Arboricultural impact appraisal and method statement

Campsfield, Southwater, Horsham, West Sussex RH13 9FW

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barrell
TREE CONSULTANCY

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Site location and report purpose

Site location

The above extract is supplied courtesy of Miller Homes Limited – Southern Region. The red line shows the approximate site boundary extents and is for illustrative purposes only and should not be scaled.

Site location and report purpose

Report purpose

This arboricultural impact appraisal report provides sufficient information for the Local Planning Authority (LPA) to consider the effect of the proposed development on local character from a tree perspective. It is fully compliant with the BS 5837 advice relating to the planning application stage of the process and it meets national standard planning application validation requirements.

More specifically, the development proposal at Campsfield, Southwater, Horsham, West Sussex RH13 9FW is an outline planning application with all matters reserved except access, for residential development of the site with up to 82 dwellings with associated public open space, access from Centenary Road and supporting infrastructure.

This report includes:

- A **Tree protection plan** illustrating tree locations, categories, the location of the proposed development, and the proposed tree protection measures.
- An **Arboricultural impact appraisal** (section 1 of the report) providing an analysis of the tree issues to assist the LPA in assessing the impact on local character.
- An **Arboricultural method statement** (section 2 of the report) describing how retained trees will be protected and managed during the development activity.
- **Appendices** (**Appendix 1** – Background administrative information and data collection; **Appendix 2** – Tree schedule and explanatory notes; and, **Appendix 3** – QR Codes for Site Guidance Notes (SGNs).
- A companion document to supplement the main report titled ***Manual for managing trees on development sites*** **(Version 3.0)**, which provides explanations of how retained trees will be managed on site in the form of SGNs covering the relevant issues.

1 Arboricultural impact assessment

1.1 Table 1: Summary of trees affected and protected by the proposal

From our review of the constraints and the proposed layout, our assessment of the impact on trees, both during and after development, and those that need protection using special precautions, is summarised in Table 1:

	British Standard 5837 Category		
	A (High quality)	**B (Moderate quality)**	**C (Low quality)**
Remove	None	None	G6, T18, G23, G41 (part), G57
Prune	None	None	None
Protect using special precautions See Notes below	T19, T20, T25, T37, T38, T44	None	T21, G48
Post development pressure to fell	None	None	None

T = Tree; G = Group

Note on types of protection: All retained trees will be protected during development by using barriers and only those requiring special precautions to limit the impact of encroachment are listed in Table 1.

Note on category U trees: Trees categorised as U (G2) are in such poor condition that they have been assessed as needing removal for management reasons irrespective of any development proposals. Removal of category U trees is a management decision and not caused by this proposal, so should not be considered a direct impact.

1.2 The impact of tree removals on local character

Group G57

This group of low-quality trees are located on the northern site boundary and are bordered to the east and west by several mature individual trees (specifically trees T56 and T60), that provide a sylvan skyline character to this perimeter. The removal of this low-quality group to enable the construction of a new site access coupled with the retention of adjacent better-quality trees will ensure that there is no adverse impact on visual amenity.

Part of group G41

This group of low-quality trees are located on the northern site boundary and are bordered to the east and west by several mature individual trees (specifically trees T39 and T50), that provide a sylvan skyline character to this perimeter. The removal of the eastern section of this low-quality group to enable the construction of a linking pathway to the existing residential development to the north will have no adverse impact on visual amenity.

Groups G6 and G23

These two groups of poplar trees have been established in plantation style rows. Individually within the group the trees range up to height of approximately 15 m with stem diameters not generally exceeding 30 cm. Due to their observed vitality and structural form (multiple occurrences of storm damage were observed – limb and whole stem failure), it is reasonable to advance that they are low quality trees with limited levels of sustainability.

Additionally, given their monocultural plantation context they can be held to be incongruous to the landscape character of the area and therefore of limited value from a visual landscape perspective. Their removal to enable the proposed development will not result in a significant adverse impact on visual amenity or landscape character.

1 Arboricultural impact assessment

Photograph 1: View of western extents of group G6 highlighting plantation context and structural form.

Photograph 2: View of character and form of plantation context of trees within groups G6 and G23.

Tree T18

This tree exhibited signs of declining vitality throughout its canopy extents (likely linked to ash dieback disease) and can reasonably be held as being of low quality. It is located close to the southern site boundary but is screened from public vantages by a number of large and mature oak trees (trees T15, T17, T19 and T20). Its proposed removal will not result in a detrimental impact on the character and appearance of this part of the site.

1.3 The impact of tree pruning on local character

Other than pruning for normal maintenance, no trees will be pruned because of this development and so there will be no impact on local character for that reason.

