PDAS Appendix I – Arboricultural Impact Assessment

Part 1 of 2

Arboriculture Report

Arboricultural Impact Assessment

Axis PED

Grove Farm

Date: November 2023

Submitted to:

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Limited.

Version History

Version	Date	Amendment
1	August 2023	Initial Report
2	November 2023	Additional areas surveyed

1 Executive Summary

Axis PED have requested an Arboricultural Impact Assessment report to provide arboricultural information for a proposed solar farm development within the land of Grove Farm, Potash, Ipswich, Suffolk, IP9 2DA. The layout proposals provided by the client have identified the locations of access tracks, deer/stock fencing, substation buildings and compounds, transformers, control buildings, spares containers, and horizontal directional drilled and overhead cables.

For the purposes of this report, reference to 'the site' will be referring to the areas of land within five zones shown with pink and blue boundaries and two additional zones shown with orange boundaries. These zones are highlighted on the Site Location Plan contained within this report and sit within the wider site shown with a red line boundary.

Axis PED have commissioned ADAS to provide arboricultural advice in relation to the proposed development. An arboricultural survey of the five pink and blue zones was carried out on the 25th of May 2023, and on the 17th of October 2023 a second survey was conducted which surveyed the additional areas highlighted with orange boundaries. Both surveys were undertaken in line with the requirements of 'BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations' (BS5837:2012).

The tree surveys identified a total of 164 features consisting of 121 individual trees, 32 groups of trees, ten hedgerows and one woodland which have the potential to be impacted upon by the proposed development of the site. In line with the recommendations contained within Table 1 of BS5837:2012, 21 features were awarded a high-quality A grade status, 53 features were awarded a moderate-quality B grade, 79 were awarded a low-quality C grade and 11 features were awarded a very low-quality U grade and recommend for removal.

A search of Babergh Mid Suffolk District Council's interactive mapping on 30th May 2023 established that the site does not sit within a Conservation Area (CA), and it also confirmed that there are two TPOs within the village of Potash (TPO refs: BT244/T1 and BT379/G1). Neither of these TPOs shall be impacted upon by the proposed development as detailed in the layout proposals provided by the client.

Additionally, the search also confirmed that there is an ancient woodland located to the northeast of the wider site, known as Engry Wood (ref: 29429). The site boundary has been offset from the ancient woodland and has a buffer zone within the agricultural field to the east, therefore the development will not impact this ancient woodland.

2 Introduction

2.1 The Author

This document has been prepared by Arno van Heygen, Arboricultural and Forestry Consultant, on behalf of ADAS. Arno has a Level 6 Certificate in Arboriculture, an MSc in Environmental Forestry and 11 years of experience within these sectors.

2.2 Client Instruction

This report was commissioned by Axis PED on the 18th of August 2023, and is pertinent to the areas of land within five zones detailed with pink and blue boundaries and the two additional zones within the orange boundaries located within the wider site boundary of Grove Farm, Potash, Ipswich, IP9 2DA, as highlighted on the Site Location Plan (**Appendix 1**) contained within this report.

2.3 Purpose of Report

The purpose of this report is to provide an evaluation of the impacts that the proposed layout design will have on the existing trees in and adjacent to the zones highlighted on the Site Location Plan (**Appendix 1**). Where necessary it will also provide recommendations to mitigate the loss or negative impact on the vegetation that the proposals may cause.

This Arboricultural Impact Assessment report, along with the Arboricultural Impact Assessment Plan (AIAP) (Drawing ref: ADAS_1052211_Axis PED_Grove Farm_AIAP) as shown in **Appendix 2**, will identify the constraints that any trees on and adjacent to the sites may have on the current proposed development layout.

The recommendations made in this report are based on the tree survey data as detailed in the Tree Survey Schedule (**Appendix 3**), the Site Location Plan (**Appendix 1**) and the drawing titled '3223-01-03 General Arrangement', provided by the client.

This report has been written to inform the detailed design of the development.

2.4 Tree Survey Methodology

A tree survey, to establish the tree constraints on the site, was carried out by Arno van Heygen on the 25th of May 2023 on the five zones highlighted in pink and blue. A second survey was conducted on the 17th of October 2023 on the additional zones highlighted in orange.

The tree surveys were carried out in accordance with the recommendations contained within BS5837:2012.

All trees were visually inspected from ground level unless otherwise stated, with no climbing or boring tests being undertaken. The comments made on their condition are based on observable factors present at the time of inspection.

The information, shown in ***Table 1*** below, was recorded as part of the tree survey.

Table 1: Tree Survey Schedule heading descriptions

Column Heading	Description
Tree Ref No.	All individual trees and groups of trees have been given a unique reference number. Each number is prefixed by a letter. ▪ T = Individual tree ▪ G = Group of trees ▪ H = Hedgerow ▪ W = Woodland Where a tree reference is followed by an * it indicates that the position of the tree has been recorded to the associated plan by eye.
Species	The English common name has been used.
Single or Multiple stem (S or M)	▪ 'S' represents a tree which has a single clear stem to at least 1.5m above ground level. ▪ 'M(a)' represents a tree where the main stem divides into two to five stems below 1.5m above ground level, and ▪ 'M(b)' represents a tree where the main stem divides into 6 or more stems below a height of 1.5m.
Height (m)	Where possible tree heights are measured using a laser. In some instances, such as in close groups of trees, one height may be measured and other nearby trees estimated from this height. Measurements are provided in metres.
Stem Diameter (mm)	S_n represents the stem number. Measurements are provided in millimetres at 1.5m above ground level for single stemmed trees.
Very Large Girth (y/n)	Girth is very large for species in accordance with Fig 1.3 of publication 'Ancient and other veteran trees: further guidance on management' Ancient Tree Forum 2013. RAVEN - Step 1
Ancient (A), Veteran (V) or Notable (N)	Result of the RAVEN assessment © Julian Forbes-Laird 2018 www.flac.uk.com; provided in **Appendix 3**. (RAVEN = Recognition of Ancient, Veteran & Notable Trees)
Branch Spread (m)	Measured in metres to the four cardinal compass points (N, E, S, W).
Crown Clearance	(1) Height in metres of the first significant branch, and the direction of growth. (2) Height in metres of lowest part of crown.
Life Stage	The stage at which the tree is within its lifecycle (Y = young, SM = semi-mature, EM = early-mature, M = mature, OM = over mature)
General Observations	Any relevant observations are recorded, with particular reference to structural and/or physiological condition.

Column Heading	Description
Preliminary Management Recommendations	Recommendations are made where management work is required for reasons of health and safety or sound arboricultural management.
Estimated Remaining Contribution (years)	An estimation of how long the feature will contribute to its surroundings. This is recorded in bands of either <10 years, 10+ years, 20+ years and 40+ years.
Tree Quality Grading	The trees are graded to the categories prescribed within BS5837:2012 (U, A, B & C). Details of this grading system can be found in **Appendix 4.**
Root Protection Area	Calculated as prescribed in section 4.6 of BS5837:2012, provided as an area (m^2) and a radius from the tree's stem (m).
Note: Those measurements shown in *italics* have been estimated, usually where access has restricted it being taken.	

2.5 Assumptions and Limitations

The AIAP contained in **Appendix 2** has been developed from the tree survey information detailed in the TSS (**Appendix 3**), the Site Location Plan (**Appendix 1**) and the drawing titled '3223-01-03 General Arrangement', provided by the client in dwg format. This report is only relevant to the layout shown on the AIAP.

A topographical survey of the site was not provided; therefore, all tree locations have been plotted by eye using a geo-referenced aerial image.

This report is only intended for use by the person(s) or company named on the front cover.

This report is not a full hazard or risk assessment of trees and should not be used as such.

Trees are living organisms and are constantly adapting to their ever-changing environment. No tree is completely safe and there is no guarantee that problems or deficiencies may not arise in the future, which have not been identified in this report. Therefore, this report is only valid for a period of 1 year from the date of the initial site inspection.

2.6 Legislation

2.6.1 Tree Preservation Orders and Conservation Areas

Local Planning Authorities (LPAs) have the power to preserve selected trees and woodlands through the making of Tree Preservation Orders (TPOs). Similarly, special provision is provided to trees located within Conservation Areas (CAs) which are not the subject of a TPO. The LPAs powers to do this are provided by the following Act of Parliament and its associated regulations:

- Town and Country Planning Act 1990
- Town and Country Planning (Determination of Appeals by Appointed Persons) (Prescribed Classes) (Amendment) (England) Regulations 2008

- Town and Country Planning (Trees) (Amendment) (England) Regulations 2012

The principal effect of a TPO is to prohibit the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without first obtaining the consent of the relevant Local Authority.

Where works to trees within a CA are proposed, six weeks notification must first be given to the relevant Local Authority.

Unauthorised works to trees either protected by a TPO or those that are located within a CA, could result in an unlimited fine.

A search of Babergh Mid Suffolk District Council's interactive mapping on 30th May 2023 established that the site does not sit within a Conservation Area (CA). The search also confirmed that there are two TPOs within the village of Potash (TPO refs: BT244/T1 and BT379/G1). Neither of these TPOs shall be impacted upon by the proposed development as detailed in the layout proposals provided by the client. These results are shown in **Appendix 5**.

2.6.2 Ancient, Veteran and Notable Trees

An assessment was made on the trees identified during the surveys using the Recognition of Ancient, Veteran and Notable Trees (RAVEN). This assessment identified one Alder tree (T31) and one Oak tree (T47) which were classified as Ancient. Furthermore, five Oak trees (T74, T88, T114, T115, T137) were classified as Veteran Trees, and four Oak (T75, T78, T85 and T89) were classified as Notable Trees. The results of these assessments are detailed in **Appendix 3**.

Ancient, Veteran and Notable trees are important arboricultural features as they can have high amenity and landscape value, possess cultural and historical heritage and be places of refuge for numerous other species. They can provide habitat for rare fungi, invertebrates, birds, bats and other mammals and for epiphytic plants, mosses and lichens.

2.6.3 Ancient Woodlands

A search on Babergh Mid Suffolk District Council's interactive mapping also confirmed that there is an ancient woodland located to the northeast of the wider site, known as Engry Wood (ref: 29429). The site boundary has been offset from the ancient woodland and has a buffer zone within the agricultural field to the east, therefore the development will not impact this ancient woodland. The results of this search are shown in **Appendix 6**.

The buffer zone implementation will be at least 15m from the woodland edge to the development works area. This distance is in line with the recommendations as set out in the Natural England and Forestry Commission guidance titled 'Ancient woodland, ancient trees and veteran trees: advice for making planning decisions' under the section title 'Buffer zone recommendations'.

