Arboricultural impact appraisal and method statement

Land at the Old Vicarage Field and The Old Estate Yard, Church Road, Turners Hill, West Sussex RH10 4PA

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barrell TREE CONSULTANCY

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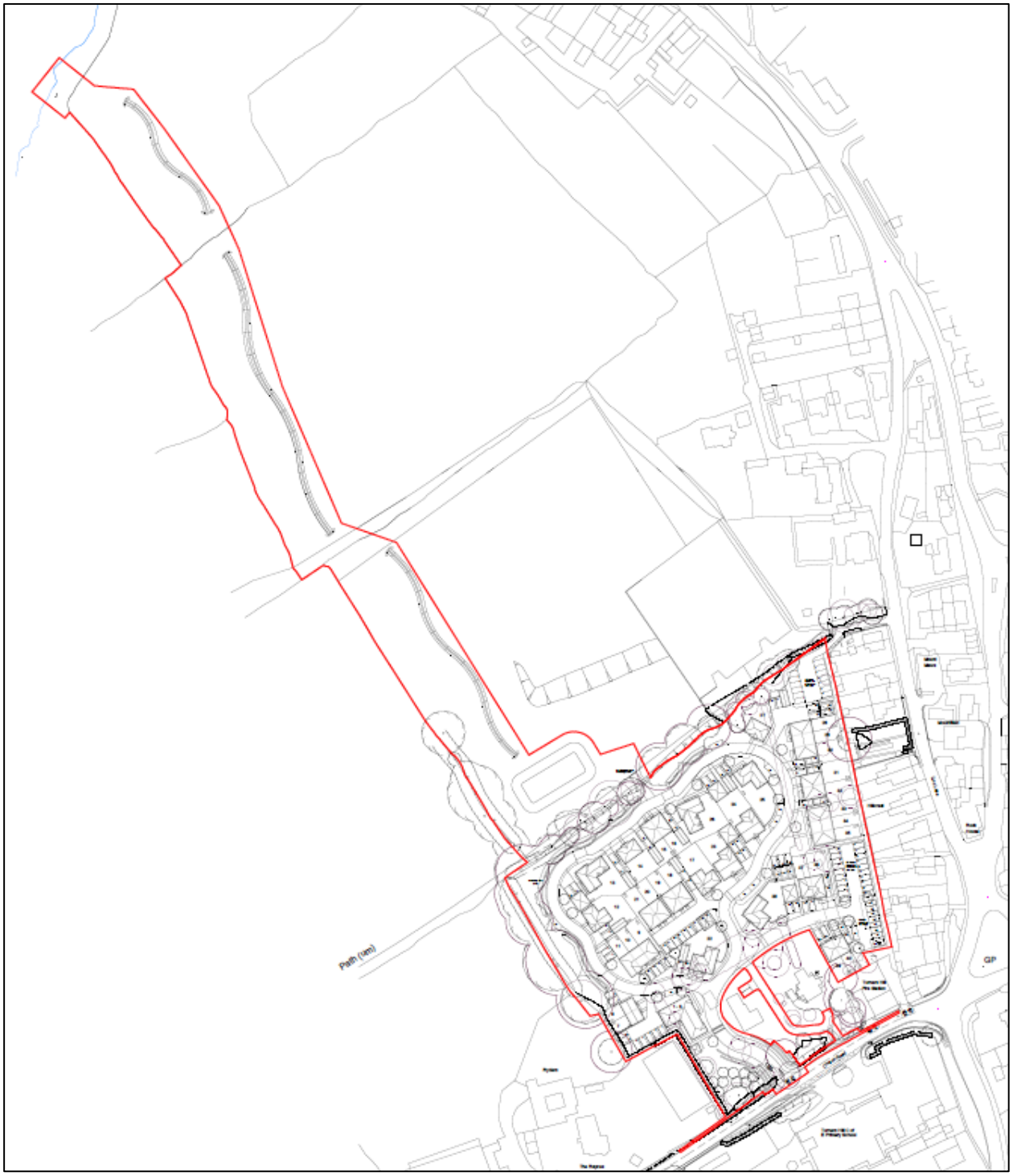
20229-AA4-PB

Site location and report purpose

Site location



The above image is provided courtesy of On Architecture Ltd. The red line indicates the approximate boundary of the planning submission and is purely for illustrative locational purposes only and should not be scaled or measured.

