Arboricultural Impact Assessment

relating to development at land between South Mansions and Gondar House, West Hampstead

Client

AN:X Developments

1st Floor Office
155 Regents Park Road
London
NW1 8BB

May 2020

1325-KC-XX-YTREE-Impact Assessment-Rev0

The Studio, Timbers, Gables Road, Church Crookham, Fleet, Hampshire, GU52 6QY
Telephone +44(0)1252 850096 | Email: mail@keenconsultants.co.uk

KEEN CONSULTANTS

Document history

Revision	Issue Status	Details	Approved/Date
Rev0	Final	Initial report	JK / 15 May 2020

Contents

Tables

Appendices

Appendix 1 Tree Aware UK Ltd BS 5837: 2012 Tree Survey

1.0 Introduction

1.1 This assessment will consider the impact upon trees of implementing the proposals shown on the drawings listed below

Table 1 - List of drawings referred to in this assessment

Originator	Drg No	Title	Scale
Emrys	1912-EMR-HR-B1-AP-A-02101	02 Proposed Plans BASEMENT PLAN	1:100 @ A3
Emrys	1912-EMR-HR-GF-AP-A-02102	02 Proposed Plans GROUND FLOOR PLAN	1:100 @ A3
Emrys	1912-EMR-HR-1F-AP-A-02103	02 Proposed Plans FIRST FLOOR PLAN	1:100 @ A3
Emrys	1912-EMR-HR-2F-AP-A-02104	02 Proposed Plans SECOND FLOOR PLAN	1:100 @ A3
Emrys	1912-EMR-HR-3F-AP-A-02105	02 Proposed Plans THIRD FLOOR PLAN	1:100 @ A3
Emrys	1912-EMR-HR-ZZ-AP-A-04101	04 Proposed Section SECTION 1	1:100 @ A3
Emrys	1912-EMR-HR-ZZ-AP-A-04102	04 Proposed Section SECTION 2	1:100 @ A3
SD Structures	SDS795-C-PL100 RevP0	Below Ground Drainage Layout	1:50 @ A0
Tree Aware UK Ltd	63275-5-01 Rev 0	Hillfield Road Tree Constraints Plan	1:200 @ A2
Keen Consultants	1325-KC-XX-YTREE-TPP01Rev0	Tree Protection Plan	1:100@A3

1.2 Site proposals considered in this application include:

1.2.1 Apartment dwellings including basement

1.2.2 Access paths

1.2.3 Utilities and services

1.2.4 New and replacement tree planting

1.3 In outline, the proposals have been specifically devised, following liaison with the Council, to retain the lime tree that stands within the pavement of Gondar Gardens, to the fore of the site. Other, low quality trees are to be removed and new planting is to be accommodated within the proposed garden spaces.

2.0 Assessment of impact upon trees

2.1 The application scheme seeks to place an apartment building, including basement, within the current garden space and parking area to the rear of 1 Hillfield Road. The site will be accessed from Gondar Gardens.

2.2 A tree survey (see Appendix 1) undertaken by Tree Aware UK Ltd identifies the trees on the site, including a lime tree that stands within the pavement of Gondar Gardens, just outside the site.

2.3 Liaison with the Council has sought their input, in respect of trees amongst other things, on how the design of the scheme should evolve to ensure the retention of the lime tree on Gondar Gardens. This has resulted in a scheme that minimises impact to the tree and enables it to be retained and to thrive.

2.4 The basement has been set back from the tree to ensure the root protection area identified by Tree Aware has been respected. This will ensure that sufficient rooting environment is retained to sustain the tree.

2.5 The ground floor level projects within the root protection area but is designed to minimise the intrusion within the ground. Specialist foundation measures such as mini-piles and suspended raft can be deployed to further minimise the impact.

2.6 The building has been stepped back from ground floor level to respect the crown of the tree. This tree is maintained on a regular basis by pollarding so the tree never attains its full crown spread. Continuance of the pruning regime will ensure the tree crown does not foul the building and therefore result in harmonious living conditions. In addition, a maintenance agreement can be put in place by the management company of the proposed development that sets out the regime of pruning to maintain clearance from the building. This places control of light pruning, where branches overhang the property, with the management company, rather than individual residents. Control of the cyclical pollarding remains with the Council.