2.6.4 Wildlife Legislation

The following Acts and Regulations are the main pieces of legislation that protect wildlife and habitats in England and Wales:

- Wildlife and Countryside Act 1981 (as amended)
- Conservation of Habitats and Species Regulations 2017 (as amended)
- Protection of Badgers Act 1992
- The Hedgerows Regulations 1997
- Countryside and Rights of Way Act 2000
- Natural Environment and Rural Communities Act 2006 & Environment (Wales) Act 2016

The Wildlife and Countryside Act 1981 provides statutory protection to wild birds, their nests (whether in use or being built), as well as other wild animals such as bats and their roosts. Under the Act it is a criminal offence to intentionally destroy any wild bird, its nest or eggs, or to harm any bat, damage or block access to its roost (even if it is not occupied at the time), or to disturb a bat whilst it is occupying a roost. For some birds listed in Schedule 1 of the Act, such as barn owl, it is also an offence to disturb them while they are nesting, building a nest, in or near a nest that contains their young, or to disturb their dependent young. Other wild animals afforded full legal protection under the Act, and which may be affected by tree works include: otters and their places of shelter (often in exposed tree roots along river banks), hazel dormice, their breeding sites and resting places (well-structured woodland and scrub), and red squirrels and their nests (dreys). The Conservation of Habitats and Species Regulations 2017 provide additional legal protection to some species, including bats (all species), otters and hazel dormice. Badgers and their setts are specifically protected under the Protection of Badgers Act 1992, which makes it an offence to damage or block a sett, or to disturb badgers whilst they are using a sett. Where works might result in an offence being committed, advice will be required from a suitably experienced ecologist before they can be undertaken. For example, it may be necessary to programme tree work outside of the bird nesting period, typically March to August inclusive, or for an ecologist to undertake prior visual inspections of trees for nests and / or bat roosts.

Under the Wildlife and Countryside Act 1981 it is also illegal to plant or otherwise cause to grow in the wild certain invasive non-native plant species, including Japanese Knotweed, Himalayan Balsam, Giant Hogweed and Rhododendron. Any works that might cause the spread of these species could therefore result in an offence being committed. This might occur as a result of the incidental transportation of soil containing seeds or live root and stem fragments on the wheels of vehicles, or on the boots of personnel.

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are strictly protected sites designated respectively under the EC Habitats Directive and the EC Birds Directive. In England and Wales, SACs and SPAs are given legal protection by The Conservation of Habitats and Species Regulations 2017,

which transpose the EC Habitats Directive and EC Birds Directive into national law. The Regulations ensure that any plan or project that may damage an SAC or SPA can only proceed if certain strict conditions are met.

Sites of Special Scientific Interest (SSSIs) are areas notified under the Wildlife and Countryside Act 1981 as being of special interest for nature conservation or their geology with additional protection afforded to them by the Countryside and Rights of Way Act 2000. Under the legislation Natural England (NE) or Natural Resources Wales (NRW) must be notified of any planned works or operations that could potentially damage an SSSI or its features of interest before they are able to proceed.

The Natural Environment and Rural Communities Act 2006 and Environment (Wales) Act 2016 place a statutory duty on public authorities (public bodies and utility companies) to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of their functions.

The above provides only a brief summary of the legislation. It is advised that the original text of the relevant legislation is consulted for the exact wording. If necessary, advice should be sought from a suitably qualified ecologist prior to any tree works being undertaken.

2.7 Site Description

The site is composed of seven separate zones situated within the wider site boundary and located around the village of Potash, Ipswich, Suffolk, IP9 2DA.

The first zone to be surveyed is located in an agricultural field directly east of the railway line. The zone begins at the junction of Lodge Road and Church Road, Potash, IP9 2LP, and terminates within the wooded area to the south. The zone begins adjacent to a large horse chestnut tree (T1) located on a grass embankment at the junction of Lodge Road and Church Road. The zone then runs parallel to the railway line where there are trees and groups of trees, primarily composed of Ash and Oak, located on the embankment. The zone terminates at the southern section of the zone in a small, wooded area consisting of trees and groups of trees. The composition of the wooded area is classified as a mixed broadleaf, with the dominant species composed of Ash and Oak. The zone is approximately 650m in length and travels from grid reference TM 12410 38483 to TM 12303 37870.

The second zone is located on Church Road, Potash, IP9 2LP. The zone contains a narrow village street with hedgerows located on the eastern and western sides, which contain emergent trees. Beyond the hedgerows are agricultural fields. The zone is approximately 350m in length and travels from grid reference TM 11885 37975 to TM 11765 37655.

The third zone to be surveyed is located on Potash Lane, Potash, IP9 2BX. This zone is located on a narrow village lane with hedgerows containing emergent trees on the southern and northern aspects. Beyond the

hedgerows are agricultural fields. The zone is approximately 30m in length, travelling from grid reference TM 11189 37655 to TM 11151 37661.

The fourth zone is located north of Grove Farm, Potash Lane, Potash, IP9 2BX. It is composed of a section of agricultural field and a section of an Ancient Woodland, located on the western boundary of the field. The Ancient Woodland is known as Engry Wood. The zone is approximately 280m in length and travels in a south-west to north-east direction from grid reference TM 11137 38034 to TM 11347 38215.

The fifth section is also located in the agricultural field north of Grove Farm, Potash Lane, Potash, IP9 2BX. The zone consists of trees and hedgerows located on the northern boundary of the agricultural field. The zone is approximately 130m in length and travels in a west to east direction from grid reference TM 11488 38225 to TM 11615 38172.

The sixth zone, surveyed on the 17th of October, is located on Potash Lane, Potash, IP9 2BX. This zone is located on a narrow village lane with hedgerows containing emergent trees on the southern and northern aspects. Beyond the hedgerows are agricultural fields. The zone is approximately 170m in length and travels from grid reference TM 11362 37643 to TM 11189 37655 where it meets the third zone.

The seventh zone was also surveyed on the 17th of October, and is located on the southern, eastern, and northern boundaries of an agricultural field off Church Road, Potash, IP9 2LP. The boundaries on the southern and northern aspects contain dense amounts of tree cover. This tree cover is primarily composed of mixed broadleaves with a few small groups of conifers. The eastern boundary runs parallel to a railway line and has a sparse amount of tree cover. This zone travels from grid reference TM11857 37754 to TM 11902 37978 in an anti-clockwise direction around the agricultural field and is approximately 1,100m in length.

2.8 Development Description

The site is proposed for a solar farm development within the agricultural fields of Grove Farm, Potash, IP9 2DA. The locations of access tracks, deer/stock fencing, substation buildings and compounds, transformers, control buildings, spares containers and horizontal directional drilled and overhead cables have been provided by the client in the drawing '3223-01-03 General Arrangement'.

This report only considered the general arrangement proposals for the site, as provided by the client, and a detailed Arboricultural Planning Statement should be prepared once the finalised detailed deisgn of the proposed development has been preapred.

3 Arboricultural Impact Assessment

The layout plans provided by the client is the finalised scheme design layout of the site. The tree stock has been assessed under the following categories and the findings are summarised in ***Table 2***:

- *Trees proposed for removal. This includes trees:*
  - *that are located within the footprint of the proposed development areas*
  - *whose RPAs are heavily affected by the development*
  - *which are to be removed for reasons of sound arboricultural management.*
- *Retained trees that are at risk of damage through disturbance of RPAs*
- *Retained trees that require extra consideration during detailed design due to their proximity to proposed work areas*
- *Retained trees which are unaffected by the development proposals*

Table 2: Arboricultural Impact Assessment

Impact	Reason	Tree Quality Assessment Category Grading*				Totals
		A	B	C	U	
Trees, groups, and hedges proposed for removal	▪ Condition (Category U) ▪ Access track and cable installation	T23	T22	H37 (3.5m wide section), H66 (3.5m wide section)	T6, G24, T26, T54, G56, G62, T76, T77, T79, T146, T153	**15**
Retained trees, groups and hedges that are at risk of damage through disturbance of RPAs	▪ Development footprint encroaches into RPA.	T1, T20, T29, T31, T44	T9, T35, T68, T69, G147	G2, G19, T21, T30, T32, T33, T34, T67	None	**17**
Retained trees, groups, and hedges which are unaffected by the development		T36, T43, T46, T47, T50, W73, T74, T75, T78, T85, T88, T89, T100, T102, T137	T5, T7, T8, T10, T12, T13, T15, T41, T48, T49, T57, T60, T61, T63, T64, T65, T72, T81, T91, T92, T96, T99, T101, T104, T106, T110, T111, T114, T115, T116, T118, T119, T121, T122, T124, T126, G138, T139, T144,	T3, G4, T11, G14, T16, T17, T18, T25, T27, T28, T38, T39, T40, G42, T45, T51, T52, T53, G55, T58, T59, T70, T71, H80, T82, T83, T84, H86, H87, H90, H93, H94, H95, T97, T98, T103, T105, G107, G108, T109, T112, G113,	None	**132**

Impact	Reason	Tree Quality Assessment Category Grading*				Totals
		A	B	C	U	
			T145, G148, G149, T150, G151, G154, T160, T161	G117, T120, T123, G125, T127, T128, G129, T130, G131, G132, G133, G134, G135, G136, G140, T141, G142, G143, T152, T155, T156, G157, G158, T159, H162, T163, G164		
					Total	164

3.1 Tree Removals

Based upon the tree survey data, the removal of 11 category U features (T6, G24, T26, T54, G56, G62, T76, T77, T79, T146 and T153) is proposed. These specimens are all dead or dying trees or groups of trees, and are composed of Alder, Ash, Cherry, Elm, Hawthorn and Oak. The age classes of these trees range from young to over-mature and their removal would be recommended based on their condition irrespective of the proposed development, and as such they should not be seen as a material consideration in the planning process.

Furthermore, for the facilitation of the development, it shall be required to remove a high-quality A grade tree (T23) and a moderate quality B grade tree (T22) in order to install overhead cables to connect to the adjacent electrical pylon. The wooded area in which these features are located is only visible from a public vantage point at a distance of approximately 200m. Features T22 and T23 are situated centrally within the wooded area, surrounded by trees of similar age classes, heights and species. Their removal shall cause minimal impacts to the local amenity. These impacts shall be further reduced, as detailed in **Section 3.2**.

It shall also be a requirement for the facilitation of the development to remove a section of approximately 3.5m in length from low-quality C grade features H37 and H66. This shall cause minimal impacts to the local amenity.

3.2 Remedial Tree Planting

The landscape proposals for the project (**Appendix 7**) detail three areas where woodland belts will be planted. The locations include an area surrouding the pylon, a strip of land along Potash Lane adjacent to

the site entrance, and an area which will connect two existing woodland blocks in the north-west aspect of the wider site. These proposals will assist in screening the development from public vantage points and increasing tree cover within the site.

