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ARBORICULTURE LTD.

BS:5837 ARBORICULTURAL REPORT

ARBORICULTURAL IMPACT ASSESSMENT

WOODLANDS FARM HOUSE
BATH ROAD
KNOWL HILL
WOKINGHAM
RG10 9UP

WBC PLANNING APPLICATION REF: 241907

DECEMBER 2024

Ref: AIA 06571 / 2024

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NO: PRO 1695

Project: Boundary treatment and gate fronting Woodlands Farm House

Prepared by: Sarah Duckworth

Position: Arboricultural Consultant

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File ref: 06571 / 2024

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1. ARBORICULTURAL IMPACT ASSESSMENT

1.1 Background

In their assessment of planning application 241907 for the proposed 'Erection of 2.1m high boundary treatment; and installation of timber boundary gate. (Retrospective)', Wokingham Borough Council's Tree and Landscape Officer has requested further information in the form of an 'Arboricultural Impact Assessment and a remediation scheme, to include planting as required, to BS5837: 2012 to demonstrate whether the development has impacted the protected trees adjacent to the driveway'.

A site visit was held on Monday 18th November 2024 with the client and Sarah Duckworth (Arboricultural Consultant) in attendance. The purpose of the site visit was to review the works which have been taken to install the gates and boundary treatment and to assess any impact these works may have had on the adjacent trees.

In this report I have reviewed the impact of the works on trees and where appropriate considered whether site enhancements are required by which any impact on trees may be satisfactorily mitigated.

1.2 Tree Preservation Orders

I have confirmed on the Wokingham Borough Council online Tree Preservation Order Plan that trees at Woodlands Farm House are protected by Area Tree Preservation Order ref TPO-1639-2018.

The area category is a means of protecting individual trees dispersed over an area. Authorities may either protect all trees within an area defined on the Order's map or only those species which it is expedient to protect in the interests of amenity. The Area Order only protects those trees standing at the time it was made (2018).

1.3 Impact of Wooden Gates & Brick Pillars / Walls

The new timber closed boarded access gate has been mounted between brick walls and pillars. These brick structures were erected on traditional foundations and therefore required excavation to a suitable depth to support the structures.

The pillars / brick wall to the east of the gate is on the very outer edge of the rooting area of T074 (Beech). The incursion of 0.6m² equates to less than 0.2% of the trees overall rooting area. This minor incursion will not have any notable impact on the tree's health or stability.

Directly west of the gate the brick walls and pillars are within 0.4m of T044 a mature, shrubby Field Maple. There has always been a culvert running north to south directly to the east of the tree therefore the tree may have been rooting preferentially to the west and away from the driveway, however due to the proximity of the pillars to the trees base significant root damage / severance during these works is a possibility.

T044 (Field Maple) is otherwise in good health and at the time of both my site visits (April 2024 & November 2024) the canopy and bud density show no indication of stress

In view of this, my recommendation is that 2x Field Maple (*Acer campestre*) be planted in a suitable location within Woodlands Farm House to provide continuation of tree canopy cover in the event that this tree should fail or go into decline.

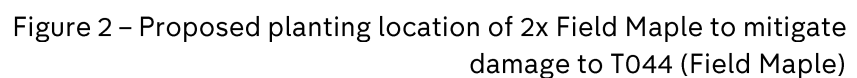
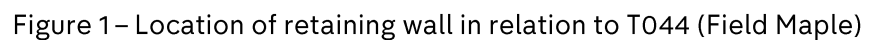




Photo 1 – T044 (Field Maple)



Photo 2 – Proximity of T044 (Field Maple) to new wall and replacement Culvert

The preferred planting scheme is for two smaller trees, rather than one larger standard trees. Smaller trees establish more quickly and require less post planting maintenance. It will give the new trees the best possible chance to establish and thrive and provide a surplus of net trees in the event that any of the trees die or fail to thrive.

The new trees will be sourced from Chew Valley Trees, a reputable supplier of quality container-grown tree stock and can be planted in the planting season of 2024 / 2025 subject to the approval of the scheme by the Local Authority.

Any trees or shrubs which die, fail to thrive, are removed, become seriously diseased or irreparably damaged within 5 years of the completion of the landscaping works will be replaced by another of a similar size and species within the next planting season (November to March) following their removal and will be subject to the same post-planting maintenance as the original landscape scheme.

