ARBORICULTURAL IMPACT ASSESSMENT

PRE-DEVELOPMENT

Robert C Yates

April 2020

SITE : **33 Aberdare Gardens, London NW6**

CLIENT : **Alan King and Ulrika Anderson**

RGS – ARBORICULTURAL CONSULTANTS

Main Office : 52, MILLWAY, NORTHAMPTON NN5 6ES

Tel. 01604 581044 email: info@rgs-treeservices.co.uk

A pre-development advisory document, broadly in accord with British Standard 5837 : 2012 'Trees in relation to Design, demolition & construction - Recommendations', designed to inform the conceptual design by highlighting the above and below ground arboricultural constraints in the context of a proposed development.

CONTENTS :

1.0 Terms of Reference

1.1 We are instructed by Mr Barnaby Gunning (agent) on behalf of Alan King and Ulrika Anderson (applicants), to undertake a pre-development arboricultural impact assessment at 33 Aberdare Gardens, London NW6, which is to be in line with B.S. 5837 : 2012 'Trees in Relation to Design, Demolition & Construction - Recommendations'.

1.2 All relevant trees on or immediately adjacent the application site have been inspected from ground level only. Should further more detailed inspection be deemed appropriate, this will be covered under Recommendations. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on a number of external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.

1.3 The site survey and tree assessment was undertaken by Robert Yates, who holds the formal qualification Tech.Cert.(Arbor.A), the LANTRA Certificate in Professional Tree Inspection and is a member of the Consulting Arborist Society, the Arboricultural Association and The Royal Forestry Society.

1.4 This report, its appendices and any subsequent revisions or additional information, will form part of any formal planning application in respect of the development of this site, and as such will be open to public scrutiny and comment.

2.0 Survey Methodology

2.1 The trees have been assessed using the current recommendations, as detailed in British Standard 5837 : 2012 'Trees in relation to Design, Demolition & Construction – Recommendations', in order to arrive at a Retention Category for each individual tree or group of trees. A Root Protection Area (RPA) has been assigned to each tree, based on its stem diameter and in some cases crown spread, which has then been used to produce the Tree Constraints/Protection Plan (attached as appendix 3). For full details of the relevant assessment criteria and retention categories see Table 1 of B.S. 5837 (attached as appendix 4).

2.2 All surveyed trees have been given a notional reference number i.e. T1 – T11. All collected survey data and work recommendations for the trees is presented in the survey schedule which forms appendix 2 to this report. For the location of the trees see appendix 3 (Tree Constraints/Protection Plans).

3.0 Site Overview / Design Brief

3.1 The survey area comprises the rear garden of the subject property, as well as encompassing several trees on neighbouring land. The site is situated within a designated Conservation Area; hence a degree of statutory protection exists in respect of all trees in excess of 75mm stem diameter – See section 7.0.

3.2 The proposed development briefly comprises refurbishment and minor structural works to the existing dwelling, but most pertinent to the trees is the proposed construction of an outbuilding at the far (northern) end of the garden, which is to be supported upon a low impact foundation.

4.0 Summary of Findings & Conclusions

4.1 A total of **11no**. individual trees have been surveyed. A breakdown of the numbers of trees in each retention category can be seen in the table below:

Retention Category	Individual Trees (T)	Groups of Trees (G)	Hedgerows (H)
A High Quality	0	n/a	n/a
B Moderate Quality	**3**	n/a	n/a
C Low Quality	**7**	n/a	n/a
U (Unsuitable for retention)	**1**	n/a	n/a
Totals	**11**	**0**	**0**

4.2 All U Category trees should generally be removed for reasons of sound arboricultural practice or health & safety, irrespective of any development proposals, unless they offer particular conservation value to the site, in which case this will be highlighted in the survey schedule along with appropriate recommendations.

4.3 As regards the C category trees, it may not always be possible or even desirable to retain low quality trees within the context of a proposed development, unless in such a location that they do not represent a significant constraint on the design brief. Young trees, and those with a stem diameter of less than 150mm, will normally be placed in the C category, unless it is considered that they are of especially good form or are of a species that is particularly rare, in which case they may be upgraded. In certain cases it may be appropriate to consider re-location of young C category trees within the site.

