

the tree bureau



Arboricultural consultancy, design and management

**Arboricultural report
in relation to proposed tree work at
183 Gloucester Avenue NW1 8LA**

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Arboricultural report in relation to proposed tree work at 183 Gloucester Avenue, London NW1 8LA

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Commissioned by
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1 Introduction

- 1.1 This report, commissioned by Jeffrey Twentyman, provides supplementary information about his notification of proposed tree work at 183 Gloucester Avenue NW1 8LA in the Primrose Hill Conservation Area.
- 1.2 The proposed work is to fell the bay laurel/sweet bay (*Laurus nobilis*) in the front garden of the property and grind out the roots to about 300mm below ground level.
- 1.3 This work is designed to prevent continuing movement to the storm porch and basements/underground vaults as a result of water uptake by the tree and resulting soil desiccation, and has been recommended in a chartered surveyor's report.
- 1.4 Mr Twentyman proposes to replace the tree with either a birch or a hornbeam, to be planted in the front garden farther away from his house than the position of the bay laurel.
- 1.5 I carried out a visual tree inspection and preliminary site assessment on 23 November this year and have read two reports about the property prepared by:
 - BCS Consulting, civil and structural engineers – 25 October 2006
 - Henson Associates, chartered surveyors – 25 July 2011.

2 The tree in context

- 2.1 The tree stands in the front garden of the five-storey, mid-Victorian end-of-terrace property, about 5.6m from the right-hand pillar of the storm porch (when viewed with my back to the road) and about 6.9m from the front door.
- 2.2 Between the front of the house and the tree are two underground vaults, one of which I understand to be accessed from the external steps leading to a light well to the right of the storm porch. I understand that there is also a basement utility room beneath the storm porch.
- 2.3 A young hornbeam (with a stem diameter of about 120mm diameter at 1.5m above ground level) and a small multi-stemmed elder grow in the adjacent garden to the left of the property at about 2.63m and 1.17m, respectively, from the left-hand pillar of the storm porch. Trees in adjacent gardens to the right of the property include a pear and a birch.

3 Description of the tree

- 3.1 The tree is mature, about 11m tall and has a basal diameter of 630mm. It has three main stems arising close to the base and further dividing at about 2.2m from ground level, giving a basal diameter of 630mm. There is included bark between the inner and outer main stems, creating potentially weak branch attachments. The tree has a crown spread of approximately 2.3m north, 3m east, 3.3m south and 4m west, and in the past has been managed by crown reductions akin to pollarding. The last reduction is at about 4.3m from ground level.
- 3.2 The tree is in good physiological condition and in reasonable structural condition.
- 3.3 Irrespective of any possible tree-related damage to the property, if the tree were to be retained, it would need a substantial crown reduction in the near future and subsequent cyclical pruning to:
 - reduce the crown weight on the main stem attachment points, particularly the central stem
 - manage the scale of the tree in its setting
 - reduce the oppressiveness of an evergreen tree so close to the front windows of the house
 - improve morning light to the house.

4 Reports dealing with suspected tree-related damage

2006 report

- 4.1 A report produced by BCS Consulting, civil and structural engineers, of Winston House, 2 Dollis Park, N3 1HF, was based on a pre-purchase survey of 25 October 2006.
- 4.2 The report concluded that the roots of the bay laurel had probably trespassed beneath the front porch foundations causing a loss of support to the front edge. This had resulted in a slight rotation in the porch structure, causing it to pull away from the main house.
- 4.3 The report noted:
- a vertical crack down the right-hand junction of the storm porch with the main house with a width of 10mm at its highest and about 5mm at step level
 - a horizontal crack, with a width of about 1 mm maximum, to the front of the right pier of the storm porch at about 1 m above ground level
 - a vertical crack down the left-hand junction of the storm porch with the main house with a width of a maximum 2mm at a high level
 - a horizontal crack adjacent to the render where the storm porch abutted the steps on the left-hand side
 - a radial crack of some 2mm at mid height, passing down to the door head within the light well
 - in the lobby area beneath the front entrance steps in the basement a crack above the door frame adjacent to the main house: this crack had a maximum width of 2mm passing up to ceiling level and then across the junction of the main house external wall and barrel vaulted roof, where there was a degree of distortion/dragging of the finishes.
- 4.4 No water damage or drainage problems were noted.
- 4.5 Two deciduous trees, up to 7m tall, at the front of the front garden were recorded in the report, but these were not present when I visited the garden.