1.4 The impact of works in precautionary areas

Trees T19, T20, T25, T37, T38 and T44

There will be minor encroachment into the radially calculated RPAs of these trees in the form of new no-dig permeable surfacing. I have carefully reviewed the levels in these areas and it would be feasible to install custom designed no-dig specification surfacing without causing any significant disturbance to the RPA. From my past involvement in projects incorporating such surfacing (www.barrelltreecare.co.uk/case-studies/SurfacingNearTrees.pdf), I am confident that this can be implemented without any long term detrimental impact on tree health, with the full working detail to be agreed as part of a formal planning condition. This surfacing solution is within the advice set out in BS 5837 (8.6) and would be appropriate to implement in this situation.

In summary, if the guidance set out in SGN 7 *Excavating in RPAs* and SGN 9 *Installing/upgrading surfacing in RPAs* is observed, then it is reasonable to advance that the proposed works can be implemented without any long-term detrimental impact on tree health, and therefore local character. All new surfacing beyond the indicated construction exclusion zone (such as the section

of surfacing south of trees T37 and T38), must be installed before any construction access to prevent damage to the RPAs from the onsite construction activity.

Trees T21, T44 and group G48

Enhancements to the existing open space area around these trees are planned to be undertaken during the end phase of the redevelopment programme. These works (establishment of naturalistic form play equipment) will be informed and progressed in accordance with the guidance set out in SGN 7 *Excavating in RPAs,* SGN 9 *Installing/upgrading surfacing in RPAs,* SGN 10 *Installing structures in RPAs* and SGN 12 *Landscaping in RPAs*, and will be subject to appropriate levels of arboricultural supervision. From my past experience of similar operations, I am confident that this can be implemented without any long-term detrimental impact on tree health, with the full working detail to be agreed as part of a planning condition.

1.5 Post development considerations

If trees are retained or planted too close to occupied buildings and / or garden amenity space, it is sometimes claimed that they can cause excessive shade or anxiety, which interferes with the normal use of the property. In extreme cases, this can result in pressure from future owners to fell or severely prune, thus reducing the long-term contribution of the trees to local character. The counter position to this is that the benefits from trees close to occupied areas significantly outweigh any disadvantages caused by shade or anxiety, so there can be a range of perspectives. It is also relevant that important trees can be protected using tree preservation orders, which come with an overarching presumption to retain protected trees unless the normal use of the property is harmed to a significant extent. There is little published evidence to support either of the extremes, which means that each case must be intelligently assessed on its own merits and interpreted in the context of the experience of the assessor. I have considered all the relevant issues in this situation and is my opinion that there will be no adverse impacts because of future pressure to fell or severely prune retained trees once the development is completed and occupied.

1.6 New tree planting to enhance local character

To supplement retained trees and enhance local character, the project landscape architect has specified an indicative tree planting scheme to align with the outline status. The final detail and selection of species, size and location will be supplied as part of a reserved matters application process. All new trees will be specified and planted in accordance with the recommendations in BS 8545 (2014) *Trees: from nursery to independence in the landscape –Recommendations*. These new trees would have the potential to reach a significant height without excessive inconvenience and be sustainable into the long term, significantly improving the potential of the site to contribute to local character.

1.7 Unanticipated upgrading of existing services or installation of new services

Retained trees may be adversely affected by the installation of new services and / or the upgrading of existing services if that work encroaches into their RPAs. However, it is often difficult to know the detail of service locations until the construction is in progress, and sometimes encroachment into RPAs is unavoidable. Where possible, the default approach must be to use any existing service runs and keep all new services outside RPAs. Where existing services within RPAs require upgrading, or new services must be installed in RPAs, great care must be taken to minimise any disturbance. Trenchless installation will be the preferred option, but if that is not feasible, any excavation must be carried out by hand according to the guidelines in SGN 11 *Installing services in RPAs*.

1.8 Summary of impact on local character

All of the significant and sustainable boundary tree cover is being retained, and none of the trees proposed for removal are prominent as skyline features in the wider setting. Their loss will be noticeable in the immediate vicinity following the removals, but the comprehensive new landscaping proposals will rapidly mitigate the impact of these losses, limiting the impact on local character to the short term and integrating the proposed development into the existing context. The construction activity has the potential to adversely affect retained trees if robust protective measures are not taken. However, if adequate precautions to protect these retained trees are specified and implemented through the arboricultural method statement included in this report, then the development proposal will have no detrimental impact on the contribution of these trees to local landscape character and visual amenity. For these reasons, it is reasonable to advance that the proposed development would not cause an unacceptable or adverse impact on the landscape character and appearance of the area from a tree perspective.

