ARBORICULTURAL IMPACT STATEMENT

5 Bracken Lane GU46 6LH

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Morespace

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Contents

1.	Background	1
	Survey details and scope	
3.	Survey Limitations	.2
4.	Legal Protection of Trees	3
5.	Method Statement	.4
6.	Impact Assessment	.7
7.	Appendices	8

1. Background

- 1.1. This Arboricultural Impact Assessment relates to a new single storey extension and provides recommendations for the management of trees on the site.
- 1.2. This survey and report have been prepared in accordance with recommendations provided in BS 5837:2012, Trees in relation to design, demolition and construction Recommendations.

2. Survey details and scope

- 2.1. The site survey included trees and hedges, within influencing distance of the proposed development, with a stem diameter over 75mm at 1.5m height, located within the area shown on the Tree Protection Plan, included in the appendix.
- 2.2. Tree inspection took place from ground level. The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could increase the risk of structural failure were noted.
- 2.3. Tree details have been determined by measuring distances from features shown on the plan, using a laser measuring device and measuring circumference with a tape measure. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix:
 - 2.3.1.-**Number:** an identity number for each tree, prefixed with a "T" or "G", which cross references locations shown on the plan with the schedule in Appendix. Where several trees, normally of the same species, are located close together and are similar in character and requirements, they have been treated as a Group under a single Number, prefixed with a "G".
 - 2.3.2.- Species: common name.
 - 2.3.3.- Tree height: approximate height in metres.

- 2.3.4.- **Stem diameter:** diameter in millimetres, taken at 1.5m above ground. Where there are several stems, stem diameters are recorded in the condition column.
- 2.3.5.- **Canopy clearance:** approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
- 2.3.6.- Age class: Young, Semi-mature, Early mature, Mature, Over-mature, Veteran.
- 2.3.7.- **Condition:** features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
- 2.3.8.- Management Recommendations: recommendations to ensure the health and safety of the tree, within the future development.
- 2.3.9.-Estimated Remaining Contribution: <10 years, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.
- 2.3.10. -**Category grading**: tree classification taken from BS 5837:2012, Trees in relation to design, demolition, and construction (see Appendix for details), as follows:
 - Category U: Unsuitable for retention, trees with less than 10 years life expectancy, normally recommended for removal
 - Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation.
 - Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained.
 - Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout.
 - Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting.

*Trees have been classified irrespective of the possible proximity to future construction.

2.3.11. **-Protection Distance**: the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.

3. Survey Limitations

- No internal decay devices, or other invasive tools to assess tree condition, were used.
- No soil excavation or root inspection was carried out.
- This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.

• The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees close to highly populated areas or public highways should normally be checked for safety annually, by a suitably qualified person.



4. Legal Protection of Trees

Screenshot from Hart Tree Preservation Order Information map ("Information is for guidance only" is stated on the map):

• TPO area - TPO Reference: 81/00108/HDC

5. Method Statement

- 5.1. Site Overview
 - 5.1.1. The proposal is for single storey rear and side extension. The proposed site plan is included in the appendix and has been added to the survey drawing, along with tree details, to create the Tree Protection Plan attached.

An application for was granted in 2015. (app. ref. 15/00982/HOU) for a two-storey side extension. The proposal was close to the trees, and it was concluded it would not have an adverse impact on the trees and biodiversity. The proposed extension is further away from the trees and would have less impact.

5.1.2. The proposed extension will extend across the full width of the property and side on boundary with no. 7 away from the trees.

5.2. Tree work

- 5.2.1. All tree work must be undertaken to the standards set out in BS 3998:2010 Tree work
 - Recommendations.
 - Root Protection Area is shown for all trees in the tree schedule attached in Appendix. They are shown for all trees, as circular areas centred on the trunk, on the Tree Protection Plan attached in the Appendix. This shows the distance that construction must normally be kept back from a tree, to provide the Root Protection Area recommended in BS 5837.

5.3. Tree Protection Fencing

- 5.3.1.Tree Protection Fencing must be erected where shown on the Tree Protection Plan, attached in the Appendix. This will provide full protection of the Root Protection Areas of all retained trees, other than for:
 - area hatched cyan on the Tree Protection Plan, indicating a Ground Protection Area, where roots must be protected, as described in section 5.6 below.
- 5.3.2. Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix. Alternatively, weldmesh panels can be supported on blocks, providing the blocks are pinned to the ground with road pins, or similar, and the panels are braced, as per Figure 3 of BS 5837:2012.

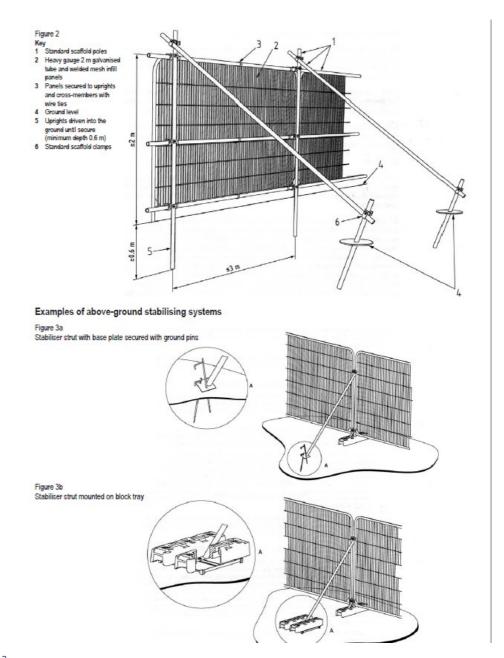


Figure 3

5.3.3.Weatherproof notices must be fixed to the Tree Protection Fencing, and maintained, stating:

TREE PROTECTION AREA - KEEP OUT

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONS:

- The Protection Fence must not be moved
- No person or machine must enter the area
- No materials or spoil must be deposited
- No excavation must be permitted

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

5.4. Ground Protection Areas

- 5.4.1. The Ground Protection Area shown shaded cyan on the Tree Protection Plan. No excavation must be permitted beneath the base course within this area.
- 5.4.2. The Ground Protection Area shown hatched cyan on the Tree Protection Plan contains a soft area where ground protection must be laid to protect any underlying roots. The area must be protected by either 25mm plywood or side butting scaffold boards, on top of a compressible layer of sand or woodchips, laid onto a geotextile.
- 5.5. Hand Dig Area
 - 5.5.1. The existing patio slabs must be removed using only manually operated hand tools. The new foundation trench must be dug to formation level by hand, neatly severing any roots found, using secateurs or a hand saw.
 - 5.5.2. Heavy-duty polythene must be used to line the side of the trench adjacent to the tree, before concrete is poured, to avoid the toxic effects of cement on tree roots.

5.6. General Measures

- 5.6.1.No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.6.2.No mixing of cement, or concrete, or storage of fuel must take place within 10m of retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.6.3. Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches, or trunk.
- 5.6.4.Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots. Tractor mounted rotovators or other heavy mechanical cultivation must not be used within the Root Protection Areas.
- 5.6.5.A copy of the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

5.7. Bat Roosts

5.7.1. The current legislation makes it a criminal offence to disturb, damage or destroy any bat roost or hibernation area. None of the trees or group of trees are considered suitable for bats to use either for hibernation or temporary roost sites. The size and type of trees, lack of cavities, cracks, or loose bark makes it unlikely that bats will use the shrubs, except possibly for foraging for food. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

5.8. Birds

5.8.1. The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1st March to 31st July, however this can vary depending on species and location. During these months a careful inspection must be made before work commences and works must be postponed if active nests are found. It is unlikely that type and size of the trees allow for nesting.

6. Impact Assessment

- 6.1. No trees are proposed for removal.
- 6.2. The new foundations will necessitate excavation and are set away from the edge of the Root Protection Area of all trees. Hand dig has been specified for the removal of the existing patio slabs and for the further excavation of the new foundation trench. Protection measures have been specified to minimise potential damage during the construction period.
- 6.3. If large trees are too close to buildings, future occupiers may be likely to seek their reduction, or removal, if they are cutting out excessive sunlight or providing a claustrophobic or threatening environment. Section 5.2.2 of BS 5837:2012 states that "an indication of potential direct obstruction of sunlight can be illustrated by plotting a segment with a radius from the centre of the stem equal to the height of the tree, drawn from due North West to due East, indicating the shadow pattern through the main part of the day."
- 6.4. Provided the recommendations in this report are followed, the arboriculture impact of development on existing trees is considered acceptable.

7. Appendices

7.1. Tree Schedule

Tree	Species	Height	Stem	Canopy	Age	Observat	Est.	BS5837	Protection
NO		m	m	m		ions	Contributing	Grading	distance
							years		.5m
T1	Bay tree	5	0.25	2.5	Early mature	/	5-10	B/C	3.00
G1	Laylaandii	8	0.42	2.5	Semi mature	/	5-10	С	5.04
T2	Elder	3.5	0.23	2.5	Young	/	50	B/C	2.76
Т3	Laylaandii	2.5	0.14	1.5	Semi mature	/	5-10	С	1.68
T4	Laylaandii	3	0.15	2	Semi mature	/	5-10	С	1.8
T5	Laylaandii	3	0.21	2	Semi mature	/	5-10	С	2.52
T6	Laylaandii	3	0.19	2	Semi mature	/	5-10	С	2.28
T7	Laylaandii	3	0.23	2	Semi mature	/	5-10	С	2.76
Т8	Silver birch	9	0.41	7	Semi mature	/	20-30	В	4.92

British Standard BS 5837:2012, Table 1

Category and definition	Criteria (including subcategories where appropriate)							
Trees unsuitable for retention	(see Note)							
Category U	 Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, 							
Those in such a condition that they cannot realistically	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)							
be retained as living trees in	 Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline 							
the context of the current land use for longer than 10 years	 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 							
To years	NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.							
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation					
Trees to be considered for rete	ention							
Category A	Trees that are particularly good	Trees, groups or woodlands of particular	Trees, groups or woodlands	See Table 2				
Trees of high quality with an estimated remaining life expectancy of at least 40 years	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)	visual importance as arboricultural and/or landscape features	of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)					
Category B	Trees that might be included in	Trees present in numbers, usually growing	Trees with material	See Table 2				
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable 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 necessary to merit the category A designation	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 visual contribution to the wider locality	conservation or other cultural value					
Category C	Unremarkable trees of very limited	Trees present in groups or woodlands, but	See Table 2					
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	merit or such impaired condition that they do not qualify in higher categories	without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	conservation or other cultural value					

9



