C.B.E. Consulting
Arboricultural Surveys to BS5837

Arboricultural Survey
Land off Main Street
Aunsby
Lincolnshire
NGR TF04871 38960

Survey by
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		Report Version: V1
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	Report ref: **P2697 /0123 /01**	

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Contents

Appendices

Figures

1. Introduction

1.1 Site Description and Location

The site surveyed comprises a parcel of grassland containing some derelict buildings situated at Main Steet, Aunsby, Lincolnshire centred at NGR TF04871 38960. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.

The site lies within North Kesteven and is not within a designated Conservation Area. Assessment of the site area using the NKDC online mapping system has not identified any Tree Preservation Orders associated with the area surveyed.

In order to assist with management of the trees within the site, some of which are causing concern due to evidence of dieback, the owner has requested an Arboricultural Survey should be completed to assess the quality of the trees within and close to the boundary of the field. An inspection of the site was completed on 03rd October 2022. A photographic record of the trees at the site is included within the report.

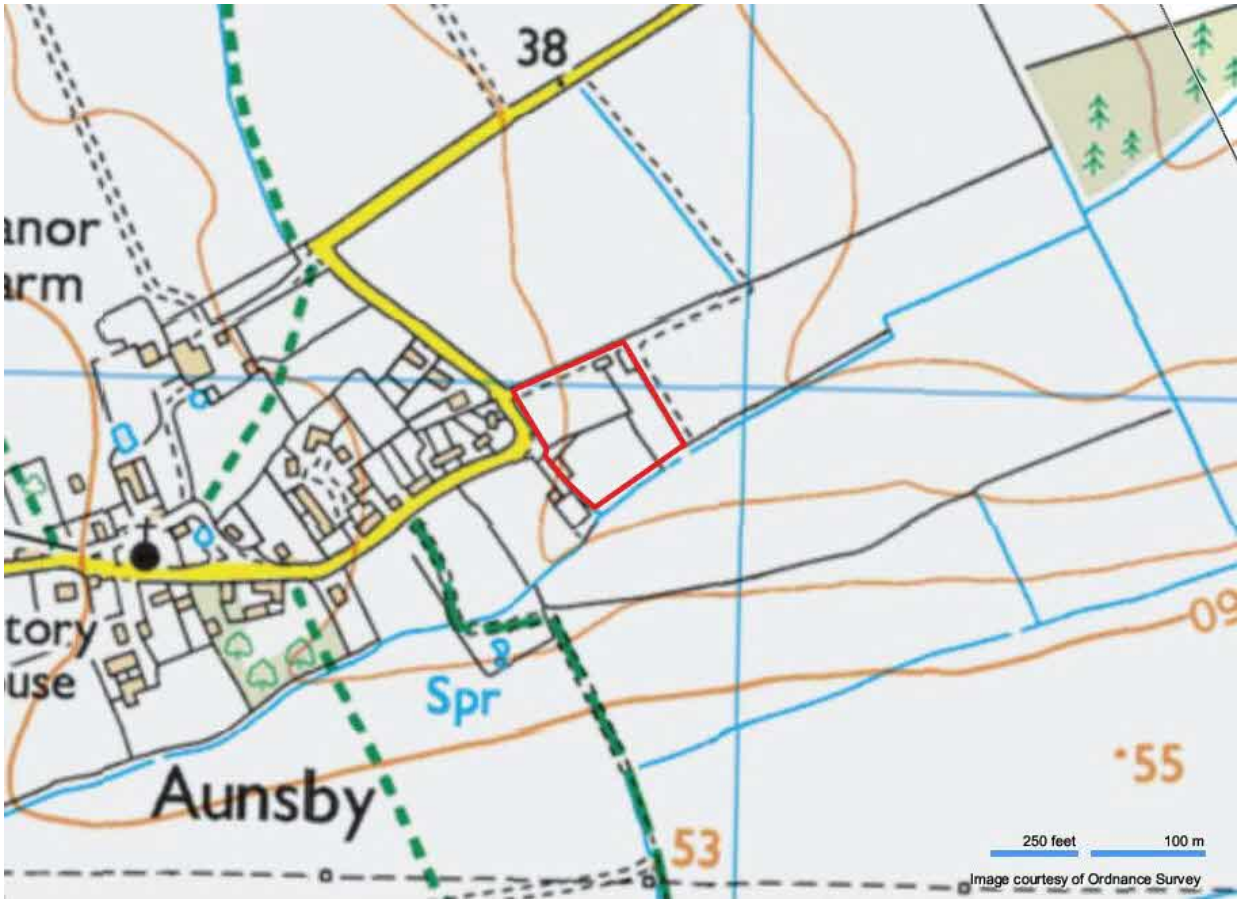

Figure 1: Site location.

