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**PLANNING APPLICATION SUBMISSION: FLAT 1, 10 WADHAM
GARDENS, NW3 3DP – ARBOROCULTURAL REPORT**

This report was prepared for the previous application prepared by my former company and was instructed by Simon Marks. The detail in the report is still relevant to the current application so I am submitting the document again without change (purely to reduce costs).

Yours sincerely
Metropolis Architectural Studio LLP



Ed Bennett
Architect

TC/1-38-2035

REPORT

on the impact on trees
of proposals for development
at
10, Wadham Gardens, NW3

(4th August 2008)



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01

Introduction and Instructions

I am instructed by Simon Marks to make an assessment of tree amenity value and condition of trees, at 10, Wadham Gardens, NW3 and of the impact of a proposal for development on such trees. The proposal entails excavation for and formation of a basement area within the footprint of the existing structure with small light wells projecting therefrom at the front and rear. Accordingly, I visited the property on 31st July, 2008 in order to carry out an inspection.

02

Limitations

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02.01

This is primarily an arboricultural report. Whilst comments relating to matters involving built structures or soil data may appear, any opinion thus expressed should be viewed as qualified, and confirmation from an appropriately qualified professional sought. Such points are usually clearly identified within the body of the report.

02.02

This is not a full safety survey or subsidence risk assessment survey. These services can be provided but a further fee would be payable. Where matters of tree condition with a safety implication are noted during an inspection they will of course appear in the report.

02.03

Inherent in tree inspection is assessment of the risk associated with trees close to people and their property. Most human activities involve a degree of risk, such risks being commonly accepted if the associated benefits are perceived to be commensurate. Risks associated with trees tend to increase with the age of the trees concerned, but so do many of the benefits. It will be appreciated, and deemed to be accepted by the client, that the formulation of recommendations for all management of trees will be guided by the cost-benefit analysis (in terms of amenity), of tree work that would remove all risk of tree related damage.

03

Notes

03.01

PLANS

TC/1-38-2035/P1 should be read with the comments in TREE DETAILS appended. The plan gives a quick reference assessment of value as per section 4 (table 1) of BS 5837:2005. Assessment of value in the TREE DETAILS table appended is unless otherwise stated based on the criteria of *visual value to the general public*. British Standard 5837:2005 'Trees in relation to construction - Recommendations'

recommends a way of classifying trees when assessing their potential value in relation to proposed development. Table 1 suggests categories 'R', 'C', 'B' and 'A', in ascending merit. 'R' (**RED - none on plan**) category trees are dangerous \ low value trees that would require removal for safety or arboricultural reasons. 'C' (**GREY on plan = uncoloured**) category trees are of no particular merit, but in adequate condition for retention. 'A' category trees (**GREEN on plan**) are vigorous trees of good form, of particular visual importance: 'B' (**BLUE on plan**) category are good trees but may be of slightly poorer form. 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) 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

TC/1-38-2035/P1 shows proposed retained trees and is colour-coded to indicate where arboricentric methods are proposed during the demolition and construction processes.

04

Sources and Documents

Ground level inspection.

Supplied plans refs:

0092_PL02-1.pdf

0092_X A2 PL04-50.pdf

0092_X A2 PL05-50.pdf

0092_X A2 PL06-50.pdf

0092_X A2 PL07-50.pdf

0092_X A2 PL08-50.pdf

0092_X A2 PL09-50.pdf

05

Appraisal

05.01

AMENITY / SCREENING BY TREES AND SHRUBS

Only one tree is of significant general public amenity value, a London plane in full view of Wadham Gardens. The trees within the communal gardens at the rear are of strictly local amenity value, and one tree within the site, a small pollarded lime, is of screening value between no.10 and no.8, the dwelling to the W.

