1-38-4210

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R E P O R T

on the impact on trees

of proposals for development

at

20, Albert Terrace Mews, London, NW1 7TA

(24th January 2017)

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01
Introduction and Instructions

I am instructed by Progressive Property Management to make an assessment of tree amenity value and condition of trees at 20, Albert Terrace Mews, London, NW1 7TA and of the impact of a proposal for development (including basement) on such trees. Accordingly, I visited the property on 10th January, 2017 in order to carry out an inspection.

02
Copyright

02.01
Copyright is retained by the writer. This is a report for the sole use of the client(s) named above. It may be copied and used by the client in connection with the above instruction only. Its reproduction or use in whole or in part by anyone else without the written consent of the writer is expressly forbidden. The appended schedule of tree work, and the plan, may, without the written consent of the writer, be reproduced to contractors for the sole purpose of tendering.

03
Notes

03.01
PLANS

1-38-4210/P1 v2 gives an approximate representation (in plan) of actual crown form, and is intended to indicate the relationship of neighbouring trees to each other, and should be read with the comments on crown shape and tree value in TREE DETAILS appended. The plan gives a quick reference assessment of value as per section 4, table 1, of BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'. Assessment of value in the TREE DETAILS table appended is, in accordance with British Standard 5837:2012 related mainly but not exclusively to the criterion of *visual value to the general public*. The Standard recommends a way of classifying trees when assessing their potential value in relation to proposed development. Some surveys may not include any trees of one or more categories. Table 1 suggests categories 'U', 'C', 'B' and 'A' , in ascending merit. 'U' (RED crown outline on plan) category trees are dangerous \ low value trees that could require removal for safety or arboricultural reasons. 'C' (GREY or black/uncoloured crown outline on plan) category trees are of no particular merit, but in adequate condition for retention. 'A' category trees (GREEN crown outline on plan) are trees of high vitality or good form, or of particular visual importance: 'B' (BLUE crown outline on plan) category are good trees but may be of slightly poorer form or be not sited as importantly as 'A' category trees. See TREE DETAILS appended. Category Assessment appears in column 10. This standard also provides a way of determining an area (see TREE DETAILS column 7) – the RPA – root protection area - around the trunk of the tree in which protective measures should be used in order to prevent significant damage to trees. There are various ways of achieving this. A simple way is to use exclusion fencing, but other methods have been shown by established use to be very effective.

03.02
1-38-4210/P2 v3 shows proposed retained trees and is colour-coded to indicate where arboricentric methods are proposed during the construction process.

04
Sources and Documents

Ground level inspection.
Supplied plans :
Townscape Surveys Ltd. drg. no.: 7266-1
Elfira The drg. no: 15003_proposed

05
Appraisal

05.01
AMENITY / SCREENING BY TREES AND SHRUBS
H1 is a pleached hornbeam hedge of strictly local amenity value to owners / users of the site, and to those of adjoining properties. No trees on or adjacent to the site are of any general public amenity value, as they are not visible from any truly public viewpoint.

05.02
TREES AND LAYOUT - POTENTIAL FOR CONFLICT WITH ROOTS
(Details appear in the tree detail table appended.) The figures in columns 5 and 6 in the Tree data table appended indicate the root protection area ('RPA' below), and typically the basic exclusion fence position. New materials and methods have been developed and continue to be developed that assist in promoting the successful retention of trees in association with constructed features. It should be noted that BS 5837:2012 (section 7.4.2) supports 'up and over' methods of construction where appropriate. The design principle of this method is outlined within Arboricultural Practice Note 12 (Through the Trees to Development, - a revision of APN 1, 1996, published originally by AAIS / Tree Advice Trust). This method has been used for many years on the recommendation of John Cromar's Arboricultural Co. Ltd. and has successfully allowed the retention of mature trees very close to construction activities.

