

LAND TO THE REAR OF
2 & 4 SHOOT-UP HILL
CAMDEN
LONDON

TREE REPORT

(Tree survey and
constraint advice)



Ecology
Archaeology
Arboriculture
Landscape Architecture

NOTTING HILL GENESIS

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1.0 Executive Summary

- 1.1. This report provides survey information about the trees on the site at Site address, in accordance with the recommendations of BS5837:2012 Trees in relation to design, demolition and construction. This is to identify the quality and value of existing trees on the site, allowing decisions to be made as to the retention or removal of trees in the case of any development.
- 1.2. A total of eight individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded.
- 1.3. Trees of A and B category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees recorded as category 'C' and 'U' will not usually be retained where they would impose a significant constraint to development. Category 'U' trees are often in such a condition that they will be lost within ten years, and may be removed as good arboricultural practice.



Figure 1 Overview of survey area

2.0 Introduction

- 2.1. ACD Environmental were instructed by Notting Hill Genesis, in October 2018, to survey the tree stock at the site designated Garage 2 & 4, Shoot Up Hill, Camden, London. The survey consists of recording the trees' location, species, dimensions, ages, physiological and structural conditions, and visual importance; and categorises them in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. The survey includes all trees with a stem diameter greater than 75mm at a height of 1.5m, which are on-site or close enough to pose a potential constraint to any proposed development.
- 2.2. Trees have been assessed for their quality and benefits within the context of proposed development. The quality of each tree or group of trees has been recorded by allocating to it one of four categories. A tree reference plan is provided in order to assist with the design of site layouts.
- 2.3. This report provides the data and advice outlined in the British Standard only. It must not be substituted for a tree risk assessment. Detailed tree inspection including decay mapping, aerial inspection, soil analysis, etc. was not undertaken. If a further detailed inspection is deemed necessary, then it will be made clear within this report.
- 2.4. We have not been instructed at this stage to contact the Local Authority and investigate the presence of any statutory protection on trees on, or adjacent to the site.
- 2.5. The Tree Reference Plan is based on the supplied topographical ground survey.
- 2.6. The controlling authority is Camden Council, who can be contacted at:

Planning, Camden Council, Camden Town Hall, London, WC1H 8ND. (020) 79744444
- 2.7. Any questions relating to the content of this report should be directed in the first instance to ACD Environmental, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425714, quoting the site address and report reference number.

3.0 Scope and Method of Survey

- 3.1. The survey schedule can be found at Appendix 2.
- 3.2. The survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.
- 3.3. No discussions took place between the surveyor and any other party.
- 3.4. The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. The prefix G has been used to indicate a group of trees, and H for hedges. Stem locations within groups may be estimated, and indicative of canopy only.
- 3.5. The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the VTA tree assessment method¹.
- 3.6. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions. All estimated dimensions are noted in the schedule comments.
- 3.7. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- 3.8. Tree heights were measured with a clinometer or estimated in relation to those measured with the clinometer. If individual tree heights are of particular concern, for example in shading calculations, then they are measured using a clinometer.
- 3.9. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m above ground level.

¹ Mattheck, C. & Breloer, H., 1998. *The Body Language of Trees: A Handbook for Failure Analysis*. London:H.M.S.O.

4.0 Discussion

- 4.1. For individual details of the trees see the survey at appendix 2.
- 4.2. The site comprises a lock up and small parcel of land to the rear. Tree cover is made up of established self-seeded individuals. Ground cover is limited to brambles and some grass species. The topography of the site is relatively level.
- 4.3. No soil assessment was carried out at the time of survey. According to the National Soil Resources Institute online mapping service at the soil on site is expected to be:
- 4.4. All surveyed trees are recorded as category 'C', being of moderate quality and of some landscape value. Visually the trees are visible from surrounding properties and in restricted views from Maygrove Road.
- 4.5. Where there are category 'C' trees near the boundaries of the site, it is recommended that where possible these are retained where they have landscape value as screening.
- 4.6. The below ground constraints posed by the trees are represented by root protection areas (RPAs) and shown on the Tree Reference Plan. The RPA of a tree is calculated as advised by the British Standard. For a tree growing in an apparently unconstrained rooting environment, a circular RPA is shown. When constraints to root growth appear to be present the RPA is adjusted to reflect the likely root growth pattern.