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 proposal at land at the Old Vicarage Field and The Old Estate Yard, Church Road, Turners Hill, West Sussex RH10 4PA is for the demolition of existing buildings and development of 40 dwellings (including affordable housing) with open space, access, parking, drainage, landscaping and other associated works as well as the creation of a new community car park and replacement parking for Lion Lane residents.

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 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 Site Guidance Notes (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	T9, T10, G19, T21	H8 part, T15, T16, T17, T18, T20, T22, G23, T28, H29, T30, T31, T32, T33, T34, G35, T36, H61, T62, T63, T64, T65, T66, T67, G69, G76, T77, G78
Prune	None	None	None
Protect using special precautions See Notes below	T42, T58	T41, T60, T107, T112	None
Post development pressure to fell	None	None	None

T = Tree; H = Hedge; G = Group

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

Note on category U trees: Tree T95 is in such poor condition that it has 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

Trees T20, T21, T22, and G23

These trees are located to the southern boundary of the site and are visually aligned to the character of the existing domestic property. Located at a higher ground level than that of the current roadway it is seen that these trees have little individual prominence and with the exception of tree T21 are of low quality due to their poor structural form and condition. The removal of these trees to enable the implementation of the new highway access will not result in a significant adverse impact on visual amenity.

Group G19

These trees are visually prominent due to their location being close to the southern roadside boundary of the site. They are ornamental features that align to the character of the existing domestic garden and are not reflective of the wider landscape context. It is not considered that the removal of these trees to enable the proposed highway access will result in a detrimental impact on visual amenity or landscape character.

Trees T15, T16, T17, and T18

These are relatively small ornamental trees with no visual prominence beyond the immediate locality. They are of low quality due to their small size and condition and their intended loss as part of the re-development proposal will not cause a negative impact on amenity or context.

Trees T9, T10, T28, T30, T31, T32, T33, T34, T36, group G35, hedge H29, and part of hedge H8

These trees are located well within the site and are predominately of low quality, with the two moderate quality trees within (trees T9 and T10), being reasonably held as marginal given their condition and structural form. They form a collective linear feature to the northern boundaries of existing private garden spaces and do have some visibility from the publicly accessible footpath to the north. However, it is reasonable to advance that their overall visual character is not aligned to the more desired context that is provided by the large and mature trees to the western and northern site boundaries. As such it is considered that the proposed removal of these trees will not have adverse visual impact beyond the very short term and will have no detrimental impact on landscape character.

Trees T62, T63, T64, T65, T66, T67, group G69, and hedge H61

These small trees and hedge are located well within the site and are relatively small in the context of being able to contribute to the character of the wider landscape context. It is reasonable to advance that their removal will not result in any negative impact on visual amenity.

Tree T77, and groups G76 and G78

These low-quality trees are of poor condition and structural form, there is limited scope for sustainable retention, and it is not considered that their removal will have an adverse impact on visual amenity or character. Their removal would present potential for new sustainable planting to be established along this specific area of the northern boundary and such planting would immediately offset any concerns regarding short term visual impact.

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

Our assessment of the impact of encroachment into RPAs that will be managed by special precautions, is as follows:

Trees T41, T42, T58, and T60

There will be minor encroachment into the RPAs of these trees in the form of new no-dig surfacing. We have carefully reviewed the levels in these areas, and it would be feasible to install custom designed no-dig specification surfacing (that of a section of footpath and five car parking spaces) without causing any significant disturbance to the RPAs. From my previous experience with the installation of such surfacing approaches (www.barrelltreecare.co.uk/case-studies/SurfacingNearTrees.pdf), I am confident that this can be implemented without an excessive risk of long term detrimental impact on tree health, with the final working details to be agreed as in response to an appropriately worded planning condition. This surfacing solution is within the advice set out in BS 5837 (8.6) and would be appropriate in this situation. The footpath elements within the RPA of tree T58 will be implemented as part of the site wide soft landscaping operations

and will remain within the defined CEZ. The element of surfacing adjacent to trees T41, T42 and T60 (car parking spaces), will be established at the initial stages of site works (during installation of site protection measures) to ensure that the RPAs of these trees are robustly protected. If works are not advanced at this stage, then the area will be either subject to ground protection measures or enclosed within the adjacent CEZ.