2 Arboricultural method statement

2.1 Site Guidance Notes (SGNs)

This section of the report identifies which trees on this site will be protected and managed, and by what means. This site-specific summary is supplemented by more detailed explanations and descriptions of specific operations set out in the accompanying *Manual for managing trees on development sites*. That document is a compilation of 12 individual SGNs addressing the following tree protection and management issues that regularly arise in the construction phase of development:

- SGN 1 *Monitoring tree protection* (https://www.barrelltreecare/SGN-1-Monitoring-V3.pdf)
- SGN 2 *Fencing protected trees* (https://www.barrelltreecare/SGN-2-Fencing-V3.pdf)
- SGN 3 *Ground protection* (https://www.barrelltreecare/SGN-3-Ground-Protection-V3.pdf)
- SGN 4 *Pollution control* (https://www.barrelltreecare/SGN-4-Pollution-V3.pdf)
- SGN 5 *Site cranes & piling rigs* (https://www.barrelltreecare/SGN-5-Cranes-Rigs-V3.pdf)
- SGN 6 *Height restrictions* (https://www.barrelltreecare/SGN-6-Height-V3.pdf)
- SGN 7 *Excavating in RPAs* (https://www.barrelltreecare.co.uk/SGN-7-Excavation-in-RPAs-V3.pdf)
- SGN 8 *Removing surfacing and structures in RPAs* (https://www.barrelltreecare/SGN-8-Removing-Surfaces-V3.pdf)
- SGN 9 *Installing/upgrading surfacing in RPAs* (https://www.barrelltreecare/SGN-9-Installing-Surfacing-V3.pdf)
- SGN 10 *Installing structures in RPAs* (https://www.barrelltreecare/SGN-10-Structures-V3.pdf)
- SGN 11 *Installing services in RPAs* (https://www.barrelltreecare/SGN-11-Services-V3.pdf)
- SGN 12 *Landscaping in RPAs* (https://www.barrelltreecare/SGN-12-Landscaping-V3.pdf)

NOTE: Each individual SGN can be downloaded by using the links above and the QR Code links in Appendix 3.

2.2 Identification of areas to be protected

The tree protection plan shows the areas where protective measures are necessary for the indicative layout (due to outline nature of planning application). The barrier locations are shown by the heavy black dashed lines, with the construction exclusion zone behind as the lighter black diagonal hatch. The precautionary areas relating to the installation of permeable surfacing are shown by a solid yellow fill. The extent of ground protection measures required for working space is indicated by the solid blue fill.

2.3 Arboricultural supervision

An arboricultural consultant will be appointed to advise on the tree management for the site and to attend:

- a pre-commencement meeting before any work starts;
- regular supervision visits to oversee the agreed tree protection, as agreed at the pre-commencement meeting; and
- further supervision visits, as necessary, to oversee any unexpected works that could affect trees.

The detail of how the arboricultural supervision will be carried out is explained in SGN 1 *Monitoring tree protection* in the accompanying Manual.

2 Arboricultural method statement

2.4 Table 2: Summary of the site operations requiring arboricultural input

For this site, arboricultural input will be needed for the following operations:

Brief operation summary	Trees affected	Location of detailed explanations
Pre-commencement meeting: Meeting on site with all parties to agree protective measures, as described in SGN 1. Will be carried out before any significant site works begin.	All retained trees	SGN 1 *Monitoring tree protection*
Tree works: Contractor will carry out agreed works as described in Appendix 2. Will be completed before any significant site works begin.	Fell trees G2, G6, T18, G23, G41 (part), G57	Appendix 2
Installing barriers and ground protection: Agreed tree protection measures will be installed and checked, as described in SGN 2 and SGN 3. Will be completed before any significant site works begin.	Barriers for all retained trees; Ground protection for tree T44	Tree protection plan, SGN 2 *Fencing protected trees*, and SGN 3 *Ground protection*
Pollution control near retained trees: Any pollution control measures identified during risk assessment will be installed as described in SGN 4. Will be completed before any potential pollutants arrive on site.	All retained trees	SGN 4 *Pollution control*
Installing/upgrading surfacing in RPAs: These operations will be carried out as described in the SGN 9.	T19, T20, T25, T37, T38, T44	SGN 9 *Installing/upgrading surfacing in RPAs*
Installing naturalistic play equipment in RPAs: These operations will be carried out with awareness and guidance as set out in SGNs 7, 9 and 10.	T21, T44, G48	SGN 7 *Excavating in RPAs;* SGN 9 *Installing/upgrading surfacing in RPAs;* SGN 10 *Installing structures in RPAs*
Installing services in RPAs: These operations will be carried out as described in SGN 11.	All retained trees	SGN 11 *Installing services in RPAs*
Landscaping in RPAs: These operations will be carried out as described in SGN 12.	All retained trees	SGN 12 *Landscaping in RPAs*
Removing tree protection: Protection can only be removed when there is no risk of damage to retained trees, as described in SGN 1.	All retained trees	SGN 1 *Monitoring tree protection*

The operations summarised in this table, and supplemented by the more detailed explanations set out in the SGNs and the rest of this document, form the arboricultural method statement for this site. The Site Manager will ensure that its details and any agreed amendments are known and understood by all site personnel. Copies of the agreed documents will be available on site. All personnel who could have an impact on trees will be briefed on the specific tree protection requirements as part of the site induction procedures. This requirement will be written into the site management documentation.

If unanticipated issues arise on site requiring work approved by the LPA, but not referenced in the above explanations, for example the unexpected need to install services in RPAs, or landscaping in RPAs, further guidance on how to manage them can be found in the accompanying Manual.