05.02

TREES AND LAYOUT - POTENTIAL FOR CONFLICT WITH ROOTS

(Details appear in the tree detail table appended.) The figures in columns 6 and 7 in the tree details table appended indicate the root protection area ('RPA'), and typically the basic exclusion fence position. It should be noted that the premise behind the calculations that have been used to generate this figure is based partly on an assumption that conventional footings and site practices will be used. New materials and methods have been developed that assist in promoting the successful retention of trees in association with constructed features. It should be noted that BS 5837:2005 supports 'up and over' methods of construction where appropriate. The design principle of this method is outlined within Arboricultural Practice Note 1 (Driveways Close to Trees).

05.03

An assessment as per BS5837:2005 section 5.2.4 has been carried out in connection with all trees to be retained. (This section requires that site conditions, tree mechanics, etc., are taken into account in determining the likely position of roots.) The proposal, a basement excavation, does not entail significant horizontal extension beyond the footprint of the building. The proposed light wells, one or other of which might be used as routes for the transport of excavated material are all outside the root protection areas of trees to be retained. Ground level site activity entails transport of excavated material via a hoist and removal by tracked barrow or hand barrows off site. No storage of materials on site is entailed. Off site provision may be arranged. In this case trees to be retained can be adequately protected by exclusion fencing and other measures as indicated.

05.04

FOOTING DESIGN

No special footings are needed from the arboricultural perspective.

05.05

Minor encroachment on the RPA of tree 2 is entailed in the proposal to form a retaining wall in the position indicated. This amounts to less than 3% of the total root protection area, which is negligible. Similarly at the front, the proposed light well entails encroachment on 1.6% of the RPA of tree 3. To put this in context, trials made by the Morton Arboretum found that up to 30% of the root system of mature trees could be cut without any difference in shoot elongation or vitality resulting.

05.06

PERCEPTION OF TREES

Shading by trees has been considered (as section 6.3.2 of BS 5837:2005 recommends) and appears not significant.

05.07

TREE PRUNING

The crown of tree 1 hangs rather low and will require very minor pruning to clear the access route at the right hand side of the property. It is of note however that the form of the trees is such that the defining branch structure is well above ground level. The species involved (lime) fortunately responds well to pruning and will



tolerate the required pruning very well. The tree does not require major remedial pruning. The minor conflicts that will occur are of no importance to health or appearance and can easily be addressed by tree surgery in accordance with BS5837:2005 section 10.2.6. , and this is within the bounds of good arboricultural practice and British Standard 3998:1989

'Recommendations for tree work'. This should be to method below. A schedule for the use of a contractor appears below.

05.08

LANDSCAPING

Landscaping - appropriate shrub replacement for shrubs A to E will play a locally moderately important role in providing for future local amenity.

05.09

SUPERVISION

Supervision by an arboriculturist is a desirable (but not always essential) element of site development where trees are present and to be retained. Good communication between site agent and arboriculturist can reduce the need for such a measure. 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.

05.10

PUBLISHED GUIDANCE IN RELATION TO TREES AND DEVELOPMENT

In conserving trees on development sites, expected best practice is as per guidance in B.S. 5837 : 2005 (Section 3.1.1) :

"The retention of trees of an inappropriate size or species may be resented by future occupiers, and no amount of legal protection will ensure their retention and survival"

05.11

The advice of central government Department of the Environment Circular 36/78 (Welsh Office Circular 64/78) 'Trees and Forestry' paragraph 76 is :

"Consideration of how proposed development will fit in with preserving [these] trees will usually mean more than merely deciding which trees are on the immediate site of buildings etc. Layouts may require careful adjustment to prevent trees which are to remain from causing unreasonable inconvenience to future occupiers; leading inevitably to a request for consent to fell."

05.12

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

05.13

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 trees to be retained, nor will require any trees to be removed.

06

Tree Protection Proposals

06.01

TREE PROTECTION - GENERAL

It is highly important to tree health and vitality that construction activities are carried out strictly in accordance with the tree protection methods specified. A single traverse of a root protection area by a mechanical excavator can cause SIGNIFICANT and PERMANENT (albeit temporarily invisible) damage to trees. Such machinery, including piling rigs, shall be kept at ALL times outside the root protection areas as indicated in the tree details table appended, and/or shall be subject to SPECIAL 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 – SPECIAL METHODS

PLEASE READ WITH PLAN REFERENCE TC/1-38-2035/P1, SUPPLIED LOOSE DUE TO SIZE.

