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**BS5837:2012 ARBORICULTURAL
METHOD STATEMENT:
Northwood Golf Club, Rickmansworth Road,
Northwood, HA6 2QW**

Dated: 26th October 2023

Our reference: GHA/MS/122560:23

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Arboricultural Method Statement

Location: Northwood Golf Club, Rickmansworth Road, Northwood, HA6 2QW

Our reference: GHA/MS/122560:23

Client: Northwood Golf Club

Dated: 26th October 2023

Prepared by: Glen Harding MICFor, MSc (Forestry), MArborA

Date of Inspection: 5th October 2023

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

Instructions

Issued by – Northwood Golf Club

TERMS OF REFERENCE – To survey the subject trees within Northwood Golf Club, Rickmansworth Road, 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.

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Executive Summary

The proposal for the site is to construct a new greenkeepers storage facility to replace some existing structures. 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. Topographical survey
2. Existing layout plans
3. 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 Dense vegetation or climbers (such as ivy) also prohibited full inspections for some trees; this is noted where applicable.
- 1.5 No discussions took place between the surveyor and any other party.
- 1.6 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)
- 1.7 The survey was undertaken in accord with British Standard 5837: 2012 – Trees in relation to design, demolition and construction – recommendations.
- 1.8 Underground services near to trees will need to be installed in accord with the guidance given in BS5837.
- 1.9 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 Rickmansworth Road, to the south of Northwood town centre.
- 3.2 A good tree cover is present on the site, with many semi-mature and mature trees of both native and exotic origin characterising the local area.

The Subject Trees

- 4.1 The details of the subject trees are set out in the Schedule at Appendix B.
- 4.2 Of the sixteen individual trees, and groups of trees surveyed, two have been assessed as BS 5837 category A, five have been assessed as BS category B, seven have been assessed as BS category C with the remaining two trees being assessed as BS 5837 category U.

Category A	2 trees
Category B	5 trees / groups
Category C	7 trees / groups
Category U	2 trees

The Proposal

- 5.1 The proposal for the site is to construct a new greenkeepers storage facility to replace some existing structures.
- 5.2 The proposed location of the above structures can be seen on the appended plan.

Method Statement and Procedures for Development Works

6.1 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 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** be 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”

6.2 GROUND PROTECTION – LIGHTWEIGHT ACCESS ONLY

An area of the site will require ground protection to ensure that soil erosion or excessive compaction does not occur. The areas where this protection is required are outlined in **orange** hatching on the appended plan. This area **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.

6.3 REMOVAL / DEMOLITION OF THE EXISTING STRUCTURES

As these structures do not require removal to facilitate the development, they **MUST** be left *in situ* for the main phase of building works to offer additional protection and then removed as part of the landscaping phase, once all larger machinery has left site.

6.4 DELIVERY AND STORAGE OF BUILDING MATERIALS

Storage areas **MUST** be outside of the tree protection barriers (**pink** lines).

6.5 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).

6.6 MIXING OF CONCRETE

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

6.7 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.

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 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.

Key personnel:

Name	Position	Contact number / email:
Glen Harding	Retained arboriculturalist	07884 056 025 Or info@ghatrees.co.uk
TBC	Local authority Arboricultural Officer	TBC
TBC	Site manager	TBC

At this pre start meeting, a supervision programme **MUST** be devised by the site manager and retained Arboriculturalist, ensuring that Arboricultural supervision is present at the appropriate periods during construction. The critical phases as listed below will be supervised inspected on site by the retained Arboriculturalist. The records of these site monitoring visits will be recorded on the site monitoring sheet at appendix D. 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.

Critical phases to be supervised / inspected on site by the retained Arboriculturalist:

NOTE: THE RESPONSIBILITY TO ENSURE THESE ARE SCHEDULED APPROPRIATELY IN LINE WITH THE BUILD PROGRAMME IS WITH THE SITE MANAGER.

- Prior to erection of protective fencing to ensure it is located in the correct locations. **Date and time to be confirmed.**
- Installation of the ground protection to ensure it is installed to the correct specification. **Date and time to be confirmed.**

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 with will be damaging to the tree shall be spilled or poured on site.
- **NO** storage of any materials within the root protections 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.

26th October 2023

Signed:



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

Appendix A
TREE PROTECTION PLAN
(see separate PDF)