5.0 Recommendations

- 5.1. Trees of category 'A' and 'B' should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a category 'C' are of a low value and will not usually be retained where they would impose a significant constraint to development. Category 'U' trees are in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.
- 5.2. The British Standard states in section 5.1.1, that the constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognised that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development, or to justify its substantial modification. However, care should be taken to avoid misplaced tree retention. Attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.
- 5.3. If the retention of higher category tree would prejudice an otherwise satisfactory design, incorporating replacement planting may provide appropriate mitigation (space for replacement trees must be included within the layout).
- 5.4. Trees can be a development constraint both below and above the ground:
 - 5.4.1. Below ground: root protection areas indicate an area that contains a minimum rooting volume to ensure the survival of the tree. This area of ground should be taken into account within the site layout, such that it can be left undisturbed during demolition and construction by excluding activity from the area using protective barriers.
 - 5.4.2. Tree roots can be easily damaged through root severance. For example, the excavation required for level changes or the laying of strip foundations. They can also be damaged inadvertently through soil compaction that causes asphyxiation of roots. These factors can lead to a decline in overall vigour, die back or even whole tree death.

5.4.3. Above ground: tree constraints presented by the canopy and the psychological effects of tree proximity to dwellings (such as shading, perceived threat of tree failure, etc.) must also be considered during layout design. This will involve optimising site layout and building room use to avoid the end-user becoming resentful of the trees and seeking excessive pruning or even tree removal. This is especially a consideration with trees located on southern boundaries.

5.4.4. Preferably, conflicts between proposed structures and RPAs and tree canopies should be 'designed out' through the careful positioning of any built form. It is, therefore, advisable that any design layouts are drafted in close collaboration with ACD to ensure that any trees that are highlighted for retention can be realistically integrated into the design.

- 5.5. When a final layout is agreed, an arboricultural impact assessment (AIA) should be completed to discuss arboricultural issues within the scheme, and demonstrate to the Local Planning Authority the viability of the layout.
- 5.6. Surgery may be required in order to allow trees to be retained close to structures, to allow access for construction or for future site traffic, or in the interests of the future health and safety of the trees and users of the site. Detailed recommendations for surgery can be provided once a final site layout is agreed, and it is determined which trees are to be retained. All surgery should comply with BS3998² or more recently accepted good arboricultural practice.
- 5.7. Before any works start on site, including demolition, an arboricultural method statement (AMS) and tree protection plan (TPP) should be submitted, approved and implemented. There must be no changes in levels, service routing, machine activity, storage of materials or site hut positioning within the RPAs. The tree protection measures must remain in position for the duration of the construction process.

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

- 5.8. We recommend that a representative of ACD, or an alternative consultant acceptable to the local planning authority (LPA), monitor the tree protection measures throughout the development, and supervise any work within RPAs and approved protection areas.
- 5.9. A landowner has a duty of care³ to ensure that reasonable steps are taken to ensure the safety of others entering their land. There is a special responsibility to ensure the safety of children, who may be unaware of danger. Reasonably frequent inspections of trees with potential to cause harm, by a competent person, together with implementation of any recommendations, should ensure compliance with the legislation regarding tree safety.
- 5.10. Notice must also be taken that it is an offence⁴ to disturb a nesting bird or roosting/breeding bat. Further advice, particularly if bats are discovered during tree work should be obtained from ACD.

Andrew Bigg Cert Arb (RFS)
Arboriculturist
31 October 2018

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³ Occupiers' Liability Act (1957 and 1984)

⁴ Wildlife and Countryside Act (Anon., 2000) & Countryside and Rights of Way Act (Anon., 1981)

Appendix 1: Tree Categories Explained

BS5837:2012 Table 1 - Cascade chart for tree quality assessment			
Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
<p>Category U</p> <p>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p>	<p>*Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</p> <p>*Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline *Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality</p> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
<p>Category A</p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	<p>Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>
<p>Category B</p> <p>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	<p>Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation</p>	<p>Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality</p>	<p>Trees with material conservation or other cultural value</p>
<p>Category C</p> <p>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p>	<p>Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits</p>	<p>Trees with no material conservation or other cultural value</p>

CLIENT: Notting Hill Genesis
 SURVEYOR: A Bigg Cert Arb (RFS)
 SITE: Garage 2 & 4, Shoot Up Hill, Camden, London
 DATE: October 2018

TAGGED? No

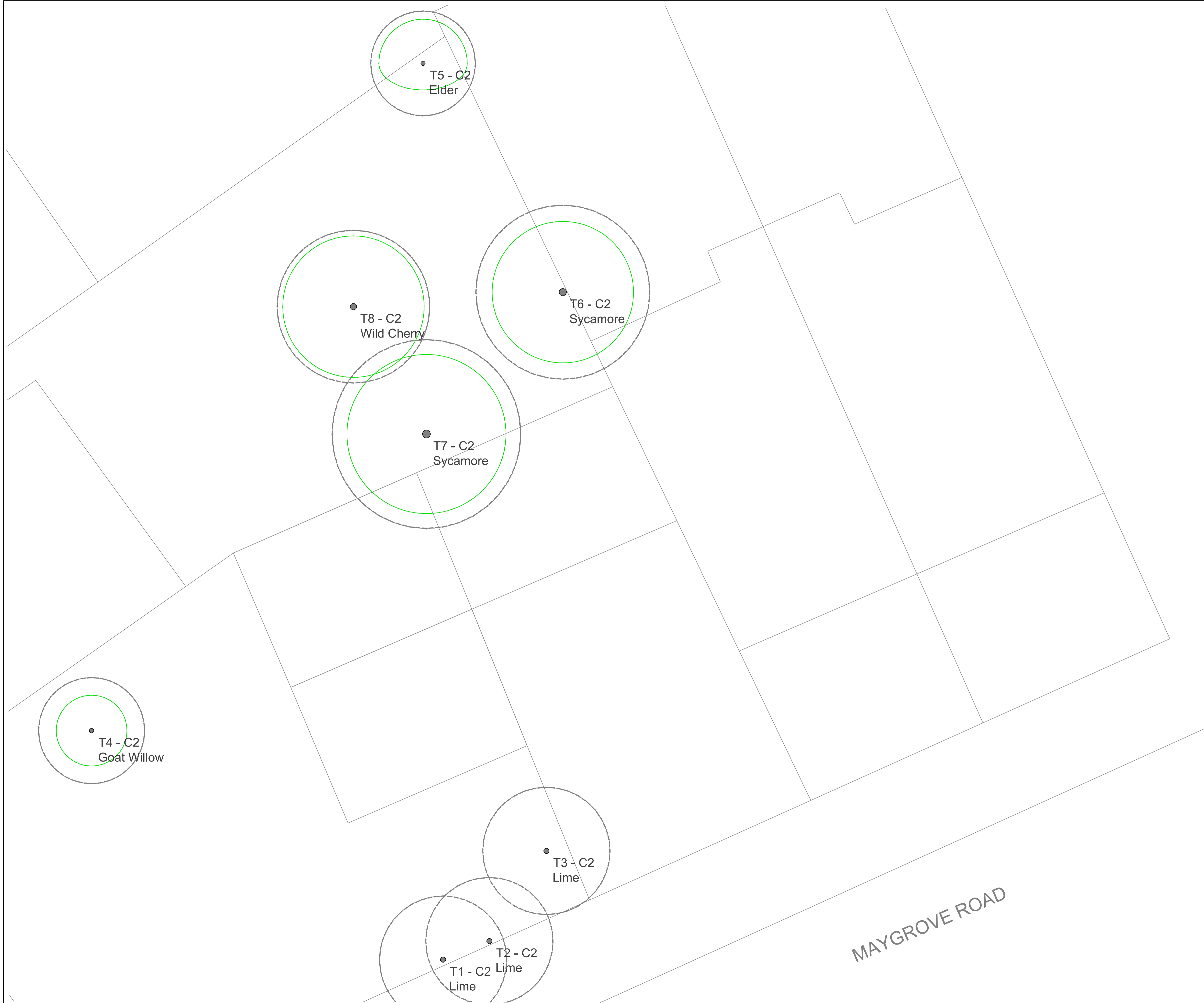
Appendix 2: Tree Survey Schedule

No.	Name	Ht (crown)	Dia (stems)	Canopy spread N E S W				Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Tilia sp. (Lime)	8(0)	300(1)	Crown pollarded				SM	20+	Historic Lime pollard. Maintained at a height of 8m. No current crown.	C2
T2	Tilia sp. (Lime)	8(0)	300(1)	Crown pollarded				SM	20+	Historic Lime pollard. Maintained at a height of 8m. No current crown.	C2
T3	Tilia sp. (Lime)	8(0)	300(1)	Crown pollarded				SM	20+	Historic Lime pollard. Maintained at a height of 8m. No current crown.	C2
T4	Salix caprea (Goat Willow)	8(1.5)	250(1)	2	2	2	2	SM	20+	Self-seeded individual growing off-site in rear garden space adjacent to land parcel.	C2
T5	Sambucus nigra (Elder)	6.5(0.5)	175(2)	3	2.5	1.5	2.5	M	20+	Self-seeded individual of limited quality and value. Growing adjacent to boundary wall.	C2
T6	Acer pseudoplatanus (Sycamore)	14(1.5)	410(1)	4	4	4	4	SM	10+	Boundary individual of moderate quality and of some landscape value. In close proximity to adjacent residential property, touching windows of property.	C2
T7	Acer pseudoplatanus (Sycamore)	14(2.5)	445(1)	5	4.5	4.5	4.5	EM	10+	Tree of moderate quality and of some landscape value as visible from Maygrove Road. Growing adjacent to rear wall of garage unit.	C2
T8	Prunus avium (Wild Cherry)	14(2)	360(1)	4	4	4	4	SM	20+	Tree of moderate quality and of some landscape value.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | HT (crown): Tree height in m (crown clearance in m) | Life stage: Y: Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). SM: Semi-mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). EM: Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). M: Mature (full height, crown spread, seed-bearing; over 50% of attainable age.). OM: Over mature (full size, die-back, small leaf size, poor growth extension.) | ERC: Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment.) | BS Category: Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

Appendix 3: Tree Reference Plan

GEN22015-01



How to use this plan

This plan follows the recommendations of BS5837:2012 and provides sufficient information for designers to interpret the constraints presented by the trees on and around the site. If there are any questions about how to correctly interpret the details shown, then ACD should be contacted on 01483425714 or mail@acdenv.co.uk

