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# Arboricultural and Planning Integration Report: Oakley Green Lodge, Oakley Green Road, SL4 4PZ

15th January 2024

Ref: GHA/DS/122960:24

**CONTENTS**

# Arboricultural Report

Location: Oakley Green Lodge, Oakley Green Road, SL4 4PZ
Ref: GHA/DS/122960:24
Client: Westbourne Homes
Date: 15th January 2024
Prepared by: Glen Harding MICFor, MSc (Forestry), MArborA
Date of Inspection: 8th December 2023

## Instructions

Issued by –Westbourne Homes

TERMS OF REFERENCE –GHA Trees were instructed to survey the subject trees within and adjacent to Oakley Green Lodge, Oakley Green Road, in order to assess their general condition and to provide a planning integration statement for the indicative proposed development that safeguards the long term well being of the retained trees in a sustainable manner.



## Executive Summary

The proposal for the site is to four new detached houses to replace the existing structures and areas of hard surfacing. The existing access from Oakley Green Road 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:

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 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 on Oakley Green Road, a residential through road located to the south of Oakley Green.

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, three have been assessed as BS category B, twelve have been assessed as BS category C with the remaining two trees being assessed as BS 5837 category U.

| | |
|---|---|
| Category B | 3 trees / groups |
| Category C | 12 trees / groups |
| Category U | 2 trees |

## The Proposal

5.1 The proposal for the site is to four new detached houses to replace the existing structures and areas of hard surfacing.

5.2 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 The RPAs of several trees have been amended to take account of the existing structures; these adjustments can be seen on the appended plan.

6.6 The other RPAs have been drawn as notional circles, as there are no structures within their RPAs that have been assessed to significantly impact the root layout.

ASSESSED IMPACT ON RPAS BY PROPOSED STRUCTURES

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

6.8 The trees and groups will all benefit from the removal of vast areas of hard surfacing, much of which will be reverted to hard surfacing. Therefore, it is likely the scheme will benefit the trees.

INSTALLATION OF SERVICES

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.

6.10 New services should 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 also be sited outside the RPAs of any nearby trees.

## Post Development Pressure

FUTURE TREE AND STRUCTURE RELATIONSHIPS

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

## Tree Protection Measures and Preliminary Method Statement for Development Works

8.1 TREE PROTECTION BARRIERS

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 (EXISTING)

The hard surfacing that exists provides adequate ground protection and MUST therefore be retained in situ for the entirety of the site works.

8.3 REMOVAL / DEMOLITION OF THE EXISTING STRUCTURES

Some existing structures located within the RPAs of retained trees will need to be removed. If 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.

METHODOLOGY:

If the fencing detailed in section 8.2 requires relocation, this MUST be moved to the edge of the structures which are to be removed, in order to protect the adjacent trees and their surrounding soil. This must be consulted with the retained arboriculturalist.

The sub-bases can be removed using a 360 excavator. The machine MUST work from outside the RPA. The machine MUST start work at the points nearest to any retained trees, working backward away from each tree so that the remaining hard surfacing can be used to support the load of the machine and protect the ground. (NOTE: the size of any such machine should be checked before starting works, to ensure a) the existing surface will

support the machines load and b) that there is sufficient crown clearances to avoid any potential for crown damage). This work MUST be undertaken utilising a banksman.

The removed material MUST be stored outside of the RPA of all of the retained trees whilst work commences.

If during the work, any roots from the retained trees are discovered in excess of 25mm, the retained arboriculturalist MUST be contacted immediately to assess the roots and arrange subsequent working methods that will cause no damage to the tree(s).

Care MUST be taken to avoid damage to the soil beneath these structures. If any roots are exposed, these should be covered immediately and the retained arboriculturalist MUST be contacted immediately to assess the roots and arrange subsequent working methods that will cause no damage to the tree(s).

8.4 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.

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

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

8.6 MIXING OF CONCRETE

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

8.7 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.

