BY APPOINTMENT
TO HER MAJESTY THE QUEEN
TREE SURGEONS
F.A. BARTLETT TREE EXPERTS CO. LTD.

Tree Health & Visual Tree Assessment

Client Name: J & Z Construction
Site Address: Wildwood Lodge, North End, London NW3 7HH
Date: 13th January 2015
Job Reference No. JM/150109R/sh

BARTLETT CONSULTING
SCIENTIFIC TREE CARE SINCE 1907

TREE HEALTH & VISUAL ASSESSMENT

OUR REF: JM/150109R/sh

YOUR REF:

DATE: Tuesday 13th January 2015

CLIENT:

J & Z Construction Ltd
C/O Mr. Z. Niemiec
Unit 14
715 North Circular Road
NW2 7QQ.

SITE ADDRESS:

Wildwood Lodge
North End
NW3 7HH

DATE/TIME OF VISIT: AM, Thursday 8th January 2015.

PEOPLE PRESENT: Mr J Mills

REPORT COMPLETED BY: Mr Jason Mills

Note

In reading and understanding the contents of this report it should be remembered that no tree can be deemed risk free. As with all things in the natural environment, they are subject to unpredictable forces such as extreme weather, effects of disease, and man's influence upon them. We investigate every obvious and available facet of the tree's structure and its surroundings in reaching a conclusion as to a level of risk. These conclusions and recommendations seek to reduce the risk to a level as low as reasonably practical given the tree's location, site use, and value within the environment and ultimately the owners' acceptance of the level of risk. No tree can ever be considered completely hazard free; and regular monitoring of the tree and its surroundings should be undertaken by the owner and their appointed specialist advisors, where necessary on a cyclic and recorded basis.

1.0 REPORT REFERENCES

As a progressive company, we keep abreast of research data relating to arboriculture. All observations, recommendations and works are based on current industry standard reference material and extensive FA Bartlett research findings derived from the company's own facilities at University of Reading UK and Charlotte in the USA. A selection of pertinent items is shown in Appendix 2.

1.1 REPORT METHODOLOGY AND LIMITATIONS

A Basic* tree risk assessment and tree health inspection were conducted on each tree identified in the scope-of works. Trees not included in the scope-of-work were not inspected. Tree details are approximations made to a level that is required for the purposes of this report. These tree details include species identification, tree dimensions, age range and vigour entered within the report. Observations of the tree were made from ground level.

All tree risk assessments undertaken during surveys or inspections either on single trees or multiples of trees, use the methodology established by the International Society of Arboriculture, in the publication, "Best Management Practice – Tree Risk Assessment" (ISA BMP) (Smiley, Matheny and Lilly 2011) and in the F.A. Bartlett publication 'Tree Risk Management' (Smiley, Fraedrich, Hendrickson 2009), Principles of Tree Hazard Assessment & Management (HMSO Lonsdale 1999), Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines, 4th Edition (Harris, Clark and Matheny 2004). This format may be specifically detailed in text related to reports on single and smaller groups of trees but will be implicit for large scale surveys unless specified to the contrary by the client.

It is not possible to maintain trees free of risk, some level of risk must be accepted in order to experience the full range of benefits that trees provide. As such we reference the recently published document by the National Tree Safety Group (NTSG), Common sense risk management of trees (Forestry Commission 2011). This document provides guidance on trees and public safety in the UK for owners, managers and advisors.

Note: **Basic assessment as described in the ISA BMP for tree risk assessment is a detailed visual inspection of a tree and surrounding site that may include the use of simple tools. It requires that a tree risk assessor walk completely around the tree trunk looking at the site, aboveground roots, trunk and branches.*

1.2 TREE PRESERVATION ORDER PROTECTION

It is understood that the tree is now subject to a new Tree Preservation Order as served by the Local Planning Authority: London Borough of Camden, in response to a Section 211 Notice (Reference: 2014/3382/T). As such you cannot carry out any works to the protected tree without formal permission from the London Borough of Camden.

It is also understood that the site is located within a designated Conservation Area.