05.03
An assessment as per BS5837:2012 section 4.6.2 has been carried out in connection with all items to be retained. (This section requires that site conditions such as location of structures, tree mechanics, etc., are taken into account in determining the likely position of roots.)

05.04
ROOTS and DESIGN
SRP is an acronym for *static root plate*, (after *Mattheck*, 1991, etc.) a radial dimension derived from trunk diameter based on studies of wind-thrown trees and thus a guide to where structurally significant roots are likely to be located. RPA is an acronym used in BS5837:2012 and signifying the *root protection area*.

The RPA is a guide to where systemically significant roots are likely to be located.

No encroachment on the RPA (or SRP) of any retained tree is entailed : the hedge is a relatively recent planting and is separated from the site by a substantial boundary wall. On the basis of my experience, amounting to more than a third of a century in arboriculture, I can be certain that no significant roots of the hedge lie within the site and probably no roots of the hedge whatsoever.

In view of the above I conclude that no special footings are needed from the arboricultural perspective.

05.05
PERCEPTION OF TREES
The proposed basement will be lit partly by a re-inforced glass-floored terrace. In my view the internal layout of the proposed dwelling has been designed so as to generate minimum shading inconvenience. In view of the above I conclude that shading by and perception of trees has been considered (as sections 5.3.4 and 5.6.2.6 of BS 5837:2012 recommend) and appear not to be negative factors.

05.06
PRUNING
I note from my site survey and the drawings supplied that minimal encroachment of the spread of the hedge above the site occurs. It is of note however that the form of the hedge is that the defining branch structure is well clear of the proposed building line. The minor pruning required is of no importance to the health or appearance of the hedge H1 from any perspective and can easily be addressed by routine garden maintenance.

05.07
SUPERVISION
Supervision by and regular communication with an arboriculturist is a nigh-essential element of site management where trees are present and to be retained. I propose that this takes place at key points in the construction process, and additionally whenever required by the architect or LPA. These key stages are as per method 1 in section 06.02 below.

05.08
PUBLISHED GUIDANCE IN RELATION TO TREES AND DEVELOPMENT
In conserving trees on development sites, expected best practice is as in B.S. 5837 : 2012. Section 5.1.1 notes :

"Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification : attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal."

05.09
The above advice appears to have been considered in formulating proposals for development.

05.10
CONCLUSION
I conclude that the construction proposed, subject to precautionary measures as outlined above and as per the recommendations outlined below, will not be injurious to vegetation to be retained, nor will require any items of vegetation to be removed.

06
Tree Protection Proposals

06.01
TREE PROTECTION – GENERAL OVERVIEW
It is highly important to tree health and vitality that construction activities are carried out strictly in accordance with the tree protection methods specified below. It is widely not understood that a single traverse of a root protection area by a mechanical excavator can cause SIGNIFICANT and PERMANENT (albeit temporarily invisible) damage to trees. Any such machinery, including, for example, tracked piling rigs, shall be kept at ALL times outside the root protection areas (RPAs) as indicated in the Tree data table appended, and/or shall be subject to ARBORICENTRIC METHODS below. Fences to protect trees shall be respected as TOTAL EXCLUSION fences. Hence, before any site activity, including demolition, the fence lines shall be complete. Protective fencing and any temporary protection of ground surfaces will have to be removed in due course to allow finishing of landscaping, paving, etc., but this shall not take place until all need for vehicular access to the site has passed, and shall be agreed with arboriculturist / planners on site during progress of works.

06.02
TREE PROTECTION – ARBORICENTRIC METHODS 1-4

PLEASE READ WITH PLAN REFERENCE 1-38-4210/P2 v3, APPENDED.
The Methods shall be implemented in the order given unless it is stated to the contrary.

Method 1 : Supervision by an arboriculturist shall take place at key points in the construction process, and additionally whenever required by the architect, client or LPA. These key stages are :

1) **At site possession by contractor, outline all tree protection measures with site agent and resolve any issues arising.**
2) **Ensure minor pruning is carried out to specification and sign off.**

Method 2 : WORK TO VEGETATION
Work shall be in accordance with the provided specification and good horticultural practice and in accord with spread line marked on plan.

