



Document Control Sheet

Document Title:	Arboricultural Method Statement
Document Author:	Matthew Harmsworth, tech.arbor.a, DipRS, RPQ-s
Project Manager:	Matthew Harmsworth
Project Title	Proposed Development - Colliers Way, Tilehurst

Revision History

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14th May 2018	1.0	First draft
18th May 2018	1.1	Final Issue

Approvals

Approved by:	Signature	Date:	Version:
Matthew Harmsworth	MW Harmsworth	18th May 2018	1.1

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BS5837: 2012	Planning only	Not applicable

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1. Introduction

- 1.1 This Arboricultural Method Statement in line with BS5837: 2012 Trees in Relation to Design, Demolition & Construction - Recommendations, has been prepared in relation to the proposed development at Colliers Way, Ticehurst in the Reading Borough Council Control Area.
- 1.2 The report has been commissioned to provide details of how the retained trees at the site will be protected through the implementation of development.

The scope of this project is singular:

Provide an arboricultural method statement, specifically in relation to the physical protection of trees, through the course of development, both above and below ground.

- 1.3 This report and the plan attached within are part of a comprehensive site evaluation and desktop analysis of documentation produced by the previously commissioned reports in April 2017. This report addresses the reasons for refusal of application no. 171219 after concerns were expressed on the potential for damage to trees based on the outline application.

2. Documents Provided

- 2.1 As background information the following documentation has been provided/been available to prepare this report:
 - Original AIA 17_5837_04_09 (April 2017)
 - Tree Constraints Plan - tilehurst_1_TCP_A1_250 (April 2017)
 - Tree Protection Plan - tilehurst_1_TPP_A1_250 (May 2018)
 - Site layout - CPCW- Scheme 3-SK-101D

3. Relevant Background Information

3.1 Planning History

- 3.1.1 A planning application was submitted and consultation responses received leading to a refusal of this initial outline application on the grounds of a lack of detail in the original AIA.
- 3.1.2 This is a further an Arboricultural Method Statement (AMS) which has been prepared to provide details of how the retained trees will be physically protected through the course of development whilst leaving sufficient offset from the tree cover to the north and east of the site.

3.2 Site Description

- 3.2.1 The site is situated in Tilehurst a western suburb of the Berkshire town of Reading. The site is served by a cul-de-sac called Colliers Way that joins Water Road a north south linkway from Dee Road in the north to Tilehurst Road in the south.

- 3.2.2 The plot has a large retirement home facility on the northern extent adjacent to Colliers Way. This detached residential building is served by several car parking spaces located on the northern aspect. To the south, east and west of the built footprint is a close mown grass matrix with scattered trees. Stretching away to the southeast is some poor quality grass, with a linear feature of broadleaved tree cover located on the northern boundary line between the grass and residential housing off Waverley Road.
- 3.2.3 Within this linear feature of broken tree cover are the five surveyed trees running from NE to SE on slightly higher ground. A tarmac footpath forms the southern boundary with heavy foot traffic observed during the survey period.
- 3.2.4 A desktop assessment has highlighted that the five surveyed trees are within the 'Thorpe House, Colliers Way and land to the rear of 72-102 Waverley Road, Reading' Tree Preservation Order which covers five trees running north to south on the surveyed plot. Reading Borough Council refer to these trees as T1-T5 inclusive and these figures are referenced in the appended arboricultural data tables.
- 3.2.5 All desktop assessment data was cross checked and validated on the Reading Borough Council website at <http://www.reading.gov.uk> and also the via the MAGIC DEFRA database. Any delay in the submission of this document to the Local Authority would require a further check.

3.3 Development Proposal

- 3.3.1 The proposal provided to us for comment on plan 'CPCW- Scheme 3-SK-101D' shows the construction of a new two storey residential accommodation complex with associated hard and soft landscape.

3.4 Tree Protection: Legal Status

- 3.4.1 Usually if full planning consent is granted then any trees which require felling to implement the approved plans are exempt from statutory protection. It should also be considered that any proposed tree works detailed in the Tree Schedule are also implemented as part of the planning decision consent.
- 3.4.2 This report does not consider the general requirements of the Forestry Act 1967, as full planning permission is exempt from the need for a felling license.
- 3.4.3 Five trees within the redline boundary of the site are covered by a Tree Preservation Order. The order is referenced in the appended AIA report from April 2017.

4. Arboricultural Survey Data

4.1 Data Collection

- 4.1.1 Matthew Harmsworth of ROAVR | Env surveyed the site in April 2017 with a walk over in May 2018 to capture additional data on tree groups.

- 4.1.2 The survey recorded 5 individual trees and one tree group. The complete data collection methodology for the tree survey is provided within the appended arboricultural data tables.

Table 1: Distribution of trees by BS5837:2012 tree categorisation

4.2 BS5837: 2012 Tree Categorisation

- 4.2.1 BS5837: 2012 sets out the methodology for surveying trees on potential development sites in order to identify them within a prioritised system of retention categories, as summarised below and given in full within the BS5837: 2012 Cascade Chart for Tree Retention.

A

Retention category	Individual Trees	Groups of Trees	Hedgerows	Woodlands	Total
A	0	0	0	0	0
B	2	0	0	0	2
C	3	1	0	0	4
U	0	0	0	0	0
Total	5	1	0	0	6

A Category Trees of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years

B Category Trees of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years

C Category Trees of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 meters above ground level.