In summary, if the guidance set out in SGN 7 *Excavating in RPAs* and SGN 9 *Installing/upgrading surfacing in RPAs* is observed, then I believe that the proposed works can be implemented without any long-term detrimental impact on tree health, and therefore local character. All new surfacing must be installed prior to any construction access to prevent damage to the RPA from the construction activity.

Trees T58, T107, and T112

A new drainage connection is proposed within the RPAs of these trees. To avoid adverse impact on any existing roots careful hand dug excavations will establish a shallow channel within which a plastic 150 mm drainage pipe will be laid. This approach coupled with the natural ground levels (that gradually decrease to the north), will ensure that the works will not adversely impact on the rooting extents of these three trees. All works will be undertaken in accordance with the methodology outlined in SGN 11 *Installing services in RPAs* and will be subject to appropriate arboricultural supervision.

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. However, in our experience, these problems are extremely rare and there is very little evidence that such pressures ever result in any significant harm to the wider setting. Indeed, there is an increasing body of evidence that the benefits from trees close to occupied areas significantly outweigh any disadvantages caused by shade or anxiety. Furthermore, 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. To our knowledge, there is no published evidence to support that trees are being lost to the detriment of local character for these reasons.

In summary, we have considered the matters of overbearing relationships and daylight, and concluded that there are no trees close enough to the new buildings and their associated amenity space that are likely to interfere with their normal use.

1.6 New tree planting to enhance local character

To supplement retained trees and enhance local character, the project landscape architect has specified a comprehensive new tree planting scheme that has been included as part of the wider planning submission. All new trees included within the scheme 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 Arboricultural impact assessment

1.7 Upgrading of existing services or installation of new services

Retained trees may be adversely affected by the installation of new services 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*. Specific to this site there is a proposal to establish a new drainage link to the north of the site. This link will consist of a 0.5 m depth ditch with 1.2 m banked sides located outside of the RPAs of existing trees. Where the connection needs to be made across the RPAs of retained trees then this will be made via a 150 mm plastic pipe that will be established via hand dug excavation to ensure that any encountered tree roots can be retained. Additionally, three shallow swales will be established to the western and northern edges of the main service road and all works associated with their formation progressed in accordance with SGN 7 and 12 to mitigate any impact within the minor encroachment into radially expressed RPAs.

1.8 Summary of impact on local character

The proposed scheme will ensure that the significant and sustainable elements of the current boundary cover that contribute to landscape character are retained. The skyline appearance of the site from existing surrounding vantages (specifically those pertaining to the designated conservation area), will remain unchanged in context or form. The trees that have been identified for removal are predominately of low quality due to poor condition, small size or unsustainable condition or are located well within the site. The small number of moderate quality trees that are identified for removal are not considered to be critical to the landscape character of this part of Turners Hill and their loss will not have a detrimental impact on visual amenity or context. There is space for new structural tree planting and a landscaping scheme could be delivered in response to an appropriately worded planning condition. The construction activity has the potential to adversely affect retained trees if proper 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 trees to local character.

