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Arboricultural Impact Appraisal and Method Statement

6 Sumatra Road, Camden, London NW6 1PU

Prepared by
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23/04/15
15102-AIA-JB.docx

Validation statement

This report contains the supporting tree information relating to the development proposal to extend the existing building at 6 Sumatra Road, Camden, London NW6 1PU.

For Local Planning Authority (LPA) validation purposes, this report contains the following:

- A full tree survey compliant to the requirements of ***BS5837: (2012 Trees in relation to design, demolition and construction – Recommendations*** undertaken by a qualified arboriculturist
- A plan with a north point showing tree survey information, including BS 5837 categories and hedge to be removed
- An assessment of the arboricultural implications of development, detailing trees to be retained and the proposed protection measures (Section 1)
- An arboricultural method statement describing a feasible means of tree protection, its implementation and the phasing of works (Section 2)

Summary

Purpose of this report

This is an arboricultural impact appraisal report describing the trees on and near the development area, what the impact of the development proposal on those trees will be and how any adverse impact will be mitigated. It also includes an arboricultural method statement describing how trees will be protected and managed during the development. Its purpose is to provide sufficient tree information for the LPA to assess the impact of the proposal on local character as part of the process of determining the planning application.

Report contents

It includes:

- a **tree protection plan** showing the location of the trees, their categorisation, the location of the new development, the hedge to be lost and the tree protection measures;
- an **arboricultural impact appraisal** in Section 1, which describes the impact of the development on trees;
- an **arboricultural method statement** in Section 2, which describes the tree protection measures, and how they will be implemented; and
- a series of **appendices** in Section 3 providing relevant background information.

Background administrative information

Background information on our specific instructions and how we carried them out is included as Appendix 1. All the trees that could be affected were inspected and their details are listed in Appendix 2. Based on this information, guidance was provided to Francis Hur Architecture Ltd on the constraints these trees impose on the use of the site. This submission proposal is a result of these consultations and has evolved taking full account of the tree constraints.