In addition to this, the proposals will actively manage the buffer zone of W73, allowing it to naturally re-wild to increase the woodland edge, and will also plant within existing hedgerow gaps to increase screening.

The adoption of these proposals will sufficiently compensate for the removal of features T22 and T23.

3.3 Tree Retentions

The proposed development is not likely to result in significant arboricultural impacts occurring to retained trees as they are typically located outside of the proposed development areas.

Features T30, T31, T32 and G147 have the proposed cable installation located within their RPAs. The cable installation shall be undertaken by means of Horizontal Directional Drilling and be at a depth beneath the soil rhizosphere. The launch and reception pits shall also be outside of any RPAs, therefore the likelihood of the cable installation causing any impacts to the root systems of the trees is minimal.

Retained features T67 and T68 may be impacted by the development of an access track which shall cause an incursion within their RPAs. Based upon the general arrangement plans, the proposed development shall cause an 11% area of new hard standing within the RPA of T67, and an 11.4% area of new hard standing within the RPA of T68. In accordance with Section 7.4.2.3 of BS 5837:2012, new permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA. Therefore, as these features already contain hardstanding within their RPAs consisting of Potash Lane, the incursions of new hard surfacing on existing unsurfaced ground within their RPAs amount to 12.4% for T67 and 14.2% for T68. Based upon the current plans, these incursions remain within acceptable limits as detailed in BS 5837: 2012. Details regarding the adoption of precautions in order to minimise the impacts of the proposed works on these features is provided in **Section 3.3**.

Whilst consideration to the relationship between the proposed development and some retained trees will need to be given during detailed design of the development layout, it is not anticipated that significant conflicts will occur.

3.4 Construction of New Hard Surfaces within RPAs of Retained Trees

The general arrangement plan indicates that new hard surfaces are to be constructed within the RPAs of retained trees T67 and T68.

Should detailed design require the construction of hard surfaces within the RPA of any retained tree then to maintain a growing environment which is able to support the long-term growth of the retained trees, certain precautions will be followed. Of key importance is the need to avoid severing roots and also to

avoid compacting the soil to such a degree that the tree roots are no longer able to penetrate the soil and that air and moisture are no longer able to enter and move through the soil. In addition, it is important that the new hard surface does not block the movement of air and moisture into and out of the soil.

As such, any proposed hard surfaces within the RPAs of retained trees will be of a no-dig construction and will be designed by an engineer in association with the retained Arboricultural Consultant. They will be designed in such a way so as to avoid compaction of the soil below. The construction and design of these hard surfaces will comply with the recommendations contained within Section 7.4 of BS5837:2012 and as outlined below:

- *Existing ground vegetation will be killed using an appropriate herbicide which is not likely to leach through the soil to the tree roots. Specialist advice should be sought in this matter.*
- *The new hard surfaces will be built up on existing ground levels, under no circumstances will the existing ground levels be skimmed or scraped to produce a level surface as this has the potential to cause root damage. Loose organic matter and/or turf will be removed carefully using either hand tools or pedestrian operated machinery (such as a turf stripper).*
- *Any build-up of levels (e.g. to accommodate dips and level changes in the existing ground levels, or to create the sub-base for the hard-surface) will be achieved through the use of a no-fines granular material which does not inhibit gaseous diffusion. Examples of suitable granular materials include no-fines gravel, washed aggregate, or cobbles.*

The new hard surfaces will therefore be built on top of existing ground levels and their construction should be engineer designed. Providing surface water is not liable to be contaminated by salt or toxic run-off from oil or petrol, a permeable surface and sub-base should be employed (it is proposed that permeable tarmac and block paving will be used). In order to avoid compaction of the existing soil it may be necessary to incorporate a load suspension system such as a 3D cellular confinement system.

The Site Supervisor shall ensure the prepared surface meets the necessary strength requirements prior to installation.

Excess water in the RPA should be avoided, particularly on clay soils where water logging can occur. In these cases, the hard surface should slope away from the tree to avoid ponding.

The excavation needed for the placement of kerbs, edgings and their associated foundations and haunching can damage tree roots. This should be avoided within the RPA by the use of alternative methods of edge support. The Site Supervisor shall provide the setting out of any edging requirements. Suitable edge supports may consist of but are not limited to:

- *Peg and board edging*
- *Sleepers pinned to the ground*
- *Gabions*

- *Other proprietary structures*

Consideration will be given to the placing of drainage gullies and these will be located outside of the RPAs of the retained trees. Further guidance on RPAs is detailed in **Appendix 8**.

3.5 Construction of Buildings within RPAs of Retained Trees

The general arrangement plan provided by the client indicates that development of buildings on site will be outside of the RPAs of retained trees.

It is recommended that during detailed design no new structures are proposed within the RPA of any features on site. However, if new structures are to be constructed within the RPA of any feature, then in order to minimise damage to the roots, the construction of such structures will be carefully planned. The recommendations contained in section 7.5 of BS5837:2012 and as outlined below will be followed with the foundation design:

- *Foundations will be designed to require minimal excavations. Strip foundations will not be used however pile / pad and above ground beam may be acceptable. The beam will need to be situated entirely above ground.*
- *Any piles / pads will be kept as small as possible and will be located to avoid significant roots. Where possible trial excavations to a depth of 100mm will be undertaken under the supervision of the retained Arboricultural Consultant in the locations of the piles / pads. If significant roots are exposed, the position of the pile / pad will be altered to avoid these roots.*
- *If concrete or any other phyto-toxic material is to be used for the foundations, a sheath / protective barrier will be used to prevent leaching into the soil.*
- *Any machinery used, including piling rigs, will be as small as possible and will work from adequate ground protection. Where the work is below the crowns of retained trees, consideration will also be given to required working space for any machine.*
- *Where more than 20% of the RPA of a retained tree is covered by a new building, a system will be included which will re-direct rainwater below the building and into the soil.*
- *Construction of new buildings within the RPA of retained trees will be undertaken under the supervision of the retained Arboricultural Consultant. The extent of this supervision will be at the discretion of the Local Planning Authority.*

3.6 Landscaping and Level changes within RPAs of Retained Trees

Ground levels will not be reduced within the RPA of any retained trees for landscaping purposes or to tie in with new levels. For the purpose of landscaping, ground levels will be increased to a maximum of 200mm depth using inert granular fill or soil. This material will be free of contaminants and other foreign objects potentially injurious to tree roots.

3.7 Utility Connections

Where possible, the placement of new utility connections will avoid the RPA of retained trees. Where this is not possible, (such as with features T30, T31, T32 and G147) in order to ensure that trees on site remain adequately protected during the installation of these services, the following precautions will be followed.

- The default position will be to use trenchless techniques wherever possible. Where this is possible, the launch and reception pits will be outside of the RPAs of the retained trees and when within the RPAs, the bore will be at least 1m below ground level.
- Where trenchless techniques are not a viable option, all excavations will be kept as small as possible and will be opened using hand tools only.
- Immediately prior to working within the RPA of retained trees, the Tree Protection Barriers will be removed. The barriers will be re-erected immediately upon completion of the works.
- The RPAs of all trees affected by the works will be clearly marked on the ground prior to commencement. These will be marked as a circle centred on the base of the tree. The dimensions of the RPAs can be found in the Tree Survey Schedule which is contained in **Appendix 3**.
- No excavations will be carried out within 1m of the base of any tree.
- Care will be taken to avoid damaging or cutting any roots over 25mm in diameter. This includes avoiding stripping bark from the roots. Roots below 25mm in diameter may be pruned back using a proprietary cutting tool such as bypass secateurs. If roots over 25mm diameter must be cut, this will only be done after consultation with the retained arboricultural consultant (and may require arboricultural supervison) or the relevant local authority Arboricultural Officer.
- Where retained roots are to remain exposed over night, they will be wrapped in damp hessian sacking in the summer months and dry hessian sacking in the winter months to prevent dessication.
- The trench should be backfilled in such a way so that it meets all legal and best practice requirements. However where possible, the backfill should incorporate an inert granular material mixed with top soil or sharp sand placed around the roots.
- No materials or equipment should be stored against the stems of the trees.
- Vehicles and plant should only be operated in close proximity of the trees under the supervision of a banks man and from suitable hard surfacing.
- Nothing will be attached to the trees.

4 Conclusions

The tree surveys undertaken across the seven sites, located within the wider site, identified a total of 164 features which have the potential to be impacted by future development proposals. Of the 164 features identified, 21 features were awarded a high-quality A grade status, 53 features were awarded a moderate quality B grade, 79 were awarded a low quality C grade and 11 features were awarded a very low U grade.

The 11 U grade trees are recommended for removal based upon their visible condition at the time of the surveys. Furthermore, it is also recommended to remove sections of approximately 3.2 - 3.5m in length from features H37 and H66 in order to facilitate the development.

An A grade feature (T23) and B grade feature (T22) shall require removal for the purposes of the installation of the overhead pylon cable. To compensate for their removal, remedial planting shall be undertaken as detailed in **Section 3.2**.

Furthermore, one A grade feature (T31), two B grade features (T68 and G147) and three C grade features (T30, T32 and T67) will require special construction measures in order to enable their retention throughout the course of development.

A summary of arboricultural impacts and suggested protection measures has been provided in **Section 3** of this report.

ADAS are satisfied that the proposed development of the site can be successfully achieved without causing undue harm to those trees identified for retention.

Appendix 1: Site Location Plan

See following page.

Site Boundary

Solar fenceline

Individual trees to be assessed

Trees to be assessed as group

Additional trees to be assessed

N

0344 8700 007
axis.co.uk

Project

Grove Farm

Figure Number

--

Figure Title

Scope of Tree Survey

Scale

Date

April 2023

Appendix 2: Arboricultural Impact Assessment Plan

See following page.

T1*

G2*

Site entrance to access track impacting within RPAs of T1 & G2.
The incursions are minimal and within acceptable limits.

T3*

G4*

T5*

T6*

T7*

T8*

T9*

T10*

T11*

T12*

T13*

Site boundary and access track is impacting within RPA of T9.
The incursion is within acceptable limits.

N

0 20m

1:500

LEGEND

TREE CATEGORIES - NOTE: Quality class description derived from BS5837:2012

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Root Protection Area (RPA)

Ancient Woodland Buffer (15m) - approximate location

Ancient/ Veteran/ Notable Tree Buffer Zone (15x stem diameter)

Sections of approximately 3.2m-3.5m in length to be removed from features H37 and H66 for the facilitation of the development

New hard surfacing to cause incursion of 11% within total RPA of feature T67

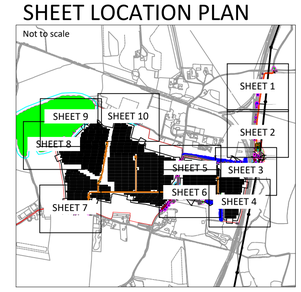
New hard surfacing to cause incursion of 11.4% within total RPA of feature T68.