U Category Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

- 4.2.2 Additionally, BS5837: 2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies. An explanation of these values is given within the BS5837: 2012 Cascade Chart for Tree Retention at Appendix 3:

Retention values that are mainly arboricultural

Retention values that are mainly landscape.

Retention values that are mainly cultural, including conservation.

- 4.2.3 In line with BS5837: 2012, A and B category trees should be considered as a constraint on site and provide a substantial contribution to the site. As a result, A and B category trees should be retained and incorporated into the scheme where possible.
- 4.2.4 Generally C and U category trees are considered to be of low quality or are young specimens that can be readily replaced and therefore should not be a constraint in terms of future development.
- 4.2.5 However, it is generally considered desirable to retain trees wherever reasonably possible to ensure continuity of tree cover and to provide a mature landscape to the development.

4.3 Summary of Data

- 4.3.1 The survey contains five individual trees (see Table 1 above). The comments including species, age, condition and the BS5837: 2012 retention category for each individual tree and group of trees are provided in detail in the Tree Schedule (appended arboricultural data tables).
- 4.3.2 Capture of tree data and categorisation is subjective. However our surveyor has many years experience and has closely followed the guidance within BS5837 2012 to give an accurate representation of the site.
- 4.3.3 The location of each individual tree and their associated constraints are illustrated on the appended Tree Protection Plan.

4.4 Summary of Tree Resource

- 4.4.1 Full details of the tree population can be found in the AIA but is summarised below.
- 4.4.2 T1 and T2 are located toward the northern extent of the site close to the built footprint. T1 is a mature Norway Maple with a crown spread of some 14m. The tree is in an overall fair condition but has been downgraded due to the thin asymmetric crown and lack of overall vitality.
- 4.4.3 T2 is a mature sycamore in poor condition. It is located near to the built footprint but further south than T1. The tree has very low vitality and a stag headed crown. We suspect there maybe a fungal pathogen present. The tree has a limited useful life expectancy and has been downgraded accordingly.
- 4.4.4 Trees T3-T5 are located well away from the current footprint toward the southern end of the site. Tree T4 is the highest quality specimen on site being located further back from the public footpath. This oak tree exhibits good vitality structure and form.
- 4.4.5 Overall the site tree population is of low vitality. Additionally there is evidence of fairly recent activity removing scrub and natural regeneration from within the rough grass area.
- 4.4.6 Initially it was not clear which tree was TPO 3 and we have made a best guess based on experience and the age of the tagged stem.

- 4.4.7 All trees contribute to the wider landscape and perform an important screening function between the houses on Waverley Road and those to the south accessed off Windrush Way.
- 4.4.8 An additional site walk over on the 13th May 2018 captured a tree group on the northern boundary of the site. This group is located offsite within the gardens of residential homes. Stem diameters were estimated. These stems consist of low quality leylandii (outgrown) hedging and a mature ash tree.
- 4.4.9 The remainder of the vegetation within the site has been cleared although some regeneration is occurring from the cut stumps. It is also noted that fencing has been erected to the east and western boundaries giving delineation to the plot. This new fencing is within the RPA of T1 and T2.
- 4.4.8 All surveyed trees are tagged with yellow 'arbor tags' at a height that allows easy identification.

5. Works Phasing

- 5.1 This method statement makes a number of recommendations for the site.
- 5.2 For convenience, all of the recommendations in this report have been listed in Table 2 below, with the relevant sections and appendices provided.
- 5.3 In order to ensure successful tree retention within the development it is important that all of these recommendations should be carried out in a similar order to the tabulated form below.

Table 2: Works Phasing Programme

PHASE / TIMING	RECOMMENDATION	SECTION	APPENDIX NO.
IMMEDIATE	UNDERTAKE FACILITATION PRUNING AND FELLING.	6.1 & 6.2	2 & 3
IMMEDIATE	APPOINT ARBORICULTURAL CLERK OF WORKS (ACOW) TO OVERSEE ALL ARBORICULTURAL ISSUES ON SITE.	6.3	N/A
IMMEDIATE	ERECT TREE PROTECTION FENCING TO BS: 5837:2012 SPECIFICATIONS AS APPROPRIATE.	7.1	2 & 5
IMMEDIATE	INITIAL / PRE-CONTINUANCE MEETING	6.4	N/A
DURING CONSTRUCTION	IMPLEMENT REPORTING PROCESS FOR ALL UNFORESEEN ARBORICULTURAL INCIDENTS	6.5	N/A

DURING CONSTRUCTION	IMPLEMENT USE OF PROGRESS SHEET TO BUILD UP EVIDENCE BASE OF GOOD PRACTICE ON SITE	6.6	N/A
DURING CONSTRUCTION	MONITORING SITE VISITS BY ACOW TO ENSURE CONTINUED COMPLIANCE	6.6	N/A
DURING CONSTRUCTION	WORKS WITHIN THE RPA OF RETAINED TREES	7.2	N/A
POST CONSTRUCTION	POST DEVELOPMENT INSPECTION TO IDENTIFY ANY REQUIRED REMEDIAL WORKS	9.1	N/A
POST CONSTRUCTION	REMEDIAL DE-COMPACTION UNDER RETAINED TREE WHERE REQUIRED	9.1	N/A
POST CONSTRUCTION	GENERAL MAINTENANCE / REMEDIAL TREE WORKS	9.2	N/A
POST CONSTRUCTION	ANNUAL TREE INSPECTION	9.2	N/A

6. Pre-Development Works

6.1 Enabling Felling

6.1.1 In undertaking the development as indicated on the proposed plans a number no trees require direct removal however two should be removed due to their condition.

