

Ms Manakides,
Workshop Architects Ltd
121 c Cleveland Street
London W1T 6PZ

29th August 2007

Dear, Ms Manakides,

27 Perrins Walk London NW3

Further to your instructions, please find enclosed the arboricultural pre-development report with regard to the trees growing within the vicinity of the above property.

Should you have any queries please, contact me on the above address.

Please quote our reference in all correspondence.

Yours sincerely

Dick Tomlinson, (ND ARB)

Tomlinson Tree Surgeons

TOMLINSON TREE SURGEONS

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TERMS AND CONDITIONS

1) Acceptance of the estimate means that the client has read and understood the terms and conditions of the estimate. Any queries should be clarified before the estimate is accepted.

2) All contracts must be confirmed in writing before work commences. A reply slip is enclosed, this should be corrected if necessary, the appropriate deletions made signed and dated. Companies must supply an official order.

3) No liability can be accepted for alterations to the works, as shown in this estimate, unless agreed in writing. No variation in work carried out shall vitiate the contract.

4) A charge will be made for any additional works carried out, on instruction from the client and not specified in this estimate.

5) It is incumbent on the client to ensure that there is adequate access to the site. e.g. that all vehicles and other obstacles are removed, that gates, doorways and passageways are clear of obstruction and unblocked, that neighbours are notified where access is required to carry out the work. If such conditions are not fulfilled, an additional amount may be charged.

6) Where resultant debris is to be removed, all timber, logs, branches and chippings become the property of D.Tomlinson and he shall have sole responsibility in determining the method of disposal.

7) All works will be carried out in accordance with BS.3998 1989 or the current equivalent.

8) Payment is due on completion of the work. Account unpaid after 14 days will incur an additional charge of 6% per month on the unpaid balance. Interest shall run as well after as before any judgment.

9) On large contract, stage payments will be required. This will be invoiced and become due weekly, unless otherwise agreed in writing beforehand.

10) In addition to any other remedy D.Tomlinson shall have lien on all goods and materials remaining on site until payment of monies due to him and he shall have free access enter the site to remove such goods and materials.

11) Any complaints or queries after the works have been completed, should be notified within 7 days.

Pre-development Arboricultural Report

Re: 27 Perrins Walk NW3

Commissioned by: Ms Mya Manakides

Compiled by: Dick Tomlinson, Tomlinson Tree Surgeons

Inspection date: 29th August 2007

Mr. Liam O'Connor, 14 – 16 Cowcross Street, London, EC1M 6DG Pre-Development Report 25/07/06

Pre-development Tree Report

1. Instructions, Objectives and limitations

- 1.1 I am instructed by Ms Manakides to inspect and report on the trees liable to be effected by the construction at the above property. The objectives of the report are to advise on the current condition of the trees, identify trees for retention and limit damage to the tree/s during construction in the interests of both health and safety, and to continue to promote the visual character and amenity of the area.
- 1.2 The following report is in accordance with BS 5837:2005 Trees in Relation to Construction-Recommendations.
- 1.3 The report includes;
 - i) **Tree Survey:** Including tree categorisation and identification of trees suitable for retention.
 - ii) **Tree Constraints Plan (TCP):** Showing the Root Protection Area (RPA) and representing the effect that the mature height and spread of trees suitable for retention will have on layouts through shade, dominance etc.
 - iii) **Arboricultural Implications Assessment (AIA) and Design Issues:** Whilst the TCP should inform site layout design, it is recognised that the competing needs of development mean that trees are only one factor requiring consideration.
Tree constraints and design: The presence of Tree Preservation orders or conservation area, above and below ground constraints, possible design modifications etc.
Proximity of trees to structures: A realistic assessment of the probable impact of any proposed development on trees and vice versa etc.
 - iv) **Arboricultural Method Statement (AMS):** To include details of tree protection prior to and during construction. Also tree pruning recommendations to promote the trees health and maximise the juxtaposition between development and post construction remedial methods to promote recovery.
 - v) **Tree Protection Plan (TPP):** Showing finalised layout proposals, tree retention and tree and landscape protection measures detailed within the AMS, which can be shown graphically.
- 1.4 The inspection has been carried out from a ground level only. Should a more detailed inspection be required, this will be highlighted in survey recommendations.
- 1.5 Trees are living organisms whose health and condition can change rapidly. The health and safety of trees should be checked on a regular basis, preferably at least once a year. The conclusions and recommendations contained within this report are only valid for one year. This period of validity may be reduced in the case of any change in conditions to or in proximity to the tree.
- 1.6 I have been informed by Ms Manakides that the site is within a Conservation Area and the tree likely subject to Tree Preservation Orders (TPO). Therefore it would be necessary to obtain permission before undertaking any work.

