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BS:5837 ARBORICULTURAL REPORT

ARBORICULTURAL SURVEY & METHOD STATEMENT

2 VERNON DRIVE
HAREFIELD
UXBRIDGE
GREATER LONDON
UB9 6EG

CLIENT: ALLEN CONSTRUCTION CONSULTANCY

OCTOBER 2024
Ref: 06564 / 2024

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1. INTRODUCTION

1.1 INSTRUCTION

This Arboricultural report has been prepared by Sarah Duckworth, Arboricultural Consultant and provides an Arboricultural Method Statement relating to the protection of trees growing within on/ adjacent to 2 Vernon Drive, Harefield.

On 10th May 2024, consent was granted by Hillingdon Council for the demolition of an existing dwelling and erection of 2no. semi-detached properties with associated works as detailed under application ref: 4007/APP/2024/498.

I have been instructed to provide an Arboricultural Report to discharge pre-commencement conditions no. 10 & 11 of the planning consent which requires that:

CONDITION 10:

No site clearance or construction work shall take place until the details have been submitted to, and approved in writing by, the Local Planning Authority with respect to:

1. A method statement outlining the sequence of development on the site including demolition, building works and tree protection measures.

2. Detailed drawings showing the position and type of fencing to protect the entire root areas/crown spread of trees, hedges and other vegetation to be retained shall be submitted to the Local Planning Authority for approval.

No site clearance works or development shall be commenced until these drawings have been approved and the fencing has been erected in accordance with the details approved. Unless otherwise agreed in writing by the Local Planning Authority. Such fencing should be a minimum height of 1.5 metres.

Thereafter, the development shall be implemented in accordance with the approved details. The fencing shall be retained in position until development is completed.

The area within the approved protective fencing shall remain undisturbed during the course of the works and in particular in these areas:

2.a There shall be no changes in ground levels;

2.b No materials or plant shall be stored;

2.c No buildings or temporary buildings shall be erected or stationed.

2.d No materials or waste shall be burnt; and.

2.e No drain runs or other trenches shall be dug or otherwise created, without the prior written consent of the Local Planning Authority.

3. Where the arboricultural method statement recommends that the tree protection measures for a site will be monitored and supervised by an arboricultural consultant at key stages of the development, records of the site inspections / meetings shall be submitted to the Local Planning Authority.

REASON
To ensure that trees and other vegetation can and will be retained on site and not damaged during construction work and to ensure that the development conforms with policy DMHB 14 of the Hillingdon Local Plan Part 2 (2020)

CONDITION 11:

Trees, hedges and shrubs shown to be retained on the approved plan(s) shall not be damaged, uprooted, felled, lopped or topped without the prior written consent of the Local Planning Authority. If any retained tree, hedge or shrub is removed or severely damaged during (or after) construction, or is found to be seriously diseased or dying, another tree, hedge or shrub shall be planted at the same PDECCAP (ODB 2022) 4007/APP/2024/498 4 of 11 place or, if planting in the same place would leave the new tree, hedge or shrub susceptible to disease, then the planting should be in a position to be first agreed in writing with the Local Planning Authority and shall be of a size and species to be agreed in writing by the Local Planning Authority and shall be planted in the first planting season following the completion of the development or the occupation of the buildings, whichever is the earlier.

Where damage is less severe, a schedule of remedial works necessary to ameliorate the effect of damage by tree surgery, feeding or groundwork shall be agreed in writing with the Local Planning Authority.

New planting should comply with BS 3936 (1992) 'Nursery Stock, Part 1, Specification for Trees and Shrubs' Remedial work should be carried out to BS 3998:2010 'Tree work - Recommendations' and BS 4428 (1989) 'Code of Practice for General Landscape Operations (Excluding Hard Surfaces)'. The agreed work shall be completed in the first planting season following the completion of the development or the occupation of the buildings, whichever is the earlier.

REASON
To ensure that the trees and other vegetation continue to make a valuable contribution to the amenity of the area in accordance with policy DMHB 14 of the Hillingdon Local Plan Part 2 (2020) and to comply with Section 197 of the Town and Country Planning Act 1990.

1.2 SCOPE

The British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' provides a means of protecting the trees which may be affected during development.

The report is not a Tree Risk Management Report or a Hazard Analysis Report and its use as such is invalid.

Trees were assessed from ground level only and from the public highway. My assessment of third-party trees was limited where direct access was not available to the adjoining properties.

1.3 DOCUMENTS

Trees on the Tree Protection Plan have been taken from a site plan provided by the client. The position of the trees should not be taken as exact, but the Tree Protection Plan is a good representation of their locations in relation to the proposed building area.

