GHA Trees
5 South Drive
High Wycombe
Bucks
HP13 6JU

Glen Harding MICFor
MSc (Forestry), MArborA
t: 07884 056025
e: info@ghatrees.co.uk
www.ghatrees.co.uk

BS5837:2012 TREE SURVEY AND ARBORICULTURAL IMPACT ASSESSMENT: Medhurst, St Mary Bourne, Andover, Hampshire, SP11 6AR

Dated: 6th September 2023

Our reference: GHA/DS/160222:23

CONTENTS

Arboricultural Impact Assessment

Location: Medhurst, St Mary Bourne, Andover, Hampshire, SP11 6AR
Our reference: GHA/DS/160222:23
Client: Absolute Architecture
Dated: 6th September 2023
Prepared by: Glen Harding MICFor, MSc (Forestry), MArborA
Date of Inspection: 5th August 2023

Instructions

Issued by – Absolute Architecture

TERMS OF REFERENCE – GHA Trees were instructed to survey the subject trees within and adjacent to Medhurst, St Mary Bourne, Andover, Hampshire, in order to assess their general condition and to provide a planning integration statement for the indicative proposed development that safeguards the long term wellbeing of the retained trees in a sustainable manner.

Executive Summary

The proposal for the site is to construct a new detached house and garage following the demolition of the existing buildings. The existing site access will be reused for the new development. The proposed scheme does not require the removal or pruning of any of the trees on site, or of trees within nearby adjacent sites; therefore, the landscape character of the site will be unaffected by the proposal. The retained trees require protection in accordance with industry best practice and BS 5837: 2012 – Trees in relation to design, demolition and construction – recommendations, in order to ensure their longevity.

Documents Supplied

The client supplied the following documents:

- Topographical survey
- Existing layout plans
- Proposed layout plans

Scope of Survey

1.1 The survey is concerned with the arboricultural aspects of the site only.

1.2 The planning status of the subject property was not investigated in detail.

1.3 A qualified Arboriculturist undertook the report and site visit and the contents of this report are based on this. Whilst reference may be made to built structure or soils, these are only opinions and confirmation should be obtained from a qualified expert as required.

1.4 Trees in third party ownership were surveyed from within the subject property, therefore a detailed assessment was not possible and some (if not all) measurements were estimated. Where the stem location of a third party tree has been estimated, this is noted on the plan.

1.5 Dense vegetation or climbers (such as ivy) also prohibited full inspections for some trees; this is noted where applicable.

1.6 No discussions took place between the surveyor and any other party.

1.7 The trees were inspected on the basis of the Visual Tree Assessment method expounded by Mattheck and Breleor (The body language of tree, DoE booklet Research for Amenity Trees No. 4, 1994)

1.8 The survey was undertaken in accord with British Standard 5837: 2012 – Trees in relation to design, demolition and construction – recommendations.

1.9 Underground services near to trees will need to be installed in accord with the guidance given in BS5837.

1.10 The client's attention is drawn to the responsibilities under the Wildlife and Countryside Act (1981).

Survey Method

2.1 The survey was conducted from ground level with the aid of binoculars if needed.

2.2 No tissue samples were taken nor was any internal investigation of the subject trees undertaken.

2.3 No soil samples were taken.

2.4 The height of each subject tree was estimated using a clinometer and recorded to the nearest half metre.

2.5 The stem diameter for each tree was measured in line with the requirements set out in BS 5837: 2012 – Trees in relation to design, demolition and construction – recommendations.

2.6 The crown spreads were measured with an electronic distometer and recorded to the nearest half metre. Where the crown radius was notably different in any direction this has been noted on the Plan (appendix A) and within the tree table (Appendix B). The crowns of those trees that are proposed for removal, or trees where the crown spread is deemed insignificant in relation to the proposed development are not always shown on the appended plan; however their stem locations are marked for reference.

2.7 The Root Protection Area (RPA) for each tree is included in the tree table, both as an area, and as the radius of a circle.

2.8 The crown clearance was measured using a clinometer and recorded to the nearest half metre. Where it is significantly lower in one direction, this is noted within the tree table at appendix B.