For these reasons, it is reasonable to advance that the proposed development would not cause an unacceptable or adverse impact on the 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. The barrier locations are shown by the heavy black dashed lines, with the construction exclusion zone behind as the lighter black diagonal hatch, these are to be confirmed at the precommencement meeting. The four precautionary areas pertinent to trees T41, T42, T58 and T60 are shown by a solid yellow 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 felling: Contractor will carry out agreed works as described in Appendix 2. Will be completed before any significant site works begin.	**Fell:** H8 part, T9, T10, T15, T16, T17, T18, G19, T20, T21, T22, G23, T28, H29, T30, T31, T32, T33, T34, G35, T36, H61, T62, T63, T64, T65, T66, T67, G69, G76, T77, G78, T95	Appendix 2
Installing barriers: Agreed tree protection measures will be installed and checked, as described in SGN 2. Will be completed before any significant site works begin.	Barriers for all retained trees	Tree protection plan, SGN 2 *Fencing protected trees*
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*
Regular arboricultural supervision: Provision will be made to carry out and record agreed arboricultural supervision, as described in SGN 1.	All retained trees	SGN 1 *Monitoring tree protection*
Excavating in RPAs: These operations will be carried out as described in SGN 7.	T41, T42, T58, T60, T107, T112	SGN 7 *Excavating in RPAs*
Installing/upgrading surfacing in RPAs: These operations will be carried out as described in the SGN 9.	T42, T58, T68	SGN 9 *Installing/upgrading surfacing 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 demolition, site clearance, the installation of protective measures, the phasing of successive work locations, the installation of new permeable surfacing, soft landscaping operations, the removal of tree protection measures, 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 any unforeseen 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 proposed permeable surfacing measures to include precise cross-sections where appropriate.
18. Details of soft landscaping works, to include provision for tree planting, aftercare and maintenance.

Appendix 1: Background administrative information and data collection

A1.1 Table 3: Background administrative information

	Background administrative information
Report date & reference	22nd May 2025; 20229-AA4-PB
Tree protection plan reference	20229-6
Instructing client	Elivia Homes (Eastern) Limited
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 '**29083**', received by email on 2nd November 2020 • Topographic survey, drawing reference '**8833-Old Vicarage Field_TURNERS HILL.dwg**', received by email on 30th September 2022 • Drawing reference '**20.173 – Site Location Plan**', received by email on 21st May 2025 • Drawing reference '**AC20188-ABS-XX-XX-M2-C-5100-P06.dwg**', received by email on 25th April 2025
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	• If any tree works are proposed before a planning consent is given, then the formal notification to LPA must be made due to the presence of a designated conservation area. • 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* www.njug.org.uk/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 possible 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 only collects

	Background administrative information
	crown spread data to the four cardinal points where the provided topographical survey is assessed as unreliable, and it is both safe and practically necessary 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 from 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

	Background administrative information
	no doubt about what category a tree is, which is an intuitive approach to avoiding discrimination of colour-blind people. 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	19th November 2020, 9th August 2022, 19th October 2022, 23rd April 2025
People present during site visit	Phillip Brophy
Weather & visibility	Clear and dry, with average visibility across all visits.
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	Our assessment of the trees has been made independently of the statutory protection that is known to apply. However, if any tree works are proposed before a planning consent is given, then the formal notification to LPA must be made due to the presence of a designated conservation area.
Tree location and numbering	Each tree, hedge and group, was inspected, and the numbering scheme is shown on the tree protection plan.
Crown spreads	From checking a sample of the crown spreads on the land survey, we believe that the spreads annotated represent a reasonable interpretation of the viable canopy spreads on site.
Recording of tree data	For each identified tree, hedge 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 trees with blue background; trees to be removed in red text.

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
All retained trees & hedges								Carry out safety check and lift over site to 3-4m as necessary.		
G1	Beech	8	20	Maturing	-	C	Small self-sown trees	-	2.4	18
T2	Beech	15	50	Maturing	-	C	Poor structural form	-	6.0	113
G3	Beech	15	50	Maturing	-	C	Screen factor to edge of driveway, past reduction at 2 m above ground	-	6.0	113
T4	Yew	7	50	Maturing	-	B	Located on adjacent land, established tree	-	6.0	113
T5	Holly	7	25	Maturing	-	C	-	-	3.0	28
T6	Beech	14	50	Mature	-	B	-	-	6.0	113
G7	Holly	9	55	Mature	-	B	Large mass of holly on boundary, provides screen	-	6.6	137
H8	Beech	2	15	Maturing	-	C	Formally managed	Fell indicated section	1.8	10
T9	Birch	16	40	Mature	-	B	-	Fell	4.8	72
T10	Eucalyptus	15	75	Mature	-	B	-	Fell	9.0	254
T11	Birch	15	27.5	Mature	-	B	-	-	3.3	34
T12	Cherry	9	25	Maturing	-	C	Replaceable ornamental	-	3.0	28
T13	Holly	9	30	Mature	-	C	Some prominence within the street scene	-	3.6	41
T14	Holly	7	25	Mature	-	C	-	-	3.0	28
T15	Hawthorn	7	15	Maturing	-	C	-	Fell	1.8	10
T16	Hazel	8	45	Mature	-	C	Multi stemmed at base	Fell	5.4	92