- I. Tree T540
- II. Tree T541

Of these removal both are category C1 having been downgraded due to their condition and limited useful life expectancy.

6.1.2 All other trees and hedges will be retained and protected behind suitable tree protection fencing as drawn on the tree protection plan with a sufficient offset from the Group G1 to the north to ensure robust retention.

6.2 Facilitation Pruning

6.2.1 No facilitation pruning is proposed or required to facilitate the proposals as drawn.

6.2.2 Tree protection fencing and the removal of T540 and T541 shall be carried out BEFORE any other work commences on site.

7. Arboricultural Clerk of Works *ACoW

- 7.1 The developers MUST appoint a suitably qualified arboriculturalist to act as an Arboricultural Clerk of Works ACoW. The ACoW will be engaged to monitor and oversee the implementation of the works required in this method statement.
- 7.2 The role of the ACoW is a relatively formal one. Normally their involvement should be limited to a number of site visits where decisions can be made relatively quickly. In the case of this development the following occasions are where the ACoW will be required:
- Initial meeting (usually the pre-commencement meeting see section 6.4) – to ensure all required tree protection is in place, and to discuss any required amendments with the Local Planning Authority Senior Environmental Planner or Tree Officer.
 - Monitoring visits – Regular informal inspections to ensure that all tree protection measures are being maintained, and to inform the Site Manager where appropriate measures are not in place.
 - Supervision during works within the RPA's of retained trees as detailed within the tree protection plan (if appropriate)
 - Completion meeting – To inspect trees to assess for any required works and to confirm that the development has been sufficiently completed, and the tree protection measures can be removed.
- 7.3 The ACoW will also be the first contact for arboricultural advice for any issues that arise which are not detailed in this report, such as extra tree works, any required work within the root protection areas (RPA) of the trees on site, any damage that has occurred to any of the trees or any breach of the tree protection measures on site.

8. Pre Commencement Site Meeting

- 8.1 It is recommended that a pre-commencement site meeting be undertaken prior to any onsite works commencing. This meeting will enable the Senior Environmental Planner to visit the site with the Arboricultural Clerk of Works (ACoW) and inspect the tree works undertaken, the protective fencing and to ensure all parties are satisfied.
- 8.2 Regular site visits will then be undertaken following this by the ACoW to ensure protective measures are in place and file notes will be prepared and filed. Once the tree protection measures have been confirmed as acceptable, they can be “signed off” on the progress sheet.

9. Reporting Process

- 9.1 If during the construction any damage to either the trees or the Root Protection Areas is sustained, this should be reported to the Site Manager immediately. At the earliest possible time the Site Manager should inform the ACoW, who will undertake a site visit to assess the impact on the trees and make recommendations for any required works.
- 9.2 Possible damage to the trees or the Root Protection Areas could be: collision damage to crowns of retained trees by site vehicles; excavation within Root Protection Area; dumping of soil / materials within Root Protection Area; Chemical / cement spillage into Root Protection Area or fire damage to the crown / stem of the tree.

10. Progress Sheet

- 10.1 During the various stages of the development it will be helpful to keep a record of the completion of the various tree protection works. This will then provide the Senior Environmental Planner, with sufficient evidence that all practicable steps have been taken to prevent damage to the trees.
- 10.2 A separate progress sheet should be completed for each completed operation. The original should be kept, with the copy of this document that will be retained by the Site Manager in the site office. Once completed a copy should be sent to the ACoW and the Senior Environmental Planner.

11. Tree Protection

11.1 Fencing Specification

- 11.1.1 Prior to any construction or vehicular movement tree protective measures must be in place as shown on the tree protection plan. The ACoW will check this prior to the commencement of works. It shall be set out as per the detail on the appended tree protection plan.
- 11.1.2 These protective measures ensure suitable protection of trees and associated soils. The key method of tree protection is through the use of tree protection fencing.
- 11.1.3 Tree protection fencing shall be set out as per the detail on the tree protection plan; it shall be identified as such using signage. Where additional space is required, this shall be negotiated with the ACoW.
- 11.1.4 The tree protection fence/barrier once erected will not be moved or relocated without written approval from the Council. The tree protection area behind the fence/barrier (the Development Exclusion Zone) will be sacrosanct throughout development and no access will be allowed to this area including for example the storage of or moving of materials or machinery. In the Development Exclusion Zone, there will be no excavations or increases in soil level (beyond those described) without prior written approval from the Council. The location of protective fencing is illustrated on the Tree Protection Plan and this will also be placed within the site offices.
- 11.1.5 The barriers will be made from scaffold in a vertical and horizontal framework, as shown as Figure 2 in BS5837: 2012 with vertical tubes up to 3 meters apart.