8.8 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.

8.9 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<br>Or<br>info@ghatrees.co.uk |
| TBC | Local authority Arboricultural Officer | TBC |
| TBC | Site manage | TBC |

8.10 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.

8.11 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.

15th January 2024
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

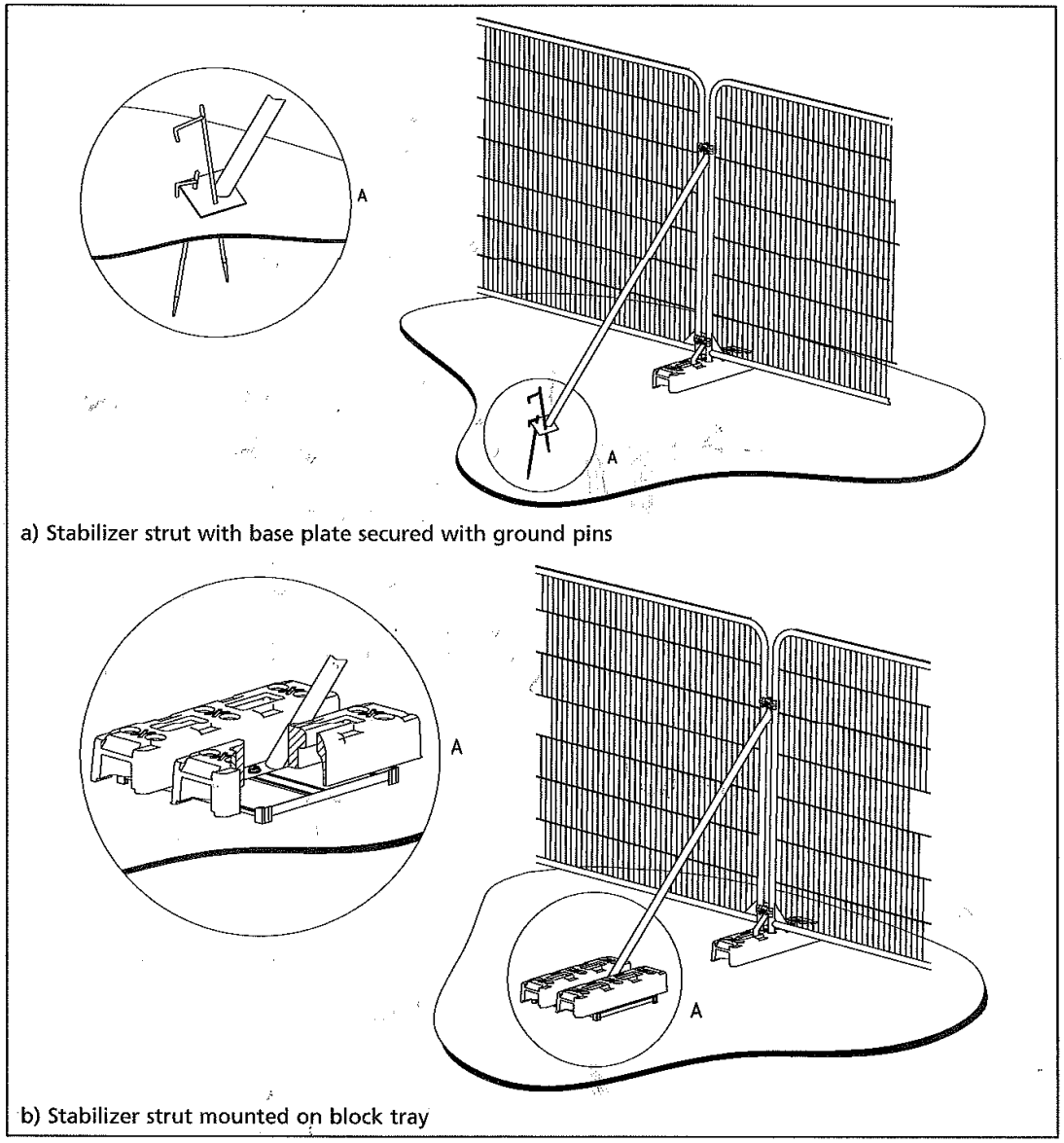
| Tree Number | Tree Name (species) | Ht (m) | Calculated Stem Diameter (mm) | Number of Stems | Root Protection Area (Radius, m) | N (m) | E (m) | S (m) | W (m) | Age Class | Clearance (m) | Estimated life expectancy | BS Category | Comments / Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T1 | Common oak | 4 | 150 | 1 | 1.80 | 1 | 1 | 1 | 1 | Y | 1 | 10-20 | C2 | Full inspection not undertaken due to limited access. |
| T2 | Norway maple | 7 | 270 | 1 | 3.24 | 3 | 2.5 | 2.5 | 2.5 | Y | 2 | 10-20 | C2 | Full inspection not undertaken due to limited access. |
| T3 | Norway maple | 7 | 280 | 1 | 3.36 | 3 | 2.5 | 2.5 | 2.5 | Y | 2 | 10-20 | C2 | Full inspection not undertaken due to limited access. |
| T4 | Purple leaf plum | 6 | 350 | 1 | 4.20 | 3 | 3 | 3 | 3 | MA | 2 | 10-20 | C2 | Full inspection not undertaken due to limited access. |
| T5 | Hornbeam | 5 | 150 | 1 | 1.80 | 3 | 3 | 3 | 3 | Y | 1 | 10-20 | C2 | Full inspection not undertaken due to limited access. |