2.9 All of the trees that were inspected during the site visit are detailed on the plan at Appendix A; this plan was produced in colour and **MUST** only be scanned or reproduced in colour. The trees on this plan are categorised and shown in the following format:

COLOUR CODING AND RATING OF TREES:

Category A – Trees of high quality with an estimated remaining life expectancy of at least 40 years. Colour = light green crown outline on plan.

Category B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. Colour = mid blue crown outline on plan.

Category C – Trees of low quality with an estimated remaining life expectancy of at least 10 to 20 years, or young trees with a stem diameter below 150mm. Colour = uncoloured crown outline on plan.

Category U – Those in such a condition that they cannot realisitically be retained as living trees in the context of the current land use for longer than 10 years. Colour = red crown outline on plan.

All references to tree rating are made in accordance with BS 5837: 2012 – Trees in relation to design, demolition and construction – recommendations', Table 1.

The Site

3.1 The site is located in the village of St Mary Bourne, Hampshire.

3.2 Access to the property is currently gained via a driveway to the front of the site.

The Subject Trees

4.1 The details of the subject trees are set out in the Schedule at Appendix B.

4.2 Of the seventeen individual trees, and groups of trees surveyed, one has been assessed as BS 5837 category A, eight have been assessed as BS category B, with the remaining trees being assessed as BS 5837 category C.

Category A	1 tree
Category B	8 trees
Category C	8 trees / groups

The Proposal

5.1 The proposal for the site is to construct a new detached house and garage following the demolition of the existing buildings.

5.2 The existing site access will be reused for the new development.

5.3 The proposed location of the above structures can be seen on the appended plan.

Arboricultural Impact Assessment

PROPOSED TREE REMOVAL / RETENTION:

6.1 The proposed site layout and all of its associated structures allows for the healthy retention of all of the trees on the site itself, and within nearby adjacent sites; therefore, the arboricultural landscape character of the site will be retained.

TREE PRUNING TO ACCOMODATE THE PROPOSAL OR ACCESS TO THE SITE

6.2 The implementation of the proposal does not lead to the requirement to prune any of the retained trees, or shrubs.

6.3 There is no part of the new structure which will have tree canopies (from trees to be retained) overhanging it and the building works can progress safely without the need for any facilitation pruning.

ASSESSMENT OF RETAINED TREES ROOT PROTECTION AREAS

6.4 Section 4.6.3 of BS 5837: 2012 states that the Root Protection Area (RPA) of each tree should be assessed by an arboriculturalist considering the likely morphology and disposition of the roots, when known to be influenced by past or existing site conditions.

6.5 Following the assessment described in section 6.4, the RPAs have all been drawn as notional circles as there are no existing site structures (visible from the available access) which are assessed to have the potential to significantly affect tree root morphology.

ASSESSED IMPACT ON RPAS BY PROPOSED STRUCTURES

6.6 The proposed new buildings are situated outside of the assessed RPAs of all of the trees, therefore these trees pose no below ground constraints on these new structures or vice versa.

HARD LANDSCAPING IN RPAS

6.7 Where sections of the new patio are within the RPA of T16, a no-dig construction will be necessary, to ensure that all existing ground levels are retained in their current form, as well as ensuring that satisfactory moisture and oxygen can be obtained from the underlying soil by any tree roots in this area. A design for this proposed access route must be drawn up by a structural engineer, in close co-ordination with the retained arboriculturalist. Porous materials must be used to ensure rainwater can penetrate the soil beneath the new patio.

INSTALLATION OF SERVICES

6.8 The full details of existing and proposed new services have not been made available at the time of writing.

6.9 The installation of underground apparatus and drainage systems with the use of mechanical excavators will undoubtedly sever any roots that may be present and can change the hydrology and structure of the nearby soil in a way that will adversely affect the health of any nearby trees. Particular care should therefore be taken when assessing the layout of new services and consideration **MUST** be given to the methods of installation of **ALL** underground apparatus.

