ACD

Ecology

Arboriculture

Landscape Architecture

51 - 53 AGAR GROVE
LONDON
NW1 9UE

TREE REPORT

(Tree Survey and
Constraint Advice)

Prepared by
ACD
ARBORICULTURE

For

3PM

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Date:	08/01/2014
Revision:	
Ref:	PRI18839tr

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1. SUMMARY

1.1. This report provides survey information about the trees on the site at 51 - 53 Agar Grove, London NW1 9UE, in accordance with the recommendations of BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. This is to identify the quality and value of existing trees on 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 four individual trees with stem diameters of 75mm and above at 1.5m were surveyed and recorded. In addition a group of deciduous trees to the west of the site was 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 of a C and U category will not usually be retained where they would impose a significant constraint to development. U category trees are often in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

1.4. It is recommended that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

2. INTRODUCTION

2.1. ACD were instructed by 3PM, in August 2013, to survey and categorize the trees at 51 - 53 Agar Grove, London NW1 9UE, 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 stem diameter at a height of 1.5m that are on site or close enough to pose a potential constraint to development.

2.2. The survey was carried out to assess the trees on site 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 it to one of four categories, where:

- 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.
- C category trees will not usually be retained where they would impose a significant constraint to development, but should be retained where there is no reason for their removal.
- U category trees are in such a condition that they are unlikely to contribute beyond 10 years, and may be removed as good arboricultural practice.

2.3. This report provides the data and advice outlined in BS5837:2012 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 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 was based on the supplied topographical ground survey by Maltby Land Surveys Ltd Drawing Number 13/240/100 dated September 2013.

2.6. The controlling authority is London Borough of Camden, who can be contacted at: Camden Town Hall, Judd Street, London, WC1H 8ND.

2.7. Any questions relating to the content of this report should be directed in the first instance to: ACD Arboriculture, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425 714/07796 832 490, quoting the site address and report reference number.

3. SCOPE AND METHOD OF SURVEY

3.1. The survey has been carried out in accordance with BS5837:2012 Trees in Relation to design, demolition and construction - Recommendations 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. An explanation of the categories can be found at appendix 1.

3.2. No discussions took place between the surveyor and any other party.

3.3. The reference numbers of surveyed trees and groups of trees are shown on the Tree Reference Plan, which is based on the supplied survey drawing and appended to this report. 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.

3.4. The tree survey was carried out from ground level only.

3.5. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.

3.6. Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.

3.7. 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.

3.8. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m from ground level. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter may be an estimated average or a maximum.

3.9. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. The canopy of tree groups will be indicated by measuring the maximum canopy radius for each compass point (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

3.10. No soil assessment was carried out at the time of survey.

4. DISCUSSION

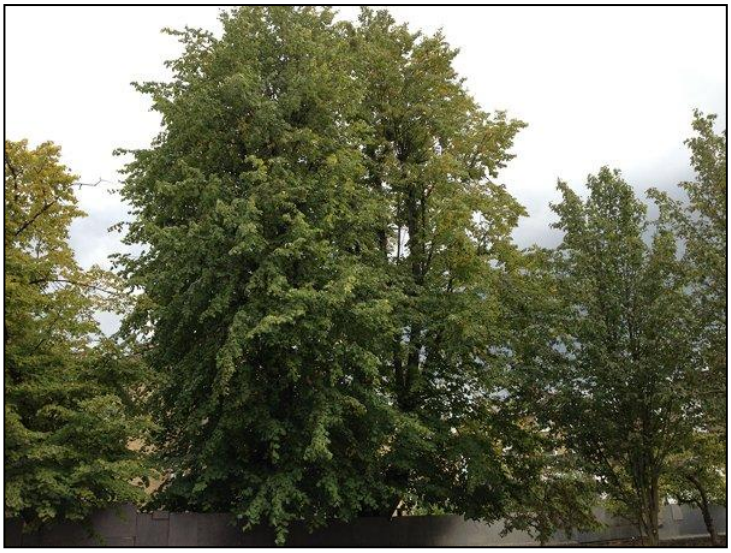
4.1. For individual details of the subject trees see the survey at appendix 2

4.2. The site is comprised of land at 51 - 53 Agar Grove. The buildings present on site, a pair of semi detached houses, are derelict. To the rear of the property is a former rear garden area which is unmaintained and overgrown with vegetation. The site is bounded by brick walls and hoarding.

Site as viewed from Agar Grove. T1 visible far left. T2/T3

4.3. None of the trees included in the survey are A category.

4.4. One of the Lime trees, T2, on the west of the site is B category. B category trees are those that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and minor storm damage). T2 was in the past pollarded at 3.5m and then re-grown from this point. This is not ideal structurally as the majority of the crown is from re-growth points, which is potentially weaker than had the tree never been pollarded. It would be recommended that if the tree were to be retained in the context of a residential development, the tree should be repollarded, and retained as a pollard.



T1 left, T2 & 3 centre.

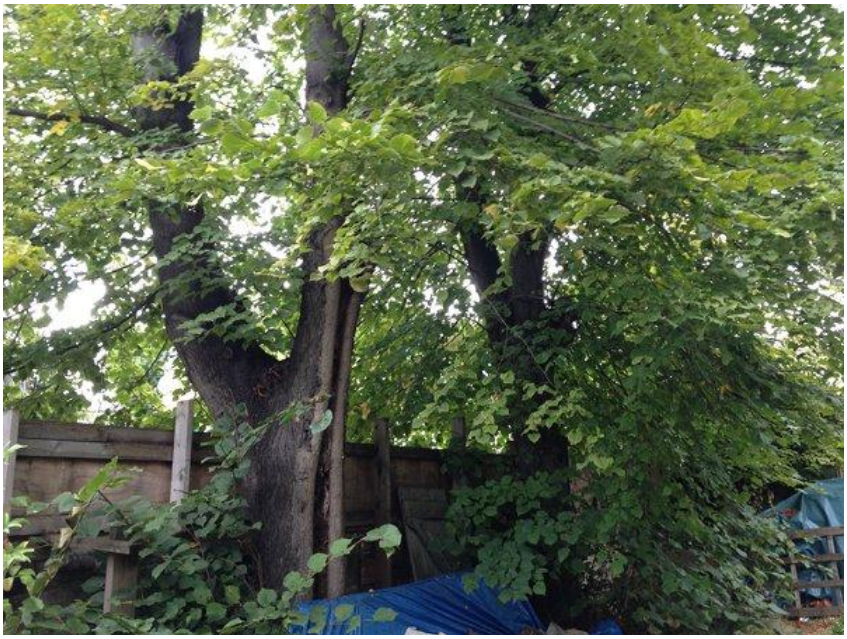
4.5. T4 is a Cherry tree located on the north east boundary. The tree is in fair condition, and has some value as a garden tree. However the tree has a tight compression fork from ground level. There is a high likelihood of failure at this point in the future - as the tree continues to grow the stems will be forced apart. Given the limited life expectancy of the tree, and its overall low merit, it has been given C category. The tree is not of a quality that should compromise any future development on the site.

T4 on the north eastern boundary

4.6. There are two U category Lime trees on the site. Both have major faults. T1 is in poor physiological condition, with decay in the base of the stem. T3 has a large vertical cavity on the east side of the tree. Both trees are unsustainable in the long term and should not represent any constraint to development.

4.7. 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 BS5837:2012. 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. Lime trees are notoriously adept at surviving in built up areas, and it cannot be assumed that the boundary wall and pavement will have hindered root growth from T2. Its RPA has therefore been left unadjusted on the plan.



T3 left with large vertical cavity visible. T2 right.

T1 - U category tree

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. 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 of a C category will not usually be retained where they would impose a significant constraint to development. U category trees are in such a condition that they will be lost within 10 years, and may be removed as good arboricultural practice.

5.2. It is recommended that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

5.3. T1, T3, and T4 are U and C category due to their low structural and/or physiological condition. The only constraint in terms of trees on the site is therefore T2, as it is B category, and the bias in the BS5837 guidance would be for its retention as part of any development.

5.4. T2 is a lapsed pollard, and potentially weak at the re-growth points. If the tree is retained in the context of a residential development, the tree should be repollarded, and then retained as a pollard.

5.5. BS5837:2012 Section 5.1.1 also states, however, that the constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognized 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.

5.6. If there is the requirement for the removal of T2 as part of development proposals, this should be subject to mitigation planting as part of landscape proposals which will produce a better long term result in terms of the overall tree cover on site. If this approach is taken, it is strongly advised that this is subject to discussion with the Local Planning Authority at the first opportunity as to the acceptability of this approach.

5.7. Trees can be a development constraint both below and above the ground. In terms of below ground constraints, BS5837:2012 RPAs indicate an area that contains sufficient rooting volume to ensure survival of the tree. This area of ground should be taken into account with the site layout, such that it can left undisturbed during demolition and construction by prohibiting activity from the area using protective fencing or ground protection.

5.8. Preferably, any 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 development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

5.9. 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 Planning Authority the viability of the layout.

5.10. Surgery may be required in order to allow trees to be retained close to structures, to allow access for construction or 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 BS3998:2010 Tree Work or more recently accepted arboricultural good practice.

5.11. 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 Root Protection Areas (RPAs) and the protective fencing must remain in position for the duration of the construction process.

5.12. Attention is drawn to the provisions of the Occupiers Liability Act (1957 and 1984). A land owner has a duty of care 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.

5.13. Notice must also be taken that it is an offence under the Wildlife and Countryside Act and Countryside and Rights of Way Act to disturb a nesting bird or roosting/breeding bat. Further advice, particularly if bats are discovered during tree work, may be obtained from ACD's Ecologist, if required.

Tom Grayshaw BA (Hons) Tech Cert (ArborA)
Arboriculturist
08 January 2014

APPENDIX 1: SUMMARY OF CATEGORIES BS5837:2012

BS5837:2012 Table 1 -**Cascade chart for tree quality assessment**			
Category and definition	**Criteria (including subcategories where appropriate)**		
Trees unsuitable for retention (see Note)			
Category U 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	*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) *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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7.***		
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Trees to be considered for retention			
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	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	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	Trees with material conservation or other cultural value
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	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	Trees with no material conservation or other cultural value

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	Common Lime (Tilia X europaea)	10	360	4	2.5	3	2.5	EM	<10	Main stem leans to the north. Decay present and visible in stem base. Dieback from the top in crown. There are fungal fruiting bodies on the main stem. Unsustainable in the long term.	U
T2	Common Lime (Tilia X europaea)	17	440	4	3.5	3.5	3.5	EM	20+	Twin stem tree from 3m. Some street scene value. Formerly pollarded at 3.5m. Bark missing from pruning wounds. Retention of tree would be dependent on repollarding. Shared canopy with T3.	B1/2
T3	Common Lime (Tilia X europaea)	17	540	4	3.5	3.5	3.5	M	<10	Large vertical cavity in stem from ground level up to 4m. Unsustainable in the long term. Shared Canopy with T2. Low vigour means the crown is sparse throughout.	U
T4	Wild Cherry (Prunus avium)	8	361	5	4.5	4.5	4.5	M	10+	Low quality tree overall. Twin stem from ground level, with tight union. High likelihood of failure at this point due to compression as the tree grows. Ivy infested tree. Some value in current context but not a development constraint due to limited life expectancy.	C1
G5	Mixed Deciduous	10	150	2	2	2	2	Y	20+	Relatively recent street tree plantings.	C2

Notes: Dia (stems): trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **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.).| **FSB:** First significant branch (& compass bearing) | **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
(PRI18839-01)

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