- 11.1.6 The framework will be braced to resist impacts. On to the scaffold framework, weld-mesh panels will be secured with wire or scaffold clamps and driven into the ground. This method will be implemented where the tree protective fencing is permanent and not to be moved for the entirety of the development.
- 11.1.7 The RPA's of all trees shall be respected until the ACoW is present on site to supervise the breakup of hard surfaces adjacent to the root crowns of retained trees if required. At this point with the supervision of the ACoW the protective fencing will be moved to allow works to take place.
- 11.1.8 The rear support for all tree protective fencing will be constructed by attaching a supporting strut scaffold pole to the main fencing with the other end having a pin driven through the hole into the soil for anchorage. This method will significantly reduce the risk of damaging any major roots whilst still giving the structure rigidity.
- 11.1.9 There will be clear and visible signs attached to the protective fencing with the following "Tree Protection Area – Keep Out" and the area will be regarded as sacrosanct by everyone. This will be checked prior to the commencement of work by the ACoWs and throughout the course of development.
- 11.1.10 The tree protection fencing denotes the Development Exclusion Zone. Therefore, the following must be carefully considered when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banks person to ensure that adequate clearance from trees is maintained at all times.
- 11.1.11 Material that will contaminate the soil such as concrete mixing, diesel oil and vehicle washing should not be discharged within 10m of the tree stems.
- 11.1.12 Fires should not be lit in a position where their flames can extend to within 5m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.
- 11.1.13 At the end of the project the fence will be removed only after confirmation by the ACoW and Council.
- 11.1.14A detailed Tree Protection Plan (see attached) will be located within the site cabins throughout the course of development. This will include details of the fencing specification and location for which the fence will be erected. This element should be conditioned for implementation. This plan will be printed at no less than A1 in size to ensure easy reading of all the detail contained within.

11.2 Proposed works within Root Protection Area *RPA

- 11.2.1 No works are proposed within the root protection areas of retained trees.
- 11.2.2 The project ACoW must be involved with all design input and shall be present on site when construction takes place. This is an OUTLINE proposal and any changes must be approved by the ACoW.

Guidance: <http://www.terram.com/products/geocells/tree-root-protection-geocell.html>
<https://www.trees.org.uk/Trees.org.uk/files/b6/b6a05a2e-ec86-4d23-aa92-42fdec8d67c0.pdf>
<http://www.barrelltreecare.co.uk/case-studies/SurfacingNearTrees.pdf>

12. Post Construction Works

12.1 Post Development Inspection

- 12.1.1 Following the completion of the development an inspection of the condition of retained trees will be made to assess if any further tree works are required.
- 12.1.2 Where the soil around any tree is found to be compacted appropriate remediation will be undertaken. This will be prescribed by the ACoW and could include soil aeration or manual digging/forking to loosen the soil increasing drainage and aeration.

12.2 Annual Inspection

- 12.2.1 An annual inspection of trees will be undertaken post construction for the duration of two years following completion. It is not anticipated that the condition of trees will significantly change following the development's completion, but a continued monitoring of the trees' condition will be made by the ACoW. Where appropriate remedial works will be undertaken to improve the environment for trees or to make the trees safe.
- 12.2.2 This annual inspection will also include an assessment of new planting included within the landscaping plan.

13. Mitigation Planting

13.1 New Tree Planting

- 13.1.1 Extensive mitigation planting has been allowed for and a provisional planting plan is shown on the proposed site layout drawing. We would suggest a comprehensive landscape plan is prepared and submitted with the outline planning application highlighting appropriate species planted to the north of the new built footprint. Species chosen should not impact on the building during their useful life expectancy in a way that requires extreme or unsympathetic pruning.
- 13.1.2 The ACoW should have some oversight on the planting process to ensure species choice is diverse, robust and sustainable with correctly installed tree stakes, ties and watering facilities. Planting trees in a grass matrix should be avoided at all costs.

14. Conclusions

- 14.1.1 The tree survey for the outline planning application requires the removal of two tree stems, T540 and T541 on sound arboricultural grounds. All other trees are to be retained and protected behind tree protection fencing and the screen to the residential housing to the north remains unaffected.
- 14.1.2 It is of important that the retained tree stocks on site will be fenced off behind tree protection fencing and the CEZ respected at all times to prevent tree damage.
- 14.1.3 It is important that all protective fencing is installed and erected prior to the commencement of any other works on site. Following installation of tree protection a site meeting will be undertaken with the Senior Environmental Planner to ensure satisfaction of all parties prior to any on site works commencing.
- 14.1.4 Works must be managed so that compaction within the RPA's does not increase and that the suggested offset to the north is respected.
- 14.1.5 We believe the measures outlined in this report will preserve the retained tree stocks and not harm the character and appearance of the area as tree removals to facilitate the proposals are based on sound arboricultural reasons rather than the development footprint encroaching on to retained trees. The project provides an opportunity to contribute towards the visual amenity of the area with some high quality new tree planting.

15. Report Limitations and Qualifications

15.1 Report Limitations

- This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering or soil
- The comments of this report are valid for a period of one year from the date of report
- No tree is ever absolutely safe due to the unpredictable laws and forces of nature
- The original site visit and data collection for the AIA (appended) was carried out in 2017. The AMS was updated to include additional imagery, a walkover of the tree conditions and to record data on Group G1 in May 2018.

15.2 Qualifications

- 15.2.1 The principal author of this report is Matthew Harmsworth Tech.Arbor.A, DipRS, FDSoc. Matthew is a Technical Member of the Arboricultural Association and Consulting Arborist Society.
- 15.2.2 The qualifications and experience of each consultant can be provided on request.

16. References and Relevant Legislation

- I. British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'.

