Arboricultural Impact Assessment

For

Rebecca Parnell
Broad Oak House
High Street
Glyn Ceiriog
Llangollen
LL20 7EH

Reference: Q17792

Prepared by
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Date: November 2025

Quality Assurance

Client	Rebecca Parnell Broad Oak House High Street Glyn Ceiriog Llangollen LL20 7EH
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Reference	Q17792
Date	11th November 2025
Principle Author	Isabel Di Marco [redacted]
Qualifications	BSc (Hons)
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Qualifications	MSc (Hons), QCIEEM

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1. Introduction – Purpose and Scope

1.1. ProHort Limited have been commissioned by Rebecca Parnell to conduct an Arboricultural Survey and Impact Assessment of the land at Broad Oak House, High Street, Glyn Ceiriog, Llangollen, LL20 7EH (grid reference: SJ 20232 37845). This report details the Arboricultural Impact Assessment of the trees on the site, subsequent mitigation, recommendations and protective measures, and should be read in conjunction with the BS5837:2012 Tree Survey (Q17792) conducted on 30th of October 2025 by ProHort Ltd.

1.2. The survey was carried out on 30th of October 2025 by means of inspection from ground level by a qualified Arboricultural Consultant and was completed in accordance with the BS5837:2012. Under the British Standard, the assessment of trees is made objectively and without influence by the client.

1.3. This report's purpose is to present the Local Planning Authority (LPA) with the necessary arboricultural information required to support the planning application. The report assesses the impact of the proposed development, and that appropriate consideration has been given to subsequent mitigation where required.

1.4. There is proposed development on the site, consisting of the conversion of a detached house into two semi-detached houses.

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2. Arboricultural Impact Assessment

2.1. The main focus of the Arboricultural Impact Assessment is T1, T2, T3, T4, T5, T6 and T7 as identified in the Tree Constraints Plan and Survey Schedule in the BS5837:2012 tree survey (Q13026) conducted on the 11th of November by ProHort Ltd.

2.2. The proposed conversion of a detached house into two semi-detached houses has been designed and positioned to minimise the impact on the tree and soil structure. Hard surfacing will be designed and constructed using a no-dig, porous system, also to have a minimal impact on the remaining trees.

2.3. **Assessment of tree constraints**

2.3.1. A Tree Constraints Plan was produced during the initial design stage to allow for the proper assessment of tree constraints. These can be categorised in two areas as follows:

2.3.1.1. Below Ground Constraints - A root protection area (RPA) is a layout design tool indicating the minimum area surrounding the tree that contains sufficient rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. Clause 4.6.2 of BS 5837:2012 states that the RPA may be changed in shape, taking into account local site factors, species tolerance, condition and root morphology. BS 5837:2012 also states that no construction works should be carried out within RPAs except in exceptional circumstances, which may need demonstrating.

2.3.1.2. Above Ground Constraints - These are indicated by the crown spread of trees to be retained, including their ultimate spread, along with a shade pattern shown for each tree, where relevant. This is shown as an arc from north-west to due east. This gives an indication of the patterns of shadows created by trees around midday in the summer. This is as recommended by BS 5837:2012 (Section 5.2.2) however actual shade patterns throughout the year will vary widely. Where shading is likely to be a serious constraint, a more detailed analysis of shade pattern using proprietary software may be deemed necessary.

2.4. **Trees to be removed to facilitate development.**

The table below describes the tree losses required to facilitate the proposed development and makes subsequent recommendations for compensatory measures to be put in place.