2.5 Construction method statement (heads of terms summary)

A construction method statement is a description of how operations that may affect trees will be carried out to minimise any adverse impact on them. The details of how the site will be managed are construction and contractual matters that can only be finalised once the post-consent detailed planning begins. For that reason, at this stage in the planning process, as explained in clause 5.5.6 of BS 5837, it is normally sufficient to list a heads of terms summary of the issues requiring more detailed consideration once consent is issued. On this site, those issues are likely to include:

1. Preparation of a written site management protocol for dealing with tree issues, to be incorporated into formal site management procedures, and to specifically include induction training for all operatives related to tree protection.
2. The order of work on site, including site clearance, the installation of protective measures, the phasing of successive work locations, the installation of new permeable surfacing, the removal of tree protection, and any necessary reinstatement.
3. Erection and maintenance of tree protection measures.
4. Who will be responsible for protecting the trees on site.
5. Detailed proposals for inspecting and supervising the tree protection.
6. How accidents and emergencies involving trees will be managed, including accidental damage to roots and their treatment.
7. Details of facilitation pruning and access into site. What size vehicles will be used under canopies and will large machinery be lifted over trees.
8. The parking arrangements for workers and visitors.
9. A schedule of emergency contact numbers relating to trees.
10. Areas for loading and unloading of materials and storage of materials and plant.
11. Where site facilities will be located and when will they be installed.
12. How machinery and equipment (such as excavators, cranes and their loads, concrete pumps and piling rigs) will enter, move on, work on, and leave the site.
13. Pollution control to specifically consider chemical storage and wheel washing facilities in relation to trees.
14. Recycling and storage of waste in relation to trees.
15. Details of earthworks, grading and mounding and removal of spoil, including any planned lowering or raising of ground levels.
16. Precise services locations, including the method of excavation when near trees.
17. Details of upgrading/removing/replacing existing surfacing and areas where this will happen, including detailed and precise cross-sections where no-dig surfacing is to be installed.

Appendix 1: Background administrative information and data collection

A1.1 Table 3: Background administrative information

	Background administrative information
Report date & reference	10th December 2024; 23047-AA3-PB
Tree protection plan reference	23047-6
Instructing client	Miller Homes Limited – Southern Region
Instructions	Visit the site, assess the relevant trees, prepare a schedule of their details, describe the impact of the proposal on those trees and identify the tree protection issues in an arboricultural method statement with a tree protection plan.
Provided documents	• Topographical survey, drawing reference '**MH.Campsfield.21_01**', received by email on 15th March 2024 • Drawing reference '**02.40(01)02 Rev E**', received by email on 10th December 2024 • Drawing reference '**02.40 (01) 00**', received by email on 28th November 2024
Report author and credentials	Phillip Brophy is a Chartered Forester (www.charteredforesters.org), and a Registered Consultant of the Arboricultural Association (www.trees.org.uk), and is fully qualified to undertake the assessments in this report (https://www.barrelltreecare.co.uk/who-we-are/)
Report limitations	• A formal check of publicly accessible information on 4th December 2024 confirmed that the site is not located within a designated conservation area and no tree preservation orders are extant at or immediately adjacent to the site. If any tree works are proposed before a planning consent is given, then a further contemporaneous check on this status should be made with the LPA. • This report does not constitute a tree hazard assessment. Where concerns for tree health and safety exist the necessary and appropriate tree inspections should be carried out. • This report does not consider ecological or archaeological issues, or any other matter beyond the assessment of the trees.
Technical references	In preparing the analysis in this report, we considered the guidance and advice in the following technical references: • Climate Change Act (2008) www.legislation.gov.uk/ukpga/2008/27/contents • Town and Country Planning Act 1990 www.legislation.gov.uk/ukpga/1990/8/contents • National Planning Policy Framework, published by the MHCLG www.gov.uk/government/publications/national-planning-policy-framework--2 • BS 5837 (2012) *Trees in relation to design, demolition and construction – Recommendations*, https://shop.bsigroup.com/ProductDetail • BS 8545 (2014) *Trees: from nursery to independence in the landscape – Recommendations*, https://shop.bsigroup.com/ProductDetail • BS 3998 (2010) *Tree work – Recommendations*, BSI https://shop.bsigroup.com/ProductDetail • *Trees in the Townscape: A Guide for Decision Makers*, published by the Trees & Design Action Group http://www.tdag.org.uk/ • *Trees in Hard Landscapes: A Guide for Delivery*, published by the Trees & Design Action Group www.tdag.org.uk/