2.7 In summary, the apartment building can be achieved without material harm to the lime tree on Gondar Gardens.

2.8 The scheme will require the loss of the other, low quality trees within the garden space but none of them are of exceptional merit that warrants their retention.

2.9 The Structures Stage 2 Report prepared by SD Structures sets out a proposed below ground drainage layout. It recognises that proposed drainage enters the outer fringes of the root protection area of the lime tree and proposes installation using specialist techniques.

2.10 Those specialist techniques include moling, thrust-boring, broken trench or excavation by hand or AirSpade. They can ensure the installation of the drainage, and other services, result in no material harm to the tree.

2.11 No other installations, including mechanical and electrical equipment, are proposed in an area that would be of detriment to trees.

3.0 New and replacement tree planting

3.1 The application scheme can accommodated planting within the proposed garden spaces. Species selection can ensure appropriate tree species are selected for the new locations.

3.2 The new planting will help mitigate the loss of trees and ensure continuity of tree cover within the local area.

4.0 Protection of trees during construction

4.1 To ensure the retained trees are safeguarded a tree protection plan has been prepared to show the location of protective measures. These measures need to be implemented in advance of construction and maintained until such time as soft landscape proposals require their removal.

4.2 In some instances specialist construction techniques or approaches are indicated on the protection plan. These shall be implemented in accordance with site progress.

4.3 In order to ensure the protective and specialist measures are understood, implemented and maintained a scheme of monitoring and supervision shall be put in place.

4.4 A scheme of supervision/monitoring shall typically include:

- a pre-commencement meeting;
- a site visit by an arboriculturist at no more than one month intervals;
- a report to be prepared after each site visit and presented to the Council within 7 days of the visit.

5.0 Summary of impact assessment

5.1 The proposed development results in the loss of low quality trees but enables the significant lime tree on Gondar Gardens to be retained with no material harm.

5.2 Services and utility installation can be installed, deploying specialist installation techniques where required, to ensure harm to the tree is minimised.

5.3 Replacement tree planting can be provided to ensure continuity of tree cover.

Appendix 1

Tree Aware UK Ltd

BS 5837: 2012 Tree Survey

TREE AWARE UK LTD
Arboricultural Consultancy

Tree Aware UK Ltd
Company Reg 08330676
Email enquiries@treeawareuk.com
Tel 01832 710 874

BS 5837: 2012 Tree Survey

1 Hillfield Road, London

Undertaken by Alastair Gavin on behalf of Tree Aware UK Ltd
on the 12/04/2019

[This document sets out to evaluate the trees surveyed on the 12/04/2019 in accordance to BS 5837:2012 “Trees in relation to design demolition and construction" this document is not a tree condition survey it categories the tree or trees based on their quality and value and thus allows for an informed decision to made in respect to the tree/trees retention and removal in connection to development.]

Methodology

This survey has been undertaken in compliance with BS 5837: 2012. This survey is not a tree condition survey; none of the trees have been climbed nor has any decay detection equipment been used, any comments in connection to the tree's condition are incidental and secondary in nature, the main objective of this survey is to inform and guide decisions in connection to development.

Where hazardous trees have been identified and recommendations given for immediate action, this should be undertaken and arranged as soon as possible.

Sequential Reference Number

All trees surveyed have been given a sequential reference number such as T1, T2, T3 or H1, H2, H3 for hedges Etc. Where trees form a group (which is decided by the surveying Arboriculturalist) a group reference number will be provided, these will be in the line of G1, G2, G3 etc.

Species

The tree species will be listed in the schedule by their common name. A key to their scientific names can be found below;

Tree Reference number	Common Name	Scientific Name	Native/None native
T1	Lime	*Tilia europaea*	Native
T2	Lime	*Tilia europaea*	Native
T3	Eucalyptus	*Eucalyptus spp*	Native
G1	Conifer Maple	*X Cuprocyparis leylandii* *Acer spp*	None Native None Native

G2	Apple Elderberry	*Malus spp* *Sambucus nigra*	None Native Native
H1	Conifer	*X Cuprocyparis leylandii*	None Native

Tree Height

Tree height has been taken in meters and is an approximate measurement.

Diameter of Stem

The diameter of a single stem is taken at 1.5m above ground level. Where there are multiple stems arising from either the base of the tree or below 1.5m the diameter of the stem is calculated using annex C in the British standard BS 5837: 2012 handbook.