Summary of the impact on trees and local character

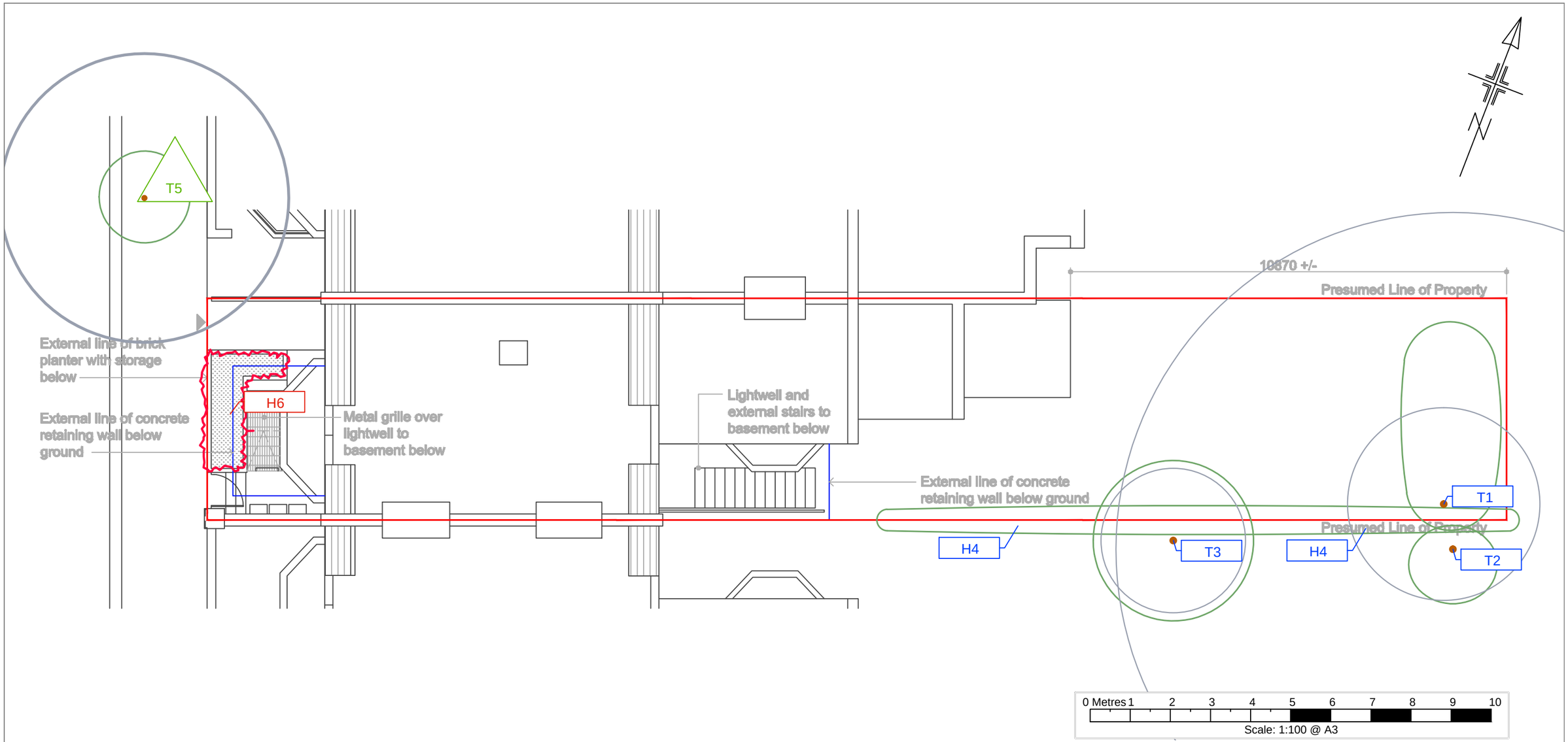
Only one hedge at the front of the property (hedge 6) needs to be removed because of this proposal. It is category C and not important in the overall planning context. Its loss will have no significant impact on the contribution of trees to local character and amenity.

Jeremy Barrell **BSc FArborA DipArb CBiol FICFor FRICS**

Explanatory notes for the tree protection plan

The tree protection plan (15102-BT1) is based on the provided information. It should only be used for dealing with the tree issues and all scaled measurements must be checked against the original submission documents. Its base is the provided existing building footprint and the proposed extensions beyond that. It shows:

- the existing trees numbered, with high categories (A & B) highlighted in green triangles and low categories (C & U) highlighted in blue rectangles;
- the root protection areas (RPAs) shown as grey circles around the trees to be retained; and
- the hedge to be removed with a red outline.



Tree protection plan

Location of trees, categorisation and protection/management proposals at 6 Sumatra Road, Camden, London

This drawing to be reproduced in colour only.

Barrell Plan Ref: 15102-BT1

Provided Plan Refs: 150423 arboricultural site plan.pdf

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TX	BS category B	Tree of moderate quality
TX	BS category C	Trees of low quality
TX	Hedge to be removed	
	Estimated tree positions not included on original land survey and/or adjusted crown spreads	
	Root protection area (RPA) boundary for category B tree	
	Root protection area (RPA) boundaries for category C trees	

Tree schedule

Tree No	Species	Category	RPA Radius	Tree Works
T1	Elder	C	2.4	-
T2	ash	C	8.4	-
T3	Fruit	C	1.8	-
H4	Mixed shrubs	C	1.8	-
T5	Norway maple	B	3.6	-
H6	Privet	C	1.8	Fell for development

Section 1
Arboricultural impact appraisal

This arboricultural impact appraisal describes our assessment of how the proposal will affect trees and any impact this will have on local amenity and character.

