Merewood
Arboricultural Consultancy Services

Arboricultural ASSOCIATION
Professional Member
No. PRO 1047

Arboricultural Implications Assessment for a proposed development at 10 The Broadwalk Northwood HA6 2XD

Client: Chirangi Ruparelia
10 The Broadwalk
Northwood
HA6 2XD

Prepared by
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Date
29/03/2022



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1.0 Introduction

1.1 Instruction

1.1.1 I am instructed by Chirangi Ruparelia to undertake an Arboricultural Survey at 10 The Broadwalk Northwood. I am also instructed to assess the likely impact of development proposals and produce an Arboricultural Method Statement detailing how trees shall be protected from the proposed construction activity.

1.1.2 The proposals are for the construction of a rear extension, an increase to first floor head height, a loft conversion and internal alterations.

1.2 The Site

1.2.1 10 The Broadwalk Northwood is a detached property served by a single entrance driveway on the north side of The Broadwalk on the Copsewood Estate in Northwood. The plot has a front garden given over largely to parking and a rear garden. The plot is flanked by Lowswood Close on the eastern side.

1.2.2 The property is located to the south-west of Northwood village centre. The site is more or less rectangular in shape and is bordered by the The Broadwalk to the south, by Lowswood Close to the east and by other residential properties to the north and west.

1.2.3 The topography of the site is more or less level.

1.2.4 It has been established at the time of the survey that the property is covered by an area Tree Preservation Order (TPO 394). If any works to protected trees are proposed, other than the removal of dead wood or the implementation of operations agreed as part of a formal planning consent, a formal application must be submitted and approved by the Local Planning Authority before such works can be carried out.

1.3 Survey date

1.3.1 The trees at 10 The Broadwalk Northwood were surveyed on Tuesday, March 15, 2022.

1.4 Scope and Purpose of the report

1.4.1 The tree survey and assessment of existing trees has been carried out in accordance with guidance contained within British Standard B.S. 5837:2012 ‘Trees in relation to design, demolition and construction - Recommendations’ (hereafter referred to as B.S. 5837). The guidelines set out a structured assessment methodology to assist in determining which trees would be deemed either as being suitable or unsuitable for retention.

1.4.2 The purpose of this report therefore is therefore to firstly, present the results of an assessment of the existing trees' arboricultural value, based on their current condition and quality and to secondly, provide an assessment of impact arising from the development of the site.

1.4.3 The report is designed to support a planning application for development proposals at the above site. The survey has therefore focused on any trees present within or bordering the site that may potentially be affected by the future proposals or will pose a constraint to any proposed development

1.5 Documents referred to

1.5.1 The tree survey and this report have been prepared with reference to the following documents:
The existing site plan
The proposed site layout plan
The schedule of tree constraints (appendix 1)
The plan of tree constraints
The arboricultural method statement (AMS) dated 29/03/22

2.0 Results

2.1 Results summary

2.1.1 Appendix 1 presents details of the individual trees and groups found during the assessment including heights, stem diameters and rpa's, crown spread (normally measured to cardinal points unless otherwise indicated), an indication of physiological and structural condition, age class, any appropriate management recommendations, estimated life expectancy and a BS5837 category of quality.

2.1.2 The survey has revealed that that of the 8 trees and 1 group of trees surveyed, 1 is category 'A' 1 is category 'B'; 6 are category 'C' plus 1 category 'C; group and 0 are category 'U' trees.

3.0 Arboricultural Impact Assessment

3.1 Overview

Development activity	Potential impact	Consequence	Mitigation
Delivery of materials to the site Plant machinery accessing the site	Soil compaction and erosion	Root damage and die back limiting the ability of the tree to take up water and nutrients	Create construction exclusion zones (CEZ's) by the erection of barrier fencing Establish a cellular confinement system above ground level to form a 'no—dig' driveway
Storage of materials on the site	Leachate from chemical based products	Roots die back and soil becomes contaminated	Provide a dedicated area for the storage of materials

