

# **North Hall Cottage**

## **Tree Report - BS5837:2012**

**October 2024**

*Date of survey: September 3rd, 2024*



Bioregional Forestry Ltd, 157 Balcombe Road, Horley, Surrey, RH6 9DR

07855 321972

[mark@bioregionalforestry.co.uk](mailto:mark@bioregionalforestry.co.uk)

[www.bioregionalforestry.co.uk](http://www.bioregionalforestry.co.uk)

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## 1. Introduction

### 1.1 Terms of reference

Bioregional Forestry Ltd was commissioned by Chris Mellish, owner of North Hall Cottage, to undertake a Tree Survey at North Hall Cottage, near Staplefield, West Sussex. The survey was conducted on 3<sup>rd</sup> September, 2024. The weather on the day was dry and cool, with light, southerly winds.

The survey has been produced in accordance with British Standard 5837:2012 Trees in Relation to design, demolition and construction – Recommendations, and is based upon a plan showing an indicative boundary supplied originally by Mr Mellish's architects, Ecotecture Ecological Design.

The aim of the survey is to provide information on the location, quality and condition of the relevant trees on-site, in order to inform the design and construction of a new extension to the main cottage and the demolition of an existing out-building.

The second part of the report will seek to demonstrate how to avoid impacting the Root Protection Areas (RPAs) of retained trees and to detail which trees will be required to be removed.

### 1.2 Scope of Works

A survey of the site was carried out on 3rd September, 2024 by Mark McCallum, Consultant Arboriculturist and Woodland Specialist at Bioregional Forestry Ltd. Mark has a BSc (Hons) degree in Rural Environment Studies (1995-1998) from Wye College, University of London, attended the Arboricultural Association BS5837 : Tree Surveying & Categorisation training course and holds the Lantra Professional Tree Inspection qualification (2008).

Mark has over 18 years of experience as an arboricultural and forestry consultant, working for a broad range of clients carrying out tree surveys, tree safety inspections and drafting woodland management plans.

All of the trees were inspected using the Visual Tree Assessment (VTA) methodology, detailed in "The Body Language of Trees" (Mattheck & Breloer, HMSO, 1994).

The survey is based on a Topographical Site Plan, provided by Ecotecture Ecological Design.

Details of all trees are listed in the schedule below with quantitative and qualitative information included as required by BS 5837:2012, sections 4.4 to 4.6. The information has been used to create a Tree Survey Plan '**BRF tree survey plan – North Hall Cottage, 2024**' showing the location of the trees, their crown spread and their Root Protection Areas (RPAs).

### 1.3 Site Description and Proposal

Built in the 18<sup>th</sup> Century, North Hall Cottage, is located approximately 4 miles to the northwest of Haywards Heath, in West Sussex. It has a large garden that extends to the north, containing numerous semi-mature and mature broadleaved trees and large shrubs.

The site is bordered to the west by a small rural road, Mallion's Lane and between the garden and the road, a stream flows to the north and then turns to the east, forming the northern boundary of the garden. The stream's flow varies in height throughout the year and it sits approximately 2 metres below the level of the garden and the road, with steeply banked sides.

The development proposal is to demolish an existing out-building, located to the northeast of the existing cottage and to build a new extension, directly to the east.

## 2 Tree Survey

This chapter is supported by the Tree Survey Plan **'BRF tree survey plan – North Hall Cottage - 2023'**

### 2.1 On site trees

The site contains a variety of native broadleaf trees and garden shrubs, both native and non-native but for the purposes of this report, three trees have relevance and are detailed below.

T1 is a large, mature double-stemmed ash tree, located approximately 16m to the northeast of the cottage.

T2 is a mature, multi-stemmed hazel coppice stool, located adjacent to Mallion's Lane, to the southwest of the cottage.

T3 is a young Cercis tree, located 3m to the northwest of the out-building, proposed to be demolished.

### 2.2 Off site trees

No off-site trees would be affected by the development proposal.

## 2.3 Tree Categories

All trees on the development site have been assessed and categorised in accordance with the guidelines in BS 5837:2012. The following table includes a brief summary of the categories, with more details provided in Table 1 of the British Standard.

| Trees to be considered for retention |                                                                                                                                                      |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Category A</b>                    | Trees of high quality with an estimated remaining life expectancy of at least 40 years                                                               |
| <b>Category B</b>                    | Trees of moderate quality with an estimated remaining life of at least 20 years                                                                      |
| <b>Category C</b>                    | Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm               |
| Trees unsuitable for retention       |                                                                                                                                                      |
| <b>Category U</b>                    | 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 |

## 2.4 Root Protection Areas (RPAs)

The RPAs recorded by the tree survey have been calculated in accordance with the guidance in chapter 4.6 of BS 5837:2012. For single stem trees, the RPA is equivalent to a circle with a radius 12 times the stem diameter.

