life expectancy.
Physiological Condition	The following considerations are used to evaluate the physiological condition of the tree (foliage and vitality): Good, Fair, Poor, Dead, with intermediate descriptions using the same phrasing.
Structural Condition and Observations	These are observations and comments on the visible structural condition of the tree on the day of the survey. They are brief and relate to unaided observations from the ground, unless otherwise stated. These observations are made to categorise the tree and they do not replace a more comprehensive condition survey.
Preliminary Management Recommendations:	These are initial recommendations including the following; highlighting the need for more detailed inspections, those trees that present an immediate hazard to life or property. The tree works recommended do not consider general or required management of the trees. Similarly the works outlined do not consider works that may be required prior to development works or to facilitate access to the site.
Estimated remaining contribution of the tree	This is the number of years that the tree will contribute to the landscape. The following bands are used: Less than 10 years, 10-20 years, 20-40 years, more than 40 years.
Category grading:	This is the categorisation for trees following a tree quality assessment. Trees are categorized in accordance with the cascade chart given as Table 1 in B.S.5837. A copy of this chart is included within Appendix 2.

A red asterisk * denotes that the category grade as given will be dependent upon information gained from further inspection of the tree.

Appendix 2: Tree Categorisation 24 Heath Drive Tree Survey and Tree Constraints Plan

	TREES TO	O BE CONSIDERED FOR REMOVAL								
CATEGORY AND DEFINITION CRITERIA										
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	rees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become nviable after removal of other U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). rees that are dead or are showing signs of significant, immediate, and irreversible overall decline rees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees appressing adjacent trees of better quality OTE Habitat reinstatement may be appropriate (e.g. U category tree used as a bat roost: installation of bat box in nearby tree).									
	TREES TO	BE CONSIDERED FOR RETENTION		Identification						
CATEGORY AND DEFINITION CRITERIA — Subcategories										
	Mainly arboricultural values	2. Mainly landscape values	Mainly cultural values, including conservation							
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	their species, especially if rare or unusual, or essential components of groups, or of formal	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	significant conservation, historical, commemorative or other value (e.g.	LIGHT GREEN						
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	conservation or other cultural benefits	MID BLUE						
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	other cultural benefits	GREY						
of 10 years is suggested), or young trees with a stem diameter below 150 mm	IOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem liameter of less than 150 mm should be considered for relocation.									

Appendix 3: Tree Survey Results 24 Heath Drive Tree Survey and Tree Constraints Plan

Tree Ref. No:	Ref. (m) Dia.	Stem Dia. (mm)			ead		Ht. of crown clear.	Ht to / first major	Age	Age Phys. Con.	Structural condition and observations	Preliminary Management Recommendations	Est. Remain Con.	Cat. grade	
				N	E	S	W	(m)	limb (m)						
H1	Privet	2.5	Av. 50	0. 5	0. 5	0. 5	0. 5	0	0	EM	Fair	Regularly maintained	No works presently required	20+	C2
H2	Privet	2.5	Av. 50	0. 5	0. 5	0. 5	0. 5	0	0	EM	Fair	Regularly maintained	No works presently required	20+	C2
T1	London Plane	17	910	5	5	5	5	4.5	4.5 n	М	Fair/ Good	Pollard at 4.5m. High pollard at 8m. recently cut in last 2-3yrs.	No works presently required	40+	A1
T2	London Plane	16	960	6	6	6	6	5	5 n	М	Fair/ Good	Pollard at 4.5m. High pollard at 8m. recently cut in last 2-3yrs.	No works presently required	40+	A1
T3	Oak	5	120	1. 5	1. 5	1. 5	1. 5	2	3 w	Υ	Fair	Distorted development of main stem	No works presently required	40+	C1
T4	Elder	4	100+ 110	2	2	2	2	0	0.5 e	SM	Fair	Pollarded at 2m	No works presently required	10+	C1
T5	Elder	4	100+ 80	1. 5	1. 5	1. 5	1. 5	0	0	SM	Fair	Pollarded at 2m	No works presently required	10+	C1
Т6	Pyracantha	5	140	1	1	1	1	0	0	EM	Fair	Growing adjacent to building	No works presently required	20+	C1
T7	Pyracantha	5	90	1	1	1	1	2	3 n	EM	Fair	Growing adjacent to building	No works presently required	10+	C1
T8	Goat Willow	12	220	2	3	4. 5	3	0	1.5 n	SM	Fair	Tree on boundary growing through concrete path directly adjacent to garage. (Damage to path and garage).	No works presently required	10+	C1
Т9	Elder	10	120+ 110+ 110+ 80	2	2	3. 5	2	3	3 s	SM	Fair	Tree growing on boundary on raised ground	No works presently required	10+	C1
T10	Birch	12	210	3	3	3	3	2	3 s	SM	Fair/ Good	No comments	No works presently required	40+	B1