The Tree Protection Plan which accompanies this report is illustrative and should be used for dealing with tree issues only.

1.4 CAVEATS

The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

The report is valid for a period of two years from the date of issue being 27th October 2024 and will expire on 27th October 2026.

DISCLAIMER: This is an independently produced Arboricultural Report. I have no connection with any of the parties involved in this site or application that could influence or bias the opinions expressed in this report.

2. PLANNING CONSTRAINTS

2.1 TREE PRESERVATION ORDERS

I have confirmed on the London Borough of Hillingdon Council website that there are no Tree Preservation Orders on site.

The protected status of trees is subject to change. You are advised to reconfirm the protected status of trees prior to carrying out any works to trees on site.

2.2 CONSERVATION AREA

2 Vernon Drive is within the Harefield Village Conservation Area.

Under the Town and Country Planning Act 1990 all trees in a Conservation Area with a trunk diameter of 75mm or more (measured at 1.5m above natural ground level) are protected (subject to some exemptions). It is an offence to prune, fell or otherwise damage a tree without first giving notice to the Council.

You are required to give the Borough Council six – weeks' notice of works to trees within a Conservation Area (a Section 211 Notification). The Local Authority cannot refuse the works, but it will use the six-week notification to consider whether the work is sufficiently harmful to amenity that it is expedient to serve a tree preservation order on the tree(s) in order to prevent or modify the works.

The protected status of trees can change; therefore, you are advised to re-confirm the status on the Council's online Tree Preservation Order Map immediately prior to carrying out tree works.

2.3 ANCIENT WOODLAND

2 Vernon Drive does not include Ancient Woodland, nor is the site within an Ancient Woodland Buffer Zone.

3. ARBORICULTURAL METHOD STATEMENT (AMS)

4.1 INTRODUCTION

This Arboricultural Method Statement specifies the detailed methodology that will be employed to prevent damage to the trees growing on land at 2 Vernon Drive during building works to construct two new dwellings to replace an existing fire damaged dwelling.

The correct and timely installation of tree protection measures such as tree protection fencing is critical to ensure the long-term retention of a healthy tree stock on or adjacent to the development.

This method statement will be read, approved and agreed to by all key personnel prior to the commencement of works within the site.

WARNING: FAILURE TO FOLLOW THE ARBORICULTURAL METHOD STATEMENT ONCE APPROVED CAN CAUSE IRREPARABLE HARM TO TREES AND MAY INVALIDATE YOUR PLANNING CONSENT.

4.2 SOIL

The soil on site was assessed by an appraisal on the British Geological Drift Survey Map only. According to the 1:50,000 scale map records, the bedrock geology for 2 Vernon Drive is London Clay Formation consisting of clay, silt and sand.

Soil characteristics and index properties (shrink / swell potential) can only be determined precisely by laboratory testing of soil samples. However, London clay is generally considered to be a 'High Plasticity' soil and is known to have significant capacity to shrink and swell with changing moisture levels.

Foundation depths will be calculated in accordance with NHBC Chapter 4.2 following a detailed on-site soil analysis, taking into account the presence of any clay and future growth of the adjacent trees.

4.3 TREE WORKS AND REMOVAL

There are no trees within the curtilage of 2 Vernon Drive.

No tree works are required to facilitate the build.

4.4 SITE SUPERVISION AND MONITORING.

This schedule for site supervision and monitoring is considered reasonable and proportionate to the arboricultural issues and low-intensity of the proposed development within the site.

The appointed Arboricultural Consultant will be notified once the Tree Protection Fencing is in place as shown in the Tree Protection Plan. He/She will ensure that the tree protection measures are situated as approved and that they are fit-for-purpose.

Photos of the tree protection will be forwarded to Hillingdon Council's Tree /Planning Team following this site visit.

The appointed Arboricultural Consultant will be present during ground works to extend an area of hard landscaping to form a wider site entrance (see paragraph 4.8)

A copy of the Arboricultural Method Statement and Tree Protection Plan will be available on site for reference.

4.5 ON-SITE TREE SUPERVISOR.

In addition to the appointed Arboriculturist, there will be a designated on-site 'tree supervisor'. This will be a member of the build team who is responsible for ensuring no works are undertaken on site except in complete accordance with the approved Arboricultural Method Statement when the Arboricultural Consultant is not present.