Method 3 : CONTIGUOUS PILE WALL – FACILITATION TRENCH
This method shall apply in the zone solid cyan on plan. An access trench shall be opened with hand tools only (in the position indicated on plan), to a depth of 600mm below ground level. Any roots shall be trimmed to the side of the trench closest to the tree with a sharp edge tool or sharp hand saw. Any roots shall be trimmed at right angles to the long axis of the root. No paint or other treatment shall be applied to the cut ends. An HDPE membrane shall be applied vertically to the exposed soil face closest to the tree, retained in position by vertically placed manufactured board extending the full depth and width of the vertical face of the trench. The boards shall be 22mm thickness and shall be retained in position during the piling operations by timber shores or stakes.

Method 4 : In addition to the above, careful general operation and site handling shall be observed as outlined at 06.03 below.

06.03
GENERAL TREE PROTECTION METHODS

A) No fires shall be made on any part of the site, or within 20m of any tree to be retained.

B) No spilling or free discharge of wet mortar, concrete, fuels, oils, solvents, or tar shall be made on any part of the site.

C) No storage of wet materials shall be made within the protective fences.

D) No breaching or moving of the protective fences shall take place without the approval of an arboriculturist.

06.04
It is recommended that acceptance of the recommendations in this report is demonstrated by, for example, the architect specifying in writing to the building contractor that tree care conditions apply in execution of the contract, and by an estimate or written undertaking from the contractor to the architect demonstrating that the practical aspects of observation of such recommendations have been priced in.

06.05
Note to LPA : if the Authority is minded to grant consent, it is invited to consider the incorporation of the specific *order of implementation* of the arboricentric methods above into any Conditions applied. Such a measure is likely to maximise tree protection.

07
General

If conflicts between any part of a tree and the building(s) arise in the course of development these can often be resolved quickly and at little cost if a qualified arboriculturist is consulted promptly. Lack of such care is often apparent quickly and decline and death of such trees can spoil design aims and can of course affect saleability, and reflect poorly on the construction and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of the finished development.

Date: 24th January 2017
Signed:

John C. M. Cromar, **Dip.Arb.(RFS) F.Arbor A.** **01582 808020 / 07860 453072**

APPENDICES

08
Tree Data

Tree number prefix(es)	Tree number	Tree type	Height range (m)	Height	Stem diameters	Radius of RPA if circle (mm)	RPA (m^2)	Comments	Life expectancy (years)	Assessed BS5837 value category
H	1	hornbeam pleached hedge	<5	4.5	135	1620.000	8.245	Not strictly a tree or trees : a hedge. Useful screen at low level.	40+	B2

In all cases, in the absence of negative comment on vitality, normal physiological condition should be considered to apply.

Dependent on time of year, deciduous trees may not have been in leaf at the time of inspection. This may have limited precise identification.

09
Schedule

Vegetation adjoining 20, Albert Terrace Mews, London, NW1 7TA

Please read in conjunction with plan 1-38-4210/P2. Items outside the curtilage of the property may be included. Boundaries where marked should always be treated as notional, and no statement either implied or explicit as to ownership should be taken as definitive or precise.