	contaminating soil	inhibiting future root recovery	following delivery away from root protection areas.
Distribution of materials about the site	Damage to branches or bark due to careless handling	Wounding of the bark can lead to infection from wood decay pathogens	Erect barrier fencing that takes account of branch spread as well as roots
Creation of parking spaces	Severing of roots	Root damage and die back limiting the ability of the tree to take up water and nutrients	Use a cellular confinement product to form a 'no—dig' driveway
Mixing of cement, plaster, etc.	Leachate from chemical based products contaminating soil	Roots die back and soil becomes contaminated inhibiting future root recovery	Provide a dedicated area for mortar mixing (etc.) with a suitably thick plastic (impermeable) membrane to prevent chemicals leaching. Provide a spare reservoir of water close by to wash away spillages
Contractor parking	Soil compaction and erosion	Root damage and die back limiting the ability of the tree to take up water and nutrients	Provide dedicated area for contractor parking away from RPA's

3.2 Proposed tree works

3.2.1 The proposed development would not require the removal of some of the western red cedars from the group (G1). In order to accommodate the extension it is recommended that 3 of the trees from the group are removed, although the removal of the whole group should also be considered, with replacement planting taking place.

3.3 Changes to soil levels

3.3.1 There are no changes to soil levels proposed within the RPA's of trees to be retained.

3.4 The Impact of Movement around the Site

3.4.1 The tree protection plan (see method statement) shows that there is a pinch point at the corner of the house alongside the cypress (T4). This tree will have to be fenced off close to the stem to allow pedestrian access down the side, but for machinery to be able to reach the back garden a section of the rear fence will have to be removed, accessing from Lowswood Close.

3.4.2 The tree protection plan shows where fencing is to be erected prior to the commencement of works on the site.

The installation of protective fencing shall be addressed by the Arboricultural Method Statement section 3.3

3.5 The Impact of Excavations

3.5.1 The footprints of the new extensions are sited outside of the RPA's of trees to be retained. Furthermore the footings are distal to the retained trees, so it is not anticipated that any roots (or any other part of the trees) will be affected by the process of excavating the foundations.

3.6 The Impact of Construction Site Activities

3.6.1 The site working area will need to be established on the proposed hard surfacing areas to the front and rear of the property, including the parking spaces and the existing patio.

3.6.2 Some access will have to be made via Lowswood Close (see 3.4.1)

3.6.3 Deliveries will have to be made by means of the driveway. Materials are to be set down at the front of the site where they can either remain in situ until needed, moved to a more appropriate area or be brought under cover if necessary.

3.6.4 The hard standing area at the front of the house is to be used for the storage of cement and plaster bags hazardous chemicals and petrochemical products and will also provide a suitable area for mortar mixing in line with COSHH regulations to ensure there is no detrimental effect on trees.

The mixing of cement and cleaning of tools shall be addressed by the Arboricultural Method Statement at section 3.5

3.7 Issues to be addressed by the Method Statement

3.7.1 The Method Statement will address the following issues

- Tree removal
- Installation of protective fencing
- Building site activities
- Cement mixing

3.8 Summary

3.8.1 The proposed new extensions can be built with minimal impact to the surrounds, although some tree removal will be required. Full provision can be made for the protection of all trees to remain in order to ensure their continued viability following the completion of construction.

Simon Hawkins Dip Arb L6 (ABC), ND Arb, MArborA

Appendix 1 - Tree Survey Methodology

1. The ground level survey of the trees has been carried out in accordance with the criteria set out in Chapter 4 of B.S 5837. The survey has recorded information relating to all those trees within the site and those adjacent to the site which may be of influence on the proposals.
2. The purpose of this report is to modify the recommendation found in the tree constraints schedule for the future use of this site. Where applicable, trees with significant defects have been highlighted and appropriate remedial works have been recommended. However, this report should not be seen as a substitute for a full *Safety Survey* or *Management Plan* which are specifically designed to minimise risk and liability associated with the responsibility for trees. No climbed inspections or specialist decay detection were undertaken.
3. Evaluation of tree condition within the assessment applies to the date of survey and cannot be assumed to remain unchanged. It may be necessary to review these within 12 months in accordance with sound arboricultural practice as recommended by the National Trees Safety Group guidance 'Common Sense Risk Management for Trees'.
4. Trees have been divided into one of four categories based on Table 1 of B.S.5837, '*Cascade chart for tree quality assessment'*. For a tree to qualify under any given category it should fall within the scope of that category's definition.