Appendix 1: Background administrative information and data collection

	Background administrative information
	• National Joint Utilities Group (2007) Volume 4, Issue 2: *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees* http://streetworks.org.uk/resources/publications/
BS 5837 compliance	This report is BS 5837 compliant. *BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations* is 10 years old. Since its publication, there have been significant advancements in technology and thinking, informed by a decade of practical experience of putting principles into practice. In the document Foreword, it states: "*Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations*". This statement provides the opportunity for practitioners to claim compliance while moving best practice forward in the context of emerging technology, ideas, and experience. Although much of the BS 5837 content remains relevant and useful for managing trees in a planning context, there are now several aspects that are dated, and it is no longer appropriate to rigidly apply them to current planning submissions. Barrell Tree Consultancy (BTC) specialises in managing trees on development sites and retains a complete paper archive of every project it has carried out since starting business in 1980, with a digital data base listing those from 2004. In the decade since BS 5837 was published (April 2012), interrogation of the BTC archive confirms that we have been involved in a total of 3,884 projects, of which we estimate that about 3,845 were development related, and it is that depth of experience that informs the following statements on BS 5837 compliance. All BTC reports are prepared to be BS 5837 compliant and, although explanations are not explicitly required to claim compliance, the justifications for any deviations from its recommendations are set out below, referenced by the BS clause number: 1. **4.3 – soil assessment:** All BTC consultants have basic training relating to soil assessment and regularly deal with soil issues during their daily work, but none are soil specialists and BTC has no specialist investigation equipment for carrying out the type of soil assessment listed in this BS clause. In a modern development context, it is not for arboricultural consultants to demand or carry out professional soil investigations, and BTC does not do that. However, we will review soil information provided from appropriate specialists, if available, and incorporate that into our assessments. 2. **4.4.2.1 – tagging trees:** In some instances, it is not appropriate to tag trees, e.g., sensitive species, trees that are easily identified without a tag, inadequate access, project confidentiality, client instructions to the contrary, etc, and so although there will be a presumption to tag trees where feasible and appropriate, that may not be possible or necessary in every instance. 3. **4.4.2.5 *e*) – branch spread:** BTC only work from provided topographical surveys and where the branch spreads are shown correctly on those surveys, there is not normally any practical need to regurgitate that information in a schedule. Additionally, in closely spaced groups or in treacherous terrain, it is sometimes not safe or realistically possible to collect this data for every tree. For these reasons, BTC normally only

	Background administrative information
	collects crown spread data to the four cardinal points where the provided topographical survey is assessed as unreliable, or where a full canopy cover assessment is requested, and it is both safe and practically feasible to do so. 4. **4.4.2.5 *f*) – branch and canopy height:** In the absence of any definition of '*canopy*' or '*significant*' relating to branches in the *Terms and definitions* clause, and the lack of any practical guidance for reliably assessing these characteristics, BTC has adopted the following default position. We will only identify the height and orientation of branches where they have the potential to be damaged by vehicular access, i.e., below a height of 6 m, or where their removal would be beyond what the tree could tolerate during normal maintenance management, i.e., the branch removal would significantly adversely affect the health of the tree and potentially compromise its current safe useful life expectancy. 5. **4.4.2.5 *g*) – life stage:** BS 5387 offers examples, but no definitions of what those examples mean. In the absence of a specific BS 5837 recommendation, BTC has reviewed the concept of maturity in a planning context, taking maturity to be a simplistic indication of a tree's ability to cope with change and its potential for further growth. For the purposes of development site advice, BTC conceptualises useful life-stage descriptions as; **young** indicating a potential to significantly increase in size and a high ability to cope with change; **maturing** indicating some potential to increase in size and a medium ability to cope with change; and, **mature** indicating little potential to increase in size and low ability to cope with change. 6. **4.4.2.5 *i*) – estimated remaining contribution:** BTC accepts the category recommendations in Table 1 on the remaining contribution in the context of category, i.e., greater than 40 years for A trees, greater than 20 years for B trees, at least 10 years for C trees, and less than 10 years for U trees, and so this is also not listed separately in the schedule. 7. **4.5.4 – subcategories:** BTC adopts a presumption that all trees are subcategory 1 (Mainly arboricultural qualities) unless noted to the contrary, and so for conciseness and to avoid complication, the subcategory is not listed in the schedule unless it is 2 or 3. 8. **Table 2 and 4.4.2 – colour coding:** The colours included in this table take no account of the inability of some people to distinguish between red and green, which is not helpful to people suffering with this form of colour blindness. To address this discriminatory failing with the BS approach, BTC has adopted a more intuitively obvious regime of green and blue colours, which can be easily distinguished by colour-blind people, with the best category A and B trees (High and moderate quality) being green, and the lower category C and U trees (Low quality and unsuitable for retention) as blue. The differentiation between the two categories in each colour is provided by symbols rather than using different colours. This is clearly shown on the plan key, so there can be no doubt about what category a tree is, which is an intuitive approach to