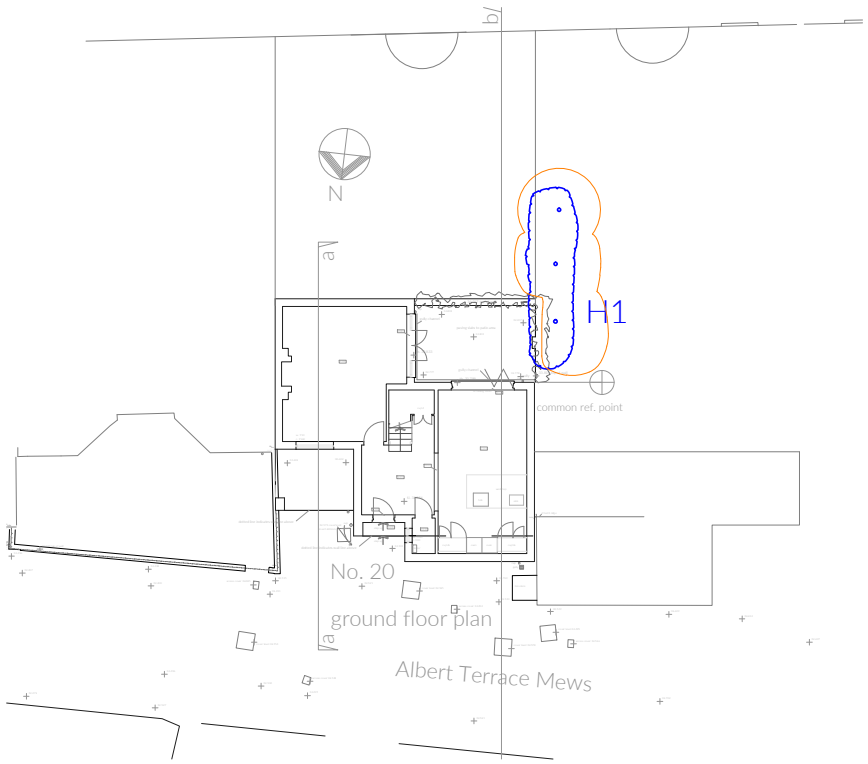
Tree number prefix(es)	Tree number	Tree type	Height	Stem diameters	Comments
H	1	hornbeam pleached hedge	4.5	135	Prune to spread line shown on plan.

NOTES:

All tree work should be carried out to BS 3998 : 2010 'Tree Work - Recommendations'. The Wildlife and Countryside Act 1981 protects with certain exceptions all birds and their nests. It is an offence to destroy such nests or take or injure such birds in the course of tree works operations. If a tree is a bat-roost, a licence to work on the tree must first be obtained from the relevant Statutory Nature Conservation Organization (in England : Natural England 0845 601 4523.) Acting without a licence is likely to be justifiable only in acute emergencies threatening human life and where all other legally available option such as footpath diversion, fencing and warning signs cannot be applied.

10
Plans

1-38-4210/P1 v2
1-38-4210/P2 v3



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KEY TO COLOURS/LINETYPES USED IN RELATION TO TREES

GREEN - High Value
BLUE - Moderate Value
BLACK - Low Value
RED - Remove/Very short life expectancy
ORANGE SHAPES: Root Protection Areas

TOOTHED LINE: Tree spread line

DASHED LINE: Understorey spread line

DOTTED LINE: Removed tree spread

NOTES

Do not use for setting out purposes.
All dimensions to be checked on site.

