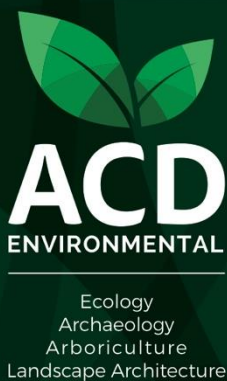


TAY MOUNT LADY MARGARET ROAD SUNNINGDALE

ARBORICULTURAL IMPACT ASSESSMENT & METHOD STATEMENT

ASHLEY HOMES



Written by:	R. Anderson
Checked by:	A. Bigg
Date:	28/10/2020
Ref:	PRI23037aia-amsB
Revision:	C - 23.02.2023

Table of Contents

1.0	Executive Summary	3
2.0	Introduction	4
3.0	Arboricultural Impact Assessment	6
3.1.	Overview of proposed development	6
3.3.	Tree Preservation Orders	6
3.4.	Previous planning applications and consents	6
3.5.	Trees proposed for removal & surgery	6
3.6.	Demolition, site clearance & archaeology	8
3.7.	Construction within RPAs	8
3.8.	Protection fencing	9
3.9.	Services	9
4.0	Arboricultural Method Statement	10
4.1.	Phasing of operations & site supervision	10
4.2.	Construction exclusions zone	10
4.3.	Tree protection barriers.....	12
4.4.	Site storage, parking, welfare facilities, etc.....	15
4.5.	Tree surgery and removal.....	16
4.6.	Demolition close to trees.....	17
4.7.	Soft landscaping	18
4.8.	Installation of boundary fencing within protected areas	19
	Appendix1: Tree Protection Plan	20

1.0 Executive Summary

- 1.1. ACD was initially instructed, to carry out a tree survey, and present constraints details in accordance with BS5837:2012 *Trees in relation to design, demolition and construction*. This was to identify the quality and value of existing trees on the site, allowing decisions to be made as to the retention or removal of trees during development. Subsequently, the subject layout has been produced and is in line with recommendations of the British Standard. Adequate protection can be provided to ensure all retained trees are protected throughout development.
- 1.2. The single house is to be replaced by a multi-story building containing apartments. There is to be outside, and basement, parking.
- 1.3. All A and B category trees are to be retained throughout the development.
- 1.4. The relationship between the building and retained trees is sustainable and is not likely to result in undue pressure to prune requests from future occupants.
- 1.5. The arboricultural method statement and tree protection plan includes details of all tree protection measures required.
- 1.6. The tree protection must be erected after tree removals and surgery but before any demolition or construction contractor enter the site, and before any soil stripping takes place.
- 1.7. There will be no changes in levels, service routeing, machine activity, storage of materials or site hut positioning within areas to be protected, and the protective fencing shall remain in position for the duration of the construction process.
- 1.8. T14 will require pruning to facilitate a suitable clearance to the proposed.

- 1.9. This document is a revision of the original that supported the unsuccessful application, reference 17/02721/FULL. (rev A).
- 1.10. The report has been revised further to address comments made by the Parish Council dated the 16th of December 2020. These comments prompted a revision to the layout so that T14 can be retained. It should be noted that pruning works will be required to allow a suitable clearance to the proposed. Additionally, the whole of the frontage hedgerow H16 can now be retained. (rev B).
- 1.11. This report has been further revised in February 2023 to reflect updated layout references throughout and additional incursions into the RPA of category C tree T10 Cherry. (rev C)

2.0 Introduction

- 2.1. Ashley homes initially instructed ACD Environmental in October 2020 to prepare the following impact assessment. ACD was further instructed in January 2021 to make revisions (B) to this report.
- 2.2. Following the recommendations of the British Standard¹, this report includes the necessary information to support a planning application. It demonstrates that the impact, both direct and indirect, of the proposed development within the site, has been assessed and where appropriate, mitigation and tree protection proposed.
- 2.3. The implementation of the protection methods recommended within this report is critical for ensuring the retained trees are successfully protected through the construction process and must be implemented prior to any work on the site.
- 2.4. This assessment is based on the supplied layout drawing, ref: Site Plan & Roof Plan P20/07/S/201 rev B, and site survey, ref: 2017/050.