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
T17	Apple	5	45	Mature	-	C	Twin stemmed at approx 0.5 m above ground level	Fell	5.4	92
T18	Rhododendron	6	27.5	Mature	-	C	-	Fell	3.3	34
G19	Cypress	13	50	Mature	-	B	Prominent due to size and proximity to boundary	Fell	6.0	113
T20	Cypress	10	40	Mature	-	C	Multi stemmed nature	Fell	4.8	72
T21	Sweet chestnut	10	50	Maturing	-	B	Ivy clad	Fell	6.0	113
T22	Pine	13	27.5	Maturing	-	C	Suppressed, ivy clad	Fell	3.3	34
G23	Western red cedar, cypress	12	45	Maturing	-	C	Screen value	Fell	5.4	92
T24	Sweet chestnut	10	50	Maturing	-	C	Sucker growth from ground level	-	6.0	113
T25	Sweet chestnut	9	30	Maturing	-	C	-	-	3.6	41
H26	Laurel	2	20	Mature	-	C	-	-	2.4	18
T27	Apple	6	40	Mature	-	C	Small ornamental within domestic garden	-	4.8	72
T28	Norway maple	8	22.5	Maturing	-	C	-	Fell	2.7	23
H29	Holly	1	20	Mature	-	C	Ivy clad and located within holly hedge, no access to base	Fell	2.4	18
T30	Beech	11	40	Maturing	-	C	Poor form	Fell	4.8	72
T31	Cypress	13	40	Maturing	-	C	Suppressed by T32	Fell	4.8	72
T32	Sweet chestnut	9	60	Maturing	-	C	Poor quality tree	Fell	7.2	163
T33	Norway maple	9	32.5	Maturing	-	C	Self-sown maple trees within screen	Fell	3.9	48
T34	Norway maple	8	25	Young	-	C	Suppressed nature	Fell	3.0	28
G35	Cypress	16	50	Maturing	-	C	-	Fell	6.0	113
T36	Larch	14	30	Maturing	-	C	-	Fell	3.6	41
T37	Holly	6	20	Mature	-	C	-	-	2.4	18
T38	Holly	5	10	Maturing	-	C	-	-	1.2	5

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
T39	Cypress	8	30	Maturing	-	C	-	-	3.6	41
T40	Cypress	6	25	Maturing	-	C	Ivy clad	-	3.0	28
T41	Spruce	22	80	Mature	-	B	Located on adjacent land, skyline tree	-	9.6	290
T42	Oak	21	110	Mature	-	A	-	-	13.2	547
T43	Oak	15	80	Mature	-	C	Suppressed by T42, located on adjacent land	-	9.6	290
G44	Holly	9	30	Mature	-	B	Multi stemmed, ivy clad	-	3.6	41
T45	Oak	22	115	Mature	-	A	-	-	13.8	598
T46	Oak	22	105	Mature	-	A	-	-	12.6	499
T47	Oak	18	90	Mature	-	A	-	-	10.8	366
T48	Oak	18	85	Mature	-	A	Combined canopy form	-	10.2	327
T49	Oak	20	85	Mature	-	A	Combined canopy form	-	10.2	327
T50	Oak	20	97.5	Mature	-	B	Signs of vitality decline	-	11.7	430
G51	Holly	13	45	Mature	-	B	Screen value	-	5.4	92
T52	Beech	16	55	Mature	-	C	Poor structural form	-	6.6	137
G53	Holly	8	30	Maturing	-	B	Multi stemmed	-	3.6	41
T54	Cherry	16	60	Mature	-	B	Areas of past canker evident	-	7.2	163
T55	Beech	18	87.5	Mature	-	C	Merilipus sp and Ganoderma noted at base	-	10.5	346
T56	Holly	9	45	Mature	-	B	Part of screen, multi stemmed at base	-	5.4	92
T57	Beech	10	40	Maturing	-	C	Squat form, damage within canopy	-	4.8	72
T58	Oak	20	90	Mature	-	A	-	-	10.8	366
T59	Beech	17	80	Mature	-	B	Historic wounding noted, decay throughout canopy, deadwood within upper canopy	-	9.6	290