The on-site tree supervisor will:

- Be present on site most of the time.
- Be aware of the arboricultural responsibilities relating to the protected / retained trees on site.
- Have the authority to stop any work that will, or have the potential to, cause harm to any tree.
- Be responsible for ensuring that all site personnel are aware of their responsibilities towards trees on site and the consequences of the failure to observe those responsibilities.
- Make immediate contact with the Council and/or the retained arboriculturalist in the event of any related tree problems occurring whether actual or potential.
- Ensure a commitment from all parties to the healthy retention of the trees, these details will be passed to any contractors working on site, so that the practical aspects of the above precautions are included in their method statements, and financial provision made for these.

4.6 TREE PROTECTION FENCING

No works in relation to the permitted development will be undertaken, including construction, excavation or demolition, prior to the Tree Protection Fencing being installed in the locations shown in the Tree Protection Plan.

The Tree Protection Fencing will consist of a vertical and horizontal scaffold framework braced well to resist impact. The vertical tubes will be spaced at a maximum distance of 3m and driven securely into the ground. Onto this framework welded mesh – 'Heras' style fencing panels or similar will be securely fixed. (See Appendix D). All-weather signage stating 'TREE PROTECTION AREA – KEEP OUT' will be attached to the outer perimeter of the Tree Protection Fencing.

The fencing will be located at all times to protect the retained trees and their rooting areas and will remain rigid and complete during development.

At no time will Tree Protection Fencing be removed or relocated contrary to the recommendations in this report, without professional arboricultural advice and without the prior consent of the Local Authority Tree Officer.

4.7 CONSTRUCTION EXCLUSION ZONE

The area to the rear of the Tree Protection Fencing as indicated on the Tree Protection Plan is designated the 'Construction Exclusion Zone' and will be isolated from all activity during construction work.

THERE WILL BE NO STORAGE, PARKING, VEHICLE MOVEMENT OR PEDESTRIAN ACTIVITY, TEMPORARY OR OTHERWISE, WITHIN THE CONSTRUCTION EXCLUSION ZONE AT ANY TIME DURING THE COURSE OF THE BUILD.

4.8 ARBORICULTURAL WATCHING BRIEF

The appointed Arboricultural Consultant will be present during the initial groundwork to extend an area of hard landscaping to form a wider site entrance where it falls within the Root Protection Area of T001 (Silver Birch).

The Arboricultural Consultant will oversee the excavation zone to assess for tree roots. The ground will be carefully excavated by hand with operatives working from protected ground or from existing areas of hard landscaping.

Any woody roots identified within the new block paved area will be cut back to the edge of the trench using sharp hand tools to prevent splits and fractures forming back along the root.

Concrete is toxic to tree roots and should not come into direct contact with the ground. Non porous plastic sheeting will be used to line the excavation and protect the ground before any concrete / sharp sand is laid as a subbase to the block paving within the root protection area.

4.9 GENERAL CONSIDERATIONS

Roots can be killed by pollution of the rooting area by chemicals and leaching. Loose, granular or liquid materials, including cement mix and fuel will be stored on an impermeable membrane within the site and well away from all Tree Root Protection Areas.

Particular care will be taken in the planning of deliveries if they require wide or tall loads and plants with booms, rigs or counterweights which can cause serious and permanent damage to trees making their safe retention impossible.

There will be no open fires on site during the building works.

4.10 UNFORESEEN CIRCUMSTANCES

In the event of unforeseen circumstances whereby it is not possible to work in accordance with the Arboricultural Method Statement then advice should be sought immediately from a qualified Arboriculturist.

THERE SHALL BE NO DEVIATION FROM THIS METHOD STATEMENT WITHOUT CONSULTATION WITH A QUALIFIED ARBORICULTURIST AND / OR THE WRITTEN CONSENT OF THE LOCAL PLANNING AUTHORITY.

APPENDICES

A. Phasing of Works
B. Survey Data
C. Key
D. Tree Protection Fencing
E. Cascade Chart for Tree Quality Assessment
F. Tree Data
G. Tree Plans
H. Contacts
I. Qualifications

APPENDIX A – PHASING OF WORKS

STAGE 1 (PRE-COMMENCEMENT)

INSTALLATION TREE PROTECTION FENCING

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SITE MEETING TO SIGN OFF TREE PROTECTION FENCING
(NOTIFY LOCAL AUTHORITY -MIN 5 DAYS)

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STAGE 2 (DEMOLITION & CONSTRUCTION)

HAND-DIG EXCAVATION OF VERGE
UNDER ARBORICULTURAL WATCHING BRIEF

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TREE PROTECTION MEASURES TO REMAIN RIGID AND INTACT
THROUGHOUT BUILD WORKS.