Method 1 : Supervision by an arboriculturist shall take place at key points in the construction process, and additionally whenever required by the architect 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. Ensure remedial tree work including any minor accommodatory tree work required for access near trees is carried out to specification and sign off. Ensure protective fencing is erected and completed as proposed. Ensure site huts, mixing sites for mortars, disposal-to-skip sites, etc., are located appropriately, and sign off.**
- 2) Supervise laying of ground protection and sign off.**
- 3) Approve timing of removal of protective fencing (post main phase) and sign off.**

Method 2 : Tree protection fencing shall be erected, consisting of 'Heras' type fencing (weld mesh panels), each section securely attached to uprights driven at least 0.6m into ground, as per the layout as shown on the plan (pink lines). The standard rubber supports ('elephant's feet') shall not be used.

Method 3 : This method shall apply in the zones outlined orange on plan. Heavy-duty polythene shall be laid over the entire area and then continuously abutted scaffold boards or manufactured boards shall be laid so as to completely cover this area.

Method 4 : Tree work shall be in accordance with good arboricultural practice, to BS 3998:1989 'Recommendations for tree work', and to standards set within the Arboricultural Association's 'Standard Form of Contract and Specifications for Tree Work', 1996.

Method 5 : This method shall apply after completion of main build only within the areas previously occupied by shrubs A to E. The ground surface shall be forked over by hand. Soil handling of any kind shall take place only after a minimum of 3 days after heavy rain, and shall where possible be carried out 7 days or more after such rainfall. Screened topsoil (to BS3882:2007- multi purpose topsoil) shall be laid to a depth of 200mm.

Method 6 : 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 pouring of fuels, oils, solvents, tar shall be made on any part of the site.
- C) No spillage or discharge of wet mortar or concrete shall be made on any part of the site.
- D) No storage of materials shall be made within the protective fences.
- E) No breaching or moving of the protective fences without the approval of an arboriculturist.
- F) Services, if planned to be laid in the root protection areas, (and which notionally appears unnecessary in this case) shall be laid using trenchless 'no dig' methods or by hand dug trenches to avoid cutting major roots.
- G) Alterations in levels within the tree protection fence areas shall be avoided.

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.

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.

4th August 2008

Signed:



John C. M. Cromar, Dip.Arb.(RFS) F.Arbor A.

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APPENDICES

08

Tree details

TREE ASSESSMENT AND ROOT PROTECTION ZONES

No.	Tree	Height range (m)	Multi-stem (MS)?	Trunk / stem count dia. (mm)	Radius of RPA if circle	Root Protection Area (RPA) (m ²)	Comments	Life Expectancy	Assessed BS 5837 Value Cat.
1	2	3	4	5	6	7	8	9	10
1	lime	6		470	5.64	99.93	Small repeatedly pollarded tree	40+	C2
2	red horse chestnut	10		675	8.1	206.12	In communal garden	20-40	B2
3	London plane	17		745	8.94	251.09	Under local authority control	40+	A2
G4	Shrubs	<2.5			1.5*		Group of various multistemmed individuals, forming, <i>en masse</i> , useful screen - *assessed RPA radius, per individual	10-20	C2

09

Schedule

Trees at 10, Wadham Gardens, NW3

Trees outside the private curtilage of the property may be included. Please read in conjunction with plan TC/1-38-2035/P1.

No.	Tree	Height range (m)	Multi-stem (MS)?	Trunk / stem count dia. (mm)	Comments
1	lime	6		470	Prune to clear ground level by 2.5m above access path.
G4	shrubs	<2.5			Remove items A, B, C, D, E, including stumps.

10
Plan

SUPPLIED LOOSE
TC/1-38-2035/P1