T#* Trees not included in original site survey and therefore positions are indicative only.

Based on Axis PED drawing '3223-01-03 General Arrangement' drawing number '3223-01-03'. (3223-01-03 General Arrangement.dwg). Please see original for details.

SHEET LOCATION PLAN

Not to scale



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Checked by: EL Date: 02/11/2023

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G14*

T15*

G14*

T16*

T17*

T18*

Features T22 & T23 proposed for removal due to proximity to overheard pylon cable connections

G19*

T28*

T27*

T22*

T21*

T26*

T23*

Site Boundary incursion within RPAs of G19, T20, T21 & T29. The incursions are minimal and within acceptable limits.

Site Boundary incursion within RPA and Ancient Tree Buffer Zone of T31

G158, T160 and T161.

N

0 20m

1:500

LEGEND

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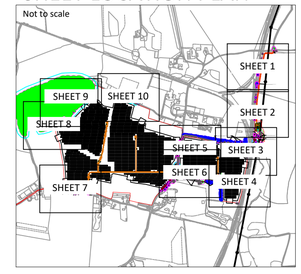

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Features T22 & T23 proposed for removal due to proximity to overheard pylon cable connections

Site Boundary incursion within RPAs of G148, G149, T155, G157, G158, T160 and T161. The incursions are minimal and within acceptable limits.

Site Boundary incursion within RPA and Ancient Tree Buffer Zone of T31

Site Boundary incursion within RPAs of G19, T20, T21 & T29. The incursions are minimal and within acceptable limits.

Cable installation to be undertaken by Horizontal Direction Drilling at a depth beneath the soil rhizosphere. The launch and reception pits shall be outside of any RPAs.

Site Boundary incursion within RPAs of T30, T32, T33, T34 & T35

T18*
G19*
T28*
T27*
T22*
T21*
T23*
T26*
T20*
T25*
G24*
T31*
T30*
T29*
T35*
T32*
T33*
T34*
T36*
G154*
T161*
T160*
T159*
G158*
G157*
G154*
T156*
T155*
G151*
T153*
T152*
G149*
T150*
G148*
G147*
T146*
T145*
T144*
G143*
G142*

0 20m 500

LEGEND

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- **Category U** Trees / Groups: in such a condition that they cannot realistically be retained as living trees in the context of current land use for longer than 10 years.
- **Root Protection Area** (RPA)
- **Ancient Woodland Buffer (15m) - approximate location**
- **Ancient/ Veteran/ Notable Tree Buffer Zone (15x stem diameter)**
- **Sections of approximately 3.2m-3.5m in length to be removed from features H37 and H66 for the facilitation of the development**
- **New hard surfacing to cause incursion of 11% within total RPA of feature T67**
- **New hard surfacing to cause incursion of 11.4% within total RPA of feature T68.**
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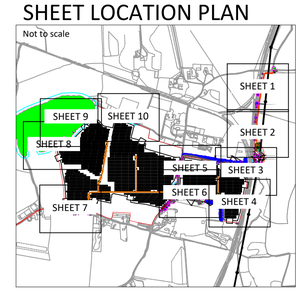
Not to scale



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T141*

T139*

G138*

G138*

G140*

0 20m 1:500

LEGEND

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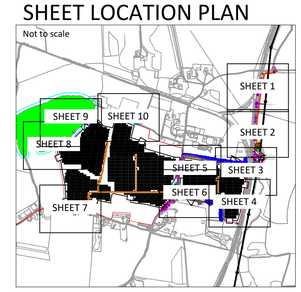

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H37*
G154*
G164*
T38*
T40*
T39*
T163*
G154*
H162*
G154*
Site Boundary incursion withi
The incursions are minimal a
T41*
H37*
T161*
T160*
G42*
T43*
H37*
H37*
T44*
T45*
T46*
H37*
H37*
T47*
Ancient Tree
T48*
H37*
H37*
T49*
N
0
20m
1:500

LEGEND

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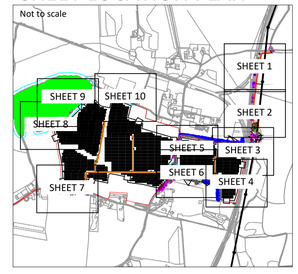

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T44*
T45*
T46*
T47*
Ancient Tree
T48*
T49*
T50*
T51
T52*
T53*
T54*
T55*
T56*
T57*
T58*
T59*
T60*
T61*
T62*
T63*
T64*
T65*
H37*
G55*
G129*
T128*
T130*
G131*
G132*
G133*
G134*
G135*
T137*
G136*
G138*
T139*
Removal of a section (approximately 3.5m wide) of H37 required for access track development
Site Boundary incursion within RPAs of T130, G131, G132, G133, G135, T137, G138, T139 & G140.
The incursions are within acceptable limits.
N
0
20m
1:500

LEGEND

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Ancient Woodland Buffer (15m) - approximate location

Ancient/ Veteran/ Notable Tree Buffer Zone (15x stem diameter)

Sections of approximately 3.2m-3.5m in length to be removed from features H37 and H66 for the facilitation of the development

New hard surfacing to cause incursion of 11% within total RPA of feature T67

New hard surfacing to cause incursion of 11.4% within total RPA of feature T68.

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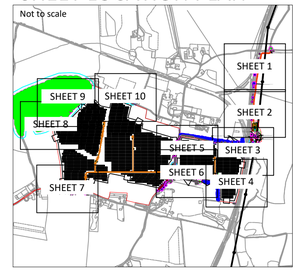

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Removal of a section (approximately 3.2m) of H66 required for access track development

Access track will cause incursion of approximately 11% in RPA of T67

Access track will cause a minimal incursion within the RPA of T69. The incursion is within acceptable limits

Access track will cause incursion of 11.4% in RPA of T68

T71* T70* T67* T72* T69* T68* H66* T127* T123* T122* T121* T120* T119* T116* T112* T109* T106* T105* T104* T103* T102* T101* T97* T96* H66* G125* G117* G113* G108* G107* H95* H94* H93* T126* T124* T118* T115* T114* T111* T110* T100* T99* T98* T92* T91*

0 20m 1:500

LEGEND

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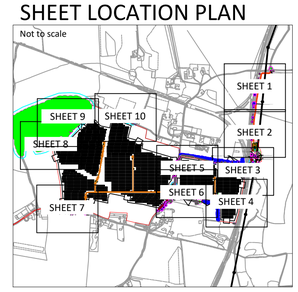

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W73*

W73*

W73*

T78*

T76*

T77*

T75*

Notable Tree

Veteran Tree

T74*

N

0 20m

1:500

LEGEND

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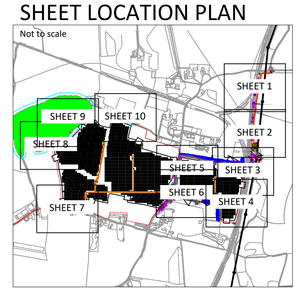

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W73*

W73*

T79*

T78*

Notable Tree

T76*

W73*

T77*

T75*

Notable Tree

W73*

Veteran Tree

T74*

0 20m

1:500

LEGEND

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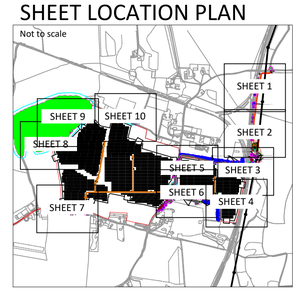
SHEET LOCATION PLAN

Not to scale



Rev.	Issue Details.	Date.
First Issue	-	November 2023

Client:
Axis PED

Project:
Grove Farm

Drawing Title:
Arboricultural Impact Assessment Plan (She

Drawing No: ADAS_1052211_Axis PED_Grove Farm_AIAP

Scale: 1:500

Drawn by: AVH Date: 02/11/2023

Checked by: EL Date: 02/11/2023

ADAS, 11d Park House, Milton Park,
Milton, Abingdon, Oxford, OX14 4RS

Tel: 01235 355630

T81*
H80*
T82*
T83*
T84*
T85*
Notable Tree
H86*
H87*
T88*
Veteran Tree
T89*
Notable Tree
H90*

0 20m
1:500

LEGEND

TREE CATEGORIES - NOTE: Quality class description derived from BS5837:2012

Category A
Trees / Groups of high quality: with an estimated remaining life expectancy of at least 40 years.

Category B
Trees / Groups of moderate quality: with an estimated remaining life expectancy of at least 20 years.

Category C
Trees / Groups of low quality: with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Category U
Trees / Groups: in such a condition that they cannot realistically be retained as living trees in the context of current land use for longer than 10 years.

Root Protection Area (RPA)

Ancient Woodland Buffer (15m) - approximate location

Ancient/ Veteran/ Notable Tree Buffer Zone (15x stem diameter)

Sections of approximately 3.2m-3.5m in length to be removed from features H37 and H66 for the facilitation of the development

New hard surfacing to cause incursion of 11% within total RPA of feature T67

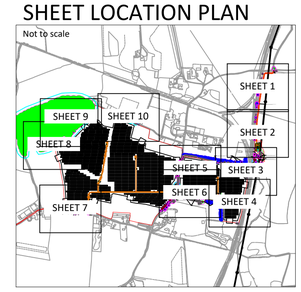
New hard surfacing to cause incursion of 11.4% within total RPA of feature T68.

T#* Trees not included in original site survey and therefore positions are indicative only.

Based on Axis PED drawing '3223-01-03 General Arrangement' drawing number '3223-01-03'. (3223-01-03 General Arrangement.dwg). Please see original for details.

SHEET LOCATION PLAN

Not to scale



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Appendix 3: Tree Survey Schedule

See following page.