4.4 All A & B Category trees (high & moderate quality) will under normal circumstances be retained on development sites, and should ideally influence and inform the conceptual design, site layout, and in some cases the specific construction methods to be used – The root protection area and/or crown spread of these trees will generally form a construction exclusion zone, although under certain circumstances it may be possible to build or operate within these areas providing that appropriate measures and specifications have been formally agreed between the local planning authority, the consulting arborist and the developer/client.

5.0 Arboricultural Impact Assessment

5.1 Based upon the proposed site layout, as included at Appendix 3, the following impacts and implications have been identified and assessed.

5.1.1 Two trees will need to be removed to facilitate construction of the outbuilding, one of which is of poor quality (T8), whilst the other (T7) is a moderate quality Oak, albeit of poor structural form. The loss of the Oak represents a minimal impact upon visual amenity in the Conservation Area.

5.1.2 The root protection areas of three off-site trees (T9, T10, T11) extend into the application site, and encompass much of the area intended for the new outbuilding; because of this fact, a design incorporating mini-piles and a suspended base, has been factored into the scheme, thus minimising any adverse impact upon those trees, that would otherwise result if conventional foundations were used i.e. requiring wholesale excavation.

5.1.3 To mitigate for the albeit low risk of harm to trees from more general construction activities i.e. through soil contamination, temporary measures to protect exposed ground in the immediate vicinity of the works will be required.

5.1.4 Since a power supply to the new outbuilding will be required, measures will need to be taken to avoid trenching through the root protection areas of retained trees; this should be possible if a central route from the house to the outbuilding is taken.

6.0 Recommendations / Tree Protection Strategy

6.1 To mitigate for any potentially negative impact upon T6, T9, T10 & T11 in particular, the following measures and precautions are to be recommended.

6.1.1 All excavation works and removal of surface debris/loose soil, are to be undertaken using hand tools only, or in the case of piling operations, a compact pedestrian operated rig.

6.1.2 Heavy-Duty ground guards, or >20mm exterior plywood, shall be used to protect the ground where the majority of the construction access will be required – See Appendix 3 for location. In addition, and following the installation of the mini-piles, the ground beneath both the building base and the temporary ground protection, is to be covered with a semi-permeable geotextile, so as to mitigate the risk of soil contamination from building materials.

6.1.3 The construction of the building can progress to completion, with final phases to include connection of power supply and construction of the entry deck area. Following completion, the ground protection can be removed, and the geotextile trimmed back to the edge of the building/deck.

7.0 Statutory Obligations

- Works to trees which are covered by Tree Preservation Orders [TPOs] or are within a Conservation Area [CA] will normally require permission or consent from the Local Planning Authority [LPA]. Full planning consent will, however, override the need for a separate application, providing that details of all tree works were included in the submission and subsequently approved by the local planning authority.

APPENDIX 1 :

KEY TO SURVEY CRITERIA & HEADINGS:

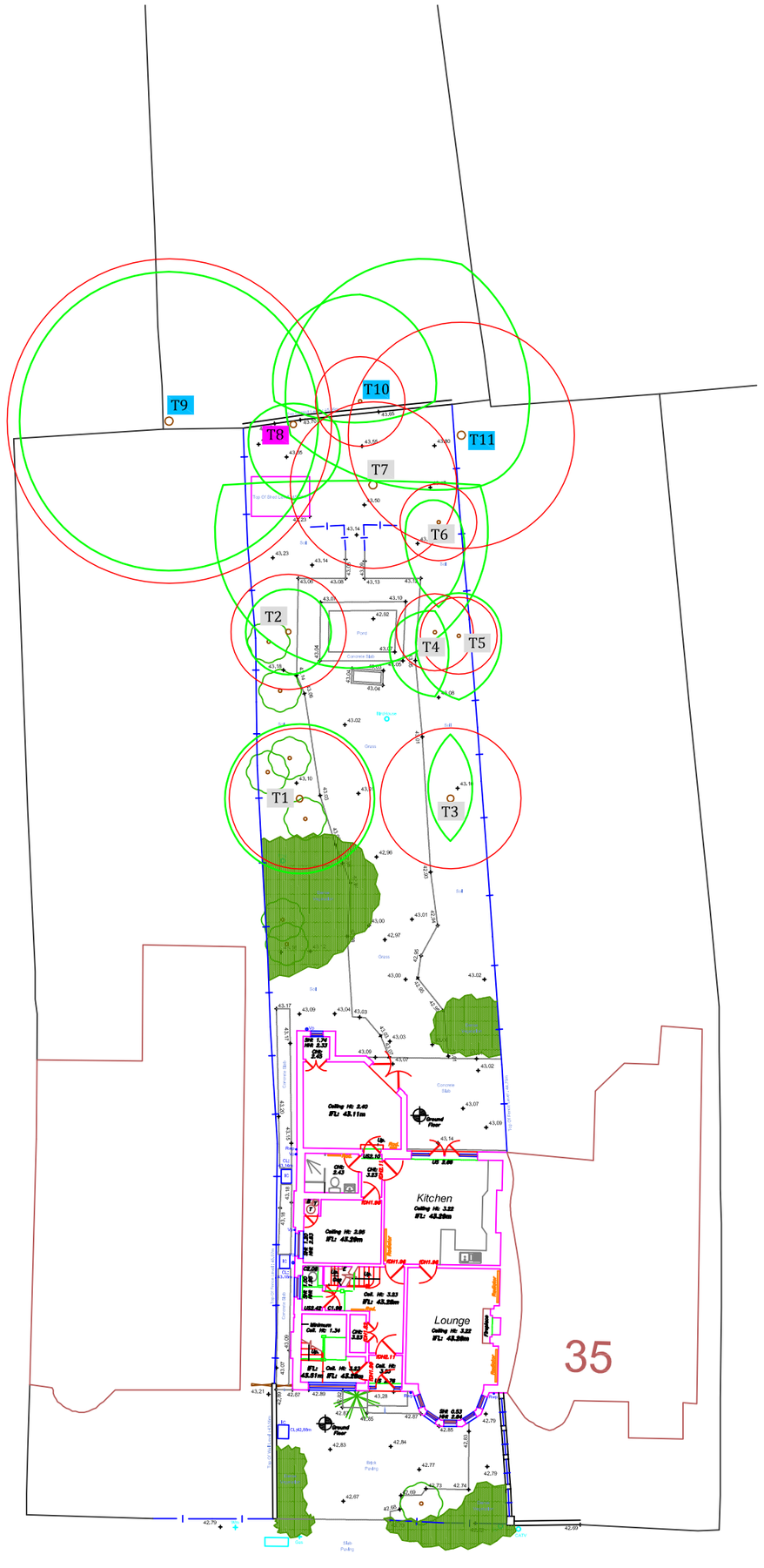
Tree No.	Notional ID given to each tree or group of trees (unless tagged)
Species	Botanical name with common name in brackets
Age Class	Young, semi-mature, early mature, mature or over-mature
Height	Estimated in metres
Crown Spread	Crown spread (North / East / South / West) measured from centre of trunk, in metres
Crown clearance	Approximate height between lowest part of canopy and ground level (metres)
Stem dia.	Trunk diameter (mm) measured at 1.5m above ground level, or other height as specified
Vigour	Objective assessment of a tree's vigour e.g. shoot extension growth (normal, reduced or low)
Amenity	Subjective assessment of a tree's contribution to the amenity value of the immediate area: High to Low
Condition	Good, Fair or Poor, based on the general health and structural condition of the tree
Recommendations	Remedial works in order to facilitate retention, or recommendation to remove
Ret.Cat.	Based on B.S.5837 Retention categories: A = Those of High Quality & Value B = Those of Moderate Quality & Value (Sub-categories 1, 2, 3 for A & B categories in brackets) C = Those of Low Quality & Value U = Unsuitable for retention
RPA	Root Protection Area, measured in metres (radius) from centre of tree, or may be expressed in m2

APPENDIX 2 : SURVEY SCHEDULE (page 1 of 2)