Crown Spread

This is measured in meters using the four cardinal points:

North, South
East, West

Height of first branch

Approximate height in meters of the first significant branch. A cardinal point maybe given to indicate the direction the branch is growing in if the branch is of a significant size.

Canopy Height

Approximate height of the canopy taken in meters

Life Stage

The trees are classified into the following life stages dependent on their age. The categories are;

Young
Semi-mature
Early mature
Mature
Over mature

General Observations

The tree/trees, hedge and groups are observed for any structural or physiological conditions such as the presence of decay, structural defects, pest and disease pathogens etc. Any such identification will be noted, and preliminary management recommendations made.

Estimated remaining contribution, in years

Based on the tree's condition an estimate on the remaining useful life expectancy of the tree/trees is given - these will be in the following categories.

Under 10 years
10+
20+
40+

BS 5837 Category

Category A, B, C or U is given to the trees based on the below criteria.

The purpose of the categorization which is undertaken by the surveying Arboriculturalist is to identify the value (in a non-fiscal sense) and the quality of the tree stock on site so that informed decisions can be made in regard to what trees should be removed or retained in connection to development.

Category A, B, C trees are considered worthy of retention, whereas category U trees are generally considered unworthy for retention but may have conservation value which may be desirable to conserve.

Category A

Trees of high quality with an estimated remaining life expectancy of at least 40 years.

(Having one or more of the following qualities)

1. Mainly arboricultural qualities
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)

2. Mainly landscape qualities
Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features

3. Mainly cultural values, including conservation
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

(Having one or more of the following qualities)

1. Mainly arboricultural qualities
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

2. Mainly landscape qualities
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

3. Mainly cultural values, including conservation
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

(Having one or more of the following qualities)

1. Mainly arboricultural qualities
Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories

2. Mainly landscape qualities
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

3. Mainly cultural values, including conservation
Trees with no material conservation or other cultural value

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.

Groups of trees and woodlands

Where groups of trees or woodlands exist on the site it is down to the surveying Arboriculturalist to designate these features and to decide on what information should be recorded in respect to these. In certain circumstances individual trees within a group or woodland are surveyed individually, such as when there is a need to differentiate between them e.g. when variation is present in their structural condition.

Hedgerows, substantial internal or boundary hedges (including evergreen screens)

These are surveyed similarly to groups of trees with the lateral spread and average height and stem diameter ranges recorded. All woody species present on the site are recorded; this is to allow the potential constraints associated with such features to be fully assessed.

Where accurate measurements cannot be gained due to inaccessible trees a # will be put at the end of the figure indicating it is an estimate.