This plan is for design use. Before making a planning application, ACD should assess the impact of the layout and draft a full arboricultural impact assessment (AIA)

Designers should seek to retain all A & B category trees, and work within the constraints posed by them, as the LPA will expect their retention. C category trees should not be a material constraint trees and may be removed to facilitate development. However, their retention should be sought where practical, but the scheme need not be designed around them.

Developable area

Root protection area (RPA) for A & B category trees
 The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. BS5837:2012 advises that default position is that structures & surfaces are located outside this area. However, where there is an overriding justification for construction within the RPA, technical solutions might be available that prevent damage to the tree(s). It is essential that you contact ACD to discuss any proposals within this area before finalizing a design.

RPA for C category trees

Note: Future growth area
 Any layout design should only site small non-habitable buildings (garages, cycle stores, etc) within 2m of tree canopies. In addition to providing space for the tree's growth, this also allows for the working and access space needed for the construction of the buildings. In some instances it may be viable to carry out some pruning but this often raises objections from LPAs and therefore ACD should be consulted on any proposals to prune, or site buildings in this area, before finalising any design.

Shading
 The design should also avoid unreasonable obstruction of light, by siting buildings so that only flank walls and/or non-habitable/aspect rooms are close to retained trees. Gardens should be orientated to provide some shade free areas during the day.

Tree categories

- A category tree- high quality**
- B category tree- moderate quality**
- C category tree- low quality**
- U category tree- less than 10 years useful life**

The original of this drawing was produced in colour- a monochrome copy should not be relied upon.



Rev	Date	Details	Drawn



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scheme: Land to the rear of 2 & 4, Shoot-Up Hill, London
 client: Notting Hill Genesis
 drawing: Tree Reference Plan
 date: October 2018
 scale: 1:100@A1
 dwg no: GEN22015-01
 drawn: AJB checked: MW



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