Column Heading	Description
Tree Ref No.	All individual trees and groups of trees have been given a unique reference number. Each number is prefixed by a letter. T = Individual tree G = Group of trees H = Hedgerow W = Woodland
Species	The English common name has been used.
Single or Multiple stem (S or M) Height (m)	'S' represents a tree which has a single clear stem to at least 1.5m above ground level. 'M(a)' represents a tree where the main stem divides into two to five stems below 1.5m above ground level. 'M(b)' represents a tree where the main stem divides into 6 or more stems below a height of 1.5m. Where possible tree heights are measured using a laser. In some instances, such as in close groups of trees, one height may be measured, and other nearby trees estimated from this height. Measurements are provided in metres.
Stem Diameter (mm)	S_n represents the stem number. Measurements are provided in millimetres at 1.5m above ground level for single stemmed trees.
Very Large Girth (y/n)	Girth is very large for species in accordance with Fig 1.3 of publication 'Ancient and other veteran trees: further guidance on management' Ancient Tree Forum 2013. RAVEN - Step 1
Ancient (A), Veteran (V) or Notable (N)	Result of the RAVEN assessment © Julian Forbes-Laird 2018 www.flac.uk.com; provided on separate ADAS Sheet 2. (RAVEN = Recognition of Ancient, Veteran & Notable Trees)
Branch Spread (m)	Measured in metres to the four cardinal compass points (N, E, S, W).
Crown Clearance Life Stage	(1) Height in metres of the first significant branch, and the direction of growth. (2) Height in metres of lowest part of crown. The stage at which the tree is within its lifecycle (Y = young, SM = semi-mature, EM = early-mature, M = mature, OM = over mature)
General Observations	Any relevant observations are recorded, with particular reference to structural and/or physiological condition.
Preliminary Management Recommendations	Recommendations are made where management work is required for reasons of health and safety or sound arboricultural management.
Estimated Remaining Contribution (years)	An estimation of how long the feature will contribute to its surroundings. This is recorded in bands of either <10 years, 10+ years, 20+ years and 40+ years.
Tree Quality Grading	The trees are graded to the categories prescribed within BS5837:2012 (U, A, B & C).
Root Protection Area	Calculated as prescribed in section 4.6 of BS5837:2012, provided as an area (m^2) and a radius from the tree's stem (m).
Note: Those measurements shown in italics have been estimated, where access is restricted.	

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T1	Horse Chestnut	S	13	910												7	7	10	8	3.0-S	1.5	M	The tree has had some previous pruning work performed, there is a minor amount of small dead and broken branches within the canopy and a small amount of peeling back at 4m on the norther side of the stem.	None	40+	A1	374.7	10.9
G2	Elder	M(a)	4	100	90	80	75									4	4	4	4	0.5-S	0	Y	The measurements are representative of the group. This is a self seeded group on the field edge which have brambles growing throughout.	None	10+	C2	13.6	2.1
T3	Oak	S	*5*	*120*												*4*	*4*	*4*	*4*	*0.5-S*	*0.5*	Y	Restricted visual tree assessment as the tree was located on the railway embankment, therefore the measurements are estimated.	None	10+	C1	6.5	1.4
G4	Oak	S	5	120												3	3	3	3	0.5-S	0.5	Y	The measurements are representative of the group which is composed of 12 individual self seeded oak trees. Some individuals within the group are beneath the 75mm stem diameter threshold. There is flail damage on individual trees growing on the boundary of the railway embankment and the field.	None	10+	C2	6.5	1.4
T5	Oak	M(a)	*12*	*420*	*410*	*350*	*330*									*6*	*6*	*6*	*6*	*0.5-E*	*0.5*	M	Restricted visual tree assessment as the tree was located on the railway embankment, therefore the measurements are estimated. There is some minor flail damage to small branches on the eastern side on the canopy.	None	20+	B1	260.6	9.1
T6	Oak	M(a)	10	150	120	210	190									4	2	5	5.5	1.0-S	1	SM	The canopy contains a lot of dead branches and the tree is in poor physiological health.	Remove the tree within 60 days	<10	U	N/A	N/A
T7	Oak	S	*11*	*470*												*5.5*	*5*	*5*	*5*	*0.5-S*	*0*	M	Restricted visual tree assessment as the tree is located on the railway embankment, therefore the measurements are estimated. There is flail damage on the eastern side from 0-5m.	None	20+	B1	99.9	5.6
T8	Oak	M(a)	*10*	*450*	*440*	*200*	*160*									5	5	6	5	0.5-S	0.5	M	The tree has some moderately significant flail damage on the eastern side of the canopy from 0-4m and some branches have fused together.	None	20+	B1	208.9	8.2
T9	Oak	S	*12*	*890*												*6.5*	*5.5*	*5.5*	*6*	*1.0-S*	*0*	M	Restricted visual tree assessment as the tree is located on the railway embankment, therefore the measurements are estimated. The tree is ivy clad and there is flail damage on the eastern side of the canopy.	None	20+	B1	358.4	10.7
T10	Oak	S	10	310												5.5	4	3.5	5.5	0.5-S	0	EM	The tree is ivy clad and there is flail damage on the eastern side of the canopy.	None	20+	B1	43.5	3.7
T11	Oak	S	*9*	*250*												*4*	*4*	*4*	*4*	*0.5-E*	*0*	SM	Restricted visual tree assessment as the tree is located on the railway embankment, therefore the measurements are estimated. The tree is ivy clad, there is flail damage on the eastern side and it is being suppressed by T10 and T12.	None	10+	C1	28.3	3.0
T12	Oak	S	10	290												4	4	4	4	0.5-E	0	SM	The tree is ivy clad and there is flail damage on the eastern side of the canopy.	None	20+	B1	38.1	3.5
T13	Oak	S	10	360												4	4	5	5	0.5-E	0	EM	The tree is ivy clad and there is flail damage on the eastern side of the canopy.	None	20+	B1	58.6	4.3
G14	Hazel	M(a)	1.5	80	75	80	90	75								2	2	2	2	0-S	0	Y	The group consists of three hazels. They have all been topped at 1m and regrown from these points.	None	10+	C2	14.5	2.2
T15	Hazel	M(b)	10	160	120	110	80	100	75	80	140	110	80			5.5	6	7	4.5	0-S	0	EM	The tree is a coppice and contains approximately 30 individual stems. Some stems contain small cavities and there is minor flail damage on the eastern side of the canopy.	None	20+	B1	50.4	4.0
T16	Ash	S	11	340												6.5	6.5	6.5	6.5	3.5-E	4	EM	The tree contains epicormic growth at 1.5m, fungi at the base on the western side. This fungi has been identified as being Dryad's saddle (*Cerioporus squamosus*).The tree previously had a co-dominant stem from the base which has since been removed. There is a minimal amount of dead and broken branches within the crown.	Perform a decay detection survey within 90 days to assess the level of decay within the stem caused by the fungi. Survey to be conducted using PiCUS Sonic Tomograph. Follow the recommendations of the survey.	10+	C1	52.3	4.1

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T17	Ash	M(a)	*12*	*320*	*220*	*260*										*6*	*6*	*6.5*	*6*	*3.0-S*	*1.5*	M	Restricted visual tree assessment as the tree is surrounded by a thick patch of brambles up to 1.5m high. Therefore the lower stem was not visible and stem diameters and canopy spreads were estimated. A branch has been abrading against one the stems and has partly fused. The abrading wounds are occluding well.	None	10+	C1	98.8	5.6
T18	Elder	M(a)	*5*	*120*	*110*											3	5	3	1	1.0-E	0.5	EM	Restricted visual tree assessment as the tree is located on the railway embankment, therefore the measurements are estimated. There has been felling of multiple ash trees surrounding the elder.	None	10+	C1	12.0	2.0
G19	Blackthorn	M(a)	6.5	110	100	90	80	75								3	3	3	3	0.5-S	0.5	Y	The group consists of approximately 25 individuals, therefore the measurements are representative.	None	10+	C2	19.1	2.5
T20	Oak	S	11	650												8	7	6.5	5	1.0-E	0.5	M	The tree contains a small amount of deadwood and some ariel rooting.	None	40+	A1	191.2	7.8
T21	Oak	S	9	230												7	3	2.5	2	1.0-N	0.5	Y	The tree is leaning north as it is being physiologically supressed by the surrounding trees. It has a V shaped union with included bark at 2m.	None	10+	C1	23.9	2.8
T22	Oak	S	10	450												7	5	4	6	1.5-N	1	EM	The southern side of the canopy is sparsely branched and many of the branches are dead. The condition is moderately significant as the southern side of the crown is in decline.	Remove the dead branches within 60 days.	20+	B1	91.6	5.4
T23	Oak	S	13	840												10	9	11	8	1.5-N	1	M	The tree contains a minimal amount of dead branches which is normal for the species and age. The tree has had some lower branches removed. The pruning wounds have occluded well.	None	40+	A1	319.2	10.1
G24	Alder, Ash, Hawthorn	S	14	320												5	5	5	5	2.0-S	2	M	The group consists of numerous species, stem diameters and ages classes. They have been group together as most trees within the group are dead, many are dying and only one alder is in a fair condition. The measurements were recorded from one of the larger ash trees to represent the group.	Fell all trees, apart from the alder which is in fair condition, within 60 days.	<10	U	N/A	N/A
T25	Hazel	M(b)	7	180	160	80	100	130	75	90	100	100	80			7	5	4	4	0-S	0	EM	This is a multi-stemmed coppice. There is a dead and collapsed stem which has fallen into the main canopy area and is hanging.	Remove the dead collapsed stem within 30 days.	10+	C1	54.2	4.2
T26	Ash	S	14	430												4.5	5	6.5	5	8.0-W	8	M	The tree contains numerous dead and dying branches and is in a poor condition.	Remove the tree within 60 days	<10	U	N/A	N/A
T27	Oak	M(a)	12	240	270	300										5	9	8	4.5	4.0-E	2	SM	There is a collapsed dead stem which has fallen and is hanging in the tree.	Remove the collapsed dead stem within 30 days.	10+	C1	99.8	5.6
T28	Ash	M(b)	14	150	230	340	320	340	310	110						5	9	5	5	0-E	1	M	Some branches within the canopy are showing signs of dieback.	Remove branches which have defoliated from dieback within 60 days.	10+	C1	209.4	8.2
T29	Oak	M(a)	11	620	310											6	6	7	6.5	1.0-W	0	M	There is a minimal amount of deadwood in the canopy which is normal for species and age.	None	40+	A1	217.4	8.3
T30	Willow	M(a)	9	340	180	180	150	140								10	9	2	6	0.5-W	0	M	The tree has previously collapsed and the stems have regrown from the fallen tree.	None	10+	C1	100.7	5.7
T31	Alder	S	11	1500										Y	A	7	8	7	7	2.0-E	1.5	OM	The tree contains cracks, hollowing, decay, fungi, animal activity within the stem base, ariel roots in the stream, dead and broken branches and is ivy clad. This tree has been assessed using the Recognition of Ancient, Veteran and Notable trees assessment and has been classified as being an Ancient Veteran. It has been recorded as Ancient for the purposes of this schedule. The tree is approaching Late Ancient according to the AFT Tree Girth Chart.	None	40+	A3	707.0	15.0