- II. British Standard 3998:2010 'Tree work – Recommendations'.
- III. The Forestry Act 1967.
- IV. The Town and Country Planning Act 1990.
- V. The Town and Country Planning (Trees) Regulations 1999.

17. Appendix 1 - New Site Imagery. May 2018.



Photographic plate showing T540 and T541, which should be removed due to their declining condition.



Photographic plate showing Group G4 and the newly erected boundary fencing.



Photographic plate showing the offsite section of G1, trees within the rear gardens of residential accommodation.



Photographic plate showing the internal make up of the onsite section of Group G1, comprises several small forest growth form stems of poor structure and form.



Photographic plate showing T540 and T541.

Notes
To be used in conjunction with the tree data schedule which accompanies this drawing.

Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.

Depictions of tree canopies are based on measurements taken to four cardinal compass points.

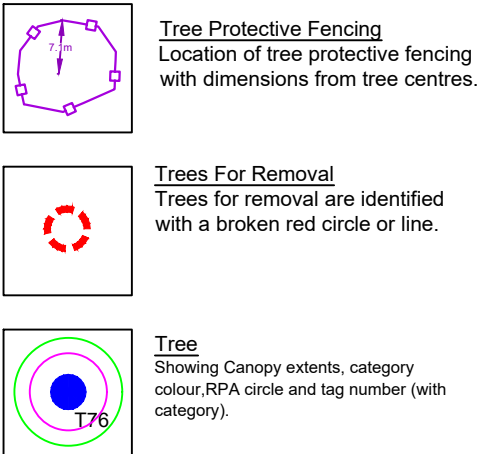
All rights reserved.



Tree Protection Plan

Plan showing existing site, proposed development, protective fencing and trees for removal.

Tree Protection Plan Key



Tree numbering: T540-544

The location of tree protective fencing and special control areas are indicative only and must not be directly measured from this plan. Their true locations must be surveyed accurately on site and where applicable be measured from the tree centre by the stated dimension value.

Tree Protection Plan (TPP) - General Notes

Protective fencing is principally intended to protect soil rooting zones of the trees.

Fencing to consist of 'Heras' style panels, staked and braced to prevent removal.

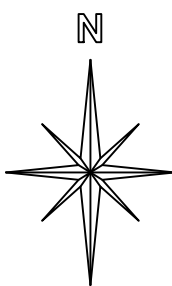
Fencing to be erected prior to any works and only removed when all construction works are completed.

All protective fencing measurements in meters and to be taken from tree centres (where applicable).

Stated distances can be increased but not reduced.

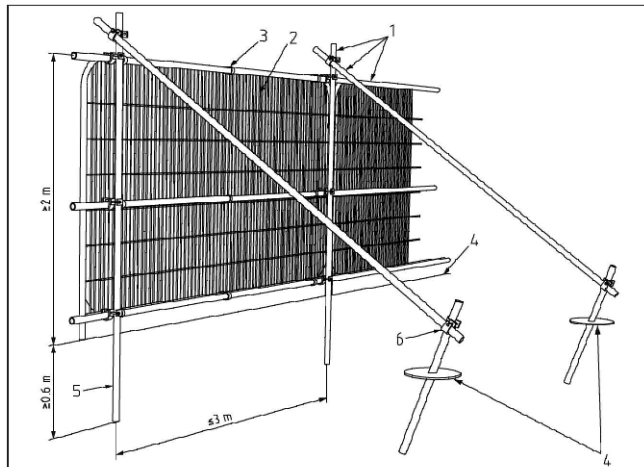
Segments of fencing can be ignored if they intersect with boundary security fencing.

Trees for removal to be physically marked by an arboriculturist prior to felling.



Tree Protective Fencing

- Trees for removal to be identified from the drawing and marked by an arboriculturist.
- No vehicles to enter the grass verge or root protection zone during tree removal or fencing installation/removal.
- Fencing to be installed prior to any construction works (including demolition, materials delivery, works compound installation).
- The location of the tree protective fencing is indicative only and must not be directly measured from this plan. Its true location must be surveyed accurately on site and where applicable be measured from the tree centre by the stated dimension value.
- Fencing to remain in place until all construction works have ceased.



Key
1 Standard scaffold poles
2 Heavy gauge 2m tall galvanized tube and welded mesh (Hera) panels
3 Panels secured to uprights and cross members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.5 m)
6 Standard scaffold clamps

Why Is Fencing Erected Around Trees?

- The major cause of damage to trees on construction sites is due to soil compaction.
- Roots use the spaces between soil particles to obtain Oxygen, Water and Nutrients.
- Heavy plant and machinery compresses (compacts) the soil, squashing out the air spaces and preventing root function.
- A compacted soil structure will stay compacted.
- Consequently the tree suffers and will show signs of branch die-back.
- Symptoms such as die-back may take several years to appear.
- Soil compaction over roots can be prevented by maintaining a fenced exclusion zone over the tree roots.
- The exclusion zone is calculated using British Standard 5837.
- Protective Fencing is installed around the calculated area.
- Protective Fencing is a condition of planning approval, if it is removed or repositioned the construction firm is in breach of a condition and may be subjected to legal action.

Fencing Specification

The fencing will comprise of standard GS7/Heras styled steel self-supporting security fencing panels. The panels must be securely clamped together. They must be secured to the ground with robust steel stakes to a depth of 600mm. These are securely clamped to the panels.

