Martin Dobson Associates

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M.D.A

Mr Nick Smith
Wolff Architects
15 Lambton Place
Notting Hill
LONDON
W11 2SH

Our ref:

Your ref:

Date: 7 March 2008

Dear Mr Smith

Tree Protection at 41 Queen's Grove, London

I refer to your instructions to produce a statement regarding tree protection in connection with planning consent given by the London Borough of Camden for demolition of the existing single-family dwelling at 41 Queen's Grove (Conservation Area Consent No: 2007/3398/C) and the erection of a new single-family dwelling comprising basement, ground floor, first floor and roof storey (Full Planning Permission No: 2007/3397/P). The basement level will extend underneath the existing rear garden and will include a swimming pool. I understand that elements of the soft landscape are to be reinstated after the basement level has been installed.

There are a number of trees within and adjacent to the rear garden which are to be retained as part of the development. The British Standard BS5837: 2005 *Trees in Relation to Construction – Recommendations* gives guidance for protecting trees during construction and therefore this report has been prepared to comply with those recommendations.

Currently the rear garden is mostly laid to lawn but there are a number of trees and shrubs around the perimeter and near to the boundary on adjacent properties. Four trees closest to the house, namely, 2 Magnolias, 1 Portugal laurel and 1 Cypress were permitted to be felled in a Conservation Area Consent letter dated 6 June 2006 (2006/2148/T – Annex 1). Subsequently the trees were shown on the approved plans for development as being removed. Thus, whilst the Conservation Area consent for felling is valid until 6 June 2008 the planning consent to fell (2007/3397/P) is valid until 22 November 2010.

The trees near to the property have been surveyed and their dimensions together with assessments of their condition are listed in Annex 2. A plan of tree locations is shown at Annex 3.

The need for tree protection

Trees can very easily be damaged during construction activities through their branches being broken by traffic passing close to the canopy or by root severance during the digging of foundations or service trenches. The majority of roots are to be found in the upper 600 mm of soil and so even relatively shallow trenches can sever a large proportion of roots growing in the direction of the

trench. Similarly, the diameter of roots tapers sharply within a few metres of the trunk of a tree, so that what might seem to an uninitiated site worker to be an insignificant root (perhaps only a few centimetres in diameter) may actually be highly important.

Tree roots can also be damaged indirectly, often inadvertently, through soil compaction, which disrupts soil structure and can lead to root death through the development of anaerobic soil conditions. Spillage of toxic materials (e.g. oil or diesel) can also result in root damage and ultimately the death of a tree.

Adequate protection, both above and below ground, is therefore essential for trees that are to be retained as part of a new development. The British Standard BS5837: 2005 recommends that there should be a root protection area (RPA) around trees which is kept free of all construction activities by means of an exclusion zone enforced through protective fencing or ground protection. The RPA is calculated as the area equivalent to a circle with a radius of 12 times the trunk diameter at a height of 1.5 m above ground level, or for multi-stemmed trees 10 times the diameter at ground level. Based on the tree survey data root protection areas have been calculated and these are shown below in Table 1 and illustrated at Annex 3. The British Standard recommends that the position of protective fencing should be shown on development plans as polygons rather than circles and thus fencing to enclose root protection areas illustrated at Annex 3 (a thick black line for fencing) is shown using straight lines rather than curves, but nonetheless encompasses the requisite area.

Table 1. Root protection areas as defined by BS5837: 2005 (T1 – T3 and T11 are permitted to be removed and so have not been included).

Tree No.	***Trunk diameter (mm)***	***Root protection area (m^2)***	***Radial protected distance from trunk (m)***
T4 Maple	300	40.7	3.6
T5 Maple	280	35.5	3.4
T6 Birch	150	10.2	1.8
T7 Birch	95	4.1	1.1
T8 Beech	400	72.4	4.8
T9 Lilac	222	15.5	2.2
T10 London plane	450	91.6	5.4
T12 False acacia	150	10.2	1.8