Post Development Pressure

FUTURE TREE AND STRUCTURE RELATIONSHIPS

7.1 The retained trees are at a satisfactory distance from the proposed new buildings and highly unlikely to give rise to any inconvenience.

7.2 Regular inspections of the retained trees by a suitably qualified Arboriculturalist and subsequent remedial works will ensure that the trees are maintained in a

suitable manner, to exist in harmony with the new structures and its occupants for many years to come.

Tree Protection Measures and Preliminary Method Statement for Development Works

8.1 TREE PROTECTION BARRIERS

It is essential for the future health of the trees to be retained on site, that all development activity is undertaken outside the root protection zone of these trees. The position of the fence **MUST** be marked out with biodegradable marker paint on site and agreed with appropriate representatives from the LPA and contractor. The fencing **MUST** be erected **prior** to any works in the vicinity of the trees and removed only when all development activity is complete. The protective fencing **MUST** be as that shown in BS 5837 (see Appendix C). The herras panels **MUST** be joined together using a minimum of two anti-tamper couplers which **MUST** be installed so they can only be removed from the inside of the fence. The panels **MUST** supported by stabilizer struts, which **MUST** be installed on the inside and secured to the ground using pins or appropriate weights.

The Fence must be marked with a clear sign reading:

"Construction Exclusion Zone – No Access"

8.2 GROUND PROTECTION – LIGHTWEIGHT ACCESS ONLY

Where any additional ground protection is required, these areas **MUST** be covered with a permeable membrane, with 150mm layer of compressible woodchip overlaying it; an 18mm marine ply boards will then be secured on top of the woodchip to allow a 1.5tonne mini-digger to access the area without causing major compaction or soil erosion.

8.3 SITE HUTS, WELFARE FACILITIES AND STORAGE OF EQUIPMENT, MATERIALS AND CHEMICALS

All site huts **MUST** be positioned outside of the retained trees RPA's.

8.4 MIXING OF CONCRETE

All mixing of cement / concrete **MUST** be undertaken outside of the RPA of all of the retained trees.

8.5 USE CRANES, RIGS AND BOOMS

Precautionary measures **MUST** be observed to avoid contact of any retained trees when manoeuvring cranes rigs or booms into position.

8.6 INCOMING SERVICES, DRAINAGE AND SOAKAWAYS

Any new underground services which are to be located within (any portion of) the RPAs of any trees which are to be retained **MUST** be installed in accord with the guidance given in BS5837 together with the National Joint Utilities Group Booklet 4: 2007 Guidelines for the planning, installation and maintenance of utility services in proximity to trees (NJUG4). Service installation layouts **MUST** be planned to keep apparatus together in common ducts, in order to minimise the need for excavations. Service trench excavation within the RPAs **MUST NOT** be

undertaken with the use of any mechanised machinery (minidiggers, JCBs or alike).

8.7 ON SITE SUPERVISION

Regular site supervision is essential to ensure all potentially damaging activities near to trees are properly supervised. A pre start site meeting **MUST** occur to ensure all parties are aware of their responsibilities relating to tree protection on site; this **MUST** include a site induction for key personnel. After this pre start meeting, day-to-day responsibility for tree protection will be devolved to the site manager who will make contact with the retained arboriculturalist as needed.

8.8 OTHER TREE PROTECTION PRECAUTIONS

- **NO** fires lit on site within 20 metres of any tree to be retained.
- **NO** fuels, oils or substances with will be damaging to the tree shall be spilled or poured on site.
- **NO** storage of any materials within the root protections zone.

8.9 DISMANTLING PROTECTIVE BARRIERS

Protective barriers must only be completely removed when all machinery, and equipment has left site.

Conclusion

9.1 In conclusion, the principal arboricultural features within the site can be retained and adequately protected during development activities.

9.2 Subject to precautionary measures as detailed above, the proposal will not be injurious to trees to be retained.

Recommendations

10.1 Site supervision – An individual e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. This person must:

a. Be present on the site the majority of the time.
b. Be aware of the arboricultural responsibilities.
c. Have the authority to stop any work that is, or has the potential to cause harm to any tree.
d. Be responsible for ensuring that all site personnel are aware of their responsibilities towards trees on site and the consequences of the failure to observe those responsibilities.
e. Make immediate contact with the local authority and / or retained arboriculturalist in the event of any related tree problems occurring whether actual or potential.