¹ BS5837:2012 *Trees in relation to design, demolition and construction- Recommendations*, London: British Standards Institute

- 2.5. The controlling authority is The Royal Borough of Windsor & Maidenhead, who can be contacted at Town Hall, St Ives Road, Maidenhead, Berkshire, SL6 1RF, Tel: 01628 683800.
- 2.6. This assessment considers the impact of the development on the constraints posed by the retained trees (both beneath ground: the root protection area (RPA), and above ground: the canopy).
- 2.7. Direct impact from development comes in six main forms: 1) Surface installation within RPAs, 2) Root loss from excavation for foundations, drainage and other utilities within RPAs, 3) Soil stripping, removal and level changes within RPAs, 4) Excessive access facilitation pruning to retained trees, 5) Soil compaction from storage and vehicle movements within RPAs, 6) Soil contamination.
- 2.8. Indirect impact can come from changes to the site hydrology, future pressure to prune or fell, failure of trees exposed by removal of neighbouring trees, and other environmental changes which can take several years to manifest.
- 2.9. The RPA for each tree represents a minimum area in m² that should be left undisturbed around each retained tree. This is initially represented by a circle but is often adjusted to account for constraints to root growth within the site (primarily highways and buildings). It is, therefore, important to ensure the protection of trees both above and below ground. Recommendations are provided in the British Standard as to the protection of existing trees before, during and after development. This is achieved by ensuring the tree protection plan and arboricultural method statement are implemented before any commencement on site.

3.0 Arboricultural Impact Assessment

3.1. Overview of proposed development

3.2. The existing site is to be replaced by a multi-storey building containing apartments. There is to be outside, and basement, parking.

3.3. Tree Preservation Orders

3.3.1. There are no tree preservation orders (TPOs) present on any trees on, or adjacent to the site, nor is the site within a conservation area.

3.4. Previous planning applications and consents

3.4.1. A recent application Ref: 17/02721/FUL was refused. However, within the refusal notice there was no objections made on tree grounds.

3.5. Trees proposed for removal & surgery

3.5.1. The following trees are proposed for removal:

No.	Name	BS Cat
G1	Acer platanoides (Norway Maple) (2 trees only)	C1
T3	Acer pseudoplatanus (Sycamore)	C1
T11	Acer platanoides (Norway Maple)	C2

The following trees are due to be pruned, the extents are shown on appended plan.

No.	Name	BS Cat
H6	Cupressus x leylandii (Leyland Cypress)	C2
H12	Fagus sylvatica (Beech)	C2
H13	Cupressus x leylandii (Leyland Cypress)	C2
T14	Acer platanoides (Norway Maple)	B1

3.5.2. In relation to the conception and design of development proposals, BS5837:2012 section 5.1.1 states: The constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognised that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

3.5.3. It is therefore deemed acceptable to remove the trees listed and, as part of the detailed landscape design for the scheme, including suitable and sustainable replacements as and where appropriate. This will more than mitigate any loss that may be felt from tree removals, by providing robust long-term tree cover in keeping with the proposal and surrounding properties.

3.5.4. Two of the seven Norway maples within G1 are to be removed due to the site layout. Although these trees are along the frontage of the property, they have been graded as category C due their smaller size and having being pollard several times leaving a distorted branch architecture. With only two of the group of seven being removed, the group will still be able to provide screening along the site frontage.

3.5.5. Tree T3 is to be removed due to its proximity to the proposed building. This tree was found to be of lower quality and categorised as C accordingly. It should also be noted given its sheltered location, the tree is barely visible from outside the site. Therefore, its removal will have a very limited impact on the visual amenity of the surrounding area.

3.5.6. To be able to retain T14, its canopy will have to be pruned to allow for suitable clearance to the proposed and adequate working room for its construction. The extent of the works is shown on the appended tree protection plan.

3.6. Demolition, site clearance & archaeology

3.6.1. To ensure damage does not occur to trees highlighted for retention, tree protection fencing must be erected before ANY plant/vehicles entering site whatsoever. This should be subject to a pre-commencement site meeting between the developer and the project arboriculturist.