| T6 | Weeping willow | 14 | 600 | 1 | 7.20 | 6 | 6 | 6 | 6 | MA | 3 | 20-40 | B2 | Full inspection not undertaken due to limited access. |
| T7 | Norway spruce | 12 | 150 | 1 | 1.80 | 3 | 2.5 | 2.5 | 2.5 | Y | 2 | 10-20 | C2 | Full inspection not undertaken due to limited access. |
| T8 | Ash | 12 | 417 | 5 | 5.01 | 4 | 4 | 4 | 4 | MA | 4 | 10-20 | C2 | Self sown tree. |
| T9 | Hazel | 2 | 50 | 1 | 0.60 | 2 | 2 | 2 | 2 | Y | 0 | 10-20 | C2 | Small tree of little value. |
| T10 | Elm | 5 | 150 | 1 | 1.80 | 2 | 2 | 2 | 2 | MA | 1 | Less than 10 | U | In decline. |
| T11 | Ash | 14 | 651 | 3 | 7.81 | 6.5 | 6.5 | 6.5 | 6.5 | MA | 3 | 20-40 | B2 | Self sown tree. |
| T12 | Elm | 5 | 250 | 1 | 3.00 | 0 | 0 | 0 | 0 | MA | 0 | Less than 10 | U | In decline. |
| G1 | Lawson cypress | 5 | 175 | 1 | 2.10 | 3 | 3 | 3 | 3 | MA | 0 | 10-20 | C2 | Hedge. |
| G2 | Leyland cypress | 14 | 225 | 1 | 2.70 | 3 | 3 | 3 | 3 | MA | 0 | 20-40 | B2 | Hedge. |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G3 | Leyland cypress | 9 | 220 | 1 | 2.64 | 2 | 2 | 2 | 2 | MA | 1 | 10-20 | C2 | Hedge. |
| G4 | Hawthorn, hazel, elm, ash | 4 | 150 | 1 | 1.80 | 3 | 3 | 3 | 3 | MA | 1 | 10-20 | C2 | Lapsed hedge. Recommend: section to be removed. |
| G5 | Willow | 6 | 283 | 2 | 3.39 | 4 | 4 | 4 | 4 | MA | 5 | 10-20 | C1 | Self sown tree. |

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