2.0 GENERAL SITE CONDITIONS

2.1 SOIL TESTS

- Soil tests were not carried out on this occasion

2.2 FLUORIMETER TESTS

A fluorimeter test evaluates the ability of the chlorophyll in tree leaves to turn sunlight into energy (sugars). The physiological condition of a tree and, to some degree, its life expectancy can be assessed. This measure can prove scientific, non-bias measurement to assist in making tree retention decisions on development sites.

- Fluorimeter tests were not carried out on this occasion

2.3 FUNGAL, DISEASE OR INSECT, PATHOGENS

At the time of the inspection no fungal or insect pathogens were observed.

3.0 TREE DETAILS

The site was visited on Thursday 8th January 2015 by Mr Jason Mills of Bartlett Consultancy to visually inspect the Acacia tree numbered as T10 within a previous Planning Application with permission.

The Acacia is approximately 20 (+/-5) years old and stands 8.0 metres in height; it has a stem diameter of 265mm, measured at 1.5 metres above ground level. The crown spread of the tree is approximately 0 metres to the north, 5.0 metres to the east, and 10.0 metres to the south and 3.5 metres to the west.

The tree in question is located close to the side entrance of the property at Wildwood Lodge, located off Parfit Close. The site is currently being re-developed, with the main build having been completed and landscaping to be carried out shortly. As such, the tree is located in an area of bare and exposed earth and has been protected by tree protection barriers during the construction operations.

Within the crown spread/falling area of the tree, are areas closed to the public and available only for use of the site owners, residents and visitors.

3.1 TREE EVALUATION

The tree's root zone, root flare and buttresses were inspected and where necessary, were probed. The stem, main scaffold limbs were visually inspected; the main stem was sounded with a mallet and probed from ground level to 2.0 metres. The tree's crown, main branch framework and shoot extension growth were inspected from the ground with the aid of binoculars. Any accessible limb or stem unions suspected of having decay or cracks were also probed. Results from these assessments are included in the attached tables.

Additionally evidence of fungal activity, and disease was investigated and noted, if found present.

3.2 SUMMARY OF THE VISUAL TREE ASSESSMENT (VTA) COMPONENT

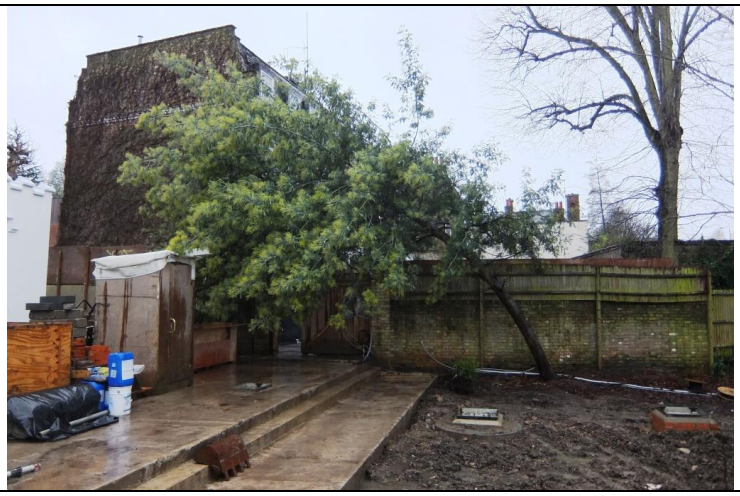
The tree's crown is extremely vigorous with minor amounts of dead wood amounting to less than 5% of the crown mass. The calculated live crown ratio (LCR) of the tree is 70%, which is regarded as acceptable.

The crown is extremely unbalanced, predominating to the south of the main stem and has been subject to extensive growth over the previous growing season. The amount of growth is now having an effect on the growth pattern of the whole tree which has developed a pronounced declining habit. Branches are almost touching the raised patio area to the south of the tree as a result of the weight within the crown.

The tree stem has a significant lean the south of the tree, to the point that it is almost horizontal adjacent to the gateway into the site. Tapping the main stem with a nylon mallet revealed no evidence of significant underlying decay. However, there are pronounced large helically aligned ribs from ground level to 0.5 metres above indicating that the stem is subject to torsional stress on account of the significant lean.