The use of steel mesh panels in conjunction with just clamps and self supporting bases is not acceptable for use. They must be secured to the ground with stakes to prevent movement. Where stated, additional bracing of the panels must use angled scaffolding poles to prevent further movement (see diagram).

BS5837: 2012 Recommendations (extract)

6.2.2 - Barriers

6.2.2.1 - Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.

6.2.2.2 - The default specification should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in Figure 2. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed.



ROAVR Environmental
Finglack Farmhouse, Clava, IV2 5EN.

Office: 0845 265 8307

Mobile: 07545 255827

environmental@roavr.co.uk
www.roavr-environmental.co.uk

Client

JSA Architects

Project

Land Adjacent to Colliers Way.

Drawing Title

Tree Protection Plan

Scale

1:250@A1

Date

May 2018

DB

CS

CB

MH

Drawing Number

17_5837_04_09

Rev

1



Photographic Plate showing 'Thorpe House' and trees T1 and T2



Document Control Sheet

Document Title:	Arboricultural Implications Assessment - initial tree survey
Document Author:	Matthew Harmsworth, tech.arbor.a, DipRS, RPQ-s
Project Manager:	Matthew Harmsworth
Surveyor	Matt Harmsworth
Project Title	Colliers Way - Thorpe House

Revision History

Date:	Version No.	Summary of Changes:
24.4.2017	1.0	First draft
26.4.2017	1.1	Final issue

Approvals

Approved by:	Signature	Date:	Version:
Matthew Harmsworth	MW Harmsworth	26.4.2017	1.1

Distribution

Name:	Title:	Date:	Version:
Matt Taylor	Project Manager - JSA	26.4.2017	1.1
Andrew Andersson	Thames Valley Retirement Home - landowner	26.4.2017	1.1

Re-Survey Date

Survey Type:	Lifecycle:	Re-survey Date:
BS5837: 2012	Planning only	N/A

Report no: 17_5837_04_09
Supplier no.: JSA_01
Date: 24th April 2017
FAO: Matt Taylor
Via email - matttaylor@jsaarchitects.com

Arboricultural implications assessment to BS 5837 2012 of trees at: Land adjacent to Colliers Way, Tilehurst

1. Scope

- 1.1 We have recently been instructed to undertake an appraisal of trees at land to the south east of the Thames Valley Retirement home, Colliers Way, Tilehurst also known as Thorpe House.
- 1.2 The data was collected to the British Standard BS5837 'Trees in Relation to Design, Demolition and Construction - Recommendations' 2012.
- 1.3 The survey has been commissioned to offer guidance on the condition of a number of protected trees at the property in an email received from Matt Taylor in October 2016 before an application for potential site expansion.
- 1.4 The trees were inspected on the 16th April 2017, following the guidance in the British Standard by Matthew Harmsworth. The crowns and stems of the five trees were inspected from the ground using the 'Visual Tree Assessment (VTA)' method; no invasive techniques were used at this stage.
- 1.5 The site was assessed and data was collected on five individual trees protected by a preservation order as highlighted on the PDF extract below. (Figure 1)

Figure 1.



2. Site conditions / Site surroundings

- 2.1 The site is situated in Tilehurst a western suburb of the Berkshire town of Reading. The site is served by a cul-de-sac called Colliers Way that joins Water Road a north south linkway from Dee Road in the north to Tilehurst Road in the south.
- 2.2 The plot has a large retirement home facility on the northern extent adjacent to Colliers Way. This detached residential building is served by several car parking spaces located on the northern aspect. To the south, east and west of the built footprint is a close mown grass matrix with scattered trees. Stretching away to the southeast is some poor quality grass, with a linear feature of broadleaved tree cover located on the northern boundary line between the grass and residential housing off Waverley Road.
- 2.3 Within this linear feature of broken tree cover are the five surveyed trees running from NE to SE on slightly higher ground. A tarmac footpath forms the southern boundary with heavy foot traffic observed during the survey period.
- 2.4 A desktop assessment has highlighted that the five surveyed trees are within the 'Thorpe House, Colliers Way and land to the rear of 72-102 Waverley Road, Reading' Tree Preservation Order which covers five trees running north to south on the surveyed plot. Reading Borough Council refer to these trees as T1-T5 inclusive and these figures are referenced in the appended arboricultural data tables. (*Figure 2*)
- 2.5 All desktop assessment data was cross checked and validated on the Reading Borough Council website at <http://www.reading.gov.uk> and also the via the MAGIC DEFRA database on the 24th April 2017 at 13:35. Any delay in the submission of this document to the Local Authority would require a further check.

Figure 2.

COLLIERS WAY	30/003	(T2, G1)	Marshall House
COLLIERS WAY	189/06	(A1)	Land r/o 30-45
COLLIERS WAY	42/14	(T5)	Thorpe House (and land r/o 72-102 Waverley Road)

3. The Trees

3.1 BS5837: 2012 Tree Categorisation:

BS5837: 2012 sets out the methodology for surveying trees on potential development sites in order to identify them within a prioritised system of retention categories, as summarised below and given in full within the BS5837: 2012 Cascade Chart for Tree Retention.

A Category Trees of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years.

B Category Trees of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years.

C Category Trees of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 meters above ground level.

U Category Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

- 3.2 Additionally, BS5837: 2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies. An explanation of these values is given within the BS5837: 2012 Cascade Chart for Tree Retention.