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T32	Alder	S	9	260												3	2	4	5	4.0-N	4	EM	There is a crack with signs of hollowing at 1m. The condition is moderately significant as the tree could fail at this point of defect.	Perform a decay detection survey within 90 days to assess the level of decay or other disorder where the crack is located. Survey to be conducted using PiCUS Sonic Tomograph. Follow the recommendations of the survey.	10+	C1	30.6	3.1
T33	Willow	M(a)	9	280	110	150	150									4	1	5	6	4.0-W	2	M	Two stems have begun collapsing across the stream. There were no further visible signs of structural issues at the time of the survey.	Remove the collapsing stems within 60 days.	10+	C1	61.3	4.4
T34	Hazel	M(b)	10	170	160	110	90	120	80	75	75	80	90			10	5	7	5	0.5-S	0.5	EM	The tree is a coppice and contains some dead stems.	Remove the dead stems within 60 days.	10+	C1	49.9	4.0
T35	Hawthorn	S	9	340												8	5	3	4	2.0-N	6	M	The tree is being suppressed by T36	None	20+	B1	52.3	4.1
T36	Ash	S	15	450												6	5	6	9	6.0-W	7	M	There were no significant defects visible at the time of the survey	None	40+	A1	91.6	5.4
H37	Elder, Hawthorn, Field Maple, Hazel, Blackthorn	M(a)	4	100	90	80	75									2	2	2	2	0-S	0	Y	This is a managed field boundary hedgerow which contains gaps.	None	10+	C2	13.6	2.1
T38	Elm	S	*6*	*220*												*5*	*4*	*4*	*4*	*1.0-S*	2	Y	Restricted visual tree assessment as it is located in the middle of a hedgerow, therefore the measurements are estimated.	None	10+	C1	21.9	2.6
T39	Oak	S	6	240												3	3	4	1.5	3.0-E	2	Y	The tree is located within the hedgerow.	None	10+	C1	26.1	2.9
T40	Blackthorn	M(a)	5	110	110	100										3	1	2	1.5	0.5-E	0	Y	No significant defects.	None	10+	C1	15.5	2.2
T41	Oak	M(a)	11	390	340											5	5	5	5	1.5-S	1	EM	The tree is ivy clad.	None	20+	B1	121.1	6.2
G42	Elm, Oak	S	8	100												2	2	2	2	4.0-E	4	Y	This group consists of saplings which have been allowed to grow through the hedge and create canopies above the top of the hedgerow.	None	10+	C2	4.5	1.2
T43	Oak	S	13	460												7	6	7	7	4.0-S	4	M	The tree is ivy clad and contains a minimal amount of deadwood.	None	40+	A1	95.7	5.5
T44	Oak	S	12	720												7	7	7.5	6.5	1.5-S	2.5	M	The tree is ivy clad and contains a minimal amount of deadwood.	None	40+	A1	234.5	8.6
T45	Oak	M(a)	9	310	250	260										7	7	1.5	6	1.0-N	2	EM	The tree is being suppressed by T46 and is in poor form with some dead branches.	Remove the dead branches within 60 days.	10+	C1	102.3	5.7
T46	Oak	M(a)	12	350	360	320	90	640								8	8	8	8	0.5-W	2	M	The tree has sustained some flail damage to small branches on the western side of the lower canopy and contains some deadwood in the main canopy.	None	40+	A1	349.4	10.5
T47	Oak	S	14	*1980*										Y	A	10	9	10	9	2.0-N	2	M	The measurement of the tree is estimated as it had to be measured in two halves due to the tape measure not being large enough to go around the stem. There is fungi at the base on the north and eastern sides of the stem, it is ivy clad, has sustained flail damage on small branches, contains a small amount of deadwood in the canopy and has had some pruning work conducted on the western side at 6m. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as Ancient.	Perform a decay detection survey within 60 days to assess the level of decay or other disorder on the stem due to the fungi. Survey to be conducted using PiCUS Sonic Tomograph. Follow the recommendations of the survey.	40+	A3	707.0	15.0

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T48	Oak	S	9	460												6	6	6	6	1.0-N	2	EM	The tree has sustained flail damage on the western side from 2-3m	None	20+	B1	95.7	5.5
T49	Sycamore	S	9	430												6	6	6	5	1.0-N	2	EM	The tree has sustained flail damage on the western side from 0-3m	None	20+	B1	83.7	5.2
T50	Oak	M(a)	12	430	610											8	8	8	8	2.5-W	2	M	The tree contains a minimal amount of deadwood and is ivy clad	None	40+	A1	252.0	9.0
T51	Oak	S	8	210												0.5	1	2	5	3.0-S	4	Y	The tree is being suppressed by T50	None	10+	C1	20.0	2.5
T52	Elm	S	10	240												3	4.5	3	1	4.0-E	4	Y	The tree contains some dead branches and is ivy clad.	Remove the dead branches within 60 days.	10+	C1	26.1	2.9
T53	Elm	M(a)	10	180	250											3	4.5	3	1	4.0-E	4	Y	The tree is multi-stemmed from the base.	None	10+	C1	42.9	3.7
T54	Oak	S	6	2010												2	2	2	2	0-S	0	OM	The tree is dead and has been colonised by ivy. The stem was cut down to approximately 6m and the lower portion remains and so was recorded for the purposes of this survey.	None	<10	U	N/A	N/A
G55	Holly, Hawthorn	M(a)	7	120	100	80	75	110								4	4	4	4	0.5-S	0	Y	The measurements are representative of the group. This is a self seeded group on the field edge which have brambles growing throughout.	None	10+	C1	22.0	2.6
G56	Elm	S	8	160												4	4	4	4	6.0-E	6	Y	The group consists of approximately six dead individuals	Remove the group within 60 days.	<10	U	N/A	N/A
T57	Oak	S	10	360												4.5	4.5	4.5	4.5	3.0-W	4	EM	There is a minimal amount if ivy growing on the tree	None	20+	B1	58.6	4.3
T58	Ash	M(b)	8	120	100	90	75	110	100	75	80	100				4	4	5	4	4.0-E	4	Y	The tree is ivy clad and has 10 stems.	None	10+	C1	36.3	3.4
T59	Ash	M(b)	8.5	220	200	170	190	160	120	130	150					5	6	3	5	4.0-E	4	SM	The tree contains eight stems	None	10+	C1	101.6	5.7
T60	Ash	M(a)	10	90	290											2	5	6	5	3.0-W	6	EM	The tree is being supressed by T59 to the north	None	20+	B1	41.7	3.6
T61	Oak	M(a)	10	380	410											7	8	7	7	1.0-E	2	EM	The tree is ivy clad and contains a minimal amount of deadwood.	None	20+	B1	141.4	6.7
G62	Elm, Ash	S	8	200												4	4	4	4	1.0-W	4	Y	The group consists of dead and dying individuals.	Remove the group within 60 days.	<10	U	N/A	N/A
T63	Oak	S	10	640												7	7	6	6	1.0-E	1	M	The tree is ivy clad and contains a minimal amount of deadwood.	None	20+	B1	185.3	7.7
T64	Oak	M(a)	11	370	600											7	8	8	6	2.5-E	3	M	The tree is ivy clad and contains a minimal amount of deadwood.	None	20+	B1	224.8	8.5

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T65	Oak	S	11	420												5.5	7.5	3	6	3.0-E	4	EM	The tree is ivy clad, there is a broken branch at 3m on the eastern side of the canopy and it is being suppressed by the ash trees to the south.	Remove the broken branch back to the nearest lateral branch within 60 days.	20+	B1	79.8	5.0
H66	Blackthorn, Field Maple	M(a)	2	110	100	90	80	75								1	1	1	1	0-S	0	Y	This is a managed hedgerow	None	10+	C2	19.1	2.5
T67	Field Maple	M(b)	8	220	200	160	100	120	190	150	190	130	140			5	4.5	4.5	5	1.0-W	2	SM	The tree contains more than 10 stems. It has previously been topped at 4m and appears as if it was once part of a managed hedgerow that has since been allowed to grow into an emergent hedgerow tree.	None	10+	C1	115.8	6.1
T68	Oak	S	10	680												7	7	7	7	3.0-S	3	EM	The tree is ivy clad, contains a minimal amount of deadwood which is normal for species and age, and is growing within a hedgerow.	None	20+	B1	209.2	8.2
T69	Oak	S	10	890												7	6	8	6	2.0-S	3	M	The tree is ivy clad, has a snapped limb on the northern side of the canopy which has signs if decay and contains some other dead branches within the canopy.	Remove the snapped decaying limb and the other dead branches within 60 days.	20+	B1	358.4	10.7
T70	Field Maple	M(b)	7	75	150	110	210	200	170	190	80	100	90			3	3	2	3	1.0-E	4	SM	The tree contains more than 10 stems. It has previously been topped at 4m and appears as if it was once part of a managed hedgerow that has since been allowed to grow.	None	10+	C1	85.5	5.2
T71	Field Maple	M(b)	7	80	120	200	190	80	80	80	100	110	75			3	3	4	3	1.0-W	4	SM	The tree contains more than 10 stems. It has previously been topped at 4m and appears as if it was once part of a managed hedgerow that has since been allowed to grow.	None	10+	C1	56.2	4.2
T72	Oak	S	10	680												7	6	7	6	1.5-S	2	M	The tree is ivy clad, contains a minimal amount of deadwood and has had previous pruning performed on the lower branches.	None	20+	B1	209.2	8.2
W73	Oak, Ash, Cherry, Silver Birch	S	14	500												7	7	7	7	4.0-S	4	M	This is a mixed broadleaved Ancient Woodland. The measurements are representative. There are dead trees within the woodland, some are located on the woodland edge.	The 15m buffer zone allows for the dead trees on the woodland edge to be maintained as monoliths for ecological purposes, i.e. deadwood providing habitat.	40+	A3	113.1	6.0
T74	Oak	S	9	950										Y	V	6	7	6	5	2.5-W	3	M	The tree contains cracks, deadwood in the canopy and areas of hollowing. The tree form is a lapsed pollard. There are more recent pruning wounds due to lower branch removals. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Veteran.	Perform a decay detection survey within 90 days to assess the level of decay or other disorder where the crack is located. Survey to be conducted using PiCUS Sonic Tomograph. Follow the recommendations of the survey.	40+	A3	408.3	11.4
T75	Oak	S	15	1010										Y	N	8	9	11	12	4.0-W	4	M	The tree contains many dead branches and missing bark. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Notable. A Notable tree has a girth which is large for the species but does not have the characteristics required for Ancient or Veteran status.	None	40+	A3	461.5	12.1
T76	Cherry	S	12	400												6	6	2	3	4.0-N	6	OM	The tree is dead, shows signs of hollowing and contains woodpecker damage.	Remove the tree within 60 days due to its potential risk to targets.	<10	U	N/A	N/A
T77	Oak	S	9	810												6	5	5	5	4.0-N	4	M	The tree stem bulges at the base and has an open wound with decay and hollowing present. The level of hollowing could cause a failure of the tree.	Remove the tree within 60 days due to its poor condition and potential risk to targets.	<10	U	N/A	N/A
T78	Oak	S	14	920										Y	N	7	8	7	6.5	4.0-E	3	M	The tree contains cavities and dead branches. There has been pruning work conducted previously. There are numerous other dead trees to the south and west. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Notable.	Perform a decay detection within 90 days survey to assess the level of decay or other disorder in areas containing cavities. Survey to be conducted with a PiCUS Sonic Tomograph. Follow the recommendations of the survey.	40+	A3	383.0	11.0
T79	Ash	M(a)	12	400	350	320										4	4	5	5	4.0-E	2	M	The tree is dying, There is a black ooze bleeding from the stems and evidence of woodpecker activity.	Remove the tree within 60 days.	<10	U	N/A	N/A
H80	Hawthorn, Field Maple	M(a)	6	120	100	90	75									1.5	1.5	1.5	1.5	0-S	0	Y	This is a managed field boundary hedgerow. Some growth has been allowed to extend on the top without regular flail work being conducted.	None	10+	C2	17.2	2.3