Inspection of the buttress roots revealed no significant defects and tapping them with a nylon mallet revealed no evidence of significant underlying decay. There is no evidence of soil heave on the opposite side of the lean to indicate that the tree is subsiding.

3.3 PHOTOGRAPHIC OVERVIEW



Photograph 1 – As viewed from the east inside the site at Wildwood Lodge

Photograph 2 – As viewed from the west from Parfit Close

Photograph 3 – A view of the tree from the north within the site

4.0 CONCLUSION

- The tree's crown is severely unbalanced to such an extent that there is potential for failure as a result of stem and major branch snap and as such the tree is currently considered to represent a Moderate risk.

- The risk of failure could be mitigated by a significant reduction of the crown in the order of 3.0 to 4.0 metres laterally to the south, 2.0 metres in height and by approximately 1.0 metre laterally to the east and west. However, the resultant wounds would be large and the surface area they present an entry point for fungal colonisation and decay. In addition, the lean and shape of the tree is such that it will never revert to the vertical even with the implementation of the pruning works described above. It will always remain of poor form.

- The view of the tree to anyone outside of the site is limited to that shown in photograph 2 included above, which demonstrates the declining branches, lean and poor form.

- In summary, the tree currently has poor form and mitigation works to affect an acceptable level of risk would reduce the tree's visual impact and introduce the potential for the development of future defects. As such the tree has a significantly reduced life expectancy and is not considered worthy of a Tree Preservation Order.

- The site benefits from a well-developed landscaping and new planting scheme to replace other trees removed at the site but this does include the tree in question T10 Acacia. It is recommended that an application is consented to remove T10 Acacia and if any replacement new planting is required this could be carried out following the landscaping works.

*** Interpretations of Risk**	(As per Smiley, Fraedrich & Hendrickson 2009)
Critical Risk	Failure imminent: personal injury and/or property inevitable.
High Risk	Failure likely especially during storms: personal injury and/or property damage likely.
Moderate Risk	Failure possible especially during severe storms: personal injury and/or property damage possible.
Low Risk	Failure unlikely: personal injury and/or property damage unlikely.
**Dismantling/surgery risk	Weakened crown anchor points possible, require full risk assessment prior to tree works

5.0 RECOMMENDATIONS

- Apply to Camden Council to remove T10 Acacia that is subject to a TPO, as a result of its poor form and the risk it poses by way of potential snap failure of the stem and major limbs. Mitigation works to reduce the tree are not favoured in this instance as a result of the extensive pruning works that would be required, further reducing visual amenity and predisposing the tree to decay and colonisation by pathogens.

The above is recommended to be carried out as soon as possible.

Note: Ordinarily as part of Tree Preservation Order procedures it would be necessary to replace the removed tree T10 with a new planting. It is considered that those managing the development would be willing to incorporate a new replacement tree into the site. However, in this case the expediency of serving the Tree Preservation Order for this tree is questionable and therefore the requirement to also plant a replacement tree is also questionable. As a result the client may wish to pursue liaison with the Local Planning Tree Officer in relation to the validity of a replacement planting obligation.

In the meantime the main stem of the tree may be propped to reduce the risk of failure close to ground.

I trust this report is helpful to you. However, should you have any queries or require further advice, please do not hesitate to contact me.

REPORT CLASSIFICATION: Tree Health & Structural Integrity Report

REPORT STATUS: Completed

REPORT COMPLETED BY: Mr Jason Mills
Arboricultural Consultant

SIGNATURE: **CONSULTANT** **DATE: 15/01/2015**

REPORT REVIEWED BY: Mr James Percy-Lancaster
Arboricultural Consultant

SIGNATURE: **CONSULTANT** **DATE: 16/01/2015**

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- Climbing Inspections
- Planting Scheme Proposals
- Woodland Management
- Site Monitoring & Site Supervision
- Tree Vitality Assessments
- Internal Decay Tests
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BARTLETT TREE EXPERTS

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Radlett 01727 825 090
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