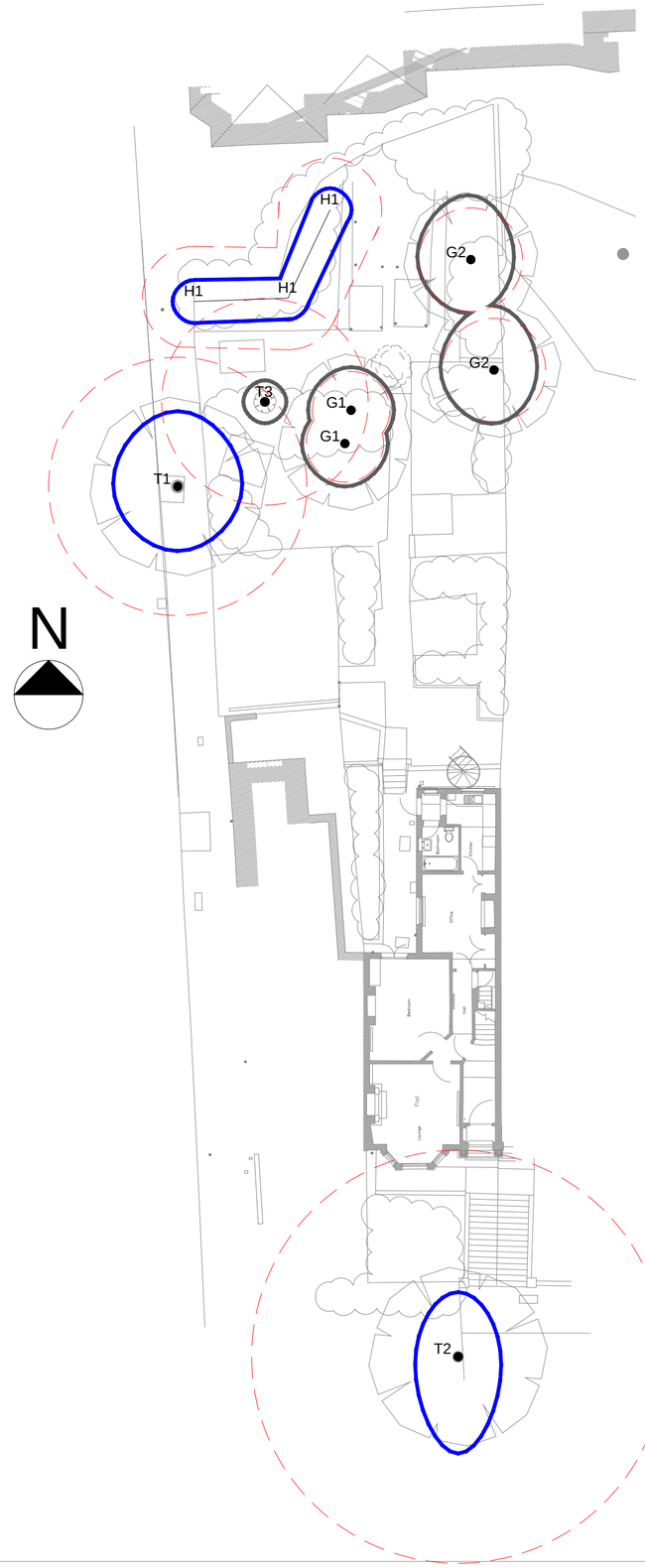
Tree Survey Schedule

Sequential Reference Number	Species (Common Name)	Height	Stem Diameter	Branch Spread N S E W in metres	First Significant Branch	Canopy Height	Life Stage	General Observations	Estimated Remaining Contribution in years	BS 5837 Category
T1	Lime	10m	500mm	3.5, 3, 3, 3	3m	2.5m	Mature	Tree located in pavement, previously pollarded with re-growths present, evidence of past branch pruning, average form, tree overhangs road, footpath and properties garden, bird nest in tree as of 12/04/2019, tree is in a good condition.	20+	B
T2	Lime	16m	800mm#	3, 4.5, 2, 2	2m	2m	Mature	Ivy present on stem of tree as such tree could not be fully inspected, tree previously pollarded with re-growths present, average to good form, evidence of past branch pruning, tree located in raised grassed area, potential weak union covered in Ivy. **Recommendation** **Remove Ivy**	20+	B
T3	Eucalyptus	4m	400mm	1, 1, 1, 1	1.6m	1.8m	Mature	Pollarded tree undertaken recently with small re-growths present, average form to tree, trees stem has slight lean northwards.	10+	C
G1	Conifer Maple	5m	150mm	2, 2, 2, 2	30cm	80cm	Semi Mature	Group of two small trees with combined canopies, average form to group which was previously suppressed by T3 canopy before pollard, average condition.	10+	C

G2	Apple Elderberry	5m/7m	200mm	3, 2.5, 2#, 2.5	1m	1.6m	Juvenile / Early mature	Group of approximately 3 trees including tree in neighbours garden, combined canopies, average form with some suppression present, evidence of past branch pruning average condition, Ivy present on stem as such group could not be fully inspected. **Recommendation** **Remove Ivy**	10+	C
H1	Conifer	3.5m	200mm	1, 1, 1, 1	40cm	30cm	Semi Mature	Previously maintained hedge with dense canopy, good form and condition, some minor die back to outer canopy, active birds nest as of 12/04/2019.	20+	B

Root Protection-Constraint Plan

(Please see separate document)



Key

- Category A Tree Canopy Spread
- Category B Tree Canopy Spread
- Category C Tree Canopy Spread
- Category U Tree Canopy Spread
- Root Protection Area

REV.	DATE	BY	DESCRIPTION

TREE AWARE UK LTD
Arboricultural Consultancy

CLIENT
Tree Aware UK LTD

TITLE
Hillfield Road
Tree Constraints Plan

DRAWN BY	DATE	SCALE	SHEET SIZE
jml/CAD	24.04.19	1:200	A2
CHECKED BY	DATE	APPROVED BY	DATE
AM/CAD	24.04.19	AG	24.04.19

DRAWING No.	REVISION
63275-5-01	0