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T81	Oak	S	*12*	*500*												*7*	*7*	*7*	*7*	*2.5-W*	3	M	Restricted visual tree assessment as the tree is on private land, therefore the measurements are estimated.	None	20+	B1	113.1	6.0
T82	Oak	S	8	210												3	3	3	3	5.0-N	4	Y	The tree is ivy clad	None	10+	C1	20.0	2.5
T83	Oak	S	10	250												4	0	4	4	6.0-W	6	Y	The tree is being suppressed by T86	None	10+	C1	28.3	3.0
T84	Ash	M(a)	10	90	110	120										4	4	4	1	4.0-S	5	Y	The tree is being suppressed by T85	None	10+	C1	15.7	2.2
T85	Oak	S	13	1220										Y	N	10	10	10	10	1.5-W	4	M	The tree has had some previous pruning work and contains a minimal amount of deadwood. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Notable.	None	40+	A3	673.4	14.6
H86	Holly	M(a)	5	75	90	80	110	100								2	2	2	2	0-S	0	Y	Managed hedgerow	None	10+	C2	19.1	2.5
H87	Hawthorn, Field Maple	M(a)	6	120	100	90	75									1.5	1.5	1.5	1.5	0-S	0	Y	This is a managed field boundary hedgerow. Some growth has been allowed to grow on the top without regular flail work being conducted.	None	10+	C2	17.2	2.3
T88	Oak	S	11	1400										Y	V	9	7	7	9	2.0-W	0	M	The tree has a retrenched crown with large dead branches (stag heading). The canopy has suffered flail damage on the southern side. There is a stem wound at the base on the southern side, broken branches in the canopy, bark missing on a major branch at the top of the canopy and there have been large branch removals. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Veteran.	Perform a decay detection within 90 days survey on the stem wound to assess the level of decay or other disorder. Survey to be conducted using a PICUS Sonic Tomograph. Follow the recommendations of the survey.	40+	A3	707.0	15.0
T89	Oak	S	13	980										Y	N	9	9	9	8	4.0-W	4	M	The tree is ivy clad, contains some deadwood and has had some pruning work conducted on it. There is a field maple which has fused to the base of the tree on the northern side. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as Notable.	None	40+	A3	434.5	11.8
H90	Field Maple	M(a)	6	120	100	90	75	80						N		4	4	4	4	0-S	0	Y	This is a managed hedgerow until 4m then the top approximately 2m has been allowed to grow without maintenance.	None	10+	C2	20.1	2.5
T91	Ash	M(a)	13	400	220									N		3.5	6	6	5	3.0-S	3	EM	The tree contains some dead and broken branches within the crown, a small amount of ivy and there is a branch at 0.5m on the eastern aspect which has been cut approximately 0.5m from the stem, leaving a dead, blunt ended branch.	None	20+	B1	94.3	5.5
T92	Oak	M(a)	13	260	250	240	80							N		4.5	3	5.5	5	1.5-E	4	SM	The tree contains a minor amout of ivy and dead branches within the crown.	None	20+	B1	87.8	5.3
H93	Hawthorn	M(a)	3	100	90	80	75	75						N		1	1	1	1	0-S	0	SM	This is a maintained, field boundary hedgerow with some emergent trees contained within it.	None	10+	C2	16.2	2.3
H94	Holly	M(a)	3	80	80	75	75	75						N		1	1	1	1	0-S	0	SM	This is a maintained, field boundary hedgerow with some emergent holly trees on the western aspect.	None	10+	C2	13.4	2.1
H95	Blackthorn	M(a)	2.5	80	80	75	75	75						N		1	1	1	1	0-S	0	SM	This is a maintained, field boundary hedgerow with some emergent trees contained within it.	None	10+	C2	13.4	2.1

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T96	Oak	M(a)	14	480	450	280								N		8	8	7	8	2.0-W	2	M	The tree is ivy clad, contains some deadwood within the crown and has a snapped branch at approximtely 4m on the western aspect.	None	20+	B1	231.3	8.6
T97	Elm	S	7	190										N		1	0	1	3	3.0-E	2.5	Y	This is a small tree, being supressed by the surrounding treescape and has no branching on the eastern side.	None	10+	C1	16.3	2.3
T98	Oak	M(a)	11	300	280									N		5	5	6	2	3.0-S	3	SM	The crown contains deadwood, particularly on the southern aspect. The tree is also ivy clad and being supressed by T99.	None	10+	C1	76.2	4.9
T99	Oak	S	14	390										N		3	3	5	3.5	4.0-W	4	SM	The tree is ivy clad, contains deadwood in the crown and is being supressed by T98 and T100.	None	20+	B1	68.8	4.7
T100	Oak	M(a)	15	900	510	470	450							N		10	7	10	10	0.5-E	4	M	The tree is ivy clad and contains a minor amount of deadwood within the crown.	None	40+	A1	675.7	14.7
T101	Oak	M(a)	9	340	290	280								N		5	7	6	5	1.0-W	3	SM	The tree is being supressed by T102.	None	20+	B1	125.8	6.3
T102	Ash	M(a)	14	580	220									N		10	7.5	10	6	1.0-N	4	M	The crown contains a minor amount of deadwood.	None	40+	A1	174.1	7.4
T103	Goat Willow	M(a)	8	160	130	100								N		6	4	1	3	0.5-N	0.5	SM	The tree is located on a ditch bank, adjacent to an agricultural field and has sustained flail damage.	None	10+	C1	23.8	2.7
T104	Oak	M(a)	12	430	370	240								N		7	4	9	6	1.0-N	3	EM	The tree contains a minor amount of ivy and deadwood within the crown.	None	20+	B1	171.7	7.4
T105	Oak	M(a)	11	340	200									N		7	2	0	2.5	3.0-N	3	SM	The tree is being supressed by T104 and T106	None	10+	C1	70.4	4.7
T106	Oak	S	12	600										N		7.5	5	6	6	2.0-S	3	EM	The tree has fused limbs at 2.5m and contains deadwood within the crown.	None	20+	B1	162.9	7.2
G107	Oak	M(b)	10	250	220	200	190	180	160	120	90	80	80	N		5	2	6	5	1.5-W	4	SM	The group is composed of two multi stemmed Oak trees which contain approximately 12 stems above the 75mm threshold. The trees contain deadwood within their crowns.	None	10+	C2	111.5	6.0
G108	Ash	M(b)	11	100	90	90	80	80	80	75	75	75	75	N		4	4	4	4	3.0-W	5	SM	The group is composed of two multi stemmed Ash trees which contain approximately 15 stems above the 75mm threshold	None	10+	C2	30.4	3.1
T109	Field Maple	M(a)	7	180	140	100	90							N		2	5	4	4	1.5-W	3	SM	This is an emergent tree from the hedgerow which is ivy clad and contains some deadwood within the canopy.	None	10+	C1	31.7	3.2
T110	Oak	M(a)	13	660	600									N		4	7	7	5	3.0-S	5	M	The tree has co-dominant stems from 1m and contains some deadwood within the crown.	None	20+	B1	360.0	10.7
T111	Oak	M(a)	10	370	280									N		6	6	6	6	3.0-W	4	SM	The tree has co-dominant stems from 1m and contains some deadwood within the crown.	None	20+	B1	97.4	5.6
T112	Field Maple	M(a)	10	200	160	130	100	80						N		6	6	3	6	0.5-S	3	SM	This is an emergent tree from the hedgerow with no visible signifcant defects.	None	10+	C1	44.7	3.8

Tree Ref No.	Species	Single or Multiple Stem	Height	Stem Diameter (mm)										Very Large Girth	Ancient, Veteran or Notable	Branch Spread (m)				Crown Clearance (m)		Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution	Tree Quality Grading	Root Protection Area	
		(S or M)	(m)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	(Y / N)	(A, V or N)	N	E	S	W	(1)	(2)				(years)		(m^2)	(radius in m)
G113	Field Maple	M(a)	7	100	100	90	80	80						N		2	2	2	2	0.5-S	3	SM	The group consist of emergent trees from the hedgerow and the measurements recorded are representative of the group.	None	10+	C2	18.5	2.4
T114	Oak	S	8	960										Y	V	6	7	6	4	1.0-S	4	M	The tree has a stunted crown (crown senescence) and contains dieback/ deadwood, ivy, cavities and hollows within the crown. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Veteran.	None	20+	B1	417.0	11.5
T115	Oak	S	9	650										Y	V	4	4	5	5.5	0.5-W	4	M	The tree has a stunted crown (crown senescence) and is ivy clad. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Veteran.	None	20+	B1	191.2	7.8
T116	Oak	S	11	460										N		5	4.5	5	4	3.0-S	4.5	EM	The tree has co-dominant stems from 3m, contains a minor amount of deadwood within the crown and has had pruning work previously conducted.	None	20+	B1	95.7	5.5
G117	Ash	M(a)	8	120	110	100	90	80						N		2	2	2	2	0.5-W	3	SM	The group contains approximately 14 stems and is composed of formed hedgerow individuals which have been allow to have significant re-growth from 4m.	None	10+	C2	23.1	2.7
T118	Oak	S	9	320										N		5.5	5	5	5	2.0-N	2.5	SM	The tree is ivy clad and contains a minor amount of deadwood within the crown.	None	20+	B1	46.3	3.8
T119	Oak	M(a)	12	470	240	110								N		6	6	7	4	1.0-N	4	EM	The tree is co-dominant from the base and contains a minor amount of deadwood within the crown.	None	20+	B1	131.5	6.5
T120	Ash	M(b)	11	440	320	300	160	120	100					N		4	3	3	3	5.0-E	6	SM	The tree contains dieback on the western aspect.	Remove the dieback within 60 days.	10+	C1	156.4	7.1
T121	Oak	S	11	480										N		4	5	5	5	5.0-S	2	SM	The tree is ivy clad.	None	20+	B1	104.2	5.8
T122	Oak	M(a)	12	450	410	180	160	140						N		6	3	5	3	1.0-E	5	SM	Two of the stems have regrown from a previously collapsed stem, and the tree contains some dieback within the crown.	None	20+	B1	202.8	8.0
T123	Oak	S	10	180										N		4	1.5	0	2	5.0-N	5	Y	The tree is being supressed by T122 and T124 and is leaning towards the north.	None	10+	C1	14.7	2.2
T124	Oak	S	13	490										N		5.5	4.5	6	7	5.0-S	5	EM	The tree contains a minor amount of deadwood within the crown and is ivy clad on the stem.	None	20+	B1	108.6	5.9
G125	Field Maple	M(a)	7	120	100	90	80	75						N		3	2	3	4	1.0-W	1	Y	The group consist of emergent trees from the hedgerow.	None	10+	C1	20.1	2.5
T126	Oak	S	9	420										N		5	4	5	6	2.5-S	4	SM	The tree is ivy clad.	None	20+	B1	79.8	5.0
T127	Ash	M(b)	9	230	210	160	140	120	110					N		5	5	5	8	1.0-W	1	SM	The tree was previously composed of a single stem which was felled at 1m and the recorded stem diameters are from the regrowth.	None	10+	C1	71.0	4.8
T128	Hawthorn	M(a)	5	120	100	90	80	75						N		3	3	3	3	0.5-S	1	SM	The tree is ivy clad and is regularly trimmed on the western edge to maintain it away from a farm track.	None	10+	C1	20.1	2.5