2011 report

- 4.6 Henson Associates, chartered surveyors, of 31 Fellbrook, Richmond upon Thames RW10 7UN, produced a report based on a pre-purchase survey of 25 July this year.
- 4.7 This report states that cracks observed indicated that the front portico structure and the walls to the utility room had slipped outward, and had continued to slip outward since October 2006. The movement was likely to have been caused by soil desiccation, due in turn to moisture uptake by the bay laurel. The report concluded that the evidence indicated that the movement would continue unless the tree were removed.
- 4.8 In detail the report noted:
- a gap of approximately 15mm between the small front wall, adjacent to the portico to the right side of the front door opening, and the front main wall
 - gaps between the asphalted apron immediately adjacent to the front door, which effectively forms the roof over the lower ground floor utility room, and the front main wall
 - cracks externally between the right wall adjacent to the utility room and the lower front main wall
 - a crack at the junction of the front main wall and the portico of 10-15mm width
 - a horizontal crack to the column to the right side of the portico of approximately 2-3mm width
 - a crack of approximately 5mm width at the junction of the front main wall and front doorstep
 - a crack of 3-4mm width externally above the door opening to the utility room
 - internal cracks of 4-6mm width at the junction of the ceiling and the front main wall in the utility room and further cracks internally above the door openings to the utility room.
- 4.9 This report mentions dampness to, among other areas, the lower walls in the front utility room, including the under pavement vault to the front of the utility room, and concludes that the damp proof course had been

bridged or breached. In addition, a drain visible via the internal double-sealed chamber in the utility room was found to be blocked and water was draining via the interceptor trap

5 Soil and subsidence

- 5.1 I have not carried out any soil test and am not aware of any soil testing that has been carried out, so the following two paragraphs are based on desk research only.
- 5.2 The British Geographical Survey 1:50,000 map indicates the local bedrock geology to be London clay formation – a shrinkable soil.
- 5.3 A subsidence risk analysis of historic subsidence claims within 0.5km of the property's postcode suggests that the risk is 'high' – two to four times higher than the average insurance claim profile.
- 5.4 The National House Building Council classifies bay laurel as having moderate 'water demand'.

APPENDIX A – SCOPE

- 1 This report provides supplementary information in relation to a tree work notification in a conservation area and does not constitute a subsidence investigation. The tree survey was a preliminary visual tree assessment (VTA) from ground level, following industry-standard procedures, based largely on the principles described in *The body language of trees – A handbook for failure analysis*, by Claus Mattheck and Helge Breloer, and *Principles of Tree Hazard Assessment and Management*, by David Lonsdale. This was an independent and impartial assessment of the condition of the trees and was not influenced by consideration of the client's proposed management of the tree.
- 2 No invasive investigation, such as test-boring of a tree was carried out and no branch, leaf, fruit or root samples were collected for analysis.
- 3 No soil testing was carried out, and the British Geological Survey information is provided only as a general indication for the vicinity of the site. Actual soil composition and condition can vary within short distances.
- 4 The subsidence risk assessment was provided by Property Assure, an associated company of Smithers Purslow, consulting engineers and surveyors, in association with Envirosearch Residential, based on their analysis of subsidence claims data within 0.5 kilometers of the postcode. No specific subsidence risk assessments were made at the site, and this postcode assessment should be viewed as indicative only.
- 5 The tree height was measured with a digital clinometer. Other measurements were made with a diameter tape, linear tape or were estimated.
- 6 Trees are dynamic organisms. They change as they mature, change in response to changed conditions around them, or change for reasons that science has not yet fully explained. No tree can ever be said to be completely safe. The arboricultural aspects of this report are valid for 12 months, provided there are no environmental changes such as, but not exclusively, soil disturbance, building work or mechanical damage, or severe natural events/changes such as strong gales, prolonged drought or heavy snow.
- 7 Any comment in this report relating to non-arboricultural matters should be viewed as provisional and referred to appropriate specialists for confirmation and specification.
- 8 Any tree work discussed must take full account of planning legislation, wildlife and habitat protection legislation and tree phenology (natural cycle). Tree work should be carried out to the British Standard BS3998:2010 *Tree Work – Recommendations*.

APPENDIX B – REFERENCES

References

British Geological Survey, Geology of Britain viewer, <http://www.bgs.ac.uk/opengeoscience/>

Property Assure Subsidence Risk Certificate Service; Smithers Purslow Property Services in association with Envirosearch Residential.

NHBC (National House Building Council) Standards *Buildings near trees*, Chapter 4.2; NHBC 2007.

BS3998:2010 *Tree Work – Recommendations*; British Standards Institution, 2010.

Claus Mattheck and Helge Breloer, *The body language of trees – A handbook for failure analysis*, Research for Amenity Trees No. 4; Office of the Deputy Prime Minister, 2003.

David Lonsdale, *Principles of Tree Hazard Assessment and Management*, Research for Amenity Trees No. 7; Department of Transport, Local Government and the Regions, 2001.



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