Section 1: Arboricultural impact appraisal

1.1 TREE PROTECTION DURING DEVELOPMENT

The tree protection plan BT1 shows all the RPA radii of trees to be retained as grey circles around each trunk location. All of the proposed excavation beyond the existing building footprint shown by the blue lines on this plan is well outside any of the sensitive RPA locations. Furthermore, both the front and rear garden areas where the RPAs are located are currently covered with hard surfacing as street paving in the front and as paved patio surfacing at the rear. It is proposed to retain this during the development activity, which will act as ground protection and prevent any damage to the RPAs. For this reason, there is no need for any protective fencing or additional ground protection, although a simple arboricultural method statement is required to advise that these protective surfaces should remain intact. This arboricultural method statement is included in Section 2 of this report. Its implementation will allow all the retained trees to survive without any adverse impact and allow them to continue to contribute to local amenity and character in the same way as they have done in the past.

1.2 SUMMARY OF THE IMPACT ON TREES

Only one hedge at the front of the property (hedge 6) needs to be removed because of this proposal. It is category C and not sufficiently important to be worthy of influencing any layout (see image 1 in paragraph 7 of Appendix 1). It is not important in the overall planning context and its loss should not influence the determination of this application.

Section 2
Arboricultural method statement

This is an arboricultural method statement describing how trees will be protected and managed during the development of the site. As explained in Table B1 of BS 5837, it is based on the best available information at this stage in the planning process and may need to be updated in the context of a specific planning condition when the full detail is known. Its purpose is to explain how and when the protection measures should be installed, and how they will be maintained for the duration of the development activity.

The following explanations relate specifically to this site and they should be read in conjunction with the attached plan. Please note that this plan is not a 'dimensioned tree protection plan' at this stage because BS 5837 advises in Table B1 that this is not required at the planning application stage.

A copy of this report must be permanently available on site for the duration of the development activity as a reference for practical guidance on how to protect the retained trees.

Section 2: Arboricultural method statement

2.1 ARBORICULTURAL SUPERVISION

2.1.1 General principles

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

1. the pre-commencement meeting before any work starts; and
2. as needed to oversee any specific works that could affect trees.

2.1.2 Detailed proposals

More specifically, the form and purpose of the supervision will be as follows:

- **Pre-commencement meeting:** A pre-commencement meeting will be held on site before any of the site clearance and construction work begins. This would normally be attended by the site manager, the arboricultural consultant and a LPA representative. In the event that a LPA representative declines to be present, the arboricultural consultant will inform the LPA in writing of the details of the meeting. As all the sensitive RPAs are already protected with existing hard surfacing, there is no need for any further fencing or ground protection, and so this discussion will focus on ensuring what exists will be retained during the development activity.
- **General site management:** It is the developer's responsibility to ensure that the details of this arboricultural method statement and any agreed amendments are known and understood by all site personnel. Copies of the agreed documents will be available on site and the site manager will brief all personnel who could have an impact on trees on the specific tree protection requirements. This will be a part of the site induction procedures and written into appropriate site management documents.
- **Ongoing supervision of operations that could affect trees:** Once the site is active, there should be no need for arboricultural supervision unless there is an unforeseen need to disturb the surfacing over the RPAs. If this need arises, the arboricultural consultant will on call to visit and advise as necessary.

2.2 PROGRAMME AND PHASING OF TREE MANAGEMENT

It is anticipated that arboricultural input is only likely to be needed for the pre-commencement meeting. This is where the removal of hedge 6 at the front and the need to retain the existing hard surfacing as ground protection will be explained.

Any risk to trees from activities outside RPAs, but close enough to have a knock-on impact, will be assessed during the day-to-day running of the site and appropriate precautions put in place to reduce that risk. More specifically, all cement mixing and washing points for equipment will be outside RPAs. Where the contours of the site create a risk of polluted water or toxic liquids running into RPAs, a precautionary measure of using heavy-duty plastic sheeting and sandbags with the ability to contain accidental spillages will be put in place to prevent contamination.