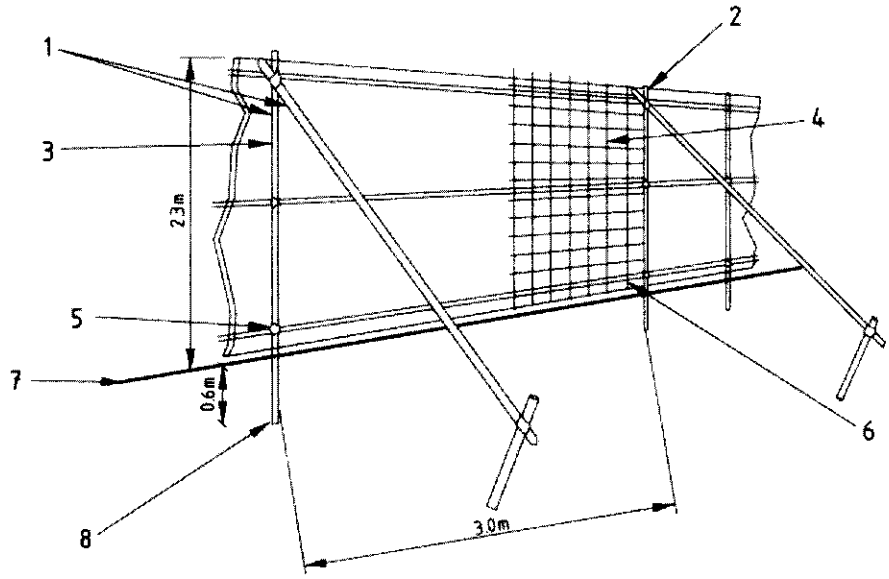
Protective fencing

The exclusion zones (as indicated in Table 1 above) will be enforced by means of protective fencing. ***Protective fencing will be erected before any operations begin on site.*** The fencing will consist of a scaffold framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3 m (Figure 1). Onto this, weld mesh panels or 2 m high scaffold board will be securely fixed with wire or scaffold clamps. Weldmesh panels on rubber or concrete feet will NOT be used as these are not resistant to impact and are too easily removed by site operatives. The barrier will remain in place throughout the succeeding construction phase and will only be removed once all construction activities have been completed, including the re-instatement of soil above the pool construction.

High visibility signs will be attached to each area of fencing at intervals of no more than 6 m with the words 'Tree Protection Zone – No Entry'.

No materials or equipment will be allowed onto the site before the fencing is erected nor will there be any stripping of vegetation or changes in soil levels.

Figure 1. Detail of protective fencing to be used to provide a barrier between trees and construction work.



1 Scaffold poles	5 Clamp
2 Uprights, to be driven into ground	6 Wire, twisted and secured
3 Panels, secured to uprights with wire tires and where necessary scaffold clamps	7 Ground level
4 Weldmesh, wired to the uprights and horizontals	8 Approx 0.6 m driven into the ground

It is important that this report is made available to and read by any engineers, construction managers or site foreman involved in the construction process. They, in turn should make the content of the report known to site operatives.

Yours sincerely

Martin Dobson

Dr Martin Dobson

ANNEX 1

Conservation Area permission to fell 4 trees in rear garden of 41 Queen's Grove

Camden

Development Control
Planning Services
London Borough of Camden
Town Hall
Argyle Street
London WC1H 8ND

Tel 020 7278 4444
Fax 020 7974 1975
Textlink 020 7974 6866

env.devcon@camden.gov.uk
www.camden.gov.uk/planning

Martin Dobson Associates
Ivy House
49 Liphook Road
Whitehill
Bordon
Hampshire
GU35 9DA

Application Ref: **2006/2148/T**
Please ask for: **Alex Hutson**
Telephone: 020 7974 **5939**

06 June 2006

Dear Sir/Madam

DECISION

Town and Country Planning Acts 1990 (as amended)
NO OBJECTION TO SECTION 211 NOTICE OF WORKS TO TREE/S IN A CONSERVATION AREA

Address: **41 Queen's Grove London NW8 6HH**

Proposed Work: **REAR GARDEN, ALONG BOUNDARY WITH 42 QUEEN'S GROVE: 1 x Magnolia - Fell. REAR GARDEN, ALONG BOUNDARY WITH 40 QUEEN'S GROVE: 1 x Magnolia, 1 x Portugal Laurel and 1 x Cypress - Fell.**

The Council has considered your notification of intended works to trees dated 05 May 2006 and does not wish to object.