BS 5837 category, tree number & species	Reason for removal	Impact	Compensatory measures
T1	Roots and canopies within proposed development area	Moderate impact due to good quality tree	Replaced through planting young trees
T2	Roots and canopies within proposed development area	Minimal impact due to fair quality tree	Replaced through planting young trees
T3	Roots and canopies within proposed development area	Moderate impact due to good quality tree	Replaced through planting young trees
T4	Roots and canopies within proposed development area	Minimal impact due to poor quality tree	Replaced through planting young trees
T5	Roots and canopies within proposed development area	Minimal impact due to fair quality tree	Replaced through planting young trees
T6	Roots and canopies within proposed development area	Minimal impact due to poor quality tree	Replaced through planting young trees
T7	Roots and canopies within proposed development area	Minimal impact due to poor quality tree	Replaced through planting young trees

2.5. **Root protection area incursions.**

Compaction of compressible soils is probably the single most common cause of death or damage to retained trees on development sites. Soil compaction reduces soil pore space, which in turn reduces soil air, the passage of water and available nutrients. These anaerobic conditions prevent root growth and the proliferation of soil microbes essential to tree health. Symptoms in trees will include crown die-back, sparse, and small foliage, poor extension growth etc., however these may not be evident until well after the occurrence of compaction. Even one pass of a vehicle in wet conditions can cause irreparable soil compaction.

Any proposed incursions into RPAs have taken account of the recommendations set out in 5.3 of BS 5837 (reproduced below):

5.3 Proximity of structures to trees

5.3.1 The default position should be that structures (see 3.10) are located outside the RPAs of trees to be retained. However, where there is an overriding justification for construction within the RPA, technical solutions might be available that prevent damage to the tree(s) (see Clause 7). If operations within the RPA are proposed, the project arboriculturist should:
a) demonstrate that the tree(s) can remain viable and that the area lost to encroachment can be compensated for elsewhere, contiguous with its RPA.
b) propose a series of mitigation measures to improve the soil environment that is used by the tree for growth.

5.3.2 The cumulative effects of incursions into the RPA, e.g., from excavation for utility apparatus, are damaging and should be avoided. Where there is evidence that a tree has been previously subjected to damage by construction activity, this should be taken into account when considering the acceptability of further activity within the RPA.

On some sites, there may be a requirement to excavate soil as part of investigation or remediation works not directly connected to the development, such as archaeological investigations, contaminated soil or Japanese knotweed control etc. This has the potential to be very damaging to trees which must be considered in any proposals and the project arboriculturist should be consulted on any excavation within RPAs.

Existing and proposed finished levels.

During design, consideration should be given to changes in ground levels. This can be addressed as part of a detailed Arboricultural Method Statement. However, it is important at the planning stage to recognise any significant changes. Even where this occurs outside the RPA of a retained tree it still has the ability to impact on the tree and methods of dealing with the change in levels such as retaining walls, slopes etc. should be achievable without incursion into the RPA.

Trees affected by RPA incursions.

BS 5837 category, tree number & species	**RPA incursion, precautions & specialised methodology required**
A (high quality)	None
None	
B (moderate quality)	None
None	
C (low quality)	None
None	