	Background administrative information
	avoiding discrimination of colour-blind people. In any event, the tree category is now included next to each number, so there can be no question about the category and BS 5837 compliance. 9. **5.2.1 – RPAs:** This clause recommends that the RPAs for category A, B, and C trees are shown as the existing constraints on the plans used in the "*concept and design*", i.e., the tree constraints plan. However, the BS does not explicitly recommend that all those constraints are shown on the tree protection plan, which is logical because only category A (High quality), and category B (Moderate quality) trees can realistically be material constraints, with category C (Low quality) and category U (Unsuitable for retention) trees obviously unsuitable to be determinative of the final design. Although it is not a BS recommendation to include the RPAs of category C trees on the tree protection plan because they cannot be material constraints, it is sometimes helpful as an informative to be able to see them if category C are planned for retention to assess if that is feasible. For that reason, BTC tree protection plans show the RPAs of category C trees as a thin grey line rather than the thicker grey line denoting category A and B RPAs. 10. **5.2.2 Notes 1 and 2 – shading:** These notes offer general information on how shading can be assessed, which is presented in italics. The implications of the convention of using italics within the BS is set out in the Foreword as: "*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*" Our interpretation of that statement is that the application of Notes 1 and 2 is not part of the BS recommendations, and is not necessary for BS 5837 compliance. In our experience, the assessment of daylight issues is a specialist discipline and way beyond our expertise as arboriculturists, and so we would defer to an appropriate specialist, where any detailed guidance is required.

A1.2 Table 4: Data collection

	Data collection
Date of site visit	8th April 2024
People present during site visit	Phillip Brophy, accompanied by Clare Rutherford
Weather & visibility	Clear and dry with average visibility
Limitations to observations	• The inspection of the trees for the purposes of assessing their condition and work requirements was made on the basis that they will be annually inspected in the future to identify any changes in condition and review the original recommendations. For these reasons, the tree assessment advice only remains valid for one year from the date that the trees were last inspected. • All observations were of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level. • Observations of trees outside the site boundaries are confined to what was visible from within the site. • All dimensions were estimated unless otherwise indicated.

Appendix 1: Background administrative information and data collection

	Data collection
Statutory protection through Tree Preservation Orders and Conservation Areas	A formal check of publicly accessible information on 6th June 2024 confirmed that the site is not located within a designated conservation area and no tree preservation orders are extant at or immediately adjacent to the site. If any tree works are proposed before a planning consent is given, then a further contemporaneous check on this status should be made with the LPA.
Tree location and numbering	Each tree, hedge, woodland, and group, was inspected, and the numbering scheme is shown on the tree protection plan. Where trees pertinent to assessment were found on site that were not included on the provided land survey, then their approximate positions are illustrated as a brown dot on the tree protection plan.
Crown spreads	Crown radial spreads were estimated to the nearest metre and represent our assessment of the viable crown dimensions that would be retainable after normal management. For clarification, the viable crown spread is the size of the main body of the crown, and not necessarily the furthest extent of odd branches that extend out beyond this core of the crown.
Recording of tree data	For each identified tree, hedge, woodland, and group, the information collected was recorded on the tree schedule in Appendix 2 and the tree protection plan.
Calculation of RPAs	The RPAs were calculated as recommended in BS 5837, and the nominal RPA radius for each tree is listed in the tree schedule in Appendix 2. Where appropriate, RPAs for trees on the site were adjusted as recommended in BS 5837 and illustrated on the plan.

Appendix 2: Tree schedule and explanatory notes

NOTE: Colour annotation is A & B trees with green background; C & U trees with blue background; trees to be removed in red text.

Tree No	Species	Height (m)	Diameter (cm) @ 1.5 m	Maturity	Low Branches	Category	Notes	Tree Works	RPA Radius (m)
All retained trees & hedges								Carry out safety check and lift over site to 3-4 m as necessary.	
T-1	Oak	13	57.5	Maturing		B			6.9
G-2	Ash	7	12.5*	Young		U	Not shown on original topo, location approximate. Ash dieback, unsustainable	Fell	1.44
T-3	Ash	11	25*	Young		U	Not shown on original topo, location approximate. Dead		3
T-4	Oak	9	35	Maturing		U	Not shown on original topo, location approximate. Dead		4.2
AW-5	Oak	20	75*	Mature		A	Not shown on original topo, location approximate. Hawthorn, holly understorey		9
G-6	Poplar	14	25*	Young		C	Not shown on original topo, location approximate. Unsustainable plantation, 11 rows of 30 trees in each row	Fell	3
T-7	Oak	20	95	Mature		A			11.4
T-8	Ash	23	110*	Mature		B	Far side of ditch		13.2
T-9	Oak	15	57.5	Maturing		B			6.9
G-10	Field maple	7	30	Maturing		C	Not shown on original topo, location approximate. 5 trees		3.6
T-11	Ash	20	85	Mature		B			10.2
T-12	Ash	16	77.5*	Mature		C	Signs of declining vitality		9.3