1.4 Erection of 2.1m high boundary fence

At the time of my visit, temporary boundary fencing was installed, and the proposal is to replace this with 2.1m high close board fence. It has been confirmed that the post holes for the existing temporary fence were excavated by hand and posts have been set in concrete.

There are no postholes directly adjacent to trees. The localised post holes impact a very small area of each tree's overall rooting area.



Photo 3 – Temporary slatted boundary fence at the front of Woodlands Farm House

The replacement 2.1m high boundary fence will use the existing post holes. The temporary posts and their concrete footings will be extracted. The post holes will then be lined with a non-porous plastic membrane before any new concrete is inserted in the post holes to support the new boundary fence.

The replacement higher fence will need to be cut down in height to accommodate the low, western branch of T075 (Beech). The new fence should allow for a minimum of 100mm clearance to accommodate future growth of the tree.

1.5 Summary

It is acknowledged that recent works to construct new brick walls at the front of Woodland Farm House, Bath Road, Knowl Hill may have severed roots on the eastern side of a mature Field Maple (T044).

Although the tree is currently in good health, the works are likely to shorten its longevity. It would therefore be appropriate to plant 2x new Field Maple in a suitable location within the garden of Woodland Farm House.

The proposed 2.1m high boundary fencing will go along the same route as an existing fence. Provided the postholes of the new, higher fence are installed using the same post hole positions and that the postholes are fully lined with a non-porous plastic membrane before concrete is poured, the new fencing can be installed without any further damage to trees. The new fencing will need to be cut around the side of T075 (Beech) if necessary to enable the tree to continue to grow unimpeded.



Sarah Duckworth
Arboricultural Consultant

2. SURVEY

2.1 APPRAISAL

The trees were surveyed on Tuesday 28th May & 18th November 2024.

On the survey days the weather conditions clear and dry. Visibility was good.

Heights were estimated where part of a group. Soil samples were not taken.

Trees are dynamic living organisms subject to change, whose health and condition can be subject to significant change influenced by internal and external factors. The assessment of trees in this report are based on the condition assessed at the time of inspection and are valid for 18 months.

If the condition of the trees evidently changes or the trees are subject to extreme weather conditions before this date; further inspection may be required. No tree is ever absolutely safe due to the unpredictable laws and forces of nature.

The trees on site were assessed for their quality and benefits within the context of the proposed development and categorised in accordance with the recommendations in the BS:5837:2012.

2.2 KEY

Ref:	T001 = Tree 1 A001 = Area 1	G001 = Group 1 W001 = Woodland 1
Species:	Common name (Botanical name)	
Height:	Measured with a clinometer (m) where possible or estimated when part of a group	
Stem:	Stem diameter taken at 1.5m with girth tape or rule and recorded in millimeters	
Branch spread:	Paced measurements at compass points or with a laser measure.	
Crown clearance:	Existing height above ground level of canopy and / or first significant branch direction of growth in metres e.g. 2.4 (N) where relevant.	
Epics:	Lower canopy created by epicormic growth.	
Age Class:	Newly planted - 3 years following planting. Young - Tree well established but with juvenile crown form Young Mature - Tree in first third of usual life expectancy for species Mature - Tree in second third of usual life expectancy for species Over Mature - Tree in final third of usual life expectancy for species / exhibiting signs of crown retrenchment & senescence.	
Veteran:	Older than usual for species or with historical/ cultural / ecological value	
General Observations:	Made with reference to physiological condition (health, vigour) and structural condition, noting evidence of decay, structural weakness and physical defect and preliminary management recommendations.	
Estimated Remaining Contribution:	Estimated in years - less than 10, 10-20, 20-40, 40+	
BS: 5837:2012 category rating:	In accordance with the guidelines of the British Standard.	
	 Category 'A' tree (Green)  Category 'C' tree (Grey)  Category 'B' tree (Blue)  Category 'U' tree – Fell (Red)	
RPA Area	BS:5837 (2012) Root Protection Area calculation in square metres	
RPA Radius	BS:5837 (2012) Root Protection Area calculation circle radius in metres. ¹	

¹ The root protection area radius is for information only and may not be appropriate in every case. BS:5837 advises that *'the RPA for each tree should initially be plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting may have occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distributions.'*