Appendix 3: Tree Survey Results 24 Heath Drive Tree Survey and Tree Constraints Plan

Tree Species Ht. Ref. (m)		Dia.	Dia.	Dia.	Dia.	Dia.	Dia.			ead		Ht. of Ht to crown first clear. major	Age	Phys. Con.	Structural condition and observations	Preliminary Management Recommendations	Est. Remain Con.	Cat. grade
				N	E	S	W	(m)	limb (m)				Recommendations					
T11	Cherry	3	240	1	1	1	1	2	2 s	EM	Dead	No comments	Fell	<10	U			
T12	Cherry	10	150	3	3	3	3	3	3 w	SM	Fair	Ivy and climber encroaching within crown	No works presently required	20+	C1			
T13	Rhodo- dendron	5	140+ 110+ 110	2	3	3	3	0	0	EM	Fair	No comments	No works presently required	20+	C1			
T14	Cherry	14	590	4.	5	5	5	2	2 n	М	Poor/ Fair	Exposed damaged buttress root in neighbouring property. Decaying fungal bracket to south at approx 1m at area of old wound. Probable <i>Laetiporus</i> sulphureus. Significant decay sounded around area of old wound and bracket. Tree has been historically heavily reduced.	Fell	<10	U			
T15	Yew	14	7 x 270	4. 5	4. 5	4. 5	4. 5	1	1 s	EM	Fair/ Good	No comments	No works presently required	40+	B1			
T16	Yew	14	6 x 250	4. 5	4. 5	4. 5	4. 5	1	1.5 w	EM	Fair/ Good	No comments	No works presently required	40+	B1			
T17	Oak	4	630	1	1	1	1	1	3 w	М	Poor/ Fair	Tree has been historically cut at a height of 3m. Tree is growing on bank. Unable to inspect base of tree due to bramble and ivy encroachment.	No works presently required	10+	C1*			
T18	Sycamore	12	160	1. 5	1. 5	1. 5	1. 5	1	2 w	SM	Fair	No comments	No works presently required	20+	C1			
T19	Crab Apple	12	230	4	3	2	2	2	1.5 n	SM	Fair	No comments	No works presently required	20+	C1			
T20	Sycamore	20	390	5	5	5	5	3	3 s	EM	Fair/ Good	Tree growing on boundary. Dense ivy and holly growing at base of tree unable to care out full inspection.	No works presently required	20+	B1*			
T21	Oak	22	900	7	7	7	7	4	6 w	ОМ	Fair/ Good	Tree within neighbouring property all measurements estimated. Unable to inspect base of tree.	No works presently required	40+	A1*			

Appendix 3: Tree Survey Results 24 Heath Drive Tree Survey and Tree Constraints Plan