3.6.2. Within the RPA of T14 several structures consisting of sheds, low walls and hard surfacing will be removed in a sensitive manner and the area is to be returned to soft landscaping. Where the 30cm retaining wall is to be removed a batter down to the proposed parking area will be needed.

3.7. Construction within RPAs

3.7.1. No tree roots are likely to exist under existing building and therefore the RPA of T14 has been adjusted accordingly. The construction of the main building is proposed outside the RPAs of retained trees.

3.7.2. Surfacing is proposed within the RPA's of G1 in the form of a new driveway. Of the trees proposed to be retained, the largest incursion of the surfacing equates to less than 15% of the notional RPA. Given the trees are of C categorisation, small incursions such as this should not be seen as a constraint on development.

3.7.3. Within in the RPA of T14, surfacing is proposed for the parking bays. This is within an area of existing hard surfacing. The works in this area will consist of a re-surfacing with block paving which is not significantly different from the existing surface. Therefore, there will not be a significant detrimental impact on the tree.

3.7.4. Also situated within the RPA of T14 is a proposed bin store, equating to only 2.5% of the notional RPA. This is a small incursion and will not be of significant detriment to the trees physiological condition. It should also be noted that an area ten times larger than the bin store is currently hard-surfaced and will be returned to soft landscaping, thus there will be a net gain in the soft ground within the RPA resulting in an overall better rooting environment.

3.7.5. The proposed raised patio area encroaches into the RPA of T10. This incursion equates to less than 5.4% of the total RPA of this specimen and as such not technical mitigation for the foundation of the patio is proposed for this small incursion. Working room has also been allowed along the edge of the patio within the RPA however it is noted that the overall area affected by both these incursions is offset by additional room provided within the Tree Protection Fencing.

3.8. Protection fencing

3.8.1. Figure 2 of the British Standard recommends a standard fencing design for tree protection. This is a weld mesh panel design, mounted upon a well-braced scaffold framework. This is perfectly adequate for this site and all the retained trees can be suitably protected by its erection before any works start on site whatsoever.

3.8.2. Where Shown on the Tree Protection Plan a secondary line of TPF is to be used following the demolition of the existing building and surfaces to better protect the RPA of T14.

3.9. Services

3.9.1. Full details of the service and utility provisions for the site remain to be finalised. However, there is adequate space for utility trenches to access the site whilst avoiding RPAs and exclusion zones at the point of the main drive.

4.0 Arboricultural Method Statement

TO BE READ IN CONJUNCTION WITH THE APPENDED TREE PROTECTION PLAN REF: PRI23037-03C

4.1. Phasing of operations & site supervision

4.1.1. The tree protection and other arboricultural works must be carried out in the following order:

	Operation	Present	Notes
1	Tree removals & surgery	Tree contractor	See Tree Protection Plan for trees to be removed
2	Protection barriers erected	Fencing contractor	See Tree Protection Plan for position and type of barriers
3	Demolition	Demolition staff, site manager	
4	Construction	groundwork contractor, construction staff, site manager	
5	Removal of protection barriers and landscape work	ACD, landscape contractor, site manager	See method statement

4.1.2. Supervision is required should any unplanned access and/or work be required in the construction exclusion zone.

4.2. Construction exclusions zone

4.2.1. Barriers and/or ground protection must be used to protect all retained trees before any machinery or materials are brought onto the site, and before any demolition, development or stripping of soil commences.

4.2.2. Where all activity can be excluded from the RPA, vertical barriers must be erected to create the construction exclusion zone (CEZ). The default position of which is shown on the appended Tree Protection Plan.

4.2.3. Where, due to site constraints, construction activity cannot be fully or permanently excluded from all, or part of a tree's RPA, appropriate ground protection can be installed.

4.2.4. It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

4.2.5. Inside the exclusion zone, the following shall apply:

- No mechanical excavation whatsoever.
- No excavation by any other means without arboricultural site supervision.
- No hand digging without a written method statement having first been approved by the project arboriculturist.
- No lowering of levels for any purpose (except removal of grass sward using hand tools).
- No storage of plant or materials.
- No storage or handling of any chemical including cement washings.
- No vehicular access.
- No fire lighting.

