Wood Walk Hoyland – BS 5837:2012 Arboricultural Report and Method Statement

Yelcon Ltd

August 2023

Ecus Ltd

Report to: **Yelcon Ltd**
3 The Gateway North
Marsh Lane
Leeds
LS9 8AX

Report Title: **Wood Walk Hoyland – BS 5837:2012 Arboricultural Report, Impact Assessment and Method Statement**

Version: **V1.0**
Issue Date: **August 2023**
Report Ref: **21805**

Originated By:

Dave Farmer FdSc MArborA
Senior Arboricultural Consultant Date: August 2023

Reviewed By:

Drew Leeper Dip Arb L3
TechArborA
Arboricultural Consultant Date: August 2023

Approved By:

John Mitchener
Principal Arboricultural Consultant Date: August 2023

Prepared by:
Brook Holt, 3 Blackburn Road, Sheffield, S61 2DW
01142 669 292

Version	Author	Description	Date
0.1	Dave Farmer	Draft	02/08/2023
0.2	Drew Leeper	QA1	03/08/2023
0.3	John Mitchener	QA2	04/08/2023
1.0	Dave Farmer	Final	04/08/2023

Contents

Executive Summary

On behalf of Yelcon Ltd (the Client), Ecus Limited (Ecus) has carried out a tree survey to BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations* in July 2023 at Wood Walk in Hoyland. This survey has formed the basis for recommended methodologies that will need to be adopted to protect retained trees during development.

The survey recorded all significant trees within the site and those which may be affected by any development proposed within the site boundary, recording a number of parameters including species, crown spread and Root Protection Area (RPA).

The RPA of any given tree is calculated in accordance with BS 5837:2012 and is generally a circular plot centred on its stem. This area around each tree should not be disturbed by excavation, compaction, contamination or other related demolition and construction activities. Minor encroachment into the RPA may be possible if specific methodologies are put in place that reduce the likelihood of the tree being negatively impacted.

The survey recorded three individual trees, three tree groups and six hedgerows. These were generally located close to the site boundaries and provided a good level of screening between the site and its surroundings.

No trees within the site boundary are protected by a Tree Preservation Order (TPO) and the site is not located within a Conservation Area.

An online search using the Multi Agency Geographical Information for the Countryside (MAGIC) website for statutory conservation sites was undertaken (where appropriate) to determine the presence of Ancient Woodland within 15m of the site boundary.

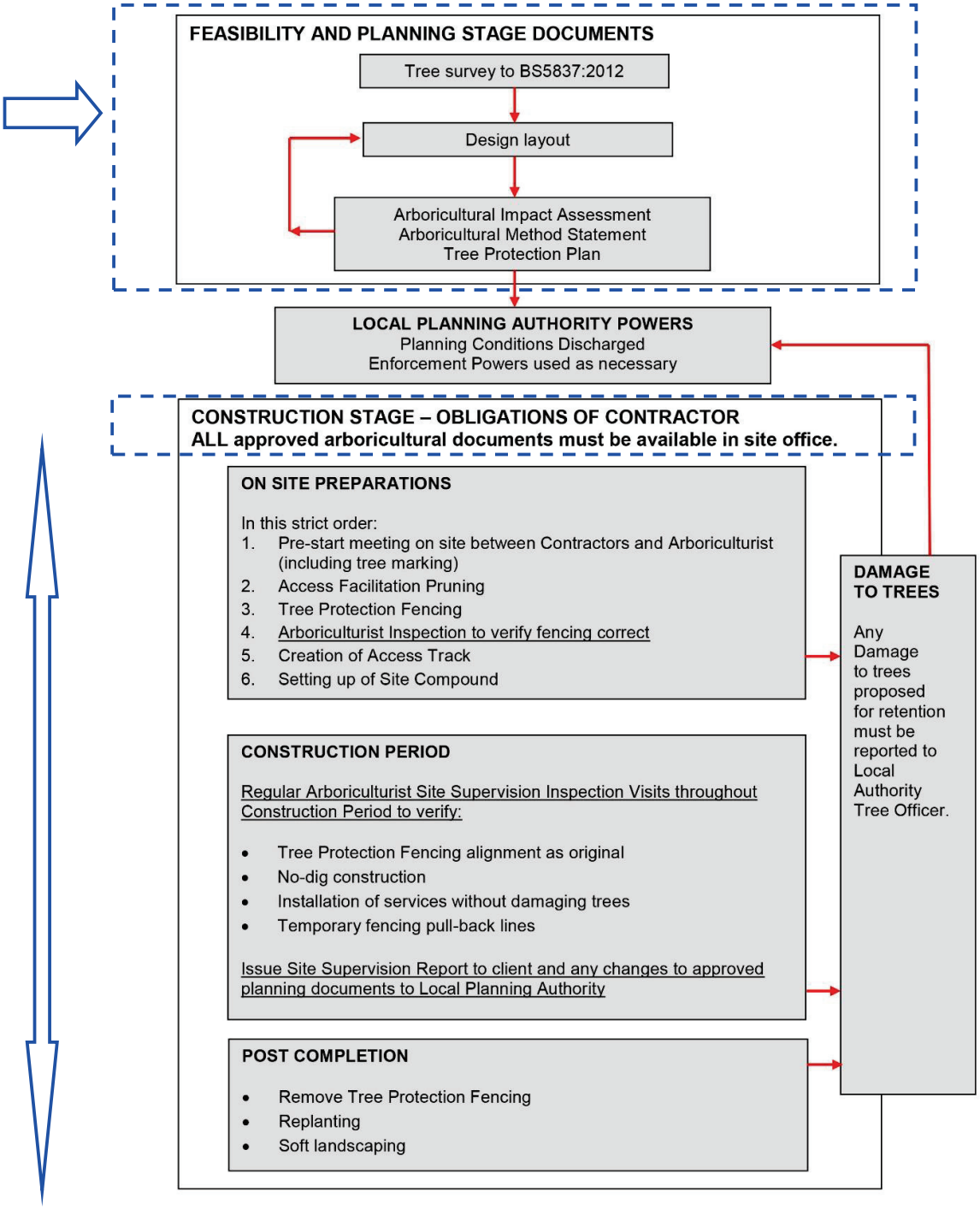
The Client proposes the construction of a residential development with associated access, landscaping and facilities. This will require the removal of sections within three hedgerows, and may also have an impact on the roots, stems and canopies of retained trees unless suitable protection measures are put in place.

This report details a range of protection measures and construction methodologies which should be adopted to ensure that the retained trees and hedgerows are suitably protected. These measures aim to prevent accidental damage and other adverse effects on the health of retained trees.

1. Introduction

1.1 Context of this Report in the Planning System

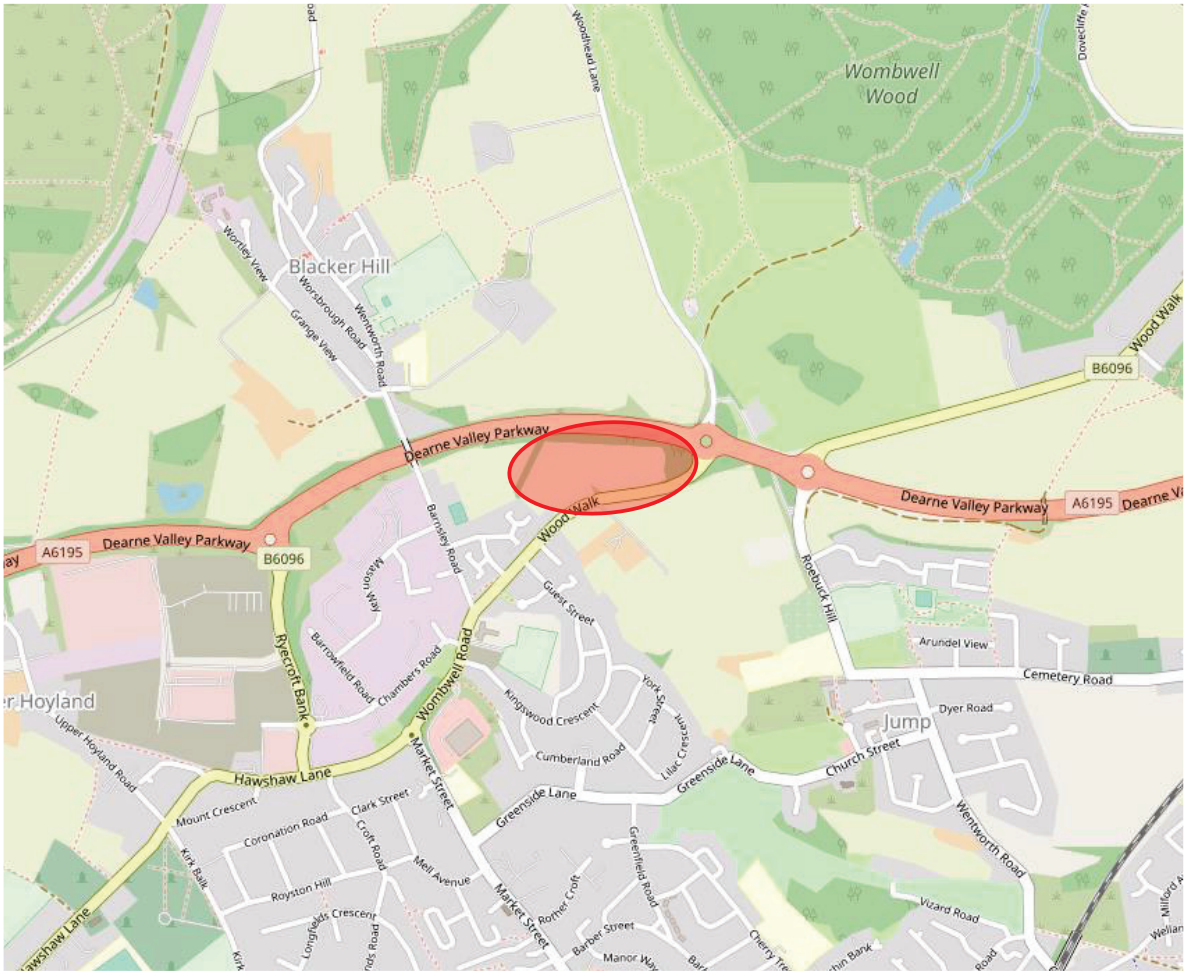
Figure 1: The Design and Construction Process and Tree Care



1.2 Location

1.2.1 Ecus Limited has been commissioned by the Client to undertake a tree survey of the site at Wood Walk, Hoyland, S74 9SH, Ordnance Survey UK Grid Reference SE373017, and prepare the findings in a report. The site location is shown in Figure 2.

Figure 2: Location Map



© OpenStreetMap contributors

1.3 Tree Designations

1.3.1 The information available on the Barnsley Metropolitan Borough Council website (www.barnsley.gov.uk/barnsley-maps/tree-preservation-orders) has confirmed that the site is not located within a conservation area and no trees included in the survey are protected by a TPO.

1.3.2 Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website indicates that no ancient woodland is present within a 15m buffer of the site.

1.4 Protected Species

Bats

1.4.1 Mature trees can often contain cavities or hollows which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e., roosts) are protected under *The*

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They also receive legal protection under the *Wildlife and Countryside Act* (WCA) 1981. Consequently, causing damage to a bat roost constitutes an offence.

1.4.2 Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.

Birds

1.4.3 Trees and hedgerows can provide habitat for nesting birds which are protected under the *Wildlife and Countryside Act* (WCA) 1981. Some species are further protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

1.4.4 As the trees at the site provide potential habitat for nesting birds all tree work should ideally be completed outside the peak nesting bird season (Generally March to August inclusive).

1.4.5 If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have fully fledged.

2. Tree Survey Methodology

2.1 Site survey

2.1.1 Ecus have undertaken the tree survey in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to provide detailed and independent arboricultural advice in the context of planned development. The survey was a ground based visual inspection carried out by a suitably qualified arboriculturist. No trees were tagged as part of the survey.

2.1.2 The tree inspection was carried out in July 2023 by Dave Farmer FdSc MArborA, Senior Arboricultural Consultant, when the deciduous trees were generally in leaf.

2.1.3 The weather on the day of the survey was clear and bright. This allowed for a thorough inspection of all trees included in the survey.

2.1.4 The survey recorded all trees with a stem diameter of 75mm or more at a height of 1.5m above ground level within the site boundary. Any significant trees outside the boundary which could be significantly affected by the future development of the site were also recorded.

2.1.2 The following characteristics were recorded:

- Species
- Stem diameter at 1.5m above ground level (mm)
- Estimated height (m)
- Approximate crown spread (m) in north, east, south and west directions
- Estimate of the number of years that the tree is likely to remain suitable for retention
- Age class
- Condition category in accordance with BS 5837:2012. The categories are defined as:
    - 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
    - Category A = Trees of high quality with an estimated remaining life expectancy of at least 40 years
    - Category B = Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
    - 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
- Value subcategories where appropriate in accordance with BS 5837:2012. These are defined as:
    - 1 = Mainly arboricultural qualities
    - 2 = Mainly landscape qualities
    - 3 = Mainly cultural values, including conservation
- General notes about physiological and structural condition and any management recommendations

2.1.5 All survey data has been based on a topographical survey where possible, supplied by the Client. Where topographical information has not identified tree positions or Ordnance Survey mapping has been utilised, trees and hedgerows have been positioned using GPS and aerial photography to provide approximate locations in relation to existing surrounding features. Further confirmation of

tree locations through a topographical survey of the site is recommended to ensure future design accuracy.

2.1.6 Some measurements for trees with limited accessibility may have been estimated. This is highlighted with a hash (#) symbol in the Tree Survey Schedule at Appendix 1.

2.1.7 Where trees formed a contiguous canopy they may have been grouped, in accordance with the guidance provided within BS 5837:2012. If densely wooded areas are not expected to be directly affected by development proposals only the significant trees at the woodland perimeter have been surveyed.

2.1.8 Trees are living organisms that change over time. A re-survey of all trees should be carried out if there have been any significant storm events or more than 12 months have passed since the survey was carried out.

2.2 Calculation of Root Protection Area (RPA)

2.2.1 The Root Protection Area (RPA) is calculated according to the formulae set out in BS 5837:2012. This is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority.

2.2.2 Due to the specific topography of the site and the presence of surrounding structures the RPA is likely to be a simplified representation of the actual morphology and disposition of tree roots. Any deviation in the shape of the RPA from the calculated circular shape will largely be based on conjecture and so should generally be avoided. However, where significant site features are present that could clearly influence the disposition of tree root growth (e.g. water courses, building foundations and retaining walls), the RPA may be amended to take these features into account.

3. Tree Survey Results

3.1 General Site Description

3.1.1 The site was a former agricultural field located in the Hoyland area of Barnsley, approximately 5.5km to the south east of Barnsley town centre.

3.1.2 The trees at the site were located predominantly close to the boundaries, both within the site and in neighbouring properties.

3.1.3 The site was surrounded to the north, east and south by public highways and to the west by an open area of playing fields and several residential properties.

3.2 Results of Tree Survey

3.2.1 The Tree Survey Schedule at Appendix 1 details the results of the tree survey and includes any management recommendations. The schedule should be read in conjunction with the tree plans at Appendix 3 which show the location of each tree and group surveyed and the extent of their canopies and RPA.

3.2.2 Three individual trees, three tree groups and six hedgerows have been recorded during the survey. A summary of the tree survey findings is shown in Table 1.

Table 1: Summary of Tree Survey Findings

Category A	Category B	Category C	Category U
Trees: 0 Groups: 0 Hedgerows: 0	Trees: 1 Groups: 3 Hedgerows: 0	Trees: 2 Groups: 0 Hedgerows: 6	Trees: 0 Groups: 0 Hedgerows: 0

3.2.3 The most significant individual trees were the large sycamore, T001, and ash, T012. These mature trees were visually prominent, both from within the site and for some distance to the south and east, due to their roadside locations. Whilst T001 appeared to have good future prospects, T012 had symptoms consistent with Ash Dieback Disease which could significantly limit its ultimate lifespan and longer-term suitability within the site.

3.2.4 The tree groups G004, G005 and G006 each formed significant features which were in keeping with the surrounding landscape character. Although the trees were individually of lower merit, they collectively provided a high level of amenity value and, alongside the various hedgerow groups, provided comprehensive screening between much of the site and its surroundings.

3.3 Ash Die Back (*Hymenoscyphus fraxineus*)

3.3.1 Ash Die Back Disease (ADB) also known as Chalara or Chalara Dieback of Ash, is a disease of ash trees caused by a fungus called *Hymenoscyphus fraxineus*. ADB causes leaf loss, crown dieback and bark lesions in affected trees. Once a tree is infected the disease is usually fatal, either directly or indirectly by weakening the tree to the point where it succumbs more readily to attacks by other pests or pathogens.

3.3.2 It is difficult to assign ash trees a retention category using the BS5837:2012 standards because of ADB. The general advice from public bodies is to retain ash trees and see how the disease develops within the local population. However, if clear signs of ADB are found on sites, it is highly

likely that all the ash trees on that site will succumb in time. It could therefore be unreasonable to consider an ash tree a significant constraint to development.

3.3.3 The Tree Council has produced a document giving guidance to tree owners and managers on how to deal with ADB. *Ash dieback: an Action Plan Toolkit* (Summer 2019)[1]. This gives guidance on assessing the danger posed by trees infected with ADB. Ecus have adopted the Suffolk County Council Ash Health Assessment System (Appendix 4). The system categorises ash trees with ADB symptoms into 4 classes:

- Ash Health Class (AHC) 1 – 100% - 75% Live Canopy (Vitality Class 0)
- Ash Health Class (AHC) 2 – 75% - 50% Live Canopy (Vitality Class 1)
- Ash Health Class (AHC) 3 – 50% - 25% Live Canopy (Vitality Class 2)
- Ash Health Class (AHC) 4 – 25% - 0% Live Canopy (Vitality Class 3)

3.3.4 Many local authorities have concluded that any trees which fall within AHC 3 and 4 require management and it seems reasonable to follow a similar system. The priority of that management depends on the severity of the tree's condition, with trees declining from AHC 2 into AHC 3 requiring work as part of a program of regular works. As the trees decline towards AHC 4, action becomes more urgent to abate any hazard, assuming the tree is in a high risk area.

[1] https://treecouncil.org.uk/wp-content/uploads/2019/11/Tree-Council-Ash-Dieback-Toolkit-2.0.pdf

4. References

BS 3998:2010 *Tree work – Recommendations*. ISBN 978 0 580 53777 6

BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. ISBN 978 0 580 69917 7

Volume 4 National Joint Utilities Group (NJUG) *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*, Volume 4: Issue 2: 16/11/2007, www.njug.org.uk

Appendix 1: Tree Survey Schedule