↓

STAGE 3 (POST DEVELOPMENT)

REMOVE TREE PROTECTION MEASURES
NOTIFY LOCAL AUTHORITY -MIN 5 DAYS)

APPENDIX B - SURVEY DATA

- The trees were surveyed on Friday 25th October 2024 from ground level only.
- On the day of the survey, the weather conditions were dry. Visibility was good.
- Heights were estimated as part of a group. Soil samples were not taken.
- The tree survey identified 5 trees growing on or adjacent to the site which were relevant to this planning application.
- The trees on site were assessed for their quality and benefits within the context of the proposed development and categorised in accordance with the recommendations in the BS: 5837:2012 – 'Trees in Relation to Design, Demolition and Construction'.

APPENDIX C - KEY

Ref: T001 = Tree 1 G001 = Group 1

A001 = Area 1 W001 = Woodland 1

Species: Common name (Botanical name)

Height: Measured with a clinometer (m) where possible or estimated when part of a group

Stem: Stem diameter taken at 1.5m with girth tape or rule and recorded in millimeters

Branch spread: Paced measurements at compass points or with a laser measure.

Crown clearance: Existing height above ground level of canopy and / or first significant branch direction of growth in metres e.g., 2.4 (N) where relevant.

Epics: Lower canopy created by epicormic growth.

Age Class: Newly planted - 3 years following planting.

Young - Tree well established but with juvenile crown form

Young Mature - Tree in first third of usual life expectancy for species

Mature - Tree in second third of usual life expectancy for species

Over Mature - Tree in final third of usual life expectancy for species / exhibiting signs of crown retrenchment & senescence.

Veteran - Older than usual for species or with historical/ cultural / ecological value

General Observations: Made with reference to physiological condition (health, vigour) and structural condition, noting evidence of decay, structural weakness and physical defect and preliminary management recommendations.

Estimated Remaining Contribution: Estimated in years - less than 10, 10-20, 20-40, 40+

BS: 5837:2012 category rating: In accordance with the guidelines of the British Standard.

Category 'A' tree (Green) Category 'C' tree (Grey)

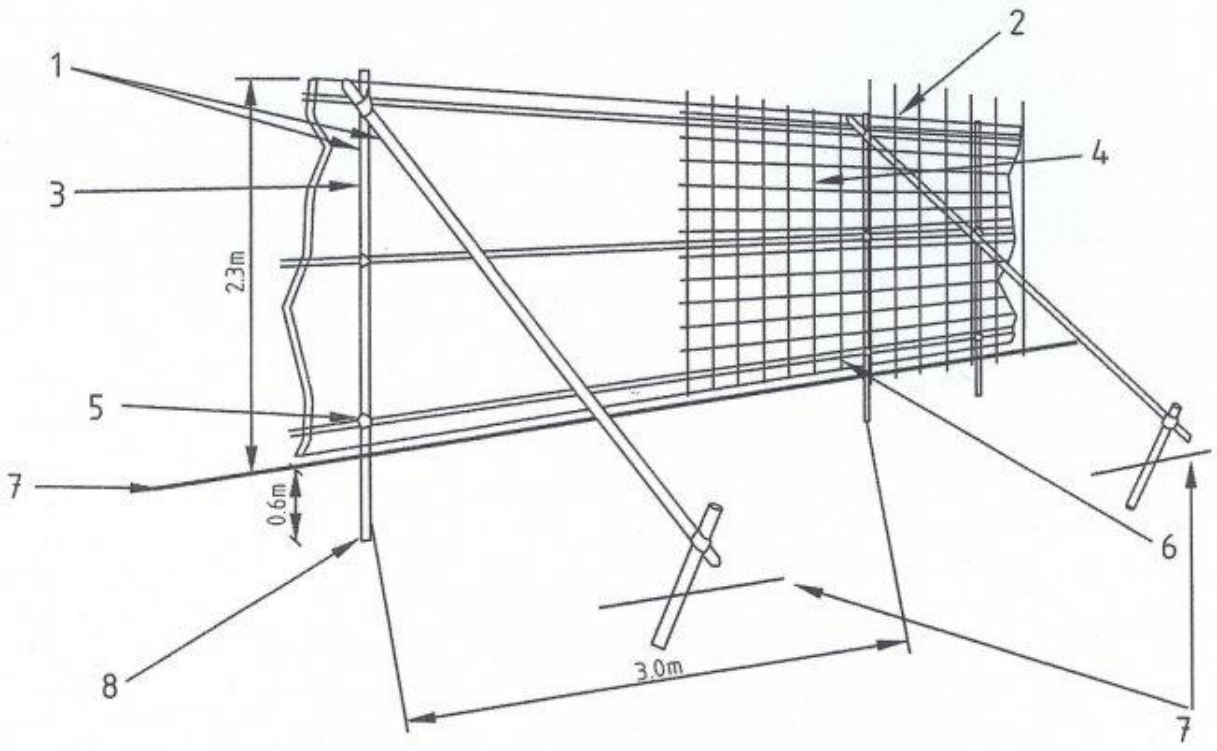
Category 'B' tree (Blue) Category 'U' tree – Fell (Red)