10.2 It is recommended, that to ensure a commitment from all parties to the healthy retention of the trees, that details are passed by the architect or agent to any contractors working on site, so that the practical aspects of the above precautions are included in their method statements, and financial provision made for these.

6th September 2023
Signed:

Glen Harding MICFor, MSc (Forestry), MArborA
For and on behalf of GHA Trees

Appendix A
TREE PLAN
(see separate PDF)

Appendix B
TREE TABLE

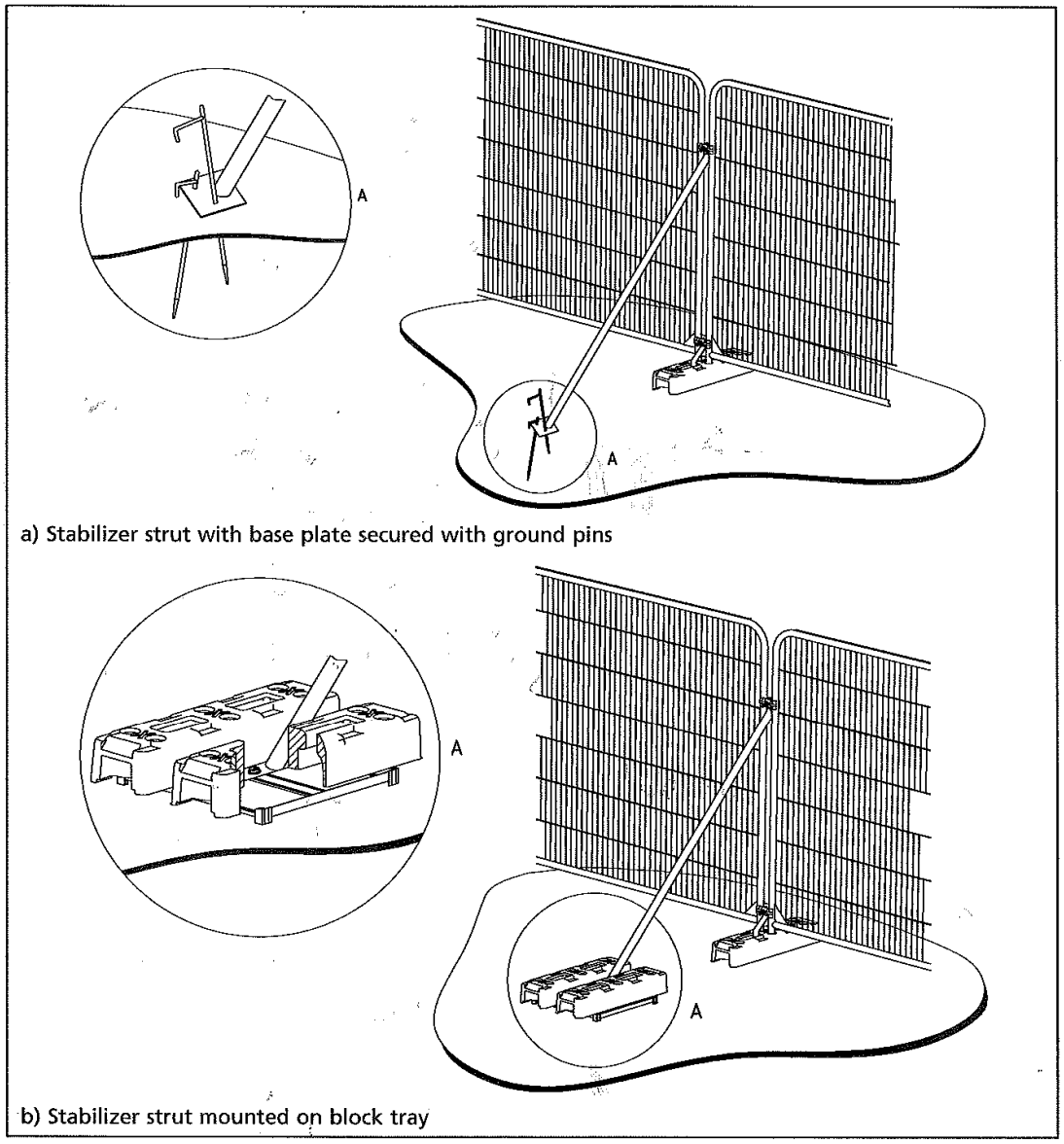
Tree Number	Tree Name (species)	Ht (m)	Calculated Stem Diameter (mm)	Number of Stems	Root Protection Area (Radius, m)	N (m)	E (m)	S (m)	W (m)	Age Class	Clearance (m)	Estimated life expectancy	BS Category	Comments / Recommendations
T1	Yew	14	700	1	8.40	5.5	5.5	5.5	5.5	M	4 over site	20-40	B1	Off site - full inspection not possible. Some measurements estimated.
T2	Yew	13	500	2	6.00	3.5	6	6	2	M	4 over site	20-40	B1	Off site - full inspection not possible. Some measurements estimated.
T3	Lawson cypress	18	300	1	3.60	2.5	3	3	2.5	M	4 over site	20-40	B1	Off site - full inspection not possible. Some measurements estimated.
T4	Yew	9	260	1	3.12	3.4	3.4	3.4	3.4	M	4 over site	20-40	B1	Off site - full inspection not possible. Some measurements estimated.
T5	Yew	14	740	1	8.88	6	6	6	6	M	5 over site	20-40	B1	No notable defects recorded during inspection.
T6	Alder	16	580	1	6.96	5	5	5	6	M	6 over site	20-40	B1	No notable defects recorded during inspection.
T7	Hawthorn	12	380	1	4.56	3.5	3.5	3.5	3.5	M	1.5	10-20	C1	Small tree of limited value in the wider landscape.
T8	Poplar	22	430	1	5.16	2	3	3.5	4	M	5 south	10-20	C1	Ivy prevented full inspection. Recommend: remove ivy and reinspect.
G9	Lawson cypress	7	400	1	4.80	2	2	2	2	M	2	10-20	C2	Topped heavily in past.
T10	Norway maple	15	470	1	5.64	4	4	5.5	2	M	2 north	20-40	B1	No notable defects recorded during inspection.