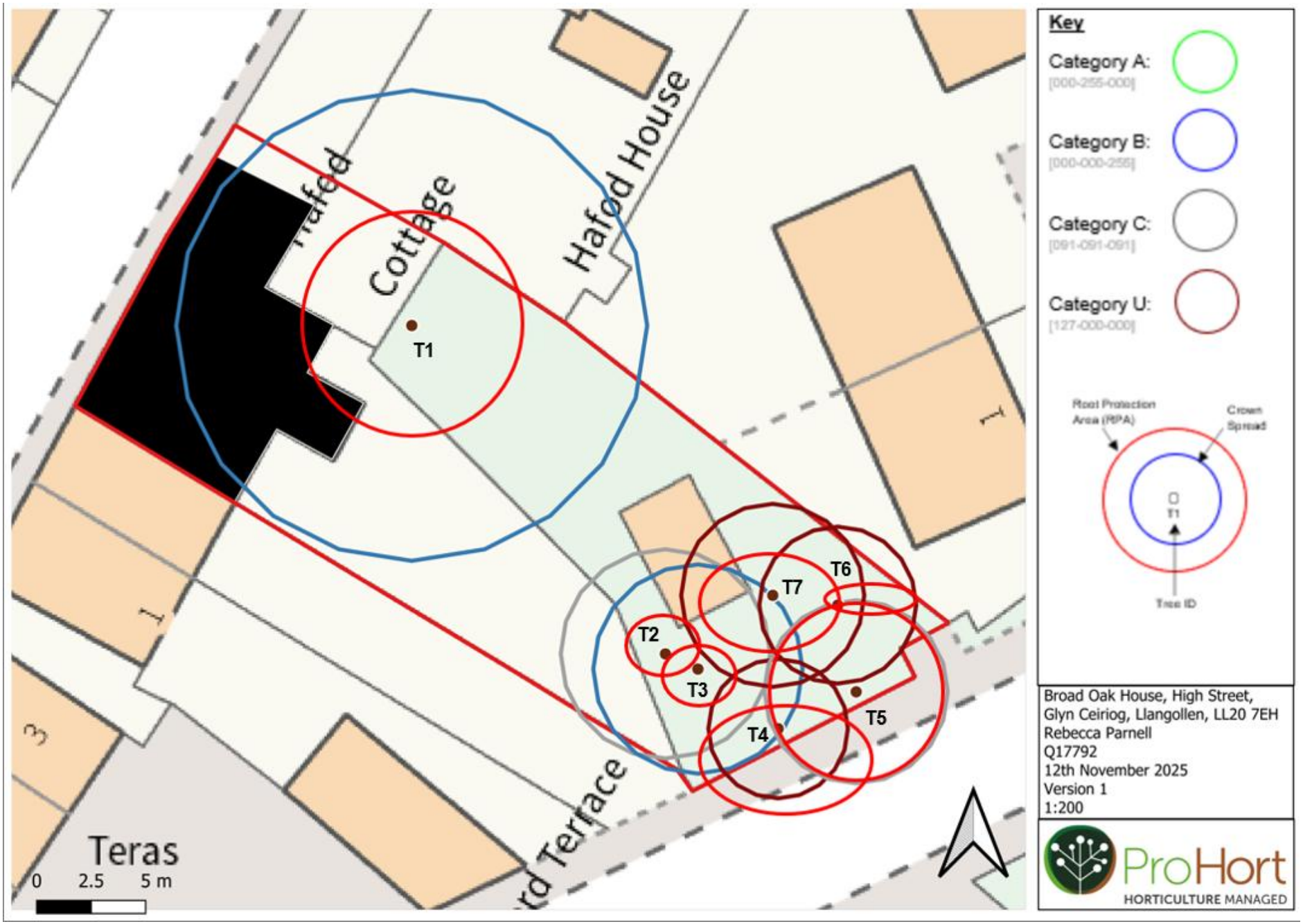
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Arboricultural Survey Data Sheet

Site Plan



Limitations & Qualifications
Tree inspection reports are subject to the following limitations and qualifications.

General exclusions

Unless specifically mentioned, the report will only be concerned with above ground inspections. No below ground inspections will be carried out without prior confirmation from the client that such works should be undertaken.

The validity, accuracy and findings of this report will be directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. ProHort Ltd will not be responsible for the recommendations within this report where essential data is not made available or is inaccurate.

This report will remain valid for one year from the date of inspection but will become invalid if any building works are carried out upon the property, if soil levels altered in any way close to the trees surveyed, or if tree work is undertaken. It must also be appreciated that recommendations proposed within this report may be superseded by extreme weather or any other unreasonably foreseeable events.

If alterations to the property or soil levels are carried out, or tree work is undertaken, it is strongly recommended that a new tree inspection is carried out.

It will be appreciated, and deemed to be accepted by the client and their insurers, that the formulation of the recommendations for the management of trees will be guided by the following: -

1. The need to avoid reasonable foreseeable damage.
2. The arboricultural considerations - Tree safety, Good Arboricultural practice (tree work) and aesthetics.

The client and their insurers are deemed to have accepted the limitation placed on the recommendations by the sources quoted in the attached report. Where sources are limited by time constraints or the client, this may lead to an incomplete quantification of the risk.