Retention values that are mainly arboricultural

Retention values that are mainly landscape.

Retention values that are mainly cultural, including conservation.

- 3.3 In line with BS5837: 2012, A and B category trees should be considered as a constraint on site and provide a substantial contribution to the site. As a result, A and B category trees should be retained and incorporated into the scheme where possible.
- 3.4 Generally C and U category trees are considered to be of low quality or are young specimens that can be readily replaced and therefore should not be a constraint in terms of future development.
- 3.5 However, it is generally considered desirable to retain trees wherever reasonably possible to ensure continuity of tree cover and to provide a mature landscape to the development.

4. Summary of Data

- 4.1 The survey contains five individual trees. The comments including species, age, condition and the BS5837: 2012 retention category for each individual tree and group of trees are provided in detail in the Tree Schedule.



Photographic plate showing trees T1 and T2 viewed from the carpark of Thorpe House

- 4.2 The location of each individual tree and their associated constraints are illustrated on the appended Tree Constraints Plan.
- 4.3 Trees on site have been tagged with yellow 'arbor tags' for clarity of identification. These tags run from 00540-00544. The trees are also referenced by their TPO numbers in the structural conditions column of the data tables.
- 4.4 T1 and T2 are located toward the northern extent of the site close to the built footprint. T1 is a mature Norway Maple with a crown spread of some 14m. The tree is in an overall fair condition but has been downgraded due to the thin asymmetric crown and lack of overall vitality.
- 4.5 T2 is a mature sycamore in poor condition. It is located near to the built footprint but further south than T1. The tree has very low vitality and a stag headed crown. We suspect there maybe a fungal pathogen present. The tree has a limited useful life expectancy and has been downgraded accordingly.

Photographic plate showing trees T1 and T2 viewed from the rear of Thorpe House (T2 to the right)



- 4.5 Trees T3-T5 are located well away from the current footprint toward the southern end of the site. Tree T4 is the highest quality specimen on site being located further back from the public footpath. This oak tree exhibits good vitality structure and form.
- 4.6 Overall the site tree population is of low vitality. Additionally there is evidence of fairly recent activity removing scrub and natural regeneration from within the rough grass area.
- 4.7 Initially it was not clear which tree was TPO 3 and we have made a best guess based on experience and the age of the tagged stem.
- 4.8 All trees contribute to the wider landscape and perform an important screening function between the houses on Waverley Road and those to the south accessed off Windrush Way.



Photographic plate showing trees T1 and T2 viewed from the rear of Thorpe House (T2 to the right)



Photographic plate showing tree tag 'arbo tag'.

5. Recommendations

- 5.1 Some light pruning works have been recommended in the arboricultural data tables and we have suggested that T2 (00541) may require removal on safety grounds.
- 5.2 Trees T1 and T2 may require removal to facilitate any new construction to the south of the existing footprint as it would prove problematic to avoid the suggested root protection areas. No plans have been provided to us at this stage and given the limited useful life expectancy of these stems we can not see any valid objection on arboricultural grounds providing that the loss is mitigated for with some new robust, diverse and sustainable tree cover.

6. Summary

- 6.1 Tree cover at the site provides an important screening function and adds to a degree of seclusion when transiting from north to south on the footpath.
- 6.2 Trees T1 and T2 tagged 00540 and 00541 will most likely require removal to facilitate any new development. We would not object to this providing new robust planting is offered in mitigation.
- 6.3 The remaining three protected trees and also the band of un-surveyed vegetation will likely remain outside any development footprint and would be protected behind appropriate tree protection fencing.
- 6.4 A single horse chestnut sits adjacent to T1 and T2 slightly to the north. This tree is in very poor condition and although outside the scope of this survey should be felled for safety.



*Photographic plate showing
tree referred to at 6.4*

7. Limitations

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Trees were inspected from ground level only; trees were not climbed or inspected below ground. Inaccessible trees will have best estimates made about location, physical dimensions and characteristics.

Should you require any further information, please do not hesitate to contact us at any time.