DRG. NAME
TREE VALUE ASSESSMENT AS PER BS 5837:2012 & ROOT PROTECTION AREAS

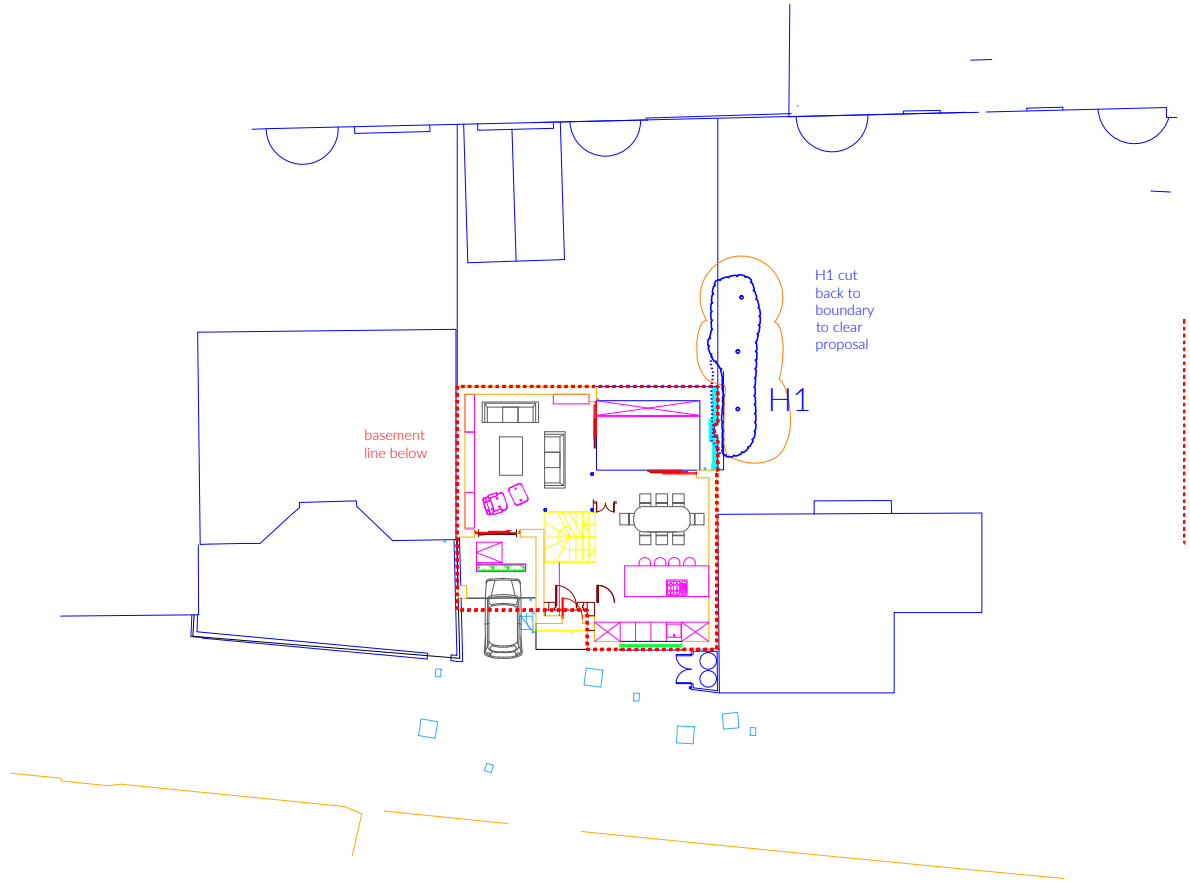
TEXT
FOR FULL DETAILS OF TREE VALUE PLEASE SEE REPORT REF. 1-38-4210

BASED ON
TOWNSCAPE SURVEYS DRG. NO.: 7266-1 SUPPLIED

SITE ADDRESS
20 Albert Terrace Mews, London, NW1 7TA

DRG. REF. 1-38-4210/P1
REV. NO. v2
SCALE & SIZE 1:100 @ A1
DATE 19-Jan-17

0 5



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KEY TO PLAN SYMBOLS/COLOURS USED IN RELATION TO TREES

ORANGE SHAPES: Root Protection Areas

CYAN FILL: method applies

NOTES
Do not use for setting out purposes.
All dimensions to be checked on site.

DRG. NAME
TREE RETENTION & TREE PROTECTION MEASURES

TEXT
FOR FULL METHOD DETAILS PLEASE SEE REPORT REF. 1-38-4210

BASED ON
ELFIRA THE drg. no.: 15003_Proposed SUPPLIED

SITE ADDRESS
20 Albert Terrace Mews, London, NW1 7TA

DRG. REF. 1-38-4210/P2
REV. NO. v3
SCALE & SIZE 1:100 @ A1
DATE 24-Jan-17

0 5