4.2.6. In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees.
- No fire shall be lit such that flames come within 5m of tree foliage.

4.3. Tree protection barriers

4.3.1. The construction exclusion zone will be protected as per the appended tree protection plan that shows the default alignment of the tree protection barriers, to be installed prior to any of the following taking place:

- Archaeology
- Demolition
- Plant and material delivery
- Soil stripping
- Utility installation
- Construction works
- Landscaping

4.3.2. Stages of installation of barriers:

- 1) Hand clearance of any vegetation to allow clear working access.
- 2) Setting out of node points
- 3) Barriers erected
- 4) Site meeting with project arboriculturist to 'sign-off' tree protection fencing.
- 5) Site accessible to demolition/construction traffic

4.3.3. Once erected, all barriers will be regarded as sacrosanct, and will not be removed or altered without prior recommendation by the project arboriculturist and approval of the local planning authority.

4.3.4. The default barrier construction is suitable for areas of high-intensity development and shall comprise of interlocking weld-mesh panels, well braced to resist impacts by attachment to a scaffold framework that is set firmly into the ground. A detailed specification can be found on the TPP.

4.3.5. The images below are alternative barrier designs that have been successfully used on site and that ACD are happy to support if a variation from the default style is required. If such a variation is necessary, the approval of the project arboriculturist will be obtained prior to any implementation on site.

4.3.6. Once barriers and/or ground protection have protected the exclusion zone, construction work can commence.

4.3.7. All weather notices should be erected on the barriers (for example see figure below).



Tree protection sign (download from <http://www.acdenvironmental.co.uk>)



Weld-mesh panels on scaffold uprights



Weld-mesh panels on wooden posts



Chain-link on angle-iron uprights

4.4. Site storage, parking, welfare facilities, etc.

4.4.1. The site will require provision for; site storage, contractor parking, welfare facilities, temporary services/drainage, material drop off points, etc.

4.4.2. It is acceptable to place site cabins and walkways within the CEZ provided they are installed sensitively:

- Cabins must be placed on sleepers (or similar) to spread the load, avoiding point loading and associated soil compaction.
- The delivery of cabins should ensure that any unloading via 'hi-ab' crane can be carried out without impact on the crowns of retained trees.
- Walkways, if required, should be installed as per the ground protection specification.
- Any utilities for site compounds must be run above ground. For example, WC foul pipes/drainage and temporary electrical connections.

4.4.3. It is imperative that if cabins and walkways are installed, that fencing is erected to limit access to the protected areas. If amendments are made, the project arboriculturist should sign off the proposals prior to their implementation.

4.4.4. Contractor parking and storage areas should be sited outside the CEZ.

4.5. Tree surgery and removal

4.5.1. The following surgery works are to be carried out as stated in section 3.5. All trees and groups for removal and pruning are indicated on the TPP

4.5.2. If any further surgery work is proposed, details will be submitted to, and approved by, the council, before being carried out.

4.5.3. All work will be carried out in accordance with BS3998² industry best practice and in line with any works already agreed with the council.

4.5.4. The tree surgeon shall ideally be chosen from The Arboricultural Association's Approved Contractor list. All work shall be undertaken at the appropriate time and with the consent and approval of the site agent.

4.5.5. The statutory protection^{3 4} will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.

4.5.6. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.

4.5.7. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

² *BS3998:2010- Recommendations for Tree Work*. London: British Standards Institute

³ *Wildlife and Countryside Act*. (1981) London: HMSO.

⁴ *Countryside and Rights of Way Act*. (2000) London: HMSO.