Section 3

Appendices

Appendix 1: Administrative information, site visit and data collection

Administrative information

1. Instruction

We are instructed by Mr N Carter to inspect the significant trees that could be affected by the development proposal at 6 Sumatra Road, Camden, London, and to prepare the following information to accompany the planning submission:

- a schedule of the relevant trees to include basic data and a condition assessment
- an appraisal of the impact of the proposal on trees and any resulting impact that has on local amenity
- an arboricultural method statement dealing with the protection and management of the trees to be retained

2. Documents provided

The tree protection plan is derived from a pdf, drawing number 150423, received by email on 23rd April 2015, showing the extent of new excavation beyond the existing building footprint relating to the proposed development. The bulk of the changes are within the footprint of the existing building, but there is a small area towards the street on the front elevation and another to the southern side of the rear elevation, which extend beyond the building footprint. These are shown with a light blue line on the drawing.

3. Limitations of this report

The following limitations apply to this report:

- **Statutory protection:** The existence of tree preservation order or conservation area protection does not automatically mean trees are worthy of being a material constraint in a planning context. Trees can be formally protected, but be in poor structural condition or in declining health, which means that they are unsuitable for retention or influencing the future use of the site. Furthermore, a planning consent automatically takes precedent over these forms of protection, which makes them of secondary importance. For these reasons, we do not check statutory protection as a matter of course in the process of preparing this report. However, if any tree works are proposed before a planning consent is given, then the existence of any statutory protection must be checked with the LPA.

- **Ecology and archaeology:** Although trees can be valuable ecological habitat and can grow in archeologically sensitive locations, we have no specialist expertise in these disciplines and this report does not consider those aspects.

- **Tree assessment and management advice:** Our inspection of the trees for the purposes of assessing their condition and work requirements is 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.

4. Technical references

This arboricultural method statement is based on the following primary technical references:

Appendix 1: Administrative information, site visit and data collection

- British Standards Institution (2012) BS 5837: *Trees in relation to design, demolition and construction – Recommendations*
- National Joint Utilities Group (2007) Volume 4, Issue 2: *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*

5. Qualifications and experience

This report is based on my site observations and the provided information, interpreted in the context of my experience. I have experience and qualifications in arboriculture that can be reviewed at www.barrelltreecare.co.uk/career-summaries/Jeremy%20CS.pdf.

Site visit and data collection

6. Site visit

I visited the site on 10th April 2015. All my observations were from ground level without detailed investigations and I estimated all dimensions unless otherwise indicated. The weather at the time of inspection was clear, still and dry, with good visibility. During my visit, I took photographs to illustrate specific points in this report.

7. Brief site description

Sumatra Road is a north/south oriented residential street in Camden about 5km north of central London. Number 6 is on the eastern side of the road and surrounded by similar residential development. The property consists of a 3 storey Victorian terraced house with a very small front garden area (image 1) and a larger, but narrow rear garden (image 2). There is a street tree outside the neighbouring property at the front and several trees along the southern rear garden boundary, all outside the site except tree 1 at the far end.

Image 1: Number 6 is the right-hand property with the hedge and the street tree is outside the adjacent property to the north. The hedge will be removed as part of the proposal.

Image 2: The rear garden is mostly covered with paved hard surfacing with hedges and small trees along the southern boundary. All these trees are distant from the development activity and will be retained.

8. Collection of basic data and compliance with BS 5837

Each tree was inspected and the numbering scheme is indicated on the tree protection plan. Obvious hedges were identified where appropriate. For each individual tree and hedge, information was collected on species, height, diameter, maturity and potential for contribution to amenity in a development context. As advocated in BS 5837, each tree was then allocated to one

of four categories (A, B, C or U), which reflected its suitability as a material constraint on development. Each category A, B and C tree was automatically assigned BS sub-category 1 unless otherwise stated. When collecting this information, specific consideration was given to any low branches that may influence future use, age class, physiological condition, structural condition and remaining contribution. Where appropriate, crown spreads were also noted where they differed from those shown on the provided land survey. This data with explanatory notes is set out in the tree schedule included as Appendix 2 and the supporting plan information. Each tree inspection was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level. BS 5837 (4.4.2) sets out recommendations for the collection of data and this report is fully compliant with that advice in the context of the BS 5837 Foreword, which 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.*" In that context, we will justify any deviation in this report from the strict BS 5837 recommendations on request.