2 Information Received

2.1 The following correspondence and drawings of the existing site and the proposed development have been received upon which this report is based;

- i) A land survey including a preliminary site layout. This drawing is used as a basis for the TCP and TPP.

2.2 These correspondence and drawings have been copied and are attached within Appendix.

3 Site description

3.1 The proposed development site is a residential house extension within a urban setting, therefore tree cover is limited.

3.2 The basis to this report is a proposed demolition and a subsequent construction of two storey building.

4 Tree Survey

4.1 The following information is provided:

- a) Reference number (recorded on plans) : - 1
- b) Species : - Common Lime (*Tilia X europaea*)
- c) Height in metres : - 22m
- d) Stem diameter in millimetres at 1.5m or immediately above the root flare for multi-stemmed trees : - 560mm.
- e) Branch spread in metres taken at the four cardinal points to derive an accurate representation of the crown. N. 4m, S. 3.7m, E. 2.7m 2.4m.
- f) Height in metres of crown clearance above ground level : - 2.4m
- g) Age class (young, middle aged, mature, over-mature, veteran) : - Mature.
- h) Physiological condition (e.g. good, fair, poor, dead) : - Good.
- i) Structural condition, e.g. presence of decay: - No defects noted.
- j) Preliminary management recommendations: - See 7.1.1
- k) Estimated remaining contribution in years (e.g. less than 10, 10-20, 20-40, more than 40) : - More than 40 years.
- l) R or A to C category grading (see Table 1) : - A 2
- m) Restrictions i.e. Conservation Area (CA) or (Tree Preservation Order) TPO The tree is protected by a TPO
- n) The Root Protection Area (RPA) is 45.16m² the radius of which is 6.72m.

4.2 On the date of inspection a limited visual inspection from the ground was achieved. A copy of the Tree Survey is enclosed within the appendix.

5 Tree Constraints Plan (TCP)

5.1 The influence that trees on and adjacent to the site will have on the layout is plotted on a plan called the TCP. This design tool shows how the below ground constraints, represented by the RPA, and the above ground constraints that the trees pose by virtue of their size and position. Also their future potential sizes and influence.

5.2 In order to avoid damage to the rhizosphere (rooting area) of retained trees, the RPA is plotted around each of the category A, B and C trees. This is a minimum area in m², which must be left undisturbed around each retained tree.

The RPA is calculated using BS 5837 Table 2 (a copy of this is included in the appendix) as an area equivalent to a circle with a radius 12 times the stem diameter at 1.5m for single stem trees and 10 times basal diameter for trees with more than one stem.

The proposed development will be 2m closer to the tree than it is at present. Where the effects of construction are only one side the RPA of the tree, it is acceptable to retract on this side by up to 20% as outlined in BS 5837 5.2.4 a.

The root protection area is 45.16 m². However, the presence of a wall to the East and two walls and the building in Perrins Walk, to the South, it is necessary to recalculate the shape of the RPA. The RPA will be spread further than 6.72 m towards the north. I would therefore recalculate the extent of the RPA as follows. The area should extend to the north and west by a radius at least a further 6m.