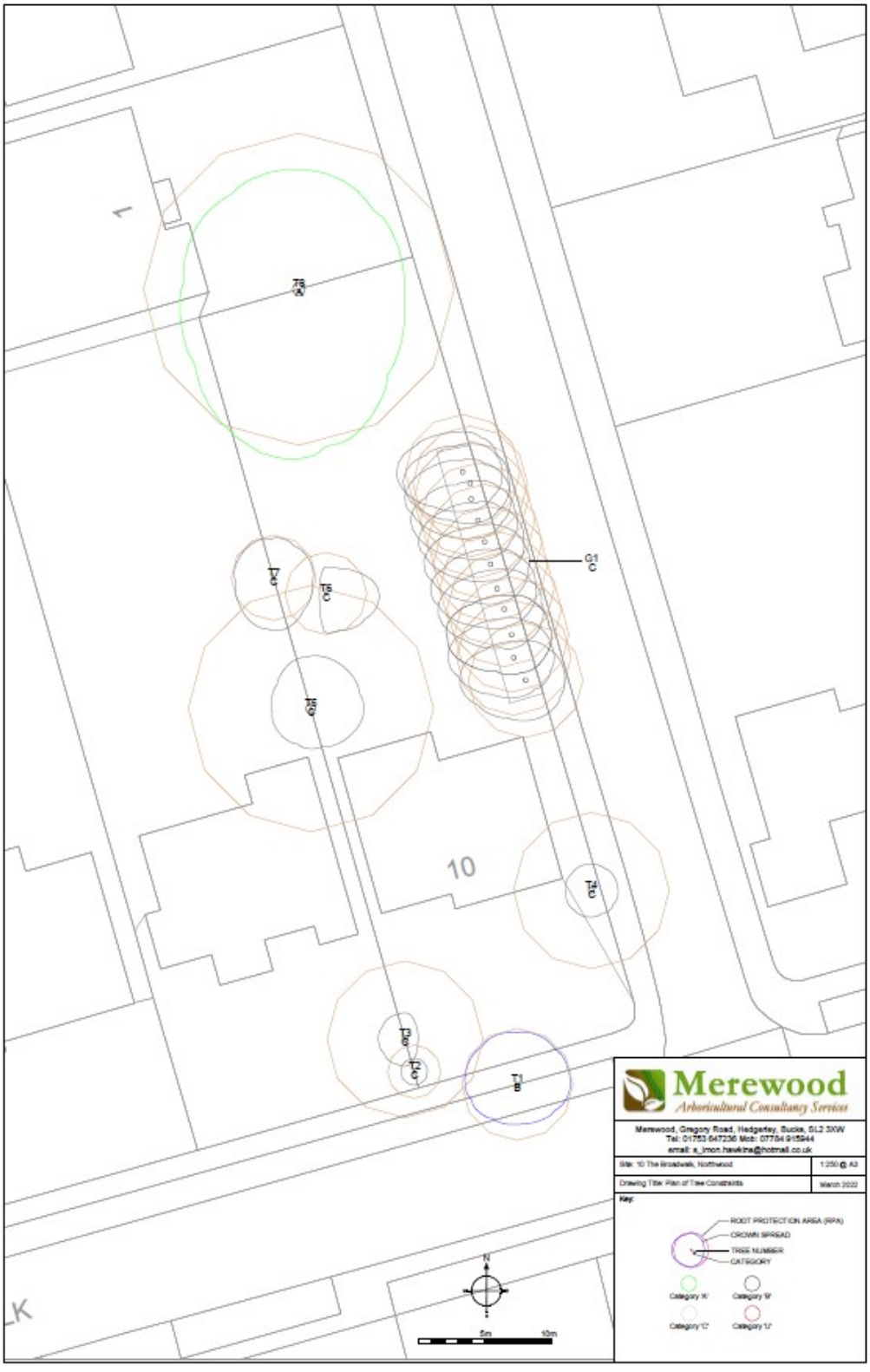
Category U - Red	Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
Category A - Green	**Those trees of the highest quality and value**: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).
Category B - Blue	**Trees of moderate to high quality and value**: in such a condition as to be able to make a significant contribution (a minimum of 20 years is suggested).
Category C - Grey	**Trees of low quality and value**: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter of below 150mm
Subcategory 1 concerns mainly arboricultural values, how good a specimen is in terms of form and physiological condition; the value of a tree as a component in a group or in a formal or semi-formal arboricultural feature such as an avenue.	
Subcategory 2 concerns mainly landscape values and considers the importance of a tree or group of trees as an arboricultural or landscape feature. Trees present in larger numbers, such as woodlands for example may attract a higher rating than they would as individuals because of their collective value.	
Subcategory 3 concerns mainly cultural values including conservation, historical, commemorative, or other value such as veteran or wood pasture.	