RPA Area BS:5837 (2012) Root Protection Area calculation in square metres

RPA Radius BS:5837 (2012) Root Protection Area calculation circle radius in metres. [1]

[1] The root protection area radius is for information only and may not be appropriate in every case. BS:5837 advises that *'the RPA for each tree should initially be plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting may have occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distributions.'*

APPENDIX D – TREE PROTECTION FENCING



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA

APPENDIX E - BS:5837 (2012) TABLE 1: CASCADE CHART FOR TREE QUALITY ASSESSMENT

CATEGORY & DEFINITION	CRITERIA (including sub-categories where appropriate)		
Trees unsuitable for retention			
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 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		
	Mainly Arboricultural Qualities	Mainly Landscape Qualities	Mainly cultural values including conservation
Trees considered suitable 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 remedial 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 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 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 F - TREE SURVEY DATA

Ref.	Species	Structure	Measurements	Spread	General Observations	Retention Category	RPA	Summary	Photo
T001	Staghorn sumac (Rhus typhina)	Tree	Height (m): 4.5 Stem Diam(mm): 230 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1.5 E:3.5 S:3 W:2	Offsite large shrub /small tree.	C2	Radius: 2.8m. Area: 25 sq m.	Physiological Condition: Good Structural Condition: Unknown Public Amenity Value: Low Inspection Limitations: Ivy	
T002	Silver birch (Betula pendula)	Tree	Height (m): 9 Stem Diam(mm): 290 Crown Clearance (m): 2.5 Life Stage: Mature Rem. Contrib.: 20+ Years	N:3.5 E:3 S:3.5 W:4	Street tree. Prominent location. Canopy lacks vitality.	B1	Radius: 3.5m. Area: 38 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Good	

Ref.	Species	Structure	Measurements	Spread	General Observations	Retention Category	RPA	Summary	Photo
T003	Pedunculate oak (Quercus robur)	Tree	Height (m): 15 Stem Diam(mm): 960 Crown Clearance (m): 3.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:9 E:9 S:9 W:9	Major trunk wound with decay likely. Trunk topped at at 4m. Broad canopy. Good vitality.	B3	Radius: 11.5m. Area: 415sq m.	Physiological Condition: Good Structural Condition: Physical Defect Public Amenity Value: High	
T004	Pedunculate oak (Quercus robur)	Tree	Height (m): 15 Stem Diam(mm): 920 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:6 E:4 S:6 W:7	Ivy clad. Habitat holes in branch in upper crown. Good vitality.	A3	Radius: 11.0m. Area: 380sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: High Inspection Limitations: Ivy	
T005	Lime (Tilia sp.)	Tree	Height (m): 12 Stem Diam(mm): 820 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:5 E:4.5 S:4 W:4.5	Offsite tree. Base and trunk obscured by ivy and dense epicormic growth. Defects likely under ivy bases on condition of crown. Dieback in canopy.	C1,2	Radius: 9.8m. Area: 302sq m.	Physiological Condition: Poor Structural Condition: Unknown Public Amenity Value: Moderate Inspection Limitations: Access, ivy, dense vegetation.	

APPENDIX G – TREE PLANS

Attached as separate pdf documents

- Tree Protection Plan ref: 2 VERNON DRIVE TPP 06564 2024

APPENDIX H – CONTACTS

Arboricultural Consultant
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APPENDIX I - QUALIFICATIONS

This Arboricultural report has been prepared by Sarah Duckworth, Independent Arboricultural Consultant, trading as Duckworth's Arboriculture Limited.

I have over 19 years' experience working in the field of Arboriculture and for the past 16 years I have worked as a Local Authority Tree Officer both directly and independently providing contracted support. Since 2010 I have worked as a private consultant carrying out a range of Arboricultural Reports and Assessments for private clients.

I hold the Royal Forestry Society's Professional Diploma (Level 6) for which I received the Lockhart Garrett Award. I also hold the Arboricultural Association's Technicians Certificate (with Distinction).

I am a LANTRA qualified Professional Tree Inspector and a Professional Member of the Arboricultural Association.