For trees with between two to five stems, the combined stem diameter is calculated by finding the square root of the sum of the squared stem diameters. For trees with more than five stems, the combined stem diameter is calculated by finding the square root of the sum of the mean diameter squared, multiplied by the number of stems.

## 2.5 Schedule of Trees

The table below summarises the trees surveyed within and in close proximity to the proposed development site. See Appendix A for a description of terms.

| Tree No. | Species               | Scientific name           | Height (m) | Age | Stems | DBH (mm)                    | RPA radius (m) | Branch Spread |   |    |    | BS cat | General Comments                                                     |
|----------|-----------------------|---------------------------|------------|-----|-------|-----------------------------|----------------|---------------|---|----|----|--------|----------------------------------------------------------------------|
|          |                       |                           |            |     |       |                             |                | N             | E | S  | W  |        |                                                                      |
| T1       | Ash                   | <i>Fraxinus excelsior</i> | 16         | M   | 2     | 1230/970                    | 15.00          | 11            | 9 | 10 | 11 | C1     | Large crack in between stems at base and early signs of ADD in crown |
| T2       | Hazel                 | <i>Corylus avellana</i>   | 6          | M   | 7     | 102/122 /150/55 /110/54 /70 | 3.01           | 1             | 4 | 2  | 2  | A2     | Good                                                                 |
| T3       | Cersis 'Forest Pansy' | <i>Cercis canadensis</i>  | 4.5        | Y   | 2     | 60/90                       | 1.27           | 2             | 2 | 2  | 2  | A2     | Good                                                                 |

### 3 Recommendations

#### 3.1 Tree requiring removal

One tree is required to be removed before the development of the extension and after the demolition of the existing out-building.

Tree T1, an impressive mature ash tree, is displaying early signs of Ash Dieback Disease (*Hymenoscyphus fraxineus*, or ADD) in its crown, with multiple minor dead branches present and a number of recent limb failures, presenting a risk to the buildings located below it.

The owner photographed a large limb that failed in June 2023 that narrowly missed the current outbuilding – see appendices for photo.

Additionally, surrounding (off-site) younger ash trees in the woodland to the south of the property are displaying more advanced signs of the disease.

For reference, ADD is a fungal disease which readily infects ash trees, causing bark lesions, stem girdling, leaf loss and crown dieback. Infection with the disease often leads to death, either directly or indirectly, through weakening and increased susceptibility to other pathogenic species.

Infected trees can present a risk to members of the public and their property, as they are liable to drop dead limbs, or fail totally due to further decay by other species such as Honey Fungus (*Armillaria mellea*).

Additionally, the tree's north-facing stems have a heavy lean, placing undue strain on the base of the tree and therefore its overall stability.

A large, deep crack is evident at the tree's base, on its eastern side (measuring approximately 46cm in length) – see photo in Appendices. It is located in between the two main stems and is a significant sign of basal weakness.

Once noticed in the September survey, Mr Mellish placed two small nails on either side of the crack, as a simple monitoring device. Measurements taken on 23<sup>rd</sup> October 2024, displayed a 3mm increase in the size of the crack compared to those taken on 3<sup>rd</sup> September, 2024.

Failure of the tree would be catastrophic for both the garden and the buildings located beneath it.

### **3.2 Other remedial works required**

Tree T2, a semi-mature coppiced hazel, should be re-coppiced before the commencement of the development. This will make delivery of materials easier from Mallion's Lane and will also extend the life of the tree, as it will re-grow from its base; and the coppice cycle will begin again.