5. RPA's of single stemmed trees are calculated according to the following formula:
   RPA radius = 12 x stem diameter (measured at 1.5m above ground level)
6. Where a tree has more than one stem, the equivalent single stem diameter is usually recorded. This is calculated by adding the squares of the stems and then finding the square root of the total. The radius of the RPA is then calculated by multiplying the equivalent stem diameter by 12 (ref B.S. 5837:2012 para 4.6.1). Where access is restricted an estimate of the stem diameter is provided and this is indicated in the appropriate column.

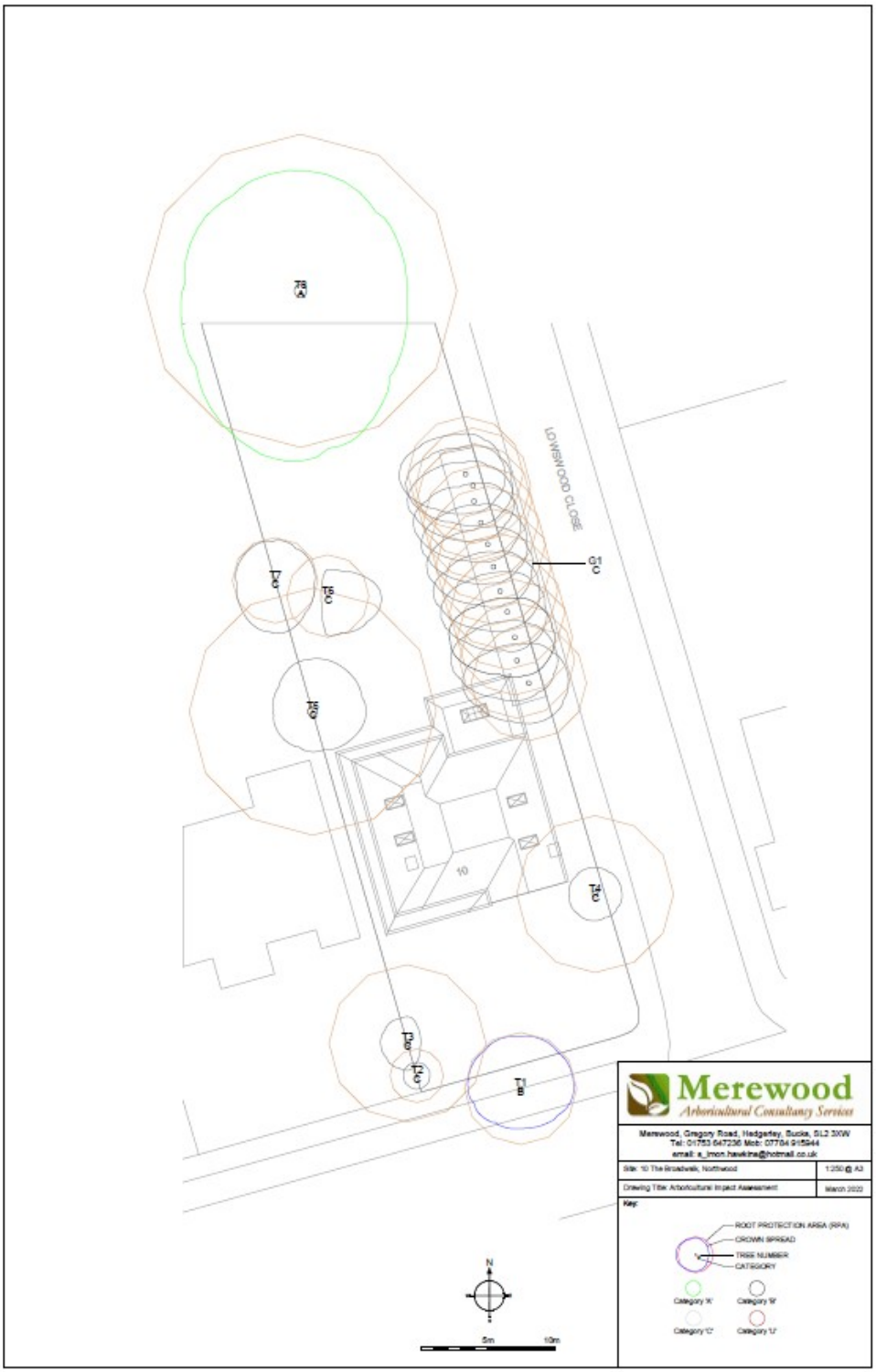
Appendix 2
Schedule of tree constraints

Tree no	Species	Height	Stem diameter	Crown spread				Height to1st main branch	Height of canopy	Age	General observations	Life expectancy	Category
				North	South	East	West						
T1	Field maple	11	340	4	4	3	4	F	F	M	Central leading stem has been damaged by a high sided vehicle causing a split	20 - 40	B
T2	Holly	7	100 100 80	1	1	1	1	F	F	M		40+	C
T3	Lawson cypress	11	360 280 140	2	1	2	2	P	F	M	One stem has died completely	40+	C
T4	Lawson cypress	12	340 220 230 100	2	2	2	2	G	F	M		40+	C
T5	Western red cedar	17	750	4	4	3	3	G	G	M		40+	C
T6	Apple	8	250	2	4	3	0.5	G	G	M		10 - 20	C
T7	Apple	8	260	3	3	4	3	F	F	M		20 - 40	C
T8	Oak	21	950	9	8	13	9	G	G	M		40+	A
G1	Western red cedar	14	350	3	3	3	3	G	G	M	Hedging that has not been appropriately maintained	40+	C

Appendix 3
Plan of Tree Constraints



Appendix 4
Impact Assessment Plan



Appendix 5
Qualifications and experience

- I am Simon Hawkins, proprietor of Merewood Arboricultural Consultancy Services.

- I hold the Level 6 Professional Diploma in Arboriculture. This is the highest level of award in the industry.

- I hold the National Diploma in Arboriculture which I attained in 1987. I have studied and practised Arboriculture for over 30 years, during which time I have been involved with both the private and public sector.

- I hold the LANTRA award for professional tree inspections

- I hold professional member status of the Arboricultural Association (M. Arbor A.), recognised as a higher vocational level within the industry.

- I have undertaken an intensive course in the principles and application of VTA Visual Tree Assessment. I have been assessed and found to have attained the advanced level of technical competence of a VTA Practitioner with Elite Training.

- I have over 18 years' experience working in the public sector, during which time I have dealt with all aspects of trees and development in the town planning context, within the inner city; in a greater London Borough; and in the Green Belt. Typically, I have worked with planners, developers, architects and other professionals in the construction industry in which I provide advice and assistance in dealing with arboricultural matters.

- I have appeared at numerous appeals, informal hearings and public enquiries to make formal representations. I have also appeared as an expert witness in court with regard to breaches of a Tree Preservations Order.