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
G129	Fir	S	9	270										N		3	3	3	3	0.5-S	0	SM	The group consists of three individuals and the measurements are representative. There were no visible significant defects.	None	10+	C2	33.0	3.2
T130	Cherry	S	8.5	260										N		4	4	4	4	2.5-E	1.5	SM	There were no significant defects visible at the time of the survey	None	10+	C1	30.6	3.1
G131	Cherry, Field Maple	S	9	300										N		4	4	4	4	1.0-E	1	SM	The group is composed of various stem diameters and heights. The measurements recorded are representative of the group.	None	10+	C2	40.7	3.6
G132	Fir	S	9	260										N		3	3	3	3	0.5-S	0	SM	The group is composed of three individuals and the measurements are representative. There were no visible significant defects.	None	10+	C2	30.6	3.1
G133	Oak, Cherry, Field Maple	S	9	250										N		4	4	4	4	1.0-N	1	SM	The group is composed of approximately 14 individuals and the measurements are representative.	None	10+	C2	28.3	3.0
G134	Fir, Scots Pine	S	9	270										N		3	3	3	3	1.0-N	1	SM	One individual within the group has had a stem failure at 6m. The remaining trees are in good condition. The measurements are representative of the group.	None	10+	C2	33.0	3.2
G135	Oak, Horn Beam, Ash	S	9	210										N		4	4	4	4	2.0-S	1	SM	The measurements are representative and there were no significant defects visible at the time of the survey.	None	10+	C2	20.0	2.5
G136	Holm Oak	S	4	75										N		1	1	1	1	1.0-N	1	Y	The group is composed of seven individuals which have been panted recently.	None	10+	C2	2.5	0.9
T137	Oak	S	15	1400										Y	V	8	8	9	7.5	2.5-N	0.5	M	The tree contains deadwood and snapped branches within the crown, is ivy clad and contains cavities throught the stem and crown, and reaction wood on the lowerr stem on the northern aspect. There is a small amount of barbed wire attached to the stem on the southern aspect. The tree has been assessed using the Recognition of Ancient, Veteran and Notable trees and has been classified as a Veteran.	None	40+	A1	707.0	15.0
G138	Oak, Field Maple, Rowan, Cherry, Walnut, Sweet Chestnut, Lime, Pine, Hawthorn, Silver Birch	S	9	240										N		4	4	4	4	1.0-S	0.5	SM	This is a large planted group composed of numerous species, age classes, heights and stem diameters. The measurements recorded are representative of the group. Some individuals contain deadwood and there are some which failed to establish and have died. Some individuals on the northern edge adjacent to the field boundary have been trimmed back.	None	20+	B2	26.1	2.9
T139	Cherry	S	12	610										N		6	6	6	6	1.5-S	5	M	This is a large mature cherry surrounded by smaller trees located within G138. The tree is co-dominant at 1.5m and contains a large amound of small dead branches on the lower stem from 2-6m.	None	20+	B1	168.4	7.3
G140	Willow, Blackthorn, Spindle Tree	M(b)	12	150	140	130	120	110	100	90	80	75	75	N		4	4	4	4	0-S	0	SM	The group is composed of numerous species of different age classes, heights and stem diameters, therefore the measurements are representative.	None	10+	C2	51.8	4.1
T141	Ash	M(a)	*8*	*120*	*110*	*100*	*100*	*80*						N		*4*	*4*	*4*	*4*	*2.0-S*	*1*	SM	Restricted visual tree assessment as the tree is located on the railway embankment, therefore the measurements are estimated.	None	10+	C2	23.9	2.8
G142	Goat Willow	M(a)	7	110	100	90	80	75						N		4	4	4	4	0-S	0	SM	The measurements are representative of the group. This is a self seeded group on the field edge which have brambles growing throughout.	None	10+	C2	19.1	2.5
G143	Ash	S	11	290										N		3	3	3	3	1.5-N	1.5	SM	The group is composed of two individuals, the smaller one having a stem diameter of 240mm. The measurements recorded to represent the group are taken from the larger individual.	None	10+	C2	38.1	3.5
T144	Oak	S	13	510										N		6	6	5	6	1.5-S	1.5	EM	There were no significant visible defects at the time of the survey.	None	20+	B1	117.7	6.1

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T145	Oak	M(a)	10	450	330									N		4	6	6	7	1.0-W	0.5	EM	The two stems are fused from 0-1.5m. Other than this the tree had no significant visible defects at the time of the survey.	None	20+	B1	140.9	6.7
T146	Ash	S	11	300										N		4	4	4	4	2.0-S	3	EM	The tree is dying.	Remove the tree within 30 days	<10	U	N/A	N/A
G147	Willow	S	*18*	*680*										N		*4*	*7*	*8*	*5*	*4.0-S*	2	M	Restricted visual tree assessment due to dense undergrowth, therefore the measurements are estimated and representative of the group. One individual has collapsed and one small individual has died but remains standing.	Remove the dead trees from the group.	20+	B2	209.2	8.2
G148	Poplar	S	24	990										N		10	10	10	10	3.0-S	5	M	The measurements to represent the group were recorded from the largest individual. Some individuals contain deadwood within the crowns.	None	20+	B2	443.4	11.9
G149	Ash	M(a)	18	420	300									N		7	5	8	5	3.0-S	2.5	M	The measureents are representative of the group. Some individuals contain deadwood within their crowns.	None	20+	B2	120.5	6.2
T150	Oak	S	16	560										N		5	3.5	5	3.5	1.0-S	1	M	The tree is being supressed by G149 and is ivy clad.	None	20+	B1	141.9	6.7
G151	Oak	S	14	630										N		6	6	8	6	1.5-S	1	M	The group is composed of four individuals and the measurements recorded to represent the group were taken from the largest individual.	None	20+	B2	179.6	7.6
T152	Hawthorn	M(b)	4	110	100	90	90	80	75	75				N		5	4	6	2	0.5-S	0.5	SM	There were no significant visible defects at the time of the survey.	None	10+	C1	24.8	2.8
T153	Ash	S	12	290										N		4	2	5	2	3.5-S	4	SM	The tree is dead and as been colonsied by the fungi *Daldinia concentrica* , commonly known as King Alfreds Cakes.	Remove the tree within 30 days.	<10	U	N/A	N/A
G154	Poplar, Ash	S	*20*	*1050*										N		*8*	*6*	*10*	*7*	*1.5-S*	*1*	M	Restricted visual tree assessment as the trees are on private land behind fencing, therefore the measurements are estimated. The group is primailry composed of a row of planted Poplars, interspersed with smaller and younger self seeded Ash trees. The measurements recorded are estimated from the larger Poplars and are representative of the majority of individuals within the group.	None	20+	B2	498.8	12.6
T155	Oak	S	7	290										N		3	4	4	4	0.5-S	0	SM	There were no significant visible defects at the time of the survey.	None	10+	C1	38.1	3.5
T156	Holm Oak	S	*7*	*180*										N		*0*	*2*	*3*	*2*	*0.5-S*	*0.5*	Y	Restricted visual tree assessment as the tree is located on private land behind fencing, therefore the measurements are estimated.	None	10+	C1	14.7	2.2
G157	Blackthorn, Hawthorn	M(a)	6	100	90	80	75							N		2	2	2	2	0-S	0	Y	No significant defects were visible at the time of the survey.	None	10+	C2	13.6	2.1
G158	Oak	S	8	220										N		2	2	2	2	0.5-S	0.5	Y	The measurements recorded are representative of the group.	None	10+	C2	21.9	2.6
T159	Hawthorn	M(a)	6	160	120	100	80	75						N		3	4	4.5	4	0.5-W	1	SM	There were no significant visible defects at the time of the survey.	None	10+	C1	28.1	3.0
T160	Oak	M(a)	10	460	430									N		2.5	6	10	7	1.0-S	0	M	The tree is leaning south, is ivy clad and contains a minor amount of deadwood within the crown. The tree is co-dominant from 0.5m and the two stems are fused togher at 1m.	None	20+	B1	179.4	7.6

Tree Ref No.	Species	Single or Multiple Stem (S or M)	Height (m)	Stem Diameter (mm) S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Very Large Girth (Y / N)	Ancient, Veteran or Notable (A, V or N)	Branch Spread (m) N	E	S	W	Crown Clearance (m) (1)	(2)	Life Stage	General Observations (structural / physiological condition)	Preliminary Management Recommendations	Estimated Remaining Contribution (years)	Tree Quality Grading	Root Protection Area (m^2)	(radius in m)
T161	Oak	S	12	620										N		7	4.5	10	8	0.5-S	0.5	M	The tree is ivy clad and the crown contains some deadwood.	None	20+	B1	173.9	7.4
H162	Blackthorn	M(a)	5	100	90	80	75							N		1	1	1	1	0-S	0	SM	The group is regularly trimmed on the southern aspect to maintain its distance from the field edge.	None	10+	C2	13.6	2.1
T163	Oak	S	8	240										N		2.5	2.5	3.5	3	3.0-S	4	SM	There were no significant visible defects at the time of the survey.	None	10+	C1	26.1	2.9
G164	Cherry, Hazel, Field Maple, Oak, Sweet Chestnut	S	7	220										N		3	3	3	3	1.5-S	1.5	Y	Restricted visual tree assessment as the trees are located on private land behind fencing, therefore the measurements are estimated and representative of the group.	None	10+	C2	21.9	2.6