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5 m	Maturity	Low Branches	Category	Notes	Tree Works	RPA Radius (m)
T-13	Ash	22	85	Mature		U	Signs of ash dieback and presence of Inonotus dryadeus on major structural branch to north		10.2
G-14	Hawthorn, blackthorn	4	10*	Maturing		C	Not shown on original topo, location approximate.		1.2
T-15	Oak	13	95	Mature		A			11.4
T-16	Ash	22	85	Mature		B			10.2
T-17	Oak	15	82.5	Mature		A			9.9
T-18	Ash	14	70	Mature		C	Signs of declining vitality	Fell	8.4
T-19	Oak	20	80	Mature		A			9.6
T-20	Oak	17	72.5	Mature		A			8.7
T-21	Ash	10	37.5	Young		C			4.5
T-22	Ash	6	30	Young	315-1 m	C			3.6
G-23	Poplar	12	22.5*	Young		C	Not shown on original topo, location approximate. Unsustainable plantation	Fell	2.64
T-24	Oak	17	95*	Mature		A			11.4
T-25	Oak	20	115	Mature		A			13.8
T-26	Oak	17	87.5	Mature		A			10.5
G-27	Hawthorn, blackthorn, ash	4	10*	Mature		C	Not shown on original topo, location approximate. Hedge line with sporadic low quality small ash trees		1.2
T-28	Oak	22	100*	Mature		A			12
T-29	Oak	14	50	Mature		C	Ivy clad		6
H-30	Hawthorn, blackthorn	3	20*	Mature		C	Not shown on original topo, location approximate. Some dead elm and declining ash		2.4

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5 m	Maturity	Low Branches	Category	Notes	Tree Works	RPA Radius (m)
T-31	Cherry	10	20*	Maturing		C			2.4
T-32	Cherry	10	20	Maturing		C			2.4
T-33	Cherry	10	20	Maturing		C			2.4
G-34	Blackthorn	6	20*	Maturing		C	Not shown on original topo, location approximate. Good screening		2.4
T-35	Oak	15	65*	Mature		A			7.8
G-36	Maple, ash, cherry	9	27.5*	Young		C	Not shown on original topo, location approximate. 3 maple, 3 ash, 2 cherry		3.24
T-37	Oak	18	92.5	Mature		A			11.1
T-38	Oak	18	87.5	Mature		A			10.5
T-39	Oak	17	100	Mature		A			12
G-40	Cherry, ash	9	20*	Young		C	Not shown on original topo, location approximate. 4 ash, 4 cherry		2.4
G-41	Ash, cherry, blackthorn	9	20*	Young		C	Not shown on original topo, location approximate.		2.4
G-41	Ash, cherry, blackthorn	9	20*	Young		C	Not shown on original topo, location approximate.	Partial fell	2.4
T-42	Oak	15	60	Maturing		B			7.2
T-43	Oak	16	77.5	Mature		A			9.3
T-44	Oak	16	125	Mature		A			15
T-45	Hawthorn	10	50	Mature		B			6
T-46	Ash	17	55	Mature		C	Large open cavity at base of stem SE		6.6
T-47	Ash	13	57.5	Mature		C			6.9

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5 m	Maturity	Low Branches	Category	Notes	Tree Works	RPA Radius (m)
G-48	Hawthorn	9	35*	Mature		C	Not shown on original topo, location approximate. 3 trees, one willow on topo, 2 hawthorn		4.2
G-49	Ash, hawthorn	16	30	Maturing		C			3.6
T-50	Oak	18	95	Mature		A	Hung up broken branch at 4 m		11.4
T-51	Oak	18	90	Mature		A			10.8
T-52	Oak	16	85*	Mature		A			10.2
T-53	Oak	16	95*	Mature		A			11.4
G-54	Ash, hawthorn, cherry	10	25*	Young		C	Not shown on original topo, location approximate.		3
T-55	Oak	16	50*	Maturing		B			6
T-56	Oak	16	55*	Maturing		B			6.6
G-57	Field maple, cherry, hawthorn	5	20*	Young		C	Not shown on original topo, location approximate.	Fell	2.4
T-58	Ash	15	62.5	Maturing		U	Dead		7.5
T-59	Oak	10	62.5	Maturing		C	Poor form		7.5
T-60	Oak	14	57.5	Maturing		B			6.9
T-61	Oak	15	57.5	Maturing		B			6.9
T-62	Oak	16	60*	Maturing		B			7.2
T-63	Oak	16	45	Maturing		B			5.4
T-64	Oak	18	50*	Maturing		B			6
W-65	Oak	16	40*	Mature		A	Not shown on original topo, location approximate.		4.8

Appendix 2: Tree schedule and explanatory notes

Explanatory Notes

- **Abbreviations:**
  - G: Group
  - H: Hedge
  - T: Tree
  - W: Woodland
  - AW: Ancient woodland or similar designation

- **Botanical tree names:**

Ash	: *Fraxinus excelsior*
Blackthorn	: *Prunus spinosa*
Cherry	: *Prunus* sp
Field maple	: *Acer campestre*
Hawthorn	: *Crataegus monogyna*
Maple	: *Acer* sp
Oak	: *Quercus robur*
Poplar	: *Populus* sp