4.6. Demolition close to trees

4.6.1. All TPF to be installed as per approved Tree Protection Plan prior to any plant arriving on site.

4.6.2. Stages for demolition within tree protection areas:

No plant machinery to be sited on any exposed rooting area

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work
- 2) Main building to be folded in on itself away from the T14.
- 3) Building foundations to be removed sensitively so not to disturb the ground outside the building footprint.
- 4) Low wall to be removed with the use of hand tools – footings to be retained should be retained.
- 5) Removal debris by hand or with plant machinery not located on any exposed rooting area.
- 6) Surfacing to be broken up with hand held breaker and pieces removed by hand.
- 7) Underlying ground levels to be retained. No excavation to occur.
- 8) Any exposed roots and surrounding newly exposed areas to be covered with up to 100mm of topsoil, from elsewhere on site, or imported top-soil (to BS3882:2015). Soil may be placed in area by plant but must be spread by hand.
- 9) Top soil to be placed where wall has been removed for form a batta.
- 10) Tree protection fencing to be erected in final position as shown on plan

4.6.3. No reduction in levels of the underlying soil surface will occur.

4.6.4. At no point are any heavy machinery permitted on soft ground within the RPA.

4.6.5. Contamination of the soil by fuel and lubricant leaks must be avoided at all cost. If such a situation arises the project arboriculturist must be notified to assess the situation and prescribe remedial measures.

4.7. Soft landscaping

4.7.1. All landscaping and associated ground preparation within exclusion zones will be carried out sensitively to ensure root damage is minimised as much as is practicable.

4.7.2. At no time is any heavy plant to be used within any protected area.

4.7.3. Removal of existing vegetation (including turf) will be carried out with hand tools only.

4.7.4. Should the soil be compacted or have a poor structure that may hinder the development of any new planting, soil decompaction techniques may be used upon consultation with the project arboriculturist.

4.7.5. Tree protection barriers may be removed to allow access and then replaced as required/per approved documents (in liaison with the arboricultural clerk of works)

4.7.6. Levels (high spots) will not be reduced or excavated in any way. Use good quality topsoil to level any low-lying areas and hollows, and provide a fine tilth to lay turf on. This imported soil must not result in a level increase of more than 100mm in any area.

4.7.7. Import materials by hand in wheelbarrow or using a digger sited outside the sensitive area.

4.7.8. Any excavation for planting pits must be dug using hand tools only.

4.7.9. No works will be carried out within any protected areas if the soil moisture is at a level likely to allow compaction to occur.

4.8. Installation of boundary fencing within protected areas

4.8.1. Stages for installing wooden fence posts:

No plant machinery to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Dig postholes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
- 3) Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole should be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
- 4) Line hole with non-porous lining, for example, durable polyethene bag.
- 5) Insert post and fill post-hole with concrete to just below ground level.
- 6) Trim polyethene to ground level and fill with clean topsoil.
- 7)

Robert Anderson FdSc, Nd Arb, MArborA
Arboriculturist
28 October 2020

Revised 23.02.23 – rev C
Henry Pinn Arb L4 (ABC)
Arboriculturist

LIMITATIONS OF USE AND COPYRIGHT

All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without our written permission. Its content and format are for the exclusive use of the addressee in dealing with Insert site address. Until all invoices rendered by ACD Environmental to the Client have been paid in full, the copyright of any documents, forms, statements, maps, plans and other such material will remain vested in ACD Environmental and no unauthorised use of such material may be made by the Client or any person purporting to be acting on his/her behalf. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without the written consent of ACD Environmental ©

Appendix1: Tree Protection Plan

PRI23037-03C



Head Office

Rodbourne Rail Business Centre
Grange Lane
Malmesbury
SN16 0ES
Tel: 01666 825646

Surrey Office

The Old Mill
Fry's Yard
Bridge Street
Godalming
GU7 1HP
Tel: 01483 425714

Hampshire Office

Crescent House
Yonge Close
Eastleigh
SO50 9SX
Tel: 02382 026300

Email: mail@acdenv.co.uk

Website: www.acdenvironmental.co.uk

**ECOLOGICAL SURVEYS * PROTECTED SPECIES LICENSING * MITIGATION * IMPACT
ASSESSMENT * ARBORICULTURAL SITE MONITORING AND SUPERVISION * ARCHAEOLOGY
LANDSCAPE & VISUAL IMPACT ASSESSMENT * LANDSCAPE AUDIT * PROJECT MANAGEMENT *
EXPERT WITNESS* LANDSCAPE DESIGN & PLANNING LANDSCAPE MANAGEMENT**