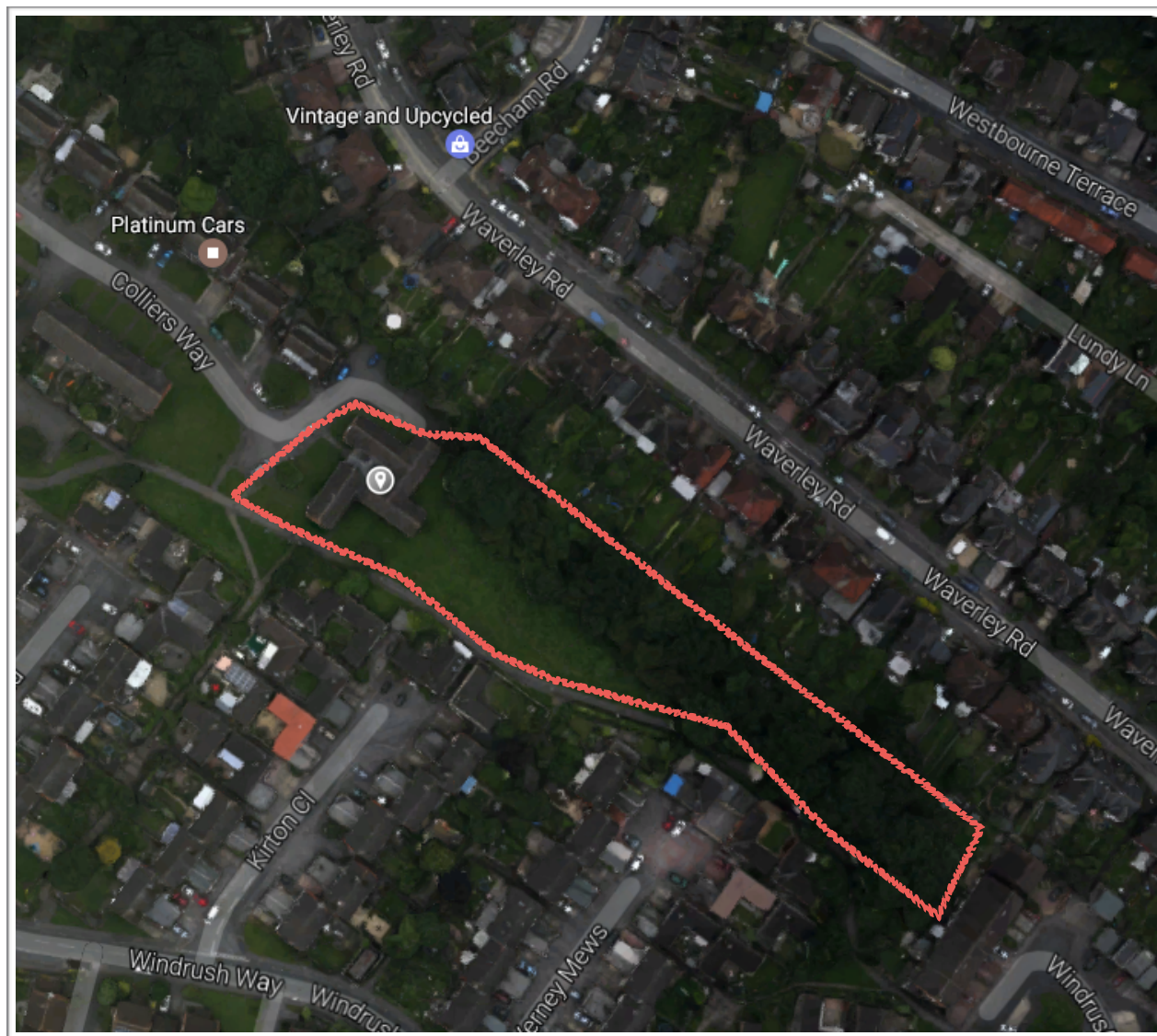
Matthew Harmsworth

Mr. M Harmsworth tech.arbor.a, DipRS
Consultant Arborist

Prepared by: Matthew Harmsworth.
Checked by: Anne-Marie Harmsworth

Attached
Appendix 1 – Site Location Plan
Appendix 2 – Arboricultural Data Tables
Appendix 3 - Tree Constraints Plan

APPENDIX 1 - Site Location



Map extract courtesy of GoogleMaps.

APPENDIX 2 - Arboricultural Data Tables

Tilehurst - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N	s	e	w	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
T005 40	Norway Maple	21	510	118	7	5	4	8	3 W	M	F	Limited long-term prospects. Low vitality. Asymetric crown; thin crown; dry compacted ground in northern RPA; minor deadwood noted; good structure and form; downgraded due to lack of vitality and subsequent reduced life expectancy. Tree T1 on tpo plan.	No works required.	10+	C1
T005 41	Sycamore	17	485	106	6	6	8	5	4 N	M	P	Very low vitality; ivy clad; poor annual extension; thin crown; small leaves for species; suspect Kretz; TPO tree 2	May require removal for safety; monitor annually.	<10	C1
T005 42	Sycamore	16	590	157	8	5	8	7	2 S	M	F	Limited long-term prospects. Low vitality. Declining. Ivy on stem. Unable to inspect stem due to Ivy. Dieback in crown. Low bud/leaf density. Set back from path; ivy clad; thin upper crown; branches obstructs street lamp; downgraded due to low vitality; tree 5 on tpo plan.	Crown lift to 3m over footpath.	20+	B3
T005 43	Common Oak	20	700	222	10	8	6	9	4 N	M	G	Ivy on stem. Unable to inspect stem due to Ivy. Major deadwood in crown. Located at top of bank next to domestic garden; some waste tipping.^Tpo tree 4.	Remove major deadwood.	40+	B1

Tilehurst - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N	s	e	w	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
T00544	Norway Maple	16	540	132	8	6	5	6	3 W	M	F	Limited long-term prospects. Low vitality. Declining. Tree located within hard surface area. Ivy on stem. Unable to inspect stem due to Ivy. Dieback in crown. Low bud/leaf density. Unbalanced crown shape. Crown distorted due to group pressure. Low branches over road/footpath. Set back from path; tpo plan tree 3;.	Sever Ivy. Remove major deadwood. Crown lift to 3m over footpath.	20+	C1
Tree Groups															
G1	Ash, Sycamore, Leylandii	15 max	150-400	To crown edges	As shown				n/a	EM-M	F	Predominantly offsite, 2 x leylandii, 1 x ash; some light vegetation in the NE corner of the development plot; forest growth form and limited long-term prospects; provides useful screening to the site.	Thin to best stems and retain onsite, protect offsite	10+	C2
End of Records															