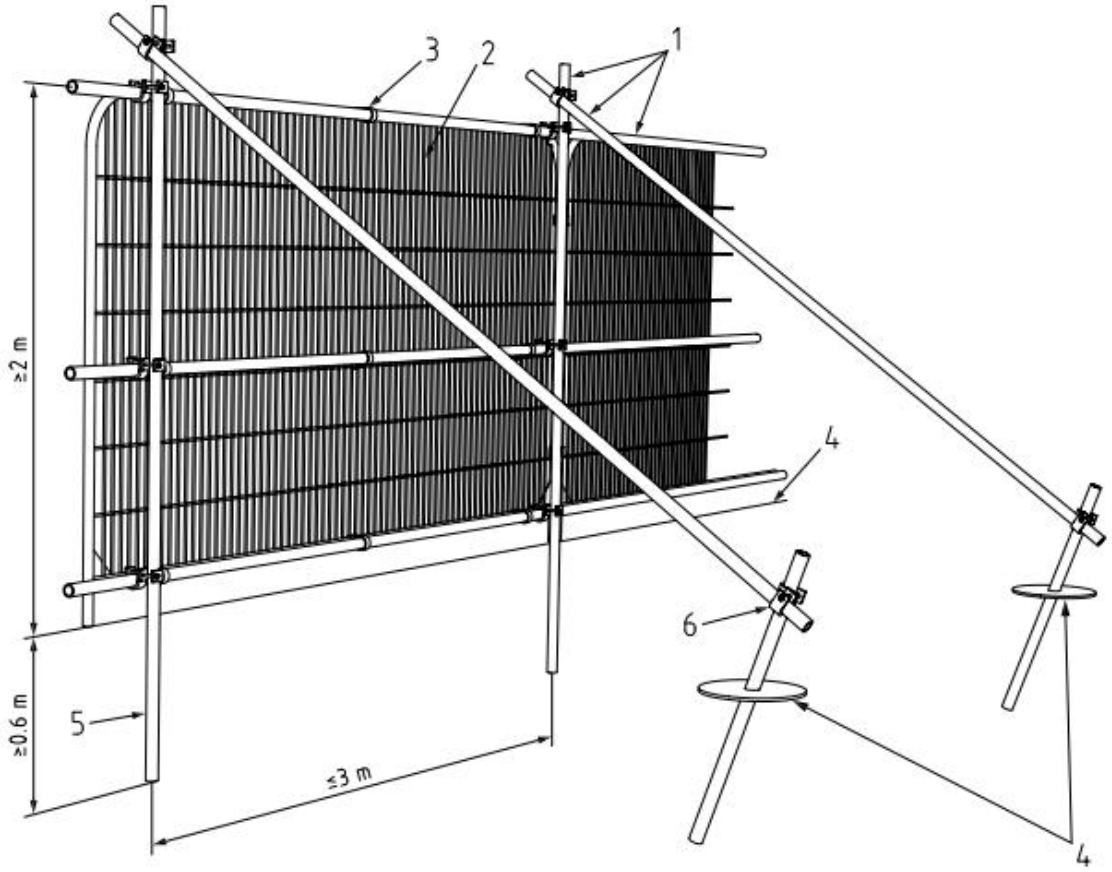


Jason Harker **Arboricultural Consultant - ProHort Limited**

Appendix 1: Air Lance Methodology

- All equipment should be pre-certified and then checked by a competent person when it arrives on site.
- Only trained and competent individuals should use the equipment.
- Using the Air-lance you can; loosen, aerate or agitate the ground.
- Loose aggregates are then ideally removed via suction.
- If removal by suction is not viable, then the aggregates can be carefully removed by hand, using a spade or shovel.
- If the soil is very hard, high-pressure water can be used to agitate the soil.
- The vacuum would then be used in conjunction with this to remove the loosened aggregates.
- The soil and aggregates removed can if appropriate be reused in backfilling the area excavated. If the soil or aggregate is contaminated this can be disposed of at a licensed landfill site or be taken for repurposing

Tree Protective Fencing Method



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Heras Fencing with additional ground support to ensure the fencing will not be knocked over if accidentally knocked by machinery.

Protective fencing is not required for the proposed works contained within this report.

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Construction Exclusion Zone – Keep Out" sign



This sign must be minimum A4 size and at 1.5 metres above ground level.

These are not required for the work proposed in this report.

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