### **3.3 Tree Preservation Orders (TPOs) / Conservation Area**

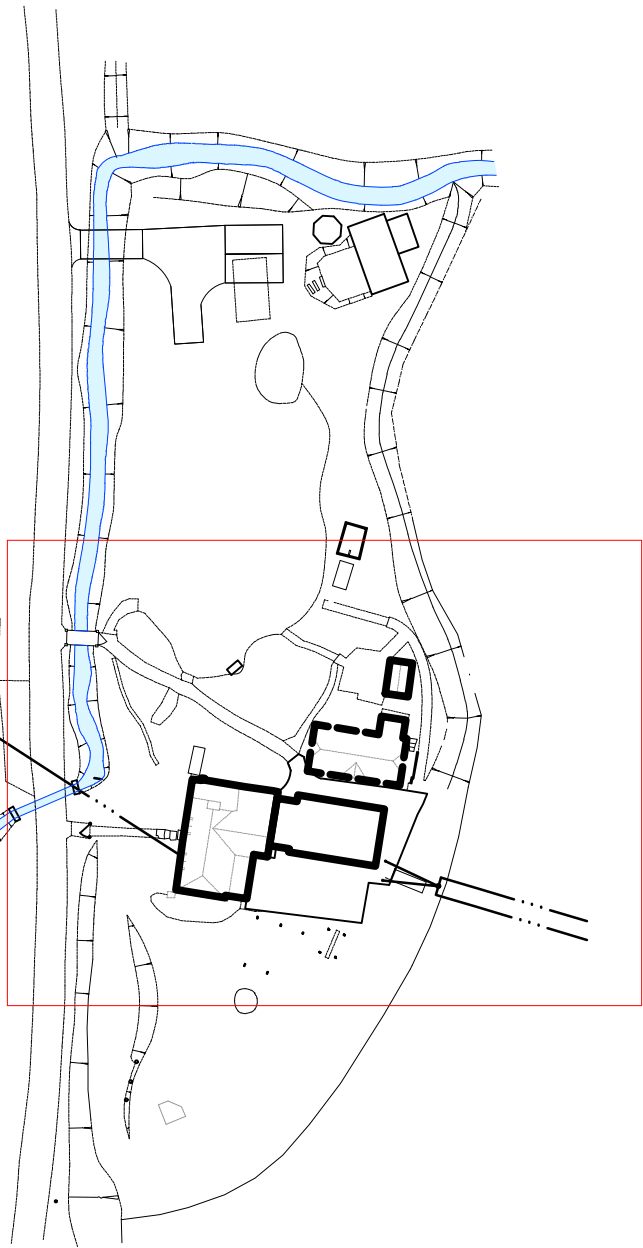
There are no TPOs on any trees across the site, as confirmed on 23<sup>rd</sup> October, 2024 using the TPO checker on Mid-Sussex District Council's website.

Mallion's Lane is not within a Conservation Area.

## **Appendix A**

### **TREE SCHEDULE TERMS**

|              |                                                                     |
|--------------|---------------------------------------------------------------------|
| TREE NO.     | Code used to identify each tree on the Tree Survey Plan             |
| SPECIES      | The common name for each tree                                       |
| HEIGHT       | The height of the tree in metres, calculated by clinometer          |
| STEMS        | Number of stems present (ie. Is the tree a multi-stemmed specimen?) |
| DBH          | The diameter at breast height (1.5m) of the tree in millimetres     |
| RPA RADIUS   | The radius of the tree's Root Protection Area in metres             |
| CROWN SPREAD | The extent of the tree's crown in metres to points of compass       |
| BS CAT       | The BS 5837:2012 category for the tree (see 2.3 in report)          |
| GRID REF     | The full grid reference recorded for each tree on site              |



LOCATION IN WIDER SITE (NTS)



|                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div><div>0m12345</div><div></div></div><div>1:100 @ A1</div><div><div>N</div><div></div></div><div>Drawing to be read in colour. A monochrome copy should not be relied upon.</div><div>Do not scale from this drawing.</div><div>Tree locations were plotted either according to topographical survey or approximately using on-site features at the time of the survey.</div></div> | <div>TREE CATEGORIES</div> <div>Trees have been assigned a category in accordance with Table 1 of BS 5837:2012 'Trees in Relation to Design, Demolition and Construction'. The category is shown by the colour of the canopy edge.</div> <div>Categories are shown as below:</div> <div>Category 'A' - Tree of high quality and value - Green</div> <div>Category 'B' - Tree of moderate quality and value - Blue</div> <div>Category 'C' - Tree of low quality and value - Grey</div> <div>Category 'U' - Tree of significantly reduced potential - Dark Red.</div> | <div><div><div>○ XXXX</div><div>Tree number, stem location from topographical survey</div></div><div><div>● XXXX</div><div>Tree number, approx stem location</div></div><div><div><div>○</div><div>Category 'A' Tree</div></div><div><div>○</div><div>Category 'B' Tree</div></div><div><div>○</div><div>Category 'C' Tree</div></div><div><div>○</div><div>Category 'U' Tree</div></div><div><div>○</div><div>Tree to be removed</div></div><div><div>○</div><div>Tree unaffected by development, shown nominally from topo information</div></div><div><div><div>○</div><div>Root Protection Area</div></div><div><div>—</div><div>Tree protection fencing</div></div><div><div>▨</div><div>RPA incursion</div></div></div></div></div> | <div>Tree survey plan</div> <div>2307-P-001 Rev 3</div> <div>Site: North Hall Cottage (South)</div> <div>Date: 13/09/2024</div> <div>Drawing base: topographical survey</div> | <div><div><div><div></div><div>BioRegional Forestry Ltd</div><div>Est. 1994</div></div><div>BioRegional Forestry Ltd</div><div>157 Balcombe Road, Horley, Surrey, RH6 9DR</div><div>07855 321972</div><div>mark@bioregionalforestry.co.uk</div><div>www.bioregionalforestry.co.uk</div></div></div> |
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## Appendix B – Site Photos



**T1** – Mature ash with building to be demolished below (Photo taken October 2024)



**T1** – Basal Crack on east side of tree



**T1** – Basal crack, close-up