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
T60	Beech	15	85	Mature	-	B	Fused twin stem at approximately 0.5 m-1.5 m, minor old wounds within canopy	-	10.2	327
H61	Lonicera	1.5	10	Mature	-	C	-	Fell	1.2	5
T62	Birch	9	40	Maturing	-	C	Multi stemmed	Fell	4.8	72
T63	Ash	9	50	Maturing	-	C	Poor form	Fell	6.0	113
T64	Apple	7	47.5	Over-mature	-	C	Twin stemmed at 1 m	Fell	5.7	102
T65	Apple	6	35	Over-mature	-	C	Twin stemmed at base, old wounds and areas of decay	Fell	4.2	55
T66	Apple	8	45	Over-mature	-	C	Areas of past pruning and decay	Fell	5.4	92
T67	Holly	7	25	Maturing	-	C	-	Fell	3.0	28
T68	Yew	12	85	Mature	-	B	Twin stemmed, no access as within adjacent private garden	-	10.2	327
G69	Holly, ash	6	20	Young	-	C	-	Fell	2.4	18
H70	Holly	4	15	Mature	-	C	Formally managed	-	1.8	10
T71	Hawthorn	8	35	Mature	-	C	Ivy clad	-	4.2	55
T72	Yew	8	40	Young	-	C	Prominent tree at rear of public house garden	-	4.8	72
G73	Hazel	8	35	Mature	-	C	Multi stemmed	-	4.2	55
T74	Ash	9	55	Over-mature	-	C	Poor structural form, ivy clad	-	6.6	137
G75	Holly, hawthorn, yew	6	40	Mature	-	C	Ivy clad	-	4.8	72
G76	Ash	12	27.5	Maturing	-	C	Past canker and poor form	Fell	3.3	34
T77	Ash	10	40	Maturing	-	C	Unlikely to be sustainable due to species, ivy clad	Fell	4.8	72

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
G78	Holly, ash, hazel	12	30	Maturing	-	C	Poor individual form and limited sustainability	Fell	3.6	41
T79	Beech	11	40	Maturing	-	C	Multi stemmed located at edge of slope	-	4.8	72
G80	Beech	9	20	Young	-	C	Poor unsustainable location	-	2.4	18
T81	Lime	17	57*	Maturing	-	B	-	-	6.8	147
G82	Lime	17	45	Maturing	-	B	Combined canopy form, some holly as under storey	-	5.4	92
T83	Oak	15	62*	Over mature	-	C	Marginal category C tree with asymmetric form. Significant dieback and decline within western area of canopy.	-	7.4	174
T84	Oak	20	45	Maturing	-	B	Slight suppression to northern canopy extents	-	5.4	92
T85	Oak	25	105*	Mature	-	A	-	-	12.6	499
T86	Oak	22	88	Mature	-	A	-	-	10.6	350
T87	Oak	16	77	Maturing	-	B	-	-	9.2	268
T88	Oak	17	77	Mature	-	B	-	-	9.2	268
T89	Oak	16	55	Maturing	-	B	Asymmetric canopy due to proximity to larger tree (T86). Deadwood noted within canopy.	-	6.6	137
T90	Oak	17	70	Mature	-	B	-	-	8.4	222
T91	Birch	15	40	Maturing	-	C	-	-	4.8	72
T92	Oak	17	70*	Maturing	-	B	-	-	8.4	222
T93	Oak	17	70*	Maturing	-	B	-	-	8.4	222
T94	Oak	20	100	Mature	-	A	-	-	12.0	452