3. BS:5837 (2012) TABLE 1: CASCADE CHART FOR TREE QUALITY ASSESSMENT

CATEGORY & DEFINITION	CRITERIA (including sub-categories where appropriate)		
Trees unsuitable for retention			
Category 'U' Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	Trees that have a serious, irremediable, structural defect such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning. Trees that are dead or showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and / or safety of other trees nearby or very low-quality trees suppressing adjacent trees of better quality. NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve		
	Mainly Arboricultural Qualities	Mainly Landscape Qualities	Mainly cultural values including conservation
Trees considered suitable for retention			
Category 'A' Trees of High Quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and / or principal trees within an avenue)	Trees, groups, or woodlands of particular visual importance as arboricultural and / or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture)
Category 'B' Trees of Moderate Quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g., presence of significant though remedial defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality to merit the category 'A' designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little contribution to the wider locality.	Trees with material conservation or other cultural value.
Category 'C' Trees of Low Quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees are present in groups or woodlands but without this conferring on them significantly greater collective landscape value; and/ or trees offering low or only temporary / transient landscape benefits.	Trees with no material conservation or other cultural value.

4. SURVEY DATA

Ref.	Species	Measurements	Spread	General Observations	Retention Category	RPA	Condition
G007	Lawson cypress x22 (<i>Chamaecyparis lawsoniana</i>)	Height (m): 13 22 stems, avg.(mm): 350 Crown Clearance (m): 2 Rem. Contrib.: 20+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Mature tree. Linear slender tree group. Suppressed by larger beech. Vehicle tracks at base. Possible ground works at base.	C2	Area: 177 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low
T043	Pedunculate oak (<i>Quercus robur</i>)	Height (m): 12 Stem Diam(mm): 640 Crown Clearance (m): 2 Rem. Contrib.: 40+ Years	N:2 E:4 S:4 W:7	Ivy clad mature tree on far side of ditch. Possible grading of ditch edge. Fibrous roots visible. No visible evidence of major Woody roots having been cut. Foliage density normal. Stability of tree cannot be guaranteed.	B1	Radius: 7.7m. Area: 186 sq m.	Physiological Condition: Good Structural Condition: Unknown Public Amenity Value: Moderate Inspection Limitations: Ivy
T044	Field maple (<i>Acer campestre</i>)	Height (m): 14 Stem Diam(mm): 440 Crown Clearance (m): 3 Rem. Contrib.: 20+ Years	N:3 E:4 S:5.5 W:6.5	New culvert on ditch and brick pillar and boundary wall directly at base. Asymmetrical crown. Foliage density normal.	C2	Radius: 5.3m. Area: 88 sq m.	Physiological Condition: Good Structural Condition: Unknown Public Amenity Value: Moderate Inspection Limitations: Ivy
T071	Common beech (<i>Fagus sylvatica</i>)	Height (m): 18 Stem Diam(mm): 720 Crown Clearance (m): 6 Rem. Contrib.: 20+ Years	N:8.5 E:5 S:7 W:4.5	Swept stem. High suppressed canopy. Bark damage to buttress roots.	B2	Radius: 8.6m. Area: 232 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Dense vegetation
T072	Common beech (<i>Fagus sylvatica</i>)	Height (m): 18 Stem Diam(mm): 630 Crown Clearance (m): 3 Rem. Contrib.: 20+ Years	N:8 E:5 S:8 W:4	Mature tree, high suppressed canopy.	B2	Radius: 7.6m. Area: 181 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Dense vegetation
T073	Common beech (<i>Fagus sylvatica</i>)	Height (m): 18 Stem Diam(mm): 400 Crown Clearance (m): 6 Life Stage: Mature Rem. Contrib.: 20+ Years	N:8.5 E:4 S:1 W:2	High suppressed canopy. Bark damage to buttress roots.	B2	Radius: 4.8m. Area: 72 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Dense vegetation
T074	Common beech (<i>Fagus sylvatica</i>)	Height (m): 19 Stem Diam(mm): 1100 Crown Clearance (m): 3 Rem. Contrib.: 20+ Years	N:9.5 E:3 S:8.5 W:4	Mature tree with a large trunk. Multiple branching from 2m with included bark. High suppressed canopy.	B2	Radius: 13.2m. Area: 547 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Dense vegetation
T075	Common beech (<i>Fagus sylvatica</i>)	Height (m): 15 Stem Diam(mm): 700 Crown Clearance (m): 4 Rem. Contrib.: 20+ Years	N:7 E:2 S:8.5 W:11	Asymmetrical canopy. Swept stem. Ivy clad. Vehicle tracks at base. Bark damage to buttress roots.	B2	Radius: 8.4m. Area: 222 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Dense vegetation