Tree Number	Tree Name (species)	Ht (m)	Calculated Stem Diameter (mm)	Number of Stems	Root Protection Area (Radius, m)	N (m)	E (m)	S (m)	W (m)	Age Class	Clearance (m)	Estimated life expectancy	BS Category	Comments / Recommendations
T11	Norway maple	22	800	1	9.60	8	8	8.5	5	M	2 north	20-40	B1	No notable defects recorded during inspection.
T12	Apple	8	397	2	4.76	2	5	4	1	M	2	10-20	C1	Small tree of limited value in the wider landscape.
T13	Cherry	4	610	1	7.32	7	7	6	6	M	1	10-20	C1	Sprawling crown. Limited value tree.
T14	Apple	7	580	3	6.96	6.5	5	2	5	M	2 north	10-20	C1	Small tree of limited value in the wider landscape.
T15	Scots pine	8	350	1	4.20	3	3	3	3	M	2	10-20	C1	Off site - full inspection not possible. Some measurements estimated.
T16	Cotoneaster	3.5	250	1	3.00	4	2	2	4	M	2	10-20	C1	Shrub.
T17	Beech	18	1250	1	15.00	12	12	12	10	M	8 west	40+	A1	Off site - full inspection not possible. Some measurements estimated.

KEY :
Tree No: (T= individual tree, G= group of trees, W= woodland)
Age class: Young (Y), Middle aged (MA), Mature (M), Over mature (OM), Veteran (V)
Height (Ht): Measured in metres +/- 1m

Appendix C
TREE FENCING DETAIL

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray