

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 ARBORICULTURAL
METHOD STATEMENT:
6A Nancy Downs, Watford, WD19 4NF

Dated: 4th July 2022

Our reference: GHA/MS/162290:22

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Arboricultural Method Statement

Location: 6A Nancy Downs, Watford, WD19 4NF
Our reference: GHA/MS/162290:22
Client: P Thomas
Dated: 4th July 2022
Prepared by: Glen Harding MICFor, MSc (Forestry), MArborA
Date of Inspection: 30th June 2022

Please note that abbreviations introduced in (brackets) may be used throughout the report.

Instructions

Issued by –P Thomas

TERMS OF REFERENCE –To survey the subject trees within 6A Nancy Downs, Watford, WD19 4NF, in order to assess their general condition and to provide an arboricultural method statement for the approved development, that safeguards the long term well being of the nearby retained trees and satisfies planning condition number 4.

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Executive Summary

The proposal for the site is to construct a new detached dwelling following the demolition of the existing structure. The access from Nancy Downs will be retained and used for the new house. The proposed scheme requires the removal of a small number of relatively insignificant trees and shrubs, which will not significantly impact the local or wider landscape. 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:

1. Existing layout plans
2. 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 Tree works will be required to be in accord with British Standard 3998 –2010 (Tree Work - Recommendations).
- 1.10 Underground services near to trees will need to be installed in accord with the guidance given in BS5837.
- 1.11 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 realistically 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 on Nancy Downs, a residential road located to the south of Watford.
- 3.2 A good tree cover is present on the site itself as well as adjacent sites, with many semi-mature and mature trees of both native and exotic origin characterising the local area.
- 3.3 Access to the property is currently gained via a driveway to the front (north) 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 Please be aware that ash tree(s) were identified during the survey. Many ash trees in the UK are suffering from ‘ash dieback’ (*Hymenoscypus fraxineus*) which can cause the rapid decline of affected trees, often rendering them unsafe. Affected trees have been highlighted in the tree table at appendix B and the severity of the infection noted; however please ensure these trees are inspected regularly.
- 4.3 Of the twenty one individual trees, and groups of trees surveyed, four have been assessed as BS 5837 category A, four have been assessed as BS category B, twelve been assessed as BS category C with the remaining tree being assessed as BS 5837 category U.

Category A	4 trees
Category B	4 trees
Category C	1 tree
Category U	1 tree

The Proposal

- 5.1 The proposal for the site is to construct a new detached dwelling following the demolition of the existing structure.
- 5.2 The access from Nancy Downs will be retained and used for the new house.
- 5.3 The proposed location of the above structures can be seen on the appended plan.

Method Statement and Procedures for Development Works

THE PROCEDURES OUTLINED BELOW ARE LISTED IN THE CHRONOLOGICAL ORDER THAT THEY MUST COMMENCE. ITEMS 6.1, 6.2 AND 6.3 MUST BE UNDERTAKEN BEFORE ANY CONSTRUCTION MACHINERY ENTERS THE SITE OR BEFORE ANY CONSTRUCTION ACTIVITY (TO INCLUDE DEMOLITION) COMMENCES.

6.1 TREE PRUNING / REMOVAL

A list of all tree works that are required (including trees to be removed) is included in the tree table at Appendix B. Where any tree work is needed, this work MUST be in accordance with British Standard 3998 – 2010 (Tree Work - Recommendations).

6.2 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 proposed protective fencing for the site is shown on the Tree Protection Plan (TPP) by a pink line. 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.

T2 will be protected using a ‘tree box’ comprising wooden hoarding to a height of 2.4m as per the photo below.



Above: tree box

All fences must be marked with a clear sign reading:

“Construction Exclusion Zone –No Access”

6.3 GROUND PROTECTION - VEHICULAR ACCESS WITHIN THE RPA

Where heavier vehicular access is required within the RPA, these areas MUST be covered using the Eve Trakway system (or a similar product) as shown in the photo below. Ground mats which will protect the ground can be lifted into place from the delivery lorry using the existing driveway or by placing the matting in place and then using this matting to protect the ground while the vehicle access parts of the site further from the drive. The areas where such protection are required are shown on the appended plan with orange hatching.

eve

Trakway Systems

K Trakpanel



6.4 BOUNDARY TREATMENTS

Boundary fencing installation / upgrades MUST be undertaken as part of the soft landscaping phase and MUST be installed ONLY when all machinery that is on site for the main build has permanently left the site (NB. If needed, boundary fencing can also be installed prior to the commencement of site works, i.e.. before any machinery has been bought onto the site). Where sections of new / upgraded fencing are located within the RPA of ANY tree that is to be retained, this work MUST be undertaken by hand using hand tools only. The locations of the new fence upright posts will be finalised following trial digs to confirm there are no major (over 25mm) roots present; if any such roots are found, the location must be altered. If any smaller roots are found, these can be cut using sharp hand sharp tools to leave a 'clean' cut, in order to minimise the risk of infection by decay pathogens. The post holes within the RPAs should then be lined with plastic sheeting before any concrete or cement is placed into the hole, in order that there is no risk of leaching into the nearby soil as the mixture dries.

6.5 DELIVERY AND STORAGE OF BUILDING MATERIALS

Storage areas MUST be to the front of the site and outside of the tree protection barriers (pink lines).

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

All site huts MUST be positioned outside of tree RPAs and the tree protection barriers (pink lines).

6.7 MIXING OF CONCRETE

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

6.8 INCOMING SERVICES, DRAINAGE AND SOAKAWAYS

New services MUST be routed to avoid all RPAs of retained trees on site and within nearby sites. From an assessment of the subject site, undertaken in conjunction with the project architect, there is no reason to assume this isn't possible. Inspection chambers MUST be sited outside the RPA.

6.9 ON SITE SUPERVISION

Regular site supervision is essential to ensure all potentially damaging activities near to trees are correctly supervised. A pre start meeting will occur to ensure all parties are aware of their responsibilities relating to tree protection on site; this will include a site induction for key personnel.

The key personnel relating to this project are:

Name	Position	Contact number / email:
Glen Harding	Retained arboriculturalist	07884 056 02 Or info@ghatrees.co.uk
TBC	Local authority Arboricultural Officer	TBC
TBC	Site manager	TBC

It is deemed necessary for the retained arboriculturalist to visit the site at the following critical points.

Prior to erection of protective fencing to ensure it is located in the correct locations. Date and time yet to be agreed, however once confirmed, these dates will be sent to the Local Planning Authorities Arboricultural Officer in order that he / she can attend if required.

Following completion of the erection of protective fencing to ensure it is constructed to the correct specification at the required proximity to ensure the healthy retention of the trees. Date and time yet to be agreed, however once confirmed, these dates will be sent to the Local Planning Authorities Arboricultural Officer in order that he / she can attend if required.

Installation of the ground protection to ensure it is constructed to the correct specification at the required proximity. Date and time yet to be agreed, however once confirmed, these dates will be sent to the Local Planning Authorities Arboricultural Officer in order that he / she can attend if required.

The records of future site monitoring will be recorded on the site monitoring sheet at appendix D, and submitted to the local planning authority for their records.

6.10 OTHER TREE PROTECTION PRECAUTIONS

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

6.11 DISMANTLING PROTECTIVE BARRIERS

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

Conclusion

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

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

Recommendations

8.2 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.

8.3 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.

4th July 2022

Signed:



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

Appendix A
TREE PROTECTION 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
G1	Beech and Purple plum (beech dominant tree)	6 to 12	350	1	4.20	3	3	3	4	M	3 over site	10-20	C1	Scruffy scrub growth.
T2	Silver maple	13	280	1	3.36	3.5	3.5	3.5	3	M	3.5	20-40	B1	No notable defects recorded during inspection. Recommend: crown lift to 5m over drive.
T3	Yew	12	350	1	4.20	3.3	3.3	3.3	3.3	M	2, first branch 4	20-40	B1	Off site - full inspection not possible. Some measurements estimated.
T4	Apple	3.5	130	1	1.56	1.5	1.5	1.5	1.5	M	1	10-20	C1	Small tree of limited value in the wider landscape.
T5	Apple	3.5	130	1	1.56	1.5	1.5	1.5	1.5	M	1	10-20	C1	Small tree of limited value in the wider landscape.
T6	Eucalyptus	11	210	1	2.52	2.5	2.5	0	2.5	M	6 north	10-20	C1	Swept stem to north. Poor form.
T7	Acer ssp	5	210	1	2.52	2.3	2.3	2.3	2.3	M	2	10-20	C1	Small tree of limited value in the wider landscape.
T8	Apple	6	444	4	5.33	4.5	4.5	3	3	M	2	10-20	C1	Small tree of limited value in the wider landscape.
T9	Ash	6	60	1	0.72	1	1	1	1	M	2	10-20	C1	Small tree of limited value in the wider landscape.

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
T10	Apple	4	100	1	1.20	1.5	1.5	1.5	1.5	M	1	10-20	C1	Small tree of limited value in the wider landscape.
T11	Oak	19	800	1	9.60	8	8	8	8	M	6	40+	A1	Vegetation near base of tree prevented full and detailed inspection.
T12	Hawthorn	10	300	1	3.60	3	3	3	3	M	6	10-20	C1	Small tree of limited value in the wider landscape.
T13	Beech	18	300	1	3.60	3	3	3	3	M	6	20-40	B1	Vegetation near base of tree prevented full and detailed inspection.
T14	Purple leaf plum	8	440	1	5.28	6	6	1	1	M	2	Less than 10	U	Dead tree
T15	Oak	18	700	1	8.40	7.5	7.5	7.5	7.5	M	6	40+	A1	Vegetation near base of tree prevented full and detailed inspection.
T16	Leyland cypress	16	330	1	3.96	2	2	2	2	M	5	10-20	C1	Small tree of limited value in the wider landscape.
T17	Oak	18	500	1	6.00	6	6	6	6	M	8	40+	A1	Vegetation near base of tree prevented full and detailed inspection.
T18	Ash	16	450	1	5.40	4	4	4	4	M	6	10-20	C1	Early signs of Ash dieback noted.
T19	Cedar	18	650	1	7.80	6	6	6	6	M	2	20-40	B1	Topped in past. Some past failures also noted.

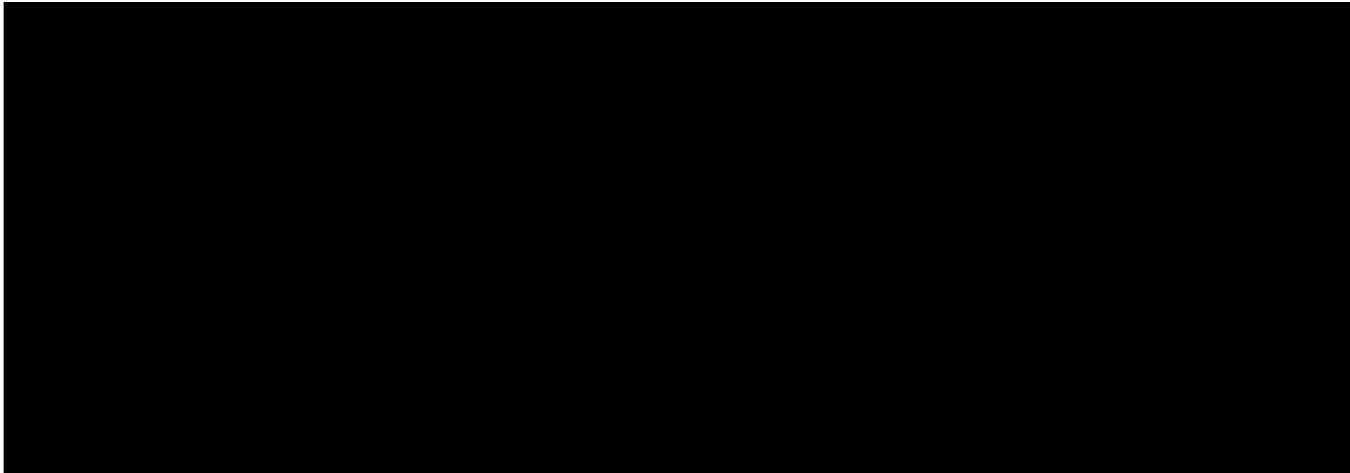
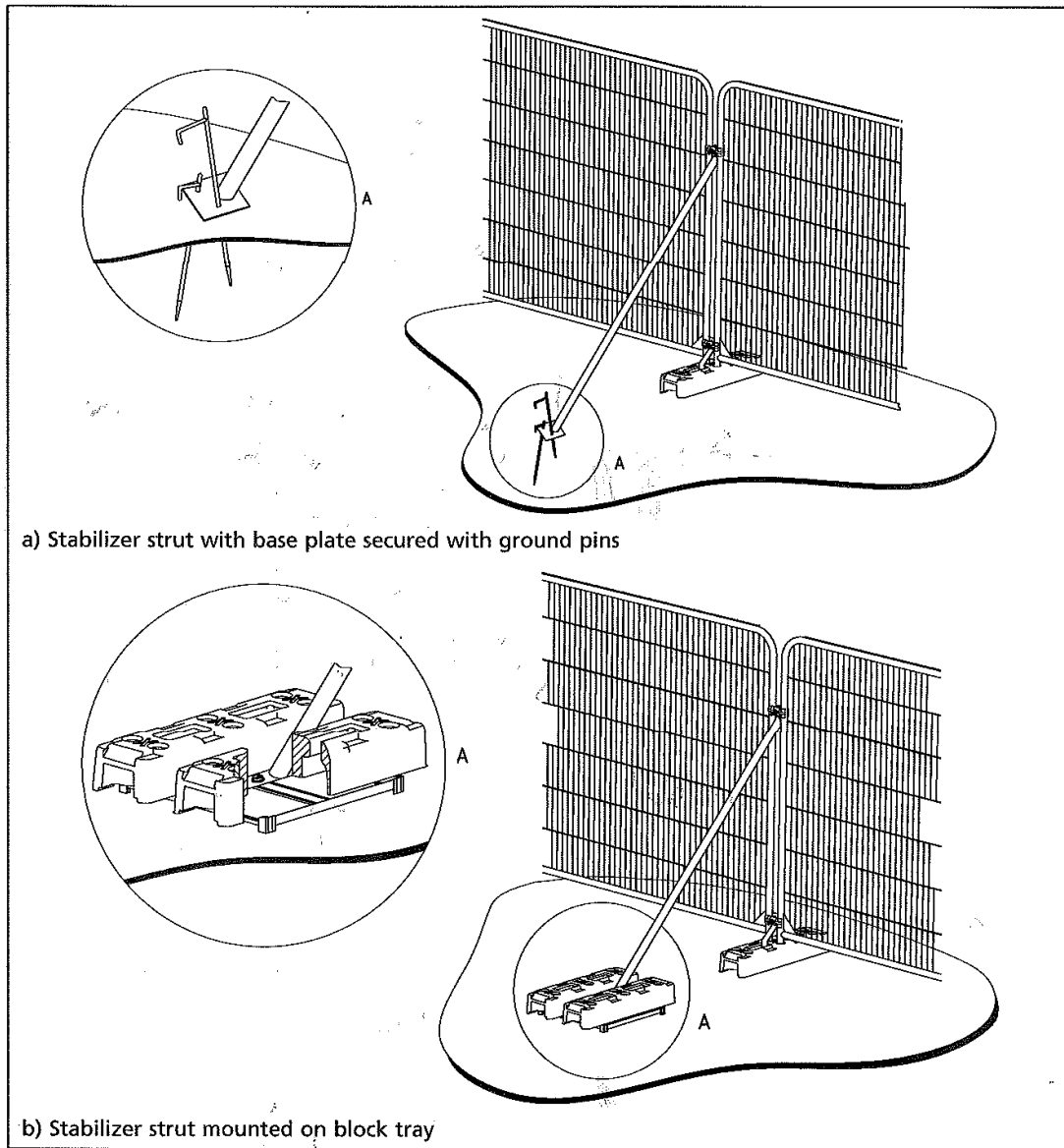
Tree Number	Tree Name (species)	Ht (m)	Calculated Stem Diameter (mm)	Number of Stems	Root Protection Area (Radius, m)	N (m)	E (m)	S (m)	W (m)	Age Class	Clearance (m)	Estimated life expectancy	BS Category	Comments / Recommendations
T20	Oak	18	700	1	8.40	6.2	6.2	6.2	6.2	M	6 east	40+	A1	Off site - full inspection not possible. Some measurements estimated.
G21	Mixed shrubs - various species	4 to 8	100	1	1.20	1	1	1	1	M	0	10-20	C2	Small shrubs of limited value in the wider landscape. Recommend: sections to be removed.

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



Appendix D

Site Monitoring Sheet

Site:			
Project:			
Client:		Contact:	
Site monitoring inspe date:		Name of inspector:	
Notes:			
Action required to rectify any issues:			
Date Action taken:			
Site monitoring inspection date:		Name of inspector:	
Notes:			
Action required to rectify any issues:			
Date Action taken:			
Site monitoring inspection date:		Name of inspector:	
Notes:			
Action required to rectify any issues:			
Date Action taken:			