N.B. measurements of off-site trees have been estimated

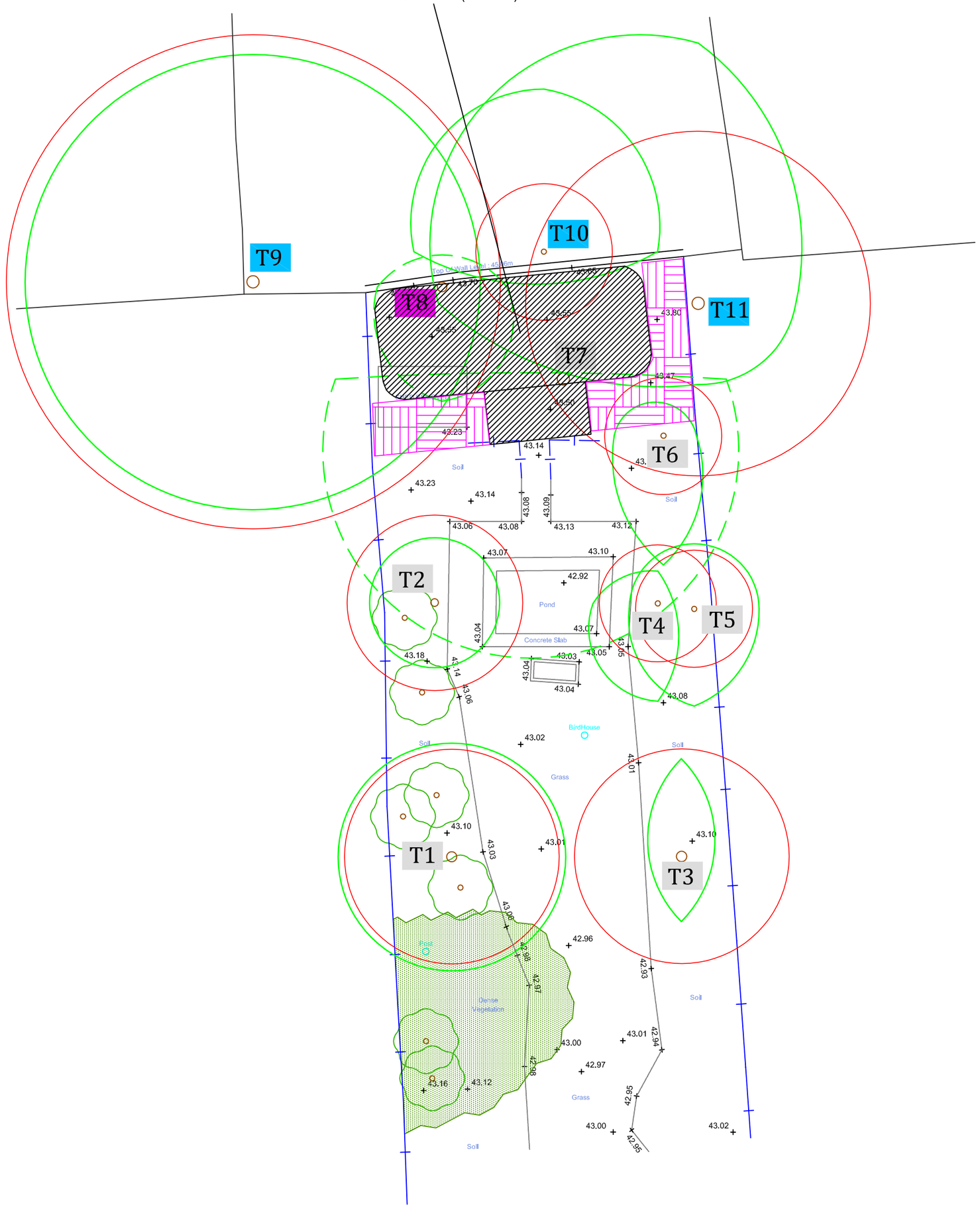
Tree No.	Species (common name)	Age class	Height (m)	Crown Spread (m) :				Crown Clearance	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W									
T1	***Malus domestica*** (Apple)	**mature**	**5.5**	**3.5**	**3.5**	**3.5**	**3.5**	**2.5**	**270**	**normal**	**low**	**good/fair**	**no comments**	**no works required**	**C**	**3.3**
T2	***Pyrus sp.*** (Pear)	**mature**	**6**	**2**	**2**	**2**	**2**	**2.5**	**220**	**normal**	**low**	**fair**	**no comments**	**no works required**	**C**	**2.7**
T3	***Malus domestica*** (Apple)	**mature**	**5**	**3**	**1**	**2**	**1**	**2.5**	**270**	**normal**	**low**	**fair**	**no comments**	**no works required**	**C**	**3.3**
T4	***Malus domestica*** (Apple)	**mature**	**4**	**1**	**0.5**	**3**	**2**	**1**	**150**	**normal**	**low**	**fair**	**no comments**	**no works required**	**C**	**1.8**
T5	***Sambucus nigra*** (Elder)	**mature**	**6**	**2**	**2**	**3**	**2**	**2.5**	**2x 100 1x60**	**normal**	**low**	**good/fair**	**no comments**	**no works required**	**C**	**1.8**
T6	***Sambucus nigra*** (Elder)	**mature**	**4.5**	**1**	**1**	**4**	**1.5**	**2**	**150**	**normal**	**low**	**fair**	**no comments**	**no works required**	**C**	**1.8**
T7	***Quercus robur*** (English Oak)	**early mature**	**11**	**0**	**5**	**8.5**	**7**	**2.5**	**320**	**normal**	**mod/low**	**fair/poor**	**pronounced lean & heavily biased to south, poor form**	**Remove to facilitate outbuilding construction**	**C**	**(3.9)**