9. Calculation of RPAs

Following the recommendations in Table D1 of BS 5837, the diameter of each tree was rounded up to the next 2.5cm increment, with the radius of a nominal circle and the resultant RPA taken directly from that table. This information is listed for each tree in the tree schedule in Appendix 2.

10. Plan updates

During the site visit, it was noted that most of the trees were outside the site and not shown on the site survey. Their approximate locations have been illustrated on the tree protection plan, but these positions have not been accurately surveyed. It is unlikely that this has affected the report conclusions, but if their locations are considered important, they should be accurately surveyed.

11. The use of the tree information in layout design

Following the inspection of the trees, the information listed in Appendix 2 was used to provide constraints guidance to the architect based on the locations of all the category A and B trees. All the category C and U trees were discounted because they were not considered worthy of being a material constraint. This guidance identified the estimated developable footprint of the site and was considered by the architect to arrive at the submitted design. For conciseness, and because it is not a BS recommendation, this detailed constraints advice has not been included in this report.

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) @ 1.5m	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.			
T1	Elder	7	20	Maturing	Yes	C	Severely leaning over garden area	-	2.4	18
T2	Ash	9	70*	Over-mature	-	C	Severely pruned back to trunk with limited regrowth. Probably irretrievably declining. Located off the site.	-	8.4	222
T3	Fruit	3	15	Young	-	C	Young tree in hedge and off the site	-	1.8	10
H4	Mixed shrubs	3	15	Maturing	-	C	Boundary hedge with many species regularly pruned to retain as a hedge	-	1.8	10
T5	Norway maple	8	30*	Maturing	-	B	Street tree off the site and regularly pollarded	-	3.6	41
H6	Privet	1	15	Young	-	C	Boundary hedge that is regularly pruned	Fell for development	1.8	10

Appendix 2: Tree schedule and explanatory notes

Explanatory notes for schedule

- **Abbreviations:**

H	: Hedge
RPA	: Root protection area

- **Botanical tree names:**

Ash	: *Fraxinus excelsior*
Elder	: *Sambucus nigra*
Fruit	: *Prunus* sp
Norway maple	: *Acer platanoides*
Privet	: *Ligustrum vulgare*

- **BS 5837 (2012) compliance:** All data has been collected based on the recommendations set out in subsection 4.4 of BS 5837.

- **Future tree safety inspections:** 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.

- **Site limitations:** 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 a walkover tree survey 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 spread dimensions are not listed in the tree schedule because they are illustrated on the tree protection plan.

- **Dimensions:** All dimensions are estimated unless annotated with a '*'.

- **Species:** Species identification is based on visual observations. Where there is some doubt over tree identity, sp is noted after the genus name in the botanical names section above 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 an indication of the size of the tree.

- **Trunk diameter:** Trunk diameter is estimated or measured and recorded in 2.5cm increments as advised in BS 5837 Table D1. It is measured with a diameter tape unless access is restricted, direct measurement is not possible because of ivy on the trunk or the tree is assessed as poor quality. The point of measurement and the adjustments for stem variations are as advised in Figure C1 of BS 5837.

- **Maturity:** In a 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 some 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, 4.4.2.5h), and so these are not listed separately in the schedule. Additionally, the category

accounts for the remaining contribution (BS 5837, 4.4.2.5i) 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 inspection of all trees was of a preliminary nature and only defects visible from the ground have been identified. Each individual tree may not have been inspected closely because of access difficulties and only defects visible from the inspection point have been noted. All trees on the site should be checked by the contractor at the time of carrying out the main tree works to deal with any emerging safety issues in the context of the consented development. Additionally, where appropriate to facilitate access, all crowns should be lifted to 3–4m above the site.

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