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
T95	Ash	18	90	Over mature	-	U	Advanced ash dieback, moribund condition with significant limb failure	Fell for management	10.8	366
T96	Oak	15	40	Maturing	-	C	Asymmetric canopy form due to adjacent large trees to the west	-	4.8	72
T97	Oak	19	75	Mature	-	C	-	-	9.0	254
T98	Oak	18	115	Mature	-	A	-	-	13.8	598
G99	Hazel, blackthorn	6	30	Maturing	-	C	Agricultural field boundary context	-	3.6	41
T100	Oak	14	75	Maturing	-	B	-	-	9.0	254
T101	Oak	23	120	Mature	-	A	-	-	14.4	651
T102	Ash	13	47	Maturing	-	U	Advanced ash dieback	-	5.6	99
T103	Ash	11	25	Maturing	-	C	-	-	3	28
G104	Ash	15	50	Maturing	-	C	Low quality trees with signs of ash dieback throughout	-	6	113
T105	Hawthorn	7	35	Mature	-	C	-	-	4.2	55
T106	Ash	22	77	Maturing	-	B	Marginal category B due to ash dieback vulnerability	-	9.2	268
T107	Oak	15	100	Over mature	-	B	Laetiporus sp at base, gradual decline noted throughout canopy	-	12	452
T108	Ash	19	55	Maturing	-	C	-	-	6.6	136
T109	Ash	19	53	Mature	-	C	-	-	6.4	127
T110	Ash	22	75	Over mature	-	U	Areas of decline and past structural failure, woodland context but has limited levels of sustainability	-	9	254

Appendix 2: Tree schedule and explanatory notes

Tree No	Species	Height (m)	Diameter (cm) @ 1.5m	Maturity	Low Branches	Category	Notes	Tree Works	RPA radius (m)	RPA area (m2)
T111	Ash	22	80	Over mature	-	C	Signs of ash dieback throughout canopy extents	-	9.6	289
T112	Lime	22	80	Mature	-	B	-	-	9.6	289
T113	Ash	24	60	Over mature	-	C	Ash dieback noted throughout canopy	-	7.2	162
T114	Alder	20	27	Maturing	-	C	-	-	3.2	32
T115	Ash	24	90	Mature	-	C	Signs of ash dieback throughout canopy	-	10.8	366

Appendix 2: Tree schedule and explanatory notes

Explanatory Notes

- **Abbreviations:**
  - G: Group
  - H: Hedge
  - T: Tree

- **Botanical tree names:**

Alder	: *Alnus glutinosa*
Apple	: *Malus* sp
Ash	: *Fraxinus excelsior*
Beech	: *Fagus sylvatica*
Birch	: *Betula pendula*
Cherry	: *Prunus* sp
Cypress	: *Cupressus* sp
Eucalyptus	: *Eucalyptus* sp
Hawthorn	: *Crataegus monogyna*
Hazel	: *Corylus avellana*
Holly	: *Ilex aquifolium*
Larch	: *Larix* sp
Lime	: *Tilia* sp
Lonicera	: *Lonicera periclymenum*
Laurel	: *Prunus laurocerasus*
Norway maple	: *Acer platanoides*
Oak	: *Quercus robur*
Pine	: *Pinus* sp
Rhododendron	: *Rhododendron* sp
Spruce	: *Picea* sp
Sweet chestnut	: *Castanea sativa*
Western red cedar	: *Thuja plicata*
Yew	: *Taxus baccata*

- **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:** The default is to use the crown spread dimensions shown on the land survey, unless there are obvious anomalies. If spreads are found to be unreliable, they are estimated to the four compass points, listed in the schedule, and shown on our plan. All crown spreads are estimated to the viable branch extent, i.e., the spread that would be sustainable if the tree was under a normal garden management pruning regime. The final choice of the most appropriate way to record crown spread is at the discretion of the consultant.
- **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.

Appendix 2: Tree schedule and explanatory notes

- **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.
- **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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