1.2 Neighbouring Land Uses

The defined site area comprises a field on the eastern boundary of the village of Aunsby. To the west are residential houses on the edge of the village and a waste water treatment plant. Land to the north, east and south comprises open agricultural land divided by hedgerows. The site contains a number of quite significant mature trees and has boundary hedgerows. A contextual aerial photograph is provided below.

Figure 2: Site Contextual Aerial Photograph Image copyright Microsoft Corporation 2021

In undertaking the tree survey the assessment has been carried out in accordance with the specifications contained within BS 5837 Trees in Relation to Design, Development and Construction (2012). An inspection of the site and the immediate surrounding areas was completed by Christopher Barker, dipHort, CEnv, an experienced arboricultural consultant and licensed bat worker.

2. Tree Survey Appraisal Methodology

2.1 Survey Objectives

This tree survey has been carried out with the objective of:

Identifying the individual tree species present at the site by means of visual inspection;

To define the approximate age, condition and canopy spread of all individual mature and semi-mature trees identified and the value of these within the development context;

To identify any trees that present a risk to existing or proposed foundations or other structures that may be constructed on the site and recommend action to remove this risk; and

Recommend tree management / mitigation measures where appropriate.

The survey broadly assessed the condition and arboricultural value of the trees lying in or adjacent to the site area, paying attention to any mature individual trees present within or adjacent to the site area. The survey has been carried out in accordance with BS 5837 Trees in Relation to Design, Development and Construction (2012) methodology although it is understood that the survey is required in this instance for the purposes of arboricultural management.

2.2 Survey Methodology

The methodology set out below is a summary of the suggested approach to tree assessment as described in British Standard 5837:2012.

Trees have been broadly assessed based on guidance set out within the British Standard BS 5837:2012 'Trees in Relation to Design, Development and Construction'. This standard provides recommendations and guidance on the principles to be applied to achieve successful integration of development with trees, shrubs and hedgerows.

Trees on the site have been divided into one of four categories (based on the cascade chart for tree quality assessment). These are classed as A, B, C or U (Section 4 of BS 5837) within the table in Appendix 1. This gives an indication as to the tree's importance in relation to the site, the local landscape and, also, the value and quality of the existing trees on site.

Category (A): Trees whose retention is most desirable and are of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years).

Category (B): Trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years).

Category (C): Trees that could be retained and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150 mm.

Category (U): Trees that are considered to have no significant landscape value but it is not presumed that there is any overriding need to remove these unless stated otherwise in the description and recommendations. These include any trees in such poor condition that they cannot be retained in the context of the current land use for more than 10 years.

Species have been recorded by common and scientific name. Height has been estimated in metres and stem diameter measured in centimetres unless impractical, taken at a height of 1.5 m from the base of the tree.

The overall condition of any individual tree, or group of trees, has been referred to using one of the definitions listed below. A more detailed description of condition has been noted in the Tree Schedule.

G **Good:** A sound tree or trees needing little, if any, attention
F **Fair:** A tree or trees with minor but rectifiable defects or in the early stages of stress, from which it may recover
P **Poor:** A tree or trees with major structural and physiological defects or stressed such that it would be very expensive and inappropriate to retain
D **Dead:** A tree or trees no longer alive. However, this could also apply to those trees that are dying and will be unlikely to recover, or are becoming or have become dangerous

The survey was completed from ground level only. Aerial inspections were not undertaken. Evaluations of tree conditions given within this assessment apply to the date of survey and cannot be assumed to remain unchanged, and it may be necessary to review these within 24 months, in accordance with good arboricultural practice.

2.3 Site Plans & Tree schedules

The position of significant individual trees or groups of trees measured out on the site is shown on the Tree Location Plan **Figure 3**. Within the summary table (**Appendix 1**) a calculated corresponding radius of the circle for each RPA has been calculated and if any works are proposed within the site area survey these RPAs should be protected from any harm.

The tree schedule provides a description of each tree with recommendations for any work that may be required.

3. Tree Survey Findings

3.1 Survey Details

The tree inspection took the form of a walkover inspection completed by Christopher Barker dipHort, CEnv. Each individual semi-mature or mature tree of significance that could be impacted by any proposed new development within the survey area was identified, visually inspected and classified. The character of the trees at the site is shown in photographs contained within this section.

3.2 Mature and Semi-Mature Trees

A total of twenty-three individual trees and one tree group have been identified and assessed as part of the tree survey. Many of the trees are mature Ash and Sycamore which are showing signs of significant decline. The trees appear to be in lines and probably mark the positions of hedgerows which are no longer present within the site. One line of trees extends from the west boundary to the site interior and joins another line of trees crossing the site interior from north to south forming a 'T'.

The remaining trees are in boundary positions with the majority being in the north-eastern corner of the site area where there are the remains of a building.

A number of trees have signs of Ash-die back and many of the Ash appear to be in decline with significant dead wood within the canopy extremities and internal regeneration. A number of trees have been recommended for removal for arboricultural reasons either due to structural concerns due to cavities, disease or dead wood, or due to evidence of severe decline being present.

Trees T2 – T3

Trees T4 – T5

Trees T6 – T7

Trees T8 – T10

Tree T12

Trees T13 – T14

Trees T15 – T21

Trees T22 – T23

Group G24

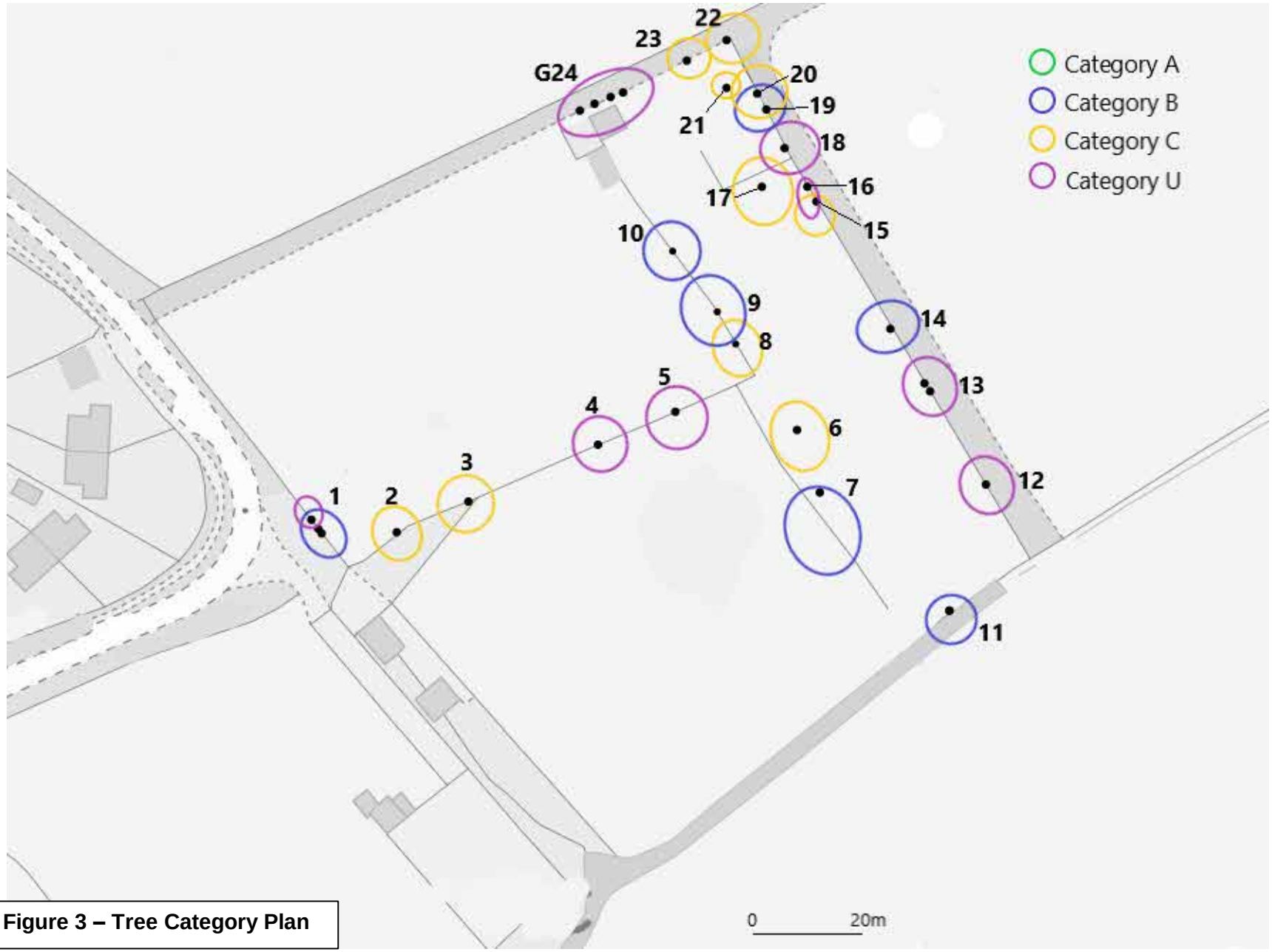

Figure 3 – Tree Category Plan

4. Tree Management

In the context of this site the property owner wishes to undertake any works to the trees that may be required and remove any which are in poor condition so that these can be replaced with suitable native specimens.

The table below summarises the quality and condition of the trees and identifies where work or removal is recommended.

Ref	Tree	Category	Recommendations
1	Ash	B2	Cutback the Sycamore on the north side into the hedgerow to thin out the canopy density.
2	Sycamore	C2	***Removal recommended.***
3	Ash	C2	If Ash Die-back is confirmed it would be prudent to ***consider removing this tree and replacing*** this with a new specimen tree.
4	Ash	U	***Removal and replacement is recommended***
5	Ash	U	***Removal and replacement is recommended.***
6	Ash	C2	No work required at this time but monitor decline. If disease is confirmed this tree will need to be replaced with a new specimen.
7	Willow	C2	No work required at this time. Monitor stability.
8	Ash	C2	Monitor decline. If disease is confirmed this tree will need to be replaced with a new specimen.
9	Ash	B2	No works required at this time.
10	Ash	B2	No works required at this time.
11	Ash	B2	No works required at this time.
12	Ash	U	***Removal and replacement recommended.***
13	2 x Ash	U	***Removal and replacement recommended.***
14	Ash	B2	No works required at this time. Monitor for decline.
15	Ash	C2	No works required at this time.
16	Hawthorn	U	***Removal and replacement recommended.***
17	Ash	C2	No work required at this time. Monitor condition and watch for ADB infection.
18	Ash	U	***Removal and replacement recommended.***
19	Ash	B2	No works required at this time.
20	Ash	C2	Monitor condition and watch for ADB infection.
21	Ash	C2	No works required at this time.
22	Ash	C2	Removal of ivy growth recommended.
23	Ash	C2	No works required at this time.
G24	5 x Ash	U	***Removal and replacement recommended.***

If any trees are removed the general principle is that a tree of Category C quality should be replaced like for like (i.e. one replacement tree of suitable size) and a tree of Category B quality should be replaced 2:1 (i.e. two new replacement trees of suitable size). The tree do not need to be placed in the same position.

Currently there is concern regarding Ash trees with the spread of Ash die-back and there are indications that this disease is present within the site. Suitable native replacement trees that could be planted to replace any removed at this site would be Oak *Quercus petraea,* Lime *Tilia cordata* and Field Maple *Aver campestre.*

Christopher Barker CEnv dipHort

Appendix 1: BS5837 Tree Schedule

Key:	Measurements	Age – Class	Overall Condition	BS 5837 2012 : Cascade Chart for Quality Assessment/Retention Category	Symbols:
	MS – Multi-stemmed	YNG-MAT-Young Mature	G – Good	A – High	**<** = less than
	Ht - Height in metres	SM – Semi-mature	F – Fair	B – Moderate	**~** = approximately
	Stem – Stem Diameter at 1.5m in mm	Mat – Mature	P – Poor	C – Low	**>** = greater than
	Crown – Crown spread in metres	OM – Over mature	D – Dead	U – Trees of negligible significance	
	TD - Trunk division (height in metres)	**Est Yrs –** estimate of years remaining (>40 years; 20 –40 years; <20 years)		**Sub-categories:** **1** = mainly arboricultural values **2** = mainly landscape values **3** = mainly cultural values.	

RPA = Root protection area (equivalent to a circle with a radius 12 x the stem diameter for single stem trees and 10 x the basal diameter for trees with more than one stem arising below 1.5m above ground level).

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T1	Ash *Fraxinus excelsior*	7	170 x 7	N-4 S-3 E-3 W-3	0	SM	20	F	Merging Ash with a young Sycamore at the northern end. Dense broad crown. No structural faults visible from ground level	Would benefit from thinning out	B2	4.6
T2	Sycamore *Acer pseudoplatanus*	8	430	N-5 S-5 E-4 W-4	3	M	10	P	Irregular open crown. Major wound with deep decay and woodworm damage in the heartwood. Significant dead wood in the lower canopy. Appears to be in decline.	***Removal recommended.*** If retained, monitor decay and decline. If removed replace with a new native tree.	C2	5.1
T3	Ash *Fraxinus excelsior*	8	545	N-5 S-4 E-5 W-6	2	M	10	P	Irregular open crown with significant dead wood throughout and internal regeneration. Tree appears to be in serios decline and may have Ash Die-back.	If Ash Die-back is confirmed it would be prudent to ***consider removing this tree and replacing*** this with a new specimen tree.	C2	6.5
T4	Ash *Fraxinus excelsior*	10	640	N-5 S-4 E-4 W-5	2	M	<10	P	Very open and irregular crown with significant dead wood throughout. Internal regeneration. Tree appears to be in serios decline and may have Ash Die-back.	***Removal and replacement is recommended***	U	7.6

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T5	Ash *Fraxinus excelsior*	5	745	N-4 S-7 E-5 W-6	3	M	<10	P	Very irregular crown extending south. Large fungal brackets on trunk. Significant dead wood throughout. Tree appears to be in serios decline and may have Ash Die-back in addition to another fungal infection.	***Removal and replacement is recommended.***	U	8.9
T6	Ash *Fraxinus excelsior*	10	485	N-3 S-6 E-4 W-5	4	M	10	P	Trunk leans east. Irregular crown extending south. Fungal brackets present ad significant dead wood within the canopy. Appears in decline and may have Ash Die-back.	No work required at this time. Monitor decline. If disease is confirmed this tree will need to be replaced with a new specimen.	C2	5.8
T7	Willow *Salix alba*	10	600 560	N-0 S-8 E-6 W-8	4	OM	10	P	Trunk leans severely south and divides into two trunks. Re-rooted at ground contact point with an irregular unbalanced crown extending south.	No work required at this time. Monitor stability.	C2	9.8
T8	Ash *Fraxinus excelsior*	14	660	N-3 S-5 E-4 W-4	4	M	10	F	Owl box at 5magl. Open irregular crown with significant dead wood at canopy extremities. Appears in decline and may have Ash Die-back.	Monitor decline. If disease is confirmed this tree will need to be replaced with a new specimen.	C2	7.9
T9	Ash *Fraxinus excelsior*	16	810	N-8 S-4 E-8 W-7	4	M	20+	G	Broad open crown extending to the north east. Woodpecker holes at 7magl. No structural faults visible from ground level	No works required at this time.	B2	9.7
T10	Ash *Fraxinus excelsior*	14	635	N-5 S-5 E-5 W-5	3	M	20	F	Broad irregular crown with some minor dead wood present. No structural faults visible from ground level	No works required at this time.	B2	7.6
T11	Ash *Fraxinus excelsior*	11	400	N-2 S-4 E-4 W-5	4	M	20	F	Upright crown with minor dead wood in lower canopy. No structural faults visible from ground level	No works required at this time.	B2	4.8
T12	Ash *Fraxinus excelsior*	10	420	N-4 S-4 E-3 W-3	4	M	<10	P	Appears to be in severe decline with significant dead wood throughout and decay present in the bole. Likely to have Ash Die-back.	***Removal and replacement recommended.***	U	5.0

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T13	2 x Ash *Fraxinus excelsior*	18	360 340	N-3 S-4 E-3 W-3	5	M	<10	P	Two trees merging to form one irregular round open canopy. Significant dead wood throughout with both appearing to be in decline. Both trees likely to have Ash Die-back.	***Removal and replacement recommended.***	U	5.9
T14	Ash *Fraxinus excelsior*	18	590	N-5 S-4 E-5 W-6	5	M	20	F	High broad crown with minor dead wood in open crown. Nest present. No structural faults visible from ground level but may have early signs of decline.	No works required at this time. Monitor for decline.	B2	7.0
T15	Ash *Fraxinus excelsior*	6	200 180	N-1 S-4 E-3 W-0	2	SM	10	F	Irregular crown extending south and east. Crowded by T16 with limited space for further growth on the north side. No structural faults visible from ground level	No works required at this time.	C2	3.2
T16	Hawthorn *Crataegus monogyna*	5	245	N-0 S-5 E-1 W-1	2	M	<10	P	Leans south and appears to be in severe decline with significant dead wood throughout. No structural faults visible from ground level	***Removal and replacement recommended.***	U	2.9
T17	Ash *Fraxinus excelsior*	10	130 320 140 310 200 320	N-4 S-6 E-5 W-5	1	M	10	F	Broad crown with ivy climbing the trunks. Minor dead wood present in canopy extremities. No structural faults visible from ground level but may have early signs of Ash Die-back.	No work required at this time. Monitor condition and watch for ADB infection.	C2	6.9
T18	Ash *Fraxinus excelsior*	11	380	N-3 S-3 E-5 W-3	3	SM	<10	P	Irregular crown with significant dead wood throughout and evidence of decline. Likely to have Ash Die-back based on the decline noted.	***Removal and replacement recommended.***	U	4.5
T19	Ash *Fraxinus excelsior*	10	245	N-4 S-2 E-3 W-5	4	SM	20	F	Irregular crown extending north and west. No structural faults visible from ground level	No works required at this time.	B2	2.9
T20	Ash *Fraxinus excelsior*	8	510gl	N-5 S-4 E-4 W-4	1	M	10	F	Irregular crown extending to the north. Minor ivy present on trunk. Some minor dead wood around the canopy extremities. No structural faults visible from ground level but may have early signs of Ash Die-back.	Monitor condition and watch for ADB infection.	C2	6.1

Tree No	Species	Ht (m)	Stem Diam mm@ 1.5m	Canopy Spread (m)	Height of Crown Clearance	Age Class	Est yrs	Overall Condition	Structural condition	Recommendations	BS 5837 Category	RPA Radius (m)
T21	Ash *Fraxinus excelsior*	7	155	N-2 S-2 E-1 W-2	2	Y	10	F	Ascending crown extending to the west due to crowding. No structural faults visible from ground level	No works required at this time.	C2	1.8
T22	Ash *Fraxinus excelsior*	7	230	N-3 S-3 E-4 W-2	2	SM	10	F	Irregular crown extending east. Dense ivy on the trunk. No structural faults visible from ground level	Removal of ivy growth recommended.	C2	2.7
T23	Ash *Fraxinus excelsior*	8	235	N-3 S-2 E-3 W-2	3	SM	10	F	Broadly ascending crown with some minor dead wood at canopy extremities. No structural faults visible from ground level	No works required at this time.	C2	2.8
G24	5 x Ash *Fraxinus excelsior*	6-8	<300	N-3 S-3 E-4 W-3	3	SM	<10	P	Line of crowded Ash.in hedgerow with significant die back present. Lile to have Ash Die-back infection based on the decline.	***Removal and replacement recommended.***	U	3.6