- **BS 5837 (2012) compliance:** All data has been collected based on the recommendations set out in subsection 4.4 of BS 5837.
- **Tree checks and site limitations:** Each tree was subjected to a quick visual check level of inspection. Where there is restricted access to the base of a tree, its attributes are assessed from the nearest point of access. Climbing inspections are not carried out during this level of inspection and, if heavy ivy is present, tree condition is assessed from what can be seen from the ground. A separate note is recorded if further investigation may be required to clarify its status.
- **Crown spreads:** Crown radial spreads were estimated to the nearest metre and represent our assessment of the viable crown dimensions that would be retainable after normal management. For clarification, the viable crown spread is the size of the main body of the crown, and not necessarily the furthest extent of odd branches that extend out beyond this core of the crown.
- **Dimensions:** All dimensions are estimated unless otherwise indicated with an asterix (*) after the figure.
- **Species:** Species identification is based on visual observations. Where there is some doubt over tree identity, sp is noted after the genus name to indicate that the species cannot be reliably identified at the time of the survey. Where there is more than one species in a group, only the most frequent are noted and not all the species present may be listed.
- **Height:** Height is estimated to provide a broad indication of the size of the tree.
- **Trunk diameter:** Trunk diameter is estimated or measured (with a diameter tape), at the discretion of the consultant. Estimates may be made where access is restricted, direct measurement is prevented because of ivy on the trunk, or the tree is assessed as low quality. The point of measurement and the adjustments for stem variations are as advised in Figure C1 of BS 5837. Individual diameters for multiple stems are recorded in the notes, with the calculated cumulative diameter recorded in the diameter column.
- **Maturity:** In planning context, maturity provides a simplistic indication of a tree's ability to cope with change and its potential for further growth. For the purposes of this report, young indicates a potential to significantly increase in size and a high ability to cope with change, maturing indicates some potential to increase in size and a medium ability to cope with change, and mature indicates little potential to increase in size and limited ability to cope with change.
- **Low branches:** Any low branches that would not be feasible for removal during normal management and should be considered as a design constraint are noted here and explained in the notes.
- **Category:** Our assessment automatically considered tree physiological/structural condition (BS 5837, 4.4.2.5*h*), and so these are not listed separately in the schedule. Additionally, the category accounts for the remaining contribution (BS 5837, 4.4.2.5*i*) as greater than 40 years for A trees, greater than 20 years for B trees, at least 10 years for C trees and less than 10 years for U trees, so this is also not listed separately in the schedule. Category A, B and C trees are automatically listed as sub-category 1 unless otherwise stated.
- **Notes:** Only relevant features relating to physiological or structural condition and low branches that may help clarify the categorisation are recorded. If there are no notes, then the presumption should be that no relevant features were observed.

Appendix 2: Tree schedule and explanatory notes

- **Tree works:** The recommended tree works are based on the quick visual check level of inspection and only intended to address significant hazards identified during that inspection. The following points should also be considered before carrying out any works:
  1. **Reporting during work operations:** In the context of the preliminary nature of the tree inspection, any defects that may affect tree safety discovered by the contractor when carrying out the work recommendations should be reported to the supervising officer. Modification to the schedule of works may be required because of these reports. The contractor should be specifically instructed on this point.
  2. **Implementation of works:** All tree works should be carried out to BS 3998 *Recommendations for Tree Work* as modified by more recent research. It is advisable to select a contractor from the local authority list and preferably one approved by the Arboricultural Association. Their Register of Contractors is available free from The Malthouse, Stroud Green, Standish, Stonehouse, Gloucestershire GL10 3DL; phone 01242 522152; website www.trees.org.uk.
  3. **Statutory wildlife obligations:** The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All tree work operations are covered by these provisions and advice from an ecologist must be obtained before undertaking any works that might constitute an offence.
  4. **Stumps:** Stumps to be removed within the RPAs of retained trees should be ground out with a stump grinder to minimise any disturbance unless otherwise authorised by the supervising officer.
- **RPAs:** The RPAs were calculated as recommended in BS 5837, and the nominal RPA radius for each tree listed, irrespective of any modifying factors. Where appropriate, RPAs for trees on the site may have been adjusted as recommended in BS 5837 and illustrated on the plan.
- **Future tree safety inspections:** Due to the time that may elapse between the original survey and the start of development, all trees should be re-inspected as part of the standard risk management process before any works start on site. Our assessment of the trees was carried out on the basis that a re-inspection would be carried out within a year of the assessment visit and our advice on tree condition must be reviewed annually from the date of that visit.

Appendix 3: QR Codes for SGNs (Scan with reader to download)

SGN 1 *Monitoring tree protection*	SGN 2 *Fencing protected trees*	SGN 3 *Ground protection*
SGN 4 *Pollution control*	SGN 5 *Site cranes & piling rigs*	SGN 6 *Height restrictions*
SGN 7 *Excavating in RPAs*	SGN 8 *Removing surfacing and structures in RPAs*	SGN 9 *Installing/upgrading surfacing in RPAs*
SGN 10 *Installing structures in RPAs*	SGN 11 *Installing services in RPAs*	SGN 12 *Landscaping in RPAs*

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