Tree Species Ht. Ref. (m)			Crown Spread				Ht. of Ht to crown first clear. major	Age Phys. Con.	Structural condition and observations	Preliminary Management Recommendations	Est. Remain Con.	Cat. grade			
				N	E	S	w	(m)	limb (m)				Recommendations		
T22	Horse Chestnut	22	750	6	6	6	6	5	4 s	М	Fair/ Good	Tree within neighbouring property unable to inspect all measurements estimated	No works presently required	40+	B1*
T23	Lime	24	760	3	6	3	6	0	4 w	М	Fair/ Good	Major deadwood within crown overhanging neighbouring property	Removal of dead wood	40+	B1
T24	Lime	24	670	1	5	5	6	5	3 e	М	Fair/ Good	Dead wood within crown overhanging neighbouring property	Removal of dead wood	40+	B1
T25	Oak	5	690	0	0	2	5	4	3 w	М	Poor	Main stem historical cut at 3m. Re- growth at 3m of main limb to west. Main stem has extensive decay	Fell	<10	U
G1	Group	12	Av 240	3	3	3	3	0	0	SM	Fair	Mixed group of Sycamore, Yew, Lime, Holly, Rhododendron, Elder, Horse Chestnut and Crab apple, approx. 10 trees. Generally young to semi mature trees of fair condition, Most appear to be self-set. Group includes wind -blown elder and dying crab apple. Group heavily shaded by adjacent trees.	No works presently required	20+	C2

Appendix 4: Tree Survey Results 24 Heath Drive Tree Survey and Tree Constraints Plan

Limitations of the Tree Survey and Scope of the Report

Please also refer to the Introduction of the report. The survey was based on unaided, visual observations made from ground level only.

No climbing inspection or below ground inspections were carried out at the time of the survey. The survey preliminary in nature and should not be interpreted as a detailed tree condition inspection. Trees with ivy encroachment or twig proliferation significant that inspection of the tree stem is obscured or impeded are recorded in the tree schedule; the obscuring ivy or twigs should be removed and the tree re-inspected.

All observations were made from within the boundaries of the property, or from public land unless otherwise stated. Trees within neighbouring property are inspected as closely as is reasonably possible from within the boundaries of the property or from public land.

The report only details trees and vegetation as identified in the instructions and/or outlined within Composition of the tree constraints plan section of this report.

This report does not consider the possible implications to any present or future built structures. This will be dealt with by further reports as deemed necessary/ as and when instructed by the client.

Findings of the Survey and the Report

Validity, accuracy and findings of the report will directly relate to the accuracy of information provided at the time of the survey. No checking of independent data provided will be undertaken.

Timing of the Survey and the Report

The considerations/ findings in this tree report and tree survey are only valid for one year. Such considerations/ findings will become invalid if any building works are undertaken, soil levels are altered or tree work undertaken.

If there is any alterations to either the property or soil levels, or if tree works are carried out, it is recommended that a new tree survey/report is undertaken.

Trees in relation to other Properties

This report/survey only considers the trees in relation to the site as identified. It 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. built structures and surrounding vegetation.

Appendix 4: Limitations of Tree Report 24 Heath Drive Tree Survey and Tree Constraints Plan

Trees in Relation to Subsidence, Heave and Direct damage

This report does not deal with issues relating to subsidence or heave in relation to any built structures and surrounding vegetation. However, it may be prudent to consider the effects of heave on any property if trees are removed. Similarly the issue of direct damage (when the roots of a tree have physical contact with a structure) is not considered within this report.

Trees subject to statutory controls

It has not been established whether or not any of the trees mentioned within the report are covered by any statutory controls. This can be done if requested.

If the trees are covered by a Tree Preservation Order or are located in a conservation area it will be necessary to consult the local authority before any pruning works, other than certain exemptions, can be carried out.

The works specified above are necessary for reasonable management and should be acceptable to the local authority. However, tree owners should appreciate that the local authority may take an alternative point of view and have the option to refuse consent.

Trees are subject to changes outside man's control

Trees are living organisms subject to changes outside man's control. Trees and environment alter with the seasons it is as well to inspect trees whilst in full leaf and when out of leaf.

If there are any harsh or unexpected weather conditions, or heavy storms it is also prudent to inspect trees.

Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of man's influence and others factors may be involved.

The considerations/ findings in this tree report and tree survey are only valid for one year. Such considerations/ findings will become invalid if any building works are undertaken, soil levels are altered or tree work undertaken