The root protection zone should therefore be viewed as extending 12.72m north and west and 5.6m south. The proposed building extending 2m closer than at present, will therefore be within the 20% retraction as recommended by the standard.

Above ground constraints; the tree's lower crown will extend into the building line this can be addressed by raising the crown to a point above the roof. This will involve crown raising by approximately 4m higher than at present.

6 Arboricultural Implications Assessment (AIA) and Design Issues

- 6.1 The current constraints and the future growth potential of the tree highlighted for retention is of limited significance with regards to both shade and lateral encroachment of the foliage. This is due to all the trees locations and proximity of the proposed development.
- 6.2 The building line will not change significantly for design issues to be significant.
- 6.3 The building will not affect the tree materially below ground. Test trenches were opened and insignificant rooting was noted. These inspections were carried out in the presence of the Borough Tree Officer Alex Hutson.
- 6.4 There will be no further disruption to the soil by any infrastructures such as underground services as the route to the road is to the south of the tree.

7 Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP)

- 7.1 All trees must be adequately protected before development operations start. Therefore the sequence of operations must work hand in hand with the development process are as follows.

- i) **Tree Works:** Reduce the tree approximately 4m below the current pruning points at the top. Crown raise the side to clear the proposed building line by 2m above the roof line.
- i) **Design implications:** There are no design implications.
- ii) **The construction exclusion zone. Barriers and ground protection:** The location of the protective barriers and ground protection are plotted accurately on the TPP around The tree.
The trees H1 have adequate protection with the boundary fencing.

Barriers and ground protection must be erected and installed prior to any materials or machinery being brought onto the site and before any demolition, development or stripping of soil commences.

The Barriers: Must consist of a scaffold framework in accordance with BS 5837 Figure 2 (a copy of which is enclosed within the appendix).

The Ground Protection: Ground protection is not deemed necessary. The barrier will act to exclude all access to the rest of the site, which will remain a domestic garden area outside the construction zone.

Once the exclusion zone has been protected by barriers and /or ground protection, construction work can commence. All weather notices should be erected on the barrier with words such as

“Construction exclusion zone-Keep out”

- iii) During construction the following processes must be adhered to;
 - a) No materials can be stored within 5m of the tree's bole.
 - b) Oil, bitumen, cement or other material likely to be injurious to a tree must not be stacked or discharged within 5m of the tree's bole.
 - c) Concrete mixing must not be carried out within 5m of the tree's bole.
 - d) It is essential that fire must not be lit beneath or within close proximity to the canopies.
 - e) The trees must not be used as anchorage for equipment.
 - f) Care must be exercised when using cranes or similar equipment near the spread of the canopy.
- iii) Removal of fencing must only occur at the end of construction.
- iv) A de-compaction method such as compressed air and Mycorrhizae injections with a Terravent within the ground protection area of the RPA post construction, should be considered to improve the trees recovery. Contact: Goroots (0208 429 8049)

7.2 The tree should be inspected by a competent arboriculturalist following the completion of development for safety. Any deterioration in the tree's condition, and any accidental damage to it needs to be identified.

This report is for the sole use of the above client and refers to only the trees identified within. Use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

Yours sincerely



Dick Tomlinson, Tomlinson Tree Surgeons (ND ARB)

Appendix

Table 2 — Calculating the RPA

Number of stems	Calculation
Single stem tree	$\text{RPA(m}^2\text{)} = \left(\frac{\text{stem diameter (mm)} @ 1.5 \text{ m} \times 12}{1\,000} \right)^2 \times 3.142$
Tree with more than one stem arising below 1.5 m above ground level	$\text{RPA(m}^2\text{)} = \left(\frac{\text{Basal diameter (measured immediately above root flare (mm)} \times 10}{1\,000} \right)^2 \times 3.142$
NOTE The 12x multiplier is based on NJUG 10 [9] and published work by Matheny and Clark [10].	

5.2.3 The calculated RPA should be capped to 707 m², e.g. which is equivalent to a circle with a radius of 15 m or a square with approximately 26 m sides.