Informative(s):

1 This notice is valid for 2 years from the date of this letter or until the work is completed, which ever is the sooner.
2 You are advised that the appropriate standards for tree work are set out in BS 3998: 1989. Failure to ensure that the proposed works are carried out to these standards may result in damage to the tree(s) and may result in legal action by the Council.
3 Please note that any approval given by the Council does not give an exemption from the requirements to comply with the Wildlife and Countryside Act 1981 (as amended), or any other Acts offering protection to wildlife. Of particular note is the protection offered to bats, birds and their nests, whilst being built or in use. For further information contact the London Office of English Nature on 020 7340 4870.

Yours faithfully

Culture and Environment Directorate
(Duly authorised by the Council to sign this document)

Annex 2
Tree survey data

Tree No.	Species	Height (m)	Trunk diameter (mm)	Crown spread (m)	Height of crown clearance (m)	Age class[1]	Physiological condition	Structural condition	Useful life (y)	Management notes	BS5837 Grade
T1	Portugal laurel	7.0	330 at ground level (5 stems)	N 1.8 E 1.8 S 1.8 W 1.8	1.5	Y	Good	Good.	20 - 40	Crown lift to 4 m	C
T2	Cypress	6.5	261	N 1.5 E 1.5 S 2.0 W 2.0	1.5	Y	Good (suppressed on one side)	Good.	20 - 40		C
T3	Magnolia	5.5	166	N 2.0 E 2.0 S 3.0 W 3.0	1.5	Y	Good	Good	10 - 20		C
T4	Maple (garden of No. 40 at 1 m from boundary)	9.0	300 (estimated)	N 3.0 E 3.0 S 4.0 W 4.0	4.0	Y	Good	Good	40+		B
T5	Maple (garden of No. 40 at 1 m from boundary)	8.0	280 (estimated)	N 3.0 E 3.0 S 3.0 W 3.0	5.0	Y	Good	Good.	40+		B
T6	Birch	7.5	150	N 1.5 E 1.5 S 1.5 W 1.5	4.0	Y	Good	Good	20 - 40	.	C
T7	Birch	7.5	95	N 1.5 E 1.5 S 1.5 W 1.5	4.0	Y	Good	Fork at about 1.5 m into two co-dominant stems	20 - 40		C

[1] Y = Young (<1/3 life expectancy). MA = Mid aged (1/3 – 2/3 life expectancy). M = Mature (>2/3 life expectancy). OM = Over mature (reaching end of safe useful life)

Tree No.	Species	Height (m)	Trunk diameter (mm)	Crown spread (m)	Height of crown clearance (m)	Age class[2]	Physiological condition	Structural condition	Useful life (y)	Management notes	BS5837 Grade
T8	Beech (property to rear – tree approx 1 m from rear boundary)	8.0	400 (estimated)	N 4.0 E 4.0 S 4.0 W 4.0	4.0	Y	Good	Good	40+		A
T9	Lilac	4.0	222 (at ground level – multi stemmed)	N 2.0 E 3.0 S 3.0 W 1.5	2.0	Y	Good	Good	10		C
T10	London plane (rear garden of No. 42. 5 m from boundary with 41)	12.0	450 (estimated)	N 4.0 E 5.0 S 5.0 W 5.0	5.0	Y	Good	Good	40+		A
T11	Magnolia	5.0	120	N 2.0 E 3.0 S 3.0 W 1.0	2.0	Y	Good	Good	10 - 20	.	C
T12	False acacia Rear garden of No. 42. 2 m from boundary)	6.0	150	N 2.0 E 2.0 S 2.0 W 2.0	4.0	Y	Good	Good	40+		B

[2] Y = Young (< 1/3 life expectancy). MA = Mid aged (1/3 – 2/3 life expectancy). M = Mature (>2/3 life expectancy). OM = Over mature (reaching end of safe useful life)

ANNEX 3

Locations of trees, proposed new layout, root protection areas (circles) and position of protective fencing (thick black line)