Tree No.	Species (common name)	Age class	Height (m)	Crown Spread (m) :				Crown Clearance	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W									
T8	***Pyrus sp.*** (Pear)	**mature**	**12**	**1**	**2**	**3.5**	**2**	**3**	**410**	**low**	**low**	**fair/poor**	**growing at base of boundary wall, in decline, stem decay at 3m**	**Remove to facilitate outbuilding construction**	**C**	**n/a**
T9	***Acer pseudoplatanus*** (Sycamore)	**mature**	**20**	**7**	**7**	**7**	**7**	**5**	**2x 450**	**normal**	**mod/high**	**good/fair**	**co-dominant stems, located on adjacent land**	**no works required**	**B (1)**	**7.6**
T10	***Arbutus unedo*** (Strawberry Tree)	**mature**	**5**	**5**	**3.5**	**1**	**4**	**n/a**	**3x 100**	**normal**	**low**	**good/fair**	**located on adjacent land**	**no works required**	**B (2)**	**2.1**
T11	***Aesculus hippocastanum*** (Horse Chestnut)	**mature**	**14**	**8**	**3**	**2.5**	**8**	**3**	**440**	**normal**	**moderate**	**fair**	**located on adjacent land**	**crown lift to 4m over site & reduce spread to west by 3m to facilitate outbuilding construction**	**B (1)**	**5.3**



WHOLE SITE / AS EXISTING
1:250

PROPOSED OUTBUILDING
SUPPORTED ON MINI-PILES WITH
DECK AREA TO FRONT (Hatched)



PART SITE / AS PROPOSED
1:500

NORTH

KEY :

- U Category Trees - POOR QUALITY
- A Category Trees - HIGH QUALITY
- B Category Trees - MODERATE QUALITY
- C Category Trees - LOW QUALITY
- Root Protection Areas
- Actual Crown Spread of individual and measured trees retained
- Crown Spread of trees proposed for removal
- Location of Temporary Ground Protection i.e. H/Duty Ground Guards or 20mm plywood over a semi-permeable geotextile

ALWAYS RE-PRODUCE THIS
DRAWING IN COLOUR

RGS Arboricultural Consultants
RGS-ARBORICULTURAL CONSULTANTS
52 Millway, Northampton NN5 6ES
Tel. 01604 581044
E. info@rgs-treeservices.co.uk

PROJECT
33 Aberdare Gardens NW6

DRAWING
Tree Survey:
Tree Constraints/Protection Plans

SCALE: 1:250 1:500@A2	DATE: April2020
DRAWN BY: RY	

DWG No: Appendix 3

APPENDIX 4 **Table 1 : Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
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.*			Dark Red
	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)	Light green
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	Mid blue
Category C Trees of **low** quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter of 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	Grey